



**BIRD MIGRATION
A SECOND FLORIDA STUDY**

THE BIRDS OF ZELLWOOD

FIVE YEARS

August 15th, 2003 to August 14th, 2008

By

HARRY ROBINSON

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Description of photographs:

The front cover picture of Swallow-tailed Kites was taken at Canal Road on June 8, 2008. These kites had been hunting over the fields when a squall line forced them to land. Shortly after this photograph was taken they took off and resumed their hunting. Photo by the author.

The frontispiece picture was of the Sand Farm Cattail Marsh on May 7, 2007. The marsh had dried up by May 16, 2007. Photo by the author.

Contents

Introduction.....	1
Acknowledgements.....	3
The Survey Area.....	4
Map of Lake Apopka North Shore Restoration Area.....	6
Map of Flooding Phases.....	8
Surveying Techniques.....	10
Analysis of the Records and Definitions.....	12
Choosing which species order to use.....	16
Annotated Checklist - August 15, 2003 to August 14, 2008.....	17
Addendum A - The Influxes.....	355
Table A -- Survey Information.....	357
Table B -- The Spreadsheet.....	358
Table C -- Systematic List of all Species seen August 15, 1998 to August 14, 2008.....	359
Appendix A -- Historical Bird Sightings.....	369
Appendix B -- Dragonflies and Damselflies.....	391
Appendix C -- Butterflies.....	393
Appendix D -- Amphibians and Reptiles.....	396
Appendix E -- Mammals.....	398
References.....	400

INTRODUCTION

The St. Johns River Water Management District began purchasing the muck farms to the north and east of Lake Apopka in 1998. They also purchased the Zellwin Sand Farm property. These farms were bought as the nutrient run-off into Lake Apopka was affecting the lake's health. The District intended to deep flood the fields as the first stage in the restoration of Lake Apopka.

The District was approached by local bird watchers regarding the possibility of shallow flooding part of the area, this being seen as a major benefit to wildfowl, wading birds and shorebirds. The presence of these birds would draw birdwatchers whose spending could help the local economy. The fields were flooded by the farmers when they vacated the property. As a result the District in the summer of 1998 became the owner of flooded fields covering some 5,351 acres of Unit Two. A lake of some 300 acres also formed at the Sand Farm. As expected the birds found the area immediately and word of the variety and the spectacular numbers spread quickly. Birders from Europe who had planned to fly into Miami for their vacations changed their plans and based their vacations on Zellwood.

On August 15, 1998 there was a meeting between District staff and local bird watchers. One outcome of this meeting was the identified need for detailed information on the numbers and species visiting the area. Thus the survey was born.

The District had purchased over 14,000 acres, an area that could not be covered in one day. Since that time the total area owned by the District has grown to some 20,000 acres. The whole complex is known as the Lake Apopka North Shore Restoration Area or LANSRA for short. The survey covers some 10,000 acres of the former Zellwood Drainage and Water Control District's Units One and Two together with the Zellwin Sand Farm Property. Historically this area was known to birders as "Zellwood" and this is the name that I use to describe the survey area. I do not consider LANSRA appropriate as I only cover part of that area.

From the summer of 2004 I was able to add another 200 acres to the survey area, the District having purchased the property previously owned by W.F.R. off Jewel Foliage Road. This property was surrounded by the Sand Farm and was near Jones Avenue. This is oak woodland with some significant wet areas in the northern half. I now had the ability to get inside a piece of woodland something that I had not been able to do on a regular basis during the first five years. For simplicity I describe this area as "the Nursery".

The first five years of the survey was described in an earlier analysis. During those years I conducted a total of 505 surveys with over 6,250 hours of fieldwork. This second set of five years involved 628 surveys and 7,874 hours of fieldwork. The survey is ongoing.

In the summer of 2008 the District finally succeeded in flooding a large tract, approx 1 ½ square miles to the south of the McDonald Canal and west of Laughlin Road. This had proved to be a difficult task because of the severe drought. The re-flooding of these fields and the birds that moved in will await the analysis of the third set of five years.

The survey started each day at the Sand Farm Bridge in the dark and continued for ten to 14 hours depending on the season and the weather conditions.

The final Breeding Bird Survey took place in 2004 and this was included in the first analysis. The work that the District has been doing with mowing and especially the roller-chopping has meant that the counts would not be comparable, the habitat was changing so much. It is possible that such surveys will be restarted at the Sand Farm at a later date.

I have prepared an annual report for each of the survey years. Only the first two were originally printed by the District. I am reviewing this text in 2016 and the first 14 books have now been printed. Bill Pranty prepared the master copy of the spreadsheet for this project. This spreadsheet is now held by the author. The District is now in receipt of monthly spreadsheets. Either or both of these spreadsheets can be provided by the author via email at sirharrydeland@gmail.com.

The review mentioned above is because all the books are going to be placed on Orange Audubon Society's web site.

ACKNOWLEDGEMENTS

I would especially like to thank (again) the staff of the St. Johns River Water Management District for all their help and support. Especial thanks are due to Gian Basili and Jim Peterson without their support none of this would be possible.

For over 12 years Bill Pranty kept the spreadsheet for this project and his help is much appreciated. We spent countless hours on the telephone transferring the data. I now hold the spreadsheet.

Pam Bowen of St. Johns River Water Management District has now provided a second map which shows the phases of the proposed flooding of what were Units One and Two. The numbering does not indicate the actual order of flooding. Pam has always been very supportive of this project and that is much appreciated.

Without the assistance of Caroline Nault and Karyn Hoffman this project would not have been completed. Both ladies came to my aid to solve any computer problems whenever a request was made.

Nick Moran of the British Trust for Ornithology has shown me that a statistical analysis is going to be needed in order to show that these “clustered” influxes are real and not just happenstance. Kacy Ray is attempting to show me just what variables need to be considered, hopefully we can produce a proposal that an honors student may take up. Her help is also much appreciated.

Kacy Ray has also helped me sort out many of the residual problems in getting this book ready for the printers. Her help and support for this and other related projects is very much appreciated.

Now in 2016 Rachel Gerker is helping me get these books ready for the web site. Many thanks Rachel.

THE SURVEY AREA

This survey covers some 10,200 acres. This total is made up of 2,800 acres of Unit One, 6,000 acres of Unit Two, 1,200 acres of the Sand Farm and 200 acres of the Nursery.

The Sand Farm is on slightly higher ground than Units One and Two with much poorer sandy soils, the vegetation grows slowly here. The fields were covered in grass with scattered thin shrubs. The District has planted pines over much of this area. Perhaps because of the drought that was in full swing by the summer of 2005 there are large tracts where the seedlings did not take. These areas were replanted with little success. There appears to have been insufficient rainfall to get these trees started. The areas that did take are doing well. Significantly these areas are on the lower slopes, the whole area is a very shallow dome. In 2006 all the drainage ditches were removed in an attempt to create a natural environment. Unfortunately this has meant the demise of much of a pine wood and serious damage to the Nursery.

The Nursery is surrounded by the Sand Farm. It is situated near Jones Avenue. This was a foliage business with ferns and other plants being grown under the oak trees. Because of this the woodland was unusual in that there was little under-story. Since the District purchased the property there have been three significant events. Three hurricanes in the fall of 2004 flooded this area to such an extent that the trees along the eastern border of this wood died as did many in the interior of the northern half of this wood. The District in 2006 filled in all the drainage ditches around the property leaving the water nowhere to go, killing even more trees. These hurricanes of 2004 also brought down many tree limbs which led to the third event, the growth of an under-story that in places is in-penetrable. My ability to get around this wood is now limited.

Unit One has been mown up to three times a year through this period gradually creating a grassland habitat. When hurricanes or tropical storms visit the fields get flooded and with the lower vegetation they quickly become valuable wetlands. Because of the sheer size of the area the fields can take a long time to drain even if the pumps are running 24/7.

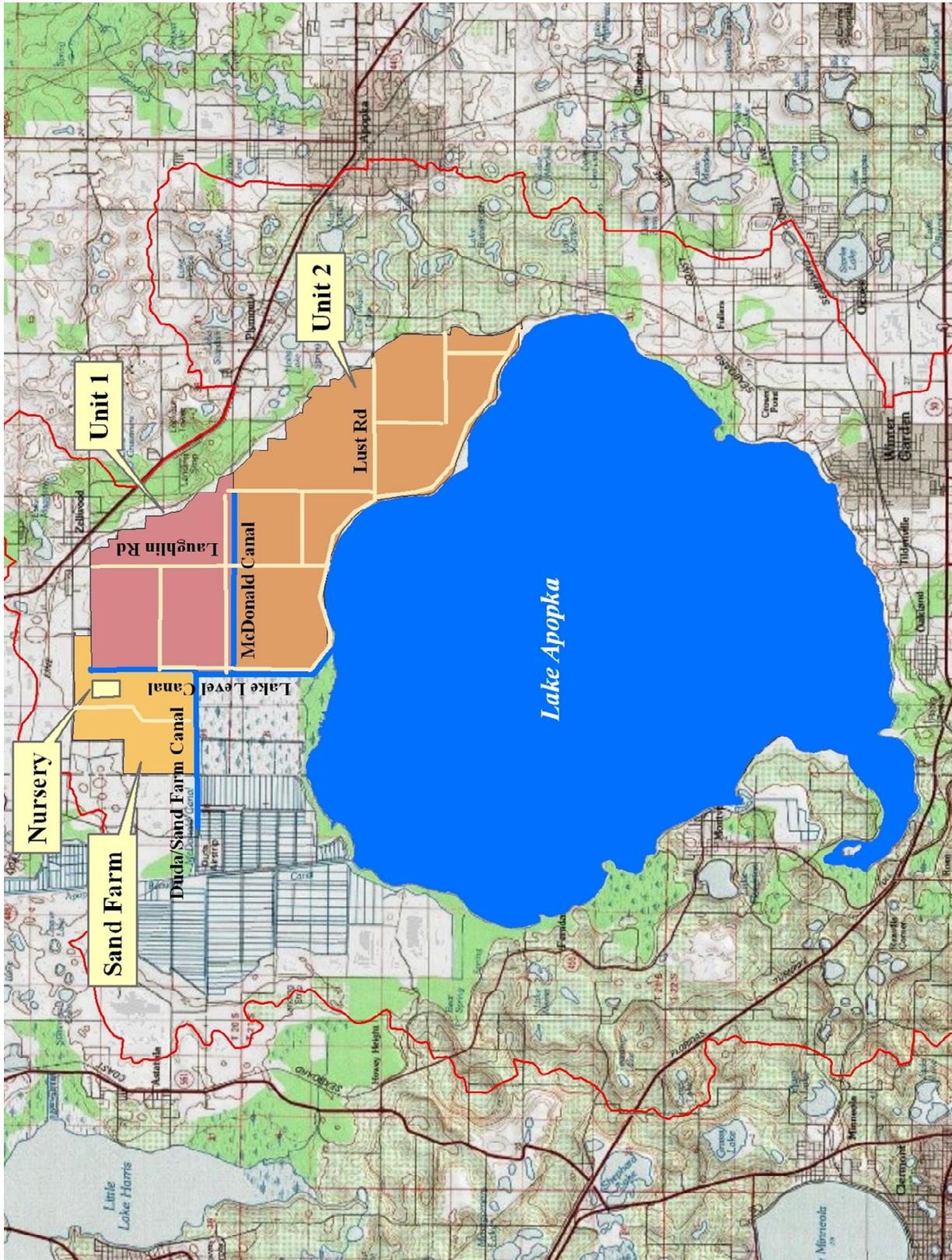
Unit Two has been a "work in progress" during these five years. Initially work continued to roller-chop the thick vegetation for two successive winters followed by a regime of mowing. In 2005 there was still a large tract from the McDonald Canal south to Lust Road and west to Pole Road that was untouched. There were also woods comprised of willows near the southern border. By 2007 nearly all the land was being mowed. The District then started to plough the

fields with special equipment that turned the soil over. The top portion of the current soil with its pesticide residues was buried some three to four feet down. The new top "soil" was sterile for some time. The fields were then treated with alum residual to bind the phosphates in the soil. After Unit Two was ploughed and treated with alum residual this procedure was then continued in Unit One.

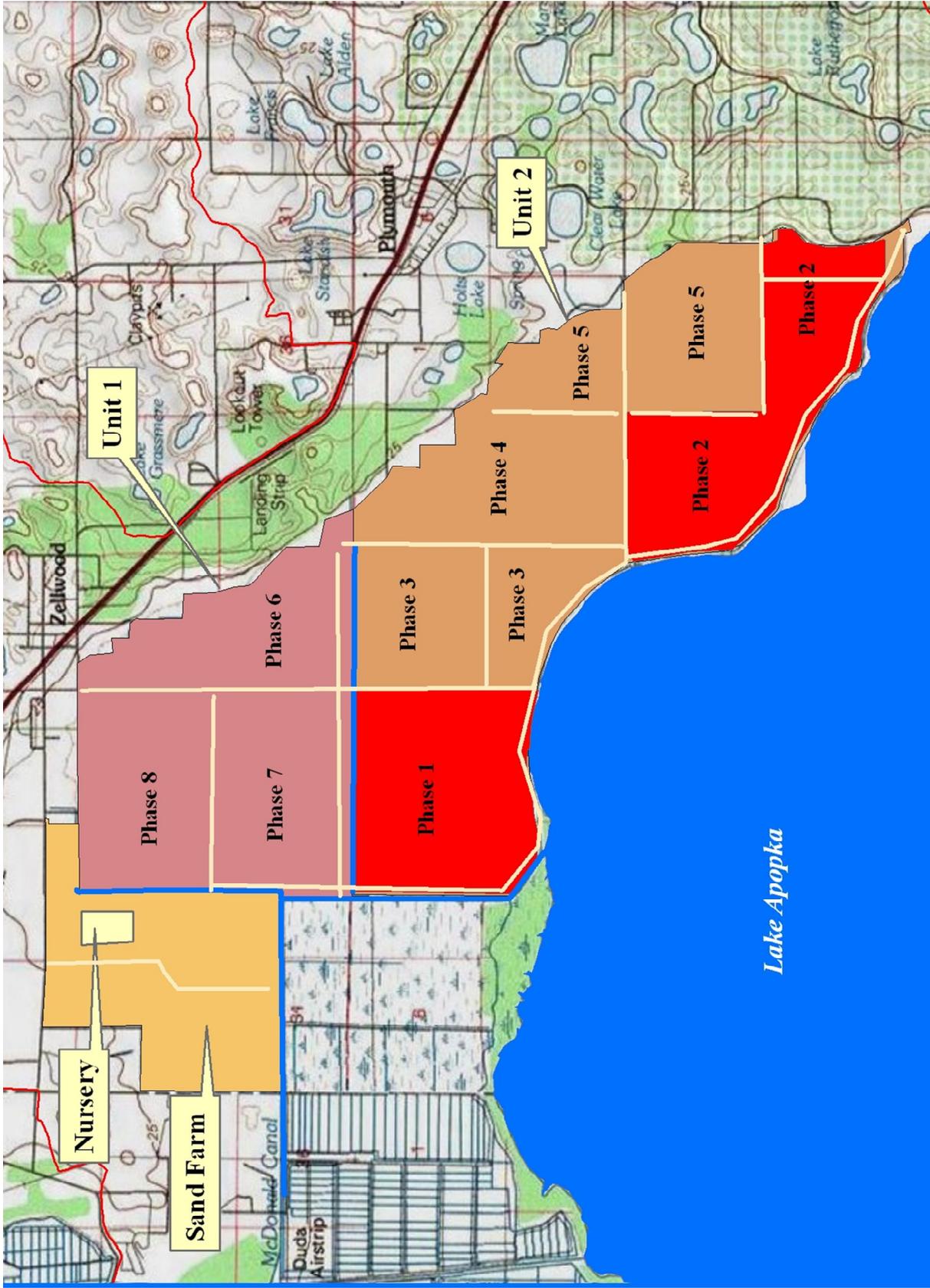
By 2004 the maple trees along the shore of Lake Apopka had died and most of the trees had fallen down. The cause is not certain but it is likely to be a combination of two events. The water level in Lake Apopka had been high for an extended period of time and this is likely to have weakened the trees. A fungus then attacked the weakened trees leading to the loss of the woodland. This is a serious and significant loss of habitat.

The three hurricanes in 2004 flooded the fields from August to the end of the year creating a major wetland habitat. Because of the thick and tall vegetation at that time little of what was transpiring could be seen from the roads. Despite this we were in a long term drought that was having a marked effect on the habitat. By the spring of 2007 the Sand Farm cattail marsh was dry as were most of the canals. The only canals with a little water were the McDonald, the Roach and the Pole Canals. In, I think, 2007 the District attempted to flood a 1 ½ square mile area from the McDonald Canal east to Laughlin Road and west to Lake Apopka and the Lake Level Canal. Initially they pumped in water from Duda but the water flow was insufficient to keep the fields flooded. It did drain Duda allowing the cattail marsh to expand further on that property. They then started to draw water from Lake Apopka and what is now known as Phase One was successfully flooded in the spring of 2008.

The northern and eastern borders comprise belts of scrub and woodland. These are little changed. One area was cleared by Canal Road to create a storm-water pond and wetland. This is now an interesting area off Jones Avenue. The western border is formed by Lake Apopka and the Lake Level Canal when one excludes the Sand Farm. The woods have gone as already described. There are scattered trees and shrubs along the banks of Lake Apopka.



This map shows Lake Apopka, most of the watershed and specifically Units One and Two, the Sand Farm and the Nursery. The map was kindly provided by Pam Bowen of the St. Johns River Water Management District.



This map concentrates on Units One and Two and shows the various segments that will eventually be flooded. Phases One and Two are already flooded and the other segments will be flooded gradually over the next two years. They are not going to be flooded in numerical order rather segments 6 and 7 are next. This map was kindly provided by Pam Bowen of St. Johns River Water Management District.

SURVEYING TECHNIQUES

There are many methods used to count birds. The least effective is the person who visits a site, takes no notes, and then at the end of the day “estimates” the numbers seen. Any such estimates are useless.

Numerous birdwatchers take some notes during the day but there is nothing systematic about the record keeping. There is also nothing systematic about the areas visited. Counts of this nature are not really comparable.

Many surveyors choose to use the system of fixed routes and fixed stops to estimate numbers. They start at a fixed point, at a fixed time and count all they can see or hear for a fixed period of time. They then drive a fixed distance to the next stop and repeat the process. Often there are multiple routes with varying numbers of counters. It sounds terribly scientific but it is not. There are a number of serious problems. It does not work if there is a fixed start time. A 9.00 am start time in December and a 9.00 am start time in June are very different. In December the birds would be very active feeding and calling whilst in June the activity level will have dropped dramatically by that time. As you are not comparing like with like I do not see how that system can work. The start time has to be tied to sunrise. When multiple observers involved the variables increase as they will have varying levels of skill in identifying bird calls and/or counting flocks. Skill levels vary so much. My position is that if one individual can cover an area then the rate of error is likely to be constant. For myself I appear to under estimate, especially with the larger birds. When you have a number of teams counting the number of variables increase and the standard of accuracy is likely to decline. I have seen some gross over estimates of the number of birds using Zellwood.

I do not know of any system that will provide accurate estimates for larger areas. I have found that the best I can do is to have a fixed starting point and to start whilst it is still dark. This removes the static start time problem. I count the birds leaving the various roosts and after sunrise I walk a fixed route, probably some four miles long. I am counting every bird that I can see or hear. The only exception being the species I counted coming out of the roosts. Those species I do not count later in the day to avoid duplication. If there was no roost that day then I would of course count all seen or heard through the day. The morning walk provides the bulk of the numbers for many species. It also provides a good indication of what is going on i.e. influxes of Swamp Sparrows or Common Yellowthroats. This may then dictate how I spend the rest of the day. For certain species I have to visit the best habitat at the prime time of day. For Savannah Sparrows that would be early morning whilst they are active. For Swallow-tailed Kites on the other hand I need in the early fall to visit the eastern fields in the middle of the day in

order to calculate their numbers. Unless I allow for these “needs” I will grossly under estimate these species. However I always cover certain areas. I always drive the bank of Lake Apopka (five miles). I always check the utility wires and I always check a piece of woodland. With access to the Nursery it is now easier to check a piece of woodland whatever the wind direction or force. If there has been say a tropical storm then certain fields may be flooded and these will need extra attention. If a gale is blowing then time needs to be spent at the lake checking for any pelagic strays. The purpose of all of this is to get the best possible daily count of as many species as possible. The system I use does fail when it comes to resident passerine species. Species such as Carolina Wren and the Northern Cardinal are grossly under-counted each day. Many of the summer visitors suffer likewise. Counts of these resident species can vary according to the level of activity at any one time. Northern Cardinals for example are very active through nest building in the spring and both the males and females can be located with ease. When the female gets onto eggs the population appears to be halved. To counter all of this I conducted a Breeding Bird Survey each year from mid-May to mid-June. In 2004 I walked 74 miles along every road and track, all the way down the side of Lake Apopka and along the eastern and northern borders. Whilst I will not have found every pair these counts were quite accurate and comparable. I have not conducted a Breeding Bird Survey since 2004 because access was difficult to the eastern fields with all the work going on and the constantly changing habitat meant that any counts would not be comparable. I am proposing to restart these counts but they would be restricted to the Sand Farm/Nursery area.

I hope that the system that I use works. It is not 100% accurate, it could never be that. For a large number of species I aim for a total area wide count i.e. wading birds, wildfowl, shorebirds, gulls, terns, birds of prey, hirundines etc. For the others I try for the fullest count possible i.e. for species such as the Eastern Phoebe and the Swamp Sparrow. As mentioned these are only species that I can aim for comparative counts. Vagrants are always interesting but they are not the focus of this survey. It is the residents and regular visitors that are the “meat” of this project.

ANALYSIS OF THE RECORDS AND DEFINITIONS

It is important for you to understand how I came to the conclusions that follow in the systematic list. Firstly at the end of each day I add up the totals for each species and transfer that information to a master, hardback paper record. I am not into computers.....I use a separate set of notebooks for each survey year.

The first stage in analyzing the records from August 15, 2003 to August 14, 2008 was to species by species identify and then abstract details of each influx. These influxes took three forms. Frequently numbers built up to a peak only to decline again, this I call a type 1 influx. Often a party will arrive and then gradually drift away again, this I call a type 2 influx. The third type is not very common. This time the numbers build up to a peak and then they all or nearly all leave, this I call a type 3 influx. A single influx could cover a short period or occasionally an influx would cover two or more months. So first of all I looked at the rise and fall in the numbers. It sometimes happened that an isolated count would be lower and this I ignored. Weather conditions such as wind, rain or cold could all lower a particular count. This means that there is an element of assessment not wholly governed by facts. When I had identified what I believed to be an influx I listed out the salient counts and dates and then did the same for the following influxes. When this was done for each of the five years I could then look for patterns.

It is so easy to see whatever one wants to in a set of figures that I looked for a constant that would guide me and make my conclusions as sound as possible. Birds are creatures of habit. They tend to arrive on or near the same date each year and the peak counts are on or about the same date. It is the latter fact that my conclusions are based on. I found that the only way I could make sense of the records was to use the individual influxes and their peak counts as a base.

When I put the five years together I found that there was a remarkable correlation between each of the five years. I am referring to the way the peak counts were in clusters with often significant gaps between the clusters. I feel that this has to be significant as these peak counts would otherwise be spread out over the whole period. It is this "clustering" that makes me believe that for most species even if they are considered to be resident that there is at the very least a veneer of passage. The second segment, where present, in the annotated checklist deals with this situation.

I found that bird migration operated at three levels. The lowest level of influx I called a BASIC INFLUX, this is a short-lived event it might just cover a period of ten days. These basic influxes appear to remain hidden unless passage is very light or they can show in a trough between two stronger influxes. These larger influxes I call REGULAR INFLUXES. These occupy the space occupied by two to four basic influxes. Very occasionally there is a massive influx that can go on for months, this I call a MEGA INFLUX. There may be four basic influxes to a regular influx but one of the basic peak counts tends to marry up with the peak count of the regular influx. The same is true for the mega influx. By looking at the influxes it is possible to get an idea as to when a passage begins and ends. Time after time I found influxes that in different years started and finished on more or less the same dates. Each passage has its own characteristics and in a surprising number of cases one can clearly see exactly where a passage begins and ends.

Having identified the various passages I tried to identify them from terms in current use. However some of these passages did not fit the standard terminology. I have had to create some of my own descriptions for the passages. Two passages remain the same. Those are the spring and fall passages.

For some time I have felt that there was a passage that started in mid-January and that these birds tended to stay for some time. Species such as the Ash-throated Flycatcher, Western Kingbird and some of the sparrows were prime examples. By mid-January most of the "wintering" birds had left probably for the north. It therefore seems likely that these January visitors came from the south. I cannot however totally rule out a western source for these birds. Initially I called this passage the "northward drift" as that appeared to describe it but now I am just calling it the EARLY SPRING PASSAGE. It is clearly an event in its own right. This passage runs from mid-January to late February or to the first few days of March.

The spring passage runs from March to April or May depending on the species. I call it the MAIN SPRING PASSAGE, but in truth the early spring passage can be the stronger event. In the event of the early spring passage being the stronger event I am calling the second passage the LATE SPRING PASSAGE.

The summer is a problem. For many species there is a pattern of influxes through the summer, why I do not know. I did expect numbers to vary according to the current activity i.e. courtship, nest building, incubation or feeding of the young. But I did not expect there to be a series of influxes. The jury is out on this one. I will often call this event the SUMMER PASSAGE even though I am unclear as to what is actually going on.

Following the breeding season a number of species gather into large flocks. A well known species is the Purple Martin. There are however a number of other species, which were

not known to gather (at least in Florida) in large flocks as soon as the young fledged. One such species is the Mourning Dove. This is an early nester so the numbers start building up in May and reach a peak in early July, this passage being over by the end of that month. I have no idea as to the size of the catchment area for such numbers but there is some evidence that these birds may leave for the northern states. Two other species in this group are the Red-winged Blackbird and the Boat-tailed Grackle. These two species developed truly massive roosts as soon as the young fledged. Again I cannot conceive the size of the catchment area especially that for the Boat-tailed Grackle. There are some other species that do not gather into such large groups but a number of broods may form loose associations. One such species is the Northern Mockingbird. I call this event a POST-BREEDING GATHERING. It is possible for there to be a number of influxes in this gathering.

For a very few species there is a very limited very early fall passage that normally only involves adults. Two species that come to mind are the Blue-winged Teal and the Northern Harrier. I call this passage the EARLY FALL PASSAGE. It has happened that the passage that I describe here has been followed by a second early fall passage. As with the spring passage the fall passage can consist of two separate events. I did not want to introduce yet another term so the description of early fall passage will also apply to that event. Should there be two separate early fall passages I will describe them separately.

The MAIN FALL PASSAGE may follow the summer event/passage, the post-breeding gathering or the early fall passage. This event is normally over at the end of November or during the first few days of December. The main fall passage may cover the whole period or it may end in October with possibly low numbers thereafter. There are species for whom the early fall passage is the main event, in these cases the second passage is renamed the LATE FALL PASSAGE. With a few exceptions there is normally a clear distinction between this event and the winter.

Like most birders I casually assumed that the winter visitors arrived in the late fall stayed for the winter and left in the spring. The situation in central Florida is actually very different. Research is needed to see if this holds true elsewhere. What I found was that the winter occupied a very small space and there were normally two regular "clustered" influxes or four basic "clustered" influxes. It often runs from late November through to the first few days of January. We are not dealing with a static population rather for most species there is a dynamic WINTER PASSAGE. Some books talk about local wandering or dispersal, but one would expect some to wander out and others to wander in. In some instances the winter passage is clearly an extension of the fall passage but for the majority of species it is a standalone event.

So the annual cycle could include an early spring passage, a main/late spring passage, a summer passage, a post-breeding gathering, an early fall passage, a main/late fall passage and a winter passage. Hopefully the systematic list will clarify this for you.

I have been asked why I did not do ten years in a single analysis. There are a number of reasons. The easiest is that this project has had a long gestation period and there were not ten complete years when I started to do the research. Since then I have found that it would be too cumbersome to tackle ten years i.e. a 700 plus page book. A serious reason is that I believe the birds are changing their seasons because of global warming and I feel that I can only safely compare short periods.

CHOOSING WHICH SPECIES ORDER AND WHICH SET OF SCIENTIFIC AND ENGLISH NAMES TO USE

This is a problem that has vexed me as it must do many others. I want to acknowledge the official species order and the latest scientific names but to do so will create so many problems.

All my records are in hard-backed notebooks, a set of notebooks for each survey year. Initially I used the species order and nomenclature current in 1998. I used this order for the first two annual reports that were printed by St. Johns River Water Management District. After the first two years I changed the species order and nomenclature to the then current order and I have not changed the order since.

Since that time there has been a radical change in the species order affecting a wide range of species. So it is decision time and I have decided on a limited compromise. I am not going to change the species order but I will change the nomenclature.

The reason is simple. I hope that one day the annual reports will be printed, there are already ten reports awaiting attention. What I want is for someone to be able to compare report to report or analysis to analysis without having to dodge around the text to find where that species is or was.

As I state elsewhere Bill Pranty held the spreadsheet for this ongoing survey. Bill I know would like to change over to the current order but it will stay as it is apart for the updating of the nomenclature. His reasoning is sound as he wants the species order to fit in with the species order used by the Florida Ornithological Society and by American Birds. The spreadsheet is however an integral part of the annual reports and the five year analysis. The species order stays as it is.

AN ANNOTATED CHECKLIST

ZELLWOOD

August 15, 2003 to August 14, 2008

This check-list deals with my survey of the former Zellwood Drainage and Water Control District's Units One and Two together with the Zellwin Sand Farm property. Also included this time is a wooded property off Jewell's Foliage Road known here as the Nursery. All are situated in Orange County, Florida. This area comprised some 10,200 acres. I conducted 628 surveys with 7,874 hours of fieldwork.

I have tried to show the pattern of occurrence for each species together with the numbers present. The text for the most part is in two segments. The first is an over view noting the extent of each passage and the highest counts. It also gives examples of the different types of influxes. I have given many more examples for the passerines, especially the "resident" species as the continuing presence of influxes through the summer puzzles me. The second part is more detailed in that it looks at the individual "clustered" influxes and the patterns that they show.

For those species that prefer shallow water I have had to rely on the vagaries of nature in the form of hurricanes and tropical storms to flood the fields and thereby to provide at least for a little while some great habitat for shorebirds.

Pacific Loon (*Gavia pacifica*)

This is a vagrant; there are very few Florida records. Very surprisingly there was one on Lake Apopka on December 11, 2005.

Common Loon (*Gavia immer*)

This is an irregular passage migrant and winter visitor to Lake Apopka. Seen in the fall from November 11 (2005) to November 26 (2006), there were two “clustered” influxes. The first peaked from November 11 (2005) to November 12 (2003) with one on both dates. The second peaked on November 22 (2005, 2006) with one on both dates. For the winter there was one on December 1, 2006 with three on December 8, 2006. The latter is still the highest count for Zellwood. There was also one on January 2, 2008 this is best treated as a winter record. There were no sightings in the early spring passage. Seen during the main spring passage from March 16 (2007) to April 16 (2007). There was one in winter plumage on March 16, 2007. There were singles in breeding plumage on March 25, 2007, March 26, 2007 and March 28, 2008. These formed a “clustered” influx which peaked from March 25 (2007) to March 28 (2008) with one on both dates. Finally there was one in partial summer plumage on April 16, 2007.

Pied-billed Grebe (*Podilymbus podiceps*)

This species is a resident, a passage migrant and a winter visitor. The Sand Farm cattail marsh was the sole wetland until it dried up in May 2007. In 2008 the major wetland known as Phase One came into being. This species bred at the Sand Farm cattail marsh from 2004 to 2006. In 2004 there were seven pairs with broods of young being first noted from March 22 to May 20, there were broods of six, four, three, two and three singles. The brood of six later declined to three. It is likely that the smaller broods started with a greater number of young. In 2005 there were five pairs with the broods of young first being seen from March 20 to June 5. There were broods of five, three of three and one of two. One brood of three declined to one. In 2006 there were just two pairs with two young each. These young were first noted from April 14 to May 14. In 2008 there were at least 15 pairs at Phase One. The latest brood was that of two on August 3. This is a very difficult species with regards to identifying the seasons. It is possible that the summer passage ran from March 2 (2007) to July 13 (2008), with a high count of 31 on June 21, 2006. The early fall passage was the weakest event of the year, it ran from July 11 (2005) to September 1 (2004, 2006) with a high count of 55 on August 20, 2006. Excluding 2006 the highest count was that of 11 (on three dates). There is one record that does suggest passage. There was one on Lake Apopka on August 10, 2007. The main fall passage by way of

contrast was the strongest event of the year. This passage ran from September 3 (2006) to December 6 (2006) with a high count of 116 on October 18, 2006, these were all at the Sand Farm cattail marsh. To detail the 2006 influxes, there were 52 on September 3 with 46 on September 6. There were 49 on September 8 with 56 on September 10 and 70 on September 21, then 45 seen on September 23 with 34 on September 25. There were 54 on September 27 with 58 on October 1, 65 on October 4, 67 on October 6, 86 on October 8 and 98 on October 11, then 88 seen on October 13 with 77 on October 15. There were 116 on October 18 with 82 on October 22 and 70 on October 29. There were 93 on November 1 with 97 on November 3, then 92 seen on November 5 with 52 on November 10 and 32 on November 12. There were 42 on November 15 with 65 on November 17, then 19 seen on November 19. There were 47 on November 22 with 57 on November 24, then 38 seen on November 29 with 26 on December 1, 25 on December 3 and 21 on December 6. The winter passage ran from November 23 (2004) to January 6 (2005) with an extension to January 18 in 2006. The highest count was that of 36 on December 10, 2006. Finally there was the early spring passage, in this case this was the only spring passage. This event ran from January 3 (2007) to March 10 (2004) with a high count of 41 on January 26, 2007.

The summer passage appears to span the period March 2 (2007) to July 13 (2008), there were 13 basic "clustered" influxes. The first is indicated by a peak count of 22 on March 4, 2007. The second peaked from March 10 (2005) to March 12 (2006) with a high count of 30 on March 12, 2006. The third peaked from March 17 (2008) to March 21 (2007) with a high count of 26 on March 19, 2006. The fourth peaked on March 26 (2006, 2008) with a high count of 27 on March 26, 2006. The fifth is indicated by a peak count of six on April 1, 2007. The sixth peaked from April 10 (2005) to April 14 (2006) with a high count of 26 on April 10, 2005. The seventh peaked from April 18 (2004) to April 20 (2008) with a high count of 28 on April 18, 2004. The eighth peaked on April 25 (2006, 2008) with a high count of six on April 25, 2006. The ninth peaked from May 15 (2005) to May 20 (2004) with a high count of 20 on May 15, 2005. The tenth peaked from May 28 (2008) to May 30 (2004) with a high count of 19 on May 30, 2004. The 11th peaked from June 12 (2005) to June 13 (2008) with a high count of 17 on June 12, 2005. The 12th is indicated by a peak count of 31 on June 21, 2006. The 13th peaked from June 30 (2006) to July 2 (2004, 2008) with a high count of 22 on June 30, 2006. The early fall passage came next. This was the weakest event of the year, the passage ran from July 11 (2005) to September 1 (2004, 2006), there were seven "clustered" influxes. The first peaked from July 14 (2005) to July 16 (2008) with 11 on both dates. The second peaked from July 21 (2006) to July 23 (2005) with a high count of 33 on July 21, 2006. The next two influxes are indicated by isolated peak counts of two on July 29, 2004 and nine on August 6, 2008. The fifth peaked from August 10 (2007) to August 13 (2008) with a high count of four on August 13, 2008. The sixth peaked from August 17 (2005) to August 20 (2006) with a high count of 55 on August 20, 2006. The seventh peaked from August 24 (2003) to August 26 (2004) with a high count of six on August 24, 2003. The

main fall passage followed and this was the strongest event of the year. This event ran from September 3 (2006) to December 6 (2006), there were eight “clustered” influxes. The first peaked from September 3 (2006) to September 4 (2005) with a high count of 52 on September 3, 2006. The second peaked from September 16 (2007) to September 21 (2006) with a high count of 70 on September 21, 2006. The third peaked from October 8 (2005) to October 12 (2007) with a high count of 98 on October 11, 2006. The fourth peaked from October 18 (2006) to October 19 (2005) with a high count of 116 on October 18, 2006. This was the highest count during this set of five years. The fifth peaked from October 31 (2004) to November 4 (2005, 2007) with a high count of 97 on November 3, 2006. Every one of the highest counts detailed above came from 2006 the highest counts for the other years in the same order were seven, one, 20, 16 and 27. The sixth peaked from November 10 (2004) to November 12 (2003) with a high count of eight on November 12, 2003. The seventh peaked from November 17 (2006) to November 18 (2005, 2007) with high counts of 26 on November 18, 2005 and 65 on November 17, 2006. The eighth is indicated by a peak count of 57 on November 24, 2006. The winter passage ran from November 23 (2004) to January 6 (2005) with an extension to January 18 in 2006, there were four “clustered” influxes. The first is indicated by a peak count of 18 on December 2, 2005. The second peaked from December 7 (2004, 2007) to December 10 (2006) with high counts of 17 on December 9, 2005 and 36 on December 10, 2006. The third peaked from December 16 (2005) to December 17 (2007) with a high count of 16 on December 16, 2005. The fourth peaked from December 28 (2003, 2007) to January 1 (2006) with high counts of 21 on January 1, 2006 and 25 on December 29, 2006. Finally there was the early spring passage this ran from January 3 (2007) to March 10 (2004), there were five “clustered” influxes. The first peaked from January 10 (2007) to January 11 (2008) with a high count of 31 on January 10, 2007. The second peaked from January 20 (2008) to January 26 (2005, 2007) with a high count of 41 on January 26, 2007. The third peaked from January 30 (2008) to February 2 (2004) with a high count of 27 on February 1, 2006. The fourth peaked from February 13 (2005) to February 19 (2006) with a high count of 26 on February 19, 2006. The fifth peaked from February 27 (2004) to March 1 (2006) with a high count of 29 on March 1, 2006. For the other years the numbers were much lower, only up to 18 a day seen. With the very early start to the breeding season there was no main spring passage. There were 37 “clustered” influxes.

Horned Grebe (*Podiceps auritus*)

At Lake Apopka this is an irregular passage migrant and winter visitor. For the late fall passage there was one on November 24, 2006 and November 26, 2006. In the winter there was one on December 10, 2006 and December 20, 2006 with singles on December 17, 2003 and December 21, 2007. Finally for the winter there was a long staying individual from December 21,

2005 to January 20, 2006. These records indicate a “clustered” influx that peaked from December 17 (2003) to December 21 (2005, 2007) with one on all dates. There was a single early spring record there being one on January 12, 2007.

Red-necked Grebe (*Podiceps grisegena*)

This is a vagrant anywhere in Florida, an inland record even more so. There was one at Lake Apopka on November 24, 2006. A brief description is included in the annual report.

Eared Grebe (*Podiceps nigricollis*)

This earned vagrant status as there were only three records for the five years. For the late fall passage there were singles on October 19, 2003 and November 2, 2007. The third was a winter record there being one on December 1, 2004.

Sooty Shearwater (*Puffinus griseus*)

A pelagic species that should not occur inland in Florida, however Hurricane Charley crossed the area on August 13, 2004 and on August 15, 2004 there was one on Lake Apopka. A fast moving squall line came in and the shearwater took off and left to the south-east in the strong winds, earlier it had been calm.

American White Pelican (*Pelecanus erythrorhynchos*)

This is a passage migrant and winter visitor with most sightings in the winter and the spring. For the fall there was one on October 15, 2006 with seven on November 5, 2006, then two seen on November 12, 2006. There were also 25 on November 13, 2005 and November 20, 2005. That is it. There was a noticeable winter passage from November 28 (2004) to January 11 (2006) with a high count of 67 on November 28, 2004. The early spring passage ran from January 5 (2007) to March 2 (2005) with a high count of 100 on January 30, 2008. The main spring passage has the feel of two separate events and that is not normal. So the first passage I am calling the central spring passage, this ran from February 26 (2008) to April 17 (2005) with a high count of 140 on March 12, 2006. The second event I am just describing as the late spring passage but it was far from being a minor event. This passage ran from April 8 (2007) to June 6 (2008) with a high count of 725 on April 15, 2007. To detail the main 2007 influx, there were

three on April 8 with eight on April 11 and 725 on April 15, then 540 seen on April 16 with 35 on April 21, 15 on April 27 and four on April 29. To detail the 2008 influxes, there were 26 on April 18 with 51 on April 20, 55 on April 23, 220 on April 25, 230 on May 2 and 410 on May 4, then 400 seen on May 11 with 200 on May 14. There were 215 on May 16 with 243 on May 18, then 213 seen on May 23 with 185 on May 25, 106 on May 30, 79 on June 4, 23 on June 6 and three on June 8. For this species to stay at Lake Apopka there has to be a loafing and roosting site. In this case they were hanging out at Duda. Some of them were feeding at the loafing/roosting site whilst others flew out to the lake to feed, hence their inclusion in this analysis. Nature as usual took a hand and cut short the 2008 influxes as the site dried up and they were forced to leave. Perhaps this was going to be a year with a non-breeding summer flock. There were still two on June 13, 2008 with one to two being seen through to June 27, one stayed on to August 10. To complete the picture there were *two on August 17 with one on August 20*. Very exceptionally there was one on Lake Apopka on July 13, 2007 with two on July 18, 2007.

There were very few fall records there being one on October 15, 2006 with seven on November 5, 2006 and two on November 12, 2006. The only other fall records relate to a party of 25 that was seen on November 13, 2005 and November 20, 2005. There was a noticeable winter passage from November 28 (2004) to January 11 (2006), there were four “clustered” influxes. The first peaked from November 28 (2004) to November 30 (2007) with a high count of 67 on November 28, 2004. The second peaked from December 3 (2003, 2006) to December 7 (2005) with a high count of 60 on December 3, 2003. The third peaked from December 16 (2005) to December 22 (2004) with a high count of 32 on December 16, 2005. The fourth peaked from December 31 (2003) to January 4 (2006) with a high count of 49 on December 31, 2003. The early spring passage followed from January 5 (2007) to March 2 (2005), there were five “clustered” influxes. The first is indicated by a peak count of 45 on January 6, 2008. The second peaked from January 13 (2006) to January 19 (2004) with a high count of 32 on January 19, 2004. The third peaked from January 30 (2008) to February 6 (2005, 2008) with a high count of 100 on January 30, 2008. The fourth is indicated by a peak count of 15 on February 16, 2005. The fifth peaked from February 22 (2006) to February 23 (2007) with a high count of 14 on February 23, 2007. Next came what I am calling in this instance the central spring passage, this ran from February 26 (2008) to April 17 (2005), there were five “clustered” influxes. The first peaked from March 3 (2004) to March 6 (2005) with a high count of 23 on March 3, 2004. The second peaked from March 12 (2006) to March 17 (2008) with a high count of 140 on March 12, 2006. The third peaked from March 22 (2004, 2006) to March 25 (2007) with a high count of 40 on March 22, 2004. The fourth peaked from March 30 (2005) to April 2 (2008) with a high count of 124 on March 30, 2005. The fifth peaked from April 7 (2004) to April 9 (2008) with a high count of 24 on April 9, 2008. The late spring passage ran from April 8 (2007) to June 6 (2008), there were three “clustered” influxes. The first peaked from April 15 (2007) to April 20 (2005) with a high count of 725 on April 15, 2007. That was the highest count during this set of five

years. The second peaked from May 2 (2004) to May 4 (2008) with a high count of 410 on May 4, 2008. The third is indicated by a peak count of 243 on May 18, 2008. After the loafing/roosting site dried up on June 8, 2008 there were two on June 13, then one to two seen through to June 27 with one staying to August 10. To complete the picture there were *two on August 17 with one on August 20*. Very exceptionally there was one on Lake Apopka on July 13, 2007 with two on July 18, 2007. This species is as always very unpredictable in the timing of the major events

Brown Pelican (*Pelecanus occidentalis*)

At Lake Apopka this is mainly an irregular spring visitor. There were just two fall records with singles on November 23, 2003 and November 24, 2006. These would form a “clustered” influx. Perhaps surprisingly there were no winter records. For the early spring passage there were singles on January 6, 2005 and January 19, 2007. Next in date order there was one on January 25, 2008 and January 28, 2008 with two on February 4, 2008. There was one on January 30, 2005 with three on February 8, 2005, then two seen on February 16, 2005 with one staying to February 23, 2005. These were roosting with Double-crested Cormorants on an island south of Hooper Farms Road. Finally for the early spring passage there was one on February 9, 2007 with another from February 25, 2007 to March 16, 2007. There were indications of a “clustered” influx in the above records which peaked from February 4 (2008) to February 9 (2007) with a high count of three on February 8, 2005. The main spring passage followed, it ran from March 20 (2005) to May 1 (2005). To detail the records, there were singles on March 20, 2005 and March 22, 2006. These would form an influx. There were two on April 4, 2004. Next there were singles on April 11, 2008 and April 13, 2007. These would form another “clustered” influx. There were two on April 23, 2004. There was one from April 6, 2005 to April 20, 2005 with two on April 26, 2005, then six seen on April 30, 2005 and May 1, 2005. These counts of six are the highest counts for Zellwood. The bulk of those that were aged were immatures however there were four adults. Perhaps significantly the adults were all seen between April 4 (2004) and April 23 (2004).

Double-crested Cormorant (*Phalacrocorax auritus*)

This is a passage migrant and winter visitor with a small number staying through the summer and the early fall. I see no separation between the summer and the early fall. This means that there is an extended summer event which ran from April 23 (2008) to October 21 (2005, 2007), the highest count was only that of 53 on May 3, 2006. The fall passage ran from October 19 (2003) to December 7 (2007) with a high count of 425 on November 29, 2006. The

winter passage followed from December 1 (2003) to January 16 (2004, 2005, 2008) with a high count of 500 on January 2, 2005. Now to the main event the spring passage, in this case both were significant events. The early spring passage ran from January 11 (2006) to March 11 (2007) with a high count of 7,800 on February 22, 2004. This was a single flock out on Lake Apopka. I estimated its size as one mile long by a quarter mile wide! The second highest count (excluding the 2004 influx) was that of 665 on January 13, 2006. To detail that 2004 influx, there were 122 on February 16 with 171 on February 18 and 7,800 on February 22, then 1,400 seen March 3 with 112 on March 7. The main spring passage was also a strong event it ran from March 5 (2006) to May 1 (2005) with extensions to May 26 in 2004 and to June 5 in 2005. The only reason these extensions existed was that there was no significant summer passage to cover up the decline in the spring passage. The highest count was that of 1,048 on March 28, 2004. To detail the 2004 influx, there were 202 on March 10 with 270 on March 14, 385 on March 19, 660 on March 24 and 1,048 on March 28, then 962 seen on April 4 with 376 on April 7, 188 on April 18, 130 on April 21, 128 on April 25, 72 on May 2, 69 on May 5, 68 on May 10, 39 on May 16, 25 on May 20, 19 on May 23 and 13 on May 26. Only then did a summer influx appear there being 38 on May 30. I consider this passage to be over after May 10 as only low numbers then present. On occasions it is possible to see visible migration with in the fall small numbers flying in from the north late in the day. In the spring much larger numbers were seen leaving for the north or north-east early in the morning. In both cases these totals are included in the daily totals as these birds were not present when the birds at Lake Apopka counted. Visible passage noted in the fall from October 19 (2003) to December 1 (2004). Only small numbers noted, the best year being 2003 when a total of 116 counted flying south. The highest daily counts were those of 57 on October 26, 2003 and 55 on November 13, 2005. Visible passage in the spring was a much stronger event with passage from March 4 (2008) to June 1 (2008); however peak passage was from March 21 to April 14. That is totally within the main spring passage. To detail the 2004 passage, there were the following daily counts of birds flying to the north or north-east. There were 15 on March 22 with ten on March 24, 308 on March 28, 165 on March 31, 422 on April 4, 146 on April 7, ten on April 14, 20 on April 18, four on April 21, 13 on April 23, 47 on April 25, 16 on April 28, three on May 5, 13 on May 10, five on May 16 and 12 on May 20. This comes to a total of 1,209 individuals. The highest daily counts for the other years were 171 on April 14, 2005, 27 on April 25, 2006, 109 on March 28, 2007 and 225 on March 28, 2008. Exceptionally a party of 15 flew to the north on June 1, 2008. The various races can often be identified by the size, shape and color of the ear tufts which are said to be only present for a short time in the spring. For the Florida breeding race *P.a.floridanus* I have seen ear tufts on November 4, 2006, December 22, 2006, January 5, 2007 and January 16, 2007 with regular sightings in February and March. There was one of the race *P.a.auritus* on March 21, 2008. Finally there was one showing the characteristics of the Californian race *P.a.albociliatus* on

March 17, 2007. This individual or perhaps another was seen on April 10, 2002, April 14, 2002, April 11, 2003 and April 13, 2003.

There appears to be an extended summer from April 23 (2008) to October 21 (2005, 2007) with a very high total of 18 basic “clustered” influxes. The first peaked from April 25 (2008) to May 3 (2006) with a high count of 53 on May 3, 2006. The second is indicated by a peak count of 14 on May 13, 2007. The third peaked from May 20 (2008) to May 23 (2007) with a high count of 31 on May 21, 2006. The fourth peaked from May 30 (2004, 2007) to June 1 (2008) with a high count of 38 on May 30, 2004. The fifth peaked from June 11 (2006) to June 12 (2005) with a high count of 28 on June 12, 2005. The sixth peaked from June 21 (2006) to June 23 (2004) with a high count of 28 on June 23, 2004. The seventh peaked from June 27 (2008) to July 4 (2007) with a high count of 35 on July 3, 2005. The eighth peaked from July 11 (2007) to July 13 (2008) with a high count of 21 on July 12, 2006. The ninth peaked from July 21 (2004, 2006) to July 23 (2005) with a high count of 35 on July 23, 2005. The tenth peaked from July 28 (2006) to August 3 (2007) with a high count of 35 on August 1, 2004. The 11th peaked from August 7 (2005) to August 8 (2006, 2008) with a high count of 29 on August 7, 2005. The 12th peaked from August 15 (2005) to August 20 (2003) with a high count of 40 on August 19, 2004. The 13th peaked from September 1 (2006) to September 2 (2007) with a high count of 28 on September 1, 2006. The 14th peaked from September 4 (2005) to September 7 (2003) with a high count of 20 on September 4, 2005. The 15th peaked from September 13 (2006) to September 19 (2007) with a high count of 29 on September 13, 2006. The 16th peaked from September 30 (2007) to October 5 (2003) with a high count of 22 on October 1, 2006. The 17th peaked from October 11 (2006) to October 14 (2007) with a high count of 36 on October 13, 2004. The 18th peaked from October 18 (2006) to October 19 (2005) with a high count of 28 on October 19, 2005. Now you can see why I could not separate out the two passages. That is however not the case between these events and the fall passage, the break is very clear. The fall passage ran from October 19 (2003) to December 7 (2007), there were a normal four “clustered” influxes. The first peaked from October 26 (2003) to November 3 (2006) with a high count of 141 on November 3, 2006. The second peaked from November 11 (2007) to November 13 (2005) with a high count of 205 on November 13, 2005. The third peaked from November 18 (2007) to November 23 (2003) with a high count of 370 on November 21, 2004. The fourth peaked from November 27 (2005) to November 30 (2007) with a high count of 425 on November 29, 2006. Note how the highest counts climbed through this passage. The winter passage followed from December 1 (2003) to January 16 (2004, 2005, 2008) again there were four “clustered” influxes. This was a totally separate event from the fall passage as the counts started low and then climbed again. The first influx is indicated by a peak count of 68 on December 3, 2003. The second peaked from December 14 (2007) to December 21 (2005) with a high count of 322 on December 16, 2004. The third peaked from December 27 (2006) to December 30 (2005) with a high count of 485 on December 27, 2006. The fourth peaked from

January 2 (2005) to January 6 (2008) with a high count of 500 on January 2, 2005. The spring passage as a whole was the most important event of the year. The early spring passage ran from January 11 (2006) to March 11 (2007), there were seven “clustered” influxes. The first peaked from January 12 (2007) to January 13 (2006) with a high count of 665 on January 13, 2006. The second peaked from January 21 (2004) to January 27 (2006) with a high count of 500 on January 27, 2006. The third peaked on February 2 (2004, 2005) with a high count of 540 on February 2, 2005. The fourth peaked from February 8 (2008) to February 9 (2007) with a high count of 620 on February 9, 2007. The fifth peaked from February 16 (2005) to February 17 (2006, 2008) with a high count of 540 on February 17, 2006. The sixth peaked from February 22 (2004) to February 26 (2008) with high counts of 545 on February 24, 2006 and 7,800 on February 22, 2004. The latter is the highest count for Zellwood. The seventh is indicated by a peak count of 420 on March 7, 2007. The main spring passage followed from March 5 (2006) to May 1 (2005) with extensions to May 26 in 2004 and to June 5 in 2005. There were seven “clustered” influxes. The first peaked from March 10 (2006) to March 13 (2005) with a high count of 534 on March 13, 2005. The second peaked from March 16 (2007) to March 17 (2006, 2008) with a high count of 440 on March 16, 2007. The third is indicated by a peak count of 335 on March 21, 2008. The fourth peaked from March 24 (2005) to March 28 (2004, 2007, and 2008) with high counts of 520 on March 24, 2005, 569 on March 28, 2007 and 1,048 on March 28, 2004. The fifth peaked from April 8 (2007) to April 11 (2008) with a high count of 263 on April 8, 2007. The sixth peaked from April 14 (2005) to April 21 (2006) with a high count of 279 on April 14, 2005. The seventh is indicated by a peak count of 100 on May 1, 2005. There is one aspect of this the second five year analysis that I have not touched on, I am making a point of not referring to the first analysis. I do not want to look at a set of records subjectively because of what I have read in the first analysis. I have to be as objective as possible and look at this set of five years as if this was the first set of five years. There were 40 “clustered” influxes.

Anhinga (Anhinga anhinga)

A resident and apparently a passage migrant and winter visitor, with the flooding of Phase One there is now a significant post-breeding gathering. In 2005 three nests found, all along the side of Lake Apopka, one of these had three young on August 31. No nests located in 2006. In 2007 there was the start of a colony at the southern border. There were two nests on March 23 with 27 nests on May 16. Some of these nests had young on that date. Up to three young per pair noted on June 22. There was also a nest on an island in Lake Apopka near the end of Lust Road; there were two young on May 9, 2007. In 2008 at the southern border the first nests (two) were seen on March 26 and this colony grew to 15 pairs by May 18. Phase One is a very large area and much of it cannot be seen from the roads. I did locate 12 pairs in 2008

but in light of the large post-breeding gathering the population had to be nearer 100 pairs. It is just not possible to say for sure what period the summer covers. There were pairs already on their nests in late March but there was in 2007 a significant visible passage through April into early May. To detail that passage in 2007, there were 105 on April 1 with 44 on April 4, 290 on April 11, 12 on April 13, 18 on April 19, 44 on April 24, 38 on April 27, 66 on May 1 and 55 on May 16. These all took off from the side of Lake Apopka when the thermals formed circling around as they gained height before leaving for the north or the north-west. In total contrast to the Double-crested Cormorant I am deducting these totals from the total counts for each day in order that the local population can be identified. This also means that the following text for the summer excludes that passage. It is possible that the summer passage ran from March 28 (2007) to June 22 (2007) with a high count of 217 on May 30, 2008. This high count occurred in the last summer influx. To detail this influx, there were 28 on May 9 with 34 on May 14, 53 on May 16, 102 on May 18, 130 on May 20, 169 on May 23 and 217 on May 30, then 187 seen on June 1 with 166 on June 4. Exceptionally there were no peak counts between May 31 and June 28. Instead numbers were gradually climbing as the fledged young joined the population culminating in the post-breeding gathering that ran from May 10 (2006) to August 15 (2005) with a high count of 520 on July 2, 2008. To detail the 2008 influxes, there were 192 on June 6, 216 on June 8, 258 on June 13, 273 on June 15, 382 on June 20, 403 on June 25, 471 on June 27, 482 on June 29 and 520 on July 2, then 465 seen on July 9 with 393 on July 11 and 383 on July 13. There were 388 on July 16 with 404 on July 19, then 309 seen on July 21 with 261 on July 24, 226 on July 26, 201 on July 27 and 182 on July 30. There were 269 on August 1 with 189 on August 3, 136 on August 6 and 124 on August 8. The early fall passage would perhaps better be described as an event that dealt with the departure of the bulk of the young and some of the adults. This passage ran from August 1 (2004) to September 28 (2004) with a high count of 302 on August 13, 2006. The late fall passage ran from September 3 (2003) to December 5 (2004) with a high count of 194 on November 27, 2005. The winter passage followed from November 25 (2007) to January 16 (2004) with a high count of 211 on December 11, 2005. Next came the early spring passage and this ran from January 3 (2007) to March 10 (2004) with a high count of 182 on January 24, 2007. The main spring passage was a short event because of the early start to the breeding season. This passage only ran from March 2 (2005) to April 14 (2004, 2006) with a high count of 141 on March 12, 2006.

The summer passage appears to run from March 28 (2007) to June 22 (2007), there were seven "clustered" influxes. In Segment One I detailed an interesting passage to the north or north-west that took place in 2007. This event ran from April 1 to May 16 with a high count of 290 on April 11. These counts are not included in the following totals. The first influx peaked from April 1 (2007) to April 7 (2008) with a high count of 74 on April 1, 2007. The second is indicated by a peak count of 97 on April 11, 2007. The third peaked from April 18 (2008) to April 21 (2004) with a high count of 97 on April 20, 2005. The fourth is indicated by a peak count of

71 on April 24, 2007. The fifth peaked from April 30 (2005, 2008) to May 5 (2006) with high counts of 60 on May 1, 2007 and 70 on April 30, 2005. Counts now climbed significantly with the first young joining the population. The sixth peaked on May 16 (2004, 2007) with a high count of 165 on May 16, 2007. The seventh peaked from May 27 (2007) to May 30 (2004, 2008) with a high count of 217 on May 30, 2008. Now we come to the main event of the year the post-breeding gathering, this ran from May 10 (2006) to August 15 (2005), there were five "clustered" influxes. Interestingly there were no peak counts from May 31 to June 28 as numbers were gradually building during this period. The first 2008 influx detailed in Segment One shows this well. The first influx peaked from June 29 (2007) to July 2 (2004, 2006, 2008) with a high count of 520 on July 2, 2008. This was the highest count for Zellwood during the first ten years of the survey. The second is indicated by a peak count of 86 on July 13, 2007. This is a good example of a basic influx surrounded by regular influxes. The third peaked from July 18 (2004) to July 20 (2007) with a high count of 404 on July 19, 2008. The fourth peaked from July 26 (2006) to August 1 (2008) with a high count of 280 on July 26, 2006. The fifth peaked from August 4 (2004) to August 7 (2005) with a high count of 304 on August 6, 2006. The early fall passage ran from August 1 (2004) to September 28 (2004), there were five "clustered" influxes. This is really a transition event with most of the young and some of the adults departing during this period. The first is indicated by a peak count of 138 on August 4, 2004. The second peaked from August 12 (2007) to August 13 (2006, 2008) with a high count of 302 on August 13, 2006. The third peaked from August 17 (2005) to August 20 (2003, 2006) with a high count of 299 on August 20, 2006. The fourth peaked from August 28 (2005) to September 1 (2004) with a high count of 243 on August 30, 2006. The fifth peaked from September 10 (2006) to September 12 (2007) with a high count of 246 on September 10, 2006. Next came the late fall passage, this ran from September 3 (2003) to December 5 (2004), there were seven "clustered" influxes. The world now returns to normal. The first peaked from September 22 (2005) to September 27 (2006) with a high count of 130 on September 27, 2006. The second is indicated by a peak count of 114 on October 2, 2003. The third peaked from October 12 (2003, 2005, 2007) to October 13 (2006) with a high count of 112 on October 13, 2006. The fourth peaked from October 23 (2005) to October 26 (2003, 2007) with a high count of 89 on October 23, 2005. The fifth peaked from November 1 (2006) to November 4 (2005) with a high count of 102 on November 1, 2006. The sixth peaked from November 12 (2006) to November 16 (2003) with a high count of 110 on November 12, 2006. The seventh peaked from November 27 (2005) to November 28 (2004) with a high count of 194 on November 27, 2005. The winter passage followed from November 25 (2007) to January 16 (2004), there were four "clustered" influxes. The first peaked from December 2 (2007) to December 7 (2004) with a high count of 148 on December 3, 2006. The second peaked from December 11 (2005) to December 13 (2006) with a high count of 211 on December 11, 2005. The third is indicated by a peak count of 155 on December 22, 2006. The fourth peaked from December 28 (2007) to December 31 (2003) with

a high count of 114 on December 30, 2005. The early spring passage ran from January 3 (2007) to March 10 (2004), there were eight “clustered” influxes. The first peaked from January 4 (2008) to January 5 (2007) with a high count of 130 on January 5, 2007. The second peaked from January 9 (2005) to January 14 (2007) with a high count of 137 on January 13, 2006. The third peaked from January 19 (2005) to January 20 (2006) with a high count of 137 on January 20, 2006. The fourth peaked from January 23 (2008) to January 24 (2007) with a high count of 182 on January 24, 2007. The fifth peaked from January 29 (2006) to February 4 (2007) with a high count of 153 on January 29, 2006. The sixth peaked from February 10 (2006) to February 12 (2008) with a high count of 145 on February 11, 2007. The seventh peaked from February 18 (2007) to February 20 (2008) with a high count of 112 on February 18, 2007. The eighth peaked from February 23 (2005) to February 29 (2004, 2008) with a high count of 167 on February 24, 2006. Finally there is the shortened main spring passage, this ran from March 2 (2005) to April 14 (2004, 2006), there were four “clustered” influxes. The first peaked from March 6 (2005) to March 7 (2007) with a high count of 126 on March 7, 2007. The second peaked from March 12 (2006) to March 15 (2008) with a high count of 141 on March 12, 2006. The third peaked from March 19 (2004) to March 21 (2007) with a high count of 100 on March 21, 2007. The fourth is indicated by a peak count of 58 on March 26, 2008. This is yet another complicated species. There were 40 influxes.

American Bittern (*Botaurus lentiginosus*)

At the Sand Farm Cattail Marsh this was a passage migrant and winter visitor, small numbers were also seen elsewhere. There was an exceptionally heavy spring passage in 2004 this passage also continued much later than normal. During this passage in 2004 a number were heard “singing” at first light. The heavy passage and details of those heard singing will be dealt with later. Out of all of this came the first breeding record for Zellwood. A pair stayed through to at least August 1, 2004 with a juvenile from June 20 to September 12. I may have seen it on its first flight as it was having a job keeping airborne. There are very few breeding records for Florida. On June 20, 2008 one flew from Duda across the Lake Level Canal and out into Phase One. Perhaps this species bred at Duda in that year. The song, if one can call it that, is seldom heard in Florida so the following counts of “singing” birds may be useful. There were two on November 28, 2003, now that really is exceptional. For the spring there were in 2004 two on February 2, two on February 18, five on February 27, six on February 29, seven on March 7 and eight on March 19, then six heard on April 4. There were intermediate counts but these shows the pattern. In 2005 there was one on March 6 with four on March 20 and two on March 24. For the later years there were only singles on March 1, 2006 and March 15, 2008. The early fall passage ran from August 6 (2006) to October 9 (2003) with a high count of nine on

October 2, 2005. Only singles seen from August 10 to August 28 in 2005 and from August 6 to August 27 in 2006 otherwise this passage did not start until August 28 (2006). The main fall passage ran from September 22 (2004) to December 3 (2003) with a high count of 23 on November 21, 2007. The winter passage followed from November 26 (2006) to January 11 (2004) with a high count of 35 on December 12, 2007. To detail the 2006/2007 influx, there were eight on November 26 with 13 on November 29, 17 on December 1, 24 on December 6 and 32 on December 13, then 30 seen on December 17 with 29 on December 20, 22 on December 22, 20 on December 29, 19 on December 31 and 13 on January 3. The early spring passage was a strong event each year. This passage ran from January 4 (2008) to March 4 (2006) with a high count of 25 on February 27, 2006. The main spring passage was only significant in 2004, for the other years this would be described as the late spring passage. This passage ran from February 22 (2004) to April 28 (2006) with an extension to May 16 in 2004. The highest count was that of 60 on March 24, 2004. To detail the 2004 influxes, there were 14 on February 22 with 16 on February 29, 32 on March 3, 39 on March 7, 45 on March 14, 52 on March 19 and 60 on March 24, then 25 seen on March 31 with 17 on April 4. It is likely that the first two records relate to an early spring influx that was swamped by the incoming main spring influx on March 3. There were 30 on April 7 with ten on April 18, eight on April 21 and six on April 23. That would normally be the end of this passage. There were nine on April 25 with seven on April 28, four on May 10 and one on May 16. Finally a partial albino was seen on March 14, 2004 only. This had white wing tips and white patches in the secondaries

There was an early fall passage from August 6 (2006) to October 9 (2003), there were six "clustered" influxes. In 2005 and 2006 singles arrived in early August (10th in 2005 and 6th in 2006) and stayed for the month. I have treated this as an influx. The next two influxes were indicated by isolated peak counts of three on September 1, 2006 and two on September 7, 2007. The fourth peaked from September 12 (2004) to September 16 (2003) with a high count of seven on September 13, 2006. The fifth is indicated by a peak count of six on September 23, 2006. The sixth peaked from September 30 (2007) to October 5 (2003) with a high count of nine on October 2, 2005. There was now a striking change in the numbers with the start of the main fall passage. This passage ran from September 22 (2004) to December 3 (2003), there were five "clustered" influxes. The first peaked from October 13 (2004) to October 15 (2006) with a high count of 17 on October 15, 2006. The second peaked from October 19 (2003) to October 25 (2006) with a high count of 22 on October 23, 2005. The third peaked from October 31 (2004) to November 5 (2003) with a high count of 11 on November 5, 2003. The fourth peaked from November 9 (2005) to November 14 (2004) with a high count of 22 on November 9, 2005. The fifth peaked from November 19 (2006) to November 25 (2005) with high counts of 18 on November 23, 2003. 20 on November 19, 2006 and 23 on November 21, 2007. The winter passage was even stronger, it ran from November 26 (2006) to January 11 (2004), there were four "clustered" influxes. The first peaked from November 28 (2004) to December 4 (2005) with

a high count of 25 on December 2, 2007. The second peaked from December 9 (2003) to December 13 (2006) with high counts of 32 on December 13, 2006 and 35 on December 12, 2007. The third is indicated by a peak count of 33 on December 21, 2007. The fourth peaked from December 30 (2004) to January 1 (2006) with a high count of 26 on December 30, 2004. The early spring passage came next. This was also a major event. This passage ran from January 4 (2008) to March 4 (2006), there were six “clustered” influxes. The first peaked from January 7 (2007) to January 9 (2008) with a high count of 24 on January 7, 2007. The second peaked from January 15 (2006) to January 21 (2004) with a high count of 23 on January 15, 2006. The third peaked from January 27 (2006) to January 28 (2008) with a high count of 21 on January 27, 2006. The fourth peaked from February 4 (2008) to February 7 (2007) with a high count of 20 on February 4, 2008. The fifth peaked from February 11 (2004) to February 15 (2008) with a high count of 22 on February 11, 2004. The sixth peaked from February 25 (2007) to February 28 (2005) with a high count of 25 on February 27, 2006. The next event in every year bar 2004 was the late spring passage. The passage of 2004 is detailed in Segment One. This passage ran from February 22 (2004) to April 28 (2006) with an extension to May 16 in 2004, there were six “clustered” influxes. The first is indicated by a peak count of 18 on February 29, 2008. The second peaked from March 7 (2007) to March 8 (2006) with a high count of 14 on March 8, 2006. The third is indicated by a peak count of nine on March 13, 2005. The fourth peaked from March 20 (2005) to March 26 (2006) with high counts of ten on March 20, 2005 and 60 on March 24, 2004. The latter was the highest count during the first ten years of the survey. The fifth peaked from April 6 (2005) to April 7 (2004, 2008) with high counts of eight on April 7, 2008 and 30 on April 7, 2004. The sixth peaked from April 19 (2006) to April 25 (2004) with a high count of nine on April 25, 2004. In 2004 after the major passage a pair stayed and raised one young. The juvenile was seen from June 20, 2004 to September 12, 2004. Finally there was one that flew from Duda across into Phase One on June 20, 2008.

Least Bittern (*Ixobrychus exilis*)

A summer visitor with a growing post-breeding gathering, passage in the spring and the fall is light, this is however a secretive species so it was probably overlooked. Initially in March there was just the suggestion of passage. There was one from March 3, 2004 to March 31, 2004. There was one on March 20, 2005. Finally for March there were two on March 28, 2008 with one on April 2, 2008. This was followed by a minor spring passage from April 4 (2008) to May 7 (2006, 2007) with a high count of six on May 2, 2008. The summer appears to run from April 28 (2004) to July 8 (2007) with an extension to July 23 in 2005. This species will have bred in each year but I only have information for the last two years. In 2007 there was a pair at the Sand Farm cattail marsh with three pairs along the shore of Lake Apopka. In 2008 Phase One was

available. In that year a total of 30 pairs located, 22 of them were around the edge of Phase One. There will have been more pairs out in the middle. As the young fledged they joined the population at large and it became hard to know exactly when the summer ended and the post-breeding gathering began. I am detailing the 2008 influxes in an attempt to illustrate what I mean. There were two on May 7 with three on May 11, six on May 18, 12 on May 23, 22 on May 25 and 33 on May 28, then 20 seen on June 1 with 17 on June 6 and 12 on June 8. This was a single influx but the post-breeding gathering could be said to start on May 23 but I have left this and the next two influxes in the summer event. There were 14 on June 11 with 21 on June 13, then 14 seen on June 15 with eight on June 18. There were 20 on June 20 with 15 on June 22 and ten on June 25. Excepting my concerns detailed earlier the post-breeding gathering runs from June 27 (2008) to August 8 (2008) with high counts of 47 on July 19, 2008 and 76 on July 9, 2008. To detail the 2008 influxes, there were 43 on June 27 with 47 on June 29, 65 on July 2 and 76 on July 9, then 54 seen on July 11 with 38 on July 13 and 36 on July 16, a typical type 1 influx. There were 47 on July 19 with 44 on July 21, 20 on July 24, eight on July 26 and five on July 27. There were 17 on July 30 with eight on August 3 and two on August 8. These last two influxes were type 2. In contrast there was a minimal fall passage from August 3 (2005) to September 25 (2006) with a high count of three on August 8, 2006. Later there was one from October 9, 2003 to November 16, 2003. Following that very late fall influx there was a winter influx. There were two on December 7, 2003 and December 17, 2003 with one staying to January 11, 2004. It is not unknown for this species to winter in north-central Florida.

The only month for which there were no records was February. Initially in the spring there was the trace of a passage through March. There was one from March 3, 2004 to March 31, 2004 with another on March 20, 2005. There were two on March 28, 2008 with one on April 2, 2008. There was a minimal late spring passage from April 4 (2008) to May 7 (2006, 2007), there were four "clustered" influxes. The first peaked from April 4 (2008) to April 6 (2005) with a high count of four on April 6, 2005. The second peaked from April 13 (2007) to April 14 (2004) with one on both dates. The third peaked from April 20 (2008) to April 25 (2005) with a high count of four on April 25, 2005. The fourth peaked from May 2 (2008) to May 3 (2006) with a high count of six on May 2, 2008. I am treating the summer as running from April 28 (2004) to July 8 (2007) with an extension to July 23 in 2005. The length of this passage is very uncertain as at some point with the fledged young joining the population, just when do you state that the young are all or nearly all fledged? For the passage as stated there were six "clustered" influxes. The first is indicated by a peak count of nine on May 12, 2006. The second peaked from May 16 (2004) to May 20 (2007) with a high count of five on May 16, 2004. The third peaked from May 24 (2006) to May 28 (2008) with high counts of six on May 24, 2006 and 33 on May 28, 2008. The fourth peaked from June 8 (2006, 2007) to June 13 (2008) with high counts of ten on June 8, 2006 and 21 on June 13, 2008. The fifth peaked from June 20 (2008) to June 24 (2007) with high counts of three on June 24, 2007 and 20 on June 20, 2008. The sixth peaked from July 1 (2007)

to July 3 (2005) with high counts of ten on July 2, 2004 and 28 on July 3, 2005. I have shown the highest count for the other years as only small numbers were seen. The post-breeding gathering at the very least ran from June 27 (2008) to August 8 (2008), there were three “clustered” influxes. The first peaked from July 5 (2006) to July 9 (2008) with high counts of 23 on July 7, 2004 and 76 on July 9, 2008. The latter is still the highest count for Zellwood. The second peaked from July 18 (2007) to July 19 (2008) with high counts of two on July 18, 2007 and 47 on July 19, 2008. The third peaked from July 28 (2005) to July 30 (2006, 2008) with high counts of four on July 28, 2005 and 17 on July 30, 2008. Passage now comes down to a trickle as there was only a minimal early fall passage from August 3 (2005) to September 25 (2006), there were five “clustered” influxes. The first peaked from August 8 (2006) to August 9 (2004) with a high count of three on August 8, 2006. The second peaked from August 18 (2006) to August 25 (2005) with a high count of two on August 18, 2006. The third peaked from September 1 (2004, 2006) to September 5 (2007) with a high count of two on September 1, 2006. The fourth peaked on September 12 (2004, 2005) with one on both dates. The fifth is indicated by a peak count of one on September 21, 2006. There was a single late fall event, there being one from October 9, 2003 to November 16, 2003. For the winter there was a single influx, there were two on December 7, 2003 and December 17, 2003 with one staying to January 11, 2004. As more and more areas get flooded it will be interesting to see exactly what happens to the breeding population.

Great Blue Heron (*Ardea herodias*)

This heron is now a resident, a passage migrant and a winter visitor. Unlike most of the heron/egret group there was no post-breeding gathering. This species was not affected by the passage of the hurricanes. In 2004 a total of five nests located. The earliest had two young on April 14 but one of these had died on or by April 18 and was hanging out of the nest, it stayed in that position for some time. I was surprised that the adults did not tip it out of the nest. Four other nests were later located with the young being first seen on dates through to June 16. Whilst one of these nests held two young the others held one each. In 2005 a single nest located with one young, this chick was first seen on April 14. In 2006 there were three nests, each held two young. There was one at the Sand Farm with the young being first seen on February 22. The second was on the southern border with young from March 10. The location of the third nest not recorded but the young were first seen from April 28. In 2007 there was a single nest by the Lake Level Canal on March 23, 2007. No information on any young. This species is often solitary but it will gather in loose associations in favored locations. Such locations are often the shorter grassed fields where it hunts for Hispid Cotton Rats, one of its favorite foods. This has proved to be one of the most difficult species to analyze, in the end I

have had to rely on the rise and fall of the peak counts to get some understanding of what is going on. The pattern is so difficult that I am not going to detail any influxes. With such an early breeding season it could with some justification be said that the summer runs from February 29 (2004, 2008) to June 4 (2006) but I think that is far too simple. It does appear that whilst the local population is “resident” there is a marked passage through March. I am therefore treating the summer as starting on April 1 (2007). The situation gets even more complicated as initially there are influxes but for the month of May there are only limited signs of passage. Is it possible that there is a spring passage through most of our local breeding season? I am treating the summer as ending on June 4 (2006). By using the highest counts from each influx a pattern does emerge for the fall. There appears to be the usual two passages but the periods that they cover are different. Thus the early fall passage ran from May 27 (2007) to August 29 (2004, 2007) with a high count of 52 on June 22, 2008. The highest counts gradually fell through this passage from that date. The main fall passage ran from August 25 (2005) to December 1 (2004). In this case the numbers climbed through the passage to reach a peak of 151 on November 23, 2007. This was followed by the winter passage which could in this case be part of the fall passage as during this passage the numbers gradually fell. The passage ran from November 24 (2006) to January 16 (2005, 2007, 2008) with a high count of 111 on December 2, 2007. The highest counts for the spring passages did not create a pattern so I have reverted to the normal division between these events i.e. the end of February. The early spring passage ran from January 6 (2006) to March 5 (2006) with a high count of 89 on January 18, 2006. The main spring passage ran from February 29 (2004, 2008) to March 30 (2005, 2007, and 2008) with a high count of 98 on March 12, 2006.

The summer passage appears to run from April 1 (2007) to June 4 (2006), there were seven “clustered” influxes. The first is indicated by a peak count of 60 on April 4, 2007. The second peaked from April 10 (2005) to April 11 (2008) with 57 on both dates. The third peaked from April 19 (2006) to April 25 (2004) with a high count of 52 on April 20, 2005. For the rest of this passage there were only a few influxes. The next two are indicated by isolated peak counts of 49 on April 30, 2006 and 41 on May 9, 2008. The sixth peaked from May 16 (2007) to May 21 (2006) with a high count of 40 on May 16, 2007. The last influx is indicated by a peak count of 52 on May 28, 2008. The early fall passage ran from May 27 (2007) to August 29 (2004, 2007), there were ten “clustered” influxes. The first peaked from June 5 (2005) to June 8 (2007, 2008) with high counts of 43 on June 5, 2005 and June 8, 2008. The second peaked from June 22 (2008) to June 25 (2006) with a high count of 52 on June 22, 2008. The third peaked from July 1 (2007) to July 4 (2004) with a high count of 43 on July 2, 2006. The fourth peaked from July 12 (2006) to July 13 (2007) with a high count of 43 on July 12, 2006. The fifth peaked from July 16 (2008) to July 17 (2005) with a high count of 38 on July 16, 2008. The sixth peaked from July 20 (2007) to July 26 (2006) with a high count of 33 on July 20, 2007. The seventh peaked from July 30 (2008) to August 1 (2004) with a high count of 31 on July 30, 2008. The eighth peaked from

August 7 (2005) to August 12 (2007) with a high count of 32 on August 7, 2005. The ninth peaked from August 18 (2006) to August 20 (2003) with a high count of 25 on August 18, 2006. The tenth peaked from August 24 (2007) to August 26 (2004) with a high count of 22 on August 24, 2007. The main fall passage ran from August 25 (2005) to December 1 (2004), there were again ten “clustered” influxes. This time the counts were climbing. The first peaked from August 31 (2007) to September 4 (2005) with a high count of 31 on September 3, 2006. The second peaked from September 10 (2003) to September 16 (2007) with a high count of 39 on September 16, 2007. The third is indicated by a peak count of 20 on September 22, 2005. The fourth peaked from September 27 (2006) to September 28 (2004) with a high count of 50 on September 27, 2006. The fifth peaked from October 2 (2003) to October 6 (2006) with a high count of 47 on October 6, 2006. The sixth peaked from October 14 (2007) to October 17 (2004) with a high count of 59 on October 15, 2006. The seventh peaked from October 23 (2005) to October 26 (2003, 2007) with a high count of 48 on October 26, 2007. The eighth peaked from November 4 (2007) to November 9 (2005) with a high count of 88 on November 4, 2007. The ninth peaked from November 17 (2006) to November 18 (2005) with high counts of 58 on November 18, 2005 and 114 on November 17, 2006. The tenth peaked from November 20 (2003) to November 23 (2004, 2007) with high counts of 31 on November 20, 2003 and 151 on November 23, 2007. The latter was the highest count during this five year period. The winter passage followed from November 24 (2006) to January 16 (2005, 2007, 2008), there were five “clustered” influxes. The first peaked from November 26 (2006) to December 3 (2003) with high counts of 109 on November 26, 2006 and 111 on December 2, 2007. The second is indicated by a peak count of 125 on December 10, 2006. The third peaked from December 15 (2003) to December 21 (2005) with high counts of 69 on December 16, 2004 and 109 on December 17, 2006. The fourth peaked from December 28 (2003) to December 31 (2006) with high counts of 75 on December 30, 2005 and December 30, 2007. The fifth peaked on January 6 (2005, 2008) with a high count of 69 on January 6, 2008. Note how the numbers declined during this passage, it really does seem to have been the second half of the main fall passage. The early spring passage ran from January 6 (2006) to March 5 (2006), there were five “clustered” influxes. The first is indicated by a peak count of 29 on January 14, 2004. The second peaked from January 18 (2006, 2008) to January 24 (2005) with a high count of 89 on January 18, 2006. The third peaked from February 1 (2006) to February 4 (2008) with a high count of 78 on February 1, 2006. The fourth peaked from February 10 (2008) to February 13 (2005) with a high count of 69 on February 11, 2007. The fifth peaked from February 20 (2008) to February 25 (2007) with a high count of 87 on February 22, 2006. The main spring passage was a short event because of the early start to the breeding season. This passage ran from February 29 (2004, 2008) to March 30 (2005, 2007, and 2008), there were four “clustered” influxes. The first peaked from March 2 (2008) to March 4 (2007) with a high count of 65 on March 4, 2007. The second peaked from March 12 (2006) to March 16 (2005) with a high count of 98 on March 12, 2006.

The third is indicated by a peak count of 70 on March 22, 2006. The fourth peaked on March 28 (2004, 2007, 2008) with a high count of 52 on March 28, 2008. The very early start to the breeding season does change ones perception of what is normal i.e. the early fall passage starting in May. There were 41 “clustered” influxes.

Great White Heron (*Ardea occidentalis*)

This has become a regular spring and summer visitor with some staying for extended periods. This is such an interesting “species” that I am including all records for the survey. The first was one on June 1, 2003, that was included in the last analysis. All the following were immatures unless there is a statement to the contrary. There was one at the Sand Farm cattail marsh from May 30, 2004 to June 2, 2004 with later that year one on the southern border on July 2, 2004. There was one at the Lake Level Canal on March 27, 2005 with two there on March 30, 2005. On the latter date after seeing the other two a third flew in from the south over Lake Apopka. One of these individuals stayed to May 1, 2005. There was one at the Lake Level Canal on June 22, 2007 and June 24, 2007 this individual then relocated to Duda where it stayed from June 27, 2007 to July 20, 2007. It then returned to the Lake Level Canal on July 22, 2007 where it stayed to August 8, 2007. It visited the Roach Canal on August 10 and the Lust Canal on August 12 and August 15, 2007. Next it took up residence on the shore of Lake Apopka north of the Laughlin Road extension. A stretch of some 100 yards or so became the location for this species. It stayed at this location from August 17, 2007 to September 19, 2007 after which it disappeared. It returned to the same site from October 21, 2007 to December 17, 2007, again it was absent. It was back again on December 30, 2007 and it stayed to February 26, 2008 when it again left. From December 30, 2007 it took to chasing off any Great Blue Heron that invaded its little patch. I cannot remember which of the periods at Lake Apopka it was but it took to joining the Great Egrets in the fields hunting for Hispid Cotton Rats. It may also have hunted these mammals whilst at Duda. I was not surprised when it reappeared from May 9, 2008 to October 3, 2008. During the latter period on days when this individual was seen there were additional sightings at other locations. There was one at the Lake Level Canal on June 11, 2008 and June 22, 2008. There was one at the Stormwater Ponds off Jones Avenue on June 15, 2008. There was one at the southern border on June 22, 2008 making a total of three for that date. There were two at the main site at Lake Apopka on June 29, 2008. Finally there was one back at the Stormwater Ponds on September 21, 2008. That or another took up residence at the Stormwater Ponds from December 12, 2008 to March 15, 2009. I thought it had probably been taken by an American Alligator that had appeared to be tracking it but on April 1, 2009 there was one back at the Lake Apopka site, this individual stayed to May 23, 2009. Now all of the above were immatures or at the very least they were not in breeding plumage. I just have no

idea how many individuals there have been, I had counts of three twice, in 2005 and 2008. It goes on as there finally was an adult in breeding plumage this took up residence at the same spot on the shore of Lake Apopka from March 28, 2010 to April 28, 2010. I check some five miles of the shoreline of Lake Apopka and all these bird(s) turned up on a 100 yard stretch of shoreline...The last sighting relates to an immature at Phase 2 from May 12, 2010 to May 21, 2010. Phase 2 had not been flooded during the period covered by this analysis. The area involved is large it stretches south from Lust Road, west of Airport Road and south of Hooper Farms Road.

If I accept that all the Lake Apopka records relate to one individual, even though that is questionable then there is a pattern of "clustered" influxes, five in all. The first peaked from March 28 (2010) to March 30 (2005) with a high count of three on March 30, 2005. The second is indicated by a peak count of one on May 12, 2010. The third peaked from May 30 (2004) to June 1 (2003) with one on both dates. The fourth peaked on June 22 (2007, 2008) with a high count of three on June 22, 2008. The fifth peaked from June 29 (2008) to July 2 (2004) with a high count of two on July 29, 2008. The counts of three are the highest counts for Zellwood. It seems strange to have so many records of this specialty from the Everglades and the Florida Keys.

Great Egret (*Ardea alba*)

This is for the survey area a non-breeding resident, a passage migrant and a winter visitor. There has to be a significant colony somewhere along the north shore of Lake Apopka. This is a social species that will hunt out in the fields for Hispid Cotton Rats or it will join in feeding frenzies with the smaller Snowy Egrets. In 2004 three hurricanes crossed the area dumping copious amounts of rain. This resulted in the fields being flooded for many months. With the exception of the Great Blue Heron the herons, egrets and ibis had a great time. I am including a special section after the text for the Glossy Ibis on these events. This is yet another problem species in that I cannot separate out the summer from any post-breeding gathering, numbers were high throughout this period. I am therefore treating this as an extended summer event from April 25 (2008) to August 30 (2006) with a high count of 470 on May 2, 2008. Because of the length of this event I am not detailing any of the influxes. There was an early fall passage from August 17 (2007) to October 8 (2005) with a high count of 89 on September 3, 2006. The main fall passage followed from September 12 (2007) to December 3 (2006) with a high count of 915 on November 7, 2004. To detail that 2004 influx, there were 30 on October 3 with 36 on October 6, 42 on October 11, 126 on October 13, 168 on October 17, 180 on October 24, 410 on October 27, 800 on October 31 and 915 on November 7, then 695 seen on November 14 with 335 on November 17. The winter passage ran from November 21 (2004) to

January 5 (2007) with an extension to January 16 in 2005. The start date is very early but that is tied to an exceptional set of events. The highest count was that of 2,390 on December 5, 2004. Excluding 2004 the highest count was that of 236 on December 14, 2007. To detail the 2004 influx, there were 1,155 on November 21 with 1,480 on November 23, 1,755 on November 28 and 2,390 on December 5, then 1,705 seen on December 7 with 783 on December 16, 227 on December 19, 225 on December 27, 186 on January 2, 35 on January 6, 30 on January 9 and 14 on January 16. That is a mega type 1 influx. The early spring passage ran from January 2 (2008) to March 10 (2004) and it was probably the weakest event of the year. The highest count was only that of 92 on January 19, 2005. The main spring passage completes the year, it ran from March 2 (2007, 2008) to May 4 (2007) with a high count of 265 on April 11, 2008. For once I noted a type 3 influx in the spring of 2004 and that is detailed below. There were five on April 4 with 32 on April 7, 61 on April 18 and 129 on April 25, only one seen on April 28 and May 2.

The summer event ran from April 25 (2008) to August 30 (2006) and there were 12 “clustered” influxes. This was in reality the combined summer passage and the post-breeding gathering. The first peaked from May 1 (2005) to May 2 (2008) with high counts of 52 on May 1, 2005 and 470 on May 2, 2008. The second is indicated by a peak count of 83 on May 7, 2007. The third peaked from May 10 (2006) to May 14 (2004) with a high count of 83 on May 14, 2004. The fourth peaked from May 18 (2008) to May 24 (2006) with high counts of 105 on May 24, 2006 and 268 on May 18, 2008. The fifth peaked from June 4 (2006, 2008) to June 8 (2007) with high counts of 191 on June 4, 2006 and 370 on June 4, 2008. The sixth is indicated by a peak count of 380 on June 15, 2008. The seventh peaked from June 29 (2008) to July 4 (2004) with a high count of 450 on June 29, 2008. The eighth peaked from July 11 (2007) to July 13 (2008) with high counts of 48 on July 11, 2007 and 450 on July 13, 2008. The ninth peaked from July 16 (2006) to July 23 (2005) with a high count of 193 on July 16, 2006. The tenth peaked from July 25 (2007) to July 26 (2008) with high counts of 43 on July 25, 2007 and 200 on July 26, 2008. The 11th peaked from August 7 (2005) to August 8 (2008) with a high count of 48 on August 8, 2008. The 12th peaked from August 12 (2007) to August 15 (2004, 2005) with high counts of 34 on August 15, 2004 and 340 on August 13, 2006. In 2008 Phase One was flooded and at first light this species and the Snowy Egrets would be engaged in a feeding frenzy in one of the western fields. Numbers in that summer were generally higher often much higher than the numbers recorded for the other years so I have given the two highest counts so the change in numbers because of this new habitat becomes clearer. The early fall passage followed from August 17 (2007) to October 8 (2005), there were five “clustered” influxes. The first peaked from August 19 (2007) to August 22 (2004) with a high count of 36 on August 19, 2007. The second peaked from August 28 (2005) to September 3 (2006) with a high count of 89 on September 3, 2006. The next two influxes were indicated by isolated peak counts of seven on September 7, 2005 and 53 on September 13, 2006. The fifth peaked from September 19 (2004) to September 23 (2006) with a high count of 68 on September 23, 2006. It is striking just how

low the early fall peak counts were when compared to the summer event peak counts. The main fall passage ran from September 12 (2007) to December 3 (2006), there were seven "clustered" influxes. The first peaked from September 29 (2003) to October 6 (2006) with a high count of 95 on October 6, 2006. The second peaked from October 13 (2006) to October 14 (2007) with high counts of 120 on October 13, 2006 and 220 on October 14, 2007. The third peaked on October 19 (2003, 2005) with a high count of 15 on October 19, 2005. The fourth peaked from October 24 (2007) to October 28 (2005) with high counts of 22 on October 28, 2005 and 153 on October 24, 2007. The fifth peaked from November 5 (2006) to November 9 (2007) with high counts of 134 on November 9, 2007 and 915 on November 7, 2004. The latter was the first of the two hurricane peak counts. The sixth peaked from November 18 (2007) to November 20 (2003) with high counts of 137 on November 18, 2007 and 212 on November 19, 2006. The seventh is indicated by a peak count of 39 on November 27, 2005. The winter passage ran from November 21 (2004) to January 5 (2007) with an extension to January 16 in 2005. A single mega influx covered the whole period from November 21, 2004 to January 16, 2005, hurricanes do have some uses. For this passage there were just three "clustered" influxes. The first peaked from December 3 (2003) to December 7 (2007) with high counts of 169 on December 6, 2006 and 2,390 on December 5, 2004. The latter is still the highest count for Zellwood. Every year had a peak count in this particular influx. There were 14 on December 3, 2003, 35 on December 5, 2005 and 128 on December 7, 2007. The second peaked from December 13 (2005) to December 15 (2006) with a high count of 236 on December 14, 2007. The third peaked from December 26 (2005) to December 29 (2006) with a high count of 55 on December 29, 2006. Next came the early spring passage, this ran from January 2 (2008) to March 10 (2004), there were seven "clustered" influxes. The first peaked on January 4 (2006, 2008) with a high count of 52 on January 4, 2008. The second peaked from January 10 (2007) to January 11 (2008) with a high count of 57 on January 10, 2007. The third peaked from January 19 (2005) to January 24 (2007) with a high count of 92 on January 19, 2005. The fourth peaked from January 29 (2006) to February 4 (2004) with a high count of 72 on January 30, 2005. The fifth peaked from February 10 (2006) to February 14 (2007) with a high count of 26 on February 14, 2007. The sixth peaked from February 19 (2006) to February 23 (2007) with a high count of 37 on February 20, 2008. The seventh peaked from February 27 (2004) to March 1 (2006) with a high count of 30 on March 1, 2006. Finally there was the main spring passage, this ran from March 2 (2007, 2008) to May 4 (2007), there were six "clustered" influxes. The first peaked from March 9 (2007) to March 10 (2006) with a high count of 50 on March 10, 2006. The second peaked from March 14 (2004) to March 16 (2005, 2007) with a high count of 55 on March 16, 2007. The third peaked from March 23 (2007) to March 26 (2006, 2008) with a high count of 63 on March 26, 2008. The fourth peaked from April 4 (2007) to April 6 (2005) with 50 on both dates. The fifth peaked from April 11 (2008) to April 15 (2007) with a high count of 265 on April 11, 2008. The sixth peaked from April 20 (2005) to April 25 (2004, 2006) with high

counts of 121 on April 21, 2007, 128 on April 20, 2005 and 129 on April 25, 2004. The mega influx in 2004 shows just what can occur at Zellwood if the habitat is right. There were 40 “clustered” influxes.

Snowy Egret (*Egretta thula*)

This species does not appear to keep to any set season. It is present all year in varying numbers. In 2005 this species nested at two locations on a series of small islands along the north-east shore of Lake Apopka. There were a total of six pairs but I do not know the number of young raised. For most of the time this species is seen in quite small numbers i.e. up to 80 a day. Then at times a larger party will fly in stay for a few days and then leave just as quickly. In two years there was an extended summer invasion. In 2006 this occurred from May 24 to September 10 with somewhat lower numbers from June 16 to July 2. In 2008 this event ran from April 11 to August 6 without the lower numbers in the middle. I am again unable to separate out any post-breeding gathering from the summer event. This means that the summer passage runs for an extended period from May 11 (2008) to September 10 (2006) with high counts of 600 on May 23, 2008 and June 29, 2008. The 2006 event was more unexpected so I am detailing the influxes for that year, there were 56 on May 17 with 62 on May 19 and 253 on May 24, then 225 seen on May 31 with 135 on June 4, 130 on June 11, 54 on June 16, 36 on June 21 and 32 on June 25. There were 44 on June 28 with 57 on July 2, 78 on July 5, 140 on July 10, 285 on July 12 and 535 on July 16, then 215 seen on July 19. There were 217 on July 21 with 270 on July 23, then 150 seen on July 26 with 143 on July 28. There were 160 on July 30 with 203 on August 4, 262 on August 8, 340 on August 13 and 420 on August 20, then 255 seen on August 25 with 17 on August 27. There were 165 on August 30 with 230 on September 1, then 145 seen on September 3 with 135 on September 6, 2006 and 81 on September 10. The fall passage ran from September 4 (2005) to December 1 (2006) with high counts of 2,510 on November 17, 2004 and 2,585 on November 7, 2004. For the other years the highest count was only that of 200 on October 7, 2007. After the Glossy Ibis there is going to be a section dealing with the hurricanes of 2004 and in that section there is a table that will detail all the records for this species in the fall of 2004. In 2003 there was no passage from November 5 to December with just one in the area. In 2007 there was no passage from October 17 through the winter to January 14, 2008. During the fall of 2007 there were 12 in the area. The winter passage ran from November 25 (2005) to January 14 (2004) with an extension to January 26 in 2005. The highest counts were those of 2,145 on December 5, 2004 and 449 on January 2, 2005. Both of those counts were hurricane related. For the other years the highest count was that of 215 on December 2, 2005. The early spring passage ran from January 12 (2007) to March 7 (2004) with a high count of 192 on February 6, 2005. The main spring passage ran from March 2 (2008) to

May 29 (2005) with a high count of 370 on May 2, 2008. Earlier I mentioned how this species had a tendency to have some very short visits, here are two examples. There were in 2004 20 on May 26 with 44 on May 30 and 240 on June 6, then 40 seen on June 9 with 35 on June 13 and eight on June 16. There were in 2005 26 on November 25 with 48 on November 27 and 215 on December 2, then 29 seen on December 4 with 22 on December 7 and seven on December 9.

The summer passage ran from May 11 (2008) to September 10 (2006), there were 11 “clustered” influxes. The first peaked from May 23 (2008) to May 27 (2007) with high counts of 253 on May 24, 2006 and 600 on May 23, 2008. The second peaked from June 4 (2008) to June 6 (2004) with high counts of 240 on June 6, 2004 and 560 on June 4, 2008. The next two influxes are indicated by isolated peak counts of 19 on June 12, 2005 and 30 on June 23, 2004. The fifth peaked from June 27 (2007) to July 1 (2005) with high counts of 186 on July 1, 2005 and 600 on June 29, 2008. The sixth peaked from July 13 (2007, 2008) to July 16 (2006) with high counts of 535 on July 16, 2006 and 550 on July 13, 2008. The seventh peaked from July 22 (2007) to July 23 (2005, 2006) with high counts of 41 on July 22, 2007 and 270 on July 23, 2006. The eighth peaked from August 1 (2008) to August 5 (2007) with a high count of 200 on August 1, 2008. The ninth peaked from August 10 (2005, 2008) to August 11 (2004) with a high count of 200 on August 10, 2008. The tenth peaked from August 19 (2007) to August 26 (2004) with high counts of 106 on August 26, 2004 and 420 on August 20, 2006. The 11th peaked on September 1 (2003, 2006) with a high count of 230 on September 1, 2006. This was followed by the fall passage which ran from September 4 (2005) to December 1 (2006), there were eight “clustered” influxes. The first peaked from September 4 (2005) to September 9 (2004) with a high count of 48 on September 4, 2005. The second peaked from September 13 (2006) to September 14 (2003) with a high count of 76 on September 13, 2006. The third peaked from September 23 (2006) to September 29 (2003) with a high count of 64 on September 23, 2006. The month of September might just be an early fall passage. The fourth peaked from October 6 (2006) to October 7 (2007) with high counts of 69 on October 6, 2006 and 200 on October 7, 2007. The fifth peaked from October 9 (2003) to October 13 (2006) with high counts of 107 on October 13, 2006 and 806 on October 11, 2004. The sixth peaked from October 19 (2005) to October 22 (2003) with a high count of 25 on October 19, 2005. This was a basic influx surrounded by regular influxes. The seventh peaked from November 2 (2003) to November 7 (2004) with high counts of 42 on November 3, 2006 and 2,585 on November 7, 2004. The latter is still the highest count for Zellwood. The eighth peaked from November 17 (2004) to November 20 (2005) with high counts of 83 on November 20, 2005 and 2,510 on November 17, 2004. In sharp contrast to these counts there was no passage from November 5, 2003 to December, 2003 as there was only one in the area. In 2007 there was no passage from October 17 through the winter to January 14, 2008. there were 12 in the area. With these hurricanes we had this massive invasion in the fall of 2004 but unlike most species there were not one or two influxes but a whole series of them. This makes me wonder as to just how many passed through

the area. The winter passage ran from November 25 (2005) to January 14 (2004) with an extension to January 26 in 2005, there were four “clustered” influxes. The first peaked from December 2 (2005) to December 8 (2006) with high counts of 215 on December 2, 2005 and 2,145 on December 5, 2004. The second peaked from December 13 (2005) to December 15 (2006) with a high count of 39 on December 13, 2005. The third peaked on December 21 (2003, 2005) with a high count of 27 on December 21, 2003. The fourth peaked from December 30 (2005) to January 4 (2004) with high counts of 26 on December 30, 2005 and 449 on January 2, 2005. Finally there was no passage during the winter of 2007/2008, normally 12 seen with 16 on December 28, 2007. Next came the early spring passage, this ran from January 12 (2007) to March 7 (2004), there were seven “clustered” influxes. The first is indicated by a peak count of ten on January 12, 2007. The second peaked from January 20 (2006, 2008) to January 21 (2007) with a high count of 15 on January 20, 2008. The third peaked from January 27 (2006) to January 29 (2007) with a high count of 43 on January 28, 2004. The fourth peaked from February 6 (2005) to February 8 (2008) with high counts of 26 on February 8, 2008 and 192 on February 6, 2005. The fifth peaked from February 11 (2004) to February 12 (2006) with a high count of 34 on February 11, 2004. The sixth peaked from February 19 (2006) to February 20 (2008) with a high count of 29 on February 19, 2006. The seventh peaked from February 25 (2007) to February 29 (2004) with a high count of 31 on February 29, 2004. This was the lightest event of the year. Finally there was the main spring passage. This ran from March 2 (2008) to May 29 (2005), there were eight “clustered” influxes. The first is indicated by a peak count of 46 on March 5, 2006. The second peaked from March 9 (2007) to March 13 (2005) with a high count of 25 on March 13, 2005. The third peaked from March 16 (2007) to March 17 (2006) with a high count of 63 on March 16, 2007. The fourth peaked from March 28 (2004, 2008) to March 30 (2005, 2007) with a high count of 101 on March 28, 2008. The fifth peaked from April 14 (2004) to April 15 (2007) with high counts of 55 on April 15, 2007 and 325 on April 13, 2008. The sixth peaked from April 20 (2005) to April 23 (2006) with a high count of 109 on April 20, 2005. The seventh peaked from April 29 (2007) to May 2 (2008) with high counts of 53 on April 30, 2006 and 370 on May 2, 2008. The eighth peaked from May 7 (2007) to May 10 (2006) with a high count of 48 on May 10, 2006. Earlier I mentioned the two summer events that made it impossible to identify any post-breeding gathering. The second of these events in 2008 ran from April 11 to August 6. Whilst this is probably a summer event it started half way through the main spring passage. The peak counts fitted into the identified influxes. This was an exceptionally confusing species. There were 38 “clustered” influxes.

Little Blue Heron (*Egretta caerulea*)

This species is a resident, a passage migrant and a winter visitor. There is the suggestion in some years of a post-breeding gathering. Unlike the last species this one prefers the vegetated canals and any lightly flooded grass fields. In 2005 12 pairs bred to the north of Lust Road on a series of small islands, up to two young per pair raised. There were a further two pairs on an island at the end of Lust Road. No nests located in 2006. In 2007 there was one nest at the end of Lust Road with a new colony at the southern border. There were two nests on March 28 with 21 nests on May 4. The first fledged young away from the nest site were seen on June 27 in that year. In 2008 a total of five pairs located at the southern border colony. The willow growth was getting thicker and it was not possible to see the young in the nests or to be sure how many pairs there actually were. Aside from this information on the breeding population there was what appeared to be a hybrid Little Blue Heron x Cattle Egret at Fish Ponds Road (off Hooper Farms Road) on July 31, 2005, August 3, 2005 and August 7, 2005. Photographs are held. The summer passage appeared to run from April 17 (2005) to July 7 (2004) with a high count of 138 on June 4, 2008. This was followed by what appears to be a post-breeding gathering from June 25 (2006) to August 24 (2007). The highest count was that of 285 on July 16, 2006. To detail the 2006 influxes, there were 77 on June 25 with 167 on July 5, 175 on July 12 and 285 on July 16, then 185 seen on July 21 with 128 on July 23 and 35 on July 26. There were 54 on July 28 with 68 on July 30, 78 on August 2, 94 on August 4 and 105 on August 11, then 40 seen on August 13 with 14 on August 16. There was an early fall passage from August 16 (2004) to October 11 (2006) with a high count of 106 on September 16, 2004. The main fall passage ran from September 30 (2007) to December 3 (2006) with the exception of 2004 the highest count was that of 78 on November 2, 2005. In 2004 with the hurricanes there were two influxes. The first ran from October 3 to October 21 with a peak count of 230 on October 13. The second ran from October 24 to November 17 with a peak count of 445 on November 7. The winter passage covered an extended period, it ran from November 21 (2004) to January 16 (2005) with excluding 2004 a high count of 113 on December 7, 2005. In 2004 there were two influxes. The first ran from November 21 to December 22 with a peak count of 735 on December 1. The second ran from December 27 to January 16 with a peak count of 184 on December 27. I am not detailing the fall or winter influxes for 2004 here as they will be fully documented in a table in the special section that follows Glossy Ibis. The early spring passage ran from January 7 (2002) to March 4 (2008) with a high count of 92 on February 6, 2005. Finally there was the main spring passage this ran from February 27 (2006) to April 25 (2008) with a high count of 140 on April 11, 2008.

The summer passage ran from April 17 (2005) to July 7 (2004), there were seven “clustered” influxes. The first peaked from April 20 (2005) to April 21 (2007) with a high count of 47 on April 20, 2005. The second peaked from April 25 (2004) to April 30 (2005, 2008) with a

high count of 53 on April 30, 2008. The third peaked from May 13 (2007) to May 17 (2006) with a high count of 134 on May 14, 2004. The fourth is indicated by a peak count of 46 on May 30, 2007. The fifth peaked from June 4 (2008) to June 5 (2005) with a high count of 138 on June 4, 2008. The sixth peaked from June 22 (2008) to June 23 (2004) with a high count of 70 on June 22, 2008. The seventh peaked from June 27 (2007) to July 1 (2005) with a high count of 54 on July 1, 2005. The only way that I have been able to separate out the various passages is to look at the pattern if any in the peak counts. The pattern suggests a break at this point. With the flooding of what is now known as Phase One the pattern of occurrence has changed and there now appears to be a post-breeding gathering, this ran from June 25 (2006) to August 24 (2007). There were a total of four "clustered" influxes. The first peaked on July 6 (2007, 2008) with a high count of 75 on July 6, 2008. The second peaked from July 16 (2006, 2008) to July 17 (2005) with high counts of 76 on July 17, 2005 and 285 on July 16, 2006. If we had not had the hurricanes in 2004 the latter would have been the highest count for Zellwood. The third peaked from July 26 (2008) to August 3 (2005) with high counts of 100 on July 29, 2004 and 105 on July 26, 2008. The fourth peaked from August 10 (2008) to August 12 (2007) with a high count of 38 on August 10, 2008. This was followed by the early fall passage, this ran from August 16 (2004) to October 11 (2006), there were five "clustered" influxes. The first peaked from August 16 (2004) to August 20 (2006) with a high count of 98 on August 16, 2004. The second peaked from August 28 (2005) to September 1 (2003) with a high count of 69 on August 28, 2005. The third is indicated by a peak count of 106 on September 16, 2004. The fourth peaked from September 19 (2003, 2007) to September 22 (2005) with a high count of 50 on September 22, 2005. The fifth peaked from September 26 (2007) to September 29 (2003) with a high count of 68 on September 27, 2006. The main fall passage ran from September 30 (2007) to December 3 (2006), there were five "clustered" influxes. It is so nice to deal with a species that only has regular influxes with all the basic influxes hidden. The first influx peaked from October 9 (2003) to October 15 (2006) with high counts of 51 on October 15, 2006 and 230 on October 13, 2004. The second is indicated by a peak count of 61 on October 19, 2005. The third peaked from October 29 (2003) to November 2 (2005) with a high count of 78 on November 2, 2005. The fourth peaked from November 5 (2006) to November 7 (2004) with high counts of 29 on November 5, 2006 and 445 on November 7, 2004. The fifth peaked from November 16 (2003) to November 21 (2007) with a high count of 68 on November 20, 2005. The winter passage ran from November 21 (2004) to January 16 (2005), there were only three "clustered" influxes. The first peaked from December 1 (2004) to December 7 (2005) with high counts of 49 on December 3, 2003, 113 on December 7, 2005 and 735 on December 1, 2004. The latter is the highest count for Zellwood. The second is indicated by a peak count of 19 on December 15, 2006. The third peaked from December 27 (2004) to January 3 (2007) with high counts of 56 on December 28, 2003, 57 on January 1, 2006 and 184 on December 27, 2004. Next came the early spring passage, this ran from January 7 (2002) to March 4 (2008), there were five "clustered"

influxes. The first peaked from January 13 (2006) to January 19 (2004, 2005) with high counts of 77 on January 19, 2005 and January 13, 2006. The second peaked from January 26 (2007) to January 29 (2006) with a high count of 72 on January 29, 2006. The third peaked on February 6 (2005, 2008) with a high count of 92 on February 6, 2005. The fourth peaked from February 11 (2007) to February 12 (2006, 2008) with a high count of 63 on February 12, 2006. The fifth peaked from February 18 (2004) to February 21 (2007) with a high count of 52 on February 18, 2004. Finally there was the main spring passage, this ran from February 27 (2006) to April 25 (2008), there were six “clustered” influxes. The first peaked from March 1 (2006) to March 3 (2004) with a high count of 63 on March 1, 2006. The second peaked from March 9 (2007) to March 10 (2006) with a high count of 78 on March 10, 2006. The third peaked from March 16 (2005) to March 19 (2006) with a high count of 94 on March 19, 2006. The fourth peaked on March 24 (2004, 2008) with a high count of 58 on March 24, 2008. The fifth peaked from April 3 (2005) to April 7 (2004) with a high count of 58 on April 3, 2005. The sixth peaked from April 11 (2008) to April 13 (2007) with high counts of 43 on April 13, 2007 and 140 on April 11, 2008. There were 35 “clustered” influxes.

Tricolored Heron (*Egretta tricolor*)

The least common of the regularly occurring herons and egrets, it prefers areas of open water where it can wade or hunt from the bank. In 2005 there were two pairs to the north of Lust Road on a series of small islands, one and two young per pair. The first young were seen in a nest on May 29. There was also a pair at the end of Lust Road. In 2007 there was a nest in the colony on the southern border with another near the end of Lust Road. Again the vegetation at the southern colony was too thick to be sure exactly how many pairs present. This species bred there in 2008 but number of pairs not known, I would guess at ten pairs. This was a very difficult species to evaluate in that whilst there were numerous influxes the peak counts did not form any patterns. There was little to suggest a post-breeding gathering so I am treating the summer passage as running from May 10 (2004, 2006) to August 25 (2006), the highest counts were of 88 on June 4, 2008 and 150 on July 26, 2008. To detail the 2008 influxes, there were 36 on May 16 with 44 on May 18, then 19 seen on May 23 with 16 on May 28. There were 33 on May 30 with 43 on June 1 and 88 on June 4, then 87 seen on June 8 with ten on June 11. There were 11 on June 13 with 42 on June 15 and 47 on June 20, then 40 seen on June 22 with 12 on June 25. There were 28 on June 27 with 41 on June 29 and 67 on July 2, then 60 seen on July 6 with 35 on July 9, 33 on July 11 and 19 on July 13. There were 37 on July 16 with 51 on July 19 and 150 on July 26, then nine seen on July 27. There were 26 on July 30 with 48 on August 1, then 33 seen on August 6 with 32 on August 8. There were 36 on August 10 with 32 on August 13. This is a perfect example of what puzzles me about these summer influxes. There was a

clear rise and fall in the numbers time after time with some significant peak counts. There just had to be some movement through the summer, perhaps non-breeding birds were continually on the move. There was an early fall passage from August 16 (2004) to October 8 (2005) with a high count of 65 on September 1, 2006. The main fall passage followed from September 22 (2004) to December 1 (2003, 2006) with an extension to December 22 in 2004. Excluding 2004 the highest count was only that of 22 on October 13, 2006. In 2004 with the hurricanes there were two influxes. The first ran from September 22 to November 10 with a peak count of 292 on October 31. The second ran from November 14 to December 22 with a peak count of 385 on November 17. The winter passage followed from November 25 (2005) to January 19 (2005) with high counts of 18 on December 2, 2005 and 44 on December 27, 2004. The early spring passage ran from January 4 (2008) to March 7 (2004) with a high count of 29 on January 30, 2005. Finally there was the main spring passage this ran from February 24 (2006) to May 22 (2005) with a high count of 59 on April 20, 2005. This last passage was significantly stronger than the early spring passage.

The summer passage ran from May 10 (2004, 2006) to August 25 (2006) and there were nine "clustered" influxes. The first peaked from May 14 (2004) to May 20 (2007) with a high count of 44 on May 18, 2008. The second peaked from June 4 (2008) to June 6 (2004) with a high count of 88 on June 4, 2008. The third peaked from June 11 (2006) to June 12 (2005) with a high count of 44 on June 11, 2006. The fourth is indicated by a peak count of 47 on June 20, 2008. The fifth peaked from June 29 (2007) to July 5 (2006) with a high count of 67 on July 2, 2008. The sixth peaked from July 13 (2007) to July 14 (2006) with a high count of 46 on July 14, 2006. The seventh peaked from July 23 (2005, 2006) to July 27 (2007) with high counts of 61 on July 23, 2006 and 150 on July 26, 2008. The eighth peaked from August 1 (2008) to August 2 (2006) with a high count of 59 on August 2, 2006. The ninth peaked from August 8 (2007) to August 13 (2006) with a high count of 74 on August 13, 2006. The early fall passage ran from August 16 (2004) to October 8 (2005), there were six "clustered" influxes. The first peaked from August 17 (2007) to August 22 (2004) with a high count of 34 on August 22, 2004. The second peaked from August 26 (2007) to August 28 (2005) with a high count of 11 on August 28, 2005. The third peaked from September 1 (2006) to September 3 (2003) with a high count of 65 on September 1, 2006. The fourth peaked from September 9 (2007) to September 12 (2004) with a high count of 17 on September 12, 2004. The fifth peaked from September 16 (2007) to September 17 (2006) with a high count of 15 on September 17, 2006. The sixth peaked from September 22 (2005) to September 23 (2007) with a high count of 19 on September 22, 2005. The main fall passage was normally the lighter fall passage but then there was 2004. This passage ran from September 22 (2004) to December 1 (2003, 2006) with an extension to December 22 in 2004. There were six "clustered" influxes. The first peaked on September 29 (2003, 2006) with a high count of 16 on September 29, 2006. The second peaked from October 12 (2007) to October 13 (2006) with a high count of 22 on October 13, 2006. The third is

indicated by a peak count of 15 on October 19, 2003. The fourth peaked from October 28 (2005) to October 31 (2004) with high counts of 13 on October 28, 2005 and 292 on October 31, 2004. The fifth peaked from November 3 (2006) to November 4 (2007) with a high count of 20 on November 3, 2006. The sixth peaked from November 16 (2007) to November 20 (2003, 2005) with high counts of 14 on November 17, 2006 and 385 on November 17, 2004. The latter is the highest count for Zellwood. Prior to 2004 the highest count for Zellwood was that of 93 on July 19, 2003 which means that the count of 150 on July 26, 2008 would have been the highest count for Zellwood if we had not had those hurricanes. The winter passage followed from November 25 (2005) to January 19 (2005), there were three “clustered” influxes. The first peaked from December 2 (2005) to December 3 (2003, 2006) with a high count of 18 on December 2, 2005. The second peaked from December 7 (2007) to December 10 (2006) with a high count of 16 on December 9, 2005. The third peaked from December 26 (2003) to December 31 (2006) with high counts of 14 on December 31, 2006 and 44 on December 27, 2004. Next came the early spring passage, this ran from January 4 (2008) to March 7 (2004), there were six “clustered” influxes. This was the lighter of the two spring passages. The first influx peaked from January 14 (2007) to January 15 (2008) with a high count of 14 on January 14, 2007. The second peaked from January 18 (2008) to January 22 (2006) with a high count of 18 on January 18, 2008. The third peaked from January 30 (2005) to February 4 (2008) with a high count of 29 on January 30, 2005. The fourth peaked from February 10 (2006) to February 16 (2005) with a high count of 19 on February 16, 2005. The fifth peaked from February 19 (2006) to February 20 (2008) with 14 on both dates. The sixth peaked from February 25 (2007) to February 29 (2008) with a high count of 16 on February 29, 2008. Finally there was the main spring passage, this ran from February 24 (2006) to May 22 (2005), there were eight “clustered” influxes. The first peaked from March 4 (2007) to March 8 (2006) with a high count of 29 on March 8, 2006. The second peaked from March 13 (2005) to March 15 (2008) with a high count of 20 on March 13, 2005. The third peaked from March 17 (2006) to March 20 (2005) with a high count of 47 on March 17, 2006. The fourth peaked from March 25 (2007) to March 28 (2008) with a high count of 41 on March 26, 2006. The fifth peaked from April 7 (2004) to April 11 (2008) with a high count of 22 on April 11, 2008. The sixth peaked from April 20 (2005) to April 25 (2004) with a high count of 59 on April 20, 2005. The seventh is indicated by a peak count of 24 on April 30, 2006. The eighth peaked from May 7 (2008) to May 9 (2007) with a high count of 38 on May 7, 2008. The Little Blue Heron had a total of 35 “clustered” influxes during a year whilst this species had 38, not that different.

Reddish Egret (*Egretta rufescens*)

This is a real vagrant. It rarely comes inland from the coast. There was an immature dark morph at the Lust Road pump house on May 10, 2004. It flew off to the east. This is only the second record for Zellwood. The other sighting was on March 21, 2000.

Cattle Egret (*Bubulcus ibis*)

This became a common breeding species but numbers are now dropping with the cessation of mowing and roller-chopping. It is also a resident, a passage migrant with a major post-breeding gathering. The latter will decline in size as the breeding population drops. In 2005 there were four pairs near the end of Lust Road. In 2006 there were over 250 pairs on the southern border. In 2007 there were 380 pairs at that site with five pairs near the end of Lust Road. In 2008 the population started to decline, there were 300 pairs. Many pairs raised two young each year. An immature was seen out in the fields on May 16, 2004, that is a very early date. The only other record of immatures in the fields relates to July 11, 2005. Finally for the nesting season there were still two young in a nest on September 2, 2007. As mentioned under Little Blue Heron there was what appeared to be a hybrid Little Blue Heron x Cattle Egret by Fish Ponds Road on July 31, 2005, August 3, 2005 and August 7, 2005, photographs were taken. I have attempted as best I can to separate out the various seasons. I treat the summer passage as running from April 14 (2006) to June 5 (2005) with a high count of 665 on May 5, 2004. The post-breeding gathering appears to be an extended event from June 6 (2004, 2008) to September 1 (2006) with a high count of 3,660 on July 16, 2006. To detail the 2006 influxes, there were 510 on June 8 with 605 on June 11, 650 on June 14, 850 on June 16, 1,110 on June 19 and 1,805 on June 23, then 1,600 seen on June 25 with 1,500 on June 28 and 1,200 on June 30. There were 2,400 on July 2 with 3,070 on July 10, 3,150 on July 14 and 3,660 on July 16, then 3,550 seen on July 19 with 3,200 on July 21, 2,640 on July 23 and 2,150 on July 26. There were 2,450 on July 28 with 2,700 on July 30, then 1,670 seen on August 2. There were 2,150 on August 4 with 2,400 on August 6 and 2,500 on August 8, then 2,330 seen on August 13 with 2,250 on August 16, 2,200 on August 18, 1,400 on August 20, 1,200 on August 25, 800 on August 30 and 720 on September 1. The gradual decline in numbers in the last influx was a good indicator that the passage was coming to an end. There appeared to be a single fall passage from August 15 (2007) to November 30 (2005). There was a strong passage through October but numbers were significantly lower in November. The highest counts were in 2004 with 4,150 on October 3 and 6,400 on September 16. To detail the 2004 influxes, there were 1,530 on August 16 with 705 on August 19. There were 1,045 on August 22 with 1,130 on August 26, then 1,110 seen on August 29 with 835 on September 1, 650 on September 9 and 510 on September 12. There were 6,400 on September 16 with 3,200 on September 22 and

1,690 on September 28. There were 4,150 on October 3 with 3,500 on October 6, 1,050 on October 13, 520 on October 21 and 405 on October 24. In that year the main passage was over in mid-October. There were 850 on October 27 with 620 on November 3 and 385 on November 7. There were 670 on November 10 with 885 on November 14, then 430 seen on November 17 with 205 on November 21. The winter passage ran from November 23 (2004) to January 5 (2007) with a high count of 1,840 on December 28, 2003. The early spring passage followed from January 2 (2005, 2008) to March 6 (2005) with a high count of 1,255 on February 22, 2004. Finally there was the main spring passage, this ran from February 27 (2006) to April 27 (2008) with a high count of 1,400 on April 7, 2004.

The summer passage ran from April 14 (2006) to June 5 (2005), there were six "clustered" influxes. The first peaked from April 19 (2007) to April 24 (2005) with a high count of 235 on April 24, 2005. The second peaked from May 2 (2008) to May 5 (2004) with a high count of 665 on May 5, 2004. The third peaked from May 9 (2008) to May 10 (2006) with a high count of 440 on May 10, 2006. The fourth is indicated by a peak count of 455 on May 16, 2007. The fifth peaked from May 24 (2006) to May 30 (2004) with a high count of 630 on May 24, 2006. The sixth is indicated by a peak count of 145 on June 5, 2005. There was an extended post-breeding gathering from June 6 (2004, 2008) to September 1 (2006), there were nine "clustered" influxes. The first peaked from June 6 (2008) to June 8 (2007) with a high count of 490 on June 8, 2007. The second is indicated by a peak count of 1,650 on June 16, 2004. The third peaked from June 25 (2008) to June 26 (2005) with a high count of 1,300 on June 25, 2008. The fourth peaked from July 4 (2007) to July 9 (2008) with a high count of 1,200 on July 9, 2008. The fifth peaked from July 14 (2004) to July 16 (2006) with high counts of 2,490 on July 14, 2004 and 3,660 on July 16, 2006. The sixth peaked from July 22 (2007) to July 24 (2004) with a high count of 1,900 on July 24, 2004. The seventh peaked from July 30 (2006, 2008) to August 4 (2004) with high counts of 2,100 on August 3, 2005 and 2,700 on July 30, 2006. The eighth is indicated by a peak count of 2,500 on August 8, 2006. The ninth peaked from August 15 (2005) to August 16 (2004) with a high count of 1,530 on August 16, 2004. There was a single fall passage and this ran from August 15 (2007) to November 30 (2005), again there were nine "clustered" influxes. The heaviest passage was over by the end of October. The first peaked from August 24 (2003) to September 2 (2007) with a high count of 1,330 on August 24, 2003. The second peaked from September 10 (2003) to September 16 (2004) with high counts of 550 on September 10, 2003 and 6,400 on September 16, 2004. The latter is the highest count for Zellwood. The third peaked from September 21 (2003, 2007) to September 23 (2006) with a high count of 2,245 on September 23, 2006. The fourth peaked from October 2 (2005) to October 5 (2003) with high counts of 1,070 on October 3, 2007 and 4,150 on October 3, 2004. The fifth is indicated by a peak count of 790 on October 12, 2007. The sixth peaked from October 26 (2003) to October 28 (2005) with a high count of 1,860 on October 26, 2003. The seventh peaked from November 7 (2007) to November 9 (2003) with a high count of 775 on

November 7, 2007. The eighth peaked from November 11 (2005) to November 15 (2006) with a high count of 910 on November 11, 2005. The ninth peaked from November 20 (2003) to November 24 (2006) with a high count of 1,050 on November 24, 2006. The winter passage followed from November 23 (2004) to January 5 (2007), there were five “clustered” influxes. The first peaked from November 30 (2007) to December 1 (2004, 2006) with a high count of 805 on December 1, 2006. The second peaked from December 5 (2007) to December 7 (2003, 2004) with a high count of 810 on December 7, 2003. The third peaked from December 11 (2005) to December 14 (2007) with a high count of 1,065 on December 11, 2005. The fourth peaked from December 22 (2004) to December 23 (2005) with a high count of 575 on December 22, 2004. The fifth peaked from December 28 (2003) to December 31 (2006) with high counts of 600 on December 31, 2006 and 1,840 on December 28, 2003. Next came the early spring passage, this ran from January 2 (2005, 2008) to March 6 (2005), there were five “clustered” influxes. The first peaked from January 4 (2006, 2008) to January 9 (2005) with a high count of 750 on January 4, 2006. The second peaked from January 14 (2004) to January 19 (2007) with high counts of 460 on January 18, 2006 and 1,250 on January 14, 2004. The third peaked from January 23 (2008) to January 27 (2006) with a high count of 600 on January 27, 2006. The fourth peaked from February 2 (2005) to February 8 (2006) with a high count of 535 on February 2, 2005. The fifth peaked from February 17 (2006) to February 23 (2005) with high counts of 530 on February 23, 2005 and 1,255 on February 22, 2004. Finally we come to the main spring passage, this ran from February 27 (2006) to April 27 (2008), there were six “clustered” influxes. The first peaked from February 28 (2007) to March 4 (2006) with a high count of 270 on March 2, 2008. The second peaked from March 7 (2004, 2007) to March 10 (2006) with a high count of 305 on March 7, 2004. The third peaked on March 16 (2005, 2007) with a high count of 385 on March 16, 2005. The fourth peaked from March 24 (2004, 2005, 2006) to March 26 (2008) with a high count of 630 on March 24, 2005. The fifth peaked from April 7 (2004) to April 11 (2007) with high counts of 300 on April 11, 2007 and 1400 on April 7, 2004. The sixth is indicated by a peak count of 98 on April 15, 2008. There were 40 “clustered” influxes.

Green Heron (*Butorides virescens*)

This is a resident, a passage migrant and in three of the five years there was a significant post-breeding gathering (2004, 2005 and 2008). It was an early nester with the first fledged young being seen on May 5 (2004). There were 38 pairs in 2004; I do not have any information for the later years. It nested in the vegetated canals, the Lake Level Canal and the shore of Lake Apopka. With the advent of Phase One it started nesting throughout that 1 ½ square mile area. During the breeding season once Phase One was flooded adults were flying in from Duda to

feed and once their young fledged they were brought to Phase One. The breeding season ran from March 2 (2005) to May 14 (2004) with a high count of 47 on March 20, 2005. The post breeding gathering followed. In this instance there appeared to be two separate events. The first event ran from May 14 (2006, 2008) to July 14 (2004) with a high count of 162 on June 20, 2008. The second event ran from July 6 (2008) to August 15 (2004, 2005) with a high count of 173 on July 9, 2008. I am detailing the influxes for both events from 2008; there were 36 on May 14 with 45 on May 16 and 75 on May 20, then 59 seen on May 23. There were 66 on May 25 with 70 on May 30, 100 on June 1, 104 on June 6, 114 on June 8, 143 on June 15 and 162 on June 20, then 133 seen on June 27 with 126 on June 29 and 77 on July 2. There were 113 on July 6 with 173 on July 9, then 108 seen on July 13 with 98 on July 16. There were 127 on July 19 with 153 on July 21, then 71 seen on July 24 with 70 on July 26, 56 on July 27, 53 on July 30, 39 on August 3, 31 on August 6, 27 on August 10 and 24 on August 13. Again the gradual decline in numbers indicated the end of a passage. In 2004 a single influx covered the whole of the first event. To detail that influx, there were 17 on May 16 with 20 on May 20, 26 on May 23, 66 on May 30, 78 on June 9, 82 on June 16 and 83 on June 23, then 79 seen on July 2 with 66 on July 4, 41 on July 11 and 38 on July 14. I have included this influx because during this one influx a roost formed in the scrub by the Sand Farm Bridge. I am not sure when the roost started but there were 56 on June 16 and June 20 with 63 on June 23 and 72 on July 2. Some individuals left with the first glimmer of light. Luckily they called on taking off so I was able to get a better count of the numbers involved. Back to the passage, there was an early fall passage, this ran from August 12 (2007) to October 23 (2005) with high counts of 41 on September 7, 2005 and 236 on August 16, 2004. On August 15, 2004 only ten seen with the 236 on August 16, then 51 seen on August 22 with 29 on August 26 and six on September 1. This appears to be tied in with Hurricane Charley. The late fall passage ran from October 13 (2006) to November 30 (2005) with a high count of 21 on November 27, 2005. There was no late fall passage in 2007, just three to six in the area with seven on November 9. The winter passage ran from November 26 (2006) to January 16 (2005) with a high count of 19 on December 16, 2004. In 2007 there was only passage from December 14 to January 2, 2008. This and the late fall passage were the lightest events of the year. There was a single spring passage and that ran from January 12 (2007) to March 4 (2006, 2007) with a high count of 33 on February 23, 2004. There was no passage in 2008 with up to five a day present from January 4 to January 30, then nine seen on February 1. There were six a day from February 4 to February 12 with one to five a day through to March 4.

Seen in the breeding season from March 2 (2005) to May 14 (2004), there were eight "clustered" influxes. The first peaked from March 13 (2005) to March 15 (2008) with a high count of 39 on March 13, 2005. The second peaked from March 19 (2006) to March 20 (2005) with a high count of 47 on March 20, 2005. The third peaked from March 26 (2008) to March 30 (2005) with a high count of 33 on March 30, 2005. The fourth peaked from April 4 (2007) to

April 7 (2004) with a high count of 26 on April 7, 2004. The fifth peaked from April 11 (2008) to April 13 (2007) with a high count of 27 on April 11, 2008. The sixth peaked from April 19 (2006) to April 24 (2007) with a high count of 34 on April 20, 2008. The seventh peaked from April 30 (2005) to May 5 (2006) with a high count of 36 on May 2, 2004. The eighth is indicated by a peak count of 21 on May 13, 2007. The post-breeding gathering came next. This appeared to be two separate events. The first event ran from May 14 (2006, 2008) to July 14 (2004), there were five "clustered" influxes. The first peaked from May 19 (2006) to May 20 (2008) with a high count of 75 on May 20, 2008. The next two influxes are indicated by isolated peak counts of 30 on May 30, 2007 and 30 on June 8, 2006. The fourth peaked from June 19 (2005) to June 23 (2004) with high counts of 83 on June 23, 2004, 131 on June 19, 2005 and 162 on June 20, 2008. The fifth peaked from June 27 (2007) to July 2 (2006) with a high count of 65 on July 2, 2006. The second event ran from July 6 (2008) to August 15 (2004, 2005), there were four "clustered" influxes. The first peaked from July 9 (2008) to July 13 (2007) with high counts of 85 on July 11, 2005 and 173 on July 9, 2008. The second peaked from July 18 (2004) to July 22 (2007) with high counts of 50 on July 18, 2004 and 153 on July 21, 2008. The third is indicated by a peak count of 45 on July 26, 2006. The fourth peaked from August 3 (2005, 2007) to August 9 (2004) with a high count of 72 on August 3, 2005. The early fall passage ran from August 12 (2007) to October 23 (2005), there were six "clustered" influxes. The first peaked from August 15 (2007) to August 20 (2006) with high counts of 24 on August 20, 2006 and 236 on August 16, 2004. The latter was the highest count during the first ten years of the survey. The second is indicated by a peak count of 23 on September 1, 2006. The third peaked from September 7 (2003, 2005) to September 12 (2004) with a high count of 41 on September 7, 2005. The fourth peaked from September 22 (2004) to September 23 (2007) with a high count of 21 on September 22, 2004. The fifth peaked from September 29 (2006) to October 5 (2003) with a high count of 14 on September 29, 2006. The sixth is indicated by a peak count of ten on October 12, 2007. This was followed by the late fall passage, this ran from October 13 (2006) to November 30 (2005), there were six "clustered" influxes. The first peaked from October 20 (2006) to October 26 (2005) with high counts of 13 on October 26, 2005 and October 20, 2006. The second is indicated by a peak count of nine on November 1, 2006. The third peaked from November 7 (2004, 2005) to November 9 (2007) with a high count of 14 on November 7, 2004 and November 7, 2005. The fourth peaked from November 13 (2005) to November 16 (2003) with a high count of 14 on November 13, 2005. The fifth peaked from November 19 (2006) to November 21 (2004) with a high count of 13 on November 21, 2004. The sixth is indicated by a peak count of 21 on November 27, 2005. Next came the winter passage this ran from November 26 (2006) to January 16 (2005), there were again six "clustered" influxes. The first is indicated by a peak count of nine on December 1, 2006. The second peaked from December 7 (2003) to December 9 (2005) with a high count of 18 on December 9, 2005. The third peaked from December 14 (2007) to December 16 (2004) with a high count of 19 on December 16, 2004. The fourth

peaked from December 21 (2003) to December 23 (2005) with a high count of 15 on December 23, 2005. The fifth peaked from December 28 (2007) to December 31 (2003) with a high count of ten on December 30, 2005. The sixth peaked from January 3 (2007) to January 6 (2005, 2006) with a high count of 17 on January 6, 2005. Finally the spring passage ran from January 12 (2007) to March 4 (2006, 2007), there were five “clustered” influxes. The first peaked from January 14 (2004) to January 16 (2007) with a high count of ten on January 16, 2007. The second peaked from January 21 (2004) to January 26 (2007) with a high count of ten on January 26, 2007. The third peaked from January 30 (2005) to February 1 (2008) with a high count of 20 on January 30, 2005. The fourth peaked from February 7 (2007) to February 10 (2006) with a high count of 20 on February 8, 2005. The fifth peaked from February 23 (2004) to February 27 (2006) with a high count of 33 on February 23, 2004. This species had a total of 40 “clustered” influxes for the year.

Black-crowned Night-Heron (*Nycticorax nycticorax*)

This species is a resident, a passage migrant and a winter visitor. There is no post-breeding gathering. It is a nocturnal species and therefore likely to be under-counted. This species nests at Duda and may well have bred in the survey area but I have so far failed to locate a nest. It is likely to have nested in the mixed colony on the southern border and in the north-west corner of Phase Two with the ibis. As there was no post-breeding gathering the summer covered an extended period from April 30 (2008) to September 12 (2004), the highest count was that of 58 on May 18, 2008. In two of the five years a single influx ran from May to early July. In 2004 this influx ran from May 14 to July 4 with a peak count of five on June 9. In 2007 it ran from May 4 to July 1 with a peak count of 18 on May 13. This period was also significant in 2008 as the numbers were lower after the end of June. To detail the 2008 influxes, there were 21 on April 30 with 39 on May 2, then 33 seen on May 7 with 30 on May 9. There were 48 on May 11 with 58 on May 18, then 40 seen on May 20 with 33 on May 23 and 27 on May 25. There were 34 on May 28 with 41 on June 1, then 40 seen on June 4 with 14 on June 6 and 13 on June 8. There were 26 on June 11 with 25 on June 13 and 13 on June 18. There were 26 on June 20 with 25 on June 22, 14 on June 27 and nine on June 29. There were 11 on July 2 with 12 on July 6, then ten seen on July 11 with eight on July 13. There were 26 on July 16 with 13 on July 19 and one on July 21. There were three on July 4 with eight on July 26 and ten on August 1, then six seen on August 3 with one on August 8. Finally there were three on August 10 with five on August 13, the end of the survey year. The fall passage ran from August 31 (2005) to December 2 (2005) with an extension to December 22 in 2004. The highest counts were of 208 on October 13, 2004 and 124 on November 28, 2004. Excluding the hurricane year the highest count was that of 39 on September 21, 2006. The winter passage followed from

November 24 (2006) to January 6 (2006) with an extension to January 16, 2005. When a passage over-runs the following event normally is shorter as it tends to end at approximately the same time as the passage in the other years. In 2004 the fall passage over-ran to December 22 and exceptionally the winter passage did likewise with the passage not ending until January 16, 2005. The highest count was that of 70 on December 15, 2006. To detail the 2006 influxes, there were 18 on December 6 with 26 on December 8, 40 on December 13 and 70 on December 15, then 31 seen on December 17. There were 58 on December 20 with 62 on December 22, then 25 seen on December 27 with 23 on December 29 and 19 on December 31. The early spring passage ran from January 3 (2007) to March 6 (2005) with a high count of 32 on February 1, 2008. The main spring passage was significantly stronger, the passage ran from February 29 (2008) to May 15 (2005) with a high count of 44 on April 6, 2005.

The summer passage covered an extended period, it ran from April 30 (2008) to September 12 (2004), there were 11 "clustered" influxes. The first peaked from May 2 (2008) to May 7 (2006) with a high count of 39 on May 2, 2008. The second is indicated by a peak count of 18 on May 13, 2007. The third peaked from May 17 (2006) to May 22 (2005) with a high count of 58 on May 18, 2008. The fourth peaked from May 31 (2006) to June 1 (2008) with a high count of 41 on June 1, 2008. The fifth peaked from June 9 (2004) to June 11 (2006, 2008) with a high count of 26 on June 11, 2008. The sixth peaked from June 30 (2006) to July 3 (2005) with a high count of 21 on June 30, 2006. The seventh peaked from July 16 (2008) to July 22 (2007) with a high count of 26 on July 16, 2008. The eighth peaked from July 30 (2006) to August 5 (2007) with a high count of 20 on August 5, 2007. The ninth peaked from August 11 (2006) to August 13 (2008) with a high count of seven on August 11, 2006. The tenth peaked from August 20 (2003) to August 24 (2007) with a high count of 16 on August 24, 2007. The 11th is indicated by a peak count of 17 on September 1, 2006. There was a single fall passage and this ran from August 31 (2005) to December 2 (2005) with an extension to December 22 in 2004, there were nine "clustered" influxes. The first is indicated by a peak count of 18 on September 9, 2007. The second peaked from September 21 (2003, 2006) to September 23 (2007) with a high count of 39 on September 21, 2006. The third peaked from October 1 (2006) to October 5 (2003) with a high count of 23 on October 1, 2006. The fourth peaked on October 13 (2004, 2006) with high counts of 20 on October 13, 2006 and 208 on October 13, 2004. The latter is still the highest count for Zellwood. The fifth peaked from October 19 (2005, 2007) to October 22 (2003) with a high count of 17 on October 19, 2007. The sixth peaked from October 26 (2007) to October 29 (2006) with a high count of 18 on October 29, 2006. The seventh peaked from November 2 (2007) to November 5 (2003) with a high count of 11 on November 2, 2007. The eighth peaked from November 11 (2005, 2007) to November 12 (2006) with a high count of 25 on November 12, 2006. The ninth peaked from November 21 (2007) to November 28 (2004) with high counts of 13 on November 21, 2007 and 124 on November 28, 2004. Both of the highest counts came from 2004, after the hurricanes. This will all be detailed in a special section

after Glossy Ibis. The winter passage ran from November 24 (2006) to January 6 (2006) with an extension to January 16 in 2005, there were five “clustered” influxes. The first peaked from December 1 (2006) to December 4 (2005) with a high count of 25 on December 1, 2006. The second peaked from December 7 (2007) to December 9 (2003) with a high count of 19 on December 7, 2007. The third is indicated by a peak count of 70 on December 15, 2006. The fourth peaked from December 20 (2003) to December 22 (2006) with high counts of 50 on December 21, 2007 and 62 on December 22, 2006. The fifth peaked from December 27 (2004) to December 30 (2005) with a high count of 67 on December 27, 2004. The early spring passage ran from January 3 (2007) to March 6 (2005), there were seven “clustered” influxes. The first peaked from January 4 (2004) to January 8 (2006) with a high count of 29 on January 5, 2007. The second peaked from January 14 (2004) to January 16 (2007, 2008) with a high count of 26 on January 16, 2007. The third peaked from January 22 (2006) to January 26 (2005) with a high count of 13 on January 26, 2005. The fourth peaked from January 29 (2006) to February 1 (2008) with a high count of 32 on February 1, 2008. The fifth peaked from February 11 (2004) to February 13 (2005) with a high count of 24 on February 12, 2008. The sixth peaked from February 18 (2007) to February 20 (2008) with a high count of 20 on February 20, 2008. The seventh is indicated by a peak count of five on February 27, 2006. The main spring passage was by far the stronger of the two spring passages. It ran from February 29 (2008) to May 15 (2005), there were seven “clustered” influxes. The first is indicated by a peak count of 11 on March 4, 2007. The second peaked from March 11 (2007) to March 15 (2008) with a high count of 32 on March 15, 2008. The third is indicated by a peak count of 25 on March 22, 2006. The fourth peaked from March 30 (2007, 2008) to March 31 (2004) with a high count of 35 on March 30, 2007. The fifth peaked from April 6 (2005) to April 8 (2007) with a high count of 44 on April 6, 2005. The sixth peaked from April 13 (2008) to April 14 (2006) with a high count of 43 on April 13, 2008. The seventh peaked from April 21 (2007) to April 25 (2004, 2006) with a high count of 35 on April 21, 2007. There were 39 “clustered” influxes.

Yellow-crowned Night-Heron (*Nyctanassa violacea*)

A summer visitor and passage migrant, this species probably nests at Duda with some of them feeding by the Lake Level Canal. They were also seen from 2008 in Phase One. To date breeding has not been confirmed at Zellwood. There were no winter records. There were two early spring records. There was an adult at the Lake Level Canal from January 15, 2006 to February 14, 2006. There was another adult on February 12, 2008. In 2006 there were some sightings in early March. There was one on March 1 with it or another from March 10 to March 19. There was a spring passage and this ran from March 31 (2004) to May 12 (2006) with a high count of 27 on April 25, 2006. To detail the 2006 influxes, there were six on April 14 with 22 on

April 19, then 12 seen on April 21 with eight on April 23. There were 27 on April 25 with 19 on April 30 and 13 on May 5. There were 26 on May 7 with ten on May 10 and six on May 12. There was no post-breeding gathering so the summer covers the period from May 13 (2007) to August 15 (2004) with a high count of 21 on June 6, 2004. There was an early fall passage from August 7 (2005) to October 6 (2004) with high counts of six on September 9, 2004 and September 13, 2006. There were sightings through October and November but passage was very limited. This event ran from September 30 (2007) to November 11 (2007) with a high count of three on October 11, 2004. Finally there was an adult on November 27, 2005.

In the early spring there was an adult at the Lake Level Canal from January 15, 2006 to February 14, 2006. There was also an adult on February 12, 2008 at the Sand Farm. There were some early March records in 2006. There was one on March 1 with it or another from March 10 to March 19. The main spring passage ran from March 31 (2004) to May 12 (2006), there were six "clustered" influxes. The first peaked from March 31 (2004) to April 4 (2007) with a high count of three on April 4, 2007. The second peaked from April 10 (2005) to April 15 (2007) with a high count of two on April 10, 2005. The third peaked from April 19 (2006) to April 20 (2008) with high counts of nine on April 20, 2008 and 22 on April 19, 2006. The fourth peaked from April 24 (2005) to April 25 (2004, 2006) with high counts of six on April 25, 2004 and 27 on April 25, 2006. The latter is still the highest count for Zellwood. The fifth peaked from April 30 (2008) to May 1 (2005) with a high count of six on April 30, 2008. The sixth peaked from May 7 (2006) to May 10 (2004) with high counts of three on May 10, 2004 and 26 on May 7, 2006. The summer passage covered an extended period from May 13 (2007) to August 15 (2004), there were ten "clustered" influxes. The first peaked from May 13 (2007) to May 14 (2006, 2008) with a high count of 13 on May 14, 2006. The second peaked from May 27 (2007) to May 28 (2008) with a high count of seven on May 27, 2007. The third peaked from June 6 (2004) to June 11 (2008) with a high count of 21 on June 6, 2004. The fourth is indicated by a peak count of seven on June 20, 2008. The fifth peaked from June 25 (2006) to June 28 (2004) with four on both dates. The sixth peaked from July 2 (2008) to July 4 (2007) with a high count of seven on July 4, 2007. The seventh is indicated by a peak count of two on July 14, 2006. The eighth peaked from July 20 (2005) to July 21 (2006) with a high count of three on July 20, 2005. The ninth peaked from July 29 (2007) to August 1 (2008) with two on both dates. The tenth peaked from August 4 (2004) to August 6 (2006) with a high count of five on August 4, 2004. Next came the early fall passage, this ran from August 7 (2005) to October 6 (2004), there were five "clustered" influxes. The first peaked from August 7 (2005) to August 10 (2007) with a high count of two on August 7, 2005. The second peaked from August 15 (2005) to August 16 (2004) with a high count of three on August 15, 2005. The third peaked from August 28 (2005) to September 3 (2003) with a high count of three on August 31, 2007. The fourth peaked from September 9 (2004) to September 13 (2006) with six on both dates. The fifth peaked from September 22 (2004) to September 23 (2007) with one on both dates. The late fall passage was a minimal event it ran from September

30 (2007) to November 11 (2007), there were indications of four “clustered” influxes. The first peaked from October 2 (2003) to October 7 (2007) with two on both dates. The second peaked from October 11 (2004) to October 13 (2006) with a high count of three on October 11, 2004. Now we are down to individual sightings or influxes. There was one from October 31, 2004 to November 3, 2004 with another on November 11, 2007. Finally there was a late adult on November 27, 2005.

White Ibis (*Eudocimus albus*)

This species is a resident, a passage migrant and a winter visitor. This species prefers grassed fields with shallow water, it is very social and will form mixed species flocks. They are reluctant to take flight but on doing so they form into long strings rather than the rounded flocks favored by most other species. This species will have bred in the survey area at the southern border but the nests will have been so far back in the willows that I have no clear idea of the number of pairs. My guess is that there were five to ten pairs a year. The earliest date I have for a juvenile out in the fields is that of June 6 (2004). It was easy to identify the individual influxes and it was easy to identify the “clustered” influxes but it is very hard to identify the various passages. I think the summer passage ran from April 23 (2004, 2006) to June 11 (2006, 2008) with high counts of 1,800 on April 25, 2004 and 1,480 on May 14, 2004. Excluding 2004 the highest count was that of 190 on June 4, 2006. This was the quietest event of the year. In the fall there appeared to be three separate events. I do not see a post-breeding gathering so the first event has to be the early fall passage. This was an extended event running from May 29 (2005) to September 4 (2005) with a high count of 1,200 on July 19, 2008. The heaviest passage was in July and early August. This was followed by the central fall passage, this ran from August 24 (2007) to October 23 (2005) with a high count of 790 on September 16, 2004. The highest counts in this event climbed from late August to mid-September and they then fell to mid-October. There now was a much stronger main fall passage from October 6 (2004) to December 1 (2003) as the highest counts were 2,400 on October 27, 2004 and 5,650 on November 17, 2004. Excluding 2004 the highest count was that of 685 on November 11, 2007. The winter passage ran from November 27 (2005) to January 14 (2004) with high counts of 935 on December 31, 2006 and 5,730 on December 7, 2004. If I purely used the highest counts to decide the passages then the winter passage would have continued to February 13 (2005). The early spring passage ran from January 9 (2005) to March 10 (2005) with a high count of 555 on January 12, 2007. Finally there was the main spring passage, this ran from February 22 (2008) to April 25 (2008) with high counts of 5,970 on March 30, 2005 and 4,310 on April 7, 2004. To detail the 2004 influx, there were 68 on March 3 with 72 on March 7, 97 on March 10, 120 on March 14, 231 on March 19, 451 on March 28, 700 on March 31 and 4,310 on April 7, then

1,510 seen on April 18 with 40 on April 21, a typical type 1 influx. To detail the 2005 influx, there were 143 on March 13 with 750 on March 16, 980 on March 20, 1,320 on March 24, 2,510 on March 27 and 5,970 on March 30, then 330 seen on April 3 with 260 on April 10, 130 on April 17, 110 on April 20 and 33 on April 24. Whilst this is a type 1 influx with that rapid departure it has more the look of a type 3 influx.

The summer passage appears to run from April 23 (2004, 2006) to June 11 (2006, 2008), there were five “clustered” influxes. This was the weakest event of the year. The first peaked from April 23 (2006) to April 25 (2004) with high counts of 143 on April 23, 2006 and 1,800 on April 25, 2004. The second peaked from May 1 (2005) to May 2 (2008) with a high count of 100 on May 1, 2005. The third peaked from May 7 (2007) to May 9 (2008) with a high count of 155 on May 7, 2007. The fourth peaked from May 14 (2004) to May 17 (2006) with high counts of 157 on May 17, 2006 and 1,480 on May 14, 2004. The fifth peaked on June 4 (2006, 2008) with a high count of 190 on June 4, 2006. I have no idea as to what the two very high counts represent. The early fall passage ran from May 29 (2005) to September 4 (2005), there were nine “clustered” influxes. The first peaked from June 13 (2007) to June 16 (2004) with a high count of 540 on June 16, 2004. The second peaked from June 19 (2006) to June 20 (2008) with a high count of 240 on June 20, 2008. The third peaked from July 4 (2007) to July 6 (2005, 2008) with high counts of 670 on July 6, 2008 and 1,180 on July 5, 2006. The fourth peaked from July 13 (2007) to July 14 (2004) with a high count of 200 on July 14, 2004. The fifth peaked from July 19 (2008) to July 23 (2006) with high counts of 1,035 on July 20, 2005, 1,110 on July 23, 2006 and 1,200 on July 19, 2008. The sixth peaked from July 29 (2007) to August 6 (2006) with a high count of 950 on August 3, 2008. The seventh peaked from August 15 (2004, 2005) to August 17 (2007) with a high count of 760 on August 15, 2004. The eighth peaked from August 18 (2006) to August 21 (2005) with a high count of 545 on August 20, 2003. The ninth peaked from August 25 (2006) to August 26 (2004) with a high count of 280 on August 25, 2006. The central fall passage followed from August 24 (2007) to October 23 (2005), there were six “clustered” influxes. Note the rise and fall in the numbers. The first peaked from August 29 (2007) to September 1 (2003, 2006) with a high count of 325 on August 29, 2007. The second peaked from September 5 (2007) to September 7 (2005) with a high count of 655 on September 5, 2007. The third peaked from September 15 (2006) to September 16 (2004, 2007) with a high count of 790 on September 16, 2004. The fourth is indicated by a peak count of 100 on September 22, 2005. This will have been a basic influx and is therefore discounted when noting the overall decline in numbers. The fifth peaked from September 29 (2003) to October 4 (2006) with a high count of 460 on September 30, 2007. The sixth peaked from October 11 (2006) to October 15 (2003) with a high count of 240 on October 11, 2006. There now appears to be an extra fall passage from October 6 (2004) to December 1 (2003), there were four “clustered” influxes. I am describing this as the main fall passage. The first influx peaked from October 25 (2006) to October 27 (2004) with high counts of 520 on October 26, 2007 and 2,400 on October 27, 2004.

The second peaked from November 7 (2005) to November 11 (2007) with a high count of 685 on November 11, 2007. The third peaked from November 15 (2005) to November 17 (2004) with high counts of 221 on November 15, 2005 and 5,650 on November 17, 2004. The fourth peaked from November 20 (2003) to November 23 (2007) with a high count of 495 on November 23, 2007. Even after one takes out the hurricane induced passage of 2004 this was clearly a separate event. The winter passage ran from November 27 (2005) to January 14 (2004), there were five “clustered” influxes. The first peaked from November 29 (2006) to December 3 (2003) with a high count of 870 on November 29, 2006. The second peaked from December 7 (2004, 2005) to December 10 (2006) with high counts of 620 on December 10, 2006 and 5,730 on December 7, 2004. The third peaked from December 21 (2007) to December 23 (2005) with a high count of 880 on December 22, 2006. The fourth peaked from December 27 (2004) to December 31 (2006) with a high count of 935 on December 31, 2006. The fifth is indicated by a peak count of 322 on January 4, 2006. Next came the early spring passage, this ran from January 9 (2005) to March 10 (2005), there were seven “clustered” influxes. The first peaked from January 9 (2005) to January 12 (2007) with a high count of 555 on January 12, 2007. The second peaked from January 21 (2004) to January 23 (2008) with a high count of 260 on January 23, 2008. The third peaked from January 30 (2008) to February 2 (2005) with 180 on both dates. The fourth peaked from February 5 (2006) to February 6 (2008) with a high count of 182 on February 5, 2006. The fifth peaked from February 14 (2007) to February 16 (2004) with a high count of 445 on February 14, 2007. The sixth peaked from February 19 (2006) to February 21 (2007) with a high count of 288 on February 21, 2007. The seventh peaked from February 27 (2004) to February 28 (2005) with a high count of 175 on February 27, 2004. Finally there was the main spring passage, this ran from February 22 (2008) to April 25 (2008), there were six “clustered” influxes. The first peaked on March 4 (2006, 2008) with a high count of 700 on March 4, 2008. The second peaked from March 9 (2007) to March 15 (2006) with a high count of 575 on March 15, 2006. The third peaked from March 23 (2007) to March 26 (2006, 2008) with a high count of 375 on March 26, 2006. The fourth is indicated by a peak count of 5,970 on March 30, 2005. This was the highest count during the first ten years of the survey. It is unusual for a high count such as this not to fit into an influx. The fifth peaked from April 4 (2008) to April 7 (2004) with high counts of 520 on April 4, 2008 and 4,310 on April 7, 2004. The sixth peaked from April 11 (2008) to April 15 (2007) with a high count of 450 on April 15, 2007. This late March early April passage is not noted in the literature. I believe that the influxes are correct it is just the timing of the various passages that troubles me. There were 42 “clustered” influxes.

Glossy Ibis (*Plegadis falcinellus*)

A summer resident, a passage migrant and a winter visitor, nesting in the survey area is very limited with most pairs nesting at Duda. In 2005 there were four pairs on a series of small islands north of Lust Road with another two pairs on an island at the end of Lust Road. Two of the pairs each raised two young; I do not know how the other pairs fared. In 2007 there was at least one pair at the southern border, success not known. The summer passage appears to run from April 30 (2008) to July 17 (2005) with a high count of 600 on June 20, 2008. This was followed by a post-breeding gathering that ran from June 29 (2008) to August 6 (2006) with a high count of 2,310 on July 6, 2008. There were also high counts of 1,250 on July 19, 2008 and 1,510 on July 19, 2006. The influx of 2006 show this well, there were 250 on June 19 with 265 on June 21, 307 on June 23, 550 on June 28, 740 on June 30, 1,070 on July 2, 1,270 on July 5, 1,320 on July 12, 1,420 on July 14 and 1,510 on July 19, then 1,360 seen on July 23 with 1,130 on July 26, 560 on July 30, 205 on August 2, 95 on August 4 and 85 on August 6. Just one influx covered the whole event. The early fall passage ran from July 20 (2007) to September 28 (2004) with a high count of 650 on August 6, 2008. The main fall passage followed from September 21 (2003, 2007) to November 25 (2005) with an extension to December 30 in 2004 i.e. the fall passage in 2004 engulfed the whole of the winter passage, thanks to the hurricanes. The highest counts were: 1,290 on November 25, 2007, 1,360 on October 6, 2004 and 3,825 on December 1, 2004. The date December 1 fits into the first influx of the winter passage but as this influx started on October 21, 2004 it is included in the fall passage. The fall passage was also unusual in that the passage grew stronger as the season progressed, the influxes for 2007 show this well. There were 15 on September 21 with 18 on September 23, then two seen on September 26. There were 12 on September 28 with 42 on September 30, 120 on October 5, 255 on October 10 and 355 on October 12, then one seen on October 14, a type 3 influx. There were 120 on October 17 with 200 on October 19, 280 on October 21 and 390 on October 26, then 380 seen on October 31 with 290 on November 2 and 265 on November 4. There were 400 on November 7 with 565 on November 9 and 835 on November 11, then 430 seen on November 14 with 260 on November 16. There were 750 on November 18 with 985 on November 21, 1,260 on November 23 and 1,290 on November 25, then 1,250 seen on November 28 with 1,130 on November 30 and 765 on December 2. The winter passage ran from November 26 (2006) to January 6 (2008) with a high count of 1,380 on December 9, 2007. The winter passage in 2004 was covered up by the declining fall passage. Next came the early spring passage, this ran from January 1 (2006) to March 9 (2007) with a high count of 1,000 on January 5, 2007. Finally there was the main spring passage, this ran from February 29 (2008) to May 5 (2006) with a high count of 1,310 on April 7, 2008. This was an interesting but complicated species.

The summer passage ran from April 30 (2008) to July 17 (2005), there were seven “clustered” influxes. The first is indicated by a peak count of 280 on May 2, 2008. The second peaked from May 9 (2007) to May 11 (2008) with a high count of 310 on May 11, 2008. The third peaked from May 14 (2004) to May 17 (2006) with a high count of 257 on May 17, 2006. The fourth is indicated by a peak count of 180 on May 23, 2008. The fifth peaked from May 31 (2006) to June 1 (2008) with a high count of 685 on May 31, 2006. The sixth peaked from June 13 (2007) to June 18 (2008) with a high count of 620 on June 18, 2008. The seventh peaked from June 26 (2005) to June 29 (2007) with a high count of 482 on June 26, 2005. The post-breeding gathering ran from June 29 (2008) to August 6 (2006), there were three “clustered” influxes. The first peaked from July 4 (2004) to July 6 (2007, 2008) with high counts of 77 on July 6, 2007 and 2,310 on July 6, 2008. The second is indicated by a peak count of 494 on July 13, 2007. The third peaked from July 18 (2004) to July 20 (2005) with high counts of 1,250 on July 19, 2008 and 1,510 on July 19, 2006. The early fall passage ran from July 20 (2007) to September 28 (2004), there were seven “clustered” influxes. The first peaked from July 27 (2008) to August 1 (2004) with a high count of 640 on July 27, 2008. The second peaked from August 6 (2008) to August 7 (2005) with a high count of 650 on August 6, 2008. The third peaked from August 18 (2006) to August 22 (2007) with a high count of 450 on August 20, 2003. The fourth peaked from August 25 (2006) to August 28 (2005) with a high count of 560 on August 26, 2004. The fifth is indicated by a peak count of 192 on September 1, 2003. The sixth peaked from September 7 (2007) to September 10 (2006) with a high count of 540 on September 7, 2007. The seventh peaked from September 14 (2007) to September 16 (2004) with a high count of 610 on September 16, 2004. This was followed by the main fall passage which ran from September 21 (2003, 2007) to November 25 (2005) with an extension to December 30 in 2004, there were seven “clustered” influxes. The first is indicated by a peak count of 18 on September 23, 2007. The second peaked from October 4 (2006) to October 6 (2004) with high counts of 200 on October 4, 2006 and 1,360 on October 6, 2004. The third peaked from October 12 (2005, 2007) to October 13 (2006) with a high count of 355 on October 12, 2007. The fourth peaked from October 26 (2005, 2007) to October 27 (2006) with a high count of 445 on October 27, 2006. The fifth peaked from November 11 (2007) to November 15 (2005) with a high count of 835 on November 11, 2007. The sixth peaked from November 22 (2005) to November 25 (2007) with high counts of 31 on November 22, 2005 and 1,290 on November 25, 2007. The seventh is indicated by a peak count of 3,825 on December 1, 2004. This is still the highest count for Zellwood. Note how the counts climbed through November. The last high count on December 1st fits in with the first influx of the winter passage but as this influx started on October 21, 2004 it is placed here. The winter passage ran from November 26 (2006) to January 6 (2008), there were five “clustered” influxes. The first peaked from November 28 (2003) to December 2 (2005) with a high count of 690 on December 1, 2006. The second peaked from December 9 (2007) to December 11 (2005) with high counts of 155 on

December 11, 2005 and 1,380 on December 9, 2007. The third peaked on December 15 (2003, 2006) with a high count of 640 on December 15, 2006. The fourth peaked on December 21 (2005, 2007) with a high count of 870 on December 21, 2007. The fifth peaked from December 28 (2003) to December 29 (2006) with a high count of 700 on December 29, 2006. As happens occasionally the declining passage, in this case the fall passage declined so slowly that its numbers when added to the incoming winter passage remained higher than those of the winter passage alone. At some point the fall passage will have ended but the join on the downward slope of the winter passage is seamless. Next came the early spring passage, this ran from January 1 (2006) to March 9 (2007), there were eight “clustered” influxes. The start date of January 1st is exceptionally early. The first influx peaked from January 4 (2006) to January 5 (2007) with a high count of 1,000 on January 5, 2007. The second peaked from January 11 (2008) to January 16 (2005) with a high count of 725 on January 11, 2008. The third peaked from January 23 (2008) to January 25 (2004, 2006) with a high count of 905 on January 23, 2008. The fourth is indicated by a peak count of 650 on January 30, 2008. The fifth peaked from February 8 (2004, 2006, 2008) to February 9 (2007) with a high count of 380 on February 8, 2008. The sixth peaked from February 13 (2005) to February 17 (2008) with a high count of 235 on February 13, 2005. The seventh peaked from February 23 (2005, 2007) to February 24 (2008) with a high count of 405 on February 23, 2007. The eighth peaked on February 27 (2004, 2006) with a high count of 390 on February 27, 2004. Finally there was the main spring passage, this ran from February 29 (2008) to May 5 (2006), there were seven clustered” influxes. The first peaked from March 4 (2008) to March 8 (2006) with a high count of 490 on March 4, 2008. The second peaked from March 11 (2007) to March 16 (2005) with a high count of 475 on March 16, 2005. The third peaked from March 22 (2006) to March 26 (2008) with a high count of 220 on March 26, 2008. The fourth peaked on March 30 (2005, 2007) with a high count of 430 on March 30, 2005. The fifth peaked from April 7 (2008) to April 11 (2007) with high counts of 26 on April 11, 2007 and 1,310 on April 7, 2008. The sixth peaked from April 18 (2004) to April 20 (2005, 2008) with a high count of 585 on April 18, 2004. The seventh peaked from April 23 (2006) to April 24 (2007) with a high count of 130 on April 23, 2006. There were a total of 44 “clustered” influxes.

The hurricanes of 2004

In the fall of 2004 three hurricanes crossed the area. The first was Hurricane Charley, on August 13 it crossed the area depositing between five and eight inches of rain, the amount of rainfall varying from site to site in the North Shore Restoration Area. It is not possible to identify

how much fell in the fields but the topography suggests that the fields more likely received the eight inches rather than the five inches.

Nearly a month later on September 5 Hurricane Frances crossed the area. This storm deposited between six and eight and a half inches of rain. With the higher ground to the north-east and the east it is likely that the higher total probably relates to the fields.

Hurricane Ivan missed us on September 13 but Hurricane Jeanne did not. It crossed the area on September 26. This hurricane deposited some four and a half to over six inches of rain.

Just these three storms deposited between 15 and a half and 22 and a half inches of rainfall on the fields of Units One and Two. This is also the rainy season so there will have been afternoon and or evening thunderstorms. At a minimum these storms probably added another ten inches.

No wonder it took so long to drain the fields. Unit One is drained into the Lake Level Canal at Interceptor Road and Unit Two is drained directly into Lake Apopka by the Lust Road Pump House. Initially no pumping was possible at either site as the water level in Lake Apopka was too high. The water level in the lake had to drop before pumping could commence. It took until the end of December to drain all the fields.

I have prepared a table of all the involved species from August 15, 2004 to January 6, 2005. The highest counts for each species are indicated in bold type.

Following the table I take a look at the individual species and relate their arrival to the various hurricanes.

Date	Great Egret	Snowy Egret	Little Blue Heron	Tri-colored Heron	Cattle Egret	Green Heron	Black-crowned Night-Heron	White Ibis	Glossy Ibis	Daily totals
8.15	34	30	35	15	130	10		760	90	1104
8.16	21	42	98	18	1530	236		450	110	2505
8.19	7	9	38	9	705	42	2	24	480	1316
8.22	24	54	42	34	1045	51	1	10	300	1561
8.26	6	106	95	19	1130	29		63	560	2008
8.29	10	71	50	9	1110	6		60	75	1391
9.1	14	22	40	12	835	6		48	5	982

9.9	19	39	37	12	650	16	1	250	160	1184
9.12	12	33	91	17	510	40	1	257	420	1381
9.16	7	34	106	8	6400	15	2	790	610	7972
9.19	29	14	78	5	1200	16	1	280	450	2073
9.22	25	111	80	9	3200	21	5	320	445	4216
9.28	27	33	43	6	1690	16	16	210	90	2131
10.3	30	221	64	6	4150	12	15	210	460	5168
10.6	36	572	90	10	3500	8	16	545	1360	6137
10.11	42	806	52	17	285	8	63	570	290	2133
10.13	126	570	230	18	1050	6	208	175	340	2723
10.17	168	675	169	13	340	5	8	865	140	2383
10.21	125	825	75	36	520	6	4	460	240	2291
10.24	180	865	130	116	405	8	5	980	340	3029
10.27	410	1025	320	100	850	9		2400	107	5221
10.31	800	2260	405	292	550	12	10	1620	770	6719
11.3	700	1555	245	250	620	8	10	890	780	5058
11.7	915	2585	445	290	385	14	9	1925	470	7038
11.10	520	2160	285	235	670	11	34	2110	815	6840
11.14	695	2225	366	368	885	11	71	3775	580	8476
11.17	335	2510	310	385	430	9	83	5650	1605	11317
11.21	1155	1920	375	355	205	13	88	4295	1695	10101
11.23	1480	2005	500	347	280	11	40	4250	2910	11823
11.28	1755	1560	520	315	345	12	124	3080	2465	11176
12.1	1456	1365	735	315	360	10	85	3435	3825	11586
12.5	2390	2145	665	261	130	11	62	4020	3360	12444
12.7	1705	1320	685	194	235	13	59	5730	2635	12576
12.12	680	440	237	103	187	16	50	1420	335	3468
12.16	783	735	220	103	235	19	31	695	240	3061
12.19	227	381	173	36	205	11	37	142	234	1446
12.22	121	417	77	23	575	9	20	163	116	1521
12.27	225	385	184	44	235	10	67	168	128	1446
12.30	185	330	180	38	162	10	1	145	73	1124
1.2.05	186	449	175	31	290	11	35	156	115	1448
1.6.05	35	117	84	25	187	17	4	60	124	653

This was such an extraordinary event that it is worth taking a more detailed look as each species reacted differently in the timing and the length of stay. If the District had not drained the fields it is likely that some 10,000 plus birds would have wintered.

Of the nine species involved five showed a response to the passing of a hurricane. The most immediate was the Green Heron. Hurricane Charley crossed the area on August 13 and on August 16 there were 236 Green Herons instead of the ten seen on August 15. What the actual total was for that day is anyone's guess, perhaps in the range of 500 to 1,000. All had left by August 29. After Hurricane Frances on September 5 there were 40 Green Herons as against six on September 1. These had all left by October 6. My guess is that these two hurricanes caught migrating parties of Green Herons forcing them to land. On resuming their passage they stopped at Zellwood to feed.

The Cattle Egrets did not appear to be effected by Hurricane Charley but after Hurricane Frances passed on September 5 there were 6,400 Cattle Egrets on September 16. These finally left the area by October 17. Perhaps this hurricane drove Cattle Egrets that were resident on the prairies south of Kissimmee northward and that this influx involved birds returning south.

Both the ibis species were affected by Hurricane Frances but only to a minor extent. There were an extra 200 White Ibis and 150 Glossy Ibis on September 9. Numbers of both species continued to grow culminating in 790 White Ibis and 610 Glossy Ibis on September 16 (the Cattle Egret day). Numbers then declined until October 6, this was after Hurricane Jeanne crossed the area on September 26. Whilst the White Ibis count only went up by 330 the Glossy Ibis count went up by 1,000 to 1,360, but that was a one day event. These described events would appear to be local corrections. I will come back to these species later.

Hurricanes Charley and Frances had no effect on the Black-crowned Night-Heron but Hurricane Jeanne did. Initially the increase was minor from five to 16 but there were 63 on October 11 and 208 on October 13. These birds left immediately as only eight seen on October 17. This was the slowest reaction but the rapid departure does suggest that this was a party of birds returning south. Again this species will be discussed later.

Now to the main event, the last hurricane was on September 26 but the main influx did not start for most species for one to two months. Central Florida was flooded with Great Egrets and Snowy Egrets. I live in DeLand well to the north of Orlando and every flooded ditch or field had its quota of herons and egrets. This was a huge event covering a large area. It seems plausible that these three hurricanes had between them driven the herons, egrets and ibis out of the Everglades and other locations in South Florida and sent them north, perhaps to the Carolinas. However in *North American Birds for the fall of 2004* there is no mention of any such influx or exodus. The timing of their arrival suggests that they were displaced and wandering.

Hurricane Jeanne seems to be involved as the initial influx for Snowy Egret, White Ibis and Glossy Ibis was on October 6. The Black-crowned Night-Heron was on October 11 with Great Egret and Little Blue Heron on October 13. The Tricolored Heron was last with the influx

starting on October 21. Whilst for most species the counts were only significantly higher the counts were very high for Glossy Ibis and the highest ever for Black-crowned Night-Heron. I discussed these two species earlier

Numbers climbed again on October 27 for Snowy Egret, Little Blue Heron and White Ibis, to a lesser degree for Glossy Ibis and Black-crowned Night-Heron. It would appear that this four day period was very significant.

For three species the numbers rose for a third time to reach their peak. The Black-crowned Night-Heron numbers rose on November 10, the Glossy Ibis on November 17 and the Great Egret on November 21.

The main influx for all species ended on December 7 with the exception of the White Ibis when the date was December 12. Similarly the actual influxes ended for all species on January 2 with the exception of the Tricolored Heron that ended early on December 16.

The highest counts for all species, whichever hurricane involved were the highest counts ever for each species at Zellwood. Many were probably the highest one site counts for Florida as a whole. The highest counts were Green Heron 236 on August 16, Cattle Egret 6,400 on September 16, Black-crowned Night-Heron 208 on October 11, Snowy Egret 2,585 on November 7, Little Blue Heron 735 on December 1, Glossy Ibis 3,825 also on December 1, Great Egret 2,390 on December 5 and White Ibis 5,730 on December 7. The period December 1 to December 7 being the most important i.e. just before the fields finally drained. In total the highest daily count was that of 12,576 birds on December 7. I do not expect to see such an event again, pure Zellwood.

White-faced Ibis (*Plegadis chihi*)

This is a vagrant, but one that is probably under-recorded due to the wariness of the flocks of Glossy Ibis. There was an adult in winter plumage at the Sand Farm on November 10, 2006 and November 15, 2006 with another there on January 24, 2007.

Roseate Spoonbill (*Platalea ajaja*)

An irregular visitor with records for every month of the year, this species needs shallow water with a muddy bottom, there being little debris. Whilst this habitat is available from time to time it is not long lasting, the water either dries up or the water gets too deep. For the early spring there were of two from January 10, 2007 to January 29, 2007 with one on January 31,

2007. Later there was one on February 11, 2007 and February 18, 2007. The main spring passage ran from March 15 (2008) to May 25 (2007) with a high count of 14 on May 7, 2007. The summer passage appeared to run from June 18 (2008) to July 16 (2008) with an extension to August 24 in 2007. The highest count was that of 11 on June 19, 2006. There did not appear to be an early fall passage. The main fall passage ran from September 17 (2006) to November 26 (2006) with a high count of 20 on November 8, 2006. To detail the 2006 influx, there was one on October 4 with eight on October 13, nine on October 27, ten on November 4, 16 on November 5 and 20 on November 8, then 19 seen on November 15 with 16 on November 17, 14 on November 19, nine on November 24 and six on November 26. The winter passage only occurred in one winter. To continue with 2006, there were ten on November 29 and December 3 with two on December 6 and one on December 8. This individual stayed through to January 7, 2007. In 2008 there was a flock of Roseate Spoonbills at Duda. This is outside the parameters of this analysis but because the pattern for Zellwood is very unclear I am including details here. *There was one on May 2 with three on May 4, 13 on May 9, 15 on May 11, 21 on May 14 and 26 on May 16, then 24 seen on May 18 with 20 on May 20 and 15 on May 23. There were 66 on May 25 (the Zellwood high count is only that of 30 on June 26, 2002) with 62 on May 28, 50 on June 1 and seven on June 6. There were singles on June 8 and June 13 with two on June 18, six on June 25 with nine on June 27, then 14 seen on June 29 and July 6 with 12 on July 11 and ten on July 13. There were 13 on July 16 with 14 on July 21, then 16 seen on July 24 and July 25 with eight on July 27, seven on August 1 and four on August 3. There were ten on August 6 and August 8 with 18 on August 10. No later records.*

There were two early spring influxes in 2007, no sightings for the other years. There were two from January 10 to January 29 with one on January 31, then singles seen on February 11 and February 18. The main spring passage ran from March 15 (2008) to May 25 (2007), there is little pattern to the records There was one on March 15, 2008. There was also one on April 1, 2007 and April 4, 2007. There was an influx from April 15, 2007 to May 4, 2007 with a peak count of nine on April 27, 2007, then one seen on April 20, 2008. Back to 2007 there were 14 on May 7 with three on May 9 and two on May 11. There were also nine on May 13 with five on May 25. In 2008 there was one on May 7 with two on May 9 and three on May 11, then one seen on May 18. Only one "clustered" influx is visible, it peaked from May 11 (2008) to May 13 (2007) with a high count of nine on May 13, 2007. The next event is somewhat isolated but I treat it as being the summer passage. It ran from June 18 (2008) to July 16 (2008) with an extension to August 24 in 2007. The first influx ran from June 18, 2008 to June 22, 2008 with a peak count of one on June 18, 2008. The second ran from June 19, 2006 to June 30, 2006 with a peak count of 11 on June 19, 2006. These join together to form a "clustered" influx that peaked from June 18 (2008) to June 19 (2006) with a high count of 11 on June 19, 2006. There were also three isolated influxes. The first ran from July 2, 2008 to July 16, 2008 with a peak count of seven on July 9, 2008. The second ran from July 20, 2007 to August 24, 2007 with a peak count

of one on July 20, 2007. The third ran from July 23, 2006 to July 28, 2006 with a peak count of four on July 28, 2006. With the exception of the individual in 2007 that stayed from July 20 to August 24 there were no sightings from July 17 to September 16. The fall passage ran from September 17 (2006) to November 26 (2006), again there was no pattern of influxes. Initially there were eight on September 17, 2006, then singles seen on September 21, 2007 and September 30, 2007. Next there was one on September 29, 2003. There was also an influx that ran from October 4, 2006 to November 26, 2006 with a peak count of 20 on November 8, 2006. This was the highest count during this set of five years. This influx is detailed in segment one. Finally there were two on October 10, 2007. This is one of the few species for which no pattern can be discerned. That has to be caused by the strict habitat requirements of this species and for the temporary nature of that habitat.

Wood Stork (*Mycteria americana*)

A casual non-breeding visitor with what appears to be passage in the late spring and the late fall. During the five years being reported on here there was little suitable habitat so numbers have been very low. It prefers the shallow ditches and any canals in the process of drying up. This habitat was in short supply during the drought. There was only the trace of passage in the early spring. This event ran from January 7 (2007) to March 10 (2004) with a high count of nine on January 21, 2007. In what would normally be the main spring passage numbers continued to be very low through to April 7 (2008). During this time the peak counts were in the range of one to five with a high count of 23 on March 28, 2008. With the gradual re-flooding of the fields there was a noticeable main spring passage from April 4 (2007) to June 8 (2008) with a high count of 93 on April 15, 2007. To detail the 2007 influxes, there were five on April 4 with 27 on April 11 and 93 on April 15, then 41 seen on April 16 with 18 on April 19. There were 90 on April 21 with 55 on April 27, 48 on May 1, 21 on May 4, 14 on May 9 and five on May 11, a type 2 influx. There were 25 on May 13 with 14 on May 16 and 13 on May 18, another type 2 influx. There were 20 on May 20 with 21 on May 23, then 16 seen on May 25 with three on May 27 and two on May 30. The "summer" appeared to run from June 5 (2005) to August 13 (2006), the numbers were very low with 12 peak counts in the range of two to four. The highest count was that of ten on July 9, 2008. The early fall passage was a little stronger, it ran from August 8 (2008) to October 22 (2003) with a high count of eight on October 7, 2007. The main fall passage ran from October 11 (2006) to December 4 (2005) with a high count of 52 on November 10, 2006. To detail the 2006 influxes, there were three on October 11 with 13 on October 13, then eight seen on October 18 with two on October 25. There were three on October 27 with eight on October 29, nine on November 1, 12 on November 3, 16 on November 5 and 52 on November 10, then 21 seen on November 12 with 19 on November 17,

13 on November 22, four on November 24 and two on November 26. Finally there was the winter passage, this ran from November 21 (2004) to January 5 (2007) with a high count of 18 on December 3, 2006.

There was a minimal early spring passage from January 7 (2007) to March 10 (2004), there were traces of five “clustered” influxes. There was hardly any passage in 2004 and 2006. The first is indicated by a peak count of six on January 10, 2007. The second peaked from January 20 (2008) to January 21 (2007) with a high count of nine on January 21, 2007. The third peaked from February 9 (2007) to February 10 (2006) with a high count of two on February 9, 2007. The fourth is indicated by a peak count of seven on February 20, 2008. The fifth peaked from February 25 (2007) to February 27 (2004) with a high count of five on February 25, 2007. The next event was in reality a continuation of the last passage. This event ran from March 7 (2007) to April 7 (2008). Again there was no passage in 2004 and 2006. There were isolated peak counts of one to five with a high count of 23 on March 28, 2008. The latter was the peak count of an influx that ran from March 26 to April 7. The main spring passage followed, it ran from April 4 (2007) to June 8 (2008), there were six “clustered” influxes. This was the main event of the year. The first influx peaked from April 14 (2005) to April 15 (2007) with a high count of 93 on April 15, 2007. This was the highest count during this set of five years. The second peaked from April 21 (2007) to April 24 (2005) with a high count of 90 on April 21, 2007. The third peaked from May 4 (2008) to May 5 (2004) with a high count of 49 on May 4, 2008. The fourth peaked from May 13 (2007) to May 14 (2006) with a high count of 25 on May 13, 2007. The fifth peaked from May 21 (2006) to May 23 (2007) with a high count of 21 on May 23, 2007. The sixth is indicated by a peak count of eight on May 30, 2008. The “summer” ran from June 5 (2005) to August 13 (2006), there were seven minor “clustered” influxes. The first peaked from June 5 (2005) to June 8 (2007) with a high count of three on June 8, 2007. The second peaked from June 11 (2008) to June 16 (2006) with a high count of four on June 11, 2008. The third peaked from June 22 (2007) to June 26 (2005) with a high count of four on June 22, 2007. The fourth peaked from June 29 (2007) to June 30 (2006) with a high count of nine on June 30, 2006. The fifth peaked from July 4 (2004) to July 6 (2005) with a high count of three on July 4, 2004. The sixth peaked from July 9 (2008) to July 13 (2007) with a high count of ten on July 9, 2008. The seventh peaked from July 27 (2007) to July 29 (2004) with a high count of seven on July 28, 2006. The early fall passage was another weak event, it ran from August 8 (2008) to October 22 (2003), there were five “clustered” influxes. The first is indicated by a peak count of 24 on August 10, 2007. The second peaked from August 17 (2007) to August 20 (2003) with a high count of five on August 17, 2007. The third peaked on September 3 (2003, 2006) with a high count of six on September 3, 2006. The fourth peaked from September 22 (2004) to September 26 (2007) with a high count of seven on September 22, 2004. The fifth peaked from October 7 (2007) to October 9 (2003) with a high count of eight on October 7, 2007. The main fall passage was stronger, it ran from October 11 (2006) to December 4 (2005), there were five

“clustered” influxes. The first is indicated by a peak count of 13 on October 13, 2006. The second peaked from October 24 (2004) to October 31 (2007) with a high count of 15 on October 31, 2007. The third peaked from November 9 (2003) to November 10 (2006) with a high count of 52 on November 10, 2006. The fourth peaked from November 14 (2004) to November 20 (2003) with a high count of four on November 16, 2007. The fifth is indicated by a peak count of four on November 30, 2005. Finally there was the winter passage, this ran from November 21 (2004) to January 5 (2007), there were three “clustered” influxes. The first peaked from December 3 (2006) to December 7 (2003) with a high count of 18 on December 3, 2006. The second is indicated by a peak count of five on December 22, 2006. The third peaked from December 27 (2004) to January 2 (2008) with a high count of ten on December 31, 2006. There was no passage in the winter of 2005/2006.

Black Vulture (*Coragyps atratus*)

To date none have been found nesting in the survey area otherwise the highest numbers were seen in the early spring and the very early fall. There were roosts at Duda, by the Lake Level Canal and on an island south of Hooper Farm’s Road extension. Feeding sites varied but if there was a major fish kill in Lake Apopka then some two to three days later both species of vulture gathered. They also gathered at a pig farm by Hogshead Road, in one instance to be detailed later this species was present in exceptionally high numbers. The winter passage ran from November 27 (2005) to January 16 (2004) with a high count of 175 on December 10, 2006. The early spring passage ran from January 6 (2006) to March 8 (2006) with high counts of 120 on February 8, 2008 and on March 2, 2008. Then there was 2007, in that year there was a huge influx with the birds feeding by Hogshead Road and at dusk leaving to the various roost sites. To detail the 2007 influxes, there were three on January 7 with 17 on January 10 and 71 on January 12, then 33 seen on January 14 with two in January 16. There were 40 on January 19 with 18 on January 21 and two on January 24. There were 23 on January 26 with 31 on January 31, 65 on February 7, 214 on February 11, 224 on February 18, 1,125 on February 25 and 1,340 on February 28, then 166 seen on March 4 with 26 on March 7. It was very windy on March 4 and the vultures chose to roost near Hogshead Road. I therefore do not know whether the actual numbers on the 4th were higher or lower. They continued to roost at that location for some time but I was not able to get a count of the numbers roosting there. The main spring passage ran from March 6 (2005) to April 30 (2005, 2006) with a high count of 143 on March 11, 2007. Every species is different and this one is certainly that! There appear to be two separate summer events, the first ran from April 19 (2007) to May 22 (2005) with a high count of 75 on April 29, 2007. During this period the highest counts gradually declined. The second half ran from May 7 (2007) to July 14 (2006) with a high count of 76 on May 27, 2007. There were also

71 on June 24, 2007. Numbers were significantly higher than those seen during the first period. Excluding the early spring of 2007 the next event was probably the strongest event of the year. The early fall passage ran from June 25 (2008) to August 22 (2007) with a high count of 170 on July 22, 2007. There was a major fish kill in Lake Apopka on July 19, 2007. There now appears to be an extra fall passage which I am calling the central fall passage. This ran from August 20 (2003) to October 2 (2003, 2005) with a high count of 49 on August 26, 2007. Numbers declined gradually through this event. Finally there was the late fall passage which ran from September 30 (2007) to December 1 (2003) with a high count of 50 on November 12, 2006. The winter nesting species are always a little harder to write up.

The winter passage ran from November 27 (2005) to January 16 (2004), there were five "clustered" influxes. The first peaked from November 30 (2007) to December 4 (2005) with a high count of 29 on December 4, 2005. The second peaked from December 9 (2003, 2007) with high counts of 13 on December 9, 2003 and 175 on December 10, 2006. The third peaked from December 16 (2004) to December 17 (2006, 2007) with a high count of 43 on December 17, 2006. The fourth peaked from December 23 (2005) to December 26 (2007) with a high count of 23 on December 26, 2007. The fifth peaked from December 29 (2006) to January 1 (2006) with a high count of 35 on December 29, 2006. The early spring passage ran from January 6 (2006) to March 8 (2006), there were seven "clustered" influxes. The first peaked on January 6 (2006, 2008) with a high count of 51 on January 6, 2008. The second is indicated by a peak count of 71 on January 12, 2007. The third peaked from January 18 (2008) to January 19 (2007) with a high count of 40 on January 19, 2007. The fourth peaked from January 23 (2008) to January 28 (2004) with a high count of 54 on January 23, 2008. The fifth peaked from February 2 (2005) to February 8 (2008) with a high count of 120 on February 8, 2008. The sixth is indicated by a peak count of 30 on February 11, 2004. The seventh peaked from February 27 (2004) to March 2 (2008) with high counts of 120 on March 2, 2008 and 1,340 on February 28, 2007. The latter is still the highest count for Zellwood and one of the highest counts ever for the State of Florida. The main spring passage ran from March 6 (2005) to April 30 (2005, 2006), there were six "clustered" influxes. The first peaked from March 11 (2007) to March 17 (2006) with high counts of 45 on March 15, 2008 and 143 on March 11, 2007. The second peaked from March 21 (2007) to March 26 (2008) with a high count of 55 on March 21, 2007. The third peaked from April 2 (2008) to April 4 (2007) with a high count of 72 on April 4, 2007. The fourth peaked from April 11 (2007, 2008) to April 14 (2006) with a high count of 45 on April 11, 2008. The fifth peaked from April 18 (2008) to April 20 (2005) with a high count of 43 on April 18, 2008. The sixth peaked on April 25 (2004, 2006) with a high count of nine on April 25, 2004. Very exceptionally the summer passage appears to comprise two separate events. The first ran from April 19 (2007) to May 22 (2005), there were four "clustered" influxes. The first peaked from April 29 (2007) to May 2 (2008) with a high count of 75 on April 29, 2007. The second peaked on May 5 (2004, 2006) with a high count of 27 on May 5, 2004. The third is indicated by a peak

count of 26 on May 9, 2008. The fourth peaked from May 15 (2005) to May 19 (2006) with a high count of nine on May 19, 2006. The second event ran from May 7 (2007) to July 14 (2006), there were six “clustered” influxes. The first peaked from May 23 (2008) to May 24 (2006) with a high count of 45 on May 23, 2008. The second peaked from May 27 (2007) to May 30 (2004, 2008) with a high count of 76 on May 27, 2007. The next two influxes were indicated by isolated peak counts of 31 on June 6, 2008 and 34 on June 15, 2008. These were basic influxes. The fifth influx peaked from June 21 (2006) to June 26 (2005) with a high count of 71 on June 24, 2007. The sixth peaked from July 2 (2004) to July 5 (2006) with a high count of 33 on July 5, 2006. As with the summer passage the fall passage was exceptional there being three events and not the more normal two. The first, the early fall passage ran from June 25 (2008) to August 22 (2007), there were five “clustered” influxes. A more normal start time for this passage was July 14 (2004, 2005). This was overall the heaviest passage of the year. The first influx peaked from July 11 (2008) to July 14 (2004) with a high count of 94 on July 13, 2007. The second peaked from July 19 (2006) to July 22 (2007) with a high count of 170 on July 22, 2007. The third is indicated by a peak count of 107 on July 26, 2008. The fourth peaked from August 1 (2007) to August 4 (2004) with a high count of 121 on August 3, 2008. The fifth peaked from August 7 (2005) to August 12 (2007) with a high count of 137 on August 11, 2006. The central fall passage by contrast was a minor event. It ran from August 20 (2003) to October 2 (2003, 2005), there were five “clustered” influxes. The first peaked from August 22 (2004) to August 26 (2007) with a high count of 49 on August 26, 2007. The second peaked from August 28 (2005) to August 30 (2006) with a high count of 44 on August 30, 2006. The third peaked from September 7 (2005) to September 9 (2007) with a high count of 22 on September 8, 2006. The fourth is indicated by a peak count of 28 on September 16, 2007. The fifth peaked from September 23 (2006) to September 26 (2007) with a high count of 21 on September 23, 2006. Finally there was the late fall passage, this ran from September 30 (2007) to December 1 (2003), there were six “clustered” influxes. The first is indicated by a peak count of 27 on October 4, 2006. The second peaked from October 12 (2005) to October 14 (2007) with a high count of 14 on October 14, 2007. The third peaked from October 19 (2003) to October 26 (2005) with a high count of 21 on October 19, 2003. The fourth peaked from October 29 (2007) to November 3 (2006) with a high count of 29 on November 2, 2005. The fifth peaked from November 10 (2004) to November 13 (2005) with a high count of 50 on November 12, 2006. The sixth peaked from November 18 (2007) to November 23 (2004) with a high count of 28 on November 18, 2007. In all there were 44 “clustered” influxes.

Turkey Vulture (*Cathartes aura*)

This species is present in varying numbers throughout the year. No evidence of it breeding in the survey area but it may well have done so. There were roost sites at Duda, by Lake Apopka where the Lake Level Canal enters the lake and on an island in Lake Apopka to the south of Hooper Farms Road extension. Numbers were probably lowest in the summer, this event ran from May 9 (2007) to July 10 (2006) with a high count of 127 on June 22, 2008. The early fall passage ran from July 2 (2008) to October 2 (2005) with a high count of 730 on September 14, 2007. It is just possible that there were in fact two movements, the first (the early fall passage) running from July 2 (2008) to August 23 (2006) with a high count of 610 on July 15, 2007. The other movement would be best described as the central fall passage and this would have run from August 16 (2004) to October 2 (2005) with a high count of 730 on September 14, 2007. The main fall passage ran from September 21 (2003) to December 5 (2004) with a high count of 1,200 on November 11, 2005. To detail the 2005 influxes, there were 36 on October 8 with 59 on October 12, then 44 seen on October 16. There were 47 on October 19 with 52 on October 21, then 30 seen on October 23 with nine on October 26. There were 18 on October 28 with 1,076 on October 30, then 50 seen on November 2. Exceptionally the 1,076 were all noted as flying in from the north-west and leaving to the south-east. There were 181 on November 4 with 275 on November 7, 700 on November 9 and 1,200 on November 11, then 480 seen on November 18 with 130 on November 22 and 87 on November 25. A further 103 had been noted as flying to the south-east on November 4. It is possible that the 1,200 on November 11 were separate from the 1,076 noted on October 30. On November 15 a very large flock was seen going to roost south of the survey area, this could have been the 1,200 of the 11th. The winter passage followed from November 27 (2005) to January 6 (2005) with a high count of 1,250 on December 1, 2006. To detail the 2006/2007 influxes, there were 48 on November 29 with 1,250 on December 1, then 640 seen on December 3 with 60 on December 6 and 50 on December 8. There were 72 on December 10 with 47 on December 13 and 21 on December 15. There were 128 on December 17 with 145 on December 22, then 110 seen on December 27 with 78 on December 29, 42 on January 3 and 36 on January 5. The early spring passage ran from January 6 (2006, 2008) to March 5 (2006) with an extension to March 14 in 2007. The highest count was that of 1,750 on January 20, 2008. There had been a major fish kill prior to that date. Finally there was the late spring passage, this ran from February 28 (2005) to May 11 (2008) with an extension to May 26 in 2004. The highest count was that of 635 on March 2, 2005. The only other records of visible passage to the south-east involved 348 on October 25, 2006 and 77 on November 28, 2004.

The summer passage ran from May 9 (2007) to July 10 (2006), there were five “clustered” influxes. The first peaked from May 14 (2006) to May 16 (2007, 2008) with a high count of 81 on May 16, 2007. The second peaked from May 24 (2006) to May 30 (2007) with a

high count of 68 on May 30, 2007. The third is indicated by a peak count of ten on June 8, 2006. The fourth peaked from June 16 (2004) to June 22 (2008) with a high count of 127 on June 22, 2008. The fifth peaked from June 30 (2006) to July 4 (2007) with a high count of 100 on June 30, 2006. The early fall passage ran from July 2 (2008) to August 23 (2006), there were six “clustered” influxes. The first is indicated by a peak count of 145 on September 9, 2008. The second peaked from July 14 (2005) to July 19 (2006) with a high count of 610 on July 15, 2007. The third peaked from July 22 (2007) to July 26 (2006) with a high count of 325 on July 22, 2007. The fourth peaked from July 30 (2008) to August 3 (2005) with a high count of 163 on August 3, 2005. The fifth peaked from August 8 (2007) to August 11 (2004, 2006) with a high count of 230 on August 8, 2007. The sixth peaked from August 16 (2006) to August 17 (2005) with a high count of 68 on August 17, 2005. The central fall passage ran from August 16 (2004) to October 2 (2005), there were three “clustered” influxes. The first peaked from August 22 (2007) to August 26 (2004) with a high count of 365 on August 26, 2004. The second peaked on August 31 (2005, 2007) with a high count of 270 on August 31, 2007. The third peaked from September 12 (2005) to September 15 (2006) with high counts of 435 on September 15, 2006 and 730 on September 14, 2007. The main fall passage followed from September 21 (2003) to December 5 (2004), there were eight “clustered” influxes. The first peaked from September 21 (2003) to September 26 (2007) with a high count of 385 on September 26, 2007. The second peaked from October 5 (2007) to October 6 (2006) also with a high count of 385 on October 6, 2006. The third peaked from October 12 (2005) to October 15 (2003) with a high count of 59 on October 12, 2005. The fourth peaked from October 21 (2005) to October 25 (2006) with a high count of 393 on October 25, 2006. The fifth peaked from October 29 (2003, 2007) to October 31 (2004) with high counts of 187 on October 31, 2004 and 1,076 on October 30, 2005. The sixth peaked from November 5 (2006) to November 11 (2005) with high counts of 115 on November 9, 2007 and 1,200 on November 11, 2005. The seventh peaked from November 19 (2006) to November 23 (2007) with a high count of 130 on November 23, 2007. The eighth peaked on November 28 (2003, 2004) with a high count of 97 on November 28, 2004. The winter passage ran from November 27 (2005) to January 6 (2005), there were five “clustered” influxes. The first peaked from November 30 (2005) to December 1 (2006) with high counts of 155 on November 30, 2005 and 1,250 on December 1, 2006. The second peaked from December 5 (2007) to December 10 (2006) with a high count of 160 on December 5, 2007. The third peaked from December 16 (2005) to December 17 (2003) with a high count of 125 on December 16, 2005. The fourth peaked from December 21 (2007) to December 22 (2006) with a high count of 145 on December 22, 2006. The fifth peaked from December 28 (2005) to January 2 (2005, 2008) with a high count of 115 on December 28, 2005. Next came the early spring passage, this ran from January 6 (2006, 2008) to March 5 (2006) with an extension to March 14 in 2007. There were six “clustered” influxes. The first peaked from January 11 (2006) to January 12 (2007) with a high count of 320 on January 12, 2007. The second is indicated by a peak count of 1,750 on

January 20, 2008. This was the highest count during the first ten years of the survey. The third peaked from January 24 (2006) to January 28 (2004) with a high count of 108 on January 25, 2006. The fourth peaked from February 4 (2007, 2008) to February 8 (2004) with a high count of 150 on February 4, 2007. The fifth peaked from February 14 (2007) to February 18 (2004) with a high count of 130 on February 17, 2008. The sixth peaked from February 24 (2006, 2008) to February 28 (2007) with high counts of 86 on February 24, 2006 and 770 on February 28, 2007. Finally there was the late spring passage, with the exception of the first influx this was a minor event. The passage ran from February 28 (2005) to May 11 (2008) with an extension to May 26 in 2004, there were eight "clustered" influxes. The first peaked from February 29 (2004) to March 2 (2005, 2008) with high counts of 240 on March 2, 2008 and 635 on March 2, 2005. The second peaked from March 15 (2006) to March 16 (2007) with a high count of 69 on March 15, 2006. The third peaked from March 21 (2008) to March 28 (2007) with a high count of 56 on March 21, 2008. The fourth peaked from April 3 (2005) to April 7 (2004) with a high count of 17 on April 3, 2005. The fifth peaked from April 11 (2007, 2008) to April 14 (2006) with a high count of 17 on April 11, 2007. The sixth peaked from April 19 (2007) to April 25 (2008) with a high count of 22 on April 25, 2008. The seventh is indicated by a peak count of 14 on April 27, 2007. The eighth peaked from May 2 (2008) to May 5 (2004) with 21 on both dates. There were a total of 41 identified "clustered" influxes.

Black-bellied Whistling-Duck (*Dendrocygna autumnalis*)

This is a developing story. It is present in varying numbers through the year. During the period covered by this analysis this species was resident at Duda and the Flow-way and birds from those locations visited Zellwood. This means that I can only report on one part of the local situation and patterns that I see may in part be incorrect if only a portion of the local population visited Zellwood. This species feeds at night and loafs/sleeps during the day. At Zellwood the sites chosen for feeding are those flooded fields with a thick mat of vegetation. Only low numbers were seen during the summer, this passage ran from May 5 (2006) to August 13 (2006, 2008), there were ten "clustered" influxes. The first is indicated by a peak count of 11 on May 10, 2006. The second peaked from May 15 (2005) to May 18 (2008) with a high count of 16 on May 18, 2008. The third peaked from May 23 (2007) to May 25 (2008) with a high count of 17 on May 25, 2008. The fourth peaked from June 5 (2005) to June 6 (2004) with a high count of 25 on June 6, 2004. The fifth peaked from June 13 (2008) to June 20 (2004) with a high count of 13 on June 20, 2004. The sixth is indicated by a peak count of 27 on June 27, 2008. The seventh peaked from July 5 (2006) to July 9 (2008) with a high count of 17 on July 9, 2008. The next two influxes are indicated by isolated peak counts of four on July 14, 2004 and 24 on July 25, 2008. The tenth peaked on August 3 (2005, 2007) with a high count of nine on August 3,

2007. The early fall passage was the weakest event of the year the passage ran from August 8 (2007) to October 5 (2007), there were five “clustered” influxes. The first peaked on August 15 (2005, 2007) with a high count of six on August 15, 2007. The second peaked from August 20 (2003) to August 22 (2004) with a high count of four on August 22, 2004. The third peaked from September 3 (2003) to September 6 (2006) with a high count of five on September 6, 2006. The fourth is indicated by a peak count of six on September 13, 2006. The fifth peaked from September 19 (2003) to September 22 (2005) with a high count of 15 on September 22, 2005. The main fall passage was only a little better, the passage ran from October 6 (2004) to November 27 (2005), there were five “clustered” influxes. The first is indicated by a peak count of four on October 6, 2004. The second peaked from October 10 (2007) to October 12 (2005) with a high count of 36 on October 12, 2005. The next two influxes are indicated by isolated peak counts of eight on October 21, 2005 and five on November 4, 2006. The fifth peaked from November 17 (2004) to November 25 (2005) with high counts of 23 on November 17, 2004 and 204 on November 25, 2005. The latter high count really belongs in the winter passage but as the influx ran from November 15 to November 27 it is placed here. Everything now changes as the winter passage was the strongest event of the year. This passage ran from November 28 (2004) to January 7 (2007) with an extension to January 24 in 2005. Even though this was the strongest passage there were no records for the winters 2003/2004 and 2007/2008. There were four “clustered” influxes. The first is indicated by a peak count of 270 on December 2, 2005. The second peaked from December 7 (2004) to December 11 (2005) with a high count of 42 on December 11, 2005. The third is indicated by a peak count of 23 on December 20, 2006. The fourth peaked from January 1 (2006) to January 6 (2005) with high counts of 185 on January 6, 2005 and 345 on January 1, 2006. The latter was the highest count during the first ten years of the survey. In the first five years the highest count was only that of six on July 19, 2003! The early spring passage followed from January 8 (2006) to February 23 (2005), there were indications of four “clustered” influxes. There were no records for 2004. The first influx peaked from January 13 (2006) to January 14 (2007) with a high count of 41 on January 13, 2006. The next three influxes are indicated by isolated peak counts of 113 on January 29, 2006, 71 on February 8, 2005 and three on February 19, 2006. Similar numbers continued to be seen through the main spring passage. This passage ran from February 28 (2005) to May 23 (2004), there were six “clustered” influxes. The first peaked from March 2 (2005) to March 7 (2004) with a high count of 45 on March 2, 2005. The second is indicated by a peak count of 40 on March 15, 2008. The third peaked from April 1 (2007) to April 7 (2004) with high counts of 57 on April 7, 2004 and 141 on April 1, 2007. The fourth peaked from April 20 (2008) to April 23 (2004) with a high count of 33 on April 20, 2008. The fifth is indicated by a peak count of 88 on May 1, 2007. The sixth peaked from May 10 (2004) to May 11 (2008) with a high count of 22 on May 11, 2008. It is possible that this last influx would be better placed in the summer event.

Because the growth has been so great during these ten years I am including data from the following two winters. It is something when you go from six on July 19, 2003 to 345 on January 1, 2006. In the 2008/2009 winter the highest count was only a little higher, there being 351 on December 3, 2008. The situation in the winter of 2009/2010 was very different! I am going to detail the progression of the highest counts. There were 402 on November 13, 2009 with 458 on December 6, 525 on December 13, 556 on December 23 and 650 on December 28. At this point one is coming towards the end of the winter passage but this time the passage continued through the early spring passage. There were 885 on January 2 with 920 on January 6, 1,350 on January 8, 1,520 on January 15, 1,620 on January 31 and 1,660 on February 5. Numbers now fell with 1,220 on February 7, 1,020 on February 19, 1,000 on February 28, 460 on March 3 and 400 on March 5. Numbers rose again during the main spring passage with 590 on March 8, 1,200 on March 14 and 1,250 on March 17, then 1,210 seen on March 21 with 690 on March 26 and 380 on March 28. There were 610 on March 31 with 750 on April 2, then 450 seen on April 19 with 165 on April 18 when this crazy event finally came to an end. In this winter the birds were loafing and sleeping in Unit One by Laughlin Road, at times hundreds would gather on the actual road. The noise these birds made when some 1,600 present was incredible.

Fulvous Whistling-Duck (*Dendrocygna bicolor*)

This species was a year round resident in 2003, 2004 and 2005 although there was only one record for July in 2004 and September in 2005. Numbers were however dropping leading to very limited sightings in 2006 and 2007. In 2006 there were no sightings in January, June, September and November, 2007 was much worse in fact there were only sightings in April, May and December. Whilst there were no sightings in January and February in 2008 this species is now seen again throughout the year. There was only one breeding record for the survey area during these five years, a pair raised eight young at the Sand Farm in 2004. The summer is treated as running from May 4 (2008) to July 26 (2008) with high counts of 20 on May 16, 2008 and June 9, 2004. The fall passage ran from July 26 (2006) to December 2 (2005). Passage through to the end of September was light and should probably be treated as the early fall passage but in this instance I find it impossible to separate out the two events. Up to the end of September the highest count was that of 49 on September 19, 2004. The highest counts for the second half were 183 on November 20, 2003 and 840 on October 22, 2003. To detail the 2003 influxes, there were seven on August 20 with 15 on August 24, then two seen to September 3. There were 45 on September 7 with one on September 10. There were two on September 19 with nine on September 24, 16 on October 2, 31 on October 5, 71 on October 9, 193 on October 12, 625 on October 15, 695 on October 19 and 840 on October 22, then 31 seen on October 26. This is a type 3 influx. There were 55 on October 29 with 83 on November 2, then 22 seen on November 9 with 12 on November 12. There were 16 on November 16 with 183 on November 20, then 77 seen on November 23 with 11 on November 28. The winter passage ran from December 1 (2003, 2004) to January 19 (2004) with a high count of 240 on January 9, 2005. This was followed by the early spring passage which ran from January 19 (2005) to March 6 (2005) with a high count of 133 on January 30, 2005. Numbers now much lower, the late spring

passage ran from February 22 (2006) to May 5 (2006) with a high count of 41 on April 7, 2004. The summer passage was by far the quietest event of the year.

The summer passage ran from May 4 (2008) to July 26 (2008), there were five “clustered” influxes. The first peaked from May 10 (2004) to May 16 (2008) with a high count of 20 on May 16, 2008. The second is indicated by a peak count of eight on May 28, 2008. The third peaked from June 5 (2005) to June 9 (2004) with a high count of 20 on June 9, 2004. The fourth is indicated by a peak count of five on June 15, 2008. The fifth peaked from July 4 (2004) to July 6 (2005) with a high count of seven on July 4, 2005. The fall passage ran from July 26 (2006) to December 2 (2005), there were nine “clustered” influxes. The first peaked from July 26 (2006) to July 28 (2005) with a high count of eight on July 28, 2005. The second peaked from August 10 (2005) to August 16 (2004) with a high count of 13 on August 16, 2004. The third peaked from August 24 (2003) to August 31 (2005) with a high count of 15 on August 24, 2003. The fourth peaked from September 12 (2005) to September 19 (2004) with a high count of 49 on September 19, 2004. The fifth peaked from October 1 (2006) to October 2 (2005) with a high count of 21 on October 2, 2005. The sixth peaked from October 17 (2004) to October 23 (2005) with high counts of four on October 17, 2004 and 840 on October 22, 2003. The latter is still the highest count for Zellwood. The seventh peaked from November 2 (2003) to November 4 (2005) with high counts of 24 on November 4, 2005 and 83 on November 2, 2003. The eighth is indicated by a peak count of 15 on November 14, 2004. The ninth peaked from November 20 (2003) to November 25 (2005) with high counts of 35 on November 25, 2005 and 183 on November 20, 2003. The winter passage followed from December 1 (2003, 2004) to January 19 (2004), there were five “clustered” influxes. The first peaked from December 1 (2004) to December 4 (2005) with a high count of 20 on December 1, 2004. The second is indicated by a peak count of 65 on December 9, 2003. The third peaked from December 15 (2006) to December 16 (2004) with a high count of 25 on December 15, 2006. The fourth is indicated by a peak count of 18 on December 21, 2003. The fifth peaked from January 4 (2004) to January 9 (2005) with high counts of 34 on January 4, 2004 and 240 on January 9, 2005. The early spring passage ran from January 19 (2005) to March 6 (2005), there were two “clustered” influxes. The first peaked from January 30 (2005) to February 1 (2006) with high counts of three on February 1, 2006 and 133 on January 30, 2005. The second peaked from February 22 (2004) to February 23 (2005) with a high count of 46 on February 23, 2005. The late spring passage ran from February 22 (2006) to May 5 (2006), there were five “clustered” influxes. The first peaked from March 3 (2004) to March 8 (2006) with a high count of 31 on March 3, 2004. The second peaked from March 16 (2005) to March 19 (2008) with a high count of 12 on March 16, 2005. The third peaked from March 30 (2005) to April 4 (2008) with a high count of 28 on March 30, 2005. The fourth peaked from April 7 (2004) to April 11 (2008) with a high count of 41 on April 7, 2004. The fifth peaked from April 23 (2004) to April 30 (2008) with a high count of 36 on April 24, 2005. Most species appear to have 40 to 43 “clustered” influxes a year but here there were only 26 “clustered” influxes. This is not because of mega or regular influxes but rather it is because there were so many months with few or no records.

Black Swan (*Cygnus atratus*)

This is an exotic, presumably having wandered from someone's collection. There was one on Lake Apopka on May 10, 2006. Surprisingly there was an earlier record of one on June 10, 2002.

Snow Goose (*Chen caerulescens*)

This species is an irregular fall and winter passage migrant. There was a single late spring record. There was a single adult white morph that flew to the north on March 13, 2005. In the fall 12 white morph flew to the east on November 5, 2006. In 2005 there were two adult white morph on November 15 with three immature white morph on November 18. There were more winter records. Single adult white and blue morphs were at the Sand Farm from December 6, 2006 to December 29, 2006. There was also an adult white morph on December 7, 2003. More surprisingly there was an adult blue morph on Lake Apopka with the gulls on December 21, 2005. There were three adult white morph on December 30, 2004 and on December 31, 2003 a party of ten (two blue morph) flew to the south.

In the spring there was one on March 13, 2005. Fall passage noted from November 5 (2006) to November 18 (2005), there were indications of two "clustered" influxes. The first is indicated by a peak count of 12 on November 5, 2006. The second peaked from November 15 (2005) to November 18 (2005) with a high count of three on November 18, 2005. I have not previously accepted two peak counts from the same year as forming a "clustered" influx but that appears to be appropriate in this instance. The winter passage ran from December 6 (2006) to December 31 (2003), there were three "clustered" influxes. The first peaked from December 6 (2006) to December 7 (2003) with a high count of two on December 6, 2006. The second is indicated by a peak count of one on December 21, 2005. The third peaked from December 30 (2004) to December 31 (2003) with a high count of ten on December 31, 2003.

Egyptian Goose (*Alopochen aegyptiaca*)

This is another exotic. There were three at the Sand Farm on July 23, 2006. This is the first record for Zellwood.

Muscovy Duck (*Cairina moschata*)

This is an established exotic but this is only the second record for Zellwood. In 2005 on November 18 a party of four flew north up the Lake Level Canal and then turned west over Duda. Previously there had been one on June 5, 1999 and June 12, 1999.

Wood Duck (*Aix sponsa*)

A resident, a passage migrant, a winter visitor and when conditions suitable there may be a post-breeding gathering. Perhaps one to two pairs nest each year. Broods of three seen on May 29, 2005 and June 13, 2004. In 2008 there were broods of three and four in a flooded piece of woodland at the western end of the Sand Farm on April 15. With the broods spanning such a long period it is hard to identify the "summer". I am treating the summer as running from May 11 (2008) to August 4 (2006) with an extension to August 17 in 2005. The highest count was that of 13 on July 10, 2006. The post-breeding gathering ran from August 1 (2004) to October 5 (2007) with an extension to October 15 in 2003. The only identifiable gathering occurred in 2004 with a high count of 86 on September 22. For the other years the highest count was that of 11 on August 6 and August 16 in 2006. To detail the 2004 influxes, there were three on August 1 with three again on August 11 then five seen on August 16 with seven on August 19 and 18 on August 22, then three seen on August 26. There were six on August 29 with 27 on September 8, 36 on September 12 and 86 on September 22, then 31 seen on September 28 with four on October 3. The fall passage ran from September 22 (2005) to December 2 (2005) with a high count of 28 on October 11, 2004. The winter passage was the strongest event of the year, the passage ran from November 21 (2004) to January 12 (2007). The highest counts were those of 82 on November 30, 2007, 288 on December 27, 2006 and 107 on January 3, 2007. To detail the 2006/2007 influxes, there were eight on November 29 with 12 on December 3, then five seen on December 6 with one on December 10. There were six on December 13 with 72 on December 20, 148 on December 22 and 288 on December 27, then 47 seen on December 29 with 17 on December 31. There were 107 on January 3 with 69 on January 5, nine on January 7, six on January 10 and two on January 12, a type 2 influx. The early spring passage was also a significant event, the passage ran from December 30 (2007) to March 6 (2005) with a high count of 49 on January 9, 2008. Numbers were much lower during the late spring passage which ran from February 29 (2008) to May 10 (2004, 2006) with a high count of 22 on March 15, 2008.

The summer passage ran from May 11 (2008) to August 4 (2006) with an extension to August 17 in 2005, there were eight "clustered" influxes. The first peaked from May 11 (2008) to May 15 (2005) with a high count of five on May 13, 2007. The second peaked from May 29 (2005) to June 6 (2004) with a high count of ten on June 1, 2008. The third peaked from June 10 (2007) to June 11 (2006) with a high count of nine on June 11, 2006. The fourth peaked from June 19 (2005) to June 22 (2008) with four on both dates. The fifth peaked from July 1 (2007) to July 6 (2008) with a high count of 12 on July 6, 2008. The sixth peaked from July 10 (2006) to July 14 (2005) with a high count of 13 on July 10, 2006. The seventh peaked from July 19 (2008) to July 20 (2007) with a high count of eight on July 19, 2008. The eighth peaked from July 26 (2008) to July 28 (2005, 2006) with a high count of seven on July 28, 2006. This was followed by the post-breeding gathering which ran from August 1 (2004) to October 5 (2007) with an extension to October 15 in 2003, there were seven "clustered" influxes. The first peaked from August 6 (2006) to August 8 (2008) with a high count of 11 on August 6, 2006. The second is indicated by a peak count of 11 on August 16, 2006. The third peaked from August 22 (2004) to August 26 (2007) with a high count of 18 on August 22, 2004. The fourth peaked from August

31 (2005) to September 3 (2006) with a high count of five on September 3, 2006. The next two influxes were indicated by isolated peak counts of five on September 15, 2006 and 86 on September 22, 2004. The seventh peaked from September 29 (2003) to September 30 (2007) with three on both dates. The fall passage ran from September 22 (2005) to December 2 (2005), there were five "clustered" influxes. The first is indicated by a peak count of three on October 4, 2006. The second peaked from October 8 (2005) to October 11 (2004) with a high count of 28 on October 11, 2004. The third peaked from October 29 (2007) to November 5 (2006) with a high count of 25 on October 31, 2004. The fourth peaked from November 11 (2007) to November 15 (2006) with a high count of 13 on November 11, 2007. The fifth peaked from November 18 (2007) to November 20 (2005) with a high count of 13 on November 18, 2007. Now to the main event the winter passage, this ran from November 21 (2004) to January 12 (2007), there were five "clustered" influxes. The first peaked from November 28 (2004) to December 3 (2006) with high counts of 12 on December 3, 2006 and 82 on November 30, 2007. The second is indicated by a peak count of ten on December 9, 2005. The third peaked from December 17 (2007) to December 22 (2004) with high counts of eight on December 22, 2004 and 55 on December 17, 2007. The fourth peaked from December 26 (2007) to December 28 (2003) with high counts of 67 on December 26, 2007 and 288 on December 27, 2006. The latter is still the highest count for Zellwood. The fifth peaked from January 1 (2006) to January 3 (2007) with high counts of ten on January 1, 2006 and 107 on January 3, 2007. The early spring passage ran from December 30 (2007) to March 6 (2005), there were seven "clustered" influxes. It is exceptional for this passage to start in December a more normal start date would have been January 10th. The first peaked from January 6 (2005) to January 9 (2008) with a high count of 49 on January 9, 2008. The second peaked from January 13 (2006) to January 18 (2008) with a high count of 20 on January 18, 2008. The third peaked from January 24 (2007) to January 27 (2006) with a high count of 30 on January 24, 2007. The fourth peaked from February 4 (2008) to February 7 (2007) with a high count of 38 on February 4, 2008. The fifth peaked from February 12 (2008) to February 18 (2007) with a high count of 28 on February 12, 2008. The last two influxes were indicated by isolated peak counts of six on February 23, 2005 and 12 on March 1, 2006. Finally there was the late spring passage which ran from February 29 (2008) to May 10 (2004, 2006), there were also seven "clustered" influxes. The first peaked from March 3 (2004) to March 4 (2007) with four on both dates. The second peaked from March 8 (2006) to March 11 (2007) with a high count of four on March 8, 2006. The third peaked from March 15 (2008) to March 19 (2004, 2006) with a high count of 22 on March 15, 2008. The fourth is indicated by a peak count of 14 on March 24, 2008. The fifth peaked from April 6 (2007) to April 9 (2008) with a high count of 13 on April 9, 2008. The sixth peaked from April 14 (2005) to April 21 (2006) with a high count of 14 on April 15, 2008. The seventh peaked from April 30 (2005) to May 7 (2006) with a high count of nine on May 2, 2004. As mentioned earlier I use the term "late" passage to signify that it is the weaker of the two events, spring or fall. There were 39 "clustered" influxes.

Gadwall (*Anas strepera*)

This species is an uncommon passage migrant and winter visitor. Seen in the fall from October 15 (2006) to November 27 (2005), there were four “clustered” influxes. The first peaked on October 15, 2006 when two seen at the Sand Farm. One of them was taken and eaten by an American Alligator...The second influx peaked from October 22 (2003) to October 24 (2004) with two on both dates. The third peaked on November 7 (2004, 2005) with a high count of three on November 7, 2005. The fourth peaked from November 17 (2006) to November 20 (2005) with a high count of 11 on November 20, 2005. The winter passage ran from November 29 (2006) to January 5 (2007), there were three “clustered” influxes. The first peaked from November 29 (2006) to December 2 (2005) with a high count of nine on December 2, 2005. The second is indicated by a peak count of 13 on December 21, 2005. The third peaked from December 27 (2006) to December 31 (2003) with a high count of two on December 31, 2003. Next came the early spring passage, this ran from January 6 (2005) to March 5 (2006), there were five “clustered” influxes. The first is indicated by a peak count of two on January 6, 2005. The second peaked from January 12 (2007) to January 16 (2008) with a high count of 12 on January 16, 2008. The third peaked from January 27 (2006) to January 28 (2008) with high counts of two on January 27, 2006 and 28 on January 28, 2008. The latter was the highest count during this set of five years. The fourth is indicated by a peak count of two on February 6, 2005. The fifth peaked from February 23 (2005) to February 24 (2006) with a high count of 16 on February 24, 2006. There were two later records with six being seen on March 16, 2007 and one on April 19, 2007.

American Wigeon (*Anas americana*)

Another of the surface feeding ducks that is uncommon because of the lack of suitable habitat. It was seen in the fall and the winter in very low numbers with in the spring sightings in only two of the five years. Seen in the fall from October 6 (2006) to November 20 (2005), there were traces of four “clustered” influxes. The first three influxes were indicated by isolated peak counts of one on October 6, 2006, two on October 21, 2005 and one on November 3, 2006. The fourth peaked from November 9 (2003) to November 13 (2005) with a high count of two on November 13, 2005. The winter passage followed from December 5 (2004) to January 6 (2005), there were three “clustered” influxes. The first peaked from December 5 (2004) to December 7 (2005, 2007) with a high count of four on December 5, 2004. The second peaked from December 30 (2005) to December 31 (2003) with a high count of two on December 30, 2005. The third is indicated by a peak count of six on January 6, 2005. The early spring passage was only noted in 2005, to detail the two influxes. There were 12 on January 26 and January 30 with 16 on February 2, 21 on February 6 and 34 on February 8, then 12 seen on February 13 with one on February 16. There were 24 on February 20 with 48 on February 23, then two seen on March 2. The count of 48 was the highest count during this set of five years. The late spring passage followed with sightings from March 6 (2005) to March 18 (2005). There was a single “clustered” influx that peaked on March 16 (2005, 2007) with a high count of 42 on March 16, 2005. To detail the individual influxes, there were six on March 6, 2005 with 42 on March 16,

2005 then 38 seen on March 18, 2005. There were 15 on March 16, 2007 with four on March 17, 2007. With so little information it is surprising just how many “clustered” influxes could be identified.

American Black Duck (*Anas rubripes*)

This is an irregular passage migrant and winter visitor. To detail the records in chronological order, there were two from November 28, 2003 to December 21, 2003 then one seen to January 16, 2004. There were two again from January 21, 2004 to February 11, 2004. There was one on October 24, 2004 with two from December 16, 2004 to January 6, 2005, then one seen on January 9, 2005. Later there were two on January 24, 2005 with one on January 26, 2005. There was one on October 30, 2005, the second fall record. There were no sightings in 2006. There was one on December 9, 2007 with in the early spring one from January 23, 2008 to January 30, 2008. Finally there was one on February 17, 2008.

There were two fall records that comprise a “clustered” influx, this peaked from October 24 (2004) to October 30 (2005) with one on both dates. Seen in the winter from November 28 (2003) to January 16 (2004), there were two “clustered” influxes. The first is indicated by a peak count of two on November 28, 2003. The second peaked from December 9 (2007) to December 16 (2004) with a high count of two on December 16, 2004. There was also an early spring passage and this ran from January 21 (2004) to February 17 (2008), there were two “clustered” influxes. The first peaked from January 21 (2004) to January 24 (2005) with two on both dates. The second is indicated by a peak count of one on February 17, 2008.

Mallard (*Anas platyrhynchos*)

There is a feral population that can be seen in very small numbers throughout the year. There also appeared to be an arrival of wild birds from the north in the late fall but the numbers were very variable. There was also a minor passage in the winter and the early spring. With the general lack of water during the period being discussed this species could normally be found in one or more of the canals. Single pairs bred in 2006 and 2007. In 2006 a pair raised six young at the western end of the Roach Canal. In 2007 a pair had a brood of three at the eastern end of the Roach Canal on April 27 but only one young survived. The summer appeared to cover the period March 26 (2006) to July 28 (2005), surprisingly there were indications of passage from March 26 (2006) to May 30 (2007) with a high count of ten on April 27, 2007. The early fall passage ran from July 10 (2006) to October 6 (2006) again with a high count of ten on August 11, 2006. The main fall passage ran from October 3 (2004) to November 23 (2004) with a high count of 103 on October 24, 2004, these had to be migrants. To detail the 2004 influxes, there were three on October 3 with 18 on October 6 and 24 on October 11, then nine seen on October 13 with two on October 21. There were 103 on October 24 with 13 on October 31 and one on November 3. There were 17 on November 7 with 13 on November 10, 11 on November 21 and six on November 23. The winter passage followed from November 22 (2006) to January

16 (2004) with a high count of eight on January 5, 2007. There was a minor early spring passage from January 6 (2005) to February 12 (2008) with a high count of six on February 12, 2008. Up to two a day continued to be seen until the next event started. This was the “main spring passage” which ran from March 2 (2007) to April 8 (2007) with a high count of eight on April 11, 2007. I consider this event to consist of local feral birds searching for suitable nesting locations rather than any passage. With the exception of the winter any passage that I note above was limited, for every other season there were multiple years with little or no passage, during those periods up to three a day seen.

The summer passage ran from March 26 (2006) to possibly July 28 (2005), however passage only recorded from March 26 (2006) to May 30 (2007), there were four “clustered” influxes. The first peaked from April 11 (2007) to April 18 (2004) with a high count of eight on April 11, 2007. The second peaked from April 27 (2007) to April 28 (2006) with a high count of ten on April 27, 2007. The last two influxes are indicated by isolated peak counts of three on May 14, 2006 and seven on May 25, 2007. The early fall passage ran from July 10 (2006) to October 6 (2006). Whilst there were a total of eight influxes five of them only occurred in 2006. This means that it is hard to identify the pattern. The only identifiable “clustered” influx peaked from August 20 (2006) to August 22 (2004) with a high count of eight on August 22, 2004. The highest count for this passage was that of ten on August 11, 2006. The main fall passage followed and this ran from October 3 (2004) to November 23 (2004), there were five “clustered” influxes. The first peaked on October 11 (2004, 2006) with a high count of 24 on October 11, 2004. The second peaked from October 22 (2003) to October 24 (2004) with high counts of four on October 22, 2003 and 103 on October 24, 2004. The latter is still the highest count for Zellwood. The third is indicated by a peak count of four on October 28, 2005. The fourth peaked from November 3 (2006) to November 7 (2004) with a high count of 17 on November 7, 2004. The fifth influx is indicated by a peak count of three on November 15, 2006. The passage in 2004 at the very least had to involve birds from the north. The winter passage ran from November 22 (2006) to January 16 (2004), there were four “clustered” influxes. The first peaked on December 1 (2004, 2006) with a high count of six on December 1, 2006. The second peaked from December 9 (2007) to December 10 (2006) with a high count of seven on December 10, 2006. The third peaked from December 30 (2004) to December 31 (2003) with three on both dates. The fourth influx is indicated by a peak count of eight on January 5, 2007. There was a minor early spring passage from January 6 (2005) to February 12 (2008), there were two “clustered” influxes. The first peaked from January 16 (2005, 2007) to January 19 (2004) with a high count of five on January 16, 2007. The second is indicated by a peak count of six on February 12, 2008. Up to two a day then seen until the start of the next event, the “main spring passage” which ran from March 2 (2007) to April 8 (2007). There are indications of three “clustered” influxes. The first two influxes are indicated by isolated peak counts of five on March 2, 2007 and six on March 11, 2007. The third peaked from March 18 (2005) to March 22 (2004) with a high count of five on March 21, 2007. With no indications of passage or of limited passage in two to four years per season it is harder to identify any influxes.

Mottled Duck (*Anas fulvigula*)

Seemingly a non-breeding resident with the possibility of a strong fall passage together with a post-breeding gathering if the conditions are right, these ducks will use the canals but they prefer the shallow flooded fields especially if there are suitable areas for loafing. Seen in the summer from April 25 (2006) to August 21 (2005). There is the possibility that there was a post-breeding gathering from mid-July to late August. The highest count for the period up to mid-July was that of 17 on May 9, 2007. For the later period which may be a post-breeding gathering, the peak count was that of 36 on July 14, 2006. To detail the 2006 influxes for the latter event, there were five on June 28 with 11 on July 5, 27 on July 10 and 36 on July 14, then 33 seen on July 19 with 30 on July 21, 25 on July 23 and 12 on July 26. There were 18 on July 28 with 24 on July 30 and 26 on August 4, then 21 seen on August 6 with 11 on August 13. The early fall passage ran from August 3 (2008) to October 2 (2005) with a high count of 86 on August 22, 2004. To detail the 2004 influxes, there were seven on August 16 with 41 on August 19 and 86 on August 22, then 68 seen on August 26 with five on August 29. There were 85 on September 8 with 42 on September 9 and 35 on September 12. There were 46 on September 16 with 62 on September 19 and 71 on September 22, then eight seen on September 28. If it had not been for the following passage I might have considered that a post-breeding gathering. The main fall passage ran from September 26 (2007) to December 5 (2004) with a high count of 102 on November 17, 2004. To detail the 2004 influxes, there were 16 on October 3 with 22 on October 6 and 40 on October 11, then 32 seen on October 13 with seven on October 17 and six on October 21. There were 72 on October 24 with 56 on October 31 and 21 on November 3. There were 59 on November 7 with 96 on November 10 and 102 on November 17, then 64 seen on November 21 with 60 on November 23, eight on November 28, six on December 1 and four on December 5. The winter passage ran from November 23 (2003) to January 14 (2004) with a high count of 24 on December 10, 2006. The early spring passage followed from January 6 (2005) to March 12 (2006) with a high count of 25 on March 5, 2006. Finally the main spring passage ran from March 4 (2007, 2008) to May 2 (2004) with a high count of 23 on March 19, 2006.

The summer passage ran from April 25 (2006) to August 21 (2005) although the period from mid-July may be better treated as a post-breeding gathering. There were a total of 11 "clustered" influxes. The first peaked from May 2 (2008) to May 3 (2006) with a high count of ten on May 3, 2006. The second peaked from May 9 (2007) to May 11 (2008) with a high count of 17 on May 9, 2007. The third peaked from May 14 (2004) to May 18 (2008) with a high count of 15 on May 15 2005 and May 17, 2006. The fourth peaked from May 27 (2007) to May 30 (2004) with a high count of ten on May 28, 2008. The fifth peaked from June 8 (2006, 2008) to June 10 (2007) with a high count of eight on June 8, 2006. The sixth peaked from June 16 (2006) to June 22 (2008) with a high count of seven on June 22, 2008. The seventh peaked from June 26 (2005) to June 28 (2004) with a high count of seven on June 28, 2004. The eighth peaked from July 6 (2005, 2007) to July 9 (2008) with a high count of 11 on July 9, 2008. Passage now became lighter and the sightings were more scattered. The last three influxes are indicated by isolated peak counts of 36 on July 14, 2006, eight on July 23, 2005 and 26 on August 4, 2006. The early fall passage ran from August 3 (2008) to October 2 (2005), there were six "clustered"

influxes. The first peaked from August 13 (2008) to August 16 (2006) with a high count of 16 on August 16, 2006. The second is indicated by a peak count of 86 on August 22, 2004. The third peaked from August 27 (2006) to August 29 (2007) with a high count of 18 on August 27, 2006. The fourth peaked from September 3 (2006) to September 8 (2004) with high counts of 19 on September 3, 2006 and 85 on September 8, 2004. The fifth peaked from September 10 (2003) to September 13 (2006) with a high count of 19 on September 10, 2003. The sixth peaked from September 19 (2004) to September 23 (2007) with high counts of seven on September 22, 2005 and 62 on September 19, 2004. The main fall passage followed from September 26 (2007) to December 5 (2004), there were seven “clustered” influxes. The first is indicated by a peak count of five on October 1, 2006. The second peaked from October 5 (2003) to October 7 (2007) with a high count of 37 on October 7, 2007. The third peaked on October 11 (2004, 2006) with a high count of 40 on October 11, 2004. The fourth peaked from October 24 (2004) to October 26 (2005) with high counts of 11 on October 26, 2005 and 72 on October 24, 2004. The fifth is indicated by a peak count of 19 on November 3, 2006. The sixth peaked from November 13 (2005) to November 17 (2004) with high counts of five on November 13, 2005 and 102 on November 17, 2004. The latter was the highest count during this set of five years. The seventh peaked from November 20 (2005) to November 24 (2006) with a high count of 19 on November 24, 2006. The winter passage ran from November 23 (2003) to January 14 (2004), there were four “clustered” influxes. The first peaked from December 1 (2003, 2006) to December 2 (2005) with a high count of 20 on December 1, 2006. The second peaked from December 7 (2004) to December 10 (2006) with a high count of 24 on December 10, 2006. The third peaked from December 16 (2005) to December 22 (2004) with a high count of 14 on December 22, 2004. The fourth peaked from December 28 (2003, 2005) to January 2 (2008) with a high count of 16 on January 2, 2008. Next came the early spring passage, this ran from January 6 (2005) to March 12 (2006), there were eight “clustered” influxes. The first peaked from January 6 (2005) to January 8 (2006) with a high count of 14 on January 6, 2005. The second peaked from January 11 (2008) to January 16 (2004) with a high count of 13 on January 11, 2008. The third peaked from January 20 (2008) to January 25 (2004) with a high count of 24 on January 20, 2008. The fourth peaked from January 31 (2007) to February 5 (2006) with a high count of 21 on February 1, 2008. The fifth is indicated by a peak count of four on February 11, 2007. The sixth peaked from February 16 (2004) to February 20 (2008) with a high count of 17 on February 20, 2008. The seventh peaked from February 24 (2006) to February 27 (2004) with a high count of 14 on February 24, 2006. The eighth peaked from March 2 (2005) to March 5 (2006) with a high count of 25 on March 5, 2006. Finally there was the main spring passage this ran from March 4 (2007, 2008) to May 2 (2004), there were seven “clustered” influxes. The first peaked from March 10 (2005) to March 14 (2007) with a high count of 19 on March 10, 2005. The second peaked from March 17 (2008) to March 19 (2006) with a high count of 23 on March 19, 2006. The third peaked from March 22 (2004) to March 26 (2008) with a high count of 14 on March 26, 2008. The fourth is indicated by a peak count of 17 on March 30, 2005. The fifth peaked from April 4 (2008) to April 8 (2007) with a high count of 18 on April 8, 2007. The sixth peaked from April 15 (2008) to April 19 (2006) with a high count of ten on April 15, 2008. The seventh peaked from April 24 (2005, 2007) to April 25 (2004, 2008) with a high count of 16 on April 24, 2007. The highest counts for Zellwood occurred just after this set of five years ended, there were 217 on September 14, 2008. There were 43 “clustered” influxes.

Blue-winged Teal (*Anas discors*)

A common passage migrant and winter visitor, even so the numbers were low compared to what would likely have been seen if there had been flooded fields during this set of five years. On occasions this species migrates south very early in the fall, the few birds being adults in breeding plumage. There were two on June 26, 2005 with two on June 25, 2008 and two again on July 6, 2008. Sightings after June 21st I consider to relate to fall migrants. Otherwise seen in the early fall from August 4 (2004, 2006) to October 8 (2005) with a high count of 600 on September 12, 2004. To detail the 2004 influxes, there were two on August 4. There were five on August 19 with 44 on August 22, then two seen on September 1. There were 160 on September 8 with 290 on September 9 and 600 on September 12, then 410 seen on September 19 with 215 on September 22. The main fall passage followed, it ran from September 24 (2003) to December 1 (2003, 2004) with a high count of 1,025 on October 3, 2004. To continue detailing the 2004 influxes, there were 885 on September 28 with 1,025 on October 3, then 570 seen on October 11 with 125 on October 13, 30 on October 21, 16 on October 24, four on November 3 and two on November 7. There were three on November 10 with 48 on November 14, then 12 seen on November 21 with nine on November 28 and six on December 1. The winter passage ran from November 30 (2007) to January 19 (2007) with a high count of 310 on December 30, 2004. Next came the early spring passage, this ran from January 4 (2008) to March 10 (2006) with a high count of 225 on January 30, 2005. Finally there was the late spring passage, this ran from February 28 (2007) to May 14 (2004, 2006, 2008) with a high count of 147 on March 24, 2008. There were surprisingly two late records, there were singles on May 22, 2005 and May 28, 2006.

There were three very early fall records of two on June 25, 2008, June 26, 2005 and July 6, 2008. The actual early fall passage ran from August 4 (2004, 2006) to October 8 (2005), there were six "clustered" influxes. The first two influxes were indicated by isolated peak counts of two on August 4, 2004 and one on August 13, 2008. The third peaked from August 29 (2007) to September 1 (2006) with a high count of 99 on September 1, 2006. The fourth peaked from September 7 (2007) to September 8 (2006) with a high count of 60 on September 8, 2006. The fifth peaked from September 10 (2003) to September 16 (2007) with high counts of 31 on September 10, 2003 and 600 on September 12, 2004. The sixth peaked from September 21 (2006) to September 22 (2005) with a high count of 50 on September 21, 2006. The main fall passage ran from September 24 (2003) to December 1 (2003, 2004), there were eight "clustered" influxes. Because of the low numbers (for this species) there were a lot of basic influxes. The first peaked from September 27 (2006) to October 3 (2004) with high counts of 61 on September 27, 2006 and 1,025 on October 3, 2004. This was the highest count during this set of five years. To show what I mean by the low numbers the actual high count is that of 10,500 on November 2, 1998. The second influx peaked from October 6 (2006) to October 10 (2007) with a high count of 108 on October 9, 2003. The third peaked from October 16 (2005) to October 18 (2006) with a high count of 32 on October 18, 2006. The fourth peaked from October 25 (2006) to October 26 (2005) with a high count of 25 on October 25, 2006. The fifth peaked from October 29 (2003) to November 3 (2006) with a high count of 100 on October 31, 2007. The sixth peaked from November 7 (2007) to November 11 (2005) with a high count of 64

on November 11, 2005. The seventh peaked from November 14 (2004) to November 20 (2003) with a high count of 48 on November 14, 2004. The eighth peaked from November 24 (2006) to November 27 (2005) with high counts of 169 on November 27, 2005 and 176 on November 24, 2006. The winter passage followed from November 30 (2007) to January 19 (2007), there were five “clustered” influxes. The first peaked from December 3 (2008) to December 7 (2005) with a high count of 147 on December 7, 2005. The second peaked from December 10 (2006) to December 16 (2005) with a high count of 215 on December 10, 2006. The third is indicated by a peak count of 48 on December 21, 2003. The fourth peaked on December 30 (2004, 2005, 2007) with a high count of 310 on December 30, 2004. The fifth peaked from January 4 (2004) to January 5 (2007) with a high count of 151 on January 4, 2004. The early spring passage ran from January 4 (2008) to March 10 (2006), there were eight “clustered” influxes. The first peaked from January 9 (2005) to January 11 (2006) with a high count of 113 on January 9, 2005. The second peaked from January 18 (2008) to January 19 (2004) with a high count of 74 on January 19, 2004. The third peaked from January 22 (2006) to January 24 (2007) with a high count of 73 on January 24, 2007. The fourth peaked from January 30 (2005) to February 1 (2006, 2008) with a high count of 225 on January 30, 2005. The fifth peaked from February 7 (2007) to February 8 (2005) with a high count of 220 on February 8, 2005. The sixth peaked from February 11 (2004) to February 12 (2006) with a high count of 85 on February 11, 2004. The seventh peaked from February 16 (2005) to February 18 (2007) with a high count of 220 on February 16, 2005. The eighth peaked from February 26 (2008) to March 1 (2006) with a high count of 106 on March 1, 2006. Finally the late spring passage ran from February 28 (2007) to May 14 (2004, 2006, 2008), there were seven “clustered” influxes. The first peaked from March 6 (2005) to March 10 (2004) with a high count of 146 on March 6, 2005. The second peaked from March 14 (2007) to March 16 (2005) with a high count of 80 on March 16, 2005. The third peaked from March 22 (2006) to March 24 (2008) with a high count of 147 on March 24, 2008. The fourth peaked from April 3 (2005) to April 7 (2004) with a high count of 20 on April 3, 2005. The fifth peaked from April 11 (2007) to April 15 (2008) with a high count of 86 on April 11, 2007. The sixth peaked from April 19 (2006) to April 24 (2005) with a high count of 131 on April 21, 2007. The seventh peaked from May 7 (2008) to May 12 (2006) with a high count of four on May 10, 2004. There were also two very late records that form a “clustered” influx, there were singles on May 22, 2005 and May 28, 2006.

Cinnamon Teal (*Anas cyanoptera*)

This is a vagrant with just one record for the five years. There was a female at the Sand Farm Cattail Marsh on December 4, 2005 and December 9, 2005.

Northern Shoveler (*Anas clypeata*)

A rather uncommon passage migrant and winter visitor during these five years; if the habitat had been there it would have been a much more significant visitor. Unlike the Blue-winged Teal there were no very early fall records. Seen in the fall from September 16 (2004) to

December 3 (2006) with a high count of 37 on November 24, 2006. To detail the 2006 influxes, there was one on October 18 with four on October 25, then one seen on November 3. There were 19 on November 4 with 24 on November 5 and 36 on November 12, then 22 seen on November 15. There were 23 on November 17 with 35 on November 19 and 37 on November 24, then 18 seen on November 26 with 11 on December 1 and three on December 3. The winter passage ran from December 2 (2005) to January 6 (2006) with a high count of 53 on December 20, 2006. To continue detailing the 2006/2007 influxes, there were eight on December 6 with 14 on December 8 and 32 on December 13, then 18 seen on December 15. There were 29 on December 17 with 53 on December 20, then 36 seen on December 27 with 23 on December 29, 14 on December 31, eight on January 3 and seven on January 5. The early spring passage followed from January 4 (2008) to February 29 (2008) with a high count of 17 on January 20, 2006. There were only limited sightings in the late spring. There was one on March 22, 2004 with two from April 11, 2007 to April 15, 2007, then five seen on April 16, 2007. There were four on April 15, 2008 with one on April 20, 2008. Finally there was an adult male on May 4, 2008.

Seen in the fall from September 16 (2004) to December 3 (2006), there were five "clustered" influxes. There was no passage in 2007. The first influx is indicated by a peak count of two on September 16, 2004. The second peaked from October 3 (2004) to October 8 (2005) with a high count of ten on October 3, 2004. The third peaked from October 19 (2003) to October 25 (2006) with a high count of 36 on October 21, 2004. The fourth is indicated by a peak count of 36 on November 12, 2006. The fifth peaked from November 24 (2006) to November 27 (2005) with a high count of 37 on November 24, 2006. The winter passage ran from December 2 (2005) to January 6 (2006), there were four "clustered" influxes. There was no passage in the winters 2003/2004 and 2004/2005. The first influx is indicated by a peak count of 20 on December 4, 2005. The second peaked from December 13 (2005, 2006) to December 17 (2007) with a high count of 32 on December 13, 2006. The third peaked from December 20 (2006) to December 23 (2005) with a high count of 53 on December 20, 2006. This was the highest count during this set of five years. The fourth is indicated by a peak count of 19 on January 1, 2006. This was followed by the early spring passage, this ran from January 4 (2008) to February 29 (2008), there were five "clustered" influxes. There was no passage in 2004. The first influx peaked from January 7 (2007) to January 11 (2008) with high counts of 14 on January 9, 2005 and January 7, 2007. The second peaked from January 16 (2007) to January 20 (2006) with a high count of 17 on January 20, 2006. The third is indicated by a peak count of five on February 1, 2008. The fourth peaked from February 10 (2006) to February 16 (2007) with a high count of seven on February 10, 2006. The fifth is indicated by a peak count of one on February 29, 2008. There was a very limited late spring passage from March 22 (2004) to May 4 (2008). Surprisingly there was one "clustered" influx. Initially there was one on March 22, 2004. The influx peaked from April 15 (2008) to April 16 (2007) with high counts of five on April 16, 2007 and four on April 15, 2008. Finally there was an adult male on May 14, 2008.

Northern Pintail (*Anas acuta*)

This is the rarest of the regularly occurring surface feeding ducks, especially so with the lack of surface water during these five years. Lake Apopka is great for diving ducks but there are no vegetated areas for the surface feeding ducks. Seen in the fall from September 9 (2004) to November 30 (2005), there were six “clustered” influxes. In 2004 there was one on September 9 with one again from September 19 to September 28. The counts on both September 9 and September 19 could indicate the location of separate influxes or if just one bird involved then only September 9 stands, how does one know? I am treating them as separate events. The third influx is indicated by a peak count of two on October 6, 2004. The fourth peaked from October 19 (2003) to October 21 (2005) with two on both dates. The fifth peaked from November 4 (2006) to November 10 (2004) with a high count of five on November 10, 2004. In deciding exactly which counts form an influx (multiple years) there are often factors that you do not see, in this instance there was a third peak count of three on November 7, 2007. The sixth influx peaked from November 27 (2005) to November 28 (2003) with a high count of five on November 27, 2005. There were records for every year although 2006 was represented by a single record; there was one on November 4. The winter passage ran from December 2 (2005) to December 21 (2003, 2005), there were two “clustered” influxes. The first peaked from December 9 (2007) to December 11 (2005) with a high count of five on December 11, 2005. The second peaked on December 21 (2003, 2005) with a high count of three on December 21, 2005. There was no passage in 2004 and 2006. The early spring passage ran from January 6 (2005) to February 20 (2005). There was no passage in 2004, 2007 and 2008 this makes it hard to identify the pattern. With one exception the sightings were all in 2005. To detail the 2005 records, there were two on January 6 with 12 on January 9. There were two on January 19 with eight from January 26 to February 6 and 12 on February 8. These counts of 12 were the highest counts during this set of five years. It is probably just a coincidence that the counts are of 12 but the main party may have been on Duda and just happened to cross into the survey area on these two dates. Normally records from the other four years clarify the situation for me. I am treating the counts of 12 as representing two separate influxes with peak counts on January 9, 2005 and February 8, 2005. The last record for 2005 was that of one on February 20. This forms a “clustered” influx which peaked from February 17 (2006) to February 20 (2005) with one on both dates. Finally there was an adult male on May 14, 2008.

Green-winged Teal (*Anas crecca*)

Unlike the last few migrant species this is predominately a spring passage migrant with smaller numbers in the winter and fall. As with the Blue-winged Teal this species occurs in a wider range of habitats than the other surface feeding ducks. There was a minimal early fall passage from August 24 (2003) to September 22 (2005). There was one on August 24, 2003 followed by two on September 3, 2006 and one on September 10, 2006. There was a flock of 30 on September 8, 2004 with two on September 10, 2003. Finally there was one on September 22, 2005. The main fall passage ran from October 2 (2003) to November 28 (2003) with high counts of 70 on November 4, 2006 and November 19, 2006. The winter passage ran from November 24

(2006) to January 4 (2004, 2006) with a high count of 525 on December 7, 2005. To detail the 2005/2006 influxes, there were 36 on November 27 with 183 on November 30, 225 on December 2 and 525 on December 7, then 415 seen on December 9 with eight on December 11. There were 46 on December 13 with 250 on December 16, then 158 seen on December 21 with ten on December 23 and six on December 26. There were 133 on December 28 with 42 on January 1 and one on January 4. The early spring passage followed from January 5 (2007) to March 8 (2006) with a high count of 500 on February 12, 2006. To continue detailing the 2006 influxes, there were six on January 6 with 60 on January 8, 88 on January 11, 110 on January 15 and 160 on January 18, then 110 seen on January 22 with 50 on January 25. There were 110 on January 27 with 80 on January 29 and 74 on February 1. There were 165 on February 5 with 310 on February 8 and 500 on February 12, then 380 seen on February 14 with 370 on February 17, 210 on February 19 and 60 on February 22. There were 275 on February 24 with 100 on February 27, 64 on March 1, 55 on March 5 and 35 on March 8. There were a mixture of type 1 and type 2 influxes. The late spring passage ran from March 4 (2007) to April 13 (2007) with a high count of 44 on March 7, 2007.

There was an early fall passage from August 24 (2003) to September 22 (2005). There was one on August 24, 2003 with two on September 3, 2006 and one on September 10, 2006. The first two dates may indicate the location of influxes. There was one "clustered" influx which peaked from September 8 (2004) to September 10 (2003) with high counts of two on September 10, 2003 and 30 on September 8, 2004. Finally there was one on September 22, 2005. The main fall passage ran from October 2 (2003) to November 28 (2003), there were five "clustered" influxes. The first peaked from October 15 (2006) to October 16 (2005) with a high count of 15 on October 15, 2006. The second peaked from October 19 (2003) to October 21 (2004) with a high count of 19 on October 19, 2003. The third peaked from October 29 (2003) to November 4 (2006) with a high count of 70 on November 4, 2006. The fourth peaked from November 10 (2004) to November 12 (2003, 2006) with a high count of 47 on November 12, 2006. The fifth peaked from November 19 (2006) to November 22 (2005) with a high count of 70 on November 19, 2006. The winter passage was stronger and the passage ran from November 24 (2006) to January 4 (2004, 2006), there were four "clustered" influxes. The first peaked from November 29 (2006) to December 3 (2003) with a high count of 136 on November 29, 2006. The second peaked from December 7 (2005) to December 10 (2006) with high counts of 170 on December 10, 2006 and 525 on December 7, 2005. The latter was the highest count during this set of five years. The third peaked from December 15 (2003) to December 17 (2006, 2007) with a high count of 250 on December 16, 2005. The fourth peaked from December 27 (2006) to December 30 (2004) with a high count of 190 on December 27, 2006. This was followed by the early spring passage, this ran from January 5 (2007) to March 8 (2006), there were six "clustered" influxes. The first peaked from January 9 (2005) to January 10 (2007) with a high count of 260 on January 10, 2007. The second peaked from January 14 (2004) to January 18 (2006) with a high count of 160 on January 18, 2006. The third peaked from January 27 (2006) to January 31 (2007) with a high count of 247 on January 31, 2007. The fourth peaked from February 9 (2007) to February 12 (2006) with high counts of 220 on February 9, 2007 and 500 on February 12, 2006. The fifth peaked from February 18 (2007) to February 24 (2006) with a high count of 275 on February 24, 2006. The sixth is indicated by a peak count of four on

February 29, 2008. Finally there was the late spring passage, this ran from March 4 (2007) to April 13 (2007), there were three “clustered” influxes. The first peaked from March 6 (2005) to March 7 (2007) with a high count of 44 on March 7, 2007. The second peaked from March 12 (2006) to March 15 (2008) with a high count of four on March 12, 2006. The third peaked from March 18 (2005, 2007) to March 22 (2006) with a high count of 14 on March 18, 2005.

Common Teal (*Anas crecca crecca*)

This is the European race of the Green-winged Teal which at some point in time may get full species status. It is a major rarity in Florida. There was an adult male at the Sand Farm Cattail Marsh on January 22, 2006. It was with 110 Green-winged Teals. This is the only Zellwood record.

Canvasback (*Aythya valisineria*)

There were only three sightings during this five year period. It would not surprise me if it was a more frequent visitor to Lake Apopka as it is not possible to identify all the ducks and the gulls out in the middle of the lake. There was a female on November 27, 2005 and single males were seen on February 10, 2008 and March 2, 2007. The November record could be either a fall or a winter record.

Redhead (*Aythya americana*)

This is an irregular visitor with most sightings at the Sand Farm Cattail Marsh. There were five at the Sand Farm on October 26, 2005 with two (location not known) on November 9, 2003. Those were the only fall records. For the winter there was one at the Sand Farm from December 4, 2005 to December 26, 2005 with a male on Lake Apopka on December 5, 2007. There was just one early spring record, there was one (location not known) on January 25, 2006. Finally and very exceptionally there was a female at the Sand Farm Cattail Marsh on May 3, 2006.

Ring-necked Duck (*Aythya collaris*)

It can be found on Lake Apopka or in the flooded fields on passage or during the winter. Seen in the late fall from October 11 (2004) to November 30 (2005) with a high count of 950 on November 19, 2006. The winter passage ran from November 26 (2006) to January 2 (2008) with an extension to January 13 in 2006. The highest count was that of 2,100 on December 2, 2007. This was a one day event so I am going instead to detail the records for 2005/2006, there were seven on December 2 with 140 on December 4, then 15 seen on December 9 with seven on December 13 and one on December 16. There were six on December 19 with 12 on December

21, 13 on December 23, 24 on December 26, 48 on December 28, 52 on January 4, 67 on January 6, 95 on January 8 and 170 on January 11, then 41 seen on January 13. With a peak count date of January 11 this would normally be placed in the early spring passage but because the influx started so early in December it is placed here. The early spring passage followed from January 2 (2005) to February 25 (2007) with a high count of 450 on February 12, 2006. To continue detailing the 2006 influxes, there were 151 on January 15 with 170 on January 18, then 158 seen on January 27 with 142 on January 29. There were 201 on February 1 with 250 on February 8 and 450 on February 12, then 238 seen on February 14 with 83 on February 17, 66 on February 22 and 55 on February 24. Finally there was the late spring passage, this ran from February 27 (2006) to April 7 (2004) with a high count of 110 on March 4, 2006. Very exceptionally there were singles on May 3, 2006 and May 4, 2008. The Redhead was with the May 3, 2006 bird at the Sand Farm Cattail Marsh. To continue detailing the 2006 influxes, there were 92 on February 27 with 99 on March 1 and 110 on March 4, then 42 seen on March 8 with 12 on March 12, four on March 15, three on March 19 and one on March 26.

Seen in the fall from October 11 (2004) to November 30 (2005), there were five "clustered" influxes. The first is indicated by an isolated peak count of one on October 11, 2004. The second peaked from October 31 (2007) to November 3 (2006) with a high count of 94 on November 3, 2006. The third peaked from November 9 (2003) to November 14 (2004) with a high count of 108 on November 9, 2003. The fourth peaked from November 19 (2006) to November 20 (2005) with high counts of 62 on November 20, 2005 and 950 on November 19, 2006. The fifth is indicated by a peak count of 12 on November 27, 2005. The winter passage ran from November 26 (2006) to January 2 (2008) with an extension to January 13 in 2006, there were four "clustered" influxes. The first peaked from December 2 (2007) to December 7 (2003) with high counts of 140 on December 4, 2005, 250 on December 3, 2006 and 2,100 on December 2, 2007. The latter was the highest count during this set of five years. The second is indicated by a peak count of 13 on December 10, 2006. The third peaked from December 28 (2003) to December 30 (2007) with a high count of ten on December 30, 2007. The fourth is indicated by a peak count of 170 on January 11, 2006. This was a date that better fitted into the first influx of the early spring passage. That passage was a weak event with no passage at all in 2004. This event ran from January 2 (2005) to February 25 (2007), there were indications of five "clustered" influxes. The first peaked from January 6 (2005) to January 7 (2007) with a high count of 39 on January 6, 2005. This was followed by four isolated peak counts. I think that is a record for this analysis. There were 14 on January 20, 2008, eight on January 30, 2005, 450 on February 12, 2006 and 16 on February 25, 2007. This was followed by the main spring passage, this ran from February 27 (2006) to April 7 (2004), there were three "clustered" influxes. The first peaked from March 3 (2004) to March 4 (2006) with high counts of 30 on March 3, 2004 and 110 on March 4, 2006. The second peaked from March 16 (2005, 2007) to March 19 (2008) with a high count of 11 on March 19, 2008. The third is indicated by a peak count of two on April 7, 2004. Very exceptionally there were singles on May 3, 2006 and May 4, 2008, these form a "clustered" influx and that is even more surprising.

Greater Scaup (*Aythya marila*)

Very uncommon visitor to Lake Apopka with most sightings in the spring. To detail the records chronologically, there was an adult male from November 9, 2005 with three (sex/age not noted) on November 18 and two from November 22 to November 30. One then seen through to February 19, 2006 with two from January 20 to January 25 and again on February 14. It is likely that only three birds involved in the above. There was one at the Sand Farm Cattail Marsh on January 16, 2007 with one on Lake Apopka on June 3, 2007. This species has a history of the occasional individual migrating in late May or early June. There was a party of 12 on December 17, 2007. This is still the highest count for Zellwood. In 2008 there was one on February 22 with three from March 19 to March 26, one stayed to March 28. Finally there was a female from April 27 to May 4. I believe that all sightings were at Lake Apopka unless stated otherwise.

Lesser Scaup (*Aythya affinis*)

A regular passage migrant and winter visitor, most sightings are at Lake Apopka although it does turn up in the flooded fields. On Lake Apopka it can form dense flocks which are identical in form to those of the Ring-necked Duck. Both of these species are under-recorded as it is not possible to identify many of the flock's way out on the lake. Seen in the late fall from October 27 (2006) to December 3 (2006) with a high count of 120 on November 3, 2006. The winter passage was a minor event, it ran from November 30 (2005, 2007) to January 1 (2006) with a high count of 38 on December 26, 2005. The early spring passage was probably the main event, this passage ran from January 4 (2004, 2006) to March 8 (2006) with a high count of 760 on February 10, 2008. To detail the 2006 influxes, there were nine on January 4 with 12 on January 6 then seven seen on January 8. There were nine on January 11 with 29 on January 13 then seen 12 on January 15. There were 16 on January 18 with 38 on January 22, then 20 seen on January 25 with 16 on January 27, 15 on January 29, 13 on February 1 and nine on February 5. The recurring count of nine suggests that this was the basic population from January 4 to February 5. There were 16 on February 8 with 18 on February 14 and 24 on February 19, then seven seen on February 24 with five on March 4 and one on March 8. To detail the main 2008 influx, there were 760 on February 10 with 260 on February 12, 200 on February 20 and 80 on February 22. Finally there was the late spring passage, this ran from March 9 (2007) to April 18 (2008). To detail the sightings, there was one on March 9, 2007, later 12 seen on March 25, 2007 with 130 on March 28, 2007, then one seen on April 4, 2007. There was one on March 19, 2008 and March 26, 2008. Finally there was one from April 11, 2008 to April 18, 2008.

Seen in the late fall from October 27 (2006) to December 3 (2006), there were four "clustered" influxes. The first peaked from October 31 (2007) to November 3 (2004, 2006) with high counts of 40 on October 31, 2007 and 120 on November 3, 2006. The next two influxes were indicated by isolated peak counts of three on November 9, 2003 and 13 on November 18, 2005. The fourth peaked from November 21 (2004) to November 25 (2005) with a high count of

32 on November 21, 2004. The winter passage ran from November 30 (2005, 2007) to January 1 (2006), there were four “clustered” influxes. The first peaked from November 30 (2007) to December 2 (2005) with a high count of 18 on December 2, 2005. The second peaked from December 6 (2006) to December 7 (2003, 2004) with a high count of 12 on December 7, 2003. The third is indicated by a peak count of 23 on December 13, 2005. The fourth peaked from December 26 (2005) to December 30 (2007) with a high count of 38 on December 26, 2005. The early spring passage followed from January 4 (2004, 2006) to March 8 (2006), there were six “clustered” influxes. The first peaked from January 4 (2004) to January 6 (2005, 2006) with a high count of 12 on January 4, 2004 and January 6, 2006. The second peaked from January 13 (2006) to January 14 (2008) with a high count of 29 on January 13, 2006. The third is indicated by a peak count of 38 on January 22, 2006. The fourth peaked from January 28 (2008) to February 2 (2004) with a high count of 32 on February 2, 2004. The fifth peaked from February 10 (2008) to February 12 (2007) with high counts of two on February 12, 2007 and 760 on February 10, 2008. The latter was the highest count during the first ten years of the survey. The high count now stands at 3,300 these were seen on January 23, 2009. This fits into the third influx. The last influx peaked from February 19 (2006) to February 25 (2007) with a high count of 24 on February 19, 2006. The late spring passage only occurred in the last two years. Because of this I cannot identify any multiple year influxes. In 2007 there was one on March 9. There were also 12 on March 25, with 130 on March 28, then one seen on April 4. In 2008 there were singles on March 19 and March 26 with singles again on April 11, April 13 and April 18. As I said earlier this is an under-recorded species.

Black Scoter (*Melanitta nigra*)

This is a coastal species that is not meant to occur in the interior, there is I think just one previous record for inland Florida. There were two adult males on Lake Apopka on November 22, 2006 and November 29, 2006. Both sightings were between Magnolia Park and the Hooper Farms Road extension

Bufflehead (*Bucephala albeola*)

A very uncommon passage migrant and winter visitor, it can be found in the flooded fields or on Lake Apopka. Due to their small size only those near the shore of Lake Apopka can be identified so it may well be a more regular visitor than the records suggest. There was no clear demarcation between the late fall and the winter passages. The earliest was one on November 17, 2006. In 2005 there were three on November 20 with four on November 27 and December 2, then three seen on December 4 and December 7 with two on December 9. There were four on December 13 with two on December 19 and December 21 then one seen on December 26. There was a flock of 11 on Lake Apopka on December 16, 2004. This is still the highest count for Zellwood. Finally for the winter there were two on December 17, 2007 and December 19, 2007. For the early spring passage in 2007 there were two on January 8, January

13 and January 15. Finally there were three on January 9, 2008. It is possible that some 22 individuals involved in the above.

For the fall there was a peak count of one on November 17, 2006 that may indicate the location of an influx. There was another peak count of four on November 27, 2005 and this could represent either a fall or a winter influx. There was a winter “clustered” influx and it peaked from December 13 (2005) to December 17 (2007) with a high count of 11 on December 16, 2004. There was also a “clustered” influx in the early spring passage, this peaked from January 8 (2006) to January 9 (2008) with a high count of three on January 9, 2008. It still surprises me that with so little information there are still clearly identifiable influxes.

Common Goldeneye (*Bucephala clangula*)

This is a very rare passage migrant and winter visitor. For the late fall passage there were two on Lake Apopka on November 22, 2005. This is still the highest count for Zellwood. For the winter passage there was one from December 28, 2005 to January 4, 2006. This one was in the Pole Road Canal. There were two early spring records. There was one at the Sand Farm Cattail Marsh on January 21, 2007. There was also one on Lake Apopka south of the Lust Road Pump House on January 27, 2006. The latter could have been the bird from the Pole Road Canal. That is it.

Hooded Merganser (*Lophodytes cucullatus*)

A regular passage migrant and winter visitor, it can be found on the lake, the canals and at times the narrowest of ditches. With its late arrival the winter passage is probably an extension of the fall passage. Seen in the late fall from November 5 (2006) to November 30 (2005) with a high count of 31 on November 24, 2006. The next highest count was only that of five on November 21, 2007. The winter passage ran from November 28 (2007) to January 5 (2007) with high counts of 28 on December 26, 2005 and 37 on December 10, 2006. The early spring passage ran from December 28 (2003) to March 2 (2008), this was by far the most significant event with high counts of 45 on January 8, 2006 and 61 on February 4, 2007. To detail the 2007 influxes, there were 25 on January 10 with 34 on January 12, then 12 seen on January 14 with five on January 16 and three on January 19. There were 28 on January 21 with 40 on January 26, 44 on January 29, 48 on January 31 and 61 on February 4, then 17 seen on February 9. There were 19 on February 11 with 18 on February 16, 16 on February 18 and 14 on February 21. There were 20 on February 23 with 11 on February 25 and ten on February 28. In three of the five years there was a minimal late spring passage. This event ran from March 2 (2005, 2007) to March 25 (2007) with a high count of 13 on March 2, 2007.

Seen in the late fall from November 5 (2006) to November 30 (2005), there were two “clustered” influxes. The first peaked from November 10 (2006) to November 16 (2003) with a high count of four on November 13, 2005. The second peaked from November 20 (2005) to

November 24 (2006) with a high count of 31 on November 24, 2006. The winter passage followed from November 28 (2007) to January 5 (2007), there were three “clustered” influxes. The first peaked from December 5 (2007) to December 10 (2006) with a high count of 37 on December 10, 2006. The second peaked from December 16 (2004) to December 17 (2007) with a high count of 11 on December 16, 2004. The last influx was indicated by a peak count of 28 on December 26, 2005. The early spring passage was the event of the year, the passage ran from December 28 (2003) to March 2 (2008), there were eight “clustered” influxes. The first peaked from January 4 (2004, 2008) to January 8 (2006) with a high count of 45 on January 8, 2006. The second peaked from January 11 (2008) to January 12 (2007) with a high count of 34 on January 12, 2007. The third is indicated by a peak count of five on January 19, 2004. The fourth peaked from January 25 (2008) to January 28 (2004) with a high count of 14 on January 27, 2006. The fifth peaked from February 2 (2005) to February 5 (2006) with high counts of 13 on February 5, 2006 and 61 on February 4, 2007. The latter was the highest count during this set of five years. The sixth is indicated by a peak count of six on February 8, 2004. The seventh peaked from February 11 (2007) to February 14 (2006) with a high count of 19 on February 11, 2007. The eighth peaked from February 20 (2005) to February 24 (2008) with a high count of 20 on February 23, 2007. There was a minor late spring passage and this ran from March 2 (2005, 2007) to March 25 (2007), there were indications of three “clustered” influxes. The first peaked from March 2 (2007) to March 6 (2005) with a high count of 13 on March 2, 2007. The last two influxes are indicated by isolated peak counts of four on March 18, 2007 and two on March 25, 2007. I am treating these as two separate influxes as there was a count of one on March 21, 2007.

Red-breasted Merganser (*Mergus serrator*)

This was an irregular passage migrant and winter visitor, very exceptionally the main event was the late spring passage. Sightings were probably equally split between any flooded fields, the Sand Farm Cattail Marsh and Lake Apopka. There were two late fall records with one on November 22, 2005 and four on November 22, 2006 at Lake Apopka. These records form a “clustered” influx. The winter was no better. There was one at the Sand Farm Cattail Marsh from November 26, 2006 to December 15, 2006 with one on December 14, 2007. Its location was not noted. In the early spring there were two on January 11, 2004 with one on February 2, 2005. The main spring passage ran from March 16 (2007) to May 11 (2008), there were four records. There was one at Lake Apopka on March 16, 2007 with two adult males on March 24, 2005. There were four at Lake Apopka on April 11, 2008. Finally there was one at the Sand Farm Cattail Marsh from May 9, 2008 to May 11, 2008. A total of 18 birds may have been seen.

Ruddy Duck (*Oxyura jamaicensis*)

Very common passage migrant and winter visitor to Lake Apopka with small numbers in any flooded fields. The greatest numbers were seen in the spring. These ducks can be identified at long range by the way that they are scattered over the lake, I have never seen a tight flock of

these ducks. It is possible that Lake Apopka in some years has the highest numbers for Florida of this species. I arrive at the lake in the afternoon and by that time there is often a breeze that creates a ripple effect on the water. This makes it hard to locate let alone count these tiny ducks way out on the lake. I have to rely on the counts from the calm days and this means that the influxes are less well defined. The winter passage ran from October 4 (2006) to November 28 (2004) with a high count of 10,500 on November 21, 2004. Numbers were very low to mid-November and the highest count during this period was only that of 43 on October 18, 2006. The winter passage followed from November 28 (2007) to January 25 (2004) with high counts of 10,300 on January 4, 2004, 10,500 on December 4, 2005, 13,250 on January 6, 2005 and 34,000 on January 4, 2006. To detail the 2005/2006 influxes, there were 25 on November 30 with 174 on December 2 and 10,500 on December 4, then 60 seen on December 9. There were 160 on December 11 with 29 on December 13, 28 on December 16 and 12 on December 19. There were 560 on December 21 with 25 on December 23 and 14 on December 28. There were 32,000 on December 30 with 34,000 on January 4, then 27,000 seen on January 11. The early spring passage ran from January 15 (2006) to March 2 (2005, 2008), this was the strongest event. In every year bar one there was a single influx. The highest counts were 12,000 on February 4, 2004, 23,000 on February 20, 2005, 28,000 on February 4, 2008 and 34,000 on January 15, 2006. To continue detailing the 2006 influxes, there were 34,000 on January 15 with 1,500 on March 1. The late spring passage ran from March 2 (2007) to May 21 (2006) with high counts of 9,500 on March 5, 2006 and 12,400 on March 20, 2005. After mid-March numbers fell away quickly. To continue with the 2006 influxes, there were 9,500 on March 5 with 5,900 on March 10, 3,200 on March 12 and 400 on March 15. There were 5,750 on March 17 with 2,800 on March 19, 2,300 on March 22, 210 on March 24 and 120 on March 26. There were 40 on April 14 with 72 on April 19, then eight seen on April 21. There were ten on April 25 with 26 on May 3, then 17 seen on May 10 with six on May 17 and five on May 21. There were a few early summer records as seven seen on June 8, 2006 with three on June 8, 2007. Later there were singles on June 23, 2004, June 28, 2006 and July 6, 2007. Why no later records?

The late fall passage ran from October 4 (2006) to November 28 (2004), there were six "clustered" influxes. The first is indicated by a peak count of one on October 4, 2006. The second peaked from October 11 (2004) to October 12 (2007) with one on both dates. The third is indicated by a peak count of 43 on October 18, 2006. The fourth peaked from October 29 (2006) to October 31 (2004) with a high count of 12 on October 31, 2004. The fifth peaked from November 9 (2005) to November 16 (2003) with a high count of 380 on November 16, 2003. The sixth peaked from November 21 (2004) to November 25 (2005) with high counts of 2,650 on November 25, 2005 and 10,500 on November 21, 2004. The winter passage followed from November 28 (2007) to January 25 (2004), there were four "clustered" influxes. This event tended to run a little longer than normal. The first influx peaked from December 4 (2005) to December 9 (2003) with high counts of 8,500 on December 6, 2006, 8,700 on December 7, 2004 and 10,500 on December 4, 2005. The second peaked from December 19 (2007) to December 21 (2005) with a high count of 1,100 on December 19, 2007. The third is indicated by a peak count of 2,650 on December 28, 2007. The fourth peaked from January 3 (2007) to January 6 (2005, 2008) with high counts of 4,600 on January 3, 2007, 10,300 on January 4, 2004, 13,250 on January 6, 2005 and 34,000 on January 4, 2006. The early spring passage was the strongest

event, it ran from January 15 (2006) to March 2 (2005, 2008), there were four “clustered” influxes. The first is indicated by a peak count of 34,000 on January 15, 2006. The counts of 34,000 are still the highest counts for Zellwood. The second peaked from February 4 (2004, 2008) to February 7 (2007) with high counts of, 8,000 on February 7, 2007, 12,000 on February 4, 2004 and 28,000 on February 4, 2008. The last two influxes are indicated by isolated peak counts of 23,000 on February 20, 2005 and 1,900 on February 29, 2008. In four out of the five years there was only a single influx and it is this fact that has led to the isolated peak counts. Often the isolated counts represent weakness in the passage but in this case it is from the sheer strength of the passage. The late spring passage ran from March 2 (2007) to May 21 (2006), there were seven “clustered” influxes. The first peaked from March 5 (2006) to March 7 (2004, 2007) with high counts of 2,500 on March 7, 2007, 4,230 on March 7, 2004 and 9,500 on March 5, 2006. The second peaked from March 17 (2006) to March 20 (2005) with high counts of 5,750 on March 17, 2006 and 12,400 on March 20, 2005. The third peaked from March 26 (2008) to March 28 (2004, 2007) with a high count of 860 on March 26, 2008. The fourth peaked on April 11 (2007, 2008) with a high count of 425 on April 11, 2007. The fifth peaked from April 19 (2006) to April 24 (2007) with a high count of 72 on April 19, 2006. The sixth peaked from May 2 (2004) to May 4 (2008) with a high count of 30 on May 4, 2008. The seventh is indicated by a peak count of three on May 15, 2005. There are also a few early summer records. There were seven on June 8, 2006 and three on June 8, 2007; these form a “clustered” influx. There were also singles on June 23, 2004, June 28, 2006 and July 6, 2007. However there were no further sightings until October.

Osprey (*Pandion haliaetus*)

This is one of the most interesting species as it appears to be an indicator of the health of Lake Apopka and the stock of fish in that lake. This survey started in 1998 and at that time it was normal to see up to ten a day, often less and never more than 19 a day. These very low numbers continued through into 2004. In February 2004 the numbers started to rise with up to 27 a day through to mid-July when the counts peaked at 59 on the 24th. Up to 35 a day then seen from August 11, 2004 to March 10, 2005 when numbers rose again reaching a peak of 102 on July 3, 2005. Numbers fell in the fall but there were up to 24 a day through the winter. In May 2006 the counts peaked at 113 on the 17th. The pattern continued through the remainder of 2006 and early 2007. In 2007 there were two peaks to the count with 121 on March 14 and 151 on April 21. Counts then gradually fell but there were still 36 on July 20. On July 19, 2007 there was a huge fish kill. This led to a count of 132 on July 22. I did not see an Osprey take one of the dead fish but they may have done so. The decline was quick there were 86 on July 27 with 62 on July 29, 44 on August 3, 26 on August 15, 14 on August 24 and four on September 5. At the end of September counts started to rise with 14 on September 30 then up to 17 a day seen to November 7. Up to 28 a day then seen through to late January when 48 seen on the 30th. There were 52 on February 17 with 76 on February 22 and 162 on February 24. That is still the highest count for Zellwood. Numbers then fell with 78 on February 26, 71 on March 15, 67 on March 17 and 58 on March 26. There were no later peak counts, which was different but there were still 55 on July 19. Basically the records appear to show a lake that was able to

support a growing population of Ospreys from February 2004 and that even major disasters such as the fish kill only effected the basic population for some six months. Now back to the regular text.

This has become a common bird at Lake Apopka with the birds taking their prey to any snag or utility pole. At times there were so many Ospreys and not enough perches that they kept chasing each other off their perch. When the numbers of Ospreys were at their lowest, from September to March the Bald Eagles chased them to get their fish, it does not normally take long now for the bird to catch a replacement meal. The eagles were for the most part absent in the summer so the Ospreys were left in peace. The only nesting attempts in the survey area were in 2007. There was a nest in a tree by Lake Apopka on March 14 near where the Lake Level Canal enters the lake but this tree had fallen down by May 9. On that date there was another nest nearby, success of that nest not known. This is an unusual species in that the highest numbers do not necessarily occur at the same time each year. In 2004 the highest counts were from late July to early August a very short period. In 2005 the higher counts were from early July to early August, a bit longer. In 2006 the pattern was different as the higher counts ran from late April to July. In 2007 they ran from late April to late May and again from late July to early August. There were no major changes in the numbers in 2008. As this species is most often a winter nester it is hard to know what is going on. To look at the records another way, for each season I looked at the peak count for each influx and selected the highest and the lowest. For the main fall passage the totals were 16 and 28 with for the winter 19 and 28, for the early spring 22 and 162, for the main spring 46 and 151, for the summer 37 and 113, for the post-breeding gathering 59 and 132 and for the early fall 26 and 52. This shows clearly the numbers were lowest in the fall and the winter. The late fall passage ran from September 22 (2004) to December 2 (2007) with high counts of 28 on October 8, 2006, October 19, 2005 and November 23, 2007. The winter passage ran from November 26 (2006) to January 16 (2005) with high counts of 28 on December 5, 2004 and January 6, 2008. This was followed by the early spring passage which ran from January 6 (2006) to March 15 (2006) with a high count of 162 on February 24, 2008. The main spring passage ran from March 2 (2005) to May 11 (2008) with an extension to May 29 in 2005. The highest count was that of 151 on April 21, 2007. To detail the 2007 influxes, there were 58 on March 9 with 72 on March 11 and 121 on March 14, then 90 seen on March 16 with 78 on March 17. There were 103 on March 18 with 73 on March 21, 58 on March 23, 54 on March 25 and 52 on March 28. There were 62 on March 30 with 48 on April 1 and 40 on April 4. There were 50 on April 6 with 71 on April 8, then 66 seen on April 11 with 59 on April 13 and 57 on April 16. There were 98 on April 19 with 151 on April 21, then 68 seen on April 27 with 56 on May 1 and 39 on May 4. The summer passage appears to run from April 28 (2004) to July 17 (2005) with a high count of 113 on May 17, 2006. To continue detailing the 2007 influxes, there were 59 on May 7 with 53 on May 11 and 36 on May 13. There were 62 on May 16 with 80 on May 20, then 66 seen on May 23 with 31 on June 8. There were 32 on June 10 with 41 on June 22, 45 on June 27 and 55 on July 4, then 46 seen on July 8 with 39 on July 11. The next event I am calling a post-breeding gathering but that may be a misnomer, it does however appear to be a separate event. That is shown by the highest and lowest peak counts that I described earlier. The event ran from July 4 (2004) to August 25 (2005) with a high count of 132 on July 22, 2007. To continue with the 2007 influxes, there were 61 on

July 13 with 37 on July 15 and 12 on July 18. There were 36 on July 20 with 132 on July 22, then 86 seen on July 27 with 62 on July 29, 59 on August 1, 44 on August 3, 40 on August 5, 35 on August 8, 20 on August 10 and 12 on August 12. The early fall passage ran from August 15 (2007) to October 5 (2003, 2007) with a high count of 52 on August 27, 2006.

The late fall passage ran from September 22 (2004) to December 2 (2007), there were seven "clustered" influxes. The first peaked from October 6 (2004) to October 8 (2006) with a high count of 28 on October 8, 2006. The second peaked from October 14 (2007) to October 19 (2003, 2005) with a high count of 28 on October 19, 2005. The third is indicated by a peak count of 16 on October 24, 2007. The fourth peaked from October 29 (2003) to November 2 (2005) with a high count of 23 on November 2, 2005. The fifth peaked from November 9 (2005, 2007) to November 12 (2006) with a high count of 24 on November 10, 2004 and November 9, 2005. The sixth is indicated by a peak count of 24 on November 15, 2005. The seventh peaked from November 20 (2003) to November 23 (2004, 2007) with a high count of 28 on November 23, 2007. The winter passage ran from November 26 (2006) to January 16 (2005), there were five "clustered" influxes. The first peaked from December 3 (2006) to December 7 (2007) with a high count of 28 on December 5, 2004. The second peaked from December 9 (2003) to December 13 (2006) with a high count of 24 on December 11, 2005. The third peaked on December 19 (2005, 2007) with a high count of 27 on December 19, 2007. The fourth peaked from December 27 (2006) to December 31 (2003) with a high count of 19 on December 27, 2006. The fifth peaked from January 5 (2007) to January 6 (2005, 2008) with a high count of 28 on January 6, 2008. The early spring passage followed from January 6 (2006) to March 15 (2006), there were six "clustered" influxes. The first peaked from January 11 (2006, 2008) to January 14 (2004) with a high count of 25 on January 11, 2008. The second peaked from January 24 (2007) to January 25 (2006) with a high count of 22 on January 24, 2007. The third is indicated by a peak count of 48 on January 30, 2008. The fourth peaked from February 2 (2005) to February 6 (2008) with a high count of 30 on February 2, 2005. The fifth peaked from February 24 (2008) to February 25 (2007) with high counts of 81 on February 25, 2007 and 162 on February 24, 2008. The latter is still the highest count for Zellwood. The sixth peaked from March 3 (2004) to March 5 (2006) with high counts of 37 on March 5, 2006 and 74 on March 4, 2007. The main spring passage ran from March 2 (2005) to May 11 (2008) with an extension to May 29 in 2005, there were seven "clustered" influxes. The first peaked from March 14 (2007) to March 15 (2008) with high counts of 71 on March 15, 2008 and 121 on March 14, 2007. The second peaked from March 18 (2005, 2007) to March 19 (2004) with high counts of 72 on March 18, 2005 and 103 on March 18, 2007. The third peaked from March 24 (2006) to March 30 (2007) with a high count of 62 on March 30, 2007. The fourth peaked from April 7 (2004, 2008) to April 8 (2007) with a high count of 71 on April 8, 2007. The fifth is indicated by a peak count of 62 on April 13, 2008. The sixth peaked from April 20 (2005) to April 21 (2004, 2007) with high counts of 46 on April 20, 2005 and 151 on April 21, 2007. The seventh peaked on April 30 (2005, 2006, 2008) with a high count of 71 on April 30, 2006. The summer passage ran from April 28 (2004) to July 17 (2005), there were six "clustered" influxes. The first peaked on May 5 (2004) to May 7 (2007) with a high count of 59 on May 7, 2007. The second peaked from May 14 (2008) to May 17 (2006) with high counts of 37 on May 14, 2008 and 113 on May 17, 2006. The third peaked from May 20 (2004, 2007, 2008) to May 24 (2006) with high counts of 80 on

May 20, 2007 and 103 on May 24, 2008. The fourth peaked from June 2 (2004) to June 8 (2008) with a high count of 52 on June 8, 2008. The fifth peaked from June 16 (2004) to June 22 (2008) with a high count of 65 on June 19, 2006. The sixth peaked from June 28 (2004) to July 6 (2008) with high counts of 74 on July 2, 2006 and 102 on July 3, 2005. Next came the post-breeding gathering this ran from July 4 (2004) to August 25 (2005), there were four "clustered" influxes. The first peaked from July 13 (2007) to July 16 (2006) with 61 on both dates. The second peaked from July 19 (2008) to July 24 (2004) with high counts of 75 on July 20, 2005 and 132 on July 22, 2007. The third peaked from July 30 (2006) to August 4 (2004) with a high count of 78 on July 30, 2006. The fourth is indicated by a peak count of 59 on August 6, 2006. Finally there was the early fall passage, this ran from August 15 (2007) to October 5 (2003, 2007), there were six "clustered" influxes. The first is indicated by a peak count of 26 on August 15, 2007. The second peaked from August 19 (2004) to August 20 (2003, 2006) with a high count of 46 on August 20, 2006. The third peaked from August 24 (2007) to August 28 (2005) with a high count of 52 on August 27, 2006. The fourth peaked from September 9 (2007) to September 12 (2004) with a high count of 36 on September 10, 2006. The fifth peaked from September 19 (2005) to September 23 (2007) with a high count of 26 on September 19, 2005. The sixth peaked from September 27 (2006) to October 2 (2003) with a high count of 33 on September 27, 2006. There were 41 "clustered" influxes.

Swallow-tailed Kite (*Elanoides forficatus*)

Uncommon spring passage migrant and non-breeding summer visitor, there is in sharp contrast a major post-breeding gathering in the true sense of the words. This is I believe the only known major gathering place where they can be watched gliding, swooping and soaring over the fields all the while calling as they hunt. This is one of the most memorable spectacles at Zellwood. When you can do a 360 degree sweep and count over 1,000 kites it is something very special. The largest concentrations are over the eastern fields, they tend to avoid any flooded areas. The majority probably come from the roost at Lake Woodruff in Volusia County. At least one individual had been tracked from that roost to Zellwood and back in a day. It is also possible that there is an as yet unknown roost in the Wekiwa River basin. The spring passage to a large extent bypasses the survey area. The earliest was one on February 27, 2004. This was particularly memorable as this was the coldest day in some 13 months! Otherwise seen in the spring from March 4 (2007) to March 30 (2008), normally only singles seen but there were two on March 24, 2005 and March 25, 2007. Seen in the summer from April 1 (2007) to June 6 (2008) with a high count of 11 on April 29, 2007. The post-breeding gathering ran from May 10 (2006) to September 9 (2004) with high counts of 1,005 on August 5, 2007, 1,440 on July 10, 2006 and 1,560 on July 26, 2006. There were three other peak counts in the range 800 to 900. To detail the 2006 influxes, there were two on May 10 with three on May 14, four on May 17, 22 on May 21, 25 on May 24, 49 on May 28 and 97 on June 8, then 45 seen on June 14 with 42 on June 16. There were 80 on June 19 with 165 on June 21 and 378 on June 28, then 290 seen on July 2 with 216 on July 5. There were 1,440 on July 10 with 830 on July 14, 775 on July 19, 510 on July 21 and 56 on July 23. There were 1,560 on July 26 with 950 on July 28, 674 on

August 2, 228 on August 4 and 196 on August 6. The last two influxes were type 2 influxes. There were 343 on August 8 with 86 on August 11, 31 on August 16 and 11 on August 20. There was also one on September 6.

The spring passage was a very limited event. The first was one flying to the north-west on February 27, 2004. This was the coldest day in some 13 months. Otherwise seen from March 4 (2007) to March 30 (2008), there were traces of five "clustered" influxes. Excluding the February record there was an isolated peak count of one on March 4, 2007. The second peaked from March 10 (2006) to March 13 (2005) with one on both dates. The third is indicated by a peak count of one on March 17, 2008. The fourth peaked from March 24 (2005) to March 25 (2007) with two on both dates. The fifth is indicated by a peak count of one on March 30, 2008. This was a non-breeding summer visitor to the survey area from April 1 (2007) to June 6 (2008), there were five "clustered" influxes. The first peaked from April 10 (2005) to April 11 (2007) with a high count of six on April 11, 2007. The second is indicated by a peak count of four on April 20, 2008. The third peaked from April 28 (2004) to April 30 (2005, 2006) with a high count of 11 on April 29, 2007. The fourth peaked from May 4 (2008) to May 7 (2007) with a high count of two on May 7, 2007. The fifth peaked on May 16 (2007, 2008) with two on both dates. This species shows well how I try to separate out the various passages. The limited spring passage had no more than two a day whereas the summer started with counts of six and four a significant increase. The post-breeding gathering started with a count of 97 another major change. Now we come to the main event, the post-breeding gathering. This event ran from May 10 (2006) to September 9 (2004), there were ten "clustered" influxes. The first peaked from June 2 (2004) to June 8 (2006) with a high count of 97 on June 8, 2006. The second peaked from June 13 (2008) to June 16 (2004) with a high count of 54 on June 16, 2004. The third peaked from June 26 (2005) to June 28 (2006) with a high count of 378 on June 28, 2006. The fourth peaked from July 6 (2008) to July 11 (2004, 2007) with high counts of 432 on July 11, 2004 and 1,440 on July 10, 2006. The fifth peaked from July 17 (2005) to July 21 (2004) with a high count of 856 on July 17, 2005. The sixth peaked from July 25 (2007, 2008) to July 31 (2005) with high counts of 520 on July 25, 2008, 900 on July 25, 2007 and 1,560 on July 26, 2006. The latter is still the highest count for Zellwood. The seventh peaked from August 3 (2008) to August 8 (2006) with high counts of 816 on August 3, 2008 and 1,005 on August 5, 2007. The eighth is indicated by a peak count of 221 on August 11, 2004. The ninth peaked from August 25 (2005) to August 26 (2007) with a high count of 22 on August 26, 2007. The tenth peaked from September 1 (2003) to September 6 (2006) with a high count of four on September 1, 2003. This is one of the Zellwood specialties.

White-tailed Kite (*Elanus leucurus*)

This is a vagrant to most of Florida. There was one sighting during this set of five years. There was an adult at the Sand Farm on February 24, 2008 in the early morning. It was hunting over the fields near the owl box at the southern end of the line of utility poles that stretched south from Jones Avenue; the last pole was its perch. In the afternoon it was observed feeding on what appeared to be a Southeastern Pocket Gopher (*Geomys pinetis*). At dusk it flew off

towards the pines in which the Bald Eagles nest to roost. It was not seen again. There is an earlier record of a juvenile at the eastern end of the McDonald Canal on June 30, 2000.

Snail Kite (*Rostrhamus sociabilis*)

No sightings during this set of five years, there had been singles on July 16, 1999, August 20, 2000 and August 14, 2002. I am including this as the next species was not recorded during the first five years.

Mississippi Kite (*Ictinia mississippiensis*)

Although this species nests as close as Gainesville this species migrates around the gulf and not through the peninsular. There are now two records of this species. On August 28, 2005 an adult flew to the north. In an outer feeder band of Hurricane Katrina on May 5, 2004 another adult flew to the north.

Bald Eagle (*Haliaeetus leucocephalus*)

A passage migrant and a winter visitor the numbers depending on the season and the activity, during periods when roller-chopping in progress large numbers could gather in the fields, slightly lower numbers were attracted to fields that had just been mowed, when neither activity was taking place the eagles had to fall back on the Ospreys for their food. They could also often be seen hiding amidst flocks of soaring Turkey Vultures. There were two pairs in the area. One pair nested at the Sand Farm and they normally raised one young a year. The other pair was on the southern border and they raised two young a year. When the young have fledged nearly all the eagles leave the area, perhaps one to three remain with one to four in 2006 through to June 21st after which there were one to three a day. One surprising fact is that the departure date is getting earlier. The dates are: May 30, 2004, May 22, 2005, May 7, 2006, May 1, 2007 and April 30, 2008. That is a huge change in just five years. The return dates show no such pattern, the dates were: August 26, 2004, September 4, 2005, September 8, 2006, September 5, 2007 and August 13, 2008. During this period there were seven immatures on May 20, 2007 with four on May 27, 2007. There were also four on May 23, 2008 as against the one to three seen otherwise that summer. It is not possible to sort out the two fall passages so the whole event ran from August 24 (2003) to December 2 (2005) with high counts of 41 on October 24, 2007 and 109 on November 13, 2005. To detail the 2005 influxes, there were four on September 7 with two from September 12 to October 2. There were three on October 8 with five on October 12, nine on October 19 and 16 on October 23, then 12 seen on October 28 with seven on October 30. There were 16 on November 2 with 34 on November 4, then 16 seen on November 7 with 11 on November 9. There were 98 on November 11 with 109 on November 13, then 67 seen on November 18 with 44 on November 20, 30 on November 22, 25 on

November 25, 19 on November 27, 17 on November 30 and 15 on December 2. During this last influx the birds were flying at first light from a roost to the west of the Sand Farm out over the fields of Units One and Two. Later in the influx they roosted in the trees along the eastern border, a great saving of energy. Because of this change I may have under-counted after the 13th. On November 13 the great majority were immatures. The winter passage ran from November 23 (2004) to January 7 (2007) with a high count of 48 on November 29, 2006. This was followed by the early spring passage, this ran from January 4 (2006) to March 4 (2006) with a high count of 36 on February 8, 2005. Finally there was the late spring passage, this ran from February 23 (2005) to April 30 (2008) with extensions to May 30 in 2004 and May 22 in 2005. The highest count was that of 28 on March 10, 2005.

In the summer very few stay on and the date of departure of the young and most of the adults is getting earlier. The dates are as follows: May 30, 2004, May 22, 2005, May 7, 2006, May 1, 2007 and April 30, 2008. That is a change of one month in just five years, is this due to changes in the climate? During the summer normally one to three seen but there were one to four up to June 21 in 2006. The return dates showed no such pattern, varying from August 13, 2008 to September 8, 2006. During this period there were seven immatures on May 20, 2007 with four on May 27, 2007. There were also four on May 23, 2008 as against the normal one to three in that summer. The two incidents create a "clustered" influx that peaked from May 23 (2008) to May 27 (2007) with a high count of seven on May 20, 2007. The fall passage ran from August 24 (2003) to December 2 (2005), there were ten "clustered" influxes. The first is indicated by a peak count of three on August 29, 2004. The second peaked on September 7 (2005, 2007) with a high count of eight on September 7, 2007. The third peaked from September 17 (2006) to September 21 (2007) with a high count of 16 on September 21, 2007. The fourth peaked from October 5 (2003) to October 8 (2006) with a high count of 28 on October 8, 2006. The fifth peaked from October 10 (2007) to October 15 (2003) with a high count of 18 on October 10, 2007. The sixth peaked from October 23 (2005) to October 24 (2007) with a high count of 41 on October 24, 2007. The seventh peaked from October 27 (2006) to October 31 (2004) with a high count of 32 on October 27, 2006. The eighth peaked from November 4 (2005) to November 8 (2006) with a high count of 38 on November 8, 2006. The ninth peaked from November 10 (2004) to November 16 (2007) with high counts of 22 on November 16, 2007 and 109 on November 13, 2005. The latter is still the highest count for Zellwood. To put this influx into perspective the highest count during the first five years was only that of 20 on April 3, 2002. In early 2005 the high count rose to 36 on February 8, now it jumps to 109. The tenth influx peaked from November 20 (2003) to November 22 (2006) with a high count of 33 on November 22, 2006. The winter passage ran from November 23 (2004) to January 7 (2007), there were four "clustered" influxes. The first peaked from November 29 (2006) to December 5 (2004) with high counts of 39 on November 30, 2007 and 48 on November 29, 2006. The second is indicated by a peak count of 28 on December 9, 2005. The third peaked from December 17 (2003, 2007) to December 22 (2004) with a high count of 20 on December 17, 2007. The fourth peaked from December 27 (2006) to December 30 (2005) with a high count of 30 on December 27, 2006. Next came the early spring passage, this ran from January 4 (2006) to March 4 (2006), there were eight "clustered" influxes. The first peaked from January 9 (2008) to January 10 (2007) with a high count of nine on January 9, 2008. The second

peaked from January 13 (2006) to January 16 (2004) with a high count of 26 on January 13, 2006. The third peaked from January 20 (2008) to January 21 (2007) with a high count of 11 on January 20, 2008. During this influx in 2007 the population was static at seven from January 21 to February 14. The fourth peaked from January 25 (2006) to January 26 (2005) with a high count of 33 on January 26, 2005. The fifth is indicated by a peak count of 14 on January 30, 2008. The sixth peaked on February 8 (2004, 2005, 2008) with a high count of 36 on February 8, 2005. The seventh is indicated by a peak count of 14 on February 17, 2006. The eighth peaked from February 22 (2004) to February 25 (2007) with a high count of ten on February 22, 2004 and February 24, 2008. Finally there was the late spring passage, this ran from February 23 (2005) to April 30 (2008) with extensions to May 30 in 2004 and May 22 in 2005, there were nine "clustered" influxes. The first peaked from March 3 (2004) to March 4 (2007) with a high count of 12 on March 3, 2004. The second is indicated by a peak count of 28 on March 10, 2005. The third peaked from March 17 (2008) to March 19 (2004, 2006) with a high count of 17 on March 18, 2005. The fourth peaked from March 26 (2005) to March 30 (2007) with a high count of 19 on March 27, 2005. The fifth is indicated by a peak count of six on April 4, 2004. The sixth peaked from April 16 (2007) to April 18 (2004) with a high count of eight on April 18, 2004. The seventh peaked from April 23 (2006) to April 27 (2008) with a high count of eight on April 23, 2006. The last two influxes only occurred during the extended passage in 2004. The first influx peaked with six on May 14, then two seen on May 20. The second involved three on May 23 with two on May 26 and one on May 30. With the cessation of roller-chopping and mowing it is unlikely that large numbers will be recorded in the future, still it is Zellwood.

Northern Harrier (*Circus cyaneus*)

This is probably the most important bird species that has been using the fields at Zellwood, flooded or otherwise. During these five years there has been a major roost near Laughlin Road, the exact location varied each year. The District has taken efforts not to mow the fields that were being used for roosting together with the adjacent fields as they created a buffer zone. There have also been secondary roosts at the Sand Farm, the Sod Farm and in the southern fields near Airport Road. I started the bird counts at the Sand Farm Bridge each morning before it got light and counted the individuals leaving these northern roosts in the early morning, all had left by sunrise. In the afternoon I was often able to get an idea of the numbers using the southern roost. The majority of the birds in the northern roosts left each day to the west. Nationally the winter roosts at their best hold some 60 birds. There are no counts of 100 plus with the exception of an estimated 200 at a roost in Lowndes County, east central Mississippi (per Pam Bowen). In Florida the highest count was that of 100 at Alligator Point on October 8, 1953 (per Stevenson & Anderson). During this set of five years there were 77 counts of 100-199, six counts of 200-299 and one count of over 300. This has to be the most important roost site in the United States. To break down these very high counts season by season. In the fall there were 14 counts of 100 plus and three counts of 200 plus. In the winter there were 23 counts of 100 plus, three counts of 200 plus and one count of 300 plus. In the early spring there were 30 counts of 100 plus and one count of 200 plus. Even in the late spring passage there

were ten counts of 100 plus. Because of the importance of this site I will be detailing below a greater number of influxes.

Seen in the early fall from August 9 (2004) to September 16 (2004), initially only adults seen with the exception of a juvenile on September 5, 2007 and September 7, 2007. The highest count was that of three on September 7, 2007. The main fall passage ran from September 10 (2006) to November 26 (2006) with a high count of 259 on November 15, 2006. To detail the main 2006 influx, there were 21 on October 27 with 35 on October 29, 124 on November 1, 141 on November 3, 167 on November 8 and 259 on November 15, then 243 seen on November 19 with 135 on November 26, 2006. To detail the main 2007 influx, there were 87 on October 29 with 147 on November 2, 177 on November 7, 190 on November 9 and 203 on November 11, then 130 seen on November 16 with 93 on November 21 and 76 on November 23. Now the winter passage was unusual in that there were three different patterns. In the first two years the passage ran from November 7 (2004) to January 16 (2005) with a high count of 305 on December 12, 2004. I cannot think of another species where the winter passage started so early. The next two years were normal in that the passage ran from November 27 (2005) to January 12 (2007). In 2007/2008 the passage ran from November 28 to February 1, this too is unheard of. The highest count for the later years was that of 153 on December 6, 2006. To detail the 2004/2005 influxes, there were 22 on November 7 with 23 on November 14, 42 on November 17, 56 on November 21, 108 on November 23, 158 on November 28, 228 on December 1 and 305 on December 12, then 195 seen on December 16. It seems likely that the incoming huge winter influx on either November 22 or November 23 swamped the fall influx which may or may not have reached its peak. For the second influx there were 201 on December 19 with 202 on December 22, then 197 seen on December 30 with 192 on January 2, 189 on January 6, 170 on January 9 and 152 on January 16. To detail the 2007 influxes, there were 95 on November 28 with 108 on December 17, then 79 seen on December 19 with 78 on December 21 and 57 on December 26. There were 122 on December 30 with 124 on January 4, then 123 seen on January 11 with 113 on January 14, 78 on January 16, 70 on January 20, 68 on January 25, 60 on January 30 and 53 on February 1. The early spring passage ran from January 14 (2007) to March 3 (2004) with a high count of 223 on January 18, 2006. To detail the 2005 influxes, there were 154 on January 19 with 164 on January 24, then 155 seen on January 26 with 135 on January 30. There were 148 on February 2 with 152 on February 6 then 146 seen on February 8 with 115 on February 13. There were 127 on February 16 with 131 on February 20 and 184 on February 23 then 149 seen on March 2. To detail the 2006 influxes, there were 113 on January 15 with 223 on January 18, then 156 seen on January 25 with 106 on January 27 and 91 on January 29. There were 135 on February 1 with 157 on February 8 and 160 on February 12, then 156 seen on February 14 with 131 on February 24 and 113 on February 27. The late spring passage ran from February 29 (2008) to May 27 (2007) with a high count of 170 on March 4, 2006. With continuing counts of over 100 I am going to detail some of the influxes. To detail the 2005 influx, there were 164 on March 6 with 165 on March 13, then 124 seen on March 18 with 122 on March 20, 114 on March 27, 59 on April 3, 53 on April 6, 35 on April 10, 30 on April 14, 21 on April 17, 14 on April 20, 12 on April 24, six on April 26 and four on April 30. Just one influx covered the whole passage. To detail the 2006 influxes, there were 170 on March 4 with 113 on March 8, 109 on March 15 and 94 on March 19. There were 97 on March

22 with 113 on March 24, then 110 seen on March 26. There were 43 on April 14 with 24 on April 19, 16 on April 23, 13 on April 28, 12 on April 30 and two on May 5, 2006. Very exceptionally there was a summer record as an adult female flew north over the McDonald Canal on June 27, 2008.

Seen in the early fall from August 9 (2004) to September 16 (2004), there were four "clustered" influxes. The first peaked from August 9 (2004) to August 10 (2005) with one on both dates. The second peaked from August 25 (2005) to August 26 (2007) with one on both dates. The third peaked from August 29 (2004) to September 1 (2003, 2004) with a high count of two on September 1, 2003. The fourth peaked from September 4 (2005) to September 7 (2007) with a high count of three on September 7, 2007. The main fall passage ran from September 10 (2006) to November 26 (2006), there were six "clustered" influxes. The first two are indicated by isolated peak counts of four on September 17, 2006 and 23 on September 26, 2007. The third peaked from October 2 (2003) to October 5 (2007) with a high count of 65 on October 5, 2007. The fourth peaked from October 11 (2004) to October 13 (2006) with a high count of 17 on October 13, 2006. The fifth peaked from October 17 (2007) to October 20 (2006) with a high count of 123 on October 17, 2007. The sixth peaked from October 27 (2004) to November 4 (2005) with high counts of 27 on November 2, 2003 and 191 on November 4, 2005. Note how the peak counts rose during this passage i.e. the fall and the winter passages were really one event. There were three forms to the winter passage. For the first two years this passage ran from November 7 (2004) to January 16 (2005). The following two years were normal in that the passage ran from November 27 (2005) to January 12 (2007). The third year was different again in that the passage ran from November 28, 2007 to February 1, 2008. Regardless of the length of the passage there were just four "clustered" influxes. The first peaked from November 30 (2005) to December 6 (2006) with a high count of 153 on December 6, 2006. The second peaked from December 11 (2005) to December 12 (2004) with high counts of 81 on December 11, 2005 and 305 on December 12, 2004. The latter is still the highest count for Zellwood. The third peaked from December 17 (2007) to December 23 (2005) with high counts of 108 on December 17, 2007 and 202 on December 22, 2004. The fourth peaked from December 31 (2003) to January 5 (2007) with a high count of 124 on January 4, 2008. The early spring passage followed from January 14 (2007) to March 3 (2004), there were six "clustered" influxes. The first peaked from January 16 (2004) to January 18 (2006) with high counts of 45 on January 16, 2004 and 223 on January 18, 2006. The second peaked from January 24 (2005, 2007) to January 25 (2004) with a high count of 164 on January 24, 2005. The third peaked from February 4 (2004) to February 6 (2005) with a high count of 152 on February 6, 2005. The fourth peaked from February 12 (2006) to February 16 (2007) with a high count of 160 on February 12, 2006. The fifth peaked from February 20 (2008) to February 23 (2005) with a high count of 184 on February 23, 2005. The last influx is indicated by a peak count of 22 on February 29, 2004. Finally there was the late spring passage, this ran from February 29 (2008) to May 27 (2007), there were six "clustered" influxes. The first peaked from March 2 (2007) to March 7 (2004) with high counts of 90 on March 4, 2008 and 170 on March 4, 2006. The second peaked from March 13 (2005) to March 19 (2004) with high counts of 74 on March 18, 2007 and 165 on March 13, 2005. The third peaked from March 24 (2006) to March 26 (2008) with high counts of 68 on March 26, 2008 and 113 on March 24, 2006. The next two influxes are

indicated by isolated peak counts of 18 on April 7, 2004 and 43 on April 14, 2006. The sixth peaked from April 23 (2008) to April 28 (2004) with a high count of 24 on April 23, 2008. There were no influxes that peaked in May but passage was minimal. In 2004 there were four on May 5 with one to May 16. No May records in 2005. In 2006 there were two on May 5. In 2007 there were five on May 1 with four on May 5, two on May 11 and one to May 27. In 2008 there were three on May 2 and May 4 with one staying to May 23. Exceptionally there was an adult female that flew north over the McDonald Canal on June 27, 2008. This is one of the many special Zellwood species.

Sharp-shinned Hawk (*Accipiter striatus*)

A regular passage migrant and winter visitor in small numbers, on passage they are normally solitary as they pass through the area. The greatest numbers are seen during the winter, at that time they can be seen out in the fields. In the fall there was a very early adult at Pole Road extension on August 10, 2005, it was flying to the south. Otherwise the early fall passage ran from August 27 (2006) to October 13 (2004) with high counts of two on September 19, 2007, September 30, 2007 and October 6, 2004. The main fall passage ran from September 29 (2006) to December 2 (2005) with a high count of 21 on November 23, 2007. Numbers climbed through the fall passage leading to the higher counts in the winter passage. To detail the 2007 fall influxes, there were two on September 30 with one on October 7. There were two on October 10 with five on October 17, then four seen on October 21 with three on October 24 and two on October 26. There were four on October 29 with nine on November 2, then six seen on November 4. There were eight on November 7 with 11 on November 9 and 16 on November 10, then ten seen on November 14 with nine on November 16. There were 18 on November 18 with 21 on November 23, then 15 seen on November 25. The winter passage ran from November 24 (2006) to January 25 (2006) with a high count of 26 on November 30, 2007. To detail the 2007/2008 influxes, there were 16 on November 28 with 26 on November 30, then 20 seen on December 2 with 15 on December 7, 13 on December 12, 12 on December 14 and 11 on December 17. There were 13 on December 19 with ten on December 21, nine on December 28, eight on January 4, six on January 6 and three on January 9. The early spring passage followed and the numbers were significantly lower. This passage ran from January 7 (2007) to March 5 (2006) with a high count of 11 on January 18, 2008. Finally there was the late spring passage, this ran from February 20 (2005) to April 23 (2008) with a high count of seven on March 2, 2005. Again there was an exceptionally late record as an adult female flew north over the Sand Farm on May 27, 2007.

The first in the early fall was an adult that flew to the south at Pole Road extension on August 10, 2005. Excepting this the early fall passage ran from August 27 (2006) to October 13 (2004), there were indications of four "clustered" influxes. The first peaked from August 27 (2006) to September 3 (2003) with one on both dates. The second is indicated by a peak count of one on September 9, 2004. The third peaked from September 19 (2007) to September 24 (2003) with a high count of two on September 19, 2007. The fourth peaked from September 30 (2007) to October 6 (2004) with two on both dates. The main fall passage ran from September

29 (2006) to December 2 (2005), there were six “clustered” influxes. The first is indicated by a peak count of five on October 11, 2006. The second peaked from October 17 (2004, 2007) to October 22 (2003) with a high count of six on October 20, 2006. The third peaked from November 1 (2006) to November 2 (2007) with a high count of nine on November 2, 2007. The fourth peaked from November 7 (2005) to November 10 (2007) with a high count of 16 on November 10, 2007. The fifth peaked from November 14 (2004) to November 16 (2003) with a high count of 11 on November 14, 2004. The sixth peaked from November 19 (2006) to November 25 (2005) with high counts of 14 on November 19, 2006 and 21 on November 23, 2007. The winter passage ran from November 24 (2006) to January 25 (2006), there were five “clustered” influxes. The first peaked from November 28 (2004) to November 30 (2007) with high counts of 16 on November 29, 2006 and 26 on November 30, 2007. The latter is still the highest count for Zellwood. The second peaked from December 9 (2003, 2005) to December 13 (2006) with a high count of 14 on December 9, 2005. The third peaked from December 19 (2004, 2007) to December 23 (2005) with high counts of 13 on December 19, 2007 and 16 on December 22, 2006. The fourth peaked on December 31 (2003, 2006) with a high count of nine on December 31, 2006. The fifth is indicated by a peak count of 14 on January 6, 2006. Next came the early spring passage, this ran from January 7 (2007) to March 5 (2006), there were six “clustered” influxes. The first peaked from January 9 (2005) to January 12 (2007) with a high count of nine on January 12, 2007. The second peaked from January 18 (2008) to January 24 (2007) with a high count of 11 on January 18, 2008. The third peaked from January 29 (2006) to February 2 (2004) with a high count of six on January 29, 2006. The fourth peaked from February 4 (2007, 2008) to February 6 (2005) with a high count of eight on February 4, 2008. The fifth peaked from February 12 (2006) to February 18 (2007) with six on both dates. The sixth peaked from February 20 (2008) to February 24 (2006) with a high count of seven on February 20, 2008. Finally there was the late spring passage, this ran from February 20 (2005) to April 23 (2008), there were six “clustered” influxes. The first peaked from February 29 (2008) to March 3 (2004) with a high count of seven on March 2, 2005. The second is indicated by a peak count of six on March 9, 2007. The third peaked from March 15 (2006, 2008) to March 16 (2005) with a high count of five on March 16, 2005. The fourth peaked from March 25 (2007) to March 26 (2008) with a high count of five on March 25, 2007. The fifth peaked from April 6 (2005) to April 8 (2007) with a high count of five on April 8, 2007. The sixth is indicated by a peak count of two on April 18, 2008. Finally there was an exceptionally late record as an adult female flew to the north over the Sand Farm on May 27, 2007.

Cooper's Hawk (*Accipiter cooperii*)

This is a resident in the wooded borders. It is hard to know how many pairs but at least three pairs located in 2004 with six pairs in 2008. This is said to be a woodland species but they regularly hunt over the open fields especially early and late and on dull days with light rain. They frequently use the utility poles as perches from which to hunt. Being a resident one expects to see similar counts except when the young are on the wing but that is not totally true. There were up to three in the area from September 14, 2003 to July 2, 2004 with one to four in the area from October 6, 2004 to July 11, 2005 and one to five from October 19, 2005 to July 14,

2006. There were up to three in the area from October 25, 2006 to July 6, 2007 and from November 4, 2007 to July 11, 2008. Note how the start dates get later and later, there is no such correlation with the end dates. During this period there were a few higher counts. There were four on February 29, 2004. There were six on February 24, 2006 with eight on February 27, 2006. Note the closeness of the dates, it has to mean something. There were five on June 27, 2007 and that could represent a family party. Finally in 2006 there were six on November 17 with seven on November 19, then six seen on November 24. There was an event that ran from July 4 (2004) to November 4 (2007), I say event but it might in fact be two events masquerading as one. The first would be a post-breeding gathering and the second a fall passage, I just cannot separate the two passages. The highest counts were those of 31 on August 31, 2007 and 45 on August 25, 2006. To detail the 2006 influxes, there were five on July 16 with six on July 21, seven on July 23, eight on July 26, ten on July 28 and 16 on July 30, then five seen on August 2. There were seven on August 4 with 28 on August 6, then 15 seen on August 11 with 11 on August 13 and eight on August 16. There were 18 on August 18 with 45 on August 25 then 18 seen on August 30 with eight on September 1 and seven on September 3. There were nine on September 6 with 16 on September 8, then 11 seen on September 10 with six on September 13. There were eight on September 15 with 11 on September 17, then seven seen on September 23 with four on September 25. There were five on September 27 with nine on September 29 and 11 on October 1, then six seen on October 8 with three on October 13. Finally one was seen to kill an American Robin at the Lust Road gate on January 26, 2007.

In the area there were the following numbers, one to three from September 14, 2003 to July 2, 2004, one to four from October 6, 2004 to July 11, 2005, one to five from October 19, 2005 to July 14, 2006, one to three from October 25, 2006 to July 6, 2007 and one to three from November 4, 2007 to July 11, 2008. During this period there were higher counts of four on February 29, 2004 then six seen on February 24, 2006 with eight on February 27, 2006. These formed a "clustered" influx that peaked from February 27 (2006) to February 29 (2004) with a high count of eight on February 27, 2006. There were also six on November 17, 2006 with seven on November 19, 2006 then six seen on November 24, 2006. Finally there was a count of five on June 27, 2007. There was also a very significant event or events in the fall from July 4 (2004) to November 4 (2007). My problem is that I cannot separate out what I think were two events, a post-breeding gathering and a fall passage. This species is considered to be a passage migrant (the February and November records) but the fall passage does not start until September and the event that I am about to describe has already past its peak by that month. I therefore consider this to be a post-breeding gathering with some elements of passage in September and October. Such a gathering is not in the literature for Florida. There were a total of ten "clustered" influxes. The first two are indicated by isolated peak counts of five on July 16, 2008 and 16 on July 23, 2005. The third peaked from July 30 (2006) to August 3 (2008) with high counts of 21 on August 3, 2008 and 23 on August 1, 2004. The fourth peaked from August 6 (2006) to August 10 (2008) with high counts of 26 on August 8, 2007 and 28 on August 6, 2006. The fifth peaked from August 16 (2004) to August 19 (2007) with high counts of 23 on August 19, 2007 and 25 on August 16, 2004. The sixth peaked from August 25 (2006) to September 1 (2004) with high counts of 31 on August 31, 2007 and 45 on August 25, 2006. Note that these are the two highest counts and this is before the fall passage should even start. The latter count

is also the highest count for Zellwood. The seventh peaked from September 7 (2003, 2005) to September 8 (2006) with a high count of 16 on September 8, 2006. The eighth peaked from September 17 (2006) to September 23 (2007) with a high count of 15 on September 23, 2007. The ninth peaked from October 1 (2006) to October 5 (2007) with a high count of 11 on October 1, 2006. The tenth influx is indicated by a peak count of ten on October 24, 2007. This is another of the species where the text will need to be rewritten when the next work on the Birds of Florida is prepared.

Red-shouldered Hawk (*Buteo lineatus*)

A resident, a passage migrant and a winter visitor, in two years there was what appears to be a post-breeding gathering. As with the accipiters this is a woodland species that has adapted to the open fields. They use any utility pole, snag and the taller vegetation for perches. Territories are rather small when many present. They appear to roost at a few select sites flying out before sunrise to their selected territory. This species breeds in the survey area with five pairs in 2004, the number of pairs for the other years not known. Fledged young (three) were seen on April 30, 2005 with a brood of two on May 31, 2006. Numbers were lowest during the summer and the summer passage appears to run from April 6 (2007) to June 28 (2006) with a high count of 14 on April 29, 2007 and May 13, 2007. There appears to be a post-breeding gathering from June 29 (2007, 2008) to October 3 (2004), this event was especially strong in 2004 and 2006. The highest counts were of 76 on August 19, 2004 and 101 on July 30, 2006. The majority were immatures. To detail the 2006 influxes, there were seven on June 30 with nine on July 2, 14 on July 5, 17 on July 12, 20 on July 16, 25 on July 19, 35 on July 21, 39 on July 23, 85 on July 28 and 101 on July 30, then 52 seen on August 2. There were 53 on August 4 with 61 on August 6 and 66 on August 8, then 55 seen on August 13 with 54 on August 16. There were 58 on August 18 with 52 on August 20 and 43 on August 23. There were 66 on August 25 with 57 on August 27, 56 on August 30, 34 on September 1 and 27 on September 3. The fall passage appears to be two separate events but the boundaries are not clear, there was a lot of overlap even between these events and the post-breeding gathering. The early fall passage ran from September 1 (2003) to October 21 (2004) with a high count of 133 on September 29, 2006. Again this event involves immatures rather than adults. To continue detailing the 2006 influxes, there were 47 on September 6 with 52 on September 10, 61 on September 15, 73 on September 17 and 113 on September 21, then 57 seen on September 23. There were 59 on September 25 with 77 on September 27 and 133 on September 29, then 72 seen on October 1 with 39 on October 4. There were 72 on October 6 with 118 on October 8, then 81 seen on October 13 with 67 on October 15, 66 on October 18 and 43 on October 20. The late fall passage ran from October 8 (2005) to December 2 (2007) with a high count of 95 on November 17, 2006. This passage involved adults rather than immatures. To continue detailing the 2006 influxes, there were 46 on October 22 with 62 on October 25 and 70 on October 29, then 52 seen on November 1 with 31 on November 3. There were 58 on November 5 with 39 on November 8. There were 46 on November 10 with 62 on November 12 and 95 on November 17, then 60 seen on November 19 with 41 on November 22. There were 79 on November 24 with

83 on November 26, then 63 seen on November 29 with 40 on December 1. The winter passage followed from November 28 (2004) to January 14 (2004) with a high count of 65 on December 5, 2007. This passage was really the second (declining) half of the late fall passage, again it involved adults not immatures. To continue detailing the 2006/2007 influxes, there were 53 on December 3 with 60 on December 10, then 53 seen on December 15 with 51 on December 17. There were 60 on December 20 with 59 on December 27 and 46 on December 29. The early spring passage ran from January 4 (2008) to March 4 (2008) with a high count of 58 on January 26, 2007. The late spring passage ran from February 28 (2007) to April 4 (2004, 2007, 2008) with a high count of 32 on February 28, 2007.

The summer passage ran from April 6 (2007) to June 28 (2006), there were nine "clustered" influxes. The first peaked from April 7 (2004, 2008) to April 8 (2007) with a high count of ten on April 8, 2007. The second peaked from April 14 (2006) to April 20 (2008) with a high count of ten on April 14, 2006. The third peaked from April 27 (2008) to April 29 (2007) with a high count of 14 on April 29, 2007. The fourth is indicated by a peak count of ten on May 3, 2006. The fifth peaked from May 10 (2004) to May 13 (2007) with a high count of 14 on May 13, 2007. The sixth peaked from May 16 (2008) to May 17 (2006) with a high count of eight on May 17, 2006. The seventh peaked from May 26 (2004) to May 31 (2006) with a high count of nine on May 31, 2006. The eighth peaked from June 6 (2008) to June 8 (2007) with a high count of nine on June 8, 2007. The ninth peaked from June 19 (2006) to June 24 (2007) with a high count of ten on June 19, 2006. These were all basic influxes. The post-breeding gathering ran from June 29 (2007, 2008) to October 3 (2004), there were seven "clustered" influxes. The first is indicated by a peak count of ten on July 1, 2007. The second peaked from July 13 (2007) to July 17 (2005) with a high count of 15 on July 17, 2005. The third peaked from July 22 (2007) to July 24 (2008) with a high count of 19 on July 22, 2007. The fourth is indicated by a peak count of 101 on July 30, 2006. The fifth peaked from August 8 (2006, 2007) to August 10 (2005, 2008) with a high count of 66 on August 8, 2006. The sixth peaked from August 19 (2004) to August 21 (2005) with high counts of 23 on August 21, 2005 and 76 on August 19, 2004. The seventh peaked from August 31 (2007) to September 1 (2004) with a high count of 65 on September 1, 2004. The early fall passage ran from September 1 (2003) to October 21 (2004), there were five "clustered" influxes. The first peaked from September 7 (2003) to September 12 (2005) with a high count of 28 on September 9, 2007. The second is indicated by a peak count of 38 on September 16, 2007. The third peaked from September 19 (2003) to September 23 (2007) with high counts of 29 on September 23, 2007 and 113 on September 21, 2006. The fourth peaked from September 29 (2006) to October 3 (2007) with high counts of 24 on October 3, 2007 and 133 on September 29, 2006. The latter is still the highest count for Zellwood. The fifth peaked from October 8 (2006) to October 12 (2003, 2007) with high counts of 33 on October 12, 2007 and 118 on October 8, 2006. This was followed by the late fall passage, this ran from October 8 (2005) to December 2 (2007), there were five "clustered" influxes. The first peaked from October 19 (2007) to October 26 (2005) with a high count of 42 on October 26, 2005. The second peaked from October 29 (2003, 2006, 2007) to October 31 (2004) with a high count of 70 on October 29, 2006. The third peaked from November 4 (2007) to November 7 (2005) with a high count of 59 on November 7, 2005. The fourth peaked from November 15 (2005) to November 17 (2004, 2006) with high counts of 84 on November 15, 2005 and 95 on November

17, 2006. The fifth peaked from November 23 (2007) to November 26 (2006) with high counts of 83 on November 26, 2006 and 89 on November 23, 2007. The winter passage ran from November 28 (2004) to January 14 (2004), again there were five “clustered” influxes. The first peaked from December 4 (2005) to December 5 (2004, 2007) with a high count of 65 on December 5, 2007. The second peaked from December 9 (2003) to December 16 (2004) with a high count of 60 on December 10, 2006. The third peaked from December 20 (2006) to December 21 (2005) with a high count of 60 on December 20, 2006. The fourth peaked from December 26 (2007) to December 28 (2003/2005) with a high count of 43 on December 26, 2007. The fifth peaked from January 2 (2005) to January 3 (2007) with a high count of 54 on January 3, 2007. The early spring passage was a lesser event, it ran from January 4 (2008) to March 4 (2008), there were seven “clustered” influxes. The first peaked from January 6 (2008) to January 8 (2006) with a high count of 35 on January 8, 2006. The second is indicated by a peak count of 46 on January 12, 2007. The third peaked from January 15 (2006) to January 18 (2008) with a high count of 41 on January 16, 2005. The fourth peaked from January 21 (2004) to January 26 (2007) with a high count of 58 on January 26, 2007. The fifth peaked from February 1 (2006, 2008) to February 4 (2007) with a high count of 43 on February 4, 2007. The sixth peaked from February 14 (2006) to February 16 (2004) with a high count of 20 on February 14, 2006. The seventh peaked from February 21 (2007) to February 24 (2008) with a high count of 28 on February 21, 2007. Finally there was the late spring passage, this ran from February 28 (2007) to April 4 (2004, 2007, 2008), there were five “clustered” influxes. The first peaked from February 28 (2007) to March 1 (2006) with a high count of 32 on February 28, 2007. The second peaked from March 6 (2005) to March 7 (2007) with a high count of 21 on March 7, 2007. The third peaked from March 14 (2004) to March 18 (2007) with a high count of 14 on March 18, 2007. The fourth peaked from March 20 (2005) to March 22 (2006) with a high count of 12 on March 20, 2005. The fifth peaked from March 25 (2007) to March 28 (2008) with a high count of 13 on March 25, 2007. Note how the numbers declined through this passage. There were 43 “clustered” influxes.

Broad-winged Hawk (*Buteo platypterus*)

An irregular passage migrant with 12 individuals seen during the five years, a feature at Zellwood is the occasional presence of a juvenile in the very early fall before migration is due to start. There were single juveniles at the Sand Farm on July 12, 2006, at Hooper Farm’s Road on August 16, 2006 and on August 19, 2004 at the Nursery. The sighting on August 16, 2006 is interesting. There was a juvenile Red-tailed Hawk that had caught a Hispid Cotton Rat but it did not seem to know how to kill it. The Broad-winged was in close attendance. The records for August 16, 2006 and August 19, 2004 form a “clustered” influxes. The fall passage was noted from September 14 (2007) to November 4 (2005), to detail the records. There was a juvenile on September 14, 2007 and September 16, 2007 at the Nursery. Three flew to the south on September 29, 2006 at the Sand Farm. They were circling around as they drifted south. This is still the highest count for Zellwood. An adult also flew to the south on September 27, 2006 near the southern border these two records form an influx. There were single adults at the Sand Farm on October 15, 2003 and at the Nursery on October 16, 2005. These records also form an

influx. There was a juvenile at the Nursery on October 31, 2007 and another juvenile flew to the south near Hooper Farms Road on November 4, 2005. These records also form a “clustered” influx. There were no winter or spring records. The records for this species and for the Swainson’s Hawk are “clustered” but that is not the case for the next species, the Short-tailed Hawk.

Short-tailed Hawk (*Buteo brachyurus*)

An irregular summer and fall visitor with over the five years a total of 12 were seen between June 19 (2005) and November 27 (2005). The earliest four sightings were all adult dark morphs; there were singles on June 19, 2005 at the eastern border, on July 6, 2007 at the Workshops, on July 7, 2004 at Pole Road and on July 31, 2005 at the eastern border. There was an adult light morph on August 5, 2007 at the Workshops. There were single adult dark morphs on August 20, 2003 at Hooper Farms Road and on September 2, 2007 on the eastern border north of the McDonald Canal. There was an adult light morph on September 10, 2006 at the eastern end of the McDonald Canal. The next was an adult dark morph near the southern border on September 21, 2006 and September 27, 2006. On September 21, 2006 it crossed the fields to survey the partially wooded bank of Lake Apopka. There was an immature light morph on October 8, 2005 at the eastern end of the McDonald Canal. There was also an adult light morph on November 7, 2007 at Lust Road. Finally there was a dark morph juvenile on November 27, 2005 at the Nursery. Unlike the last species the only indication of a “clustered” influx comes from July 6, 2007 and July 7, 2004. All the sightings were near the wooded borders. None seen at the Sand Farm, this is the only regularly occurring raptor that has not been seen over that open area. The concentration of the sightings to the north and to the south is probably not significant as there is a large portion of the eastern border that I cannot get to. This species has to be breeding to the east of the area.

Swainson’s Hawk (*Buteo swainsoni*)

This species is seen in most years, the sightings spanning the period October 31 (2004) to March 30 (2007), over the five years a total of ten seen. All were juvenile light morphs unless information is provided to the contrary. One flew to the east at the Sand Farm on October 31, 2004. There was an adult light morph on November 8, 2006 near Lust Road. There was one on November 9, 2007 and November 11, 2007 at Lust Road. On November 11, 2007 there was a second individual at the Sand Farm. This count of two on November 11, 2007 is still the highest count for Zellwood. The counts on November 8, 2006 and November 11, 2007 form a “clustered” influx. There was one on November 15, 2005 at the Sand Farm with an adult light morph on November 19, 2006 at Hooper Farms Road. These records form a “clustered” influx. Whilst the gap is rather large the sightings on November 8, 2006 and November 19, 2006 just might relate to a single individual. One flew to the south-east on November 23, 2003 at Hooper Farm’s Road with one on November 25, 2005 over Phase One. These records also form a “clustered” influx. That completes the fall passage. There was an adult light morph on January 4,

2004 at the Sand Farm. This could be an early spring record. Exceptionally there was a juvenile dark morph at the Sand Farm on March 30, 2007.

Red-tailed Hawk (*Buteo jamaicensis*)

A resident which nests in the more secluded stretches of woodland. There were six pairs in 2004 but I do not have information for the later years. It is also a passage migrant and winter visitor in very variable numbers. It seems that if the habitat is suitable more will stop off passage. Towards the end of this five year period there was more intensive roller-chopping and mowing leading to greater numbers. They hunt from any vantage point be it a utility pole, a line of shrubs out in the fields or the wooded border itself. If there is a strong breeze then they can be seen hanging in the wind. Rodents probably form the bulk of their prey. Seen in the summer from April 14 (2006) to July 28 (2005, 2006) with a high count of 18 on July 26, 2008. There were also five peak counts of 11. Numbers were a little higher in the early fall and this might be considered to be a post-breeding gathering. This event ran from July 10 (2006) to September 3 (2003) with a high count of 21 on August 8, 2006. The other peak counts with the exception of two counts of ten ranged from 12 to 19. The fall passage ran from August 16 (2006) to November 15 (2006) with a high count of 32 on October 8, 2006. As usual there were influxes all year but I do not see any passage in the summer or during the post-breeding gathering. I do think however that there was a minor fall passage. I am continually surprised at the variations in the passage from species to species this one has a new variant. In 2006 the first winter influx ran from November 17 to December 31 while in 2007 an influx ran from November 2 to December 21. I am therefore treating the winter passage as running from November 2 (2007) to January 7, 2007 with high counts of 109 on December 6, 2006 and 175 on November 30, 2007. To detail the 2007/2008 influxes, there were 17 on November 2 with 22 on November 4, 24 on November 7, 65 on November 9, 68 on November 11, 70 on November 14, 121 on November 16, 133 on November 18, 137 on November 21, 151 on November 23, 162 on November 25 and 175 on November 30, then 148 seen on December 5 with 132 on December 7, 113 on December 9, 86 on December 14, 81 on December 19 and 68 on December 21. There were 103 on December 26 with 74 on December 30, 57 on January 4 and 45 on January 6. The early spring passage ran from January 6 (2006) to March 2 (2007) with extensions to March 10 in 2004 and March 15 in 2008. The highest count was that of 89 on January 19, 2007. To continue detailing the 2008 influxes, there were 61 on January 9 with 68 on January 11, then 54 seen on January 14 with 35 on January 16. There were 58 on January 18 with 51 on January 23, 42 on January 28 and 28 on January 30. There were 53 on February 1 with 47 on February 4 and 44 on February 6. There were 66 on February 8 with 33 on February 10. There were 48 on February 12 with 51 on February 15, 52 on February 20 and 53 on February 24, then 49 seen on February 26 with 41 on February 29, 39 on March 2 and 38 on March 15. The late spring passage ran from March 2 (2005) to April 26 (2005) with an extension to May 18, 2008. This passage normally ends in early to mid-April so the extended passage in 2008 was truly exceptional. The highest count was that of 34 on March 24, 2008. To continue detailing the 2008 influxes, there were 32 on March 17 with 27 on March 19 and 23 on March 21. There

were 34 on March 24 with 30 on March 26, 27 on March 28, 20 on March 30, 19 on April 4, 18 on April 9 and 17 on April 11. There were 26 on April 13 with 12 on April 15, ten on April 18 and eight on April 20. There were 12 on April 23 with 14 on April 25, then 12 seen on April 30 with 11 on May 2, ten on May 9 and five on May 18. The last two influxes detailed above for the other years form part of the summer event! From 2005 I have noted some if not all of those that showed the characteristics of the "Kridler's Hawk they were seen in the fall from November 4 (2005) to November 27 (2005) with a high count of two on November 9, 2007. In the winter they were seen from December 2 (2005) to "the end of December" (in 2007) with high counts of two on December 2, 2005 and three from December 7, 2007 to the end of that month. For the early spring there was one on February 8, 2008. The main spring passage involved one on March 28, 2007, three on April 6, 2007 with two on April 8, 2007 and one from April 20, 2008 to April 23, 2008. The last individual occurred during the eighth and final influx of the extended passage in 2008. It is useful to have this confirmation that the passage really did extend into May. Very exceptionally there was an adult dark morph present from December 10, 2006 to January 19, 2007 and again from November 21, 2007 to December 30, 2007. It is likely that just one bird involved in these sightings, it was only seen in the fields to the north of Hooper Farms Road. This was a western Red-tailed Hawk but its race is not known. This form is a vagrant to Florida. There are probably only some five previous records. Finally a regular Red-tailed Hawk was seen near Hooper Farms Road with a falconer's jess on March 30, 2005, April 3, 2005 and May 22, 2005.

Seen in the summer from April 14 (2006) to July 28 (2005, 2006), there were 12 "clustered" influxes. The first is indicated by a peak count of eight on April 14, 2006. The second peaked on April 23 (2004, 2006) with a high count of nine on April 23, 2006. The third peaked from April 29 (2007) to April 30 (2005) with a high count of 11 on April 29, 2007. The fourth peaked on May 5 (2004, 2006) with a high count of nine on May 5, 2006. The fifth peaked from May 14 (2006) to May 16 (2007) with a high count of 11 on May 16, 2007. The sixth peaked from May 20 (2004, 2008) to May 25 (2007) with a high count of ten on May 20, 2008. The seventh peaked from May 30 (2008) to June 4 (2006) with a high count of 11 on June 4, 2006. The eighth peaked from June 10 (2007) to June 11 (2008) with a high count of ten on June 10, 2007. The ninth peaked on June 19 (2005, 2006) with a high count of eight on June 19, 2006. The tenth is indicated by a peak count of 11 on July 4, 2007. The 11th peaked from July 15 (2007) to July 17 (2005) with a high count of 11 on July 15, 2007. The 12th peaked from July 23 (2006) to July 26 (2008) with a high count of 18 on July 26, 2008. The early fall passage was a minor event, it ran from July 10 (2006) to September 3 (2003), there were three "clustered" influxes. The first peaked from July 29 (2004) to August 1 (2007, 2008) with a high count of 17 on August 1, 2008. The second peaked from August 7 (2005) to August 11 (2004) with a high count of 21 on August 8, 2006. The third peaked from August 19 (2007) to August 24 (2003) with a high count of 19 on August 19, 2007. This last event really involved the young of the year joining the adults out in the fields rather than any actual passage. The main fall passage ran from August 16 (2006) to November 15 (2006), there were seven "clustered" influxes. The first peaked from August 29 (2004) to September 4 (2005) with a high count of 29 on September 1, 2006. The second peaked from September 7 (2003) to September 10 (2006) with a high count of 25 on September 10, 2006. The third peaked from September 19 (2003) to September 21 (2006, 2007)

with a high count of 29 on September 21, 2007. The fourth peaked from October 2 (2003, 2005) to October 8 (2006) with a high count of 32 on October 8, 2006. The fifth is indicated by a peak count of nine on October 12, 2003. The sixth peaked from October 18 (2006) to October 22 (2003) with a high count of 26 on October 21, 2007. The seventh peaked from October 27 (2004) to November 1 (2006) with a high count of 27 on November 1, 2006. The winter passage was the heaviest event of the year, the passage ran from November 2 (2007) to January 7 (2007), there were six "clustered" influxes. The first peaked on November 23 (2003, 2004) with a high count of 23 on November 23, 2003. The second peaked from November 27 (2005) to November 30 (2007) with high counts of 42 on November 27, 2005 and 175 on November 30, 2007. The latter is still the highest count for Zellwood. The third peaked from December 6 (2006) to December 9 (2003, 2005) with high counts of 29 on December 9, 2005 and 109 on December 6, 2006. The fourth peaked from December 16 (2005) to December 19 (2004) with a high count of 25 on December 16, 2005. The fifth peaked from December 26 (2005, 2007) to December 28 (2003) with high counts of 30 on December 26, 2005 and 103 on December 26, 2007. The sixth peaked from January 1 (2006) to January 3 (2007) with a high count of 30 on January 3, 2007. This was followed by the early spring passage which ran from January 6 (2006) to March 2 (2007) with extensions to March 10 in 2004 and March 15 in 2008, there were seven "clustered" influxes. The first peaked from January 8 (2006) to January 11 (2008) with a high count of 68 on January 11, 2008. The second peaked from January 15 (2006) to January 16 (2004) with a high count of 34 on January 15, 2006. The third peaked from January 18 (2008) to January 19 (2007) with high counts of 58 on January 18, 2008 and 89 on January 19, 2007. The next two influxes are indicated by isolated peak counts of 24 on January 24, 2005 and 53 on February 1, 2008. The sixth peaked from February 6 (2005) to February 11 (2004) with a high count of 66 on February 8, 2008. The seventh peaked from February 21 (2007) to February 27 (2006) with a high count of 53 on February 24, 2008. Finally there was the late spring passage, this ran from March 2 (2005) to April 26 (2005) with an extension to May 18 in 2008, there were eight "clustered" influxes. The first peaked from March 2 (2005) to March 7 (2004) with a high count of 27 on March 4, 2007. The second peaked from March 11 (2007) to March 12 (2006) with a high count of 22 on March 11, 2007. The third peaked from March 17 (2008) to March 21 (2007) with a high count of 32 on March 17, 2008. The fourth peaked from March 24 (2008) to March 26 (2006) with a high count of 34 on March 24, 2008. The fifth peaked from March 31 (2004) to April 3 (2005) with a high count of 11 on April 3, 2005. The sixth is indicated by a peak count of 18 on April 8, 2007. The last two influxes had peak counts of 26 on April 13, 2008 and 14 on April 25, 2008. These influxes in 2008 were clearly part of the late spring passage. For the other years there were two influxes in the summer passage that match. If one could put them together it would read: the first peaked from April 13 (2008) to April 14 (2006) with a high count of 26 on April 13, 2008. The second peaked from April 23 (2004, 2006) to April 25 (2008) with a high count of 14 on April 25, 2008. There were 43 "clustered" influxes.

Rough-legged Hawk (*Buteo lagopus*)

There were two records for this species which is a vagrant anywhere in Florida. There was one on December 9, 2005 and December 11, 2005 to the south of Lust Road. On November 21, 2007 there was a juvenile light morph near Hooper Farms Road.

Golden Eagle (*Aquila chrysaetos*)

This is a vagrant to central Florida. There were three spring records during this set of five years. On March 10, 2005 there was an adult or near adult that flew south over the Sand Farm across Duda it then turned to the south-east to avoid crossing the lake. On January 10, 2007 a juvenile was seen and photographed in the vicinity of Hooper Farms Road. Finally an adult flew to the north-east over the Sand Farm on February 4, 2007.

Crested Caracara (*Caracara cheriway*)

Although this species occurs to the south of Orlando this is rarer than the last two species locally. There being only one earlier record, there was one at the Sod Farm on July 27, 1999. This later sighting relates to one that was seen near Laughlin Road on November 30, 2006 and December 1, 2006. It was feeding on the ground with Turkey Vultures. There was no survey on November 30 but on December 1 there were 1,250 Turkey Vultures in the area which at that time was the highest count for Zellwood. Whilst there is no direct evidence I think it likely the two species were traveling together and that they had come from the west i.e. Texas.

American Kestrel (*Falco sparverius*)

This appears to be a resident, a passage migrant and a winter visitor. It is possible that pairs bred just outside the survey area near the Workshops and also between Lust and Hooper Farms Road. There is less of a possibility but it still exists of a pair breeding near the Sand Farm. At the Workshops adult males were seen regularly from April 27, 2007 to July 6, 2007 and from April 25, 2008 to June 29, 2008. There were juveniles at the Workshops on July 23, 2006 and from July 30, 2008 with an adult pair there on August 1, 2008. The situation at Lust/Hooper Farms Road is less clear with sightings of singles on May 9, 2007, June 26, 2005, July 1, 2007 and July 7, 2004. I may be biased but a pair did raise three young by Lust Road in 2010. There were just three records for the Sand Farm, there were singles on May 11, 2007, June 13, 2008 and July 18, 2007. From July 20 (2007) to September 23 (2006) there was no passage but individuals were seen in the area, the highest count was that of three on September 15, 2006. There was a significant fall passage from September 4 (2005) to December 1 (2006) with a high count of 38 on November 5, 2003. To detail the 2003 influxes, there were three on September 19 with 11 on September 21 and 12 on September 29, then nine seen on October 2 with six on

October 5. There were 12 on October 9 with 18 on October 15, 24 on October 19, 34 on October 26, 36 on October 29 and 38 on November 5, then 34 seen on November 9 with 27 on November 12. There were 29 on November 16 with 33 on November 20, then 31 seen on November 28. The winter passage was also a strong event, the passage ran from November 30 (2005, 2007) to January 11 (2004) with a high count of 38 on December 1, 2003. To continue detailing the 2003/2004 influxes, there were 38 on December 1 with 33 on December 3 and 32 on December 7. There were 34 on December 9 with 30 on December 15 and 21 on December 17. There were 36 on December 21 with 29 on December 28, 25 on December 31, 20 on January 4 and 15 on January 11. It does not take many additional birds to create a new influx. The early spring passage was surprisingly a lighter event. This passage ran from January 4 (2008) to March 2 (2005) with a high count of 21 on January 14, 2004. This time the main spring passage was just that, it ran from February 29 (2008) to May 2 (2004) with a high count of 34 on April 4, 2004. To detail the 2004 influxes, there were 16 on March 3 with 17 on March 7, 19 on March 10, 22 on March 19, then 2 seen on March 22 and March 24, with 18 on March 28. There were 32 on March 31 with 34 on April 4, then five seen on April 7 with two on April 14. Finally one flew to the north at Hooper Farms Road on May 2. For the other years the latest date of passage was that of April 24 in 2005.

The summer appears to cover the period April 25 (2008) to August 8 (2008), there was no suggestion of passage. The highest count was that of two on August 1, 2008. The situation was no different in the early fall, this "event" ran from July 20 (2007) to September 23 (2006) with a high count of three on September 15, 2006. The main fall passage ran from September 4 (2005) to December 1 (2006), there were seven "clustered" influxes. The first peaked from September 29 (2003) to September 30 (2007) with a high count of 13 on September 30, 2007. The second is indicated by a peak count of 18 on October 11, 2004. The third peaked from October 19 (2005, 2007) to October 25 (2006) with a high count of 25 on October 25, 2006. The fourth peaked from November 5 (2003) to November 7 (2005) with high counts of 24 on November 7, 2005 and 38 on November 5, 2003. The counts of 38 are still the highest counts for Zellwood; the other count of 38 is in the winter passage. The fifth is indicated by a peak count of 25 on November 12, 2006. The sixth peaked from November 17 (2004) to November 20 (2003) with high counts of 26 on November 17, 2004 and 33 on November 20, 2003. The seventh is indicated by a peak count of 18 on November 25, 2005. The winter passage followed and it ran from November 30 (2005, 2007) to January 11 (2004), there were four "clustered" influxes. The first peaked from December 1 (2003) to December 4 (2005) with high counts of 19 on December 4, 2005 and 38 on December 1, 2003. The latter together with the count of 38 on November 5, 2003 are the highest counts for Zellwood. The second peaked from December 7 (2004) to December 12 (2007) with high counts of 18 on December 7, 2004 and 34 on December 9, 2003. The third peaked from December 17 (2006) to December 21 (2003) with high counts of 17 on December 19, 2004 and 36 on December 21, 2003. The fourth peaked from December 26 (2005, 2007) to December 30 (2004) with a high count of 17 on December 30, 2004. The early spring passage ran from January 4 (2008) to March 2 (2005), there were seven "clustered" influxes. The first is indicated by a peak count of 14 on January 6, 2008. The second peaked from January 11 (2006) to January 16 (2007) with a high count of 21 on January 14, 2004. The third peaked from January 21 (2004) to January 27 (2006) with a high count of 18

on January 21, 2004. The fourth peaked from January 31 (2007) to February 4 (2008) with a high count of 17 on January 31, 2007 and February 2, 2005. The fifth is indicated by a peak count of 14 on February 8, 2006. The sixth peaked from February 15 (2008) to February 16 (2004) with a high count of 19 on February 16, 2004. The seventh peaked from February 22 (2006, 2008) to February 28 (2005) with a high count of 17 on February 22, 2008. Finally there was the main spring passage, this ran from February 29 (2008) to May 2 (2004), there were five "clustered" influxes. The first peaked from March 2 (2008) to March 6 (2005) with a high count of 21 on March 2, 2008. The second peaked from March 14 (2006) to March 18 (2005) with a high count of 19 on March 18, 2005. The third peaked from March 22 (2004) to March 26 (2006) with high counts of 21 on March 26, 2006 and 26 on March 22, 2004. The fourth peaked from April 3 (2005) to April 6 (2007) with high counts of 11 on April 3, 2005 and 34 on April 4, 2004. The fifth influx is indicated by a peak count of four on April 15, 2008. Not only was the main spring passage the stronger spring passage but the greatest numbers occurred in the second half of that passage.

Merlin (*Falco columbarius*)

A fall passage migrant with lesser numbers in the winter and the spring. It is not possible to identify the individuals that are migrating through as against those that have stopped off passage. A bird out hunting looks no different from one just passing through. This species can be seen throughout the field system, perching on snags or the utility poles. Fall passage noted from September 7 (2007) to November 30 (2007), there were eight "clustered" influxes. The first peaked from September 7 (2007) to September 10 (2003) with one on both dates. The second peaked from September 22 (2005) to September 23 (2006) with three on both dates. The third peaked from September 29 (2003) to September 30 (2007) with high counts of four on September 29, 2003 and eight on September 30, 2007. The latter is still the highest count for Zellwood. The fourth peaked on October 6 (2004, 2006) with a high count of five on October 6, 2004. The fifth peaked from October 9 (2003) to October 12 (2007) with three on both dates. The sixth peaked from October 17 (2004) to October 19 (2003) with a high count of three on October 17, 2004. The seventh is indicated by a peak count of six on November 2, 2005. The eighth peaked from November 11 (2007) to November 16 (2005) with a high count of two on November 15, 2005. The winter passage ran from December 1 (2003, 2004) to January 4 (2004, 2006), there were four "clustered" influxes. The first peaked on December 1 (2003, 2004) with one on both dates. The second peaked from December 7 (2005) to December 10 (2006) with one on both dates. The third peaked from December 21 (2003) to December 22 (2004) with a high count of two on December 21, 2003. The fourth peaked from December 26 (2007) to December 28 (2005) with a high count of two on December 28, 2005. The early spring passage came next and this ran from January 8 (2006) to February 29 (2004), there were six "clustered" influxes. The first is indicated by a peak count of one on January 16, 2004. The second peaked from January 24 (2005) to January 28 (2004) with a high count of two on January 24, 2005 and January 27, 2006. The third is indicated by a peak count of one on February 7, 2007. The fourth peaked on February 16 (2004, 2005) with a high count of two on

February 16, 2004. The fifth peaked from February 19 (2006) to February 22 (2008) with one on both dates. The sixth peaked from February 28 (2007) to February 29 (2004) with one on both dates. Finally there was the main spring passage, this ran from March 10 (2005, 2006) to May 11 (2008), there were seven "clustered" influxes. The first peaked on March 10 (2005, 2006) with one on both dates. The second peaked from March 19 (2004) to March 23 (2007) also with one on both dates. The next three influxes are indicated by peak counts of one on March 28, 2004, one on April 6, 2007 and two on April 13, 2008. The sixth peaked from April 27 (2007) to April 30 (2005) with a high count of two on April 28, 2004. The seventh is indicated by a peak count of one on May 11, 2008.

Whilst there are no influxes that should be detailed it is perhaps worthwhile to list the first and last records. In the fall there were singles on September 7, 2007 and September 10, 2003. Otherwise the fall passage started on September 16 (2004, 2007). In the spring the main passage ended with singles on April 27, 2007 and April 30, 2005. There was a late running influx in 2004, there were singles on April 21 and April 25 with two on April 28, then one seen on May 5. The latest was one at the Sand Farm on May 11, 2008.

Peregrine Falcon (*Falco peregrinus*)

This is an uncommon passage migrant and winter visitor. Seen in the fall from September 13 (2006) to November 22 (2006), there were eight "clustered" influxes. The first is indicated by a peak count of one on September 13, 2006. The second peaked from September 22 (2004) to September 24 (2003) with one on both dates. The third peaked from September 30 (2007) to October 3 (2004) with a high count of two on October 3, 2004. The fourth peaked from October 7 (2007) to October 9 (2003) with a high count of two on October 8, 2005 and October 7, 2007. The fifth peaked from October 14 (2007) to October 16 (2005) with a high count of three on October 14, 2007. This was the highest count in this set of five years. The sixth peaked from October 19 (2003) to October 21 (2005) with one on both dates. The seventh is indicated by a peak count of one on November 2, 2007. The eighth peaked from November 12 (2006) to November 14 (2007) with a high count of two on November 13, 2005. Peak passage was clearly in the first two weeks of October. The winter passage was a lighter event, it ran from November 27 (2005) to December 29 (2006), there were four "clustered" influxes. The first peaked from November 30 (2007) to December 2 (2005) with a high count of two on December 2, 2005. The second peaked from December 15 (2006) to December 16 (2005) with one on both dates. The last two influxes were indicated by isolated peak counts of one on December 21, 2007 and December 29, 2006. For the five years there were only sightings on seven dates with just two for the second half of the passage. The counts in the first half of December may have more in common with the fall passage than as a separate winter event. The early spring passage by contrast was much stronger, it ran from January 4 (2008) to March 5 (2006), there were seven "clustered" influxes. The first peaked from January 4 (2008) to January 8 (2006) with one on both dates. The second is indicated by a peak count of one on January 19 (2007). The third peaked from January 25 (2004) to January 27 (2006) with one on both dates. The fourth peaked from February 1 (2008) to February 4 (2004) with one on both

dates. The fifth peaked from February 8 (2008) to February 10 (2006) also with one on both dates. The sixth peaked from February 16 (2005) to February 18 (2007) with one on both dates. The seventh is indicated by a peak count of one on February 28, 2005. At least with all these counts of singles all or nearly all of the records are in fact being detailed. During the late spring there were a scattering of records that I will detail. There was one on March 11, 2007 with another on March 22, 2006. One flew to the north on April 29, 2007. On May 7, 2006 one flew to the north over Hooper Farms Road. Finally there was a very late individual. On May 23, 2008 one flew to the north over Lust Road. As the fields are gradually flooded more may stop off passage.

Gray Partridge (*Perdix perdix*)

This is an exotic game bird previously unrecorded in Florida. There were two at the Sand Farm on September 14, 2003.

Common Peafowl (*Pavo cristatus*)

This species is an exotic that can be heard over the eastern border near Hogshead Road and the southern border at Magnolia Park. Two individuals have strayed into the area. There was one at the southern border on September 10, 2006 and there was one by Hogshead Road on May 11, 2007. These are the only Zellwood records.

Wild Turkey (*Meleagris gallopavo*)

An irregular visitor to the survey area, sightings are becoming more frequent. There was one by Lake Apopka to the south of Hooper Farms Road on March 26, 2005 with two there on October 16, 2005. Then in 2006 there was one at this site on April 19, 2006. There was one at the Nursery on April 30, 2006. There were two at the Sand Farm on March 7, 2007 with singles at Hooper Farms Road on April 6, 2007 and by the Workshops on May 4, 2007. Finally for 2007 there was one at the Nursery from May 18 to May 27. On March 26, 2008 there was one again by Lake Apopka south of Hooper Farms Road. It is likely that the individuals by Lake Apopka south of Hooper Farms Road walked in from the wooded southern border. The trees along the shore of Lake Apopka come to an end at this point.

Northern Bobwhite (*Colinus virginianus*)

Resident with the greatest numbers being at the Sand Farm, whilst with the exception of 2004 no breeding bird survey conducted the summer counts give an idea of the size of the breeding population. In 2004 a total of 87 pairs located. Coveys of new born young first noted

from May 30 (2004) to July 21 (2004). This is a secretive species that is best located by song in the summer. At first light from the fall to the spring a few individuals may call. Otherwise one has to hope to come across a covey in the wooded borders. These coveys are normally near the edge of the wood rather than deep inside the wood. The summer appears to run from April 7 (2008) to August 13 (2006) with a high count of 105 on June 1, 2008. This count of 105 comprised 89 singing males and 16 juveniles. In 2003 the breeding population was that of 127 pairs. It would seem likely that the 2008 population was similar. To detail the 2008 influxes, there were 13 on April 7 with 23 on April 9 and 28 on April 13, then 16 seen on April 18 with 13 on April 20. There were 21 on April 23 with 25 on April 25 and 29 on April 27, then 28 seen on May 2 with 27 on May 4. As usual the word "seen" covers both those seen and those heard. There were 30 on May 7 with 30 again on May 14 and 18 on May 16. There were 25 on May 18 with 27 on May 20, 29 on May 23, 38 on May 25, 49 on May 28, 78 on May 30 and 105 on June 1, then 36 seen on June 4 with 35 on June 6 and 26 on June 8. There were 46 on June 11 with 68 on June 13, then 41 seen on June 15 with 39 on June 20, 28 on June 25 and 23 on June 27. There were 34 on June 29 with 35 on July 9, then 21 seen on July 11 with 14 on July 13 and 12 on July 16. There were 16 on July 21, then five seen on July 26 with two on July 27. After the breeding season a few individuals continue calling at first light through to the end of November. No coveys were seen during this period in 2003 and in that year up to nine a day called. From the beginning of December in 2003 and 2005 through to February 27 in 2004 and March 26 in 2006 only an isolated individual heard to call on some mornings. The pattern for the other years was probably the same but it is clouded by the sightings of coveys. The largest coveys were those of 24 on January 26, 2007, 25 on January 9, 2005, 25 on December 17, 2006, 27 on December 12, 2004, 30 on November 23, 2007, 34 on October 21, 2007 and 34 on January 18, 2008.

As I have come to expect even this the most resident of resident species shows a pattern of influxes. For this species these "clustered influxes" are confined to the summer months. Perhaps during the breeding cycle there are subtle changes in their behavior that creates the fluctuations in the rate of singing. The summer "passage" ran from April 7 (2008) to August 13 (2006), there were 12 "clustered" influxes. The first peaked from April 13 (2008) to April 14 (2006) with a high count of 28 on April 13, 2008. The second peaked from April 25 (2004) to April 28 (2006) with a high count of 42 on April 25, 2004. The third is indicated by a peak count of 30 on May 7, 2008. The fourth peaked from May 14 (2006) to May 16 (2004) with a high count of 45 on May 16, 2004. The fifth peaked from May 18 (2007) to May 22 (2005) with a high count of 26 on May 22, 2005. The sixth peaked from May 30 (2004) to June 1 (2008) with high counts of 32 on May 31, 2006 and 105 on June 1, 2008. The latter is still the highest count for Zellwood. The seventh peaked from June 8 (2007) to June 13 (2008) with high counts of 14 on June 8, 2007 and 68 on June 13, 2008. The eighth peaked from June 20 (2008) to June 25 (2006) with a high count of 40 on June 23, 2004. The ninth peaked from July 1 (2007) to July 5 (2006) with a high count of 39 on July 5, 2006. The tenth peaked from July 9 (2008) to July 11 (2005) with a high count of 35 on July 9, 2008. The 11th peaked from July 18 (2004, 2007) to July 20 (2005, 2008) with high counts of 26 on July 19, 2006 and 58 on July 18, 2004. Note every year was involved in this influx. The 12th influx peaked from July 26 (2006) to July 31 (2005) with

high counts of 30 on July 26, 2006 and 56 on July 31, 2005. Can anyone explain these apparent influxes?

Yellow Rail (*Coturnicops noveboracensis*)

A vagrant but due to its very secretive nature it may be overlooked. There was one at the Sand Farm on February 11, 2004. This is the second Zellwood record, the other, also at the Sand Farm, was seen on March 9, 2003.

Clapper Rail (*Rallus longirostris*)

This is a coastal species that is exceptionally rare inland. There was one at the Sand Farm Cattail Marsh on November 28, 2003, December 9, 2003 and December 17, 2003. This is a winter record.

King Rail (*Rallus elegans*)

A resident, a passage migrant and a winter visitor but that does not tell the story. The population was centered on the Sand Farm Cattail Marsh at all seasons. That is until the drought dried up the marshes both there and at Duda. From the summer of 2007 numbers were minimal. Prior to that numbers had been climbing fast, not in the number of breeding pairs but in the size of the post-breeding gathering. Surprisingly at other seasons the counts remained quite stable. In 2006 in particular I counted huge numbers at the marsh, it seems important to explain the counting method. These rails have a range of "kek" calls differing in pitch and length. I found out that some rails with very distinctive voices only called once up to sunrise. Individuals near me did likewise. I have therefore treated each call as belonging to a separate bird. In 2004 a total of 18 pairs located through the area with 13 pairs in 2005 and 2008. Whilst one tiny young was seen on May 15, 2005 the majority of young were seen between June 21 (2006) and July 16 (2008). The summer was by far the weakest event, it ran from April 30 (2006) to June 19 (2005) with a high count of 15 on May 7, 2006. The post-breeding gathering followed from June 19 (2006) to October 3 (2004) with high counts of 134 on August 19, 2004, 295 on August 15, 2005 and a massive 523 on August 23, 2006. To detail the 2006 influxes, there were 13 on June 19 with 16 on June 21, 24 on June 28, 31 on June 30, 39 on July 5, 56 on July 10, 68 on July 12, 83 on July 14 and 194 on July 16, then 136 seen on July 19 with 112 on July 21. There were 209 on July 23 with 148 on July 26, 122 on July 28 and 105 on July 30. There were 328 on August 2 with 342 on August 4, 436 on August 11, 447 on August 13, 451 on August 18 and 523 on August 23, then 411 seen on August 25 with 215 on August 27. There were 233 on August 30 with 243 on September 1 and 332 on September 3, then 229 seen on September 6 with 212 on September 10, 191 on September 13, 141 on September 15, 132 on September 17, 87 on September 21 and 78 on September 23. The fall passage whilst strong was not in the same league. This passage ran from September 25 (2006)

to December 7 (2003) with a high count of 126 on October 8, 2006. The winter passage ran from December 2 (2005) to January 11 (2004) with a high count of 71 on December 4, 2005. The early spring passage ran from January 6 (2005) to March 3 (2004) with a high count of 74 on February 8, 2005. Numbers now lower with the late spring passage. This event ran from February 27 (2006) to May 5 (2004) with a high count of 25 on March 6, 2005. The drought really did change everything. After the huge post-breeding gathering in 2006 the fall passage was also quite strong with a high count of 126 on October 8. The change started with the winter passage as the high count was only that of 59 on December 13. For the earlier years the early spring passage was on par with the winter passage but not so in 2007. To detail the influxes, there were 22 on January 10 with 28 on January 12 and 45 on January 16, then 33 seen on January 19 with 17 on January 21 and ten on January 24. There were 19 on January 26 with 15 on January 31 and two on February 7. There were seven on February 9 with ten on February 11, then five seen on February 14 with one on February. There were four on February 23 with seven on February 25, then one seen on February 28. The late spring passage had a high count of eight on April 11. From May 11 to July 25 only one seen with two on August 3 and three on August 12. The high count of the "post-breeding gathering" was that of six on September 5. From the fall to the early spring up to four a day seen whilst in the summer the high count was that of seven on May 28. By 2011 the population had not recovered.

The summer passage ran from April 30 (2006) to June 19 (2005), there were four "clustered" influxes. The first peaked on May 7 (2006, 2007) with a high count of 15 on May 7, 2006. The second peaked from May 14 (2006) to May 16 (2004) with a high count of 14 on May 14, 2006. The third peaked from May 21 (2006) to May 26 (2004) with a high count of 14 on May 21, 2006. The fourth is indicated by a peak count of 12 on June 8, 2006. The post-breeding gathering ran from June 19 (2006) to October 3 (2004), there were eight "clustered" influxes. Very exceptionally the first four influxes were indicated by isolated peak counts of ten on July 3, 2005, 194 on July 16, 2006, 209 on July 23, 2006 and 295 on August 15, 2005. The fifth peaked from August 19 (2004) to August 23 (2006) with high counts of 134 on August 19, 2004 and 523 on August 23, 2006. The latter is still the highest count for Zellwood. The next two influxes again were isolated peak counts of 332 on September 3, 2006 and 56 on September 12, 2004. The eighth peaked from September 19 (2003) to September 22 (2004) with a high count of 26 on September 19, 2003. The excessive number of isolated peak counts is caused by two events. First there was the lack of any event in 2007 and secondly by the number of influxes in 2006. The fall passage followed from September 25 (2006) to December 7 (2003), there were seven "clustered" influxes. The first is indicated by a peak count of 114 on September 27, 2006. The second peaked from October 8 (2005, 2006) to October 13 (2004) with a high count of 126 on October 8, 2006. The third is indicated by a peak count of 69 on October 20, 2006. The fourth peaked from October 28 (2005) to October 31 (2004) with a high count of 56 on October 31, 2004. The fifth peaked from November 7 (2005) to November 10 (2004) with a high count of 64 on November 8, 2006. The sixth peaked from November 19 (2006) to November 25 (2005) with a high count of 75 on November 25, 2005. The seventh peaked from November 28 (2003) to November 29 (2006) with a high count of 69 on November 28, 2003. Passage in the winter and the early spring was a little lighter. The winter passage ran from December 2 (2005) to January 11 (2004), there were four "clustered" influxes. The first peaked from December 4 (2005) to

December 6 (2006) with a high count of 71 on December 4, 2005. The second peaked from December 9 (2003) to December 13 (2006) with a high count of 60 on December 11, 2005. The third is indicated by a peak count of 44 on December 22, 2004. The fourth peaked from December 28 (2003) to January 3 (2007) with a high count of 39 on January 3, 2007. Next came the early spring passage, this ran from January 6 (2005) to March 3 (2004), there were five "clustered" influxes. The first peaked from January 9 (2005) to January 11 (2006) with a high count of 63 on January 9, 2005. The second peaked from January 14 (2004) to January 16 (2007) with a high count of 45 on January 16, 2007. The third peaked from January 26 (2005, 2007) to January 29 (2006) with a high count of 61 on January 26, 2005. The fourth peaked from February 8 (2005) to February 11 (2007) with a high count of 74 on February 8, 2005. The fifth peaked from February 22 (2004, 2006) to February 25 (2007) with a high count of 13 on February 22, 2004. The late spring passage ran from February 27 (2006) to May 5 (2004), there were five "clustered" influxes. The first peaked from March 4 (2007) to March 10 (2006) with a high count of 25 on March 6, 2005. The second peaked from March 14 (2007) to March 20 (2005) with a high count of 21 on March 20, 2005. The third is indicated by a peak count of seven on March 28, 2007. The fourth peaked from April 11 (2007) to April 14 (2005, 2006) with a high count of 14 on April 14, 2005. The fifth peaked from April 21 (2007) to April 26 (2005) with a high count of eight on April 21, 2007 and April 23, 2006. This is another of the interesting species. There were 33 "clustered" influxes.

Virginia Rail (*Rallus limicola*)

A rather uncommon passage migrant and winter visitor, unlike the King Rail this species kept to the edge of the Sand Farm Cattail Marsh but most were noted along the canals or the shore of Lake Apopka. The first in the fall was one on September 9, 2006, otherwise seen in the fall from September 29 (2003, 2006) to December 7 (2003) with a high count of six on October 27, 2004. To detail the 2004 influxes, there was one on October 11 and October 13. There were six on October 27 with three on November 3. There was one on November 14 with two on November 17 and three on November 21, then two seen on November 23 with one on December 1. The winter passage ran from December 1 (2006) to January 16 (2005) with a high count of six on December 22, 2004. To detail the winter of 2004/2005 influxes, there were three on December 5 with four on December 7 and December 12, then three seen on December 16 and December 19. There were six on December 22 with two on December 27. There were three on December 30 with five on January 2 and January 9, then two seen on January 16. The early spring passage followed and it ran from January 4 (2006) to March 4 (2008) with a high count of nine on February 16, 2005. To continue detailing the 2005 influxes, there were two on January 24 and January 30 with one on February 2. There were two on February 8 with seven on February 13 and nine on February 16, then five seen on February 20 with four on February 28. The three passages described above were of equal strength but the late spring passage was a minor event. The passage ran from March 3 (2004) to April 25 (2006) with a high count of three on March 3, 2004. The main passage ended on April 4 (2007) but there were later records. There was one on April 25, 2006 with another on April 21, 2007 and April 24, 2007. These last sightings were all from the Sand Farm area.

There was a very early fall record of one on September 9, 2006. The main fall passage ran from September 29 (2003, 2006) to December 7 (2003), there were seven “clustered” influxes. The first peaked on September 29 (2003, 2006) with one on both dates. The second peaked from October 9 (2003) to October 11 (2004) with a high count of two on October 9, 2003. The third peaked from October 17 (2007) to October 21 (2005) with a high count of three on October 21, 2005. The fourth peaked from October 27 (2004) to November 2 (2005) with a high count of six on October 27, 2004. The fifth is indicated by a peak count of three on November 5, 2003. The sixth peaked from November 11 (2007) to November 13 (2005) with a high count of three on November 13, 2005. The seventh peaked from November 21 (2004) to November 25 (2005, 2007) with a high count of three on November 21, 2004. The winter passage ran from December 1 (2006) to January 16 (2005), there were five “clustered” influxes. The first peaked from December 1 (2006) to December 2 (2005) with a high count of three on December 2, 2005. The second peaked from December 7 (2004) to December 9 (2003) with a high count of four on December 7, 2004. The third peaked from December 12 (2007) to December 13 (2005) with a high count of three on December 12, 2007. The fourth peaked on December 22 (2004, 2006) with a high count of six on December 22, 2004. The fifth peaked from December 28 (2003) to January 2 (2005) with a high count of five on January 2, 2005. The early spring passage followed and it ran from January 4 (2006) to March 4 (2008), there were six “clustered” influxes. The first peaked from January 5 (2007) to January 8 (2006) with a high count of three on January 8, 2006. The second is indicated by a peak count of four on January 16, 2008. The third peaked from January 19 (2004) to January 24 (2005) with a high count of five on January 19, 2004. The fourth peaked from February 1 (2008) to February 7 (2007) with two on both dates. The fifth peaked from February 14 (2006) to February 16 (2005) with a high count of nine on February 16, 2005. This is still the highest count for Zellwood. The sixth is indicated by a peak count of two on February 22, 2008. The late spring passage ran from March 3 (2004) to April 25 (2006), there were four “clustered” influxes. The first is indicated by a peak count of three on March 3, 2004. The second peaked from March 13 (2005) to March 15 (2008) with a high count of two on March 15, 2008. The third peaked from March 30 (2005) to April 4 (2007) with one on both dates. The fourth peaked from April 21 (2007) to April 25 (2006) with one on both dates. This species is not as vocal as the King Rail so will in all probability have been under-recorded.

Sora (Porzana carolina)

A very common fall passage migrant with declining numbers thereafter, there was a major population at the Sand Farm Cattail Marsh but they could also be found along any of the canals and the shore of Lake Apopka. There is one characteristic that is very different from the King Rail and the American Bittern that also call the cattail marsh home. The King Rail and the bittern call and another will respond from somewhere in the marsh. When a Sora calls its neighbors join in creating a chorus of sound from a section of the marsh, that area then stays silent and another area will start up and later another. Seen in the fall from August 27 (2006) to December 3 (2003) with a high count of 394 on November 19, 2006. To detail the 2006 influxes, there was one on August 27. There was also one on September 10 with four on September 13,

five on September 15, 15 on September 17, 24 on September 21, 100 on September 23, 160 on September 25, 189 on September 29, 267 on October 1 and 282 on October 4, then 214 seen on October 6 with 131 on October 8. There were 352 on October 11 with 267 on October 13, 247 on October 15, 206 on October 20, 186 on October 25, 109 on October 29, 78 on November 1 and 46 on November 3. There were 97 on November 5 with 151 on November 8, 305 on November 10, 367 on November 15 and 394 on November 19, then 349 seen on November 22 with 54 on November 26 and 53 on November 29. The winter passage followed from December 1 (2006) to January 16 (2005) with a high count of 260 on December 4, 2005. To detail the 2006/2007 influxes, there were 167 on December 1 with 123 on December 6 and 23 on December 8. There were 90 on December 10 with 208 on December 13 and 254 on December 15, then 90 seen on December 17 with 88 on December 22 and 40 on December 27. There were 107 on December 29 with 34 on December 31. There were 51 on January 3 with 104 on January 5 and 145 on January 7, then 77 seen on January 12 with 24 on January 14. The early spring passage ran from January 14 (2004) to March 4 (2006) with a high count of 115 on January 20, 2006. To continue detailing the 2007 influxes, there were 48 on January 16 with 55 on January 21 and 62 on January 26, then 60 seen on January 31 with 41 on February 7 and 25 on February 9. There were 45 on February 11 with 32 on February 14, 20 on February 16, five on February 18 and four on February 21. There were 19 on February 23 with 18 on February 25 and 13 on February 28. The late spring passage ran from February 24 (2008) to May 13 (2007) with a high count of 60 on March 11, 2007.

In segment one I detailed all the records from the fall to the early spring of 2006/2007. When I came to look for patterns in a series of five years there were in this case clear patterns that were just not visible in a single year. The fall passage was by far the strongest event, this passage ran from August 27 (2006) to December 3 (2003), there were eight "clustered" influxes. Initially there were singles on August 27, 2006 and September 3, 2003 creating the first influx. Excepting these two early records the passage started on September 10 (2006). The second influx peaked from October 4 (2006) to October 5 (2003) with high counts of 32 on October 5, 2003 and 282 on October 4, 2006. The third peaked from October 11 (2006) to October 14 (2007) with high counts of 118 on October 14, 2007 and 352 on October 11, 2006. The fourth peaked from October 19 (2005) to October 22 (2003) with high counts of 134 on October 21, 2004 and 238 on October 19, 2005. The fifth is indicated by a peak count of 49 on October 26, 2007. The sixth peaked from October 31 (2004) to November 5 (2003) with high counts of 177 on October 31, 2004 and 229 on November 2, 2005. The seventh is indicated by a peak count of 95 on November 11, 2007. The eighth peaked from November 19 (2006) to November 25 (2005) with high counts of 186 on November 21, 2004 and 394 on November 19, 2006. The latter was the highest count during the first ten years of the survey. The winter passage ran from December 1 (2006) to January 16 (2005), there were five "clustered" influxes. During this passage numbers gradually declined making it in reality the second half of the fall passage. The first peaked from December 1 (2006) to December 5 (2004) with high counts of 167 on December 1, 2006 and 260 on December 4, 2005. The second peaked from December 9 (2003) to December 15 (2006) with high counts of 156 on December 9, 2003 and 254 on December 15, 2006. The third peaked from December 19 (2004, 2007) to December 21 (2005) with a high count of 181 on December 21, 2005. The fourth peaked from December 28 (2003) to January 1

(2006) with a high count of 157 on January 1, 2006. The fifth peaked from January 7 (2007) to January 9 (2008) with a high count of 70 on January 9, 2008. The early spring passage ran from January 14 (2004) to March 4 (2006), there were five “clustered” influxes. This was clearly a separate event unlike the winter passage with a peak in mid to late January. The first influx peaked from January 14 (2004) to January 16 (2008) with a high count of 91 on January 14, 2004. The second peaked from January 19 (2005) to January 20 (2006) with a high count of 115 on January 20, 2006. The third peaked from January 26 (2007) to January 27 (2006) with a high count of 57 on January 27, 2006. The fourth peaked from February 4 (2008) to February 11 (2007) with a high count of 55 on February 8, 2006. The fifth peaked from February 18 (2004) to February 23 (2005, 2007) with a high count of 23 on February 18, 2004. The late spring passage ran from February 24 (2008) to May 13 (2007), there were eight “clustered” influxes. With this passage we switch from regular influxes to basic influxes, hence the number of influxes. This passage was also a separate event with two peaks to the passage, early and late. The first influx peaked from March 4 (2007) to March 6 (2005) with a high count of 36 on March 4, 2007. The second peaked from March 10 (2004) to March 12 (2006) with a high count of 60 on March 11, 2007. The third peaked from March 15 (2008) to March 18 (2007) with a high count of 47 on March 18, 2007. The fourth peaked from March 26 (2006) to March 28 (2008) with a high count of 21 on March 28, 2008. The fifth peaked from April 4 (2008) to April 7 (2004) with a high count of 37 on April 4, 2008. The sixth peaked from April 13 (2007) to April 17 (2005) with a high count of 41 on April 13, 2007. The seventh peaked from April 21 (2006) to April 23 (2004) with a high count of 19 on April 21, 2006. The eighth is indicated by a peak count of three on May 3, 2006.

Purple Gallinule (*Porphyrio martinica*)

A summer visitor and passage migrant, possibly one or more will stay through the winter. This species breeds at the Sand Farm, along the Lake Level Canal and the shore of Lake Apopka. The number of pairs depends on the amount of aquatic vegetation and water levels. There were 54 pairs in 2004 with 28 pairs in 2005. With the flooding of Phase One this species now breeds around the edge of this area. There were 21 pairs at Phase One in 2008 with others elsewhere in the area. New born young were first seen from May 14 (2008) to July 24 (2004), hence the long breeding season. There was a very light early spring passage from February 2 (2005) to April 4 (2007) with a high count of seven on March 14, 2004 and March 28, 2007. In sharp contrast was a very strong main spring passage from March 15 (2008) to May 26 (2004) with a high count of 97 on April 25, 2004. To detail the 2004 influxes, there were six on March 24 with 14 on April 4, 17 on April 7, 29 on April 18, 42 on April 21, 54 on April 23 and 97 on April 25, then 40 seen on April 28 with 33 on May 2. There were 37 on May 5 with 51 on May 10, then 30 seen on May 16 with 22 on May 23 and 18 on May 26. The summer passage covers an extended period from May 1 (2007) to September 7 (2005). The highest count during the summer was that of 49 on July 2, 2004. To detail the 2004 influxes, there were 36 on May 30 with 25 on June 6 and 19 on June 9. There were 26 on June 13 with 29 on June 16, 43 on June 20 and 49 on July 2, then 43 seen on July 4 with 22 on July 7 and 17 on July 11. There were 36 on July 14 with 31 on July 18, 27 on July 24 and 24 on July 29. There were 45 on August 1 with

14 on August 4. There were 26 on August 9 with 33 on August 11, then 24 seen on August 16 with 17 on August 22 and seven on August 26. The fall passage covered a long period but the numbers were low. The passage ran from August 19 (2007) to November 18 (2005) with a high count of 17 on September 7, 2003. There were up to three a day from October 29 (2007) through the winter to late January/early February, however in 2007/2008 none seen from November 19 to February 7. In 2004 the low numbers continued to February 22 and in 2006 they continued to February 16.

Seen in the early spring from February 2 (2005) to April 4 (2007), there were six "clustered" influxes. The first peaked from February 2 (2005) to February 8 (2008) with a high count of four on February 2, 2005. The second peaked from February 16 (2005) to February 17 (2006) with a high count of five on February 16, 2005. The third peaked from February 25 (2007) to March 2 (2008) with a high count of five on February 28, 2005. The last three influxes are indicated by isolated peak counts of five on March 5, 2006, seven on March 14, 2004 and seven on March 28, 2007. The main spring passage in sharp contrast was the strongest event of the year. This passage ran from March 15 (2008) to May 26 (2004), there were five "clustered" influxes. The first peaked on April 11 (2007, 2008) with a high count of 36 on April 11, 2008. The second peaked on April 20 (2005, 2008) with a high count of 56 on April 20, 2005. The third peaked from April 23 (2006) to April 27 (2008) with high counts of 39 on April 23, 2006 and 97 on April 25, 2004. The latter is still the highest count for Zellwood. The fourth peaked from April 30 (2006) to May 4 (2008) with a high count of 49 on April 30, 2006. The fifth is indicated by a peak count of 51 on May 10, 2004. The summer covered an extended period from May 1 (2007) to September 7 (2005), there were eight "clustered" influxes. The first peaked from May 24 (2006) to May 30 (2004) with a high count of 36 on May 30, 2004. The second peaked from June 5 (2005) to June 8 (2006) with a high count of 37 on June 5, 2005. The third peaked from June 10 (2007) to June 13 (2008) with a high count of 47 on June 13, 2008. The fourth peaked from June 21 (2006) to June 24 (2007) with a high count of 38 on June 21, 2006. The fifth peaked from July 2 (2004, 2008) to July 6 (2005, 2007) with a high count of 49 on July 2, 2004. The sixth peaked from July 14 (2004, 2006) to July 18 (2007) with a high count of 36 on July 14, 2004. The seventh peaked from July 28 (2005) to August 3 (2008) with a high count of 45 on August 1, 2004. The eighth peaked from August 11 (2004) to August 16 (2006) with a high count of 33 on August 11, 2004. Numbers now dropped sharply with the start of the fall passage. This event ran from August 19 (2007) to November 18 (2005), there were ten "clustered" influxes. The first peaked from August 22 (2007) to August 24 (2003) with eight on both dates. The second peaked from August 27 (2006) to September 1 (2004) with a high count of ten on September 1, 2004. The third peaked from September 7 (2003) to September 9 (2007) with a high count of 17 on September 7, 2003. The fourth is indicated by a peak count of eight on September 16, 2003. The fifth peaked from September 19 (2005) to September 23 (2006) with a high count of eight on September 19, 2005. The sixth peaked from September 28 (2004, 2007) to October 2 (2003) with a high count of six on October 2, 2003. The seventh peaked from October 11 (2006) to October 12 (2003) also with a high count of six on October 12, 2003. The eighth peaked from October 17 (2007) to October 21 (2004, 2005) with three on all three dates. The ninth peaked from November 1 (2006) to November 5 (2003) with three on both dates. The tenth is indicated by peak count of four on November 13, 2005. Excluding 2005 this passage

ended on November 10 (2006). From October 29 (2007) often only singles seen with counts of two or three possible through the winter to late January or early February, however none seen from November 19, 2007 to February 7, 2008. The low numbers continued to February 14 in 2006 and to February 22 in 2004.

Common Gallinule (*Gallinula galeata*)

A common resident, a passage migrant and a winter visitor now with the flooding of Phase One there is probably going to be a post-breeding gathering each year. They nest in the canals, the shore of Lake Apopka, the Sand Farm Cattail March and now at Phase One. There were 305 pairs in 2004, no later information. The earliest brood was that of three on February 16, 2004. More normally new broods were seen from April 6 (2005) to November 23 (2004). Seen in the summer from April 25 (2008) to July 31 (2005) with a high count of 385 on July 12, 2006. The next event ran from July 16 (2006, 2008) to September 21 (2006) with excluding 2006 a high count of 365 on August 10, 2008. In 2006 there was a significant post breeding gathering with a high count of 1,925 on September 15, 2006. To detail the 2006 influx, there were 385 on July 16 with 405 on July 19, 415 on July 23, 420 on July 26, 530 on August 4, 535 on August 6, 540 on August 8, 595 on August 13, 670 on August 16, 795 on August 18, 830 on August 23, 1,080 on September 1, 1,205 on September 6, 1,450 on September 8, 1,880 on September 13 and 1,925 on September 15, then 1,540 seen on September 17 with 1,410 on September 21. Just one mega influx took up the whole passage. The fall passage ran from September 19 (2003, 2005) to December 5 (2004) with again excluding 2006 a high count of 360 on November 7, 2005. In 2006 the highest count was that of 2,370 on October 11, 2006. To continue detailing the 2006 influxes, there were 1,540 on September 23 with 1,570 on September 27, then 1,030 seen on September 29 with 750 on October 1, 2006. There were 1,340 on October 4 with 1,700 on October 6, 2,250 on October 8 and 2,370 on October 11, then 2,120 seen on October 13 with 1,940 on October 15, 1,380 on October 18 and 1,360 on October 20. There were 1,530 on October 22 with 1,205 on October 25, 1,140 on October 27, 985 on October 29, 980 on November 1 and 890 on November 3. There were 1,040 on November 5 with 950 on November 8, 900 on November 10, 750 on November 12, 500 on November 19, 420 on November 24, 285 on November 26 and 185 on November 29. Numbers were now back to normal for the winter passage, this ran from November 25 (2005) to January 16 (2004) with a high count of 760 on December 28, 2005. The early spring passage followed from January 2 (2005) to March 8 (2006) with again excluding 2006 a high count of 500 on January 21, 2004. In 2006 the high count was that of 1,170 on January 29. To detail the 2006 influxes, there were 630 on January 4 with 740 on January 8, 810 on January 13, 830 on January 15 and 1,105 on January 20, then 645 seen on January 22 with 605 on January 25. There were 770 on January 27 with 1,170 on January 29, then 1,050 seen on February 1 with 900 on February 8, 760 on February 10 and 730 on February 12. There were 880 on February 14 with 970 on February 17, then 725 seen on February 19 with 690 on February 22. There were 905 on February 24 with 875 on February 27, 790 on March 1, 500 on March 4, 475 on March 5 and 410 on March 8. Finally there was the late spring passage, this ran from March 7 (2007) to May 1 (2005) with a high count of 485 on March 12, 2006. With the very heavy passage in the early spring of 2006, the post-breeding

gathering and fall passage in that same year I wondered if this was an isolated freak year as the other years in this set of five years showed none of these traits. I have taken a look at the later years and these three events are now here to stay. In 2010 there were peak counts of 2,750 on February 19, 4,440 on August 25 and 5,110 on October 18 and October 22. The latter is now the highest count for Zellwood.

The summer passage ran from April 25 (2008) to July 31 (2005), there were ten "clustered" influxes. The first peaked from April 28 (2006) to May 5 (2004) with a high count of 325 on May 1, 2007. The second is indicated by a peak count of 90 on May 9, 2008. The third peaked from May 16 (2004) to May 20 (2007) with a high count of 210 on May 20, 2007. The fourth is indicated by a peak count of 245 on May 31, 2006. The fifth peaked from June 8 (2008) to June 10 (2007) with a high count of 240 on June 8, 2008. The next two influxes are indicated by isolated peak counts of 240 on June 19, 2006 and 190 on June 27, 2008. The eighth peaked from July 4 (2004, 2007) to July 9 (2008) with a high count of 215 on July 9, 2008. The ninth peaked from July 12 (2006) to July 15 (2007) with a high count of 385 on July 12, 2006. The tenth peaked from July 20 (2005) to July 22 (2007) with a high count of 250 on July 20, 2005. The post-breeding gathering ran from July 16 (2006, 2008) to September 21 (2006), there were six "clustered" influxes. The first peaked from July 29 (2004) to August 1 (2007) with a high count of 180 on July 29, 2004. The second is indicated by a peak count of 365 on August 10, 2008. The third peaked from August 17 (2005, 2007) to August 19 (2004) with a high count of 200 on August 17, 2005. The fourth peaked from August 22 (2004) to August 26 (2007) with a high count of 165 on August 22, 2004. The fifth peaked from September 4 (2005) to September 7 (2003) with a high count of 335 on September 7, 2003. The sixth peaked from September 12 (2004) to September 15 (2006) with high counts of 155 on September 12, 2004 and 1,925 on September 15, 2006. The fall passage followed from September 19 (2003, 2005) to December 5 (2004), there were seven "clustered" influxes. The first peaked from September 21 (2007) to September 22 (2005) with a high count of 190 on September 22, 2005. The second peaked from September 27 (2006) to October 3 (2007) with high counts of 160 on September 28, 2004 and 1,570 on September 27, 2006. The third peaked from October 10 (2007) to October 13 (2004) with high counts of 300 on October 13, 2004 and 2,370 on October 11, 2006. The latter was the highest count during the first ten years of the survey. The fourth peaked from October 22 (2006) to October 26 (2007) with high counts of 160 on October 26, 2007 and 1,530 on October 22, 2006. The fifth is indicated by a peak count of 135 on October 29, 2003. The sixth peaked from November 5 (2006) to November 9 (2007) with high counts of 360 on November 7, 2005 and 1,040 on November 5, 2006. The seventh peaked from November 18 (2007) to November 21 (2004) with a high count of 275 on November 21, 2004. The winter passage ran from November 25 (2005) to January 16 (2004), there were four "clustered" influxes. The first peaked from November 30 (2007) to December 3 (2006) with a high count of 300 on December 3, 2006. The second peaked from December 9 (2003) to December 12 (2004, 2007) with a high count of 400 on December 9, 2003. The third peaked from December 16 (2005) to December 21 (2003, 2007) with high counts of 565 on December 21, 2003 and 620 on December 16, 2005. The fourth peaked from December 27 (2004) to December 29 (2006) with high counts of 360 on December 29, 2006 and 760 on December 28, 2005. Next came the early spring passage, this ran from January 2 (2005) to March 8 (2006), there were seven "clustered" influxes. The first peaked

from January 4 (2008) to January 6 (2005) with a high count of 335 on January 4, 2008. The second peaked from January 18 (2008) to January 21 (2004) with high counts of 500 on January 21, 2004 and 1,105 on January 20, 2006. The third peaked from January 29 (2006) to January 30 (2008) with high counts of 420 on January 30, 2008 and 1,170 on January 29, 2006. The fourth peaked from February 4 (2004, 2007) to February 6 (2005) with a high count of 460 on February 4, 2004. The fifth peaked from February 11 (2007) to February 12 (2008) with a high count of 420 on February 11, 2007. The sixth peaked from February 16 (2004) to February 17 (2006) with high counts of 293 on February 16, 2004 and 970 on February 17, 2006. The seventh peaked from February 20 (2008) to February 27 (2004) with high counts of 310 on February 20, 2008 and 905 on February 24, 2006. Finally there was the late spring passage, this ran from March 7 (2007) to May 1 (2005), there were seven "clustered" influxes. The first peaked from March 7 (2007) to March 12 (2006) with a high count of 485 on March 12, 2006. The second peaked from March 15 (2008) to March 18 (2007) with a high count of 315 on March 18, 2007. The third peaked from March 24 (2005) to March 30 (2007) with a high count of 320 on March 30, 2007. The fourth peaked from April 7 (2008) to April 11 (2007) with a high count of 285 on April 11, 2007. The fifth peaked from April 13 (2008) to April 14 (2006) with a high count of 385 on April 14, 2006. The sixth peaked from April 18 (2004) to April 20 (2005) with a high count of 230 on April 20, 2005. The seventh peaked from April 24 (2007) to April 25 (2004) with a high count of 245 on April 24, 2007. There were in all 41 "clustered" influxes.

American Coot (*Fulica americana*)

A passage migrant and winter visitor, the numbers depending on there being a suitable habitat, nearly all the sightings were from any flooded fields or the Sand Farm Cattail Marsh. The American Coots bred at the Sand Farm Cattail Marsh in 2004 with broods of two on April 14 and three on June 20. There were only the occasional sightings on Lake Apopka. Seen in the summer from May 14 (2006) to July 24 (2004) with high counts of 11 on May 19, 2006 and June 23, 2006. In 2005 the only record was that of one on May 29. The early fall passage ran from July 20 (2005) to October 12 (2007) with a high count of ten on July 26, 2006. There were no sightings in 2004. The summer and the early fall were the weakest events of the year. The main fall passage ran from October 1 (2006) to December 6 (2006) with a high count of 1,140 on November 10, 2006. To detail the 2006 influxes, there were ten on October 1 with 23 on October 4, 24 on October 6, 30 on October 11, 40 on October 13, 198 on October 15, 232 on October 20, 283 on October 22, 330 on October 25, 525 on October 27, 541 on October 29, 838 on November 1, 860 on November 3, 970 on November 5, 1,110 on November 8 and 1,140 on November 10, then 950 seen on November 12 with 690 on November 15 and 575 on November 17. There were 730 on November 19 with 635 on November 22, 495 on November 24, 305 on November 26, 110 on November 29, 94 on December 1, 92 on December 3 and 72 on December 6. The winter passage ran from November 25 (2005) to January 16 (2005) with a high count of 760 on December 21, 2005. To detail the 2005/2006 influxes, there were 87 on November 25 with 192 on November 27, 205 on November 30 and 540 on December 2, then 530 seen on December 7 with 505 on December 9 and 420 on December 11. There were 460 on

December 13 with 490 on December 16, 680 on December 19 and 760 on December 21, then 220 seen on December 23 with 185 on December 26. There were 245 on December 28 with 450 on December 30 and 750 on January 1, then 405 seen on January 4 with 255 on January 8, 105 on January 11 and 85 on January 15. The early spring passage ran from January 4 (2004, 2008) to March 7 (2004, 2007) with a high count of 200 on February 1, 2006. Finally the late spring passage ran from March 5 (2003) to May 16 (2008) with an extension to May 27 in 2007. The highest count was that of 260 on March 26, 2006. During this set of five years the highest count was that of 1,140 on November 10, 2006. In 1998 with the flooded fields there were 16,720 on November 18. In 2010 the count rose to 18,000 on January 15 and to 24,900 on November 7. That is what a few flooded fields can do.

The summer passage ran from May 14 (2006) to July 24 (2004), there were seven "clustered" influxes. This was the weakest event of the year with just one sighting in 2005. The first peaked from May 18 (2008) to May 19 (2006) with a high count of 11 on May 19, 2006. The second peaked from May 29 (2005) to June 2 (2004) with a high count of three on June 2, 2004. The third is indicated by a peak count of seven on June 11, 2006. The fourth peaked from June 22 (2007) to June 23 (2006) with a high count of 11 on June 23, 2006. The fifth is indicated by a peak count of seven on June 28, 2004. The sixth peaked from July 13 (2007) to July 16 (2006) with a high count of eight on July 16, 2006. The seventh is indicated by a peak count of five on July 24, 2004. The early fall passage was no better, this passage ran from July 20 (2005) to October 12 (2007), there were six "clustered" influxes. The first peaked from July 25 (2007) to July 31 (2005) with a high count of ten on July 26, 2006. The second peaked from August 11 (2006) to August 17 (2005) with a high count of five on August 11, 2006. The third peaked from August 20 (2003) to August 25 (2006) with a high count of eight on August 25, 2006. The fourth peaked from September 1 (2006) to September 5 (2007) with a high count of nine on September 1, 2006. The last two influxes are indicated by isolated peak counts of two on September 14, 2007 and six on September 21, 2006. The main fall passage ran from October 1 (2006) to December 6 (2006), there were seven "clustered" influxes. The first peaked from October 11 (2004) to October 14 (2007) with a high count of 88 on October 11, 2004. The second peaked from October 21 (2004) to October 22 (2003) with high counts of four on October 22, 2003 and 620 on October 21, 2004. The third peaked on October 26 (2005, 2007) with a high count of 71 on October 26, 2005. The fourth is indicated by a peak count of 14 on November 2, 2003. The fifth peaked on November 7 (2004, 2007) with a high count of 127 on November 7, 2004. The sixth peaked from November 10 (2006) to November 13 (2005) with high counts of 123 on November 13, 2005 and 1,140 on November 10, 2006. The latter was the highest count during this set of five years. The seventh peaked from November 19 (2006) to November 23 (2003, 2004) with high counts of 100 on November 23, 2004 and 730 on November 19, 2006. The winter passage followed from November 25 (2005) to January 16 (2005), there were five "clustered" influxes. The first peaked from November 30 (2007) to December 2 (2005) with a high count of 540 on December 2, 2005. The second peaked from December 7 (2003) to December 8 (2006) with a high count of 96 on December 8, 2006. The third peaked from December 16 (2004) to December 17 (2006) with a high count of 130 on December 16, 2004. The fourth peaked on December 21 (2003, 2005, 2007) with high counts of 18 on December 21, 2003 and 760 on December 21, 2005. The fifth peaked from December 29

(2006) to January 4 (2008) with high counts of 265 on January 2, 2005 and 750 on January 1, 2006. Next came the early spring passage, this ran from January 4 (2004, 2008) to March 7 (2004, 2007), there were seven “clustered” influxes. The first peaked from January 10 (2007) to January 11 (2004) with a high count of 103 on January 10, 2007. The second peaked from January 20 (2006) to January 23 (2008) with a high count of 160 on January 20, 2006. The third peaked from January 29 (2007) to February 1 (2006, 2008) with a high count of 200 on February 1, 2006. The fourth peaked from February 4 (2004) to February 8 (2008) with a high count of 185 on February 6, 2005. The fifth peaked from February 14 (2006) to February 18 (2004, 2007) with a high count of 185 on February 14, 2006. The sixth is indicated by a peak count of 103 on February 23, 2005. The seventh peaked from March 1 (2006) to March 4 (2008) with a high count of 215 on March 1, 2006. Finally there was the late spring passage, this passage ran from March 5 (2003) to May 16 (2008) with an extension to May 27 in 2007, there were seven “clustered” influxes. The first peaked from March 12 (2006) to March 13 (2005) with a high count of 200 on March 12, 2006. The second peaked from March 17 (2008) to March 19 (2004) with 26 on both dates. The third peaked from March 23 (2007) to March 26 (2006, 2008) with a high count of 260 on March 26, 2006. The fourth peaked from March 30 (2005) to April 6 (2007) with a high count of 98 on March 30, 2005. The fifth peaked from April 11 (2008) to April 14 (2006) with a high count of 59 on April 14, 2006. The sixth peaked from April 23 (2008) to April 26 (2005) with high counts of six on April 23, 2008 and April 25, 2004. The seventh peaked from May 3 (2006) to May 9 (2008) with a high count of 12 on May 3, 2006.

Limpkin (*Aramus guarauna*)

Possibly a resident and there are suggestions that after the breeding elsewhere a number may move into the area. However with the drought sightings now greatly reduced, possibly by 2/3rds in 2008. In 2004 none were seen from January 15 to April 20, the main breeding season. In 2005 the gap was only from February 3 and March 12. There was no gap in 2006 with sightings at the Sand Farm, at Lake Apopka south of Hooper Farms Road, the western end of the McDonald Canal and at Lake Apopka north of the Lust Road pump house. In 2007 there was one at the Sand Farm up to February 16 with no further sightings at that site until April 4. During this period there was a pair at the southern border. In 2008 there were no sightings from January 17 to March 16. This species is therefore for the most part a post-breeding visitor. In 2004 there was the suggestion of a fall passage with four on October 6, two on October 11 and one on October 13. There were also three on October 21 with two on October 31. The count of four was the highest count during this set of five years. For whatever reason December was clearly the quietest month, with none found in 2003 and single records for 2005 and 2007.

Sandhill Crane (*Grus canadensis*)

For the most part this is a passage migrant and to a lesser degree a winter visitor. It can however be seen at any time of the year although it does not breed in the survey area. As with

the Double-crested Cormorant this species can at the appropriate season be seen flying high to the north or to the south. In the area the flocks use any short grass fields and the shallowest of the flooded fields. Visible migration to the south was recorded in the fall from October 29 (2006) to December 2 (2005, 2007) with the highest numbers from November 20 (2003) to November 30 (2005, 2007). The highest counts were those of 227 on November 30, 2005, 117 on November 22, 2006 and 137 on November 30, 2007. The best season was in 2005 when 330 noted flying to the south from November 18 to December 2. The winter was different in that the passage appeared to be split into two even though all the records relate to birds flying to the south. The first part ran from December 1 (2003) to December 13 (2005) with a high count of 65 on December 7, 2007. The best season was in 2007 when 163 recorded. The second part ran from December 21 (2005) to December 31 (2003) with a high count of 93 on December 21, 2005. The best season was in 2005 when 117 flew to the south. In the early spring a party of 34 flew to the south on January 14, 2007. Northward passage noted in the early spring from February 13 (2005) to March 5 (2006). The peak passage appeared to be split into two periods. The first peak ran from February 13 (2005) to February 22 (2006) with a high count of 126 on February 16, 2004. The best season was 2004 when a total of 222 recorded. The second peak ran from February 29 (2008) to March 5 (2006) with high counts of 113 on February 29, 2008 and 121 on March 5, 2006. The best season was 2008 when 133 seen flying to the north. There was a minor passage in two years during the late spring passage with records from March 13 (2005) to March 28 (2004). The highest counts were of 16 on both of those dates. The best season was that of 2004 when 21 seen flying to the north. There was no passage during the summer or the early fall. On October 29, 2006 a flock flew to the south in the dark, at least three individuals heard. There are only a handful of records of cranes migrating at night in Florida. Finally and very exceptionally there was an adult of the very tiny race *G.C.canadensis* on December 19, 2004. This individual was with a flock of 43 normal size cranes. There are very few Florida records of this race.

The summer passage ran from April 1 (2007) to June 28 (2006), there were seven "clustered" influxes. The first is indicated by a peak count of four on April 1, 2007. The second peaked from April 18 (2004) to April 20 (2008) with a high count of four on April 20, 2008. The third peaked on April 24 (2005, 2007) with two on both dates. The fourth peaked from May 4 (2008) to May 5 (2004) with three on both dates. The fifth peaked from May 14 (2006) to May 18 (2007) with a high count of four on May 18, 2007. The sixth is indicated by a peak count of two on June 13, 2008. The seventh peaked from June 24 (2007) to June 28 (2006) with a high count of two on June 28, 2006. The early fall covered the period July 8 (2007) to October 24 (2007), there were no sightings in 2004. Whilst there were influxes these very exceptionally created no patterns so I have to treat this as a period without any passage. During this time normally only one to three seen but there were ten on October 19, 2007. The main fall passage ran from October 26 (2007) to December 5 (2004), there were five "clustered" influxes. The first peaked from October 26 (2007) to October 29 (2006) with a high count of 33 on October 29, 2006. The second peaked from November 9 (2007) to November 12 (2006) with high counts of 12 on November 10, 2004 and November 9, 2007. The third is indicated by a peak count of 59 on November 16, 2007. The fourth peaked from November 20 (2003) to November 23 (2007) with high counts of 41 on November 20, 2003 and 117 on November 22, 2006. The fifth peaked

from November 28 (2004) to November 30 (2005, 2007) with high counts of 141 on November 30, 2007 and 227 on November 30, 2005. The latter was the highest count during the first ten years of the survey. The winter passage followed from December 1 (2003) to January 4 (2004), there were four "clustered" influxes. The first peaked from December 7 (2003, 2007) to December 11 (2005) with a high count of 69 on December 7, 2007. The second peaked from December 15 (2003) to December 17 (2006) with a high count of ten on December 17, 2006. The third peaked from December 19 (2004, 2007) to December 21 (2005) with a high count of 93 on December 21, 2005. The fourth peaked from December 28 (2003) to December 31 (2006) with a high count of 65 on December 28, 2003. The early spring passage ran from January 2 (2008) to March 17 (2006), there were eight "clustered" influxes. The first is indicated by a peak count of three on January 4, 2008. The second peaked from January 14 (2007, 2008) to January 16 (2004) with a high count of 34 on January 14, 2007. The third peaked from January 20 (2008) to January 25 (2006) with a high count of 28 on January 24, 2007. The next two influxes are indicated by isolated peak counts of four on January 28, 2008 and 27 on February 7, 2007. The sixth peaked from February 13 (2005) to February 16 (2004) with high counts of 80 on February 13, 2005 and 126 on February 16, 2004. The seventh peaked from February 20 (2008) to February 22 (2006) with a high count of 65 on February 22, 2006. The eighth peaked from February 29 (2008) to March 5 (2006) with high counts of 118 on February 29, 2008 and 121 on March 5, 2006. Finally the late spring passage ran from March 2 (2005) to April 2 (2008), there were three "clustered" influxes. The first peaked from March 11 (2007) to March 13 (2005) with a high count of 16 on March 13, 2005. The second peaked from March 19 (2008) to March 22 (2006) with five on both dates. The third peaked on March 28 (2004, 2008) with a high count of 16 on March 28, 2004. From the fall to the spring the totals and dates may well differ from segment to segment. This is because the second segment also includes those in the area off passage.

Whooping Crane (*Grus americana*)

This is a species that is being re-introduced into Florida. The following records probably relate to individuals that had been bred in captivity and then released into the wild in Florida. This program has now been discontinued. There were three adults at the Sod Farm on July 14, 2005. There were also two adults on the northern border on September 2, 2007. Finally two adults flew to the south-west over the Sand Farm on March 24, 2008. The actual high count is that of eight on March 21, 2000. Note the closeness of that date to the last record.

Black-bellied Plover (*Pluvialis squatarola*)

An uncommon spring passage migrant with even fewer records for the fall and the winter, the problem is the lack of suitable habitats as this species needs short grass or ploughed fields. Seen in the early fall from August 22 (2004) to September 19 (2007), there were three "clustered" influxes. The first peaked from August 22 (2004) to August 24 (2003) with a high

count of 11 on August 22, 2004. The other two influxes are indicated by isolated peak counts of one on September 8, 2004 and two on September 14, 2007. The main fall passage was no better, the passage ran from October 3 (2007) to December 1 (2006), there were four “clustered” influxes. The first three influxes being indicated by isolated peak counts of two on October 3, 2007, one on October 16, 2005 and two on November 3, 2004. The fourth peaked from November 11 (2005) to November 15 (2006) with a high count of 11 on November 11, 2005. These were flying to the south over Lake Apopka. The winter passage was even weaker, it ran from December 10 (2006) to January 7 (2007), there were three “clustered” influxes. The first is indicated by a peak count of two on December 10, 2006. The second peaked from December 27 (2006) to December 30 (2007) with a high count of 19 on December 27, 2006. The third is indicated by a peak count of two on January 4, 2004. The main event was the early spring passage, this ran from January 12 (2007) to March 4 (2007), there were five “clustered” influxes. The first peaked from January 12 (2007) to January 14 (2004) with a high count of 19 on January 12, 2007. The second peaked from January 25 (2008) to January 31 (2007) with a high count of 18 on January 25, 2008. The third is indicated by a peak count of 13 on February 4, 2008. The fourth peaked from February 11 (2007) to February 12 (2008) with a high count of eight on February 11, 2007. The fifth peaked from February 26 (2008) to February 28 (2007) with a high count of 25 on February 28, 2007. This was the highest count during this set of five years. Finally there was the late spring passage, this ran from March 9 (2007) to May 9 (2007), there were six “clustered” influxes. The passage started strong but the passage in April was very weak. The first influx peaked from March 14 (2007) to March 19 (2006) with a high count of 13 on March 17, 2008. The second peaked from March 23 (2007) to March 28 (2004) with a high count of 16 on March 28, 2004. The last four influxes are indicated by isolated peak counts of two on April 4, 2008, four on April 13, 2008, nine on April 24, 2007 and two on May 9, 2007. These last four “clustered” influxes only involve records from the last two years. If the other years had records the situation would be much clearer.

American Golden-Plover (*Pluvialis dominica*)

Over the five years only ten individuals seen, to detail the records, there was an adult in winter plumage at the Sand Farm on August 11, 2006. There was one there on October 11, 2004 and finally for the fall there was one at the Stormwater Pond off Jones Avenue from October 31, 2007 to November 4, 2007. For the winter there was one near the Workshops on December 17, 2006 with one at the Sand Farm on December 27, 2006 and December 29, 2006. For the early spring there were singles near the Workshops on February 8, 2008 and the Sand Farm on February 28, 2007. Finally for the main spring passage there were three at the Sand Farm on March 28, 2004 with one there on March 31, 2004. The number of sightings since the Sand Farm closed has been minimal.

Semipalmated Plover (*Charadrius semipalmatus*)

An uncommon passage migrant as there is little suitable habitat. Only occasionally are there areas of wet and dry mud. Seen in the spring from April 19 (2006, 2007) to May 13 (2007) with a high count of 11 on May 7, 2007. There was one on April 19, 2006 with three on April 19, 2007. There was an influx from April 27, 2007 to May 4, 2007 with a peak count of two on April 27, 2007. There was one on May 5, 2006 with three on May 7, 2006. There was an influx from May 7, 2007 to May 13, 2007 with a peak count of 11 on May 7, 2007. Finally for the spring there was one on May 9, 2008. Seen in the fall from July 13 (2008) to October 3 (2007) with a high count of seven on August 5, 2007. There was one on July 13, 2008. There was an influx from August 1, 2007 to August 5, 2007 with a peak count of seven on August 5, 2007. There was one on August 25, 2006 with singles on September 1, 2003 and September 1, 2004. Finally there was an influx from September 14, 2007 to October 3, 2007 with a peak count of two on September 26, 2007.

The records indicate two “clustered” influxes in the spring and one in the fall. The first peaked on April 19 (2006, 2007) with a high count of three on April 19, 2007. The second peaked from May 7 (2006, 2007) to May 9 (2008) with a high count of 11 on May 7, 2007. This was the highest count during this set of five years. The third peaked from August 25 (2006) to September 1 (2003, 2004) with one on all dates.

Killdeer (*Charadrius vociferus*)

A resident, a passage migrant and a winter, it prefers any short grass fields or any areas of bare ground. At night it can be found along the various roadways. Breeding depends on the availability of suitable habitat one nest was in the middle of Sand Farm Road by the gate to Jones Avenue this was in 2006. New born young were seen from April 17 (2005) to May 19 (2006) with a late brood on July 15, 2007. Most broods were of single young but there were broods of three and four. The summer passage appeared to run from March 24 (2008) to July 15 (2007) with a high count of 17 on April 21, 2006. In 2008 there appeared to be a post-breeding gathering, that event (including the other years) ran from June 30 (2006) to July 31 (2005). The highest count was that of 79 on July 9, 2008. By just looking at the overall dates there appears to be a nearly total overlap but when one looks at the actual influxes the post-breeding gathering involved four influxes that were not part of the summer passage. The early fall passage ran from July 25 (2007) to October 17 (2004) with a high count of 110 on September 14, 2007. The main fall passage followed from October 4 (2006) to November 29 (2006) with a high count of 239 on November 11, 2005. In the late fall there is sometimes a visible passage to the south with flocks crossing Lake Apopka. This passage noted between October 29 (2007) and November 11 (2005) with high counts of 150 on October 29, 2007 and 169 on November 11, 2005. The winter passage was a very strong event, the passage ran from November 18 (2005) to January 6 (2008) with an extension to January 21 in 2004. The highest counts were those of 555 on December 21, 2003 and 1,040 on January 4, 2004. To detail the 2003/2004 influxes, there were 87 on December 3 with 238 on December 7, 390 on December

9, 520 on December 17 and 555 on December 21, then 550 seen on December 26 with 410 on December 28. There were 555 on December 31 with 1,040 on January 4, then 525 seen on January 14 with 470 on January 19 and 400 on January 21. The early spring passage ran from January 5 (2007) to March 5 (2006) with a high count of 905 on February 8, 2006. This event appears to be even stronger than the winter passage. To continue detailing the 2004 influxes, there were 655 on January 25 with 400 on February 2, 255 on February 4, 128 on February 8, 30 on February 11, 18 on February 16 and 16 on February 18. There were 138 on February 22 and five on February 27. There are two things to note, firstly although the winter passage over-ran this event ended at the expected time and secondly this event showed the gradual departure of the winter visitors rather than this being an event in its own right. That was not the situation in 2006, to detail that year's records. There were 300 on January 6 with 390 on January 8 and 740 on January 11, then 720 seen on January 13 with 95 on January 15. There were 100 on January 18 with 390 on January 20 and 500 on January 22, then 270 seen on January 27 with 53 on January 29 and 34 on February 1. There were 62 on February 5 with 905 on February 8, then 237 seen on February 12 with 140 on February 14. There were 555 on February 17 with 120 on February 19, 80 on February 24, 21 on March 1, seven on March 4 and two on March 5. The late spring passage ran from March 2 (2007) to March 31 (2004) with a high count of 92 on March 8, 2006.

The summer passage ran from March 24 (2008) to July 15 (2007), there were nine "clustered" influxes. The first two are indicated by isolated peak counts of nine on March 28, 2008 and seven on April 10, 2005. The third peaked from April 18 (2004) to April 19 (2007) with a high count of seven on April 19, 2007. The fourth peaked from April 21 (2006) to April 23 (2008) with a high count of 17 on April 21, 2006. The fifth peaked from April 28 (2004) to May 4 (2008) with a high count of six on May 4, 2008. The sixth peaked from May 10 (2006) to May 16 (2007) with a high count of seven on May 14, 2008. The seventh peaked from May 21 (2006) to May 25 (2008) with nine on both dates. The eighth peaked from May 30 (2004) to May 31 (2006) with a high count of 11 on May 31, 2006. The ninth peaked from June 6 (2008) to June 11 (2006) with a high count of ten on June 11, 2006. In 2008 there appeared to be a post breeding gathering so I have linked the influxes for all the years into a single event. This passage ran from June 30 (2006) to July 31 (2005), there were four "clustered" influxes. The first peaked from July 23 (2006) to July 27 (2008) with a high count of 31 on June 27, 2008. The second is indicated by a peak count of nine on June 30, 2006. The third peaked from July 9 (2008) to July 10 (2006) with a high count of 79 on July 9, 2008. The fourth peaked from July 17 (2005) to July 19 (2008) with a high count of 47 on July 19, 2008. The early fall passage followed from July 25 (2007) to October 17 (2004), there were seven "clustered" influxes. The first peaked on August 1 (2007, 2008) with a high count of 13 on August 1, 2007. The second peaked from August 8 (2008) to August 13 (2006) with a high count of 19 on August 10, 2007. The third peaked from August 21 (2005) to August 22 (2004) with a high count of 54 on August 21, 2005. The fourth peaked from August 27 (2003) to August 31 (2005) with a high count of 72 on August 30, 2006. The fifth peaked from September 12 (2004, 2005) to September 14 (2007) with a high count of 110 on September 14, 2007. The sixth is indicated by a peak count of 55 on September 21, 2003. The seventh peaked from September 27 (2006) to October 3 (2004) with a high count of 36 on September 30, 2007. Note how the peak counts rose and fell this is a standalone event. The

main fall passage ran from October 4 (2006) to November 29 (2006), there were seven “clustered” influxes. The first peaked from October 7 (2007) to October 8 (2006) with a high count of 72 on October 7, 2007. The second peaked from October 12 (2003) to October 15 (2006) with a high count of 48 on October 15, 2006. The third is indicated by a peak count of 30 on October 19, 2005. The fourth peaked from October 27 (2006) to October 30 (2005) with a high count of 191 on October 29, 2007. The fifth peaked from November 3 (2006) to November 4 (2007) with a high count of 80 on November 4, 2007. The sixth peaked from November 11 (2005) to November 16 (2007) with a high count of 239 on November 11, 2005. The seventh is indicated by a peak count of 117 on November 22, 2006. The winter passage ran from November 18 (2005) to January 6 (2008) with an extension to January 21 in 2004, there were five “clustered” influxes. When this passage starts so early in November it probably means that a fall influx was overtaken by a much stronger winter influx before the numbers in the fall influx started to decline. The first influx peaked from November 28 (2003) to December 1 (2006) with a high count of 384 on November 28, 2003. The second peaked from December 7 (2005) to December 10 (2006) with high counts of 300 on December 7, 2005 and 470 on December 10, 2006. The third peaked from December 13 (2005) to December 14 (2007) with high counts of 173 on December 13, 2005 and 445 on December 14, 2007. The fourth peaked from December 19 (2004) to December 23 (2005) with high counts of 250 on December 21, 2007 and 555 on December 21, 2003. The fifth peaked from December 29 (2006) to January 4 (2004) with high counts of 365 on January 1, 2006 and 1,040 on January 4, 2004. The latter was the highest count during this set of five years. The early spring passage was overall a little stronger, the passage ran from January 5 (2007) to March 5 (2006), there were seven “clustered” influxes. The first peaked from January 7 (2007) to January 11 (2006, 2008) with high counts of 500 on January 7, 2007 and 740 on January 11, 2006. The second peaked from January 14 (2007) to January 18 (2008) with a high count of 170 on January 18, 2008. The third peaked from January 22 (2006) to January 26 (2007) with high counts of 500 on January 22, 2006 and 655 on January 25, 2004. The fourth peaked from February 1 (2008) to February 2 (2005) with a high count of 155 on February 2, 2005. The fifth peaked from February 7 (2007) to February 8 (2006, 2008) with high counts of 160 on February 8, 2008 and 905 on February 8, 2006. The sixth is indicated by a peak count of 300 on February 13, 2005. The seventh peaked from February 17 (2006) to February 22 (2004) with high counts of 165 on February 20, 2008 and 555 on February 17, 2006. The late spring passage ran from March 2 (2007) to March 31 (2004), there were four “clustered” influxes. The first peaked from March 4 (2007) to March 8 (2006) with a high count of 92 on March 8, 2006. The second peaked from March 15 (2008) to March 16 (2007) with a high count of 39 on March 15, 2008. The third peaked from March 18 (2005) to March 19 (2004, 2006) with a high count of 43 on March 19, 2006. The fourth is indicated by a peak count of 11 on March 23, 2007. Note the sharp divide between this event and the early spring passage it is situations like this that led me to draw the boundaries. There were 43 “clustered” influxes.

Black-necked Stilt (*Himantopus mexicanus*)

A summer visitor and passage migrant that is also becoming a winter visitor. This species prefers wet mud for feeding but will build its nests in a drier area. Nests are quite often

lost to rising water levels in which case this species normally tries again at a new location. Outside of the breeding season it will feed in shallow water even if there are no areas of exposed mud. There was one pair in 2004, none in 2005, three pairs in 2006, two pairs in 2007 and nine pairs in 2008, the number of pairs depending on the availability of suitable nesting areas. All nine pairs in 2008 were at Phase One. At the western end of the McDonald Canal in 2006 a nest held three eggs on April 28 and four eggs on May 3. Broods of new born young were first seen from June 6 (2008) to July 10 (2006) with up to five young per pair. The main spring passage ran from March 4 (2006) to June 12 (2005) with a high count of 120 on April 9, 2008. Excluding 2008 the highest count was that of 17 on April 13, 2007. To detail the 2008 influxes, there were five on March 28 with six on April 2, eight on April 4 and 120 on April 9, then 35 seen on April 11 with nine on April 13. There were 15 on April 15 with 21 on April 18 and 22 on April 23, then 20 seen on April 30 with 17 on May 4, 13 on May 7 and ten on May 9. In 2005 none summered so it is possible to get an idea of when the spring passage really ended. In that year there were 11 on May 29 with four on June 5 and two on June 12. The summer ran from April 25 (2006) to July 18 (2004) with a high count of 28 on June 1, 2008. I am detailing the 2008 influxes to show the summer pattern, bear in mind that the spring passage could well be continuing even though locally the birds are nesting. There were 15 on May 11 with 19 on May 14, then 11 seen on May 16 with nine on May 18. There were 12 on May 20 with 14 on May 23, 27 on May 28 and 28 on June 1, then 26 seen on June 6 with 23 on June 11, 14 on June 13, 12 on June 18, six on June 25 and four on July 2. There was a single fall passage, this ran from June 24 (2007) to October 11 (2006) with a high count of 26 on July 16, 2008. There were no late fall records so it is all the more surprising that there were winter records, these I will detail. There were three on December 31, 2003 with two on December 5, 2004. There were two on December 22, 2006 with three from December 27, 2006 to January 26, 2007 then two seen from January 29, 2007 to March 9 with one on March 17. The latter might just be a separate spring passage record. Since the period covered by this analysis this has become a year round resident with the flooding of Phases One and Two.

The spring passage ran from March 4 (2006) to June 12 (2005), there were six "clustered" influxes. The first is indicated by a peak count of two on March 12, 2006. The second peaked from March 21 (2007) to March 27 (2005) with a high count of 11 on March 27, 2005. The third is indicated by a peak count of 14 on April 1, 2007. The fourth peaked from April 7 (2004) to April 9 (2008) with high counts of four on April 7, 2004 and 120 on April 9, 2008. The latter was the highest count during this set of five years. The fifth is indicated by a peak count of 17 on April 13, 2007. The sixth peaked from April 23 (2004, 2006, 2008) to April 26 (2005) with a high count of 22 on April 23, 2008. With none staying to breed in 2005 the balance of the spring passage could be seen. There were 11 on May 29 with four on June 5 and two on June 12. The summer passage ran from April 25 (2006) to July 18 (2004), there were seven "clustered" influxes. The first peaked from May 7 (2006) to May 9 (2007) with a high count of 19 on May 7, 2006. The second peaked from May 14 (2008) to May 16 (2004) with a high count of 19 on May 14, 2008. The next two influxes are indicated by isolated peak counts of nine on May 23, 2007 and 28 on June 1, 2008. The fifth peaked from June 9 (2004) to June 11 (2006) with a high count of 14 on June 9, 2004. The sixth is indicated by a peak count of 13 on June 19, 2006. The seventh peaked from June 28 (2004) to June 30 (2006) with a high count of 12 on June 30, 2006.

The fall passage ran from June 24 (2007) to October 11 (2006), there were nine “clustered” influxes. The first peaked from July 3 (2005) to July 6 (2007, 2008) with a high count of 12 on July 6, 2007. The second peaked from July 16 (2008) to July 17 (2005) with a high count of 26 on July 16, 2008. The third peaked from July 26 (2006, 2008) to July 27 (2007) with a high count of 22 on July 27, 2007. The fourth peaked from August 3 (2007) to August 6 (2006) with a high count of 19 on August 3, 2007. The fifth peaked from August 12 (2007) to August 18 (2006) with a high count of 12 on August 18, 2006. Passage was now limited leading to there being four isolated peak counts of three on August 26, 2004, six on September 8, 2006, eight on September 16, 2004 and five on October 3, 2004. There were no late fall records. Surprisingly there were winter records. There were three on December 31, 2003 with two on December 5, 2004. There were two on December 22, 2006 with three from December 27, 2006 to January 26, 2007 then two seen from January 29, 2007 to March 9, 2007 with one on March 17, 2007. The latter may be a separate spring passage record.

American Avocet (*Recurvirostra americana*)

There was only one record for the five years. However that is likely to change as the various sectors are flooded. Two in winter plumage flew to the south on July 30, 2006, that is it.

Greater Yellowlegs (*Tringa melanoleuca*)

A passage migrant and winter visitor with low numbers during these five years, this species prefers a muddy shoreline but it will feed in just shallow water if need be. There was a very light early fall passage from July 16 (2006, 2008) to October 7 (2007), there were nine “clustered” influxes. The first peaked on July 16 (2006, 2008) with one on both dates. The second peaked from July 24 (2008) to July 28 (2005) with one on both dates. The next two influxes are indicated by isolated peak counts of one on August 2, 2006 and August 9, 2004. The passage now becomes a little stronger. The fifth peaked from August 18 (2006) to August 20 (2003) with a high count of four on August 18, 2006. The sixth peaked from August 26 (2004) to September 2 (2007) with a high count of four on August 26, 2004. The seventh peaked from September 7 (2003) to September 8 (2006) with a high count of three on September 8, 2006. The last two influxes are indicated by isolated peak counts of nine on September 22, 2004 and two on September 30, 2007. The main fall passage was only a little stronger, the passage ran from October 8 (2005) to December 5 (2007), there were six “clustered” influxes. The first peaked from October 8 (2005) to October 11 (2006) with one on both dates. The two isolated peak counts at the end of the early fall passage and these two counts of one do suggest that the main fall passage is a totally separate event. The second peaked from October 22 (2003) to October 24 (2004) with a high count of 23 on October 24, 2004. The third peaked from October 29 (2007) to November 3 (2006) with a high count of three on October 29, 2007. The fourth peaked from November 11 (2005, 2007) to November 15 (2006) with a high count of nine on November 11, 2007. The fifth peaked from November 14 (2004) to November 15 (2006) with a

high count of nine on November 14, 2004. The sixth is indicated by a peak count of six on November 23, 2007. The next two events were quite similar in the numbers seen. The winter passage ran from November 25 (2005) to January 3 (2007), there were four “clustered” influxes. The first peaked from December 1 (2003) to December 3 (2006) with three on both dates. The second peaked from December 7 (2004, 2007) to December 9 (2005) with a high count of five on December 7, 2007. The third peaked from December 12 (2007) to December 15 (2003, 2006) with a high count of five on December 15, 2006. The fourth peaked from December 21 (2007) to December 22 (2006) with a high count of four on December 22, 2006. This was followed by the early spring passage, this ran from January 2 (2008) to March 4 (2008), there were six “clustered” influxes. The first peaked from January 2 (2008) to January 5 (2007) with a high count of five on January 2, 2008. The second peaked from January 14 (2008) to January 20 (2006) with a high count of four on January 14, 2008. The third peaked from January 26 (2005) to January 28 (2004, 2008) with a high count of three on January 28, 2008. The fourth peaked from February 10 (2006) to February 11 (2004) with a high count of six on February 11, 2004. The fifth is indicated by a peak count of one on February 16, 2005. The sixth peaked from February 24 (2008) to February 25 (2007) with a high count of four on February 24, 2008. Now we come to the main event the main spring passage, this ran from March 1 (2006) to May 21 (2006), there were nine “clustered” influxes. The first peaked from March 7 (2004) to March 8 (2006) with a high count of three on March 7, 2004. The second peaked from March 11 (2007) to March 13 (2005) with one on both dates. The third peaked on March 24 (2006, 2008) with a high count of seven on March 24, 2006. The fourth peaked from March 31 (2004) to April 1 (2007) with a high count of 12 on March 31, 2004. The fifth peaked from April 6 (2005) to April 11 (2007) with high counts of 17 on April 11, 2007 and 40 on April 9, 2008. The latter was the highest count during this set of five years. The sixth peaked from April 18 (2004, 2008) to April 21 (2007) with a high count of 22 on April 21, 2007. The seventh is indicated by a peak count of three on April 25, 2006. The eighth peaked from April 30 (2005) to May 3 (2006) with three on both dates. The ninth peaked from May 9 (2007) to May 11 (2008) with a high count of 25 on May 9, 2007. Finally there was one on June 9, 2004. This might be a late spring record or the sole summer record. A few are known to stay through the summer in Florida.

Lesser Yellowlegs (*Tringa flavipes*)

A passage migrant with a few staying for the winter, the numbers would be much higher if there had been a suitable habitat. Seen in the early fall from July 2 (2006) to September 21 (2003) with a high count of 160 on August 26, 2004. Excluding 2004 the highest count was only that of ten on August 20, 2006. In 2004 no more than two a day seen in the fall up to August 15 after which the fall passage started. To detail the influx, there were seven on August 16 with 13 on August 22 and 160 on August 26, then 60 seen on September 9 with 48 on September 12 and 26 on September 16. The main fall passage ran from September 16 (2007) to November 24 (2006) with a high count of 208 on September 28, 2004. To detail the 2004 influxes, there were 140 on September 19 with 208 on September 28, then 160 seen on October 3 with 114 on October 11, 110 on October 13, 75 on October 17 and 46 on October 21.

There were 194 on October 24 with two on October 31 and one on November 3. There were four on November 7 with 68 on November 14, then one seen on November 23. There were only small numbers seen during the winter and the early spring. The winter passage ran from November 23 (2007) to January 9 (2005) with a high count of eight on December 16, 2004. The early spring passage followed from January 4 (2008) to March 26 (2008) with a high count of nine on February 8, 2006. Normally this passage ends at the end of February or during the first few days of March but in this case the low numbers continued to March 26. The main spring passage was overall the strongest event of the year, the passage ran from March 24 (2005) to May 20 (2008) with a high count of 80 on April 27, 2007. There was a late record as one seen on June 6, 2008. To detail the 2007 influxes, there was one on March 21 and March 28. There were two on March 30 with four on April 1, seven on April 6, 21 on April 8, 22 on April 11 and 39 on April 13, then 15 seen on April 15. There were 26 on April 16 with 43 on April 19, 66 on April 21, 70 on April 24 and 80 on April 27, then 64 seen on April 29 with 35 on May 1 and 24 on May 4. There were 61 on May 7 with 70 on May 9, then 50 seen on May 11 with 21 on May 13 and six on May 16.

The early fall passage ran from July 2 (2006) to September 21 (2003), there were eight "clustered" influxes. The first peaked from July 2 (2006) to July 6 (2008) with a high count of seven on July 6, 2008. The second peaked from July 11 (2005) to July 14 (2004) with a high count of two on July 14, 2004. The third peaked from July 21 (2006) to July 24 (2008) with a high count of two on July 24, 2008. The next two influxes are indicated by isolated peak counts of three on July 29, 2007 and two on August 9, 2004. The sixth peaked from August 19 (2007) to August 20 (2006) with a high count of ten on August 20, 2006. The seventh peaked from August 24 (2003) to August 26 (2004) with high counts of seven on August 24, 2003 and 160 on August 26, 2004. The eighth is indicated by a peak count of three on September 7, 2003. The main fall passage ran from September 16 (2007) to November 24 (2006), there were seven "clustered" influxes. The first peaked from September 28 (2004) to September 30 (2007) with a high count of 208 on September 28, 2004. This was the highest count during this set of five years. The second is indicated by a peak count of ten on July 7, 2007. The third peaked from October 13 (2006) to October 15 (2003) with a high count of four on October 15, 2003. The fourth peaked from October 24 (2004) to October 29 (2007) with high counts of one on October 29, 2007 and 194 on October 24, 2004. The last three influxes are indicated by isolated peak counts of two on November 7, 2007, 68 on November 14, 2004 and three on November 24, 2006. The winter passage ran from November 23 (2007) to January 9 (2005), there were three "clustered" influxes. There was no passage in 2003/2004. The first influx peaked from December 2 (2005) to December 7 (2007) with a high count of three on December 2, 2005. The second peaked from December 15 (2006) to December 16 (2004) with a high count of eight on December 16, 2004. The third peaked from December 26 (2005) to December 30 (2004) with a high count of five on December 27, 2006. The early spring passage ran from January 4 (2008) to March 26 (2008), there were seven "clustered" influxes. The first peaked from January 5 (2007) to January 6 (2008) with a high count of seven on January 6, 2008. The second peaked from January 28 (2008) to January 30 (2005) with a high count of three on January 30, 2005. The third peaked on February 8 (2004, 2006) with a high count of nine on February 8, 2006. The fourth peaked from February 25 (2007) to February 27 (2006) with a high count of three on February 25, 2007. The

fifth peaked from March 3 (2004) to March 8 (2006) with one on both dates. The sixth peaked from March 13 (2005) to March 15 (2008) with a high count of two on March 13, 2005. The seventh peaked from March 21 (2007) to March 26 (2008) with a high count of two on March 24, 2006. The main spring passage ran from March 24 (2005) to May 20 (2008), there were six “clustered” influxes. The first peaked from March 30 (2005) to March 31 (2004) with a high count of 13 on March 30, 2005. The second peaked from April 9 (2008) to April 13 (2007) with a high count of 39 on April 13, 2007. The third peaked from April 17 (2005) to April 23 (2008) with a high count of 38 on April 23, 2008. The fourth peaked from April 27 (2007) to April 30 (2005, 2008) with high counts of 65 on April 30, 2008 and 80 on April 27, 2007. The fifth peaked from May 5 (2004, 2006) to May 9 (2007) with a high count of 70 on May 9, 2007. The sixth peaked from May 14 (2006) to May 18 (2008) with a high count of 18 on May 18, 2008. Finally there was a late individual on June 6, 2008.

Solitary Sandpiper (*Tringa solitaria*)

A spring passage migrant with lower numbers in the fall, they can be found by the canals if the water level is low and at any flooded field, providing as always that there are muddy borders. The early fall passage ran from July 14 (2006) to September 22 (2004) with a high count of 17 on September 9, 2004. The late fall passage ran from September 21 (2003) to November 4 (2007) with a high count of five on September 28, 2004. There were no winter records. Surprisingly there was one on January 16, 2005 and January 19, 2005. There was one on February 4, 2004 with another from February 16, 2005 to February 20, 2005. The early spring continued with singles on March 4, 2007 and March 15, 2008. Finally there was an influx from March 24, 2005 to April 3, 2005 with a peak count of one on March 24, 2005. The main spring passage ran from April 2 (2008) to May 20 (2007, 2008) with a high count of 76 on May 17, 2006. To detail the 2006 influxes, there were five on April 19 with two to April 23 and one on April 25. There were 23 on April 28 with 15 on April 30 and 11 on May 3. There were 66 on May 5 with 76 on May 7, then 29 seen on May 10 with 14 on May 12, ten on May 14 and two on May 17. Out of the 76 seen on May 7, 2006 a total of 21 were by the Roach Canal. To detail the 2007 influxes, there was one on March 4. There were seven on April 8 with 33 on April 11, then 29 seen on April 13 with six on April 15. There were eight on April 16 with 39 on April 19 and 52 on April 21, then 36 seen on April 24 with 30 on April 29, eight on May 1, seven on May 7 and four on May 9. There were 18 on May 11 with 12 on May 13, three on May 16 and one on May 20.

The early fall passage ran from July 14 (2006) to September 22 (2004), there were six “clustered” influxes. The first peaked from July 14 (2006) to July 18 (2004) with a high count of two on July 16, 2008. The second is indicated by a peak count of one on July 23, 2005. The third peaked from August 3 (2005, 2007) to August 6 (2006, 2008) with a high count of six on August 3, 2007. The fourth peaked from August 16 (2006) to August 21 (2005) with a high count of four on August 16, 2006. The fifth peaked from September 1 (2003) to September 2 (2007) with a high count of two on September 2, 2007. The sixth peaked from September 9 (2004) to September 12 (2005) with a high count of 17 on September 9, 2004. The late fall passage ran

from September 21 (2003) to November 4 (2007), there were again six “clustered” influxes. The first peaked from September 21 (2003) to September 22 (2005) with one on both dates. The second peaked from September 28 (2004) to September 29 (2006) with a high count of five on September 28, 2004. The third is indicated by a peak count of one on October 5, 2003. The fourth peaked from October 11 (2004) to October 12 (2007) with a high count of three on October 12, 2007. The fifth peaked from October 22 (2006) to October 24 (2007) with a high count of two on October 24, 2007. The sixth influx is indicated by a peak count of one on November 2, 2007. There were no winter records. There was one from January 16, 2005 to January 19, 2005 with another on February 4, 2004. There was an influx from February 16, 2005 to February 20, 2005 with a peak count of one on February 16, 2005. Next came two isolated counts of one on March 4, 2007 and March 15, 2008. Finally for the early spring there was an influx from March 24, 2005 to April 3, 2005 also with a peak count of one on March 24, 2005. The main spring passage was by far the strongest event of the year, the passage ran from April 2 (2008) to May 20 (2007, 2008), there were six “clustered” influxes. The first is indicated by a peak count of 33 on April 11, 2007. The second peaked from April 19 (2006) to April 23 (2008) with high counts of 11 on April 23, 2008 and 52 on April 21, 2007. The third peaked from April 26 (2005) to April 28 (2006) with a high count of 23 on April 28, 2006. The fourth peaked from May 5 (2004) to May 7 (2008) with a high count of five on May 7, 2008. Finally there are two isolated peak counts of 18 on May 11, 2007 and 76 on May 17, 2006. The latter is still the highest count for Zellwood. It surprises me that the highest count should be so close to the end of the passage.

Willet (*Tringa semipalmata*)

This is currently a vagrant as there are not normally large enough expanses of mud. There were two on April 15, 2007; these were of the western race *T.s.inornatus*. There were two on a snag near the shore of Lake Apopka on July 9, 2008; these were of the eastern race *T.s.semipalmatus*. There was one at the Sand Farm on August 1, 2004. Finally there was one by Lake Apopka south of Hooper Farms Road on September 30, 2007.

Spotted Sandpiper (*Actitis macularius*)

An uncommon passage migrant with slightly higher numbers in the spring, most sightings were along the shore of Lake Apopka. Seen in the spring from April 3 (2005) to May 23 (2008), there were six “clustered” influxes. The first is indicated by a peak count of one on April 3, 2005. The second peaked from April 14 (2004, 2005) to April 18 (2008) with a high count of two on April 18, 2008. The third peaked from April 21 (2006) to April 26 (2005) with a high count of four on April 24, 2007. The fourth peaked from May 4 (2008) to May 5 (2006) with a high count of eight on May 5, 2006. This was the highest count during this set of five years. The fifth peaked from May 11 (2007) to May 14 (2008) with a high count of four on May 11, 2007. The sixth was indicated by a peak count of one on May 21, 2006. There was a single fall passage

from July 6 (2007) to September 30 (2007), there were nine “clustered” influxes. The first is indicated by a peak count of one on July 6, 2007. The second peaked from July 22 (2007) to July 24 (2008) with one on both dates. The third is indicated by a peak count of two on August 3, 2008. The fourth peaked from August 10 (2007) to August 15 (2005) with a high count of three on August 10, 2007. The fifth peaked from August 22 (2007) to August 27 (2003) with a high count of three on August 22, 2007. The sixth is indicated by a peak count of one on August 31, 2005. The seventh peaked from September 6 (2006) to September 10 (2003) with a high count of two on September 9, 2004. The fall passage was normally over by September 10 (2006) but in 2007 there were later records. There were isolated peak counts of one on September 16 with another on September 28 and September 30. In 2007 there were also two very late records, both sightings came from the storm water ponds off Jones Avenue. There were singles on October 31 and November 30. Although these records are a month apart I feel that they could relate to the same individual. Whilst there are no ponds on the St. Johns property anywhere near this site there are ponds in the vicinity. It just seems too strange that two birds should turn up at this isolated site so late in the year.

Upland Sandpiper (*Bartramia longicauda*)

Now a rarity with the closure of the Sod Farm, the only sightings were from the Sand Farm area. There was one from August 4, 2006 to August 13, 2006 with two on August 8, 2006. The count of two was the highest count during this set of five years. There were also singles on September 1, 2006, September 9, 2004, September 16, 2003 and September 19, 2007. The last two records would form a “clustered” influx.

Whimbrel (*Numenius phaeopus*)

This is a vagrant to Zellwood, there was a single record. Two flew to the east along the northern shore of Lake Apopka near Laughlin Road extension on April 23, 2008. This is the highest count for Zellwood.

Marbled Godwit (*Limosa fedoa*)

Another vagrant to Zellwood, unlike the last species it might become a more frequent visitor if there were large expanses of mud. The only record for these years relates to one flying north over the Sand Farm on April 21, 2004.

Ruddy Turnstone (*Arenaria interpres*)

A coastal species that is rare inland. There were two records for these five years. One flew north over Lake Apopka on November 9, 2003, an unusual date. There was also one on the northern shore of Lake Apopka on May 18, 2008.

Red Knot (*Calidris canutus*)

This is another coastal species that is uncommon inland. There was one on October 24, 2004. In 2007 there were two on April 27 with one on May 4.

Sanderling (*Calidris alba*)

A coastal species that regularly turns up inland in the spring, the majority are probably birds in first summer plumage. To detail the records, there were two on May 1, 2005 with singles on May 4, 2007, May 7, 2006 and May 7, 2008. Note the closeness of the dates. Finally for the spring two flew to the north over Lake Apopka on May 20, 2004. There were two fall records with singles on September 3, 2003 and September 8, 2004. No individuals in breeding plumage seen.

Semipalmated Sandpiper (*Calidris pusilla*)

This is a passage migrant with the greatest numbers late in the spring. Seen in the spring from April 11 (2007) to May 28 (2006, 2008), there were five "clustered" influxes. The first is indicated by a peak count of two on April 15, 2007. The second peaked from April 21 (2006) to April 24 (2005) with one on both dates. The third peaked from May 1 (2005) to May 5 (2006) with a high count of six on May 5, 2006. The fourth peaked from May 9 (2008) to May 12 (2006) with high counts of 48 on May 12, 2006 and 77 on May 11, 2007. The fifth peaked from May 20 (2004) to May 25 (2008) with high counts of two on May 20, 2004 and 140 on May 25, 2008. The latter was the highest count during this set of five years. The actual high count for Zellwood is that of 1,540 on May 23, 2002. In that spring Lake Apopka was exceptionally low and there were large expanses of exposed mud. Since then the lake has been full if not over full. The fall passage ran from July 19 (2008) to October 5 (2007) with an extension to October 24 in 2004, there were nine "clustered" influxes. The first is indicated by a peak count of one on July 19, 2008. The second peaked from July 24 (2004) to July 27 (2007) with one on both dates. The third peaked from August 24 (2003) to August 25 (2006) with two on both dates. The fourth is indicated by a peak count of 35 on September 1, 2004. The fifth peaked from September 9 (2007) to September 12 (2004, 2005) with a high count of 20 on September 12, 2004. The sixth is indicated by a peak count of two on September 21, 2007. The seventh peaked on September 28 (2004, 2007) with a high count of three on September 28, 2004. This passage for the years

other than 2004 ended on October 5 (2007). In 2004 the passage continued to October 24 with isolated peak counts of two on October 13 and two on October 24.

Western Sandpiper (*Calidris mauri*)

Unlike the last species this was primarily an uncommon fall passage migrant with a lighter passage in the spring, there were no winter records. Seen in the spring from April 27 (2007) to May 24 (2006), potentially there were three “clustered” influxes. The first is indicated by a peak count of one on April 27, 2007. The second peaked from May 3 (2006) to May 5 (2004) with one on three dates. The third is indicated by a peak count of one on May 24, 2006. Those are the only spring records. Seen in the fall from July 24 (2004) to September 16 (2003) with an extension to October 26 in 2007, there were eight “clustered” influxes. The first is indicated by a peak count of one on July 24, 2004. The second peaked on August 3 (2005, 2007) with a high count of four on August 3, 2005. The third peaked from August 19 (2007) to August 22 (2004) with a high count of eight on August 22, 2004. This was the highest count during this set of five years. The fourth is indicated by a peak count of two on September 3, 2003. The fifth peaked from September 12 (2004) to September 14 (2003) with high counts of two on September 12, 2004 and September 13, 2006. The Semipalmated Sandpiper had an extended fall passage in 2004 whereas this species had an additional fall passage from September 30 to October 26 in 2007. During this event there were three isolated peak counts of singles on September 30, October 5 and October 26. These two species are very different in their migration patterns through the Lake Apopka area.

Least Sandpiper (*Calidris minutilla*)

A fall passage migrant with lesser numbers in the spring, there were also records for two of the five winters. This species can be found in a greater range of habitats than the other small sandpipers, it occurs in short grass fields and at any area of wet mud. Seen in the early fall from July 13 (2008) to October 8 (2005) with a high count of 62 on September 19, 2005. The main fall passage ran from September 22 (2004) to November 28 (2007) with a high count of 240 on September 30, 2007. To detail the 2007 influxes, there were 20 on September 28 with 240 on September 30, then 56 seen on October 3 with ten on October 5. There were 40 on October 7 with 68 on October 10, then 60 seen on October 12 with three on October 14. There were 84 on October 21 with 107 on October 24, then 84 seen on October 26 with 16 on October 29. There were 137 on October 31 with 73 on November 4 and 22 on November 7. There were 28 on November 9 with 56 on November 14, then 18 seen on November 18 with eight on November 23 and two on November 28. The winter passage was a very minor event with no sightings in 2003/2004, 2004/2005 and 2005/2006. This passage ran from November 29 (2006) to December 29 (2006) with a high count of 35 on November 30, 2007. The early spring passage was a little stronger, the passage ran from January 5 (2007) to February 28 (2005) with

a high count of 50 on January 23, 2008. The main spring passage ran from February 28 (2007) to May 31 (2006) with a high count of 132 on May 7, 2007.

The early fall passage ran from July 13 (2008) to October 8 (2005), there were eight “clustered” influxes. The first peaked from July 17 (2005) to July 19 (2008) with a high count of 25 on July 19, 2008. The second is indicated by a peak count of 17 on July 27, 2007. The third peaked from August 5 (2007) to August 11 (2006) with a high count of 20 on August 5, 2007. The fourth peaked from August 19 (2007) to August 24 (2003) with a high count of 44 on August 22, 2004. The next two influxes are indicated by isolated peak counts of 12 on August 30, 2006 and 16 on September 7, 2007. The seventh peaked from September 10 (2003) to September 15 (2006) with a high count of 32 on September 12, 2004. The eighth peaked from September 19 (2005, 2007) to September 21 (2003) with a high count of 62 on September 19, 2005. The main fall passage ran from September 22 (2004) to November 28 (2007), there were six “clustered” influxes. The first peaked from September 28 (2004) to September 30 (2007) with high counts of 23 on September 28, 2004 and 240 on September 30, 2007. The latter was the highest count during this set of five years. The second peaked from October 9 (2003) to October 10 (2007) with a high count of 68 on October 10, 2007. The third peaked from October 15 (2006) to October 19 (2003) with a high count of 46 on October 15, 2006. The fourth peaked on October 24 (2004, 2007) with high counts of 90 on October 24, 2004 and 107 on October 24, 2007. The fifth peaked from October 31 (2007) to November 3 (2006) with high counts of 23 on November 3, 2006 and 137 on October 31, 2007. The sixth peaked from November 11 (2005) to November 16 (2003) with a high count of 56 on November 14, 2007. In the first three years with no following winter passage this event ended between November 15 (2005) and November 17 (2004), this indicates the space that the winter passage would have filled. The winter passage ran from November 29 (2006) to December 29 (2006), there were four “clustered” influxes. The first peaked from November 30 (2007) to December 1 (2006) with a high count of 35 on November 30, 2007. The second peaked from December 10 (2006) to December 14 (2007) with a high count of 21 on December 14, 2007. The last two influxes are indicated by isolated peak counts of 24 on December 20, 2006 and six on December 28, 2007. The early spring passage followed from January 5 (2007) to February 28 (2005), there were also four “clustered” influxes. The first peaked from January 12 (2007) to January 13 (2006) with a high count of 14 on January 12, 2007. The second peaked from January 19 (2004) to January 23 (2008) with a high count of 50 on January 23, 2008. The third peaked from February 4 (2007) to February 8 (2006) with a high count of six on February 4, 2007. The fourth peaked from February 26 (2008) to February 28 (2005) with a high count of five on February 26, 2008. Finally there was the main spring passage, this ran from February 28 (2007) to May 31 (2006), there were nine “clustered” influxes. The first peaked from March 3 (2004) to March 9 (2007) with a high count of 16 on March 9, 2007. The second peaked from March 21 (2008) to March 23 (2007) with a high count of 44 on March 21, 2008. The third is indicated by a peak count of 17 on March 31, 2004. The fourth peaked from April 11 (2007) to April 14 (2004) with a high count of 36 on April 11, 2007. The fifth peaked from April 19 (2007) to April 21 (2006) with a high count of 16 on April 21, 2006. The sixth peaked from April 25 (2008) to April 30 (2005) with a high count of 82 on April 27, 2007. The seventh peaked from May 5 (2004, 2006) to May 7 (2007, 2008) with high counts of 42 on May 5, 2006 and 132 on May 7, 2007. The eighth peaked

from May 14 (2006, 2008) to May 16 (2007) with a high count of 37 on May 14, 2006. The ninth is indicated by a peak count of one on May 28, 2008.

White-rumped Sandpiper (*Calidris fuscicollis*)

Potentially this could be a quite common late spring passage migrant with a few records for the fall but as there was not the habitat there were instead during the five years only 18 seen in the spring with three in the fall. There were three on April 27, 2007 with singles on April 30, 2005 and May 2, 2008. There were two on May 5, 2006 with one on May 7, 2006. There was one on May 4, 2007 with three on May 7, 2007 and four on May 13, 2007. A party of six flew to the north on May 16, 2004. Finally for the spring there were singles on May 14, 2008, May 16, 2008, May 18, 2008 and May 17, 2006. For the fall there were singles on August 22, 2004, September 22, 2004 and September 30, 2007.

Seen in the spring from April 27 (2007) to May 18 (2008), there were three “clustered” influxes. The first peaked from April 27 (2007) to April 30 (2005) with a high count of three on April 27, 2007. The second peaked from May 2 (2008) to May 5 (2006) with a high count of two on May 5, 2006. The third peaked from May 13 (2007) to May 17 (2006) with a high count of six on May 16, 2004. This was the highest count during this set of five years. There were three records for the fall, none forming a cluster. There were singles on August 22, 2004, September 22, 2004 and September 30, 2007.

Baird’s Sandpiper (*Calidris bairdii*)

This really is a vagrant with just five records of six birds for the five years, all were juveniles. There were two on August 19, 2007 with one on September 10, 2003 and September 14, 2003, then singles seen on September 10, 2006, October 4, 2006 and October 8, 2005.

Seen in the fall from August 19 (2007) to October 8 (2005), there are indications of three “clustered” influxes even though there are only five records. The first influx is indicated by a peak count of two on August 19, 2007. This count of two is a joint high count. There were two previously on August 6, 2000. The second peaked on September 10 (2003, 2006) with one on both dates. The third peaked from October 4 (2006) to October 8 (2005) again with one on both dates. There were no spring sightings.

Pectoral Sandpiper (*Calidris melanotos*)

A fall passage migrant, normally only small numbers seen but after tropical storms large numbers can be present but for only a very short time. This species shares the same habitats as the Least Sandpiper i.e. short grass fields or the muddy edges of a flooded field. Seen in the

early fall from July 29 (2007) to September 26 (2007) with a high count of 250 on September 9, 2004. Excluding that event the highest count was only that of ten on September 7, 2003. To detail the 2004 influxes, there were two on August 16 with three on August 22, nine on August 26, 80 on September 8 and 250 on September 9, then 120 seen on September 12 with 16 on September 19 and four on September 22. The late fall passage ran from September 28 (2004) to November 14 (2004) with a high count of 40 on October 6, 2004. To continue detailing the 2004 influxes, there were nine on September 28 with 40 on October 6, then 28 seen on October 13 with 18 on October 17 and ten on October 21. There were 24 on October 24. Finally there was one on November 14. There were no winter records. Seen in the spring from April 2 (2008) to May 24 (2006). There was one on April 2, 2008. To detail the main 2007 influx, there were 21 on April 8 and 29 on April 11, then 15 seen on April 13 with 12 on April 15, 11 on April 16, nine on April 19, eight on April 20 and one on April 24, 2007. There were two on April 19, 2006 with three on April 21 and April 23, 2006. There were three on April 30, 2005 with one on May 1, 2005. There were two on May 1, 2007 with four on May 7, then three seen on May 13, 2007. There was one on May 14, 2008. Finally there were singles on May 21, 2006 and May 24, 2006.

Seen in the early fall from July 29 (2007) to September 26 (2007), there were seven “clustered” influxes. The initial passage was so light that the first five influxes are only indicated by isolated peak counts of seven on July 29, 2007, eight on August 5, 2007, eight on August 18, 2006, one on August 24, 2003 and five on September 1, 2006. The sixth peaked from September 5 (2007) to September 9 (2004) with high counts of ten on September 7, 2003 and 250 on September 9, 2004. The latter was the highest count for this set of five years. The seventh peaked on September 21 (2003, 2006, 2007) with a high count of five on September 21, 2007. The late fall passage ran from September 28 (2004) to November 14 (2004), there were five “clustered” influxes. The first peaked from September 29 (2003) to September 30 (2007) with a high count of 14 on September 29, 2003. The second peaked from October 6 (2006) to October 10 (2007) with a high count of 40 on October 6, 2004. The third peaked from October 20 (2006) to October 24 (2004) with a high count of 24 on October 24, 2004. The last two influxes are indicated by isolated peak counts of one on October 29, 2007 and November 14, 2004. There were no winter records. Seen in the spring from April 2 (2008) to May 24 (2006). Whilst there were five individual influxes and two isolated records there was not a single “clustered” influx. I have therefore detailed all the spring sightings in segment one.

Dunlin (*Calidris alpina*)

An uncommon late fall migrant, there were no sightings in 2003/2004. Seen in the fall from October 10 (2007) to November 23 (2007), there were four “clustered” influxes. The first peaked from October 10 (2007) to October 11 (2004) with a high count of three on October 11, 2004. The second peaked from October 18 (2006) to October 24 (2004) with a high count of 16 on October 24, 2004. This was the highest count during this set of five years. The third peaked from November 2 (2007) to November 4 (2005) with one on both dates. The fourth peaked from November 14 (2004, 2007) to November 19 (2006) with a high count of six on November

14, 2004. There was a single record for the spring there being one on May 2, 2008. The high count of 16 was an isolated count and there were no influxes worthy of detailing.

Curlew Sandpiper (*Calidris ferruginea*)

This is a vagrant, the only sighting relates to an adult in winter plumage on October 17, 2004 and October 24, 2004. This bird was in a flooded field near the western end of the McDonald Canal.

Stilt Sandpiper (*Calidris himantopus*)

A quite common passage migrant, one feature often separates this species out from all but the dowitchers is its habit of feeding in single species flocks. Seen in the early fall from July 6 (2008) to September 9 (2004, 2007) with an extension to October 11 in 2004. The highest counts were of 16 on September 22, 2004 and September 9, 2007. To detail the 2004 influxes, there were seven on August 11. There were two on August 16 with one on August 22. There were seven on August 26. There were six on September 8 with one on September 9. There were four on September 12 with six on September 19 and 16 on September 22, then six seen to October 6 with five on October 11. The late fall passage ran from October 9 (2003) to November 27 (2005) but only singles seen on four dates in November. In October the highest count was that of 46 on October 17, 2004. To detail the 2004 influxes, there were 18 on October 13 with 46 on October 17, then 28 seen on October 24. There was also one on November 14, 2004. There were no winter records. Seen in the spring from March 31 (2004) to May 20 (2008) with a high count of 290 on May 11, 2007. Apart from the influxes in 2007 the highest count was that of 25 on April 9, 2008. Passage was minimal in the first three years. To detail the 2007 influxes, there was one on April 11 with eight on April 19 and 95 on April 27, then 54 seen on April 29. There were 73 on May 1 with 160 on May 4, then 134 seen on May 7 with 133 on May 9. There were 290 on May 11 with 25 on May 13.

The early fall passage ran from July 6 (2008) to September 9 (2004, 2007) with an extension to October 11 in 2004, there were eight "clustered" influxes. Passage was minimal initially and this led to there being four isolated peak counts of one on July 6, 2008, two on July 12, 2006, three on July 27, 2007 and seven on August 11, 2004. The fifth peaked from August 16 (2004) to August 20 (2003) with a high count of two on August 16, 2004. The sixth peaked from August 25 (2006) to August 26 (2004) with a high count of seven on August 26, 2004. The seventh peaked from September 3 (2003) to September 9 (2007) with a high count of 16 on September 9, 2007. The eighth is indicated by a peak count of 16 on September 22, 2004. The late fall passage ran from October 9 (2003) to November 27 (2005), there were four "clustered" influxes. The first two are indicated by isolated peak counts of eight on October 9, 2003 and 46 on October 17, 2004. The third peaked from November 11 (2007) to November 14 (2004) with one on both dates. The fourth is indicated by a peak count of one on November 27, 2005. Note only singles seen in November. Seen in the spring from March 31 (2004) to May 20 (2008),

there were five “clustered” influxes. The first two are indicated by isolated peak counts of two on March 31, 2004 and 25 on April 9, 2008. The third peaked from April 20 (2005) to April 27 (2007) with high counts of four on April 20, 2005 and 95 on April 27, 2007. The fourth peaked from May 3 (2006) to May 4 (2007) with high counts of two on May 3, 2006 and 160 on May 4, 2007. The fifth peaked from May 11 (2007) to May 14 (2008) with high counts of 13 on May 14, 2008 and 290 on May 11, 2007. The latter was the highest count during this set of five years.

Buff-breasted Sandpiper (*Tryngites subruficollis*)

Now an irregular passage migrant as the short grass habitat is for the most part missing. All the sightings bar one came from the Sand Farm area. To detail the records chronologically, there was one on August 11, 2004 with three on August 25, 2006 and one on September 3, 2003. There were eight on September 7, 2007 with ten on September 9, 2007 and two on September 14, 2007. The count of ten was the highest count during this set of five years. There was one on September 21, 2007. There was one on September 28, 2007 and October 5, 2007. This last individual was by Fish Ponds Road near Hooper Farms Road. There were also two on October 5, 2003 with one on October 13, 2004. There were no sightings in 2005/2006. With this set of records there was no clustering of the peak counts.

Short-billed Dowitcher (*Limnodromus griseus*)

An uncommon passage migrant, for the most part this is a coastal species. Seen in the spring from March 27 (2005) to May 14 (2006) with the bulk of the sightings in late April and early May. There were no records for 2003/2004 and 2005/2006. The highest counts were of four on April 19, 2007, April 29, 2007 and May 4, 2007. Only one “clustered” influx can be identified, that peaked from April 19 (2007) to April 23 (2008) with a high count of four on April 19, 2007. Passage noted in the fall from August 5 (2007) to August 25 (2006) with a high count of nine on August 25, 2006. There was a single “clustered” influx that peaked from August 21 (2005) to August 25 (2006) with a peak count of nine on August 25, 2006. This was the highest count during this set of five years. With the exception of 2004 that was the extent of the fall passage. In 2004 there was an influx from October 11 to October 24 with a peak count of five on October 21.

Long-billed Dowitcher (*Limnodromus scolopaceus*)

A spring and late fall passage migrant with a scattering of records for the other seasons, the only months with no records were February and March. Seen in the spring from April 6 (2005) to May 9 (2007) with a high count of 25 on April 19, 2007. This high count of 25 was followed by seven on April 21, 2007 and four on April 24, 2007 making this a type 2 influx. The spring records did indicate two “clustered” influxes. The first peaked on April 19 (2006, 2007) with high counts of ten on April 19, 2006 and 25 on April 19, 2007. The second peaked from

April 30 (2005) to May 2 (2008) with a high count of six on May 2, 2008. Exceptionally there was a flock of 11 on the northern shore of Lake Apopka on June 6, 2008, they were in winter plumage. Perhaps these were first summer birds that would not breed that year. This species normally molts before the fall migration but on occasions isolated adults in full breeding plumage come through early. There were singles in breeding plumage on July 9, 2008 and August 5, 2007. Later there was one on September 17, 2006. I have no note as to its age or plumage, an unusual date. The fall passage ran from October 3 (2004) to November 14 (2004) with a high count of 78 on October 17, 2004. To detail the 2004 influx, there was one on October 3 with four on October 11, 14 on October 13 and 78 on October 17, then 65 seen on October 24 with nine on October 31. There were two "clustered" influxes. The first peaked from October 6 (2006) to October 7 (2007) with a high count of 16 on October 6, 2006. The second peaked from October 22 (2003) to October 26 (2005) with a high count of 20 on October 22, 2003. For the winter there was one on November 29, 2006 and two on December 3, 2003, these form a "clustered" influx. There was also one on December 22, 2006. There was a single record for the early spring with one on January 30, 2008.

Wilson's Snipe (*Gallinago delicata*)

A common passage migrant and winter visitor with the greatest numbers in December and January, this species fed out in the fields at night and at first light the majority left for more secure locations. Those that stayed often followed as soon as the Northern Harriers started to quarter the fields. The earliest in the fall was one that stayed from August 11, 2006 to September 3, 2006. Otherwise the early fall passage noted from September 3 (2003) to October 17 (2007) with a high count of 39 on October 9, 2003. The main fall passage was much stronger with passage from September 27 (2006) to December 3 (2003). The highest count was that of 269 on November 27, 2005. The winter passage ran from November 29 (2006) to January 16 (2004) with high counts of 434 on December 4, 2005 and 1,090 on January 4, 2004. To detail the 2003/2004 influxes, there were 26 on December 7 with 33 on December 9, 64 on December 15 and 129 on December 17, then 12 seen on December 21. There were 125 on December 26 with 270 on December 28, 962 on December 31 and 1,090 on January 4, then 121 seen on January 11 with 36 on January 14 and 14 on January 16. The early spring passage followed from January 4 (2008) to March 10 (2005) with a high count of 309 on January 22, 2006. To detail the 2006 influxes, there were 143 on January 11 with 110 on January 13 and 54 on January 18. There were 80 on January 20 with 309 on January 22, then 97 seen on January 25 with 68 on January 27, 46 on January 29, 21 on February 5, eight on February 10, three on February 12 and one on February 14. There were four on February 17 with ten on February 19, then nine seen on February 22 with eight on February 24 and one on February 27. The late spring passage was a very minor event, the passage ran from March 4 (2006) to April 25 (2008) with a high count of 26 on March 19, 2004. There was a late individual at the Sand Farm on May 7, 2006.

In the fall the first was one that stayed on Potter's Farm from August 11, 2006 to September 3, 2006. The early fall passage ran from September 3 (2003) to October 17 (2007), there were four "clustered" influxes. The first peaked from September 7 (2007) to September

10 (2003) with a high count of seven on September 10, 2003. The second peaked from September 21 (2006) to September 22 (2005) with a high count of 18 on September 21, 2006. The third is indicated by a peak count of six on September 29, 2003. The fourth peaked from October 9 (2003) to October 14 (2007) with a high count of 39 on October 9, 2003. For most species that have an early fall passage that passage ends at the end of September, however in this case the first October influx clearly belongs in the early fall passage. The main fall passage ran from September 27 (2006) to December 3 (2003), there were six "clustered" influxes. The first peaked from October 19 (2003, 2005) to October 20 (2006) with a high count of 207 on October 20, 2006. The second peaked from October 28 (2005) to November 1 (2006) with a high count of 136 on November 1, 2006. The third peaked from November 4 (2007) to November 8 (2006) with a high count of 73 on November 8, 2006. The fourth peaked from November 13 (2005) to November 17 (2006) with a high count of 158 on November 13, 2005. The fifth peaked from November 20 (2005) to November 23 (2004, 2007) with a high count of 126 on November 20, 2005. The sixth peaked from November 27 (2005) to November 28 (2003) with a high count of 269 on November 27, 2005. The winter passage followed from November 29 (2006) to January 16 (2004), there were five "clustered" influxes. The first peaked from December 1 (2006) to December 4 (2005) with high counts of 150 on December 2, 2007 and 434 on December 4, 2005. The second peaked from December 12 (2004, 2007) to December 15 (2006) with a high count of 280 on December 12, 2007. The third peaked from December 17 (2003) to December 22 (2006) with a high count of 223 on December 19, 2005. The fourth peaked from December 26 (2005, 2007) to December 27 (2004) with a high count of 220 on December 26, 2007. The fifth peaked from January 1 (2006) to January 4 (2004) with high counts of 203 on January 1, 2006 and 1090 on January 4, 2004. The latter is still the highest count for Zellwood. The previous high count was that of 898 on December 28, 1998. Note the closeness of the dates. The early spring passage ran from January 4 (2008) to March 10 (2005), there were six "clustered" influxes. The first peaked from January 11 (2006, 2008) to January 12 (2007) with a high count of 190 on January 11, 2008. The second peaked from January 19 (2005) to January 22 (2006) with a high count of 309 on January 22, 2006. The third peaked from January 31 (2007) to February 4 (2004, 2008) with a high count of 205 on February 4, 2004. The fourth peaked from February 8 (2005) to February 9 (2007) with a high count of 40 on February 8, 2005. The fifth peaked from February 19 (2006) to February 23 (2005) with a high count of 94 on February 20, 2008. The sixth peaked from February 27 (2004) to March 2 (2007, 2008) with a high count of 25 on February 27, 2004. With the much lower numbers from the fourth influx it would be possible to end the early spring passage on February 22 (2004) and to start the late spring passage on February 8 (2005). Excluding this possibility the late spring passage ran from March 4 (2006) to April 25 (2008), there were seven "clustered" influxes. The first is indicated by a peak count of nine on March 7, 2004. The second peaked from March 11 (2007) to March 15 (2008) with a high count of ten on March 11, 2007. The third peaked from March 18 (2005) to March 23 (2007) with a high count of 26 on March 19, 2004. The fourth peaked from March 30 (2007) to April 4 (2004) with a high count of 19 on April 4, 2004. The fifth is indicated by a peak count of nine on April 8, 2007. The sixth peaked from April 19 (2007) to April 23 (2006) with a high count of five on April 19, 2007. The seventh is indicated by a peak count of four on April 27, 2007. Finally there was a late individual at the Sand Farm on May 7, 2006.

American Woodcock (*Scolopax minor*)

This is a very secretive and probably uncommon passage migrant and winter visitor. They feed at night out in the fields and fly to the wooded borders as it gets light. They tend to leave the fields a little later than the snipe. The only regular location that I know of is the Canal Road as it turns to the west. There was an early fall passage from September 29 (2003) to November 15 (2006) with a high count of three on November 5, 2006. The next event appeared to run from November 7 (2005) to December 19 (2004) with a high count of 12 on December 7, 2005. I am treating this as the main fall passage. The winter passage ran from December 1 (2006) to January 4 (2006) with a high count of six on December 13, 2005. The spring passage followed from January 4 (2004) to February 8 (2006) with high counts of three on January 21, 2004, January 8, 2006 and January 20, 2006. I am detailing the 2005/2006 influxes in an attempt to show what I mean, there was one on October 19, that was the sole early fall record. There were two on November 7 with four on November 13, eight on November 18 and nine on November 20, then two seen on November 22. This influx appears to be closely linked to the next two influxes rather than to that sole October record. There were four on November 25 with ten on November 27, then nine seen on December 2 with six on December 4. There were 12 on December 7 with five on December 9 and four on December 11. The count were now significantly lower hence my belief that there was a new event from this point on. There were six on December 13 with two on December 16. There were three on December 19 with four on December 21 and six on December 26, then one seen on December 28. There were three on December 30 with five on December 1, then two seen on January 4. There were three on January 8 with one to January 18. There were three from January 20 to January 29 with one on February 8.

In this segment I am using the terms fall, winter and spring even if the periods that these terms cover do not fit in with my normal use of these terms. The early fall passage ran from September 29 (2003) to November 15 (2006), there were five "clustered" influxes. The first two are indicated by isolated peak counts of one on September 29, 2003 and two on October 8, 2006. The third peaked from October 13 (2004) to October 14 (2007) with one on both dates. The fourth peaked from October 19 (2005) to October 24 (2004) with one on both dates. The fifth peaked from November 5 (2006) to November 9 (2007) with a high count of three on November 5, 2006. The main fall passage ran from November 7 (2005) to December 19 (2004), there were three "clustered" influxes. The first peaked from November 17 (2004) to November 20 (2005) with a high count of nine on November 20, 2005. The second peaked from November 27 (2005) to December 2 (2007) with high counts of four on December 2, 2007 and ten on November 27, 2005. The third peaked from December 5 (2004) to December 7 (2005) with high counts of three on December 5, 2004 and 12 on December 7, 2005. The latter is still the highest count for Zellwood. The winter passage appears to run from December 1 (2006) to January 4 (2006), there were four "clustered" influxes. The first peaked from December 10 (2006) to December 13 (2005) with a high count of six on December 13, 2005. The second peaked on December 17 (2003, 2007) with a high count of two on December 17, 2007. The third peaked from December 20 (2006) to December 22 (2004) with a high count of three on December 20, 2006. The fourth peaked from December 30 (2004) to January 1 (2006) with a

high count of five on January 1, 2006. The spring passage ran from January 4 (2004) to February 8 (2006), there were two “clustered” influxes. The first peaked from January 4 (2004) to January 9 (2005) with a high count of three on January 8, 2006. The second peaked from January 19 (2005) to January 23 (2008) with high counts of three on January 21, 2004 and January 20, 2006.

This should have been a very simple species but it has proved to be one of the most interesting. There are three scenarios that could cover the influxes listed above. The traditional would say that there was a fall passage from September 29 (2003) to November 28 (2004) with a winter passage from November 25 (2005) to January 4 (2006) and a spring passage from January 4 (2004) to February 8 (2006). A second alternative would give an early fall passage from September 29 (2003) to November 15 (2006) with a main fall passage from November 7 (2005) to December 19 (2004), a winter passage from December 1 (2006) to January 4 (2006) and a spring passage from January 4 (2004) to February 8 (2006). The third gives a fall passage from September 29 (2003) to November 15 (2006), a winter passage from November 7 (2005) to December 19 (2004) and a spring passage from December 1 (2006) to February 8 (2006). I have put the records into the second pattern but I do not know which is correct.

Wilson’s Phalarope (*Phalaropus tricolor*)

There were only records for three of the five years. There were singles on August 3, 2007, August 20, 2006, September 19, 2004, September 28, 2004, October 11 and October 13, 2004 with another on October 21 and October 24, 2004. In the spring the only sighting was that of two on April 16, 2007. The latter was the highest count during this set of five years. The lack of habitat caused the dearth of records.

Red-necked Phalarope (*Phalaropus lobatus*)

This is a pelagic species that will always be a rarity inland in Florida. There were two after Hurricane Jeanne on September 28, 2004. This was the highest count during the first ten years of the survey.

Laughing Gull (*Larus atricilla*)

A spring passage migrant with a non-breeding population at Lake Apopka during the summer, at other times of the year its appearance is much less predictable. The winter passage ran from December 2 (2007) to January 4 (2008) with a high count of three on December 7, 2005. This was the weakest event of the year with no passage in 2003/2004 and 2004/2005. The early spring passage was only a little better with passage from February 2 (2004) to February 25 (2007) with a high count of three on February 20, 2005. Exceptionally there was no passage between January 4 and February 2. The main spring passage ran from March 2 (2008) to May 5 (2006) with a high count of 23 on March 26, 2006. The summer passage was by far the

strongest event, the passage ran from May 2 (2004) to July 22 (2007) with a high count of 56 on May 28, 2008. This was followed by the early fall passage, this ran from July 21 (2008) to September 28 (2004) with a high count of 35 on August 15, 2004. With the exception of 2007 the late fall passage was a minor event with a high count of 15 on November 11, 2005. The whole event ran from October 22 (2006) to November 28 (2003, 2007) with a high count of 43 on November 11, 2007. Again there was a gap between the early fall passage and the late fall passage with no sightings between September 28 and October 22. In the spring there can be a noticeable easterly passage of adults in breeding plumage. In 2004 this passage was noted from April 4 to April 25 with a high count of 12 on April 25. There were also five on May 20, 2004. In 2005 passage was noted from March 13 to April 17 with a high count of four on April 17. I did not note any such passage in 2006. In 2007 this passage was noted from February 25 to May 7 with a high count of 13 on April 24. In 2008 this passage was noted from February 10 to May 14 with a high count of 15 on April 11. I also recorded the age and plumage of most individuals in the late spring and the summer. Adults in breeding plumage were seen from February 10 (2008) to June 11 (2008) with a high count of 22 on March 26, 2006. These were gradually replaced by birds in first summer plumage, these were seen from March 25 (2007) to July 22 (2007) with a high count of 55 on May 28, 2008. Juveniles only noted from July 26 (2008) to August 19 (2007) with a high count of six on July 31, 2005.

The winter passage ran from December 2 (2007) to January 4 (2008), there were three "clustered" influxes. The first peaked from December 2 (2007) to December 7 (2005) with a high count of three on December 7, 2005. The second peaked from December 17 (2007) to December 22 (2006) with one on both dates. The third is indicated by a peak count of two on December 30, 2007. The early spring passage ran from February 2 (2004) to February 25 (2007), there were four "clustered" influxes. The first is indicated by a peak count of one on February 2, 2004. The second peaked from February 16 (2004) to February 17 (2008) with a high count of two on February 17, 2008. The third peaked from February 19 (2006) to February 20 (2005) with a high count of three on February 20, 2005. The fourth is indicated by a peak count of one on February 25, 2007. The main spring passage ran from March 2 (2008) to May 5 (2006), there were eight "clustered" influxes. The first is indicated by a peak count of four on March 2, 2008. The second peaked from March 11 (2007) to March 14 (2004) with two on both dates. The third peaked from March 19 (2008) to March 20 (2005) with a high count of three on March 20, 2005. The fourth peaked from March 25 (2007) to March 30 (2008) with a high count of 23 on March 26, 2006. The fifth peaked from April 3 (2005) to April 6 (2007) with two on both dates. The sixth is indicated by a peak count of 15 on April 11, 2008. The seventh peaked from April 17 (2005) to April 19 (2006) with a high count of 18 on April 19, 2006. The eighth peaked from April 24 (2007) to April 26 (2005) with a high count of 13 on April 24, 2007. The summer passage ran from May 2 (2004) to July 22 (2007), there were eight "clustered" influxes. The first peaked from May 5 (2004) to May 7 (2006, 2008) with a high count of 15 on May 5, 2004. The second peaked from May 13 (2007) to May 17 (2006) with a high count of 12 on May 17, 2006. The third peaked from May 27 (2007) to May 30 (2004) with a high count of 56 on May 28, 2008. All but one were in first-summer plumage. This was the highest count during this set of five years. The fourth peaked from June 5 (2005) to June 8 (2006, 2007) with a high count of 21 on June 8, 2007. The fifth peaked from June 11 (2008) to June 13 (2007) with a high count of 48

on June 11, 2008. The sixth peaked from June 20 (2008) to June 22 (2007) with a high count of 42 on June 20, 2008. The seventh is indicated by a peak count of 19 on June 29, 2008. The eighth peaked from July 6 (2007) to July 11 (2004) with a high count of four on July 11, 2004. The early fall passage ran from July 21 (2008) to September 28 (2004), there were seven "clustered" influxes. The first peaked from July 21 (2008) to July 24 (2004) with a high count of three on July 21, 2008. The second peaked from July 28 (2006) to July 31 (2005) with a high count of six on July 31, 2005. The third peaked from August 10 (2008) to August 15 (2004) with a high count of 35 on August 15, 2004. The fourth peaked from August 19 (2007) to August 24 (2003) with a high count of three on August 24, 2003. The fifth peaked from August 29 (2004) to September 3 (2006) with a high count of seven on August 31, 2005. The sixth is indicated by a peak count of two on September 12, 2007. The seventh peaked from September 19 (2005) to September 22 (2004) with a high count of two on September 19, 2005. Finally there was the main fall passage which ran from October 22 (2006) to November 28 (2003, 2007), there were three "clustered" influxes. The first peaked from October 27 (2006) to November 2 (2007) with a high count of 34 on November 2, 2007. The second peaked from November 7 (2004) to November 11 (2005, 2007) with a high count of 43 on November 11, 2007. The third peaked from November 26 (2006) to November 28 (2003) with a high count of five on November 26, 2006. This species illustrates well the fact that there is a lot of information to be had that is not just in the daily counts.

Franklin's Gull (*Larus pipixcan*)

An irregular late fall passage migrant from November 1 (2006) to November 20 (2005), to detail the records. There was an adult in winter plumage hawking for insects over the fields to the south of Lust Road on November 11, 2005. If there is an easterly wind insects tend to get blown towards the lake and this species together with the next two species will on occasions hawk over the fields. On November 15, 2005 the adult and 11 in first-winter plumage were hawking for insects late in the day. Just one first winter could be found on November 20, 2005. On November 1, 2006 and November 4 (2006) there was one in first-winter plumage hawking over the narrow band of water between the cattails and the shore of Lake Apopka to the east of Laughlin Road extension. On November 5, 2006 the first winter was still present and it was briefly joined by a second first-winter bird. Whilst they were being watched a party of 12 flew to the east. This count of 14 was the highest count during this set of five years. Later there were two on November 15, 2006 to the south of Lust Road, hawking for insects again. Finally for the fall there was one in first-winter plumage on November 18, 2007. I did not make a note of its location. Very exceptionally on May 20, 2008 a sub-adult flew west over Phase One. I relocated this individual at the roost on Duda where it stayed through to June 15, 2008. It was absent during the day, its feeding area was unknown. This is perhaps the fifth summer record for Florida.

Little Gull (*Larus minutus*)

This is a vagrant anywhere in Florida. There was a single record for this set of five years. There was one in first-winter plumage on February 2, 2004. It was hawking for insects over the fields to the south of Lust Road next to the shore of Lake Apopka. It was with a flock of some 300 Bonaparte's Gulls.

Bonaparte's Gull (*Larus philadelphia*)

This species arrives so very late in the fall (earliest record November 16 (2007)) so that I believe that there is no actual winter passage just the fall passage and the two spring passages. That is an exceptional situation. This species hunts near the shore with the greatest numbers being seen to the west of Laughlin Road extension. When conditions are suitable they will hawk for insects over the fields south of Lust Road. Seen in the fall therefore from November 16 (2007) to January 4 (2004, 2008) with a high count of 75 on December 31, 2003. The early spring passage was the event of the year, this passage ran from December 30 (2005) to March 4 (2007) with high counts of 310 on February 2, 2004 and 465 on January 28, 2008. To detail the 2004 influxes, there were 152 on January 11 with 136 on January 14, 86 on January 16, eight on January 19 and four on January 21. There had only been 40 on January 4 so this is a type 2 influx. There were 51 on January 25 with 310 on February 2, then 24 seen on February 11 with 13 on February 18 and one on February 22. This species does not stay for long periods. To detail the 2008 influxes, there were 21 on January 6 with 56 on January 11, 149 on January 16 and 215 on January 20, then 18 seen on January 23 with four on January 25. There were 465 on January 28 with 19 on January 30, ten on February 1, four on February 6 and one on February 8. There were ten on February 10 with three on February 15 and two on February 17. There were ten on February 22 with 11 on February 24, 35 on February 26 and 60 on February 29, then nine seen on March 2. The main passage was over in early February with much lower numbers to the end of the month. The late spring passage ran from February 29 (2004) to April 16 (2007) with a high count of 14 on March 19, 2004. This was a very minor event. The only information that I have as to age/plumage is: there were singles in first-summer plumage on March 10, 2006 and April 15, 2007 with an adult in breeding plumage on April 16, 2007.

The fall passage ran from November 16 (2007) to January 4 (2004, 2008), there were five "clustered" influxes. The first peaked from November 16 (2007) to November 17 (2006) with a high count of eight on November 17, 2006. The second peaked from November 23 (2003, 2004) to November 28 (2007) with a high count of 16 on November 25, 2005. The third peaked from December 3 (2003) to December 8 (2006) with a high count of 33 on December 8, 2006. The fourth peaked from December 21 (2005) to December 22 (2006) with a high count of 31 on December 21, 2005. The fifth peaked from December 27 (2004) to December 31 (2003, 2006) with a high count of 75 on December 31, 2003. The early spring passage ran from December 30 (2005) to March 4 (2007), there were eight "clustered" influxes. The first peaked from January 6 (2005) to January 8 (2006) with a high count of 34 on January 8, 2006. The second peaked from January 11 (2004) to January 12 (2007) with high counts of 17 on January 12, 2007 and 152 on

January 11, 2004. The third peaked from January 18 (2006) to January 21 (2007) with high counts of 14 on January 18, 2006 and 215 on January 20, 2008. The fourth peaked from January 28 (2008) to February 2 (2004) with high counts of 310 on February 2, 2004 and 465 on January 28, 2008. The latter was the highest count during the first ten years of the survey. Numbers now fell sharply but not as low as the late spring passage. The fifth peaked from February 6 (2005) to February 10 (2008) with a high count of 15 on February 6, 2005. The sixth is indicated by a peak count of 17 on February 14, 2006. The seventh peaked from February 20 (2005) to February 21 (2007) with a high count of 26 on February 21, 2007. The eighth peaked from February 29 (2008) to March 2 (2007) with a high count of 60 on February 29, 2008. The late spring passage ran from February 29 (2004) to April 16 (2007), there were five “clustered” influxes. The first is indicated by a peak count of one on March 10, 2006. The second peaked from March 14 (2007) to March 17 (2008) with a high count of eight on March 17, 2008. The third peaked from March 19 (2004) to March 21 (2007) with a high count of 14 on March 19, 2004. The fourth peaked from March 26 (2008) to March 31 (2004) with a high count of five on March 31, 2004. The last influx is somewhat separated, the influx peaked from April 14 (2004) to April 16 (2007) with a high count of two on April 14, 2004. This last influx is made up of three records; there were two on April 14, 2004 with one in first-summer plumage on April 15, 2007 and one in breeding plumage on April 16, 2007.

Ring-billed Gull (*Larus delawarensis*)

A common passage migrant and winter visitor with the greatest numbers in the winter and the early spring, there were significantly lower numbers in 2007 and 2008 but the cause is not known. Perhaps they have lost a major feeding area or they have changed their roost site. A number will be present through the day but the greatest numbers fly in from the east to roost on Lake Apopka at dusk. In 2004 there was a significant passage to the north-west in the early spring, this will be detailed later. There were in 2003 two very early fall sightings, there being singles on September 7 and September 24. Otherwise the fall passage ran from October 29 (2003, 2006) to December 2 (2007) with a high count of 160 on November 21, 2004. That high count gave no hint of the numbers to come. The winter passage ran from November 22 (2005) to January 14 (2004) with high counts of 8,500 on December 30, 2005 and 12,250 on January 4, 2004. To detail the 2005/2006 influxes, there were 147 on November 22 with 150 on November 27, 2,080 on November 30, 3,500 on December 2, 4,200 on December 7 and 6,000 on December 11, then 1,000 seen to December 16. There were 2,000 on December 19 with 5,500 on December 21, then 5,200 seen on December 23 with 5,000 on December 26. There were 7,800 on December 28 with 8,500 on December 30, then 4,000 seen on January 1. The early spring passage was even stronger, the passage ran from January 2 (2005) to March 9 (2007) with high counts of 12,000 on January 11, 2006 and 18,000 on February 8, 2005. To continue detailing the 2006 influxes, there were 6,500 on January 4 with 9,500 on January 6 and 12,000 on January 11, then 8,500 seen on January 15 with 6,000 on January 18 and 2,000 on January 22. There were 2,300 on January 25 with 5,500 on January 29, then 4,500 seen on February 1 with 2,350 on February 5 and 1,700 on February 8. There were 6,000 on February 10 with 1,500

on February 14 and 850 on February 17. There were 1,900 on February 19 with 2,350 on February 22, then 1,400 seen on February 27 with 880 on March 1 and 160 on March 4. The late spring passage was also a strong event, the passage ran from February 26 (2008) to May 17 (2006) with a high count of 4,400 on March 3, 2004. Much lower numbers were seen in April. In 2004 there was an early morning passage to the north-west from January 11 to February 29 with high counts of 467 on January 14, 262 on January 16, 135 on January 21, 263 on February 11 and 169 on February 18. In all during this period a total of 1,590 recorded flying to the north-west. There were another 52 on April 4. In 2005 160 flew likewise to the north-west on March 27 with 90 on April 10 and 820 on April 17. These are the only notes that I have on this subject.

The fall passage started with singles on September 7, 2003 and September 24, 2003. Excepting those records the passage ran from October 29 (2003, 2006) to December 2 (2007), there were four "clustered" influxes. The first peaked from November 2 (2007) to November 4 (2005) with a high count of 26 on November 4, 2005. The second peaked from November 10 (2004) to November 13 (2005) with a high count of 105 on November 12, 2006. The third peaked from November 18 (2007) to November 21 (2004) with a high count of 160 on November 21, 2004. The fourth is indicated by a peak count of 14 on November 28, 2007. The winter passage ran from November 22 (2005) to January 14 (2004), there were four "clustered" influxes. The first peaked from December 1 (2003) to December 5 (2007) with a high count of 6,200 on December 1, 2003. The second peaked from December 11 (2005) to December 13 (2006) with a high count of 6,000 on December 11, 2005. The third peaked from December 21 (2005, 2007) to December 22 (2004, 2006) with a high count of 5,500 on December 21, 2005. The fourth peaked from December 30 (2005) to January 4 (2004) with high counts of 8,500 on December 30, 2005 and 12,250 on January 4, 2004. This was followed by the early spring passage which ran from January 2 (2005) to March 9 (2007), there were seven "clustered" influxes. The first peaked from January 6 (2008) to January 11 (2006) with high counts of 7,400 on January 9, 2005 and 12,000 on January 11, 2006. The second peaked from January 14 (2007) to January 16 (2004, 2008) with a high count of 1,150 on January 16, 2004. The third peaked from January 24 (2005) to January 26 (2007) with a high count of 3,400 on January 24, 2005. The fourth peaked from January 28 (2008) to February 2 (2004) with high counts of 5,500 on January 29, 2006 and 8,450 on February 2, 2004. The fifth peaked from February 8 (2005, 2008) to February 10 (2006) with high counts of 6,000 on February 10, 2006 and 18,000 on February 8, 2005. The latter is still the highest count for Zellwood. The sixth peaked from February 14 (2007) to February 15 (2008) with a high count of 2,500 on February 14, 2007. The seventh peaked from February 20 (2005) to February 25 (2007) with high counts of 2,350 on February 22, 2006 and 3,650 on February 20, 2005. The late spring passage ran from February 26 (2008) to May 17 (2006), there were nine "clustered" influxes. The first peaked from March 2 (2008) to March 5 (2006) with high counts of 1,750 on March 5, 2006 and 4,400 on March 3, 2004. The second peaked from March 10 (2005) to March 11 (2007) with a high count of 730 on March 10, 2005. The third peaked from March 15 (2006) to March 17 (2008) with a high count of 3,100 on March 15, 2006. The fourth peaked from March 24 (2006) to March 25 (2007) with a high count of 420 on March 24, 2006. The fifth peaked from March 30 (2005) to April 2 (2008) with a high count of 2,300 on March 30, 2005. The sixth peaked from April 15 (2007) to April 20 (2008) with a high count of 820 on April 17, 2005. The seventh peaked from April 25 (2004) to April 30

(2005) with a high count of 55 on April 30, 2005. The eighth peaked from May 4 (2007) to May 5 (2006) with a high count of four on May 5, 2006. The ninth is indicated by a peak count of three on May 17, 2006.

Herring Gull (*Larus argentatus*)

A winter visitor and spring passage migrant but only in low numbers, whilst they will regularly chase the smaller gulls it is with the feeding flocks of cormorants that they most frequently associate. There were very few fall records there being singles on October 19, 2003 and November 12, 2003. There was also an influx from October 31, 2007 to November 11, 2007 with a peak count of two on October 31, 2007. The winter passage ran from November 21 (2004) to January 4 (2004) with a high count of five on December 15, 2006. To detail the 2007 influxes, there was one on November 28 with three on December 5, then one seen to December 19. There were three on December 21 with four on December 26, then three seen on December 28 with one on December 30. The early spring passage was the main event, this passage ran from December 28 (2005) to March 2 (2007) with a high count of 21 on February 15, 2008. To detail the 2008 influxes, there were two on January 2 with nine on January 6, then six seen on January 9 with two on January 14 and one on January 16. There were seven on January 18 with one on January 25. There were two on January 28 with 11 on January 30 and February 1, then five seen on February 4 with two on February 6. There were eight on February 8 with 21 on February 15, then eight seen on February 20 with five on February 22 and four on February 24. There were seven on February 26 with one on February 29. The late spring passage ran from February 28 (2005) to April 6 (2005) with a high count of four on March 2, 2005. Finally there were singles in first-summer plumage on May 25, 2007, May 27, 2007 and June 6, 2008. As with the other gulls and terns I tried to identify the ages of as many individuals as possible. The great majority were in first-winter plumage with only 35 records of 37 adults for the five years. Only three adults were seen during the winter with 25 during the early spring and nine in the late spring. The count of nine is more significant as a percentage of the whole as the overall numbers were lower during that event. On February 15, 2008 with the high count of 21 only one was an adult, the rest were in first-winter plumage. Adults can therefore only be treated as an uncommon spring passage migrant.

For the fall there were singles on October 19, 2003 and November 12, 2003 with an influx from October 31, 2007 to November 11, 2007. The peak count was that of two on October 31, 2007. The winter passage ran from November 21 (2004) to January 4 (2004), there were six "clustered" influxes. The first peaked from November 21 (2004) to November 25 (2005) with a high count of three on November 23, 2003. The second peaked from December 1 (2006) to December 2 (2005) with a high count of three on December 1, 2006. The third peaked from December 5 (2007) to December 7 (2003) with three on both dates. The fourth peaked from December 15 (2006) to December 17 (2003) with a high count of five on December 15, 2006. The fifth peaked from December 20 (2006) to December 21 (2005) with a high count of three on December 21, 2005. The sixth peaked from December 26 (2007) to December 31 (2006) with a high count of four on December 26, 2007. The early spring passage was the main event, this

passage ran from December 28 (2005) to March 2 (2007), there were eight “clustered” influxes. The first peaked from January 5 (2007) to January 6 (2005, 2006, 2008) with a high count of nine on January 6, 2008. The second peaked from January 11 (2004) to January 15 (2006) with two on both dates. The third peaked from January 18 (2008) to January 21 (2007) with a high count of seven on January 18, 2008. The fourth peaked from January 24 (2005) to January 27 (2006) with high counts of five on January 25, 2004 and January 27, 2006. The fifth peaked from January 31 (2007) to February 1 (2008) with high counts of seven on January 31, 2007 and 11 on February 1, 2008. The sixth peaked from February 6 (2005) to February 10 (2006) with a high count of four on February 6, 2005. The seventh peaked from February 15 (2008) to February 18 (2004, 2007) with high counts of two on February 17, 2006 and February 18, 2007 with 21 on February 15, 2008. The latter was the highest count during this set of five years. The eighth peaked from February 20 (2005) to February 26 (2008) with a high count of seven on February 26, 2008. The late spring passage ran from February 28 (2005) to April 6 (2005), there were five “clustered” influxes. The first peaked from March 2 (2005, 2008) to March 4 (2007) with a high count of four on March 2, 2005. The second peaked from March 8 (2006) to March 10 (2004) with two on both dates. The third peaked from March 16 (2007) to March 17 (2008) with two on both dates. The fourth is indicated by a peak count of three on March 25, 2007. The fifth peaked from April 2 (2008) to April 6 (2005) with a high count of two on April 2, 2008. Finally there were singles in first-summer plumage on May 25, 2007, May 27, 2007 and June 6, 2008.

Thayer's Gull (*Larus thayeri*)

This is a vagrant anywhere in Florida and an inland sighting is especially unexpected. There was one in first-winter plumage on March 31, 2004. It was with a flock of some 160 Ring-billed Gulls that were feeding in association with a large flock of Double-crested Cormorants. One fact about the cormorants that I may not have mentioned is that just before they migrate north they form into these large feeding flocks and there is a feeding frenzy as they put on weight for the migration.

Lesser Black-backed Gull (*Larus fuscus*)

An irregular winter visitor and passage migrant with the greatest numbers of sightings in the early spring, there are only 26 records for the five years involving 27 birds at most. The problem is that Lake Apopka is a very large lake and it is quite possible for a bird, even of this size, to be at the lake and out of range. I have however chosen to keep to the same criteria in deciding what is likely to be a new bird. Seen in the fall from November 15 (2006) to November 23 (2003, 2004), there were two “clustered” influxes. The first is indicated by a peak count of one on November 15, 2006. The second peaked on November 23 (2003, 2004) with one on both dates. The winter was a little better, this passage ran from November 30 (2005) to January 6 (2006), there were three “clustered” influxes. The first peaked from November 30 (2005) to December 7 (2003) with singles on six dates. The second peaked from December 17 (2003) to December 21 (2005) with one on both dates. The third is indicated by a peak count of one on

January 6, 2006. Apart from this isolated record on January 6 there were no sightings between December 21 and January 21 now that is unusual. Perhaps all the records to December 21 should be treated as the fall passage. The early spring passage ran from January 21 (2007) to March 2 (2008), there were seven "clustered" influxes. The first peaked from January 21 (2007) to January 24 (2007) with one on both dates. With both dates being from the same year that needs an explanation. The first was in first-winter plumage and the second was an adult. The second is indicated by a peak count of one on January 31, 2007. The third peaked from February 6 (2008) to February 7 (2007) with a high count of two on February 7, 2007. This was a joint high count as there were also two on December 11, 1998. The fourth is indicated by a peak count of one on February 10, 2008. The fifth peaked from February 14 (2007) to February 15 (2008) with one on both dates. The sixth peaked from February 20 (2008) to February 21 (2007) with one on both dates. The seventh is indicated by a peak count of one on March 2, 2008. There were no later records.

Again I noted the plumage/age of these gulls, with few exceptions they were all in first-winter plumage. The following adults were seen: there were singles on November 30, 2005, December 7, 2003, January 24, 2007, January 26, 2007, February 7, 2007, February 9, 2007, February 10, 2008, February 15, 2008, February 20, 2008 and March 2, 2008. They were all of the British race *L.f.graellsii*.

Great Black-backed Gull (*Larus marinus*)

This is a vagrant inland in Florida. The only Zellwood record relates to one in first-winter plumage on January 27, 2006 at Lake Apopka.

Gull-billed Tern (*Geochelidon nilotica*)

An uncommon spring passage migrant with a few records for the summer and the fall, It is possible that a minimum of 26 individuals seen. Seen in the spring from March 27 (2005) to May 28 (2008), there were eight "clustered" influxes. The first peaked from March 27 (2005) to March 30 (2007) with one on both dates. The second peaked from April 7 (2008) to April 11 (2007) with a high count of two on April 7, 2008. The third peaked from April 17 (2005) to April 19 (2006) with a high count of two on April 19, 2006. The fourth peaked from April 24 (2005) to April 28 (2006) with two on both dates. The fifth peaked from May 2 (2004) to May 4 (2008) with a high count of two on May 4, 2008. The sixth peaked from May 16 (2004) to May 18 (2007) with a high count of two on May 16, 2004. The last two influxes are indicated by isolated peak counts of two on May 22, 2005 and one on May 28, 2008. The summer in this instance is a questionable entity. There are two June records to June 27 and two July records from July 20. In June there were singles on June 13, 2007 and June 27, 2007. In July an immature flew to the north at the Sand Farm on July 20, 2005. There was also one on July 22, 2007. I do not know how to define these "summer" records. Finally there were three on September 5, 2007. This

was the highest count during this set of five years. With the exception of the single immature mentioned above only adults seen.

Caspian Tern (*Hydroprogne caspia*)

A non-breeding visitor to the Lake Apopka area, numbers can peak at any time of the year it all depends on the availability of loafing and roosting areas. The biggest roosts have been at Duda with the birds fanning out over Lake Apopka to feed. As they tend to make forays out to the lake at differing times it has been easier to get a handle on the numbers by counting the roost. As this is outside the survey area I did not always know when a roost had formed. The fall passage was very limited and the records tend to fall into two periods. There were singles on August 25, 2005, August 26, 2004, August 27, 2003 and September 1, 2006. There was also one from September 13, 2006 to September 23, 2006. With the exception of 2003 there are no further sightings until November. In 2003 there was one on September 7 with an influx from September 24 to October 2. The peak count was that of two on September 2, then singles seen on October 15 and from October 26 to November 9. There was then a passage from November 5 (2006) to November 25 (2005) with a high count of six on November 20, 2005. The winter passage ran from November 21 (2004) to January 6 (2005, 2006) with a high count of 30 on December 30, 2005. The early spring passage followed from December 31 (2003) to March 4 (2007, 2008) with a high count of 42 on February 10, 2008. The late spring passage ran from February 27 (2004) to April 28 (2006) with a high count of 18 on April 11, 2008. The summer was the event in 2007 and 2008 whilst in the other years there were only one to two sightings a year! The summer passage ran from May 7, 2007 to August 3, 2007 and from April 25, 2008 to August 10, 2008. The highest counts were 44 on June 8, 2007 and 140 on April 25, 2008. To detail the 2008 influxes, there were 140 on April 25 with 133 on May 2, 120 on May 4, 98 on May 7, 76 on May 9 and 69 on May 11. There were 75 on May 14 with 78 on May 16 and 89 on May 20, then 79 seen on May 23 with 76 on May 25. There were 83 on May 28 with 56 on May 30. There were 57 on June 1 with 66 on June 4 and 67 on June 6, then 48 seen on June 11 with 36 on June 13, 33 on June 15, 31 on June 18, 27 on June 20, 19 on June 27, 16 on July 2, 14 on July 6, eight on July 11, six on July 13, five on July 19 and three on July 21. That was a long running influx. There were five on July 24 with four on July 26 and three on July 27. There were six on July 30 with three on August 1 and one on August 3. There were two on August 8 with three on August 10. In 2007 the last of the main influxes did not end until August 3 unlike 2008 when the main passage was over on July 21. I have little information on their ages but in 2008 there were two adults in breeding plumage on May 20 with seven on May 25, two on June 1 and seven again on June 6.

In the fall there were singles on August 25, 2005, August 26, 2004, August 27, 2003 and September 1, 2006, these form a “clustered” influx. There was a second “clustered” influx from September 7 (2003) to September 13 (2006) with a high count of two on September 7, 2003. The next three influxes are indicated by isolated peak counts of two on September 24, 2003 with singles on October 15, 2003 and October 26, 2003. This was all followed by three “clustered” influxes. The first peaked from November 5 (2006) to November 10 (2004) with a

high count of three on November 5, 2006. The second peaked from November 15 (2006) to November 16 (2003) with a high count of five on November 15, 2006. The third is indicated by a peak count of six on November 20, 2005. The winter passage ran from November 21 (2004) to January 6 (2005, 2006), there were five “clustered” influxes. The first peaked from November 28 (2003) to December 1 (2004) with a high count of 14 on December 1, 2004. The second peaked from December 7 (2005) to December 9 (2003) with a high count of 14 on December 9, 2003. The third peaked from December 12 (2007) to December 13 (2006) with a high count of 16 on December 13, 2006. The fourth peaked from December 22 (2004, 2006) to December 26 (2003) with a high count of 22 on December 22, 2004. The fifth peaked from December 28 (2007) to December 30 (2005) with a high count of 30 on December 30, 2005. The early spring passage ran from December 31 (2003) to March 4 (2007, 2008), there were seven “clustered” influxes. The first peaked from January 4 (2004) to January 6 (2008) with a high count of 25 on January 4, 2004. The second peaked from January 13 (2006) to January 14 (2007) with a high count of 17 on January 13, 2006. The third peaked from January 21 (2007) to January 25 (2004) with a high count of 15 on January 25, 2004. The fourth peaked from January 29 (2006) to February 2 (2005) with a high count of 15 on January 29, 2006. The fifth is indicated by a peak count of 42 on February 10, 2008. The sixth peaked from February 14 (2007) to February 17 (2006) with eight on both dates. The seventh peaked from February 24 (2008) to February 28 (2005) with a high count of ten on February 24, 2008. The late spring passage ran from February 27 (2004) to April 28 (2006), there were six “clustered” influxes. The first is indicated by a peak count of five on March 1, 2006. The second peaked from March 10 (2006) to March 14 (2004, 2007) with a high count of 16 on March 13, 2005. The third peaked from March 19 (2006, 2008) to March 24 (2005) with a high count of 16 on March 24, 2005. The fourth peaked from March 30 (2007, 2008) to April 4 (2004) with a high count of 17 on March 30, 2007. The fifth peaked from April 11 (2008) to April 15 (2007) with a high count of 18 on April 11, 2008. The sixth peaked from April 19 (2006) to April 20 (2008) with a high count of 15 on April 19, 2006. The summer appears to cover the extended period April 25 (2008) to August 10 (2008), there were 12 “clustered” influxes. The first three years are represented by singles on May 22, 2005, June 2, 2004, June 5, 2005 and June 11, 2006. These records are included in the following analysis. The first influx peaked from April 24 (2007) to April 26 (2005) with high counts of 19 on April 26, 2005 and 140 on April 25, 2008. The latter was the highest count during this set of five years. The next three influxes are indicated by isolated peak counts of eight on April 30, 2006, 20 on May 7, 2007 and seven on May 13, 2007. The fifth peaked from May 20 (2008) to May 22 (2005) with a high count of 89 on May 20, 2008. The sixth peaked from May 28 (2008) to June 2 (2004) with a high count of 83 on May 28, 2008. The seventh peaked from June 5 (2005) to June 8 (2007) with high counts of 44 on June 8, 2007 and 67 on June 6, 2008. The next two influxes are indicated by isolated peak counts of 35 on June 29, 2007 and 34 on July 8, 2007. The tenth peaked from July 20 (2007) to July 24 (2008) with a high count of 28 on July 20, 2007. The last two influxes are indicated by isolated peak counts of six on July 30, 2008 and three on August 10, 2008. The high number of isolated peak counts is caused by the fact that there was only passage during the summer in two of the five years.

Royal Tern (*Thalasseus maxima*)

This is a coastal species that is rare inland, during these five years there were eight records of possibly seven birds. There were no summer or winter records. In the early spring there were single adults on February 2, 2005 and February 9, 2007. In the late spring there was one in first-summer plumage on May 13, 2007 with an adult on May 20, 2008. For the early fall there was an adult on July 8, 2007. Finally for the late fall there were single adults on November 3, 2006 and November 15, 2006 with another whose age is not known on November 28, 2004. The question-mark over the number of birds relates to November 2006, was the bird on the 15th the same individual as that on November 3rd. The clustering of the records in early February, mid-May and November is interesting, why not the other months?

Sandwich Tern (*Thalasseus sandvicensis*)

Another coastal species that is very uncommon inland, this time there were no summer and winter/early spring records. There were in all 11 records of 16 birds. Seen in the spring from March 19 (2008) to May 25 (2008), to detail the records. There was one in first-winter plumage on March 19, 2008 with one, age not known on April 6, 2005 and April 10, 2005. There were also singles in first-summer plumage on April 13, 2007 and April 18, 2004. A party of four flew to the north on May 7, 2007. This is still the highest count for Zellwood. Finally for the spring passage there was one in first-summer plumage on May 25, 2008 with two adults and one in first-summer plumage on May 28, 2008. For the early fall passage two flew north over the McDonald Canal on July 30, 2006. For the late fall passage there was one in first-winter plumage on October 31, 2007 with single adults on November 28, 2003 and 2004. It still surprises me how the dates often marry up. November 28, 2004 was also the date on which the latest Royal Tern was seen.

Roseate Tern (*Sterna dougallii*)

A pelagic species that was never expected to turn up inland in Florida, but it did. On May 20, 2008 an adult in breeding plumage flew to the west near the shore of Lake Apopka. I was later able to locate this bird at the Duda roost where I was able to study it with aid of a telescope. A description will be in the annual report whenever that is printed. Descriptions of other major rarities will also be in their respective annual report.

Common Tern (*Sterna hirundo*)

This is meant to be a coastal species that may occasionally stray inland but that is not really the case. It would seem that if there is a suitable loafing and roosting site during the summer months then a number may stay for an extended period of time. Their presence is tending to bring in other species i.e. Roseate and Arctic Terns. Such a site was available in 2007

and 2008 at Duda. There is also an instance of a tropical storm bringing in a major mixed species flock. As these records differ from the accepted pattern I am detailing all sightings. There was an adult in breeding plumage on April 20, 2005 and April 30, 2005. There was also an adult in breeding plumage on April 21, 2004. Later in 2004 six adults flew to the east on May 10 with two likewise on May 20. There were no records for 2005/2006. In 2007 with the roost there were four adults with two in first-summer plumage on May 25 with one adult and one in first-summer plumage on May 27, then one to two in first summer plumage seen from May 30 to July 25 with three on June 29. In 2008 there was one adult on May 4 with two adults and one in first-summer plumage on May 14, then three adults and one in first-summer plumage seen on May 18 with four adults and one in first-summer plumage on May 20 and May 23. There were two in first-summer plumage on May 25 with one on May 28 and May 30. On June 1 we were back to four adults and one in first-summer plumage, then one adult and one in first-summer plumage were seen from June 4 to June 11. There were two, both in first-summer plumage on June 13 with singles to June 27. The fall records fall into two very distinct periods. There was one in first-summer plumage on July 25, 2008 and August 1, 2008. There were four on August 19, 2007 with two on September 5, 2007 and an adult on September 7, 2003. For the second period there were 103 on October 31, 2007 with 27 on November 2, 2007 and ten on November 7, 2007, these were all compliments of Tropical Storm Noel. There was also an adult in winter plumage on November 4, 2006 with two (age not noted) on November 14, 2004 and one on November 23, 2004. Finally there was one exceptional record as an adult was seen on January 2, 2008. This I think of as a winter record.

Arctic Tern (*Sterna paradisaea*)

This is another pelagic species that was not thought to turn up inland. There was an adult in breeding plumage from May 25, 2007 to June 13, 2007. This individual used to travel daily down the side of the lake from Duda to Magnolia Park. There was one in first-summer plumage from June 10, 2007 to July 1, 2007. Then in 2008 there was one in first-summer plumage from June 6, 2008 to July 2, 2008. Note the closeness of the dates, as the second was also an immature this was not the case of a returning bird. With first-summer Common and Arctic Terns often sitting side by side it was easy to sort out the differences in their plumages. Tropical Storm Noel also brought in three adults in partial summer-plumage on October 31, 2007. It is possible that there were others that I over-looked amidst the Common Terns. This count of three is the highest count for Zellwood.

Forster's Tern (*Sterna forsteri*)

During the first three years this was a passage migrant and winter visitor however in 2007 and 2008 there was a significant gathering of non-breeding birds at the lake. They used an area at Duda for loafing and roosting. It is this species that will have drawn in the other species of terns. As with the Common Tern the fall passage divided into two very separate events. There was an early fall passage from September 12 (2004) to October 2 (2005) with a high

count of ten on September 12, 2004 and September 29, 2003. The main fall passage ran from October 29 (2006) to November 28 (2004, 2007) with a high count of 41 on October 31, 2007 and November 23, 2007. Many species have a light early fall passage followed by the main fall passage but those events are linked, these stand alone events are unusual. I can only assume that different populations or different ages were involved. The winter passage ran from November 23 (2003) to January 16, 2005) with a high count of 534 on November 29, 2006. To detail the 2006/2007 influxes, there were only two on November 26, then 534 seen on November 29 with 454 on December 8, 47 on December 15 and 35 on December 17. There were 195 on December 20 with 75 on December 22, 50 on December 27 and 32 on December 29. There were 47 on December 31 with 51 on January 5, then 23 seen on January 7 with six on January 10. The first two influxes were clearly type 2 influxes. The early spring passage ran from January 8 (2006) to March 7 (2004, 2007) with high counts of 611 on January 16, 2008 and 524 on February 22, 2008. Excluding the last two years the high count was only that of 74 on February 11, 2004. To detail the 2008 influxes, there were 32 on January 14 with 611 on January 16, then 131 seen on January 18. On January 16, 2008 there was a very strong easterly wind. There were 260 on January 20 with 355 on January 25, then 325 seen on January 30 with 94 on February 1, 73 on February 4 and 29 on February 6. There were 107 on February 8 with 90 on February 10, 76 on February 12 and 57 on February 15. There were 87 on February 17 with 524 on February 22, then 254 seen on February 24 with six on February 26. There were 11 on February 29 with 16 on March 2, then two seen on March 4. The late spring passage ran from March 2 (2005) to May 20 (2004) with a high count of 514 on March 31, 2004. That was a one day event with 36 on March 24 and 514 on March 31, then 18 seen on April 4. There was a very strong westerly wind on March 31st so very strong winds from either coast can bring in large numbers of terns. For the first three years there was no summer event, the only records were of one on July 31, 2005 and four on August 18, 2006. In 2007 and 2008 there were significant summer events with the availability of a suitable loafing/roosting area at Duda. This event ran from May 20 (2007) to August 1 (2008) with high counts of 139 on May 30, 2008 and 189 on June 13, 2007. To detail the 2007 influx, there were four on May 20 with five on May 23, 122 on May 25, 126 on May 30, 139 on June 10 and 189 on June 13, then 170 seen on June 22 with 116 on June 29, 66 on July 1, 50 on July 6, 47 on July 8, 23 on July 13, 18 on July 18, 16 on July 20, 13 on July 22, three on July 25 and one on July 27. Just one influx covered the whole two month long passage but in 2008 there were seven influxes. If the right habitats were available year round so much more could be seen. Except for the last two years only two adults noted as being in breeding plumage and they were on the unusual dates of December 19, 2005 and February 27, 2004. In 2007 no adults seen from May 20 to June 29, there were however single adults on five dates from July 1 to July 22. In 2008 there was one adult in breeding plumage on May 25, 2008 but there were no further sightings until July 11. There were singles on July 11 and July 16 with two on July 25 and three on August 1. Clearly all the adults left the area for the summer.

The early fall passage ran from September 12 (2004) to October 2 (2005), there were three "clustered" influxes. The first peaked from September 12 (2004) to September 16 (2003) with a high count of ten on September 12, 2004. The second is indicated by a peak count of two on September 19, 2007. The third peaked from September 28 (2004) to October 2 (2005) with a

high count of ten on September 29, 2003. The main fall passage ran from October 29 (2006) to November 28 (2004, 2007), there were four “clustered” influxes. The first peaked from October 31 (2007) to November 7 (2005) with a high count of 41 on October 31, 2007. The second peaked from November 10 (2004) to November 11 (2007) with a high count of 29 on November 10, 2004. The third peaked from November 16 (2003) to November 18 (2005) with a high count of 29 on November 17, 2006. The fourth peaked from November 23 (2007) to November 25 (2005) with a high count of 41 on November 23, 2007. The winter passage ran from November 23 (2003) to January 16 (2005), there were five “clustered” influxes. The first peaked from November 29 (2006) to December 2 (2005, 2007) with high counts of 114 on December 2, 2007 and 534 on November 29, 2006. The second peaked from December 9 (2003, 2005) to December 12 (2004) with a high count of 129 on December 9, 2003. The third peaked from December 19 (2005) to December 20 (2006) with a high count of 195 on December 20, 2006. The fourth peaked from December 27 (2004) to December 28 (2003, 2007) with a high count of 235 on December 28, 2007. The fifth peaked from January 4 (2006) to January 6 (2005) with a high count of 51 on January 5, 2007. The early spring passage followed from January 8 (2006) to March 7 (2004, 2007), there were seven “clustered” influxes. The first peaked from January 11 (2006) to January 16 (2008) with high counts of 57 on January 12, 2007 and 611 on January 16, 2008. The latter is still the highest count for Zellwood. The second peaked from January 19 (2005) to January 21 (2004, 2007) with a high count of 87 on January 21, 2007. The third peaked from January 25 (2008) to January 27 (2006) with high counts of 17 on January 27, 2006 and 355 on January 25, 2008. The fourth peaked from February 2 (2005) to February 4 (2007) with a high count of 120 on February 4, 2007. The fifth peaked from February 8 (2008) to February 11 (2004) with a high count of 107 on February 8, 2008. The sixth peaked from February 19 (2006) to February 23 (2005, 2007) with high counts of 35 on February 23, 2005 and 524 on February 22, 2008. The seventh peaked from February 29 (2004) to March 4 (2007) with a high count of 71 on February 29, 2004. The main spring passage ran from March 2 (2005) to May 20 (2004), there were also seven “clustered” influxes. The first peaked from March 10 (2004, 2005, 2006) to March 14 (2007) with a high count of 187 on March 14, 2007. The second peaked from March 17 (2006, 2008) to March 21 (2007) with high counts of 154 on March 17, 2008 and 201 on March 21, 2007. The third peaked from March 30 (2007, 2008) to April 3 (2005) with high counts of 151 on March 30, 2007 and 514 on March 31, 2004. The fourth peaked from April 9 (2008) to April 11 (2007) with a high count of 135 on April 9, 2008. The fifth peaked from April 17 (2005) to April 19 (2006) with a high count of 17 on April 17, 2005. The sixth peaked from April 21 (2004) to April 24 (2007) with a high count of 125 on April 21, 2004. The seventh peaked from May 2 (2004, 2008) to May 7 (2007) with a high count of 113 on May 2, 2008. For the first three years there was no summer passage with just two sightings. There was one on July 31, 2005 with four on August 18, 2006. In 2007 there was a single influx that ran from May 20 to July 27 with a peak count of 189 on June 13. In 2008 there were a total of seven influxes. The first ran from May 11 to May 25 with a peak count of 138 on May 23. The second ran from May 28 to June 6 with a peak count of 139 on May 30. The third ran from June 8 to June 13 with a peak count of 123 on June 8. The fourth ran from June 15 to July 9 with a peak count of 109 on June 18. The fifth ran from July 11 to July 21 with a peak count of 24 on July 11. The sixth ran from July 24 to July 27 with a peak count of 13 on July 24. The seventh ran from July 30 to

August 1 with a peak count of 18 on August 1. With just two years it is not possible to identify the “clustered” influxes especially as there was just one influx for the 2007 passage.

Least Tern (*Sternula antillarum*)

The status of this species is uncertain as it is hard to separate out the various events. It is a spring passage migrant but its status thereafter is questionable. Two flew to the north on March 18, 2007. This is one of the earliest spring records for Florida. Spring passage noted from March 31 (2004) to May 4 (2008) with a high count of 77 on April 15, 2007. To detail the 2007 influx, there were four on April 13 with 77 on April 15, then 64 seen on April 16 with 62 on April 21, 13 on April 27 and one on April 29. There was now a short period with minimal records, perhaps this was the summer. This “event” ran from April 28 (2004) to May 20 (2007) with a high count of four on May 7, 2007. There appears to be a single event from May 7 (2008) to July 30 (2006) with a high count of 17 on June 18, 2008, this may be the fall passage. Whilst a few Least Terns were seen in the area the bulk of those using the Duda roost did not come into the survey area and I have not included those figures in the Zellwood totals. I am going to detail the 2007 Duda influx as that may help show what was going on. *There were two on May 30 with five on June 8, nine on June 10, 25 on June 22, 33 on June 24, 53 on June 27, 63 on June 29, 64 on July 4, 84 on July 6 and 93 on July 8, then 79 seen on July 13 with 65 on July 18 and 64 on July 22.* At that point they all left as the water level rose too high. My guess is that they would have stayed to at least mid-August. Finally for Zellwood there was one on August 16, 2004.

There was an exceptionally early record of two flying north on March 18, 2007. Passage in the spring otherwise noted from March 31 (2004) to May 4 (2008), there were three “clustered” influxes. The first is indicated by a peak count of one on March 31, 2004. The second peaked from April 6 (2005) to April 7 (2008) with high counts of three on April 6, 2005 and 35 on April 7, 2008. The third peaked from April 15 (2007) to April 19 (2006) with high counts of 24 on April 19, 2008 and 77 on April 15, 2007. The latter was the highest count during the first ten years of the survey. There appears to be a minor summer event from April 28 (2004) to May 20 (2007), there were indications of three “clustered” influxes. The first peaked from April 28 (2004) to April 30 (2005) with one on both dates. The other two influxes are indicated by isolated peak counts of four on May 7, 2007 and three on May 16, 2007. The next event has the feel of a post-breeding gathering but it has to be the fall passage as there is no later event. So the fall passage ran from May 7 (2008) to July 30 (2006) with a late record on August 16, 2004. There were indications of eight “clustered” influxes. The first peaked from May 23 (2008) to May 27 (2007) with a high count of eight on May 23, 2008. The second peaked from June 11 (2006) to June 18 (2008) with a high count of 17 on June 18, 2008. The third peaked from June 25 (2008) to June 28 (2006) with a high count of 13 on June 25, 2008. The fourth peaked from July 1 (2005) to July 4 (2007) with a high count of 11 on July 4, 2007. The fifth is indicated by a peak count of 12 on July 9, 2008. That is the end of the main passage as this event concludes with three isolated peak counts of one on July 22, 2007, July 30, 2006 and August 16, 2004. This species remains a puzzle.

Sooty Tern (*Onychoprion fuscata*)

This is a pelagic species that on occasions can be driven inland by tropical weather systems. There was an adult at Lake Apopka on June 12, 2005 compliments of Tropical Storm Arlene. The following year there was another adult at Lake Apopka on June 14, 2006 compliments of Tropical Storm Alberto. Both the storms went up through the gulf. The second bird was exhausted and was resting on the track by the lake south of Hooper Farms Road extension. These are the first records for Zellwood.

Black Tern (*Chlidonias niger*)

Normally this is an uncommon passage migrant with in 2008 a small non-breeding summer population. There were only two records for the spring, there being one on April 15, 2007 and three on April 30, 2005. The non-breeding summer gathering at Duda ran from May 20 (2008) to August 3 (2008) with a high count of 20 on August 1, 2008. These terns flew out to Lake Apopka to feed. To detail the 2008 influxes, there was one on May 20 with two on May 25, three on May 30, four on June 1 and seven on June 6, then three seen on June 13 with two on June 18. There were four on June 20 with seven on June 22, then five seen on June 27 with one on June 29. There were three on July 2 with five on July 6, six on July 9 and eight on July 11, then three seen on July 13. There were seven on July 16 with eight on July 19 and ten on July 21 and July 24, then eight seen on July 25 with six on July 26. There were eight on July 27 with ten on July 30 and 20 on August 1, then four seen on August 3. The fall passage ran from August 16 (2004) to September 28 (2004) also with a high count of 20 on September 7, 2003. In 2008 I kept a check on their ages through the non-breeding gathering. The majority had first-summer plumage and were seen from May 20 to July 16, there may have been birds in first-summer plumage after that date but the picture was becoming clouded by returning adults in winter plumage. Adults in breeding plumage were seen up to June 1 and again from July 16. There was one in partial summer plumage on June 22, 2008, that I treat as a non-breeding bird. The few records for the other years fit into this pattern.

For the spring there was one on April 15, 2007 with three on April 30, 2005. In 2008 there was a minor gathering of birds predominately in first-summer plumage this gathering ran from May 20 to August 3. Including the earlier years there were indications of six "clustered" influxes. The first is indicated by a peak count of one on May 27, 2007. The second peaked from June 6 (2008) to June 9 (2004) with a high count of seven on June 6, 2008. The last four influxes are indicated by isolated peak counts of seven on June 22, 2008, eight on July 11, 2008, ten on July 21, 2008 and 20 on August 1, 2008. The fall passage ran from August 16 (2004) to September 28 (2004), there were four "clustered" influxes. The first peaked from August 16 (2004) to August 19 (2007) with a high count of seven on August 16, 2004. The second peaked on September 7 (2003, 2007) with a high count of 20 on September 7, 2003. The counts of 20 were the highest counts during this set of five years. The third peaked from September 16 (2004) to September 19 (2007) with a high count of eight on September 19, 2007. The fourth is

indicated by a peak count of ten on September 28, 2004. There were no sightings during the survey year 2005/2006.

Black Skimmer (*Rynchops niger*)

There were no records for the first three years but sightings in the last two years were for the most part linked to the summer roosts at Duda. I am going to include the Duda information as this will show what could be if the habitat was provided. The only fall record involves two adults circling the pond by the Lust Road pump house on September 17, 2006. In 2007 seen at Duda from April 27 to July 18 with a high count of 77 on May 25, 2007. There were 42 at Duda on April 27 but they were crossing to the Sand Farm Cattail Marsh to feed all day. There were nine at the Sand Farm on April 29, then 61 seen Duda on May 7. There were eight at the Lake Level Canal on May 9 with at the Sand Farm nine on May 11 and four on May 13. There were no later Zellwood sightings. *At Duda there were 77 on May 25 with 69 on May 27, 58 on May 30, 47 on June 3, 38 on June 8, 35 on June 13, 17 on June 22, 16 on June 24, 15 on June 27, 12 on June 29, nine on July 1, seven to July 8, four on July 11, three on July 13, two on July 15 and one on July 18.* In 2008 the only Zellwood sightings were of two on May 7 by the Lake Level Canal and one at the Sand Farm on May 9. The birds summering at Duda just did not visit Zellwood. *For the record at Duda there were 45 on April 25 with 83 on May 4, 90 on May 7 and 94 on May 9, then 80 seen on May 11 with 71 on May 16, 63 on May 18, 55 on May 23, 52 on May 25, 38 on May 28, 35 on May 30, 34 on June 1, 24 on June 4, 22 on June 6, 18 on June 8 and five to June 15. There were six on June 18 with seven on June 20, then four seen to June 27 with three on June 29 and one on July 2. None seen on July 6 with one on July 11, two on July 13 and four on July 16, then three seen to July 27 with one on July 30.* Numbers were higher in 2008 but they fell away quicker.

Rock Pigeon (*Columba livia*)

This is a very uncommon visitor with the majority of the sightings being near the workshops. There were no winter records. In the early spring there were singles on January 6, 2005, February 10, 2006 and February 14, 2007. The last two form a “clustered” influx. The main spring passage was a little stronger with records from March 4 (2006) to May 10 (2004), there were singles on six dates with a high count of three on May 2, 2004. There was only one summer record, there being six on June 15, 2008. In the early fall there was a flock of ten on July 20, 2005 with a clearer event from August 8 (2006) to August 31 (2005), there were two “clustered” influxes. The first peaked from August 13 (2008) to August 17 (2005) with three on both dates. The second peaked from August 26 (2007) to August 31 (2005) with a high count of five on August 31, 2005. Finally there was a very minor late fall passage from October 29 (2007) to November 28 (2004). The only sightings involve singles on October 29, 2007, November 14, 2004 and November 28, 2004. In all there were 26 records of 45 birds for the five years. With such a low number of records it is surprising just how many questions there are. Why were

there no winter records? What was the significance of the mid-February records? Do the August records relate to post-breeding dispersal? Why no September and October records? What was the significance of those three late fall records? We really know so little.

Eurasian Collared-Dove (*Streptopelia decaocto*)

A resident and a passage migrant, whilst there were three pairs in 2004, there were probably only two pairs in the area for the other years, at the Workshops and at Ponkan Road. Normally one to four a day can be seen near the Workshops and occasionally at other sites. Larger numbers can be found just outside the area by Hogshead Road. I abstracted all the higher counts and once again the pattern of influxes emerged. In this instance the start and finish dates of the various events are more conjecture than fact. There was really no winter passage but there was a “clustered” influx that peaked on December 17 (2006, 2007) with a high count of 18 on December 17, 2006. The early spring passage ran from January 3 (2007) to March 2 (2008), there were seven “clustered” influxes. The first peaked from January 3 (2007) to January 4 (2008) with a high count of eight on January 3, 2007. The next two influxes are indicated by isolated peak counts of seven on January 19, 2005 and six on January 26, 2005. The fourth peaked on February 2 (2004, 2005) with eight on both dates. The fifth peaked from February 6 (2008) to February 8 (2005, 2006) with high counts of seven on February 8, 2006 and February 6, 2008. The sixth peaked from February 12 (2008) to February 14 (2006) with a high count of eight on February 14, 2006. The seventh is indicated by a peak count of five on February 20, 2008. The main spring passage was the strongest event of the year, this passage ran from March 2 (2007) to May 31 (2006), there were ten “clustered” influxes. The first peaked from March 2 (2007) to March 4 (2008) with a high count of seven on March 4, 2008. The second peaked on March 7 (2004, 2007) with a high count of five on March 7, 2007. The third is indicated by a peak count of eight on March 19, 2006. The fourth peaked from April 1 (2008) to April 4 (2007, 2008) with a high count of nine on April 4, 2007. The fifth is indicated by a peak count of four on April 11, 2008. The sixth peaked from April 20 (2005) to April 24 (2004) with high counts of six on April 20, 2005 and 21 on April 24, 2004. The latter was the highest count during this set of five years. The seventh peaked on April 27 (2004, 2007) with a high count of 14 on April 27, 2007. The eighth peaked from May 9 (2008) to May 10 (2006) with a high count of nine on May 10, 2006. The ninth is indicated by a peak count of eight on May 18, 2007. The tenth peaked from May 23 (2007) to May 24 (2006) with five on both dates. I used the rise and fall in the peak counts to identify the end of this passage. The summer appears to run from May 28 (2008) to July 12 (2006), there were seven “clustered” influxes. The first peaked from May 28 (2008) to May 30 (2007) with a high count of six on May 30, 2007. The second is indicated by a peak count of nine on June 4, 2008. The third peaked from June 10 (2007) to June 13 (2008) with a high count of 12 on June 13, 2008. The fourth peaked from June 15 (2008) to June 16

(2006) with a high count of 11 on June 15, 2008. For the rest of this event the high counts bar one came from 2008. The next two influxes are indicated by isolated peak counts of ten on June 22, 2008 and eight on June 29, 2008. The seventh peaked from July 6 (2008) to July 10 (2006) with five on both dates. The early fall passage ran from July 4 (2004) to September 6 (2006), there were five "clustered" influxes. The first peaked from July 14 (2004) to July 19 (2008) with a high count of six on July 19, 2008. The second peaked from July 23 (2005) to July 26 (2006) with a high count of seven on July 26, 2006. The third peaked from July 30 (2006) to August 1 (2008) with a high count of eight on July 30, 2006. The fourth is indicated by a peak count of eight on August 20, 2006. The fifth peaked from August 25 (2005) to August 27 (2003) with a high count of seven on August 25, 2005. The main fall passage ran from September 8 (2006) to November 18 (2005), there were five "clustered" influxes. The first peaked from September 13 (2006) to September 16 (2004) with high counts of seven on September 13, 2006 and September 14, 2003. The second peaked from September 23 (2006) to September 24 (2003) with a high count of ten on September 23, 2006. The third is indicated by a peak count of eight on October 2, 2005. The fourth peaked from October 13 (2004) to October 16 (2007) with a high count of seven on October 16, 2007. The fifth peaked from November 4 (2007) to November 9 (2005) with a high count of eight on November 4, 2007. With the main fall passage it is easier to see just how clustered the peak counts are. Normally with the basic influxes closer together it is harder to see these gaps. There were 34 "clustered" influxes.

White-winged Dove (*Zenaida asiatica*)

Mainly a summer and early fall visitor with the greatest numbers in the early fall, there is no direct evidence that it bred in the survey area but they may have done so at the Sand Farm in 2006. From the late fall to the early spring there were only single records for each event. There were two on November 13, 2005 with five on December 21, 2005 and two on January 2, 2005. The late spring passage was still a minor event, this passage ran from March 7 (2004) to May 11 (2008). In all there were five isolated peak counts and one "clustered" influx. The isolated peak counts were of two on March 7, 2004, two on March 16, 2005, four on March 22, 2006, one on April 7, 2008 and two on April 23, 2004. The "clustered" influx peaked from May 1 (2005) to May 4 (2008) with two on both dates. The summer passage appears to run from May 18 (2007, 2008) to July 7 (2004), there were five "clustered" influxes. The first peaked from May 18 (2007, 2008) to May 21 (2006) with a high count of three on May 21, 2006. The second peaked from June 4 (2006) to June 10 (2007) with one on both dates. The third peaked from June 19 (2006) to June 24 (2007) with a high count of nine on June 24, 2007. The fourth is indicated by a peak count of two on June 28, 2006. The fifth peaked from July 2 (2008) to July 7 (2004) with a high count of seven on July 7, 2004. The early fall passage was the strongest event,

even so this species was not seen every day. This passage ran from July 10 (2006) to September 23 (2006), there were 11 “clustered” influxes. The first is indicated by a peak count of two on July 12, 2006. The second peaked from July 21 (2006, 2008) to July 24 (2004) with a high count of four on July 23, 2005. The third peaked from July 27 (2007) to August 3 (2005) with high counts of three on August 3, 2005 and 22 on July 27, 2007. The latter was the highest count during this set of five years. The fourth peaked from August 5 (2007) to August 8 (2008) with a high count of seven on August 5, 2007. The fifth is indicated by a peak count of nine on August 15, 2007. The sixth peaked from August 21 (2005) to August 24 (2003) with high counts of three on August 21, 2005 and 19 on August 22, 2004. The seventh is indicated by a peak count of five on September 1, 2004. The eighth peaked from September 7 (2005) to September 10 (2003) with a high count of two on September 10, 2003. The last three influxes are indicated by isolated peak counts of two on September 16, 2004, September 23, 2006 and September 30, 2007.

Previously the majority in the fall was noted as flying to the east or south-east but there was no such clear pattern during this set of five years. Only a few more were noted as flying to the east or south-east as against those flying to the west or north-west. The largest flocks were also divided with ten flying to the east on July 25, 2007 with 22 likewise on July 27, 2007. To the west or north-west there were 17 on July 22, 2007 with 18 on August 22, 2004. On the latter date one also flew to the east making a total for 19 for that date.

Mourning Dove (*Zenaida macroura*)

A resident, a passage migrant, a winter visitor and in some years there was a major post-breeding gathering. There were 26 pairs in 2004, whilst there were no counts for the other years the population is unlikely to have changed that much. That fact is important in looking at the numbers that turn up from time to time. The early spring passage ran from January 6 (2005) to March 8 (2006) with a high count of 170 on January 19, 2004. The main spring passage followed and it ran from February 27 (2004) to May 15 (2005) with a high count of 173 on March 4, 2007. This species nests early but the summer is treated as running from May 2 (2008) to July 6 (2005) with a high count of 275 on June 4, 2006. The post-breeding gathering was unusual in that it could overlap much of the summer event. The dates for this event were May 22 (2005) to August 15 (2004, 2007) with a very high count of 2,370 on July 30, 2008. To detail the 2007 influxes, there were 100 on June 29 with 126 on July 1, 235 on July 4, 260 on July 8, 490 on July 11 and 815 on July 13, then 330 seen on July 15. There were 540 on July 18 with 810 on July 20 and 875 on July 22, then 550 seen on August 3 with 140 on August 5. There were 430 on August 8 with 390 on August 10, 290 on August 12 and 180 on August 15. This last influx is placed in the post-breeding gathering but for the other years this influx belongs in the early fall

passage. To detail the 2008 influxes, there were 95 on June 1 with 100 on June 8, 106 on June 11, 120 on June 15, 154 on June 20, 285 on June 22 and 675 on June 29, then 515 seen on July 2 with 385 on July 9 and 280 on July 11. There were 360 on July 13 with 385 on July 16 and 1,815 on July 21, then 390 seen on July 24. There were 660 on July 26 with 1,030 on July 27 and 2,370 on July 30, then 470 seen on August 3 with 255 on August 6, 130 on August 10 and 32 on August 13. The greatest numbers on July 30 were in the fields along Pole Road. I described this gathering in the first analysis. It has not been detailed in the Florida literature. It is likely that this event involves birds gathering before migrating to the north. The early fall passage was still a strong event, the passage ran from August 2 (2006) to October 8 (2005) with a high count of 345 on August 18, 2006. The late fall passage ran from September 28 (2004) to December 4 (2005) with a high count of 196 on November 9, 2005. Finally the winter passage ran from November 23 (2004) to January 18 (2006) with a high count of 182 on December 12, 2007. Nearly all the high counts were greater than the population breeding in the survey area.

The early spring passage ran from January 6 (2005) to March 8 (2006), there were five "clustered" influxes. The first peaked from January 16 (2005, 2007) to January 20 (2006) with a high count of 170 on January 19, 2004. The second peaked from January 28 (2004) to February 2 (2005) with a high count of 124 on February 1, 2008. The third peaked from February 8 (2006) to February 12 (2008) with a high count of 106 on February 9, 2007. The fourth peaked from February 17 (2006) to February 23 (2005) with a high count of 46 on February 17, 2006. The fifth peaked from February 28 (2007) to March 1 (2006) with a high count of 70 on February 28, 2007. The main spring passage ran from February 27 (2004) to May 15 (2005), there were eight "clustered" influxes. The first peaked from March 3 (2004, 2006) to March 6 (2005) with a high count of 173 on March 4, 2007. The second peaked from March 12 (2006) to March 14 (2007) with a high count of 36 on March 14, 2007. The third peaked from March 17 (2008) to March 21 (2007) with a high count of 123 on March 19, 2006. The fourth peaked from March 24 (2008) to March 28 (2007) with a high count of 100 on March 26, 2006. The fifth peaked from April 4 (2004) to April 7 (2008) with a high count of 110 on April 4, 2004. The sixth peaked from April 13 (2007, 2008) to April 14 (2005) with a high count of 115 on April 14, 2005. The seventh peaked from April 21 (2006) to April 26 (2005) with a high count of 117 on April 26, 2005. The eighth peaked from May 1 (2007) to May 2 (2004) with a high count of 56 on May 1, 2007. The summer passage appears to run from May 2 (2008) to July 6 (2005), there were six "clustered" influxes. The first is indicated by a peak count of 37 on May 9, 2008. The second peaked from May 14 (2006) to May 20 (2004) with a high count of 175 on May 20, 2004. The third peaked from May 23 (2008) to May 24 (2006) with a high count of 100 on May 23, 2008. The fourth peaked from May 30 (2004) to June 4 (2006) with a high count of 275 on June 4, 2006. The fifth peaked from June 14 (2006) to June 16 (2004) with a high count of 205 on June 16, 2004. The sixth peaked from June 22 (2007) to June 23 (2006) with a high count of 230 on June 23, 2006. The post-breeding gathering was next and there was a considerable overlap in the dates

between this and the summer passage. This event ran from May 22 (2005) to August 15 (2004, 2007), there were five “clustered” influxes. The first peaked from June 28 (2004) to July 3 (2005) with high counts of 390 on June 28, 2004 and 675 on June 29, 2008. The second peaked from July 12 (2006) to July 14 (2004) with high counts of 435 on July 14, 2004 and 815 on July 13, 2007. The third peaked from July 21 (2008) to July 24 (2004) with high counts of 310 on July 24, 2004, 360 on July 23, 2005, 875 on July 22, 2007 and 1,815 on July 21, 2008. The fourth peaked from July 28 (2006) to August 1 (2004) with high counts of 335 on August 1, 2004, 470 on July 28, 2006 and 2,370 on July 30, 2008. The latter is still the highest count for Zellwood. The previous high count was that of 2,120 on July 8, 2001. Finally the fifth influx is indicated by a peak count of 430 on August 8, 2007. For the other years this last influx fell in the following early fall passage. This passage ran from August 2 (2006) to October 8 (2005), there were six “clustered” influxes. The numbers were now a little lower. The first influx peaked from August 6 (2006) to August 10 (2005) with a high count of 230 on August 10, 2005. The second peaked from August 18 (2006) to August 22 (2007) with a high count of 345 on August 18, 2006. The third peaked from August 26 (2004) to August 30 (2006) with a high count of 240 on August 30, 2006. The fourth peaked from September 10 (2003, 2006) to September 12 (2004) with a high count of 178 on September 12, 2004. The fifth peaked on September 19 (2005, 2007) with a high count of 300 on September 19, 2007. The sixth peaked from September 27 (2006) to September 29 (2003) with a high count of 167 on September 29, 2003. The late fall passage was as it names indicates a yet lighter passage, this ran from September 28 (2004) to December 4 (2005), there were seven “clustered” influxes. The first is indicated by a peak count of 103 on October 3, 2004. The second peaked from October 10 (2007) to October 15 (2006) with a high count of 108 on October 15, 2006. The third peaked from October 19 (2005) to October 24 (2007) with a high count of 137 on October 19, 2005. The fourth peaked from October 30 (2005) to November 1 (2006) with a high count of 143 on October 30, 2005. The fifth peaked from November 5 (2003) to November 9 (2005, 2007) with a high count of 196 on November 9, 2005. The sixth peaked from November 15 (2005) to November 20 (2003) with a high count of 65 on November 20, 2003. The seventh is indicated by a peak count of 36 on November 27, 2005. Finally the winter passage ran from November 23 (2004) to January 18 (2006), there were six “clustered” influxes. The first peaked from November 30 (2007) to December 3 (2003, 2006) with a high count of 37 on December 3, 2003. The second is indicated by a peak count of 74 on December 7, 2005. The third peaked from December 12 (2007) to December 16 (2004) with a high count of 182 on December 12, 2007. The fourth peaked from December 21 (2007) to December 23 (2005) with 31 on both dates. The fifth peaked from December 30 (2004, 2007) to December 31 (2003) with a high count of 165 on December 31, 2003. The sixth peaked from January 3 (2007) to January 9 (2008) with a high count of 125 on January 3, 2007. This is normally such a common species that there were just two dates on which I found none during

the five years. They were not to be found on November 7, 2007 and January 2, 2008. There were 43 “clustered” influxes.

Common Ground-Dove (*Columbina passerina*)

A resident but there were still 43 “clustered” influxes. Numbers were highest in the summer and lowest in the winter, in fact it could be very hard to find during the colder months. This species is in decline nationally but it is widespread at Zellwood with the greatest numbers at the Sand Farm. There were 191 pairs in 2004 the last year of the Breeding Bird Survey. The winter passage ran from November 25 (2007) to January 16 (2005) with a high count of 19 on November 29, 2006. Because these influxes bother me I am detailing more influxes than normal for this resident species. To detail the winter influxes of 2006/2007, there was one on November 24 with 19 on November 29, then ten seen on December 1 with eight on December 6 and three on December 10. There were 13 on December 13 with seven on December 15 and three on December 17. There were eight on December 20 with five on December 29, three on January 3 and one on January 5. The early spring passage ran from January 4 (2004) to March 4 (2006, 2007, 2008) with high counts of 18 on January 21, 2004 and 40 on February 8, 2004. To detail the 2004 influxes, there were 12 on January 4 with 17 on January 14, then eight seen on January 16. There were 16 on January 19 with 18 on January 21, then 17 seen on January 28 with 15 on February 2. There were 29 on February 4 with 40 on February 8, then 31 seen on February 11 with 30 on February 16, 23 on February 18 and 17 on February 22. The main spring passage ran from February 27 (2004) to April 17 (2005) with high counts of 23 on March 3, 2004 and March 28, 2004. Unlike the Mourning Dove there was no post-breeding gathering so the summer passage covered an extended period from April 14 (2004, 2006) to August 13 (2008) with a high count of 82 on May 23, 2004. To detail the 2004 influxes, there were 16 on April 28 with 75 on May 2, then 51 seen on May 10 with 44 on May 14 and 34 on May 16. This is a type 2 influx; I have taken the count of 16 from the previous influx. There were 48 on May 20 with 82 on May 23, then 80 seen on May 30 with 50 on June 2 and 40 on June 6. There were 61 on June 9 with 39 on June 13 and 28 on June 16. There were 41 on June 20 with 20 on June 23. There were 32 on June 28 with 34 on July 2 and 52 on July 4, then 34 seen on July 11 with 24 on July 14. There were 43 on July 18 with 47 on July 21 and 55 July 24, then 51 seen on August 1 with 29 on August 4, 25 on August 9 and 15 on August 11. The early fall passage ran from August 7 (2005) to October 2 (2005) with a high count of 35 on August 8, 2007. Finally the late fall passage ran from September 26 (2007) to November 28 (2003) with a high count of 27 on October 5, 2003. I still have the unanswered question of “if the rise and fall does not relate to passage then what causes this pattern in a resident species?” Finally there was a leucistic individual by Lust Road on July 21, 2006 and July 26, 2006.

The winter passage ran from November 25 (2007) to January 16 (2005), there were four “clustered” influxes. The first peaked from November 29 (2006) to December 1 (2004) with a high count of 19 on November 29, 2006. The second peaked on December 7 (2003, 2005) with a high count of eight on December 7, 2003. The third peaked from December 13 (2006) to December 17 (2007) with a high count of 13 on December 13, 2006. The fourth peaked from December 20 (2006) to December 26 (2003, 2007) with a high count of 12 on December 23, 2005. The early spring passage ran from January 4 (2004) to March 4 (2006, 2007, and 2008), there were seven “clustered” influxes. The first peaked from January 7 (2007) to January 8 (2006) with a high count of 11 on January 8, 2006. The second peaked from January 11 (2008) to January 14 (2004) with a high count of 17 on January 14, 2004. The third peaked from January 19 (2005) to January 25 (2006) with a high count of 18 on January 21, 2004. The fourth peaked from January 30 (2005) to February 4 (2008) with a high count of seven on January 30, 2005. The fifth peaked from February 8 (2004, 2006) to February 10 (2008) with high counts of 11 on February 8, 2006 and 40 on February 8, 2004. The sixth peaked from February 16 (2007) to February 19 (2006) with a high count of 12 on February 19, 2006. The seventh peaked from February 22 (2008) to February 25 (2007) with a high count of 12 on February 23, 2005. The main spring passage followed from February 27 (2004) to April 17 (2005), there were six “clustered” influxes. The first peaked from March 3 (2004) to March 5 (2006) with a high count of 23 on March 3, 2004. The second peaked from March 13 (2005) to March 17 (2006) with a high count of 15 on March 13, 2005. The third peaked from March 21 (2008) to March 24 (2005) with a high count of 21 on March 24, 2005. The fourth peaked from March 28 (2004, 2007) to March 30 (2008) with a high count of 23 on March 28, 2004. The fifth peaked from April 4 (2007) to April 6 (2005) with a high count of 15 on April 4, 2007. The sixth peaked from April 11 (2008) to April 16 (2007) with a high count of 15 on April 11, 2008. Now we come to the summer event, with no obvious post-breeding gathering this was an extended event which ran from April 14 (2004, 2006) to August 13 (2008), there were 14 “clustered” influxes. That is the highest number yet for a single event. The first peaked from April 20 (2005, 2008) to April 21 (2004, 2007) with high counts of 36 on April 20, 2005 and April 21, 2004. The second peaked from April 25 (2006) to April 27 (2008) with a high count of 39 on April 25, 2006. The third peaked from May 2 (2004) to May 4 (2007, 2008) with a high count of 75 on May 2, 2004. The fourth is indicated by a peak count of 32 on May 13, 2007. The fifth peaked from May 21 (2006) to May 27 (2007) with high counts of 55 on May 21, 2006 and 82 on May 23, 2004. This was the highest count during this set of five years. The highest count actually is that of 111 on May 21, 2003. Note the closeness of the dates. The sixth peaked from May 31 (2006) to June 1 (2008) with a high count of 38 on May 31, 2006. The seventh peaked from June 5 (2005) to June 11 (2008) with high counts of 61 on June 9, 2004 and 63 on June 5, 2005. The eighth peaked from June 20 (2004) to June 21 (2006) with high counts of 41 on June 20, 2004 and 66 on June 21, 2006. The ninth peaked from June 25 (2008) to June 27 (2007) with a high count of 30 on June 25, 2008.

The tenth peaked from July 2 (2006, 2008) to July 4 (2004) with a high count of 52 on July 4, 2004. The 11th is indicated by a peak count of 38 on July 8, 2007. The 12th peaked from July 14 (2006) to July 15 (2007) with a high count of 45 on July 14, 2006. The 13th peaked from July 23 (2006) to July 27 (2007) with high counts of 60 on July 23, 2006 and 65 on July 27, 2007. The 14th peaked from July 30 (2008) to August 2 (2006) with a high count of 46 on August 2, 2006. The early fall passage ran from August 7 (2005) to October 2 (2005), there were six “clustered” influxes. Numbers were now much lower. The first influx peaked from August 8 (2007) to August 10 (2005) with a high count of 35 on August 8, 2007. The second peaked from August 20 (2006) to August 22 (2004) with a high count of 24 on August 20, 2006. The third peaked from August 27 (2003, 2006) to August 28 (2005) with a high count of 30 on August 28, 2005. The fourth peaked from September 1 (2004) to September 3 (2006) with a high count of 28 on September 2, 2007. The fifth peaked from September 9 (2007) to September 10 (2006) with a high count of 22 on September 10, 2006. The sixth peaked from September 16 (2007) to September 19 (2003, 2005) with a high count of 25 on September 19, 2003. Finally there was the late fall passage, this event ran from September 26 (2007) to November 28 (2003), there were six “clustered” influxes. The first peaked from September 26 (2007) to September 27 (2006) with a high count of 13 on September 27, 2006. The second peaked from October 3 (2004) to October 8 (2005) with a high count of 27 on October 5, 2003. The third peaked from October 10 (2007) to October 15 (2003, 2006) with a high count of 14 on October 15, 2003. The fourth peaked from October 21 (2005, 2007) to October 26 (2003) with a high count of 14 on October 21, 2005. The fifth peaked from November 2 (2005) to November 5 (2006) with a high count of ten on November 4, 2007. The sixth peaked from November 14 (2007) to November 18 (2005) with a high count of 11 on November 15, 2006. These were some of the lowest counts for the year.

Cockatiel (*Nymphicus hollandicus*)

An exotic, an escaped cage bird that appears to visit the area every now and then, in its native Australia the preferred habitat is trees by water and that is the habitat that I find it in from time to time. Even these birds bred in captivity know the kind of habitat to look for. There was one by Lake Apopka south of Hooper Farms Road extension on March 30, 2005. On September 12, 2007 one flew south over the Nursery. Finally there was one by Lake Apopka just to the south of the Lust Road pump house on April 9, 2008. This one was in cattails as there were no trees at that location.

Black-billed Cuckoo (*Coccyzus erythrophthalmus*)

A very rare passage migrant, just three late fall records for this set of five years. There was an immature at the Sand Farm on October 21, 2004. There was an adult at Canal Road on October 21, 2005. Note the identical dates. Finally there was an adult at the Nursery on September 29, 2006.

Yellow-billed Cuckoo (*Coccyzus americanus*)

A summer visitor and passage migrant; the spring passage can be a much extended event which causes problems with the analysis as the locally breeding birds are already on territory as the more northerly breeding birds continue to pass through. In 2004 there were 49 pairs with pairs breeding in the wooded borders and out in the elderberry filled fields. I do not have any counts for the later years although I would expect the numbers to fall as the fields were cleared. The spring passage appears to run from April 11 (2008) to May 31 (2006) with an extension to June 19 in 2005. The highest count was that of 16 on May 21, 2006. To detail the 2006 influxes, there were two on April 14 with five on April 21, six on April 23 and ten on April 25, then six seen on April 28 with five on April 30. There were 14 on May 3 with five on May 7, four on May 10 and three on May 12. There were five on May 14 with ten on May 17 and 16 on May 21, then 14 seen on May 28 with 13 on May 31. The summer passage ran from May 13 (2004) to July 26 (2006) with high counts of 16 on May 30 (2004) and 52 on June 8, 2006. To continue detailing the 2006 influxes, there were 29 on June 4 with 52 on June 8, then 16 seen on June 11 with nine on June 14. There were ten on June 16 with 12 on June 19, then eight seen on June 21 with seven on June 23. There were 11 on June 25 with five on June 28. There were seven on June 30 with eight on July 2 and nine on July 5, then seven seen on July 10. There were eight on July 12 with nine on July 14, then six seen on July 19 with four on July 21 and two on July 26. Numbers were lower and declining through the early fall passage which ran from July 19 (2008) to September 3 (2006). The highest count was that of six on August 4, 2004. The late fall passage was a minor event with passage from September 7 (2007) to November 7 (2004), the highest count was that of three on October 17, 2004.

The spring passage ran from April 11 (2008) to May 31 (2006) with an extension to June 19 in 2005, there were five "clustered" influxes. The first peaked from April 11 (2008) to April 13 (2007) with one on both dates. The second peaked from April 23 (2004) to April 25 (2006) with a high count of ten on April 25, 2006. The third peaked from April 29 (2007) to May 4 (2008) with a high count of 14 on May 3, 2006. The fourth peaked from May 13 (2007) to May 16 (2004) with a high count of 14 on May 15, 2005. The fifth peaked from May 20 (2007) to May 21 (2006) with a high count of 16 on May 21, 2006. The summer passage ran from May 13

(2004) to July 26 (2006), there were six “clustered” influxes. The first peaked from May 27 (2007) to May 30 (2004, 2008) with a high count of 16 on May 30, 2004. The second peaked from June 8 (2006) to June 13 (2008) with high counts of 14 on June 13, 2008 and 52 on June 8, 2006. The latter is still the highest count for Zellwood. The higher counts on June 4 and June 8, 2006 have to relate to passage. It is possible that there were an additional 16 birds on June 4 with 37 extra on June 8. As this very late spring passage only involved two days of an otherwise normal summer influx I have kept it as a summer influx. The third is indicated by a peak count of 12 on June 19, 2006. The fourth peaked from June 24 (2007) to June 26 (2005) with a high count of 11 on June 25, 2006. The fifth peaked from July 5 (2006) to July 6 (2005, 2007) with high counts of nine on July 6, 2005 and July 5, 2006. The sixth peaked from July 11 (2008) to July 14 (2006) with a high count of nine on July 14, 2006. The early fall passage came next, the passage ran from July 19 (2008) to September 3 (2006), there were five “clustered” influxes. The first peaked from July 19 (2008) to July 22 (2007) with five on both dates. The second peaked from July 28 (2006) to August 4 (2004) with a high count of six on August 4, 2004. The third peaked from August 8 (2006) to August 10 (2005, 2007) with high counts of three on August 10, 2005 and August 8, 2006. The fourth peaked from August 16 (2004) to August 20 (2006) with a high count of four on August 16, 2004. The fifth peaked from August 24 (2003) to August 30 (2006) with a high count of two on August 30, 2006. Finally the late fall passage ran from September 9 (2007) to November 7 (2004), there were six “clustered” influxes. The first peaked from September 9 (2007) to September 12 (2005) with one on both dates. The second is indicated by a peak count of two on September 23, 2006. The third peaked from September 30 (2007) to October 3 (2004) with a high count of two on October 3, 2004. The fourth peaked from October 6 (2006) to October 9 (2003) with a high count of two on October 6, 2006. The fifth is indicated by a peak count of three on October 17, 2004. The sixth peaked from October 29 (2007) to November 3 (2004) with a high count of two on November 3, 2004. To detail the latest records: in 2004 there was passage through October and the last influx consisted of one on October 31 with two on November 3 and one on November 7, then in 2007 there had been one on October 7 with the late bird on October 29.

Groove-billed Ani (*Crotophaga sulcirostris*)

An irregular passage migrant and winter visitor there being records for three of the five years. For the late fall passage there was one at the Sand Farm on October 12, 2005. In 2003 there was also one at the Sand Farm from November 2 to November 16 with three on November 12. For the winter passage there was one at the Sand Farm on December 9, 2005. There was one by the Lake Level Canal from December 27, 2004 to January 9, 2005. For the early spring passage there was one by the Lake Level Canal from January 19, 2005 to January 30,

2005. On the latter date there were four near the Lust Road gate with four there again on February 2. There were six on February 6 but none seen after that date. Too much pressure from bird-watchers probably caused their departure from this site. The count of six on February 6, 2005 is still the highest count for Zellwood.

Barn Owl (*Tyto alba*)

I thought this was a resident until I started to look for patterns in the higher counts. This species was nesting in the derelict buildings that were scattered through the fields. As these buildings were torn down nest boxes were put up nearby and at other sites through the property. A total of six pairs located in 2004, whilst I have no information for the other years the number of pairs is likely to be markedly higher with nest boxes scattered through the area. On looking at the higher counts there were two very different scenarios. From January to September this species is clearly a resident, the number of birds seen often in the range of one to four. In the early spring the highest count was that of 13 on January 14 (2007). To detail that influx, there were seven on January 3 with eight on January 5, ten on January 10 and 13 on January 14, then seven seen on January 16 with six to January 26 and four on January 31. There was no influx in any of the other years that linked up with this one. The late spring passage had a high count of nine on April 1, 2007. The summer had a single "influx" in 2004 with a high count of eight on June 16. To detail that event, there were four on May 30 with six on June 6, then eight seen on June 16 and June 28 with six on July 2 and five on July 4. Whilst there might have been a real influx in January, 2007 this is more the record of the summer as a whole. The early fall passage had a peak count of 14 on September 1, 2003. To detail that influx, there were seven on August 20, 2003 with nine on August 24 and 14 on September 1, then 12 seen on September 3 with six on September 7 and four on September 10. This does look like a real influx but there were no linking influxes during that passage. Now everything changes it switches from a series of passages where there might be a single event that could be singled out and described to a normal passage with a series of influxes, this I had not expected. The main fall passage had a high count of 16 on October 12, 2003. This was a two day event with 16 on October 12, 2003 and ten on October 19, 2003. The winter passage had high counts of 17 on December 21, 2007 and 25 on December 22, 2006. The 2006 counts represent a night time drive from Lust Road gate via Lust, Pole, Roach roads and the Lake Level Canal Road to the Sand Farm Bridge. This route taken in 2006 cannot now be copied as Roach Road extension has been removed. To detail both influxes, there were 25 on December 22, 2006 with 17 on December 29, 2006. Only low numbers then seen, these I detailed for the early spring passage. There were 17 on December 21, 2007 with 11 on December 30 and eight on January 4. Throughout this text

I have only detailed the higher counts as the lower counts were ambiguous. This also means that I cannot give start and finish dates for the various passages.

Bearing in mind the last comments the main fall passage consisted of four “clustered” influxes. The first is indicated by a peak count of 16 on October 12, 2003. The second peaked from October 19 (2007) to October 21 (2005) with a high count of six on October 21, 2005. The third peaked from November 7 (2004) to November 9 (2007) with six on both dates. The fourth peaked from November 20 (2005) to November 23 (2004, 2007) with a high count of seven on November 20, 2005. The winter passage consisted of two “clustered” influxes. The first peaked from December 16 (2005) to December 17 (2003) with eight on both dates. The second peaked from December 21 (2007) to December 22 (2006) with high counts of 17 on December 21, 2007 and 25 on December 22, 2006. The latter is still the highest count for Zellwood.

Eastern Screech-Owl (*Otus asio*)

This species is as far as I know a resident and nothing else. I do not use recordings so I have to rely on the occasional calling bird. In all over the five years I heard singles on 23 dates. There is a pattern to the calling. A total of seven were heard calling from December 30 (2007) to February 7 (2007) with a peak from January 24 (2007) to January 25 (2004, 2006). There were also singles on February 15, 2008, February 28, 2007, March 4, 2008, March 13, 2005, March 26, 2008 and April 24, 2007. No more were heard until September. The fall records fall into two periods with seven from September 9 (2004) to September 29 (2006) and three from October 25 (2006) to November 9 (2007). Of the September records four were from September 23 to September 29. The pattern is interesting but I do not know what it means if anything.

Great Horned Owl (*Bubo virginianus*)

Another resident species with one possible exception, on October 9, 2003 a gray individual showing the characteristics of the western race *B.v. pallescens* was seen just to the north of the Hooper Farms Road gate. In 2004 a total of 13 pairs were located in the wooded borders, that number is probably little changed. This species was not located every day, especially during the summer, counts of one to three were normal. Again I have taken a look at the higher counts and there are groupings. This is a winter nester so I would expect the majority of the higher counts to be at that season. The first group ran from September 9 (2007) to October 15 (2006) with high counts of seven on September 10, 2006 and eight on October 15, 2006. This seems early for nesting activity so perhaps there were a few immigrants creating the need for more territories, hence their greater visibility to me. The gray individual would tend to

support this. The breeding season records fall into three groups but these groupings may not be real, just chance. The first group ran from November 9 (2007) to November 25 (2007) with a high count of six on November 19, 2006. The second group ran from December 9 (2007) to December 27 (2007) with a high count of five on December 17, 2006. The third group ran from January 8 (2006) to February 10 (2006) with a high count of ten on January 30, 2005. This is still the highest count for Zellwood. Finally there were four on March 10, 2006 and March 12, 2006.

Barred Owl (*Strix varia*)

This is another resident species with three pairs in 2004. In earlier years the population had ranged from two to four pairs. There were only 17 counts of four or more for the five years. All but three of the higher counts fell into the period December 4 (2005) to April 24 (2005), the highest counts were of six on December 28, 2007 and seven on March 13, 2005. This all fits in with the early spring breeding season. There always appears to be an exception and in this case it relates to October, 2006. In that month there were higher counts of 11 on October 8, five on October 11 and six on October 13. The count of 11 is still the highest count for Zellwood. (I am writing this in January 2011). I think that this had to be a migratory party; it is so far out of the ordinary pattern for that time of year.

Long-eared Owl (*Asio otus*)

This is a vagrant anywhere in Florida. There is now a Zellwood record, as there was one on January 11, 2004. It was in a line of trees on the western side of the Sod Farm, initially it was quite low down in thick cover next to a tree trunk being mobbed by two Gray Catbirds. Whether it was the mobbing or my presence that caused it to take off, but it flew over the track towards the Nursery.

Short-eared Owl (*Asio flammeus*)

A regular passage migrant and winter visitor in small numbers, when more than one present in the area they can often be heard calling, a situation that has not been recorded often in Florida at other locations. I did not locate any actual roost sites but they probably roosted near or at the same site as the Northern Harriers. Seen in the late fall from November 7 (2004) to December 6 (2006), there were three "clustered" influxes. The first is indicated by a peak count of one on November 7,, 2004. The second peaked from November 16 (2007) to November 20 (2005) with a high count of four on November 20, 2005. The third peaked from

November 26 (2006) to December 1 (2003) with two on both dates. The winter passage appears to be a separate event, the passage ran from December 8 (2006) to January 4 (2004, 2008), there were four "clustered" influxes. The first peaked from December 8 (2006) to December 9 (2003) with one on both dates. The second is indicated by a peak count of one on December 13, 2005. It is these three counts of singles that makes me treat this as separate from the fall passage. With such a late starting fall passage these two events often run as one. The third peaked from December 17 (2007) to December 19 (2004) with a high count of four on December 19, 2004. The fourth peaked from December 26 (2003) to December 30 (2007) with high counts of three on December 30, 2007 and nine on December 29, 2006. The latter is still the highest count for Zellwood. The early spring passage followed from December 30 (2004) to March 6 (2005), there were six "clustered" influxes. The first peaked from January 6 (2005) to January 7 (2007) with a high count of six on January 6, 2005. The second peaked on January 14 (2004, 2008) with a high count of two on January 14, 2008. The third peaked from January 24 (2005) to January 26 (2007) with a high count of six on January 24, 2005. The fourth peaked from February 6 (2005) to February 11 (2007) with a high count of four on February 6, 2005. The fifth is indicated by a peak count of one on February 22, 2008. The sixth peaked from February 28 (2005) to February 29 (2004) with a high count of two on February 28, 2005. There were later records as two noted on March 10, 2005 and March 16, 2005 with singles to April 6, 2005. There was one from April 8, 2007 to April 13, 2007. Finally on January 26, 2007 one of three seen on that date left to the north-west climbing high at 07.00 hours.

Lesser Nighthawk (*Chordeiles acutipennis*)

This is a vagrant even though there were three records for this five year period. There was one on December 5, 2004 hunting at dusk near the lake end of the Laughlin Road extension. There was also one at the Sand Farm Bridge on December 7, 2005. Finally there was one by the Lust Road gate on January 12, 2007. Note the closeness in the December dates.

Common Nighthawk (*Chordeiles minor*)

A summer visitor and passage migrant, it has wintered. It nests in some of the more open border areas and out in the fields especially those that were roller-chopped during the previous winter. There were 16 pairs in 2004 but I have no counts for the later years. I am not very sure about the first and last dates of the various events. The highest counts are of little help this time. I believe that the spring passage may have run from April 11 (2007) to June 20 (2008), there were six "clustered" influxes. The first is indicated by a peak count of five on April 19, 2006. The second peaked on April 25 (2004, 2006) with a high count of ten on April 25, 2004.

The third peaked from May 1 (2005) to May 4 (2007, 2008) with a high count of 12 on May 1, 2005. The fourth peaked on May 10 (2004, 2006) with a high count of seven on May 10, 2004. The fifth is indicated by a peak count of three on May 16, 2007. The sixth peaked from May 19 (2006) to May 23 (2004, 2008) with a high count of 11 on May 23, 2004. The summer passage appears to run from May 29 (2005) to August 8 (2006), there were seven “clustered” influxes. The first is indicated by a peak count of seven on May 29, 2005. The second peaked from June 8 (2007) to June 11 (2006) with a high count of seven on June 9, 2004. The third peaked from June 22 (2007) to June 26 (2005) with a high count of nine on June 26, 2005. The fourth peaked from June 29 (2008) to July 4 (2004) with a high count of five on June 29, 2008. The fifth is indicated by a peak count of three on July 10, 2006. The sixth peaked from July 14 (2005) to July 16 (2008) with a high count of five on July 14, 2005. The seventh peaked from July 24 (2004) to July 26 (2006) with three on both dates. The early fall passage may run from July 30 (2008) to September 23 (2006), there were six “clustered” influxes. The first peaked from July 30 (2008) to July 31 (2005) with a high count of two on July 31, 2005. The second peaked from August 13 (2006) to August 16 (2004) with a high count of three on August 16, 2004. The third peaked from August 24 (2003, 2007) to August 25 (2005) with a high count of two on August 25, 2005. The fourth peaked from September 1 (2006) to September 3 (2003) with a high count of four on September 1, 2006. The fifth peaked from September 7 (2005) to September 8 (2006) with a high count of 50 on September 8, 2006. This was the highest count during this set of five years. The sixth peaked from September 16 (2004, 2007) to September 17 (2006) with a high count of 16 on September 16, 2007. There were a few later records. There were singles on September 29, 2003, October 12, 2003 and October 2, 2005. Finally there were five on September 27, 2006 with one on October 8, 2006. Surprisingly that is not the end of it as there was one by the Lust Road gate on December 3, 2003. Then there were two from December 28, 2005 to January 18, 2006 with three from January 25, 2006 to February 17, 2006, then singles seen to February 27, 2006. There were two on March 1, 2006 with one on March 5, 2006. Finally there were three on March 10, 2006 with one on March 15, 2006. Initially sightings were by the Hooper Farms Road gate but later I saw them from the Lust Road gate. They were hunting at dusk over the woods between Lust and Hooper Farms Roads. I cannot be certain that there were not different sets of birds at each end of the wood. One problem inherent with the fall records is that I am not at Zellwood at dusk. I start whilst it is still dark in the morning so it is only in the late fall that I may be able to see these birds at dusk.

Chuck-will's-widow (*Caprimulgus carolinensis*)

This is a summer visitor with pairs nesting in the wooded borders. A total of 20 pairs located in 2004. I do not have information for the later years but it is likely to be similar.

Nocturnal species are always a problem, in this case because I cannot be in two places at once. I want to be at the Sand Farm Cattail Marsh listening for bitterns and rails whilst at the same time I should be on the northern border listening for these birds. In 2010 I started at Canal Road from March to July and this species stayed in song until July 23. The split that I have made between the spring and the summer is conjectural. The spring passage ran from March 19 (2006) to May 20 (2008) with high counts of 13 on March 30, 2005, March 28, 2008 and April 4, 2007. To detail the 2004 influxes, there was one on March 22 with nine on March 28 and ten on March 31, then six seen on April 4 with four on April 7. There were eight on April 18 with six on April 23. There were ten on April 25 with 11 on April 28, then three seen on May 2. The summer passage appears to run from April 30 (2005) to July 1 (2005) with a high count of 16 on May 23, 2004. To detail the 2004 influxes, there were five on May 5 with 11 on May 10, 13 on May 20 and 16 on May 23, then singles seen to May 30. There were three on June 2 with one on June 6. This species is near impossible to locate unless they are calling and that depends on the weather and the phase of the moon. There were three fall records of singles at the Nursery on August 19, 2004, August 24, 2007 and October 1, 2006.

The spring passage appeared to run from March 19 (2006) to May 20 (2008), there were potentially eight “clustered” influxes. The first is indicated by a peak count of two on March 19, 2006. The second peaked from March 28 (2008) to March 31 (2004) with high counts of 13 on March 28, 2008 and March 30, 2005. The next three influxes are indicated by isolated peak counts of 13 on April 4, 2007, four on April 11, 2008 and eight on April 18, 2004. The sixth peaked from April 23 (2006) to April 24 (2005) with a high count of nine on April 24, 2005. The last two influxes are indicated by isolated peak counts of 11 on April 28, 2004 and five on May 11, 2008. The summer passage appears to run from April 30 (2005) to July 1 (2005), there were four “clustered” influxes. The first peaked from May 15 (2005) to May 17 (2006) with a high count of nine on May 15, 2005. The second peaked on May 23 (2004, 2008) with high counts of two on May 23, 2008 and 16 on May 23, 2004. The latter is still the highest count for Zellwood. The third peaked from June 2 (2004) to June 5 (2005) with a high count of six on June 5, 2005. The fourth is indicated by a peak count of nine on June 26, 2005. There were also three fall records, all from the Nursery. There were singles on August 19, 2004, August 24, 2007 and October 1, 2006. This is an under-recorded species.

Eastern Whip-poor-will (*Caprimulgus vociferus*)

A very under-recorded passage migrant and winter visitor most have been heard calling either from the northern border or from the Sand Farm. Noted in the fall from September 10 (2003) to November 22 (2005), there were seven “clustered” influxes. The first is indicated by a peak count of one on September 10, 2003. The second peaked from September 16 (2004) to

September 17 (2006) with one on both dates. The third peaked from September 28 (2004) to October 1 (2006) with one on both dates. The fourth is indicated by a peak count of two on October 12, 2005. The fifth peaked from October 24 (2007) to October 28 (2005) with a high count of two on October 28, 2005. The sixth peaked from November 5 (2006) to November 9 (2003) with a high count of four on November 5, 2006. This was the highest count during the first ten years of the survey. The seventh peaked from November 17 (2006) to November 22 (2005) with one on both dates. The winter passage followed from December 5 (2004) to January 8 (2006), there were three "clustered" influxes. The first peaked from December 5 (2004) to December 9 (2005) with a high count of two on December 7, 2003. The second peaked from December 19 (2005) to December 20 (2006) with one on both dates. The third peaked from January 4 (2004) to January 6 (2005) with a high count of two on January 6, 2005. This last influx might just belong to the early spring passage in which case the only date that would change is the start of the early spring passage, it would come forward to January 4 (2004). With just three influxes the winter passage shows the clustering of the peak counts well, this is harder to see when there is a series of basic influxes. The early spring passage was very limited indeed, never the less it was interesting. In 2004 there was one that stayed from January 19 to February 2 and in 2005 another, or the same returning bird did likewise for the same period i.e. January 19 to February 2. In 2007 there was one on January 19...The only other record relates to one on February 5, 2006. There was a main spring passage that tended to involve singing birds on the northern border. This passage ran from March 14 (2004) to April 6 (2005), there were two "clustered" influxes. The first peaked from March 14 (2004) to March 19 (2006) with a high count of two on March 15, 2008. The second peaked from March 28 (2004, 2008) to March 30 (2005, 2007) with a high count of two on March 28, 2004.

Chimney Swift (*Chaetura pelagica*)

For the most part a fall passage migrant with smaller numbers in the spring, it did not breed in the survey area but it will have done so in the township of Zellwood immediately to the north. The spring passage ran from March 27 (2005) to June 8 (2007) with a high count of 450 on April 15, 2008. Numbers were very low during the summer, this event ran from May 29 (2005) to July 18 (2007) with a high count of 13 on June 23, 2006 and June 29, 2007. There appeared to be a single extended fall passage from July 7 (2004) to October 31 (2004) with high counts of 1,200 on September 6, 2006, 1,840 on September 10, 2003 and 6,800 on October 11, 2004. To detail the individual influxes in which these peak counts occurred. In 2003 there were 34 on August 20 with 143 on August 27, 260 on September 1 and 1,840 on September 10, then 220 seen on September 14 with nine on September 16. In 2004 there were 34 on October 6 with 6,800 on October 11, then 12 seen on October 13 with nine on October 17. In 2006 there

were ten on August 20 with 92 on August 23, 150 on August 30 and 1,200 on September 6, then 170 seen on September 10 with 34 on September 13. These one day peak counts appear to be a signature of this species. It is likely that this species normally migrates at a great height in both the spring and the fall and it is only when conditions are adverse that we see them briefly.

Seen in the spring from March 27 (2005) to June 8 (2007), there were six “clustered” influxes. The first peaked from April 3 (2005) to April 4 (2004) with high counts of four on April 3, 2005 and 360 on April 4, 2004. The second peaked from April 15 (2008) to April 16 (2007) with high counts of 18 on April 16, 2007 and 450 on April 15, 2008. The third peaked from April 20 (2005) to April 25 (2006, 2008) with a high count of 16 on April 20, 2005. The fourth peaked from May 7 (2007) to May 9 (2008) with a high count of nine on May 9, 2008. The fifth peaked from May 14 (2004, 2006) to May 15 (2005) with a high count of 46 on May 14, 2004. The sixth peaked from May 20 (2008) to May 26 (2004) with a high count of 20 on May 26, 2004. The summer passage was a minimal event with passage from May 29 (2005) to July 18 (2007), there were five “clustered” influxes. The first peaked from May 29 (2005) to June 1 (2008) with a high count of six on May 29, 2005. The second peaked from June 8 (2006) to June 11 (2008) with a high count of eight on June 11, 2008. The third peaked from June 20 (2004) to June 23 (2006) with a high count of 13 on June 23, 2006. The fourth peaked from June 29 (2007, 2008) to July 2 (2006) with a high count of 13 on June 29, 2007. The fifth is indicated by a peak count of six on July 8, 2007. Next came the extended fall passage which ran from July 7 (2004) to October 31 (2004), in all there were 13 “clustered” influxes. The first is indicated by a peak count of four on July 13, 2008. The second peaked from July 18 (2004) to July 23 (2005) with a high count of 46 on July 23, 2005. The third peaked on August 1 (2004, 2008) with a high count of 85 on August 1, 2008. The fourth peaked from August 10 (2007) to August 13 (2006, 2008) with a high count of 330 on August 13, 2006. The fifth peaked from August 19 (2007) to August 25 (2005) with a high count of 785 on August 25, 2005. The sixth peaked from August 29 (2004) to August 31 (2007) with a high count of 58 on August 29, 2004. The seventh peaked from September 6 (2006) to September 7 (2007) with high counts of 34 on September 7, 2007 and 1,200 on September 6, 2006. The eighth peaked from September 10 (2003, 2006) to September 16 (2004) with high counts of 360 on September 12, 2005 and 1,840 on September 10, 2003. The ninth peaked from September 23 (2007) to September 24 (2003) with a high count of 87 on September 23, 2007. The tenth peaked from September 29 (2006) to October 5 (2003) with a high count of 210 on September 29, 2006. The 11th is indicated by a peak count of 6,800 on October 11, 2004. This was the highest count during the first ten years of the survey. The 12th peaked from October 17 (2007) to October 21 (2004) with a high count of 145 on October 17, 2007. The 13th peaked from October 26 (2006) to October 29 (2007) with a high count of 40 on October 26, 2006.

Ruby-throated Hummingbird (*Archilochus colubris*)

An irregular visitor to the area, it is a bird of the woods and the suburban gardens not the open fields. In all there were 18 records of 13 birds. For the late spring passage there was one at the Nursery on March 24, 2005. In 2008 there was one at the Nursery from April 20 to May 14 with two there on April 30. They may well have bred at that site as it was a difficult area to work. The count of two was a joint high count for Zellwood, there were also two on August 22, 1971 and October 13, 2002. Surprisingly there were two June records with singles by the Lake Level Canal on June 1, 2008 and at the Sand Farm on June 23, 2004. Seen in the early fall from August 5 (2007) to October 8 (2006), only singles noted. The sightings were at the Sand Farm on August 5, 2007 and August 22, 2004, on the southern border on September 3, 2006, at the Nursery on September 9, 2004 and September 21, 2006, at the Sand Farm on October 2, 2003 and at the Nursery on October 2, 2005 and October 8, 2006.

Belted Kingfisher (*Megaceryle alcyon*)

A passage migrant and winter visitor with most sightings at the Sand Farm Cattail Marsh, the Lake Level Canal and the shore of Lake Apopka. With the flooding of the fields south of the McDonald Canal and west of Laughlin Road this species now has a much larger area of suitable habitat. When I initially looked at the records for this species I thought that there was little passage as the numbers did not vary much instead I found a host of basic influxes. There was one on June 20, 2008 and June 22, 2008, I am treating this as a fall record. The early fall passage then ran from July 4 (2004) to September 28 (2004) with high counts of eight on September 8, 2006, September 12, 2005 and September 15, 2006. The main fall passage ran from September 21 (2006, 2007) to December 5 (2004) with a high count of 24 on November 3, 2004. To detail the 2004 influxes, there were two on October 6 with three on October 13, five on October 17, six on October 21, seven on October 24, eight on October 27, 21 on October 31 and 24 on November 3, then 12 seen on November 7. There were 13 on November 10 with 19 on November 14, then 17 seen on November 17 with 14 on November 28 and 11 on December 5. The winter passage ran from December 1 (2003, 2006) to January 19 (2005) with a high count of 15 on December 7, 2004. The early spring passage ran from January 11 (2008) to March 10 (2004, 2005) with high counts of 13 on five dates. There was a heavier passage in March with much lower numbers in April. Despite the initially high counts I treat this as the late spring passage, this event ran from March 1 (2006) to May 9 (2007, 2008) with a high count of 18 on March 15, 2008.

There was one on June 20, 2008 and June 22, 2008, this I treat as a fall record. Otherwise the early fall passage ran from July 4 (2004) to September 28 (2004), there were nine

“clustered” influxes. The first is indicated by a peak count of one on July 4, 2004. The second peaked from July 10 (2006) to July 13 (2008) with one on both dates. The third peaked from July 21 (2004) to July 23 (2005) with a high count of three on July 23, 2005. The fourth peaked from August 4 (2004) to August 10 (2008) with a high count of three on August 4, 2004. The fifth peaked from August 16 (2004) to August 20 (2003) with a high count of two on August 16, 2004. The sixth peaked on August 25 (2005, 2006) with a high count of six on August 25, 2006. The seventh is indicated by a peak count of six on August 31, 2007. The eighth peaked from September 8 (2006) to September 12 (2005) with eight on both dates. The ninth peaked from September 15 (2006) to September 19 (2003, 2004) with a high count of eight on September 15, 2006. The main fall passage ran from September 21 (2006, 2007) to December 5 (2004), this also had nine “clustered” influxes. The first peaked from September 26 (2007) to September 27 (2006) with a high count of 16 on September 27, 2006. The second peaked from October 2 (2003) to October 6 (2006) with a high count of 13 on October 6, 2006. The third peaked from October 12 (2003, 2007) to October 13 (2006) with a high count of 13 on October 12, 2007. The fourth peaked from October 16 (2005) to October 22 (2003) with a high count of 13 on October 19, 2007. The fifth peaked from October 27 (2006) to October 29 (2007) with a high count of 18 on October 29, 2007. The sixth peaked from November 2 (2003) to November 4 (2007) with high counts of 15 on November 4, 2007 and 24 on November 3, 2004. The latter was the highest count during the first ten years of this survey. The seventh peaked from November 11 (2007) to November 14 (2004) with a high count of 19 on November 14, 2004. The eighth peaked from November 17 (2006) to November 21 (2007) with a high count of 14 on November 20, 2005. The ninth is indicated by a peak count of ten on November 27, 2005. This was followed by the winter passage, this ran from December 1 (2003, 2006) to January 19 (2005), there were six “clustered” influxes. The first peaked from December 1 (2006) to December 3 (2003) with a high count of 13 on December 1, 2006. The second peaked on December 7 (2004, 2007) with a high count of 15 on December 7, 2004. The third peaked on December 13 (2005, 2006) with a high count of 14 on December 13, 2006. The fourth peaked from December 17 (2007) to December 20 (2006) with a high count of 13 on December 20, 2006. The fifth is indicated by a peak count of 12 on December 26, 2007. The sixth peaked from December 31 (2003) to January 3 (2007) with a high count of 12 on January 3, 2007. The early spring passage ran from January 11 (2008) to March 10 (2004, 2005), there were eight “clustered” influxes. The first peaked from January 11 (2008) to January 16 (2004) with a high count of 13 on January 11, 2008. The second peaked from January 24 (2005) to January 25 (2004) with a high count of 12 on January 24, 2005. The third is indicated by a peak count of 13 on January 30, 2008. The fourth peaked from February 4 (2004, 2008) to February 6 (2005) with a high count of 13 on February 4, 2008. The fifth is indicated by a peak count of 13 on February 9, 2007. The sixth peaked from February 14 (2006) to February 16 (2004) with seven on both dates. The seventh peaked from February 20 (2008) to February 24 (2006) with a high count of 13 on February 21,

2007. The eighth peaked from February 28 (2005) to February 29 (2004) with a high count of nine on February 28, 2005. Counts were higher for the next four weeks. The late spring passage ran from March 1 (2006) to May 9 (2007, 2008), there were seven "clustered" influxes. The first peaked from March 14 (2004, 2007) to March 18 (2005) with a high count of 18 on March 15, 2008. The second is indicated by a peak count of seven on March 21, 2007. The third peaked from March 26 (2008) to March 30 (2007) with a high count of 14 on March 26, 2008. The fourth peaked from April 8 (2007) to April 9 (2008) with a high count of six on April 9, 2008. The fifth peaked from April 14 (2004, 2005) to April 15 (2008) with a high count of four on April 15, 2008. The sixth peaked from April 19 (2006) to April 20 (2005) with a high count of four on April 19, 2006. The seventh peaked on May 7 (2007, 2008) with a high count of two on May 7, 2007. It means nothing but there were 11 high counts of 13.

Red-headed Woodpecker (*Melanerpes erythrocephalus*)

This is an uncommon fall migrant with the majority of the sightings at the Sand Farm, in all there were 15 records of 19 birds for the five years. Exceptionally there was an adult at the Sand Farm on February 22, 2008. On April 14, 2004 an adult flew to the south at the Sand Farm. Excluding these two records the other sightings all fell inside the early fall passage from August 12 (2007) to September 29 (2006). The earliest were two immatures on August 12, 2007. The next four were all adults, there being singles on August 20, 2003, August 20, 2006, August 29, 2007 and August 31, 2005. Now it was the turn of the immatures, there being one on September 1, 200 with three on September 10, 2003, two on September 12, 2004 and one on September 15, 2006. Finally it was back to the adults, there being one on September 21, 2006 with two on September 28, 2004, then singles seen on September 27, 2006 and September 29, 2006. These 2006 records were the only instance of this species stopping off-passage. The separation of the adults and immatures is interesting but it may just be chance. However in some species the different ages do migrate at different times.

Now to the early fall "clustered" influxes, there were six in all. The first is indicated by a peak count of two on August 12, 2007. The second peaked on August 20 (2003, 2006) with one on both dates. The third peaked from August 29 (2007) to September 1 (2004) with one on both dates. The fourth peaked from September 10 (2003) to September 15 (2006) with a high count of three on September 10, 2003. This is still the highest count for Zellwood. The fifth is indicated by a peak count of one on September 21, 2006. The sixth peaked from September 28 (2004) to September 27 (2006) with a high count of two on September 28, 2004.

Red-bellied Woodpecker (*Melanerpes carolinus*)

A resident species but there were indications that at the very least there was a fall passage. I keep looking for a “resident” species that is just that but once again there were the influxes with the “clustered” peak counts. If the counts were spread out I would not treat it as relating to perhaps a veneer of passage. This species breeds in the wooded borders and was venturing out into the fields before the roller-chopping cleared the vegetation. There were 94 pairs in 2004; the number of pairs will be lower now. The summer passage covers an extended period from May 2 (2008) to August 16 (2006) with high counts of 51 on May 16, 2007 and June 25, 2008. Using the peak counts in the fall as a guide there appears to be a single fall passage which ran from August 5 (2007) to December 3 (2003) with a high count of 91 on October 1, 2006. To detail the 2006 influxes, there were 27 on August 18 with 16 on August 25. There were 30 on August 27 with 11 on September 6. There were 24 on September 8 with 28 on September 10, 35 on September 15, 39 on September 17 and 42 on September 21, then 39 seen on September 23 with 37 on September 25. There were 44 on September 27 with 84 on September 29 and 91 on October 1, then 34 seen on October 4. There were 54 on October 6 with 69 on October 8, then 55 seen on October 11 with 47 on October 13, 35 on October 15, 29 on October 20 and 23 on October 27. There were 27 on October 29 with 31 on November 1, then 14 seen on November 5 with 12 on November 8. There were 16 on November 10 with 26 on November 12 and 28 on November 17, then 21 seen on November 19 with 19 on November 24 and ten on November 26. Some of this had to relate to a real fall passage. The winter passage ran from November 27 (2005) to January 19 (2005) with a high count of 51 on December 26, 2007. The early spring passage followed from January 4 (2008) to March 2 (2007) with a high count of 54 on January 28, 2008. Finally there was the main spring passage which ran from February 27 (2006) to May 7 (2006) with an extension to May 23 in 2004, the highest count was that of 57 on April 18, 2008.

The summer passage ran from May 2 (2008) to August 16 (2006), there were ten “clustered” influxes. The first peaked from May 7 (2008) to May 10 (2006) with a high count of 43 on May 7, 2008. The second peaked from May 15 (2005) to May 21 (2006) with a high count of 51 on May 16, 2007. The third peaked from May 26 (2004) to May 30 (2008) with a high count of 40 on May 30, 2008. The fourth peaked from June 8 (2007) to June 11 (2006) with a high count of 34 on June 11, 2006. The fifth peaked from June 22 (2007) to June 28 (2004) with a high count of 51 on June 25, 2008. The sixth peaked from July 4 (2007) to July 5 (2006) with a high count of 31 on July 5, 2006. The seventh peaked from July 13 (2007) to July 14 (2004, 2005) with a high count of 20 on July 13, 2007. The eighth peaked from July 19 (2008) to July 22 (2007) with a high count of 26 on July 22, 2007. The ninth peaked from July 26 (2008) to August 2 (2006) with a high count of 32 on July 29, 2007. The tenth peaked from August 4 (2004) to August 6 (2006, 2008) with a high count of 26 on August 6, 2008. There was a single fall passage

which ran from August 5 (2007) to December 3 (2003), there were 13 “clustered” influxes. The first is indicated by a peak count of 27 on August 12, 2007. The second peaked from August 18 (2006) to August 21 (2005) with a high count of 29 on August 21, 2005. The third peaked from August 24 (2003) to August 27 (2006) with a high count of 30 on August 27, 2006. The fourth peaked from August 31 (2005) to September 2 (2007) with a high count of 40 on September 2, 2007. The fifth is indicated by a peak count of 23 on September 12, 2005. The sixth peaked from September 16 (2007) to September 21 (2006) with 42 on both dates. The seventh peaked from September 29 (2003) to October 3 (2004, 2007) with high counts of 65 on October 3, 2007 and 91 on October 1, 2006. The latter is still the highest count for Zellwood. The eighth peaked from October 8 (2006) to October 10 (2007) with high counts of 58 on October 10, 2007 and 69 on October 8, 2006. The ninth peaked from October 16 (2005) to October 21 (2004) with a high count of 57 on October 16, 2005. The tenth peaked on October 26 (2003, 2005) with a high count of 37 on October 26, 2005. The 11th peaked from October 29 (2007) to November 1 (2006) with a high count of 43 on October 29, 2007. The 12th peaked on November 9 (2003, 2005, 2007) with a high count of 40 on November 9, 2007. The 13th peaked from November 14 (2004) to November 20 (2005) with a high count of 43 on November 18, 2007. The winter passage followed from November 27 (2005) to January 19 (2005), there were six “clustered” influxes. The first peaked from November 27 (2005) to November 30 (2007) with a high count of 46 on November 30, 2007. The second peaked from December 7 (2003) to December 11 (2005) with a high count of 49 on December 9, 2007. The third is indicated by a peak count of 24 on December 17, 2006. The fourth peaked from December 23 (2005) to December 26 (2007) with a high count of 51 on December 26, 2007. The fifth is indicated by a peak count of 35 on December 29, 2006. The sixth peaked from January 4 (2004, 2006) to January 6 (2005) with a high count of 27 on January 5, 2007. The early spring passage ran from January 4 (2008) to March 2 (2007), there were six “clustered” influxes. The first peaked on January 11 (2006, 2008) with a high count of 40 on January 11, 2008. The second peaked from January 18 (2008) to January 21 (2004) with a high count of 54 on January 18, 2008. The third peaked from January 26 (2007) to January 28 (2008) with a high count of 51 on January 28, 2008. The fourth peaked on February 2 (2004, 2005) with a high count of 26 on February 2, 2005. The fifth peaked from February 9 (2007) to February 14 (2006) with 27 on both dates. The sixth peaked from February 20 (2008) to February 23 (2005) with a high count of 51 on February 20, 2008. Finally the main spring passage ran from February 27 (2006) to May 7 (2006) with an extension to May 23 in 2004, there were nine “clustered” influxes. The first peaked from March 1 (2006) to March 3 (2004) with a high count of 52 on March 2, 2008. The second peaked from March 8 (2006) to March 11 (2007) with a high count of 30 on March 8, 2006. The third peaked from March 16 (2005) to March 19 (2004, 2006) with a high count of 32 on March 19, 2006. The fourth is indicated by a peak count of 26 on March 23, 2007. The fifth peaked from March 28 (2004, 2008) to March 30 (2005) with a high count of 55 on March 28, 2008. The sixth peaked from

April 10 (2005) to April 13 (2007) with 28 on both dates. The seventh peaked from April 18 (2008) to April 19 (2006) with a high count of 57 on April 18, 2008. The eighth peaked from April 24 (2007) to April 27 (2008) with a high count of 41 on April 27, 2008. The ninth peaked from May 2 (2004) to May 3 (2006) with a high count of 35 on May 2, 2004. This time 51 is the magic number, there were five counts. There were 44 “clustered” influxes.

Yellow-bellied Sapsucker (*Sphyrapicus varius*)

Passage migrant and winter visitor to the wooded borders, information during the first five years was limited as I had to work the outside of the various pieces of woodland. From the summer of 2004 I had access to the Nursery a 300 acre oak wood near Jones Avenue, now I could provide a better picture. In the early fall there were singles on August 27, 2006, September 19, 2005 and September 28, 2004. The sighting on August 27, 2006 may be the earliest fall record for Florida. The main fall passage ran from October 10 (2007) to November 30 (2005) with a high count of seven on October 23, 2005. The winter passage ran from November 28 (2004) to January 6 (2006) with a high count of ten on December 13, 2006. To detail the 2006 influxes, there were four on November 29 with three on December 3 and one on December 10. There were ten on December 13 with four on December 17 and two on December 20. There were seven on December 22 with five on December 27 and one on December 31. All three influxes were type 2 influxes. The early spring passage ran from January 3 (2007) to March 1 (2006) with a high count of eight on January 18, 2008. The late spring passage ran from February 29 (2008) to March 30 (2007) with a high count of six on March 2, 2008. The highest counts were all in the range of six to ten Finally there was an exceptionally late individual at the Nursery on April 23, 2008.

In the fall the earliest were singles on August 27, 2006, September 19, 2005 and September 28, 2004. The main fall passage ran from October 10 (2007) to November 30 (2005), there were six “clustered” influxes. The first peaked from October 11 (2006) to October 14 (2007) with a high count of five on October 14, 2007. The second peaked from October 17 (2004) to October 18 (2006) with a high count of six on October 17, 2004. The third peaked from October 22 (2003) to October 25 (2006) with a high count of seven on October 23, 2005. The fourth peaked from November 3 (2004) to November 5 (2003) with a high count of four on November 3, 2004. The fifth is indicated by a peak count of five on November 15, 2006. The sixth peaked from November 20 (2003, 2005) to November 23 (2007) with a high count of five on November 23, 2007. The winter passage ran from November 28 (2004) to January 6 (2006), there were five “clustered” influxes. The first peaked from November 29 (2006) to December 1 (2003, 2004) with high counts of four on November 29, 2006 and November 30, 2007. The second peaked from December 4 (2005) to December 9 (2007) with two on both dates. The

third peaked from December 13 (2006) to December 16 (2004) with high counts of three on December 16, 2004 and ten on December 13, 2006. The latter is still the highest count for Zellwood. The fourth peaked from December 19 (2007) to December 23 (2005) with a high count of seven on December 22, 2006. The fifth peaked from December 28 (2003, 2007) to January 1 (2006) with a high count of five on December 28, 2007. The early spring passage ran from January 3 (2007) to March 1 (2006), there were seven “clustered” influxes. The first peaked from January 6 (2005) to January 8 (2006) with a high count of five on January 7, 2007. The second peaked from January 15 (2006) to January 18 (2008) with a high count of eight on January 18, 2008. The third peaked on January 24 (2005, 2007) with three on both dates. The fourth is indicated by a peak count of six on February 1, 2008. The fifth peaked from February 8 (2006) to February 9 (2007) with a high count of three on February 8, 2006. The sixth peaked from February 12 (2008) to February 14 (2006) with a high count of seven on February 12, 2008. The seventh is indicated by a peak count of seven on February 24, 2008. The late spring passage ran from February 29 (2008) to March 30 (2007), there were four “clustered” influxes. The first peaked from March 2 (2008) to March 7 (2007) with a high count of six on March 2, 2008. The second is indicated by a peak count of one on March 10, 2004. The third peaked from March 14 (2007) to March 18 (2005) with a high count of four on March 15, 2008. The fourth is indicated by a peak count of two on March 30, 2007. Finally there was a late individual on April 23, 2008. There are a few early May records for Florida as a whole.

Downy Woodpecker (*Picoides pubescens*)

This is a resident and a passage migrant. In 2004 there were a total of 38 pairs in the wooded borders. I have no information for the later years but numbers were probably similar. The summer passage appeared to cover an extended period from April 18 (2004) to July 18 (2007) with high counts of 15 on four dates (May 11, 2007, May 18, 2007, June 4, 2008 and June 24, 2007). The early fall passage ran from July 2 (2006) to September 28 (2007) with a high count of 22 on September 2, 2007. The main fall passage ran from September 21 (2006) to December 3 (2003) with high counts of 33 on October 3, 2004 and 35 on October 6, 2006. The highest counts from September 2 (2007) to October 17 (2007) were significantly higher than those before and after. I am linking counts in both the early and the main fall passages but that seems appropriate in this case. This species breeds early so we are not talking about the young joining the population rather there have to be additional birds entering the area. To detail the individual influxes in which the peak counts occurred. In 2004 there were 17 on September 28 with 33 on October 3, then 19 seen on October 11 with 17 on October 17, 15 on October 21, 14 on October 27, seven on October 31, six on November 7 and two on November 10. In 2006 there were 13 on October 4 with 35 on October 6, then 31 seen on October 8 and October 11

with 20 on October 13 and eight on October 15. In both years the sharp rise is indicative of passage. The winter passage was the lightest event of the year, the passage ran from November 30 (2007) to January 10 (2007) with a high count of 17 on December 7, 2007. The early spring passage ran from January 4 (2006, 2008) to March 4 (2006, 2008) with a high count of 26 on January 18, 2008. Finally there was the main spring passage, this ran from March 3 (2004) to April 25 (2008) with high counts of 30 on March 17, 2008 and 49 on March 28, 2007. To detail the 2007 influx which included the peak count there were ten on March 21 with 14 on March 23, 21 on March 25 and 49 on March 28, then 18 seen on March 30 with 12 on April 1, nine on April 4 and seven on April 6. To detail the two significant influxes in 2008, there were 13 on March 15 with 30 on March 17, then 16 seen on March 21 with 13 on March 28 and 11 on March 30. There were 21 on April 2 with 14 on April 11, 12 on April 13, ten on April 18, seven on April 20 and three on April 25. Again there was the sudden increase in the numbers with a subsequent sharp decline. We have to be dealing with passage, even if it was of a very limited duration.

The summer passage ran from April 18 (2004) to July 18 (2007), there were 12 “clustered” influxes. The first peaked from April 19 (2007) to April 21 (2006) with a high count of 14 on April 19, 2007. The second peaked from April 25 (2004) to April 27 (2008) with a high count of seven on April 27, 2008. The next two influxes are indicated by isolated peak counts of 12 on May 1, 2007 and 15 on May 11, 2007. The fifth peaked from May 15 (2005) to May 18 (2007, 2008) with a high count of 15 on May 18, 2007. The sixth is indicated by a peak count of nine on May 21, 2006. The seventh peaked from May 26 (2004) to May 31 (2006) with nine on both dates. The eighth is indicated by a peak count of 15 on June 4, 2008. The ninth peaked from June 9 (2004) to June 11 (2006, 2008) with a high count of 13 on June 11, 2008. The tenth peaked from June 19 (2005) to June 20 (2008) with a high count of 14 on June 20, 2008. The 11th peaked from June 24 (2007) to June 28 (2004, 2006) with a high count of 15 on June 24, 2007. The 12th peaked from July 1 (2007) to July 6 (2008) with a high count of 13 on July 1, 2007. The early fall passage ran from July 2 (2006) to September 28 (2007), there were nine “clustered” influxes. The first peaked from July 12 (2006) to July 17 (2005) with a high count of nine on July 12, 2006. The second peaked from July 21 (2008) to July 25 (2007) with a high count of 11 on July 25, 2007. The third influx is indicated by a peak count of seven on July 30, 2006. The fourth peaked from August 10 (2008) to August 15 (2007) with a high count of 14 on August 15, 2007. The fifth peaked from August 17 (2005) to August 19 (2004) with a high count of 11 on August 17, 2005. The sixth peaked from August 23 (2006) to August 26 (2007) with a high count of 17 on August 26, 2007. It is from this point that I think that the higher counts indicate a passage. The seventh peaked from August 31 (2005) to September 2 (2007) with a high count of 22 on September 2, 2007. The eighth peaked from September 10 (2006) to September 16 (2004) with a high count of 18 on September 10, 2006. The ninth peaked from September 22 (2005) to September 23 (2007) with a high count of 19 on September 23, 2007.

The main fall passage ran from September 21 (2006) to December 3 (2003), there were eight “clustered” influxes. The first peaked from September 27 (2006) to September 29 (2003) with a high count of 22 on September 29, 2003. The second peaked from October 3 (2004, 2007) to October 8 (2005) with high counts of 33 on October 3, 2004 and 35 on October 6, 2006. The previous highest count was that of 19 on September 19, 2000. The third influx peaked from October 17 (2007) to October 20 (2006) with a high count of 21 on October 17, 2007. The counts now returned to more normal levels. The fourth peaked from October 23 (2005) to October 24 (2007) with a high count of 17 on October 24, 2007. The fifth peaked from November 2 (2007) to November 5 (2006) with a high count of 15 on November 2, 2007. The sixth peaked from November 9 (2005) to November 11 (2007) with a high count of 15 on November 11, 2007. The seventh peaked from November 16 (2003) to November 18 (2007) with a high count of 21 on November 18, 2007. The eighth peaked from November 24 (2006) to November 25 (2005) with a high count of nine on November 24, 2006. The winter passage followed from November 30 (2007) to January 10 (2007), there were five “clustered” influxes. This was by far the weakest event of the year. During December this species can be very hard to locate, may be they are not calling much or may be many had left the area. The first influx peaked from December 3 (2006) to December 4 (2005) with a high count of seven on December 4, 2005. The second peaked on December 7 (2003, 2007) with a high count of 17 on December 7, 2007. The next two influxes are indicated by isolated peak counts of eight on December 11, 2005 and five on December 19, 2004. The fifth peaked from December 26 (2007) to December 29 (2006) with 14 on both dates. Numbers were back to normal for the early spring passage, this passage ran from January 4 (2006, 2008) to March 4 (2006, 2008), there were seven “clustered” influxes. The first peaked from January 4 (2006) to January 9 (2005) with a high count of 17 on January 6, 2008. The second peaked from January 16 (2007) to January 20 (2006) with a high count of 26 on January 18, 2008. The third peaked from February 1 (2006) to February 4 (2008) with a high count of 18 on February 4, 2008. The fourth peaked from February 11 (2004, 2007) to February 12 (2008) with a high count of 19 on February 11, 2007. The fifth peaked from February 16 (2005) to February 17 (2006) with a high count of 14 on February 17, 2006. The sixth peaked from February 20 (2008) to February 21 (2007) with a high count of 22 on February 20, 2008. The seventh peaked from February 27 (2004) to March 1 (2006) with a high count of 14 on February 28, 2007. Finally there was the main spring passage, this ran from March 3 (2004) to April 25 (2008), there were five “clustered” influxes. The first is indicated by a peak count of four on March 3, 2004. The second peaked from March 7 (2007) to March 10 (2005, 2006) with a high count of 18 on March 7, 2007. Now we come to what appears to be a spring passage, but one that only involves the next two influxes. The third peaked from March 17 (2008) to March 19 (2004, 2006) with a high count of 30 on March 17, 2008. The fourth peaked from March 28 (2007) to April 2 (2008) with high counts of 21 on April 2, 2008 and 49 on March 28, 2007. The latter is still the highest count for Zellwood. The fifth

peaked from April 10 (2005) to April 11 (2007) with a high count of 13 on April 11, 2007. There were 46 “clustered” influxes, slightly more than normal.

Hairy Woodpecker (*Picoides villosus*)

An irregular visitor to the northern border, I do not know of the nearest breeding site. There were four records for the five years. There was one at the Nursery from December 19, 2005 to December 28, 2005. This was the first time that one of these birds has stayed in the area for more than one day. In the early spring there were singles on the northern border on January 16, 2005, and at the Sand Farm on January 31, 2007 and January 25, 2008. The Sand Farm sightings were both at the piece of pine woodland where the Bald Eagles nest. There has yet to be a sighting away from the northern border.

Northern Flicker (*Colaptes auratus*)

This is a resident in the larger pieces of woodland. It also appears to be a passage migrant. In 2004 there were 18 pairs. The number of pairs is probably the same or very slightly lower now. This species was not located on every visit but from one to three were seen regularly. I took a look at all the counts over three and there did appear to be a pattern of influxes in the late fall and the early spring. Whilst there were a few higher counts in the winter and the late spring there was no pattern to those peak counts. Numbers were a little higher in July with the young joining the population. So using the higher counts there appeared to be a fall passage from September 17 (2006) to November 25 (2007), there were five “clustered” influxes. The first is indicated by a peak count of six on September 23, 2006. The second peaked from October 5 (2003) to October 8 (2006) with high counts of four on October 5, 2003 and 16 on October 8, 2006. The latter is still the highest count for Zellwood. The third is indicated by a peak count of seven on October 15, 2006. The fourth peaked from October 23 (2005) to October 27 (2006) with high counts of six on October 24, 2007 and ten on October 23, 2005. The fifth peaked from November 11 (2005) to November 18 (2007) with high counts of seven on November 11, 2005 and 12 on November 18, 2007. During this period this species could be found in locations where they did not breed. To detail the 2006 influxes, there were four on September 17 with six on September 23, then four seen to September 27. There were five on October 1 with six on October 6 and 16 on October 8, then four seen on October 11. There were also seven on October 15 and four on October 27. To detail the 2007 influxes, there were six on October 24 and October 26 with four to November 14. There were 12 on November 18 with eight on November 23 and five on November 25. Again these were very short-lived events. The early spring passage ran from January 15 (2006) to February 29 (2004), there were five

“clustered” influxes. The first peaked from January 15 (2006) to January 18 (2008) with a high count of six on January 18, 2008. The second is indicated by a peak count of five on January 27, 2006. The third peaked from February 6 (2005) to February 8 (2008) with six on both dates. The fourth peaked from February 10 (2006) to February 11 (2004) with a high count of six on February 11, 2004. The fifth is indicated by a peak count of five on February 20, 2008. There were no very high counts at this season but there were a series of “clustered” influxes.

Pileated Woodpecker (*Dryocopus pileatus*)

This species lives in the larger pieces of woodland, there were 13 pairs in 2004. The population is probably similar now. For most of the year one to three seen or heard regularly, there were higher counts. In the winter the highest counts were of six on December 2, 2005 and November 30, 2007. In the early spring there were high counts of seven on January 24, 2007 and February 7, 2007. The late spring had a high count of six on March 25, 2007. There was only one higher count for the summer and that was of five on June 25, 2008. The early fall then had a high count of six on August 29, 2004. This just leaves the main fall passage and there were a series of “clustered” influxes, six in all. This passage ran from September 12 (2004) to November 23 (2007). The first peaked from September 14 (2007) to September 17 (2006) with a high count of nine on September 17, 2006. The second peaked from September 22 (2004) to September 26 (2007) also with a high count of nine on September 22, 2004. The third peaked from October 2 (2003) to October 8 (2006) with a high count of six on October 8, 2006. The fourth peaked from October 26 (2005) to October 29 (2006) with a high count of eight on October 26, 2005. The fifth is indicated by a peak count of 12 on November 4, 2007. This is still the highest count for Zellwood. The sixth peaked from November 10 (2006) to November 11 (2005) with a high count of six on November 11, 2005. This work raises more questions than it answers.

Olive-sided Flycatcher (*Contopus cooperi*)

This is a vagrant anywhere in Florida. There was one on April 20, 2005 it was at the top of an isolated dead tree by Airport Road. This was the first record for Zellwood.

Eastern Wood-Pewee (*Contopus virens*)

An uncommon fall passage migrant with just two records for the spring. There were singles on April 19, 2006 and from April 6, 2007 to April 11, 2007. It seems unusual for one to

stop off-passage in the spring. The majority of the fall sightings came from the Nursery but it could be found on occasions in any piece of woodland. The passage in the fall ran from August 8 (2007) to November 16 (2007), there were ten “clustered” influxes. The first is indicated by a peak count of one on August 8, 2007. The second peaked from August 18 (2006) to August 21 (2005) with high counts of two on August 18, 2006 and August 19, 2007. The third peaked from August 29 (2004) to September 5 (2007) with a high count of three on September 5, 2007. The fourth peaked from September 14 (2007) to September 19 (2005) with a high count of five on September 19, 2005. The fifth peaked from September 27 (2006) to October 2 (2005) with a high count of seven on September 27, 2006. This is still the highest count for Zellwood. The sixth is indicated by a peak count of two on October 8, 2006. The seventh peaked from October 13 (2004) to October 16 (2005) with a high count of three on October 16, 2005. The eighth peaked from October 31 (2007) to November 2 (2003) with a high count of two on October 31, 2007. The ninth peaked from November 9 (2005) to November 11 (2007) with one on both dates. The tenth is indicated by a peak count of one on November 16, 2007.

Yellow-bellied Flycatcher (*Empidonax flaviventris*)

This is a very rare migrant anywhere in Florida. There was one in first-winter plumage at the Nursery from October 11, 2004 to October 24, 2004. What I believe was this bird returned to the same part of the Nursery in the next three falls. There were single adults on October 8, 2005, September 27, 2006 and from September 30, 2007 to October 5, 2007. These constitute the first record for Zellwood.

Acadian Flycatcher (*Empidonax virescens*)

An uncommon fall passage migrant with the majority of the sightings coming from the Nursery, there were also two spring records as singles seen on April 19, 2006 and May 1, 2005. Seen in the fall from August 11 (2004) to October 18 (2006), there were seven “clustered” influxes. The first peaked from August 11 (2004) to August 16 (2006) with two on both dates. The second peaked from August 20 (2003) to August 26 (2004) with a high count of two on August 26, 2004. The third peaked from September 1 (2006) to September 7 (2003) with a high count of three on September 4, 2005. The fourth peaked from September 10 (2003, 2006) to September 12 (2007) with high counts of four on September 10, 2003 and September 12, 2007. These are still the highest counts for Zellwood. The fifth peaked on September 21 (2006, 2007) with two on both dates. The sixth is indicated by a peak count of three on September 28, 2007. The seventh peaked from October 5 (2003) to October 10 (2007) with a high count of three on

October 5, 2003. The Nursery is becoming overgrown and access is now limited to the southern drier section. It is therefore likely that the high counts of four will stand for some time.

Alder Flycatcher (*Empidonax alnorum*)

This is considered a vagrant in Florida due to the difficulty in separating this species from the Willow Flycatcher. For both species the following relates to calling birds only. For this species there were single adults at the Sand Farm on September 14, 2003 and September 16, 2003 with another on September 12, 2007. Note the closeness of the dates. These are the first records for Zellwood.

Willow Flycatcher (*Empidonax traillii*)

This is a rare fall passage migrant with four sightings during this five year period. The first was an adult singing by Lust Road on July 28, 2006. There was one calling by the Lake Level Canal on August 10, 2008. There were singles calling on August 21, 2005 at the Nursery and on August 22, 2004 at the Sand Farm. Note the closeness in the dates of these last two records.

Least Flycatcher (*Empidonax minimus*)

This has become a regular passage migrant and winter visitor with the greatest numbers being seen along the canal that runs east to west from the Sand Farm Bridge. On either side of the main canal there are ditches with willows and ludwigia and this forms the prime habitat for this species. Seen in the fall from August 27 (2003) to December 7 (2003) with a high count of 14 on November 12, 2003. The winter passage ran from December 2 (2005) to January 16 (2005) with a high count of 23 on December 19, 2007. To detail the 2007 influx, there were three on December 5 with ten on December 7, 12 on December 12, 17 on December 14 and 23 on December 19, then 20 seen on December 21 with ten on December 28, eight on December 30 and January 6 with four on January 11 and one on January 14. This one influx took up the whole passage. The early spring passage ran from January 11 (2006) to February 24 (2006) with the exception of 2003/2004 when this passage started on December 21, 2003. The highest count was that of 20 on January 19, 2004. To detail the 2003/2004 influxes, there were two on December 21 with four on December 26, 11 on December 28, 13 on December 31, 15 on January 4, 18 on January 14 and 20 on January 19, then 14 seen on January 21 with eight on January 25 and three on January 28. It is very unusual for the early spring passage to start so early. There were eight on February 2 and February 4 with four on February 8. There were 12

on February 11 with seven on February 18. Finally there was the late spring passage, this ran from February 24 (2008) to April 23 (2004, 2008) with a high count of seven on March 19, 2004. On April 20, 2008 one was singing by the canal that runs to the west from the Sand Farm Bridge. That is a first for Zellwood.

Seen in the fall from August 27 (2003) to December 7 (2003), there were 11 “clustered” influxes. The first peaked from August 27 (2003) to August 31 (2005) with a high count of two on August 31, 2005. The second peaked from September 6 (2006) to September 12 (2004) with a high count of two on September 6, 2006. The third peaked from September 23 (2007) to September 24 (2003) with a high count of three on September 24, 2003. The fourth peaked from October 4 (2006) to October 5 (2003) with a high count of four on October 4, 2006. The fifth peaked from October 11 (2004, 2006) to October 12 (2007) with a high count of five on October 11, 2006. The sixth peaked from October 18 (2006) to October 21 (2005) with a high count of eight on October 18, 2006. The seventh peaked from October 26 (2003) to October 27 (2004, 2006) with a high count of 12 on October 27, 2006. The eighth peaked from October 31 (2007) to November 3 (2004) with a high count of three on October 31, 2007. The ninth peaked from November 7 (2005) to November 12 (2003) with high counts of five on November 10, 2006 and 14 on November 12, 2003. The tenth peaked from November 14 (2004) to November 20 (2005) with a high count of 11 on November 18, 2007. The 11th peaked from November 26 (2006) to November 28 (2003, 2007) with a high count of 12 on November 28, 2003. The winter passage ran from December 2 (2005) to January 16 (2005), there were four “clustered” influxes. The first peaked from December 4 (2005) to December 9 (2003) with a high count of ten on December 6, 2006. The second peaked from December 13 (2005) to December 15 (2003) with a high count of seven on December 13, 2005. The third peaked from December 19 (2007) to December 21 (2005) with high counts of eight on December 21, 2005 and 23 on December 19, 2007. The latter is still the highest count for Zellwood. The fourth peaked from December 30 (2005) to January 6 (2005) with a high count of nine on December 30, 2005. The early spring passage ran from January 11 (2006) to February 24 (2006); however in 2003/2004 the passage started exceptionally early on December 21, 2003. There were a total of six “clustered” influxes. The first peaked from January 11 (2006) to January 16 (2008) with a high count of seven on January 11, 2006. The second peaked from January 19 (2004, 2005) to January 23 (2008) with high counts of seven on January 19, 2005 and 20 on January 19, 2004. The third peaked from February 1 (2006) to February 2 (2004) with a high count of eight on February 2, 2004. The fourth peaked from February 8 (2008) to February 11 (2004) with a high count of 12 on February 11, 2004. The fifth is indicated by a peak count of three on February 15, 2008. The sixth peaked from February 20 (2005) to February 23 (2007) with a high count of three on February 23, 2007. Finally there was the late spring passage, this ran from February 24 (2008) to April 23 (2004, 2008), there were nine “clustered” influxes. The first peaked from March 1 (2006) to March 2 (2008) with a high count of five on March 2, 2008. The second peaked from

March 4 (2007) to March 7 (2004) with a high count of five on March 7, 2004. The third peaked from March 12 (2006) to March 15 (2008) with a high count of three on March 15, 2008. The fourth peaked from March 18 (2005) to March 19 (2004, 2006) with a high count of seven on March 19, 2004. The fifth peaked from March 23 (2007) to March 26 (2008) with a high count of four on March 26, 2008. The sixth is indicated by a peak count of one on March 30, 2007. The seventh peaked on April 11 (2007, 2008) with a high count of two on April 11, 2008. The eighth peaked on April 14 (2005, 2006) with a high count of two on April 14, 2006. The ninth peaked from April 18 (2004) to April 20 (2008) with a high count of two on April 18, 2004. This is very much one of the Zellwood specialties.

The following table gives my estimates of the numbers that visited the area on a seasonal basis. These are truly rough estimates.

Survey Year	Fall	Winter	Spring	Totals
2003/2004	19	33	26	78
2004/2005	8	14	18	40
2005/2006	13	25	18	56
2006/2007	40	13	16	69
2007/2008	22	24	27	73

Eastern Phoebe (*Sayornis phoebe*)

Passage migrant and winter visitor being seen by any scrub or tree lined ditch or canal. Unlike most migrants the fall passage for this species gets underway very quickly. Seen in the fall from September 19 (2004) to December 3 (2003) with a high count of 416 on October 26, 2003. To detail the 2003 influxes, there were five on October 5 with ten on October 9, 18 on October 12, 39 on October 15, 191 on October 19, 268 on October 22 and 416 on October 26, then 315 seen on October 29 with 210 on November 2, 171 on November 5 and 108 on November 9. There were 216 on November 12 with 158 on November 16 and 143 on November 20. There were 171 on November 23 with 120 on December 1 and 72 on December 3. The winter passage ran from November 30 (2007) to January 11 (2004) with a high count of 136 on December 7, 2004. To continue detailing the 2003/2004 influxes, there were 125 on December 7 with 111 on December 15, 69 on December 21 and 62 on December 26. There were 96 on December 28 with 125 on December 31, then 108 seen on January 4 with 66 on January 11. The early spring passage followed from January 4 (2008) to March 4 (2006) with a

high count of 119 on January 16, 2004. Finally there was the late spring passage which ran from February 29 (2004, 2008) to April 11 (2007) with a high count of 81 on March 6, 2005. Numbers gradually fell after the fall passage through the three following events

The fall passage ran from September 19 (2004) to December 3 (2003), there were six “clustered” influxes. The first peaked from October 21 (2005) to October 22 (2006) with a high count of 204 on October 22, 2006. The second peaked from October 26 (2003) to October 27 (2004) with high counts of 264 on October 27, 2004 and 416 on October 26, 2003. The latter is still the highest count for Zellwood. The third peaked from November 2 (2005) to November 4 (2007) with a high count of 193 on November 4, 2007. The fourth peaked on November 12 (2003, 2006) with a high count of 216 on November 12, 2003. The fifth peaked from November 17 (2004) to November 18 (2007) with a high count of 237 on November 17, 2004. The sixth peaked from November 23 (2003) to November 25 (2005) with a high count of 171 on November 23, 2003. The winter passage ran from November 30 (2007) to January 11 (2004), there were five “clustered” influxes. The first peaked from November 30 (2007) to December 3 (2006) with a high count of 106 on November 30, 2007. The second peaked on December 7 (2003, 2004, 2007) with a high count of 136 on December 7, 2004. The third peaked from December 11 (2005) to December 13 (2006) with a high count of 82 on December 11, 2005. The fourth is indicated by a peak count of 102 on December 19, 2007. The fifth peaked from December 30 (2005) to January 3 (2007) with a high count of 125 on December 31, 2003. The early spring passage came next, the passage ran from January 4 (2008) to March 4 (2006), there were six “clustered” influxes. The first peaked from January 8 (2006) to January 12 (2007) with a high count of 99 on January 8, 2006. The second peaked from January 16 (2004) to January 20 (2006) with a high count of 119 on January 16, 2004. The third is indicated by a peak count of 90 on January 24, 2005. The fourth peaked from January 30 (2008) to February 2 (2004, 2005) with a high count of 111 on February 2, 2004. The fifth peaked from February 8 (2008) to February 11 (2004) with a high count of 88 on February 11, 2004. The sixth peaked from February 19 (2006) to February 23 (2005) with a high count of 91 on February 22, 2004. The late spring passage ran from February 29 (2004, 2008) to April 11 (2007), there were three “clustered” influxes. The first peaked on February 29 (2004, 2008) with a high count of 73 on February 29, 2004. The second peaked from March 5 (2006) to March 7 (2007) with a high count of 81 on March 6, 2005. The third peaked from March 15 (2008) to March 18 (2005) with a high count of 71 on March 18, 2005. Somehow this species always seems to survive the freezes.

Vermillion Flycatcher (*Pyrocephalus rubinus*)

An irregular late fall passage migrant, there were a total of seven birds for the five years however there were no sightings in 2006. The first was a female on October 22, 2003 at the Sand Farm. There was an immature male by Pole Road on November 2, 2003. There was another immature male on October 21, 2004 at the eastern end of the McDonald Canal. There was an immature female by Hooper Farms Road on November 3 and November 17, 2004. At Lust Road there were adult males on October 2, 2005 and November 25, 2005. These I have treated as being separate individuals. Finally there was a female on October 19, 2007 at the Sand Farm.

Even with such a limited number of records there is a pattern, there being indications of four "clustered" influxes. The first is indicated by a peak count of one on October 2, 2005. The second peaked from October 19 (2007) to October 22 (2003) with high counts of one on three dates. The third peaked from November 2 (2003) to November 3 (2004) with one on both dates. The fourth is indicated by a peak count of one on November 25, 2005.

Ash-throated Flycatcher (*Myiarchus cinerascens*)

This has become a regular passage migrant and winter visitor with the greatest numbers in the winter and the early spring. It appears to favor the ditches with extensive overhanging vegetation such as ludwigia and willows. At other times it may set up a territory along the edge of a wood. Some of them wintered out in the fields in the "groves" of elderberry. The temperature inside these "groves" was decidedly warmer than that in the open fields. Passage in the fall was very limited, there were records from October 12 (2005) to November 28 (2004) with a high count of two on November 9, 2005. The winter passage was a strong event, the passage ran from December 1 (2003, 2004) to January 9 (2005, 2008) with a high count of 16 on December 14, 2007. In the fall of 2005 the last was one on November 20 so to detail the 2005/2006 winter influxes there were three on December 16 with four on December 21 and 12 on December 23, then three seen on December 26 with one on December 28. There were three on December 30 with two on January 1. To detail the 2007/2008 influxes, there was one on December 5 with three on December 7, six on December 9 and 16 on December 14, then six seen on December 19 with one on December 26. There were two on December 28 and January 2 with one on January 9. The early spring passage ran from January 4 (2006) to March 14 (2004) with a high count of ten on February 2, 2004. To detail the 2004 influxes, there was one on January 11 with three on January 14, three on January 19 and five on January 21, then two seen on January 25. There were ten on February 2 with four on February 8, two on February 11 and one from February 16 to February 22. There was also one from February 27 to March 14. The

late spring passage ran from March 20 (2005) to April 13 (2008) with high counts of three on March 30, 2005 and April 13, 2008.

The fall passage ran from October 12 (2005) to November 28 (2004), there were five “clustered” influxes. The first is indicated by a peak count of one on October 12, 2005. The second peaked from October 18 (2006) to October 23 (2005) with one on both dates. The third peaked from November 5 (2003) to November 9 (2005) with a high count of two on November 9, 2005. The fourth peaked from November 12 (2006) to November 14 (2004) with one on both dates. The fifth is indicated by a peak count of one on November 18, 2005. The winter passage was the strongest event, the passage ran from December 1 (2003, 2004) to January 9 (2005, 2008), again there were five “clustered” influxes. The first peaked on December 1 (2003, 2004) with two on both dates. The second peaked from December 7 (2004) to December 9 (2003) with a high count of three on December 9, 2003. The third peaked from December 14 (2007) to December 17 (2006) with high counts of one on December 17, 2006 and 16 on December 14, 2007. The latter is still the highest count for Zellwood. The fourth is indicated by a peak count of 12 on December 23, 2005. The fifth peaked from December 28 (2003, 2007) to December 30 (2004, 2005) with a high count of four on December 30, 2004. Next came the early spring passage, this ran from January 4 (2006) to March 14 (2004), there were nine “clustered” influxes. The first peaked from January 4 (2006) to January 5 (2007) with a high count of four on January 4, 2006. The second peaked on January 11 (2006, 2008) with a high count of three on January 11, 2006. The third is indicated by a peak count of five on January 21, 2004. The fourth peaked from January 26 (2007) to January 28 (2008) with a high count of five on January 27, 2006. The fifth peaked on February 2 (2004, 2005) with high counts of one on February 2, 2005 and ten on February 2, 2004. The sixth peaked from February 15 (2008) to February 16 (2005) with a high count of two on February 15, 2008. The seventh is indicated by a peak count of two on February 22, 2006. The eighth peaked from February 27 (2004) to March 1 (2006) with a high count of two on March 1, 2006. The ninth is indicated by a peak count of one on March 6, 2005. In this instance I have extended the early spring passage into March as the late spring passage was clearly a separate and surprisingly strong event. This passage ran from March 20 (2005) to April 13 (2008), there were indications of four “clustered” influxes. The first peaked from March 20 (2005) to March 21 (2008) with a high count of two on March 20, 2005. The second peaked from March 28 (2007) to March 30 (2005) with a high count of three on March 30, 2005. There were also two April sightings which may indicate the location of influxes. There were two on April 7, 2004 and three on April 13, 2008. This is another of the Zellwood specialties.

As with the Least Flycatcher I noted all locations where these birds were seen and from this I have attempted to identify the numbers seen per season per year. These are not facts only my best estimates.

Survey year	Fall	Winter	Spring	Totals
2003/2004	1	8	23	32
2004/2005	1	10	9	20
2005/2006	5	12	10	27
2006/2007	3	1	5	9
2007/2008	1	17	8	26

Great Crested Flycatcher (*Myiarchus crinitus*)

A summer visitor and passage migrant with the greatest numbers being seen in the spring this species nests in the wooded borders. There were 33 pairs in 2004 and the population is likely to be little changed. Seen in the spring from March 20 (2005) to June 10 (2007). This passage is meant to be over in mid-May but that does not seem to be the case. In some years there was a significant passage in the second half of May. The highest count for the main passage was that of 20 on April 20, 2008 and the highest count for the late passage was that of 45 on May 16, 2007. To illustrate the first peak I am detailing the 2008 influxes, there was one on March 26 with two on April 2, five on April 7 and 16 on April 11, then 12 seen on April 13 with eight on April 15. There were ten on April 18 with 20 on April 20, then 14 seen on April 25 with eight on April 27, six on May 2, four on May 7, three on May 9 and two on May 11. There were six on May 14 with five on May 16 and four on May 18. There were six on May 20 with seven on May 23 and nine on May 25, then four seen on June 4 with two on June 6. Even in this year there was a minor peak in late May. To illustrate the late passage I am detailing the 2007 influxes, there was one on March 30 with three on April 4, five on April 6, six on April 11, seven on April 13 and eight on April 19, then seven seen on April 27 with six on May 1. There were nine on May 4 with 21 on May 9, 29 on May 13 and 45 on May 16, then three seen on May 18. There were 13 on May 20 with 15 on May 25, then 12 seen on May 30 with four on June 8 and one on June 10. The summer passage ran from June 2 (2004) to August 11 (2004) with a high count of 11 on July 8, 2007. With the exception of another peak count of ten on July 5, 2006 the other peak counts were in the range of five to six. The highest counts were caused by broods of fledged young being seen. The fall passage was a minor event with records from August 8 (2006, 2007) to October 23 (2005) with a high count of nine on August 17, 2007.

The spring passage ran from March 20 (2005) to June 10 (2007), there were eight “clustered” influxes. The first peaked from March 20 (2005) to March 22 (2004) with one on both dates. The second peaked from March 26 (2006) to March 30 (2005) with one on both dates. The third peaked from April 7 (2004) to April 11 (2008) with a high count of 16 on April 11, 2008. The fourth peaked from April 17 (2005) to April 20 (2008) with high counts of 11 on April 17, 2005 and 20 on April 20, 2008. The fifth is indicated by a peak count of eight on April 25, 2006. The sixth peaked from May 3 (2006) to May 5 (2004) with a high count of 15 on May 5, 2004. The seventh peaked from May 14 (2006, 2008) to May 16 (2007) with high counts of 12 on May 14, 2006 and 45 on May 16, 2007. The latter is still the highest count for Zellwood. The eighth peaked from May 23 (2004) to May 25 (2007, 2008) with high counts of ten on May 23, 2004 and 15 on May 25, 2007. The summer passage ran from June 2 (2004) to August 11 (2004), there were eight trace “clustered” influxes. The first peaked from June 5 (2005) to June 9 (2004) with high counts of five on June 8, 2006 and June 9, 2004. The second peaked from June 11 (2008) to June 13 (2007) with a high count of six on June 11, 2008. The third is indicated by a peak count of five on June 20, 2008. The fourth peaked from June 25 (2006) to June 27 (2008) with a high count of five on June 25, 2006. The fifth peaked from July 1 (2005) to July 5 (2006) with a high count of ten on June 5, 2006. The sixth is indicated by a peak count of 11 on July 8, 2007. The seventh peaked from July 16 (2006) to July 21 (2004) with a high count of six on July 19, 2008. The eighth peaked from July 25 (2007) to July 28 (2005) with a high count of six on July 26, 2008. Note the sharp contrast between these high counts and those of that unexpected late spring passage. The early fall passage ran from August 8 (2006, 2007) to September 14 (2007), there were four “clustered” influxes. The first peaked from August 8 (2006) to August 12 (2007) with a high count of seven on August 8, 2006. The second peaked from August 17 (2007) to August 20 (2003) with a high count of nine on August 17, 2007. The third peaked from August 24 (2007) to August 30 (2006) with a high count of six on August 30, 2006. The fourth peaked from September 5 (2007) to September 9 (2004) with a high count of three on September 5, 2007. The influxes were over but there were five isolated counts of one through to October 23, 2005. There were singles on September 22, 2005, September 28, 2004, October 5, 2003, October 16, 2005 and October 23, 2005. The two 2005 records in October were in totally different locations.

Brown-crested Flycatcher (*Myiarchus tyrannulus*)

Now a regular if very uncommon passage migrant and winter visitor, most sightings are from the more vegetated borders, they are less likely to be seen out in the ludwigia canopied ditches in the field system. They will reside in the wooded borders, stands of willows or elderberry. There were just three fall records all were at the Sand Farm there being singles on

October 6, 2006, October 27, 2006 and November 20, 2005. There were in all six winter records with singles on December 10, 2006 at the Sand Farm, December 14, 2007 at Hooper Farms Road gate, December 16, 2004 to December 19, 2004 by Lake Apopka near the end of Laughlin Road extension, December 28, 2007 at the same location, December 29, 2006 to January 14, 2007 at the Sand Farm and on December 30, 2007 at the Nursery. Most sightings were in the spring with singles by Lake Apopka near the end of Laughlin Road extension on January 9, 2005, from January 15, 2006 to January 27, 2006 near Hooper Farms Road gate, on January 19, 2004 at the Sand Farm with another there on January 26, 2007. There was one by Lust Road on February 2, 2004 with one by Lake Apopka south of Hooper Farms Road extension from February 4, 2008 to February 10, 2008. Singles then seen at the Sand Farm from February 8, 2006 to February 10, 2006 and on February 11, 2007. There was one by Hooper Farms Road gate on February 22, 2006 with another by Lust Road gate on February 23, 2005. Finally there were singles on February 29, 2008 by Lake Apopka south of Hooper Farms Road extension and at the Sand Farm from March 1, 2006 to March 5, 2006. I have listed the locations so that you can estimate the numbers involved. I think it possible that there were three in the fall, six in the winter and 11 to 12 in the spring. For all the species where the sightings tend to come from Lust and Hooper Farms Roads gates it is likely that others were present on the eastern border but in areas that I had no access to.

Tropical Kingbird (*Tyrannus melancholicus*)

This is a vagrant anywhere in Florida. Very exceptionally one wintered by the Lust Road Pump House from November 12, 2003 to April 21, 2004. It then changed its location to the Lust Road and Airport Road intersection where it stayed to April 28, 2004. Perhaps even more unusual there was one by Lust Road on May 24, 2006. Finally there was one by Lake Apopka to the east of where the Lake Level Canal enters the lake on December 13, 2006.

Cassin's Kingbird (*Tyrannus vociferans*)

This is also a vagrant anywhere in Florida. *From 1999 to 2007 one or more has wintered and they have used the "kingbird roost" to the east of CR 437 near the end of Hooper Farms Road. During the day they have been out in the fields by Hooper Farms Road or by Lust Road gate. At Hooper Farms Road they spent the day at or near an isolated tree a mile from the gate. Because this is such a rarity I am going to detail all the sightings. There was one from December 4, 1999 to April 26, 2000, one from January 14, 2001 to April 16, 2001 and one from December 2, 2001 to April 3, 2002. There was one at the eastern end of the McDonald Canal on November 9,*

2002 with possibly a separate bird at Hooper Farms Road from November 29, 2002 to April 6, 2003. Those were the records from the previous analysis.

There was one from December 26, 2003 to March 28, 2004 with two from at least February 21, 2004 to March 10, 2004. There was one from December 1, 2004 to January 19, 2005 with two from at least December 7, 2004 to January 9, 2005. There was one from December 11, 2005 to March 1, 2006 with two from at least December 28, 2005 to February 22, 2006. There was only one from November 26, 2006 to February 14, 2007. Finally there was one by Lake Apopka on the southern border on January 11, 2008. That was the last sighting.

Western Kingbird (*Tyrannus verticalis*)

A passage migrant and winter visitor especially to the southern part of the survey area. There is a major roost just to the west of the survey area across CR 437 from Hooper Farms Road in a citrus grove. This is one of, if not the biggest roost in Florida. As only a portion of these birds come to the fields and as I rarely get to the roost site as the birds arrive the following analysis may be a bit questionable. In 2007 there was also a small roost at the Sand Farm from December 12, 2007 to January 30, 2008 with five present from January 9 to January 23. The pattern of influxes is still there so I may not be too far off the mark. The fall passage ran from October 14 (2007) to December 3 (2003) with a high count of 12 on November 21, 2007. The winter passage by contrast was a major event, the passage ran from November 25 (2007) to January 11 (2004) with high counts of 40 on December 5, 2007 and December 22, 2006. To detail the 2007 influxes, there were seven on November 25 with 21 on November 28, 36 on December 2 and 40 on December 5 and December 12, then 15 seen on December 14 with five on December 19. There were seven on December 26 with five on December 28, four on December 30 and two on January 2. The early spring passage ran from January 3 (2007) to February 28 (2005) with a high count of 36 on February 22, 2006. To detail the 2006 influxes, there were 17 on January 11 with 26 on January 1 and 34 on January 22, then 23 seen on January 29 with four on February 1 and one on February 5. There were seven on February 8 with 17 on February 10, 24 on February 17 and 36 on February 22, then 16 seen on February 24 with eight on February 27. The main spring passage ran from April 22 (2004) to May 7 (2006) with a high count of 54 on March 23, 2007. However to continue detailing the 2006 influxes, there were 28 on March 1 with 34 on March 8, then 25 seen on March 10 with 19 on March 12. There were four on March 15 with 29 on March 17, then 23 seen on March 22 with 19 on March 26. There were no further records until one seen on May 5 with four on May 7.

Seen in the fall from October 14 (2007) to December 3 (2003), there were six "clustered" influxes. The first is indicated by a peak count of two on October 19, 2007. The

second peaked from October 23 (2005) to October 27 (2004) with a high count of two on October 26, 2003. The third peaked from November 10 (2004) to November 13 (2005) with a high count of nine on November 10, 2004. The fourth peaked from November 16 (2003) to November 17 (2006) with a high count of six on November 16, 2003. The last two influxes are indicated by isolated peak counts of 12 on November 21, 2007 and one on November 27, 2005. The winter passage followed from November 25 (2007) to January 11 (2004), there were four “clustered” influxes. The first is indicated by a peak count of 40 on December 5, 2007. The second peaked from December 12 (2004) to December 15 (2003) with a high count of 27 on December 12, 2004. The third is indicated by a peak count of 40 on December 22, 2006. The fourth peaked from December 26 (2007) to January 1 (2006) with a high count of 35 on January 1, 2006. The early spring passage ran from January 3 (2007) to February 28 (2005), there were six “clustered” influxes. The first is indicated by a peak count of 27 on January 9, 2008. The second peaked from January 14 (2007) to January 16 (2004) with high counts of 21 on January 16, 2004 and 24 on January 14, 2007. The third peaked from January 19 (2005) to January 23 (2008) with high counts of 13 on January 23, 2008 and 34 on January 22, 2006. The fourth peaked from January 30 (2005) to February 2 (2004) with a high count of 11 on February 2, 2004. The fifth peaked from February 14 (2007) to February 15 (2008) with high counts of 14 on February 14, 2007 and 25 on February 15, 2008. The sixth peaked from February 22 (2006) to February 23 (2005) with high counts of six on February 23, 2005 and 36 on February 22, 2006. The main spring passage ran from February 22 (2004) to May 7 (2006), there were seven “clustered” influxes. The first peaked from February 29 (2004) to March 2 (2008) with high counts of 14 on March 2, 2008 and 23 on February 29, 2004. The second is indicated by a peak count of 34 on March 8, 2006. The third peaked from March 14 (2007) to March 19 (2004) with high counts of 29 on March 17, 2006 and 36 on March 14, 2007. The fourth peaked from March 23 (2007) to March 28 (2008) with high counts of 15 on March 28, 2008 and 54 on March 23, 2007. The latter was the highest count during this set of five years. The fifth peaked from April 4 (2007) to April 7 (2004) with a high count of seven on April 4, 2007. The last two influxes are indicated by isolated peak counts of one on April 21, 2004 and four on May 7, 2006.

Eastern Kingbird (*Tyrannus tyrannus*)

This was a passage migrant however there were sightings through the summer. There was no evidence that this species bred in the survey area but it may well have done so. The spring passage ran from March 18 (2005) to May 14 (2008), there were four “clustered” influxes. The first two are indicated by isolated peak counts of one on March 18, 2005 and March 24, 2006. The third peaked from April 15 (2008) to April 21 (2007) with a high count of 16 on April 18, 2004. The fourth peaked from April 30 (2006, 2008) to May 2 (2004) with a high count of 22

on May 1, 2005. The summer passage ran from May 5 (2006) to August 15 (2007), there were eight “clustered” influxes. The first is indicated by a peak count of seven on May 7, 2006. The second peaked from May 15 (2005) to May 16 (2007) with a high count of five on May 15, 2005. The next two influxes are indicated by isolated peak counts of four on May 20, 2004 and three on May 29, 2005. The fifth peaked from June 8 (2006) to June 13 (2007) with a high count of three on June 13, 2007. The sixth peaked from June 26 (2005) to June 28 (2004, 2006) with a high count of two on June 28, 2004. The seventh peaked from July 2 (2008) to July 6 (2005) with a high count of two on July 6, 2005. The eighth is indicated by a peak count of two on July 21, 2008. Finally there was the fall passage, this ran from August 10 (2008) to October 12 (2003), there were seven “clustered” influxes. The first peaked from August 10 (2008) to August 16 (2004) with a high count of 28 these were seen flying to the south on August 16, 2004. The second peaked from August 29 (2007) to September 1 (2003, 2004) with a high count of 44 these were seen flying to the south on September 1, 2004. This was the highest count during this set of five years. The two peak counts detailed above that related to flocks flying to the south were the only records of visible migration. The third influx peaked from September 4 (2005) to September 9 (2007) with a high count of 24 on September 4, 2005. The fourth is indicated by a peak count of 16 on September 13, 2006. The fifth peaked from September 19 (2003) to September 22 (2004, 2005) with a high count of 15 on September 19, 2003. The sixth peaked from September 28 (2004) to October 2 (2005) with a high count of five on September 28, 2004. The seventh is indicated by a peak count of one on October 12, 2003. Passage during these five years was light. There were no influxes worth detailing.

Gray Kingbird (*Tyrannus dominicensis*)

An irregular visitor being seen in three of the five years, for the spring there were singles on four dates. On April 23, 2004 by Lake Apopka south of Hooper Farms Road extension, on May 14, 2006 by Pole Road, on May 20, 2008 by Lust Road and on June 9, 2004 by Pole Road. For the fall a total of seven seen there were singles on August 20, 2003 by Lake Apopka near the Laughlin Road extension, on August 25, 2005 at the eastern end of the McDonald Canal, on September 2, 2007 at the southern border, an immature by Interceptor Road on October 2, 2003, an adult by Lust Road on October 9, 2003, on November 5, 2003 at the eastern end of the McDonald Canal and on November 21, 2007 by Lust Road. All of the above are typical records for this species. There was one more record and that relates to the first known wintering of this species in Florida. There was one by the Lust Road Pump House from November 20, 2003 to January 28, 2004. Its long stay was almost certainly linked to the presence of the Tropical Kingbird that was at that site from November 12, 2003 to April 21, 2004. They tended to stay together tackling prey up to the size of the Common Green Darner.

Scissor-tailed Kingbird (*Tyrannus forficatus*)

An uncommon passage migrant and winter visitor, this species joins the Western Kingbirds at the roost leading to most sightings being from the Lust/Hooper Farms Roads area. There was only a limited fall passage in 2003 and 2004 with passage from October 19 (2003) to November 28 (2003), there were indications of four “clustered” influxes. The first is indicated by a peak count of one on October 19, 2003. The second peaked from October 29 (2003) to October 31 (2004) with one on both dates. The third peaked from November 10 (2004) to November 16 (2003) with a high count of four on November 10, 2004. The fourth is indicated by a peak count of two on November 28, 2003. The winter passage was the strongest event with passage from December 2 (2007) to January 14 (2004), there were five “clustered” influxes. The first peaked from December 2 (2007) to December 3 (2006) with a high count of four on December 3, 2006. The second peaked from December 7 (2004) to December 11 (2005) with high counts of five on December 7, 2004 and eight on December 11, 2005. The fourth is indicated by a peak count of eight on December 19, 2005. The counts of eight are still the highest counts for Zellwood. The fifth peaked from December 28 (2005) to January 2 (2005) with high counts of seven on December 31, 2003 and December 28, 2005. The early spring passage ran from January 14 (2007) to March 7 (2004), there were indications of four “clustered” influxes. This hesitancy caused by the fact that there were no sightings in 2005 and 2008. The first three influxes are indicated by isolated peak counts of one on January 14, 2007, six on January 22, 2006 and two on February 9, 2007. The fourth peaked from February 17 (2006) to February 21 (2004) with a high count of seven on February 21, 2004. The late spring passage ran from March 5 (2006) to March 30 (2005), there were indications of five “clustered” influxes. There was no passage in 2008. The first peaked from March 5 (2006) to March 7 (2007) with one on both dates. The second is indicated by a peak count of one on March 10, 2006. The third peaked from March 16 (2005) to March 19 (2004) with a high count of three on March 19, 2004. The last two influxes are indicated by isolated peak counts of four on March 22, 2006 and one on March 30, 2005.

Fork-tailed Flycatcher (*Tyrannus savana*)

This is a vagrant anywhere in the United States. That being so it is even more extraordinary that one wintered at Zellwood. There was one by Hooper Farms Road from December 10, 2005 to January 15, 2006. This individual also used the kingbird roost. There is an earlier record as there was one at Lust Road on July 23, 2000.

Loggerhead Shrike (*Lanius ludovicianus*)

This is a species that is in trouble nationally and its decline at Zellwood has been very rapid. There were still five pairs in 2004, the last year of the Breeding Bird Survey. By 2007 this species was absent during the summer months. Because the decline has been so rapid I am going to detail this decline. Everything was normal through to the end of 2005. There was a basic population that inhabited the scrub borders. The first indicator of the problems to come was the very low population from January 27, 2006 to May 31, 2006, during this period only one to two a day seen. Up to five a day had been seen in 2004 with up to four a day in 2005. In 2007 the situation got worse, again there were only one to two a day from February 23 to April 16 but this time there were no sightings from April 17 to June 28. In 2008 the decline continued, again there were only one to two a day from February 8 to March 15 but this time only singles seen from March 17 to April 4. There were no sightings from April 14 to June 21, the breeding season. *Although outside the period covered by this analysis I am including later information. Firstly from August, 2008 to January 28, 2009 singles seen regularly with counts of two on ten dates. There were no further sightings until February 20, 2009 when one seen, then up to two a day seen on just six dates through to April 15, 2009. There were no summer sightings. Seen in the fall from June 21, 2009 with a high count of three on July 15, 2009 however from August, 2009 only singles seen on scattered dates through to December 2, 2009 with the exception of a count of two on October 30. There were singles on January 22, 2010 and February 5, 2010 otherwise this species was not seen until June 18 (a fall record). Singles then seen on scattered dates to December 5, 2010. Finally the only spring record relates to one on February 2, 2011. There were no summer records. So we have gone from a resident/passage migrant to a very uncommon fall passage migrant in just seven years.*

There was a winter passage in 2003/2004, this passage ran from December 1 (2003) to January 14 (2004), in that year there were three influxes. To detail these influxes, there were three on December 1 with two on December 7. There were three on December 9 with six on December 15, then one seen on December 17. There were two on December 20 with four on December 21, then three seen on December 28 with two on January 4 and one on January 14. From 2004/2005 they were present during the winter but there was little evidence of passage. The early spring passage only occurred in 2004 and 2005 from January 9 (2005) to March 6 (2005), with high counts of five on January 16, 2004 and February 22, 2004. To detail the 2004 influxes, there were five on January 16 with one on January 25. There were two on January 28 with three on February 4, then two seen on February 16. There were three on February 18 with five on February 22, then four seen on February 27 with one on March 3. There was no passage at all for the late spring passage which means that I have no dates for this period. In contrast there were summer influxes for the first three years after which as detailed above this species was absent during the summer. The summer event for those three years ran from May 10

(2004) to June 19 (2006) with a high count of seven on May 23, 2004. To detail the 2004 influx, there were two on May 10 with three on May 14, four on May 20 and seven on May 23, then five seen on May 30 with four on June 13 and two on June 20. From June 21 (2006) to August 15 (2004) there was a minimal event that might be best described as a late summer passage, the highest count was that of eight on July 14, 2004. To detail the 2004 influxes there were three on June 23 with seven on July 7 and eight on July 14, then six seen on July 18 with four on July 24. There were five on July 29 with six on August 1 and seven on August 4, then five seen on August 9 with one to August 15. There was no passage in 2007 and 2008. The early fall passage ran from August 7 (2005) to October 8 (2005) with a high count of 12 on September 7, 2005. Passage only noted during the first three years. To detail the 2004 influxes, there were three on August 16 with five on August 26, then four seen on August 29 with three on September 1. There were four on September 8 and September 12 with three on September 16. The late fall passage ran from September 23 (2006) to November 30 (2005) with high counts of seven on four dates. The only years with series of influxes were 2003 and 2005 this time there was no passage in 2004. To detail the 2003 influxes, there were five on September 29 with seven on October 9, then five seen on October 19 with three on October 26. There were four on October 29 with five on November 2, then four seen on November 9. There were seven on November 12 with six on November 16, three on November 20, two on November 23 and one on November 28. I have detailed all these influxes as they may be some of the last that we will ever see for this species.

In preparing this segment I not only looked at the influxes detailed above but I looked at the peak counts that were higher than the basic levels described in segment one. There was a winter passage from December 1 (2003) to January 14 (2004), there were four "clustered" influxes. The first peaked from December 1 (2003) to December 2 (2005) with three on both dates. The second peaked from December 15 (2003) to December 16 (2004) with a high count of six on December 15, 2003. The third peaked from December 20 (2006) to December 22 (2004) with a high count of five on December 20, 2006. The fourth is indicated by a peak count of six on December 28, 2005. The early spring passage ran from January 9 (2005) to March 6 (2005), there were four "clustered" influxes. The first peaked from January 14 (2007) to January 19 (2005) with high counts of five on January 16, 2004 and January 14, 2007. The second peaked from February 1 (2008) to February 4 (2004) with high counts of four on February 2, 2005 and February 1, 2008. The last two influxes are indicated by isolated peak counts of five on February 22, 2004 and three on February 28, 2005. I am still unable to identify any late spring passage. There does appear to be a summer passage from May 10 (2004) to June 19 (2006), there were two "clustered" influxes. The first is indicated by a peak count of seven on May 23, 2004. The second peaked from June 5 (2005) to June 8 (2006) with a high count of five on June 8, 2006. There are indications of a late summer passage from June 21 (2006) to August 15 (2004), there are traces of four "clustered" influxes. The first peaked from July 1 (2005) to July 5 (2006) with

four on both dates. The other three influxes are indicated by isolated peak counts of eight on July 14, 2004, five on July 23, 2005 and seven on August 4, 2004. The early fall passage followed from August 7 (2005) to October 8 (2005), there were five “clustered” influxes. This was the strongest event of the year. The first peaked from August 10 (2005) to August 13 (2006) with a high count of eight on August 10, 2005. The second is indicated by a peak count of six on August 20, 2003. The third peaked from August 26 (2004) to September 1 (2003) with a high count of 11 on August 28, 2005. The fourth peaked from September 6 (2006) to September 8 (2004) with a high count of 12 on September 7, 2005. This was the highest count during this set of five years. The actual high count is that of 18 on February 3, 2002. The fifth peaked from September 16 (2007) to September 22 (2005) with a high count of ten on September 22, 2005. Finally there was the late fall passage, this ran from September 23 (2006) to November 30 (2005), there were six “clustered” influxes. The first is indicated by a peak count of five on September 27, 2006. The second peaked from October 9 (2003) to October 12 (2005) with seven on both dates. The third peaked from October 21 (2004) to October 23 (2005) with a high count of six on October 23, 2005. The fourth peaked from October 30 (2005) to November 3 (2004) with a high count of seven on October 30, 2005. The last two influxes are indicated by isolated peak counts of seven on November 12, 2003 and five on November 30, 2005. *The situation has got much worse as only singles are now being recorded. Singles were seen from August, 2009 to February 5, 2010 and again from July 9, 2010 to December 5, 2010. To put it another way the early spring passage is shorter, there are no sightings at all for the late spring and the summer. Added to that there is now no winter passage, no winter sightings. If the decline continues at the same rate it will soon have to be treated as a vagrant, if it is seen at all.*

White-eyed Vireo (*Vireo griseus*)

A resident and a passage migrant, in 2004 there were 16 pairs and the population is likely to be the same now. Most pairs nested in the scrub along the borders especially those areas where the vegetation was particularly thick. Seen in the early fall from July 4 (2004) to September 10 (2003) with a high count of 15 on July 13, 2007. This was one of the weakest events of the year. The main fall passage ran from August 26 (2004) to December 2 (2005) with high counts of 53 on October 5, 2003 and 56 on October 1, 2006. There was a distinct passage from late September to late October. To detail the 2003 influxes, there were five on September 14 with nine on September 16, 14 on September 19 and 32 on September 24, then 23 seen on September 29 with 17 on October 2. There were 53 on October 5 with 40 on October 9, 36 on October 15, 13 on October 19, 12 on October 22, 11 on October 29, nine on November 2, five on November 5 and one on November 9. This was a type 2 influx. There were five on November 12 with six on November 16, then five seen on November 23 with two on November 28. The

winter passage ran from November 24 (2006) to January 10 (2007) with a high count of 16 on December 2, 2007. This was the lightest event of the year as they do not call much on the colder days. The early spring passage ran from January 4 (2008) to March 2 (2005) with a high count of 24 on February 15, 2008. The main spring passage ran from February 22 (2008) to May 1 (2005) with a high count of 36 on March 4, 2008. To detail the 2008 influxes, there were 21 on February 22 with 24 on February 29, 33 on March 2 and 36 on March 4, then 22 seen on March 15 with 20 on March 17, 19 on March 21, 18 on March 26 and 13 on March 28. There were 17 on March 30 with 19 on April 2, then 13 seen on April 4 with 12 on April 7. There were 16 on April 9 with 18 on April 11, then 15 seen on April 13 with 11 on April 25. The summer passage appears to cover the period April 25 (2004) to July 9 (2008) with a high count of 22 on May 2, 2008. One unexpected finding is that numbers have been gradually rising at all seasons during this set of five years.

Seen in the early fall from July 4 (2004) to September 10 (2003), there were nine “clustered” influxes. The first is indicated by a peak count of six on July 4, 2004. The second peaked from July 11 (2008) to July 13 (2007) with a high count of 15 on July 13, 2007. The third peaked from July 16 (2006) to July 17 (2005) with a high count of ten on July 16, 2006. The fourth peaked from July 19 (2008) to July 22 (2007) with ten on both dates. The fifth peaked from July 26 (2008) to July 30 (2006) with a high count of 14 on July 30, 2006. The sixth peaked from August 3 (2005) to August 9 (2004) with a high count of nine on August 8, 2007. The seventh is indicated by a peak count of two on August 20, 2003. The eighth peaked from August 28 (2005) to September 2 (2007) with a high count of 14 on September 1, 2006. The ninth is indicated by a peak count of five on September 7, 2003. The main fall passage ran from August 26 (2004) to December 2 (2005), there were eight “clustered” influxes. The first peaked from September 23 (2007) to September 24 (2003) with high counts of 25 on September 23, 2007 and 32 on September 24, 2003. The second peaked from October 1 (2006) to October 5 (2003) with high counts of 27 on October 3, 2004, 53 on October 5, 2003 and 56 on October 1, 2006. The latter was the highest count during the first ten years of the survey. The third peaked on October 12 (2005, 2007) with high counts of 19 on October 12, 2005 and 29 on October 12, 2007. The next two influxes are indicated by isolated peak counts of 21 on October 21, 2004 and 13 on November 4, 2007. The sixth peaked from November 10 (2006) to November 11 (2005) with a high count of eight on November 10, 2006. The seventh peaked from November 16 (2003) to November 18 (2007) with a high count of 14 on November 18, 2007. The eighth is indicated by a peak count of three on November 25, 2005. The winter passage followed from November 24 (2006) to January 10 (2007), there were six “clustered” influxes. The first peaked from November 28 (2004) to November 29 (2006) with a high count of six on November 29, 2006. The second peaked from December 2 (2007) to December 4 (2005) with a high count of 16 on December 2, 2007. The third peaked from December 14 (2007) to December 15 (2003) with a high count of 12 on December 14, 2007. The fourth peaked from December 19 (2004) to

December 20 (2006) with a high count of nine on December 20, 2006. The fifth peaked from December 26 (2005) to December 31 (2003) with high counts of eight on December 29, 2006 and December 28, 2007. The sixth peaked from January 4 (2006) to January 7 (2007) with a high count of 11 on January 7, 2007. The early spring passage ran from January 4 (2008) to March 2 (2005), there were seven “clustered” influxes. The first peaked from January 9 (2008) to January 11 (2004) with a high count of ten on January 9, 2008. The second peaked from January 14 (2007) to January 15 (2006) with a high count of 12 on January 14, 2007. The next two influxes are indicated by isolated peak counts of 14 on January 18, 2008 and six on January 25, 2006. The fifth peaked from February 1 (2006) to February 4 (2008) with a high count of 21 on February 4, 2008. The sixth peaked from February 11 (2004, 2007) to February 15 (2008) with a high count of 24 on February 15, 2008. The seventh peaked from February 21 (2007) to February 24 (2006) with a high count of 17 on February 24, 2006. The main spring passage ran from February 22 (2008) to May 1 (2005), there were eight “clustered” influxes. The first peaked from February 29 (2004) to March 1 (2006) with a high count of 17 on March 1, 2006. The second peaked from March 4 (2008) to March 9 (2007) with high counts of 19 on March 9, 2007 and 36 on March 4, 2008. The third peaked from March 14 (2004) to March 15 (2006) with a high count of ten on March 15, 2006. The fourth is indicated by a peak count of 15 on March 23, 2007. The fifth peaked from March 27 (2005) to March 31 (2004) with a high count of 11 on March 31, 2004. The sixth peaked from April 2 (2008) to April 4 (2007) with a high count of 19 on April 2, 2008. The seventh peaked from April 11 (2007, 2008) to April 14 (2006) with a high count of 18 on April 11, 2008. The eighth peaked from April 20 (2008) to April 26 (2005) with a high count of 21 on April 20, 2008. There did appear to be a spring passage through February and early March. The summer passage ran from April 25 (2004) to July 9 (2008), there were eight “clustered” influxes. The first peaked from May 2 (2008) to May 3 (2006) with a high count of 22 on May 2, 2008. The second peaked from May 10 (2004) to May 13 (2007) with a high count of 16 on May 13, 2007. The third peaked from May 17 (2006) to May 23 (2004) with a high count of 12 on May 17, 2006. The fourth peaked from May 27 (2007) to May 31 (2006) with a high count of 20 on May 28, 2008. The next two influxes are indicated by isolated peak counts of six on June 5, 2005 and 14 on June 13, 2008. The seventh peaked from June 22 (2007) to June 23 (2004) with a high count of 14 on June 22, 2007. The eighth peaked from June 27 (2008) to July 1 (2005, 2007) with a high count of 14 on July 1, 2007. There were a total of 46 “clustered” influxes this was one of the higher counts.

Bell's Vireo (*Vireo bellii*)

This was a very rare passage migrant with no sightings in 2007. This species is normally found in thick cover by water. For the early fall passage there was one on September 3, 2003 at

the Sand Farm with one at the Nursery on September 12, 2004. Finally there was one at the Sand Farm on September 17, 2006 and September 21, 2006. For the early spring passage there was one at the Nursery on January 14, 2008 with one at the western end of the Sand Farm on January 20, 2008. I am treating these as relating to a single individual that had moved some two miles to the south-west. Finally there was one at the Sand Farm on February 16, 2005. For such a rare species that is a lot of records.

Yellow-throated Vireo (*Vireo flavifrons*)

An uncommon passage migrant which is perhaps surprising seeing as it breeds in central Florida. For the early fall passage there were singles at the Sand Farm on August 6, 2008 and on September 14, 2003. There was one on the eastern border north of the McDonald Canal on September 16, 2003. There were also singles at the Nursery on September 21, 2006, September 23, 2006 and September 22, 2004 with two on September 28, 2004 and one on October 3, 2004. Finally for the early fall passage there was one by Lust Road gate on September 22, 2005. For the early spring passage there was one at the Sand Farm on January 10, 2007, January records are very unusual. Finally for the main spring passage there were two on April 14, 2006 at the Nursery with another there on April 21, 2006. The counts of two equal the highest count for Zellwood, there were also two on April 3, 2002.

Blue-headed Vireo (*Vireo solitarius*)

A passage migrant and winter visitor, it occurs in the wooded borders. With access to the Nursery it is now possible to get a better idea of the numbers passing through. Seen in the fall from September 21 (2006) to December 7 (2005) with a high count of 12 on November 14, 2007. Numbers somewhat lower in the winter with the passage running from November 30 (2007) to January 15 (2006), the high count was that of eight on December 13, 2006. The early spring passage was the strongest event, the passage ran from January 5 (2007) to March 6 (2005) with a high count of 16 on January 28, 2008. To detail the 2008 influxes, there were three on January 6 with four on January 9, six on January 14 and eight on January 18, then two seen on January 20. There were six on January 23 with ten on January 25 and 16 on January 28, then eight seen on January 30 with six on February 1 and three on February 4. There were four on February 6 with eight on February 8 and 11 on February 12, then two seen on February 15 with one on February 17. There were four on February 20 with five on February 22, then four seen on February 24 with one on February 26. The late spring passage ran from February 29 (2008) to April 21 (2007) with a high count of 18 on March 2, 2008. To detail the 2008 influxes, there were seven on February 29 with 18 on March 2, then four seen on March 4 with two on

March 15. There were five on March 17 with three on March 19 and one on March 24. There were two on March 26 with one on April 2.

The fall passage ran from September 21 (2006) to December 7 (2005), there were six “clustered” influxes. The first two are indicated by isolated peak counts of two on September 23, 2006 and October 10, 2005. The third peaked from October 18 (2006) to October 22 (2003) with a high count of two on October 18, 2006. The fourth peaked from November 3 (2004) to November 5 (2006) with a high count of four on November 4, 2007. The fifth peaked from November 13 (2005) to November 17 (2006) with high counts of seven on November 17, 2006 and 12 on November 14, 2007. The sixth peaked from November 28 (2004) to November 30 (2005) with a high count of nine on November 28, 2004. The winter passage ran from November 30 (2007) to January 15 (2006), there were three “clustered” influxes. The first peaked from December 1 (2003) to December 2 (2007) with a high count of five on December 2, 2007. The second peaked from December 13 (2005, 2006) to December 15 (2003) with a high count of eight on December 13, 2006. The third peaked from December 26 (2007) to December 30 (2004) with high counts of six on December 27, 2006 and December 26, 2007. The early spring passage ran from January 5 (2007) to March 6 (2005), there were eight “clustered” influxes. The first peaked from January 5 (2007) to January 11 (2004) with a high count of six on January 5, 2007. The second peaked from January 18 (2008) to January 20 (2006) with high counts of nine on January 20, 2006 and ten on January 19, 2005. The third is indicated by a peak count of six on January 24, 2007. The fourth peaked from January 28 (2008) to February 1 (2006) with high counts of four on January 30, 2005 and February 1, 2006 with 16 on January 28, 2008. The fifth is indicated by a peak count of six on February 4, 2007. The sixth peaked from February 11 (2004, 2007) to February 13 (2005) with high counts of 11 on February 12, 2008 and 12 on February 11, 2007. The seventh peaked from February 22 (2008) to February 23 (2007) with a high count of nine on February 23, 2007. The eighth peaked from February 28 (2005) to February 29 (2004) with a high count of four on February 28, 2005. Finally there was the late spring passage, this ran from February 29 (2008) to April 21 (2007), there were six “clustered” influxes. The first peaked from March 2 (2008) to March 7 (2007) with high counts of seven on March 7, 2007 and 18 on March 2, 2008. The latter was the highest count during the first ten years of the survey. The next two influxes are indicated by isolated peak counts of three on March 10, 2005 and five on March 17, 2008. The fourth peaked from March 23 (2007) to March 26 (2008) with a high count of five on March 23, 2007. The fifth peaked from April 10 (2005) to April 11 (2007) with a high count of six on April 11, 2007. The sixth is indicated by a peak count of one on April 19, 2006. It is nice for a change to deal with the clustered influxes that are spaced further apart i.e. regular not basic influxes.

Philadelphia Vireo (*Vireo philadelphicus*)

A rare passage migrant with four records for the five years. There was one at the Nursery on September 29, 2006 with one by Lake Apopka north of the Lust Road pump house on October 5, 2003. There was another at the Nursery on October 8, 2005. Finally there was one by Hooper Farms Road gate on October 10, 2007. All were within a two week period.

Red-eyed Vireo (*Vireo olivaceus*)

An uncommon passage migrant being seen in the wooded borders. Seen in the spring from March 9 (2007) to May 20 (2004), no more than two a day were seen during this passage. Seen in the early fall from July 16 (2008) to September 7 (2005) with a high count of seven on August 26, 2007. To detail the 2007 influxes, there was one on July 20. There were also singles on August 8, August 15 and August 17. There was one on August 22 with three on August 24 and seven on August 26, then three seen on August 29 with one on August 31. The main fall passage ran from September 2 (2007) to October 29 (2006) with a high count of 12 on September 16, 2007. To detail the 2007 influxes, there were two on September 2 with six on September 5 and eight on September 9, then two seen on September 12. There were seven on September 14 with 12 on September 16, then seven seen on September 19 with five on September 21 and one on September 23. There were two on September 26 with six on September 30, then three seen on October 3 with two on October 7 and one on October 12.

The spring passage ran from March 9 (2007) to May 20 (2004), there were nine "clustered" influxes. The first is indicated by a peak count of one on March 9, 2007. The second peaked from March 16 (2005) to March 17 (2006) with one on both dates. The third peaked on March 28 (2007, 2008) with two on both dates. The fourth is indicated by a peak count of one on April 4, 2008. The fifth peaked from April 9 (2008) to April 11 (2007) with singles on three dates. The sixth peaked from April 14 (2006) to April 15 (2008) with a high count of two on April 14, 2006. The seventh peaked from April 21 (2007) to April 26 (2005) with one on both dates. The eighth peaked from April 30 (2008) to May 5 (2004) with a high count of two on May 5, 2004. The ninth is indicated by a peak count of one on May 20, 2004. There were no summer sightings. The early fall passage ran from July 16 (2008) to September 7 (2005), there were six "clustered" influxes. The first peaked from July 16 (2008) to July 20 (2007) with one on both dates. The second is indicated by a peak count of two on August 2, 2006. The third peaked from August 7 (2005) to August 9 (2004) with singles on three dates. The fourth is indicated by a peak count of one on August 20, 2003. The fifth peaked from August 26 (2004, 2007) to August 28 (2005) with a high count of seven on August 26, 2007. The sixth peaked from September 3 (2003) to September 4 (2005) with a high count of two on September 4, 2005. Finally there was

the main fall passage, this ran from September 2 (2007) to October 29 (2006), there were five “clustered” influxes. The first peaked from September 9 (2004, 2007) to September 10 (2006) with high counts of eight on September 9, 2007 and ten on September 10, 2006. The second peaked from September 16 (2007) to September 22 (2004) with high counts of ten on September 21, 2006 and 12 on September 16, 2007. The latter was the highest count during this set of five years. The third peaked from September 27 (2006) to October 2 (2005) with high counts of seven on September 27, 2006 and nine on September 29, 2003. The fourth peaked from October 17 (2004) to October 22 (2003) with a high count of three on October 17, 2004. The fifth is indicated by a peak count of one on October 29, 2006.

Black-whiskered Vireo (*Vireo altiloquus*)

This is a southern coastal species that should never turn up inland at Zellwood. However there was one with four Red-eyed Vireos on the southern border on September 10, 2006. This is the only Zellwood record.

Blue Jay (*Cyanocitta cristata*)

Resident with a breeding population of 70 pairs in 2004 in the wooded borders, the population is likely to be similar now. It is also a fall passage migrant, exceptionally in most years that passage appears to have two peaks, in late September and again in mid-October. The summer passage ran from April 6 (2005) to July 16 (2006) with a high count of 36 on May 30, 2007. The next event I am calling the late summer passage, this ran from July 4 (2004, 2007) to September 9 (2004) with a high count of 37 on August 24, 2007. In reality there was probably no passage from April to September but there were as always the influxes. The fall passage ran from September 4 (2005) to December 3 (2003) with high counts of 142 on September 27, 2006 and 180 on October 17, 2007. To detail the 2007 influxes, there were 39 on September 9 with 36 on September 12 and 33 on September 14. There were 38 on September 16 with 40 on September 21, 57 on September 23 and 83 on September 26, then 59 seen on September 28. There were 67 on September 30 with 92 on October 3, 119 on October 7, 132 on October 10, 164 on October 12 and 180 on October 17, then 66 seen to October 26 with 62 on October 29 and 53 on October 31. There were 65 on November 2 with 64 on November 4, 51 on November 11, 35 on November 14 and 22 on November 16. There were 53 on November 18 with 33 on November 23, 16 on November 25 and 14 on November 28. The winter passage followed from November 29 (2006) to January 6 (2006) with a high count of 50 on December 26, 2007. To detail that influx, there were 18 on December 21 with 50 on December 26, then 16 seen on December 28 and 11 on December 21. None could be found on January 2, 2008. That is

probably the only time that this has happened. The early spring passage ran from January 4 (2008) to March 2 (2007) with a high count of 61 on January 18, 2008. To detail that influx, there were 14 on January 11 with 15 on January 14, 35 on January 16 and 61 on January 18, then 39 seen on January 23 with 20 on January 25. I have detailed the single winter and early spring influxes as they appear to show actual passage. Finally there was the late spring passage, this ran from March 1 (2006) to April 9 (2008) with a high count of 54 on March 15, 2008.

The summer passage appears to run from April 6 (2005) to July 16 (2006), there were ten "clustered" influxes. The first is indicated by a peak count of 25 on April 6, 2005. The second peaked on April 13 (2007, 2008) with a high count of 33 on April 13, 2007. The third peaked from April 19 (2006) to April 24 (2007) with a high count of 25 on April 23, 2008. The fourth peaked from April 30 (2008) to May 5 (2004) with a high count of 21 on May 5, 2004. The fifth peaked from May 14 (2006) to May 16 (2007) with a high count of 28 on May 16, 2007. The sixth peaked from May 22 (2005) to May 24 (2006) with a high count of 30 on May 24, 2006. The seventh peaked from May 28 (2008) to May 30 (2007) with a high count of 36 on May 30, 2007. The eighth peaked from June 9 (2004) to June 13 (2008) with a high count of 30 on June 13, 2008. The ninth is indicated by a peak count of 27 on June 22, 2007. The tenth peaked from June 28 (2004) to July 1 (2005) with a high count of 31 on June 30, 2006. The late summer passage ran from July 4 (2004, 2007) to September 9 (2004), there were seven "clustered" influxes. The first is indicated by a peak count of 28 on July 4, 2007. The second peaked from July 14 (2004) to July 19 (2006) with a high count of 35 on July 19, 2006. The third peaked from July 22 (2007) to July 24 (2004) with a high count of 34 on July 22, 2007. The fourth peaked from July 28 (2006) to August 1 (2008) with a high count of 25 on August 1, 2008. The fifth peaked from August 9 (2004) to August 13 (2008) with a high count of 27 on August 9, 2004. The sixth peaked from August 18 (2006) to August 21 (2005) with a high count of 35 on August 21, 2005. The seventh peaked from August 24 (2007) to August 29 (2004) with a high count of 37 on August 24, 2007. The fall passage was the event of the year, the passage ran from September 4 (2005) to December 3 (2003), there were nine "clustered" influxes. The first peaked from September 9 (2007) to September 10 (2006) with a high count of 49 on September 10, 2006. The second is indicated by a peak count of 53 on September 19, 2005. The third peaked from September 26 (2007) to September 29 (2003) with high counts of 83 on September 29, 2003 and September 26, 2007 with 142 on September 27, 2006. The fourth is indicated by a peak count of 158 on October 8, 2006. The fifth peaked from October 15 (2003, 2006) to October 17(2007) with high counts of 102 on October 15, 2003, 123 on October 16, 2005 and 180 on October 17, 2007. The latter is still the highest count for Zellwood. The sixth is indicated by a peak count of 42 on October 21, 2004. The seventh peaked from November 1 (2006) to November 3 (2004) with a high count of 65 on November 2, 2007. The eighth is indicated by a peak count of 41 on November 12, 2006. The ninth peaked from November 16 (2003) to November 19 (2006) with a high count of 53 on November 18, 2007. The winter

passage ran from November 29 (2006) to January 6 (2006), there were five “clustered” influxes. The first peaked from November 29 (2006) to November 30 (2007) with a high count of 31 on November 30, 2007. The second peaked on December 7 (2003, 2007) with a high count of 30 on December 7, 2007. The third peaked from December 11 (2005) to December 16 (2004) with a high count of 37 on December 11, 2005. The fourth peaked from December 23 (2005) to December 28 (2003) with high counts of 27 on December 23, 2005 and 50 on December 26, 2007. The fifth peaked from December 30 (2005) to January 3 (2007) with a high count of 34 on December 30, 2005. The early spring passage ran from January 4 (2008) to March 2 (2007), there were nine “clustered” influxes. The first is indicated by a peak count of 32 on January 9, 2008. The second peaked from January 14 (2007) to January 16 (2005) with a high count of 23 on January 14, 2007. The third peaked from January 18 (2008) to January 19 (2004) with high counts of 21 on January 19, 2004 and 61 on January 18, 2008. The fourth peaked from January 24 (2007) to January 26 (2005) with a high count of 38 on January 24, 2007. The fifth peaked from February 1 (2006) to February 4 (2007, 2008) with high counts of 38 on February 2, 2004 and February 4, 2008. The sixth peaked from February 11 (2004, 2007) to February 12 (2008) with a high count of 44 on February 12, 2008. The seventh peaked from February 18 (2007) to February 19 (2006) with a high count of 29 on February 19, 2006. The eighth peaked from February 22 (2004) to February 24 (2008) with high counts of 24 on February 22, 2004 and 53 on February 24, 2008. The ninth is indicated by a peak count of 25 on February 28, 2007. Finally there was the late spring passage, this ran from March 1 (2006) to April 9 (2008), there were five “clustered” influxes. The first peaked from March 3 (2004) to March 6 (2005) with a high count of 32 on March 4, 2006. The second peaked from March 9 (2007) to March 10 (2006) with a high count of 40 on March 9, 2007. The third peaked from March 14 (2004) to March 17 (2006) with a high count of 54 on March 15, 2008. The fourth peaked from March 20 (2005) to March 23 (2007) with a high count of 29 on March 20, 2005. The fifth peaked from March 30 (2007, 2008) to April 3 (2005) with a high count of 36 on March 30, 2008. There were 45 “clustered” influxes.

Florida Scrub-Jay (*Aphelocoma coerulescens*)

Even though this species nests within five miles this is a vagrant, there were just four records for the five years. There was one at the Sand Farm on April 7, 2004 with another there on July 24, 2008. There was one by the Workshops on October 6, 2006. Finally there was one at the Sand Farm on December 31, 2003. The Sand Farm sightings were the closest to the breeding site which is immediately to the west of the LANSRA.

American Crow (*Corvus brachyrhynchos*)

This is one of the more interesting species as its numbers are changing over time as are the times of year when it can be seen. Initially in 2004 this species was absent during the summer but it is now present during that season. Numbers have also been increasing during the winter and the early spring. There is no evidence that it bred in the survey area but as this species breeds from January to March the higher numbers suggest that locally at least this species is doing well. The summer was the quietest season but it was present in 2008 throughout this period. The passage ran from May 30 (2008) to July 27 (2008) with high counts of three on June 1, 2008 and July 19, 2008. The early fall passage ran from August 1 (2004, 2008) to October 2 (2005) with a high count of 21 on September 16, 2007. To detail the main 2007 influx, there was one on September 5 with seven on September 12 and 21 on September 16, then three seen on September 23 with one on September 26. To detail the main 2005 influx, there were two on September 12 and September 19 with 12 on September 22, then four seen on October 2 with one on October 12. The last date was treated in this case as the first count of the next influx. The main fall passage was the strongest event, the passage ran from September 28 (2004, 2007) to November 25 (2007) with a high count of 14 on October 21, 2007. To detail the main 2007 influxes, there was one on October 19 with 14 on October 21 then seven seen on October 26 with one on October 29. There were nine on November 2 with six on November 7 and two on November 11. There were ten on November 14 with three on November 16 and one on November 18. These were type 2 influxes. To detail the main 2006 influx, there were two on October 20 with seven on October 29 and ten on November 3, then four seen on November 10 with one on November 12. This species is “thought” to be a fall passage migrant and I have detailed these influxes as they support that premise. The winter passage ran from November 25 (2005) to January 9 (2008) with a high count of ten on December 7, 2007. To illustrate the change in numbers in 2004 the peak counts were of one to two whilst in 2007 the peak counts were of four to ten the change was gradual. The early spring passage ran from January 5 (2007) to March 2 (2008) with high counts of 15 on January 28, 2008 and February 18, 2007. The numbers also rose here over the five years as in 2004 the peak counts were of one to three as against four to 15 in 2008. To detail the main 2007 influx, there was one on February 7 with four on February 9, five on February 11 and 15 on February 18, then 12 seen on February 23 with one on February 25. To detail the 2008 main influx, there were two on January 11 with four on January 16, nine on January 20, 12 on January 23 and 15 on January 28, then ten seen on February 1 with one on February 4. These two influxes indicated a return passage in January/February even though that was the local breeding season. The late spring passage was a minor event, it ran from February 28 (2005, 2007) to June 8 (2007) with a high count of eight on March 16, 2007. The numbers were significantly lower from April so perhaps that was a separate event.

The summer passage ran from May 30 (2008) to July 27 (2008), there appear to be six “clustered” influxes. The first three are indicated by isolated peak counts of three on June 1, 2008, two on June 11, 2006 and one on June 24, 2007. The fourth peaked from July 4 (2007) to July 6 (2008) with high counts of two on July 5, 2006 and July 6, 2008. The fifth is indicated by a peak count of one on July 14, 2005. The sixth peaked from July 18 (2007) to July 19 (2008) with a high count of three on July 19, 2008. The early fall passage ran from August 1 (2004, 2008) to October 2 (2005), there were six “clustered” influxes. The first peaked from August 1 (2004, 2008) to August 4 (2006) with high counts of two on August 1, 2004 and August 1, 2008. The second peaked from August 10 (2007, 2008) to August 13 (2005) with two on all three dates. The next two influxes are indicated by isolated peak counts of two on August 24, 2007 and September 9, 2004. The fifth peaked from September 16 (2007) to September 17 (2006) with high counts of two on September 17, 2006 and 21 on September 16, 2007. The latter was the highest count during the first ten years of the survey. The sixth is indicated by a peak count of 12 on September 22, 2005. The main fall passage ran from September 28 (2004, 2007) to November 25 (2007), there were seven “clustered” influxes. The first peaked from September 28 (2004, 2007) to October 1 (2006) with a high count of four on September 28, 2007. The second peaked from October 11 (2006) to October 16 (2005) with a high count of five on October 16, 2005. The third peaked from October 21 (2007) to October 24 (2004) with high counts of two on October 24, 2004 and 14 on October 21, 2007. The fourth peaked from October 28 (2005) to November 3 (2006) with high counts of eight on October 28, 2005, nine on November 2, 2007 and ten on November 3, 2006. The fifth peaked from November 10 (2004) to November 11 (2005) with a high count of four on November 11, 2005. The sixth peaked from November 14 (2007) to November 15 (2006) with high counts of five on November 15, 2006 and ten on November 14, 2007. The seventh peaked from November 22 (2006) to November 23 (2007) with a high count of five on November 22, 2006. This was followed by the winter passage which ran from November 25 (2005) to January 9 (2008), there were four “clustered” influxes. The first peaked from November 30 (2005) to December 1 (2003, 2004, 2006) with a high count of six on December 1, 2006. The second is indicated by a peak count of ten on December 7, 2007. The third peaked from December 14 (2007) to December 16 (2005) with four on both dates. The fourth peaked from December 26 (2005, 2007) to December 27 (2004, 2006) with a high count of seven on December 26, 2007. The early spring passage came next from January 5 (2007) to March 2 (2008), there were seven “clustered” influxes. The first peaked from January 5 (2007) to January 6 (2005) with a high count of four on January 5, 2007. The second peaked from January 16 (2007) to January 20 (2006) with a high count of ten on January 20, 2006. The third is indicated by a peak count of two on January 24, 2007. The fourth peaked from January 28 (2008) to February 4 (2004) with high counts of five on February 1, 2006 and 15 on January 28, 2008. The fifth is indicated by a peak count of five on February 12, 2008. The sixth peaked from February 16 (2004) to February 19 (2006) with high counts of six

on February 19, 2006 and 15 on February 18, 2007. The seventh peaked from February 24 (2008) to February 29 (2004) with a high count of four on February 24, 2008. The late spring passage ran from February 28 (2005, 2007) to June 8 (2007), there were 11 “clustered” influxes. The first peaked from March 4 (2007) to March 6 (2005) with a high count of five on March 4, 2007. The second is indicated by a peak count of six on March 12, 2006. The third peaked from March 15 (2008) to March 19 (2006) with a high count of eight on March 16, 2007. The fourth peaked from March 28 (2004) to March 30 (2008) with a high count of four on March 30, 2008. The peak counts are now lower; perhaps the actual spring passage ends at this point. The fifth peaked from April 10 (2005) to April 13 (2007, 2008) with high counts of three on April 10, 2005 and April 13, 2008. The sixth peaked from April 18 (2004) to April 19 (2006) with a high count of two on April 19, 2006. The seventh is indicated by a peak count of two on April 30, 2005. The eighth peaked from May 4 (2008) to May 7 (2007) with a high count of three on May 7, 2007. The ninth peaked from May 16 (2004, 2007) to May 17 (2006) with a high count of three on May 16, 2007. The tenth is indicated by a peak count of one on May 22, 2005. The 11th peaked from May 28 (2006) to May 30 (2007) with a high count of two on May 30, 2007. If the migration did end after the fourth influx then the late spring passage would only run to April 30 (2008) and the summer passage would run from April 18 (2004) and it would have comprised 13 “clustered” influxes. There were in all 41 “clustered” influxes.

Fish Crow (*Corvus ossifragus*)

A resident, a passage migrant and a winter visitor, in 2004 there were ten pairs however numbers are lower now as there are fewer trees by the lake. Unlike the last species this crow nests in the summer. The summer passage appears to run from April 1 (2007) to June 13 (2007) with a high count of 30 on April 13, 2008. The next event may well be two or even three separate events but I am not sure of the breaking point(s). The whole passage ran from May 21 (2006) to September 19 (2005) with high counts of 835 on June 28, 2006 and 825 on July 6, 2008. These counts probably relate to a post-breeding gathering with the birds gathering by the Lake Level Canal to gorge on the fruit of the Elderberry. At some point it may turn into an early fall passage. In 2005 there was a short-lived passage with tight flocks flying very fast as if driven to the south-east, there were 40 on June 5, 230 on June 19 and 280 on June 26. This would appear to be a third event! For the first five years it was the spring that produced the greatest numbers but for this set of five years it was the early fall. To detail the main 2006 influxes, there were 174 on June 25 with 835 on June 28, then 687 seen on July 2 with 460 on July 10, 181 on July 12 and nine on July 14. There were 125 on July 16 with 255 on July 19, then 220 seen on July 21 with 130 on July 26 and 13 on July 28. There were 35 on July 30 with 55 on August 2, 255 on August 4 and 300 on August 8, then 240 seen on August 11 with 220 on

August 13, 67 on August 16, ten on August 18 and one on August 25. To detail the 2008 influxes, there were four on June 13 with eight on June 15, 62 on June 18, 75 on June 20, 105 on June 22 and 420 on June 25, then 145 seen on June 27 with 120 on June 29. There were 200 on July 2 with 825 on July 6, then 70 seen on July 9 with 37 on July 11. There were 160 on July 13 with nine on July 16. There were 50 on July 19 with 215 on July 21, then 34 seen on July 24 with 13 on July 27, seven on July 30 and one on August 1. By comparison the late fall passage was a minor event, it ran from September 28 (2004) to December 3 (2003) with a high count of 160 on November 23, 2003. The winter passage was much heavier with passage from December 1 (2004) to January 5 (2007). There was an extension to January 18 in 2006. The highest counts were those of 550 on December 26, 2005 and January 6, 2006. The early spring passage ran from January 6 (2008) to March 4 (2007) with a high count of 850 on January 14, 2004. To detail the main 2004 influx, there were 850 on January 14 with 390 on January 19 and two on January 21. Prior to the 850 the last count was that of four on December 28, 2003. To detail the main 2006 influx, there were two on February 8 with 400 on February 10 and 800 on February 12, then 82 seen on February 14 with 75 on February 17 and one on February 19. Finally the late spring passage ran from March 2 (2005, 2008) to April 7 (2004) with a high count of 153 on March 19, 2008.

The summer passage ran from April 1 (2007) to June 13 (2007), there were nine "clustered" influxes. The first peaked from April 6 (2007) to April 7 (2008) with a high count of 13 on April 7, 2008. The second peaked from April 10 (2005) to April 14 (2006) with a high count of 30 on April 13, 2008. The third is indicated by a peak count of 19 on April 21, 2004. The fourth peaked from April 24 (2007) to April 27 (2008) with a high count of 17 on April 24, 2007. The fifth peaked from April 28 (2006) to May 1 (2007) with a high count of 23 on April 30, 2005. The sixth peaked from May 5 (2006) to May 9 (2007) with a high count of 18 on May 9, 2007. The seventh peaked from May 14 (2004) to May 18 (2007) with a high count of 19 on May 17, 2006. The eighth peaked from May 22 (2005) to May 25 (2007, 2008) with a high count of 15 on May 25, 2007. The ninth is indicated by a peak count of 11 on June 8, 2003. The post-breeding gathering cum early fall passage ran from May 21 (2006) to September 19 (2005), there were 12 "clustered" influxes. In the last passage the last influx peaked on June 8, 2003. In 2006 this passage started on May 21 leading to the first influx being indicated by a peak count of 71 on May 31, 2006. The second peaked on June 16 (2004, 2006) with a high count of 102 on June 16, 2006. The third peaked from June 25 (2008) to July 1 (2007) with high counts of 420 on June 25, 2008 and 835 on June 28, 2006. The fourth peaked from July 6 (2005, 2008) to July 7 (2004) with high counts of 48 on July 7, 2004 and 825 on July 6, 2008. The fifth is indicated by a peak count of 160 on July 13, 2008. The sixth peaked from July 19 (2006) to July 25 (2007) with a high count of 255 on July 19, 2006. The seventh peaked from July 31 (2005) to August 3 (2008) with a high count of 225 on July 31, 2005. The eighth peaked from August 8 (2006) to August 10 (2007) with a high count of 300 on August 8, 2006. The ninth peaked from August 17 (2005) to

August 19 (2007) with a high count of 140 on August 17, 2005. Passage now minimal to mid-October with the last three influxes being indicated by isolated peak counts of one on August 24, 2003, two on September 6, 2006 and three on September 16, 2004. The late fall passage ran from September 28 (2004) to December 3 (2003), there were seven “clustered” influxes. The first peaked from September 28 (2004) to September 29 (2003) with a high count of three on September 28, 2004. The second peaked from October 7 (2007) to October 8 (2006) with a high count of three on October 8, 2006. The third peaked from October 18 (2006) to October 19 (2003, 2005) with a high count of 60 on October 18, 2006. The fourth peaked from November 3 (2006) to November 9 (2007) with a high count of 29 on November 7, 2005. The fifth is indicated by a peak count of nine on November 12, 2003. The sixth peaked from November 23 (2003) to November 25 (2005) with a high count of 160 on November 23, 2003. The seventh peaked from November 28 (2007) to November 29 (2006) with a high count of 17 on November 29, 2006. The winter passage ran from December 1 (2004) to January 5 (2007) with an extension to January 18 in 2006, there were five “clustered” influxes. The first peaked from December 2 (2005) to December 5 (2004, 2007) with a high count of 51 on December 5, 2007. The second peaked from December 8 (2006) to December 9 (2003) with a high count of 420 on December 8, 2006. The third peaked from December 19 (2004) to December 21 (2003) with a high count of 140 on December 19, 2004. The fourth peaked on December 26 (2005, 2007) with high counts of 40 on December 26, 2007 and 550 on December 26, 2005. The fifth peaked from January 5 (2007) to January 6 (2006) with high counts of 300 on January 5, 2007 and 550 on January 6, 2006. This was followed by the early spring passage which ran from January 6 (2008) to March 4 (2007), there were six “clustered” influxes. The first peaked from January 14 (2004, 2008) to January 16 (2005) with high counts of 133 on January 14, 2008 and 850 on January 14, 2004. The latter was the highest count during this set of five years. The second peaked from January 19 (2007) to January 24 (2005) with a high count of 360 on January 24, 2005. The third peaked from January 28 (2004) to February 1 (2008) with a high count of 270 on January 29, 2006. The fourth peaked from February 8 (2005) to February 12 (2006) with high counts of 405 on February 8, 2005 and 800 on February 12, 2006. The fifth peaked from February 16 (2004) to February 18 (2007) with a high count of 455 on February 16, 2004. The sixth peaked from February 22 (2004, 2006) to February 24 (2008) with a high count of 76 on February 22, 2006. Finally the late spring passage ran from March 2 (2005, 2008) to April 7 (2004), there were four “clustered” influxes. The first peaked from March 4 (2006, 2008) to March 7 (2004, 2007) with a high count of 62 on March 4, 2006. The second peaked from March 12 (2006) to March 16 (2005) with a high count of 62 on March 12, 2006. The third peaked from March 19 (2008) to March 23 (2007) with a high count of 153 on March 19, 2008. The fourth peaked from March 26 (2006, 2008) to March 31 (2004) with a high count of 131 on March 31, 2004. There were 43 “clustered” influxes.

Purple Martin (*Progne subis*)

Primarily a passage migrant as it does not breed in the survey area. It will doubtless have bred locally. The early spring passage ran from January 20 (2008) to March 6 (2005) with a high count of 40 on February 11, 2004. The next event ran from March 4 (2007) to May 18 (2008) with a high count of 23 on April 14, 2004. This event was strange as it appeared to be an amalgam of a late spring passage together with either non-breeding birds or local breeding birds visiting the area. Then there was the fall passage which ran from May 14 (2004) to September 9 (2004) with high counts of 520 on June 6, 2008, 800 on June 22, 2007 and 2,850 on June 20, 2004. The very high count in 2004 was not alone as there were 1,935 on June 19, 1999. Again note the closeness of the dates. To detail the 2004 influxes, there were 14 on May 14 with 19 on May 20, 73 on May 23 and 345 on May 26, then 210 seen on June 2 with 140 on June 9, 45 on June 13 and 22 on June 16. There were 2,850 on June 20 with 2,180 on June 23, 770 on July 2, 160 on July 4, 25 on July 7, 12 on July 11, ten on July 14, five on July 18, one then seen to August 1. There was one on August 29 with separately two on September 9. There seems to be a tendency for the fall passage to start a little later each year i.e. May 14 (2004) to May 20 (2008).

The early spring passage ran from January 20 (2008) to March 6 (2005), there were six "clustered" influxes. The first peaked from January 23 (2008) to January 25 (2006) with two on both dates. The second peaked from January 28 (2004) to February 2 (2005) with a high count of 23 on January 28, 2004. The third peaked from February 9 (2007) to February 12 (2006) with a high count of 40 on February 11, 2004. The fourth is indicated by a peak count of seven on February 16, 2007. The fifth peaked from February 20 (2008) to February 22 (2006) with a high count of seven on February 22, 2006. The sixth peaked from February 29 (2004) to March 2 (2005) with a high count of 23 on February 29, 2004. The next event, whatever its name, ran from March 4 (2007) to May 18 (2008), there were ten "clustered" influxes. The first is indicated by a peak count of six on March 4, 2007. The second peaked on March 10 (2004, 2005) with a high count of 21 on March 10, 2004. The third peaked from March 15 (2006, 2008) to March 18 (2005, 2007) with a high count of 13 on March 18, 2005. The fourth peaked on March 24 (2006, 2008) with a high count of 11 on March 24, 2008. The fifth is indicated by a peak count of seven on March 30, 2007. The sixth peaked from April 6 (2005, 2007) to April 7 (2008) with a high count of nine on April 6, 2005. The seventh peaked from April 14 (2004, 2006) to April 16 (2007) with a high count of 23 on April 14, 2004. The next two influxes are indicated by isolated peak counts of three on April 26, 2005 and five on May 4, 2007. The tenth peaked from May 10 (2006) to May 14 (2008) with three on both dates. The fall passage was by far the strongest event of the year, this passage ran from May 14 (2004) to September 9 (2004), there were 14 "clustered" influxes or traces of influxes. The first is indicated by a peak count of 18 on May 20, 2007. The second peaked from May 26 (2004) to May 30 (2007) with a high count of

345 on May 26, 2004. The third peaked from June 6 (2008) to June 11 (2006) with a high count of 520 on June 6, 2008. The fourth is indicated by a peak count of 48 on June 15 (2008), this has to be a basic influx. The fifth peaked from June 20 (2004) to June 22 (2007, 2008) with high counts of 800 on June 22, 2007 and 2,850 on June 20, 2004. The latter is still the highest count for Zellwood. This had to relate to a large migrating party that stopped off-passage rather than to a post-breeding gathering. The other major influxes for the other years did not exclude the possibility of a post-breeding gathering. The sixth influx peaked from June 25 (2006) to June 26 (2005) with a high count of 240 on June 25, 2006. The seventh peaked from July 5 (2006) to July 11 (2007) with a high count of 200 on July 5, 2006. That influx marks the end of the main passage. The next four influxes are indicated by isolated peak counts of 14 on July 16, 2006, three on July 23, 2006, two on July 31, 2005 and two on August 10, 2008. The 12th peaked from August 17 (2007) to August 18 (2006) with a high count of two on August 18, 2006. The 13th peaked from August 28 (2005) to September 1 (2006) with a high count of four on September 1, 2006. The last influx is indicated by a peak count of two on September 9, 2004.

Tree Swallow (*Tachycineta bicolor*)

A common passage migrant and winter visitor the greatest numbers were seen in the spring. In the very early fall over the five years seven juveniles and two adults noted from July 6 (2005) to August 1 (2007), to detail these records. There was an adult on July 6 and July 11, 2005. There were single juveniles on July 10, 2006, July 14, 2004, July 19 and July 21, 2006. There was an adult on July 19, 2008. Single juveniles were then seen on July 21, 2004, July 22, 2007, July 28, 2005 and August 1, 2007. There was also an early fall passage from August 8 (2006) to October 10 (2007) with a high count of 35 on September 26, 2007. The main fall passage ran from September 16 (2004) to December 5 (2004) with high counts of 405 on November 1, 2006 and 8,300 on November 11, 2005. To detail the main 2005 influx, there were 30 on November 2 with 645 on November 4, 3,300 on November 7 and 8,300 on November 11, then 68 seen on November 13 with 50 on November 18, 44 on November 25 and 39 on November 27. On November 7 and November 11 the very high counts involved a strong passage to the south rather than birds feeding over the fields. The winter passage followed from November 30 (2005) to January 14 (2008) with a high count of 3,600 on January 4, 2006. To detail the main 2005/2006 influx, there were 80 on December 21 with 105 on December 23, 520 on December 28, 850 on December 30 and 3,600 on January 4, then 430 seen on January 6 with 420 on January 8 and 340 on January 11. During the winter passage there was another high count of 1,100 flying to the south on January 6, 2008. With the early spring passage numbers started to rise. This passage ran from January 6 (2005) to March 4 (2008) with a high count of 4,650 on February 18, 2007. To detail the main 2007 influxes, there were 300 on

February 7 with 860 on February 9 and 3,500 on February 11, then 2,800 seen on February 14 with 1,800 on February 16. There were 4,650 on February 18 with 2,350 on February 21 and 250 on February 23. Now to the main event the main spring passage, this ran from February 25 (2007) to May 24 (2006) with high counts of 12,000 on March 13, 2005, 13,000 on March 19, 2006, 26,000 on March 2, 2007 and 71,000 on March 10, 2006. For two of these counts I have a note on the weather conditions. On March 13, 2005 there was a strong south-west wind. On March 2, 2007 the situation was probably similar but it was noted as "warm humid air just ahead of a cold front". To detail the main 2006 influxes, there were 3,750 on March 1 with 2,000 on March 4. There were 4,900 on March 5 with 71,000 on March 10, then 12,000 seen on March 12 with 10,700 on March 17. There were 13,000 on March 19 with 6,000 on March 22, 4,400 on March 24 and 1,380 on March 26, 2006. Finally a partial albino was seen (it had a white head) on April 21, 2006 and April 23, 2006.

Seen in the very early fall from July 6 (2005) to August 1 (2007), in all seven juveniles and two adults seen. These are detailed in segment one. The early fall passage followed, it ran from August 8 (2006) to October 10 (2007), there were seven "clustered" influxes. The first is indicated by a peak count of one on August 8, 2006. The second peaked from August 22 (2007) to August 26 (2004) with a high count of three on August 26, 2004. The third peaked from September 2 (2007) to September 3 (2006) with one on both dates. The fourth is indicated by a peak count of four on September 12, 2005. The fifth peaked from September 16 (2007) to September 19 (2003) with a high count of five on September 19, 2003. The sixth is indicated by a peak count of 35 on September 26, 2007. The seventh peaked from October 1 (2006) to October 2 (2003) with 31 on both dates. The main fall passage ran from September 16 (2004) to December 5 (2004), there were nine "clustered" influxes. The first is indicated by a peak count of 180 on October 2, 2005. In this instance I felt that this influx belonged in this passage rather than in the last influx of the previous event because of the size of the count. The second peaked from October 11 (2004, 2006) to October 12 (2003) with a high count of 315 on October 11, 2004. The third peaked from October 17 (2007) to October 20 (2006) with a high count of 230 on October 20, 2006. The fourth is indicated by a peak count of 50 on October 24, 2007. The fifth peaked from October 28 (2005) to November 2 (2007) with a high count of 405 on November 1, 2006. The sixth peaked from November 7 (2004) to November 8 (2006) with a high count of 80 on November 7, 2004. The seventh peaked on November 11 (2005, 2007) with high counts of 160 on November 11, 2007 and 8,300 on November 11, 2005. The eighth peaked from November 21 (2007) to November 23 (2004) with a high count of 200 on November 23, 2004. The ninth peaked from November 26 (2006) to November 28 (2003, 2007) with a high count of 340 on November 28, 2003. The winter passage ran from November 30 (2005) to January 14 (2008), there were six "clustered" influxes. The first peaked from December 2 (2005) to December 3 (2006) with a high count of 360 on December 3, 2006. The second peaked on December 7 (2003, 2004, 2007) with a high count of 137 on December 7, 2003. The third is

indicated by a peak count of 160 on December 16, 2005. The fourth peaked from December 22 (2004) to December 26 (2003) with a high count of 545 on December 26, 2003. The fifth is indicated by a peak count of 110 on December 30, 2007. The sixth peaked from January 3 (2007) to January 6 (2008) with high counts of 1,100 (flying to the south) on January 6, 2008 and 3,600 on January 4, 2006. Next came the early spring passage, this ran from January 6 (2005) to March 4 (2008), there were seven “clustered” influxes. The first peaked from January 6 (2005) to January 7 (2007) with a high count of 335 on January 7, 2007. Again I have split an influx between two passages, this time because of the periods that the individual influxes covered. The second peaked from January 13 (2006) to January 16 (2008) with a high count of 735 on January 13, 2006. The third peaked from January 23 (2008) to January 25 (2004, 2006) with a high count of 520 on January 25, 2006. The fourth peaked from January 30 (2008) to February 4 (2007) with a high count of 1,500 on February 4, 2007. The fifth peaked from February 10 (2008) to February 11 (2004, 2007) with a high count of 3,500 on February 11, 2007. The sixth peaked from February 18 (2007) to February 22 (2004) with a high count of 4,650 on February 18, 2007. The seventh peaked from February 24 (2006) to February 26 (2008) with a high count of 1,470 on February 24, 2006. Finally there was the main spring passage, this ran from February 25 (2007) to May 24 (2006), there were 11 “clustered” influxes. The first peaked from March 1 (2006) to March 3 (2004) with high counts of 3,750 on March 1, 2006 and 26,000 on March 2, 2007. The second peaked from March 10 (2006) to March 15 (2008) with high counts of 5,500 on March 14, 2007, 12,000 on March 13, 2005 and 71,000 on March 10, 2006. The latter is still the highest count for Zellwood. The third peaked from March 19 (2006) to March 24 (2008) with high counts of 3,000 on March 21, 2007 and 13,000 on March 19, 2006. The fourth peaked on March 30 (2007, 2008) with a high count of 3,940 on March 30, 2007. The fifth peaked from April 6 (2005) to April 8 (2007) with a high count of 6,200 on April 7, 2004. From this point on passage declined rapidly. The sixth peaked from April 13 (2008) to April 16 (2007) with a high count of 750 on April 13, 2008. The seventh peaked from April 20 (2005) to April 25 (2006) with a high count of 700 on April 20, 2005. The eighth peaked from April 29 (2007) to May 3 (2006) with a high count of 56 on May 3, 2006. The ninth is indicated by a peak count of 13 on May 7, 2007. The tenth peaked on May 14 (2004, 2006) with a high count of 15 on May 14, 2004. The 11th peaked from May 21 (2006) to May 22 (2005) with a high count of two on May 21, 2006.

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)

This is an uncommon passage migrant and non-breeding summer visitor. The spring passage appeared to run from March 10 (2004) to May 1 (2007), there were six “clustered” influxes. The first peaked from March 10 (2004) to March 13 (2005) with one on both dates. The second peaked from March 21 (2007) to March 24 (2006) with a high count of three on

March 21, 2007. The third peaked from April 3 (2005) to April 8 (2007) with high counts of six on April 8, 2007 and eight on April 4, 2004. The fourth peaked from April 13 (2008) to April 17 (2005) with a high count of three on April 13, 2008. The fifth peaked from April 23 (2004) to April 24 (2005) with one on both dates. The sixth is indicated by a peak count of three on May 1, 2007. There was now a break in the sightings until the next event started on May 23 (2007). There was one on that date with three on May 29, 2005. These may be late spring migrants or even early fall migrants. It is also possible that they had come from a local breeding colony. There does appear to be an event from June 1 (2008) to July 24 (2004), there being five "clustered" influxes. Again I do not know how to describe this event, do those two May sightings relate to this event? Whatever its proper name the first influx peaked from June 8 (2007) to June 11 (2008) with a high count of five on June 11, 2008. The second peaked from June 19 (2005, 2006) to June 22 (2008) with high counts of four on June 22, 2008 and eight on June 19, 2006. The third is indicated by a peak count of four on June 27, 2007. The fourth peaked from July 7 (2004) to July 10 (2006) with a high count of five on July 10, 2006. The fifth peaked from July 20 (2007) to July 21 (2004) with a high count of three on July 20, 2007. There was an early fall passage, this ran from August 1 (2008) to September 19 (2003), there were four "clustered" influxes. This was a minor event when compared to the one just described. The first two influxes are indicated by isolated peak counts of two on August 1, 2008 and August 20, 2003. The third peaked from September 4 (2005) to September 9 (2004) with a high count of two on September 4, 2005. The fourth peaked from September 14 (2003) to September 17 (2006) with a high count of two on September 17, 2006. The main fall passage followed from September 25 (2006) to November 13 (2005), there were five "clustered" influxes. The first peaked from September 27 (2006) to September 30 (2007) with a high count of four on September 27, 2006. The second peaked from October 9 (2003) to October 13 (2006) with high counts of two on October 9, 2003 and 28 on October 11, 2004. The latter is still the highest count for Zellwood. The third is indicated by a peak count of one on October 20, 2006. The fourth peaked from October 30 (2005) to November 5 (2003) with a high count of four on October 30, 2005. The fifth is indicated by a peak count of two on November 13, 2005. To detail the 2004 influx, there were three on October 6 with 28 on October 11, then one seen on October 17 that is it.

Bank Swallow (*Riparia riparia*)

Passage migrant with the greatest numbers in the fall very exceptionally there was one present in the first part of the 2005/2006 winter. The spring passage ran from April 3 (2005) to May 30 (2004, 2007) with an extension to June 12 in 2005. The highest count was that of 12 on May 14, 2006. To detail the 2006 influxes, there were three on April 23 with two on April 28

and one on April 30. There were two on May 5 with three on May 10 and 12 on May 14, then four seen on May 19 with three on May 21. This passage ended on May 30 in both 2004 and 2007 whilst in 2005 at the Barn Swallow colony by Lust Road there were singles on May 22, May 29 and June 12. The early fall passage ran from July 3 (2005) to August 25 (2005) with a high count of nine on July 20, 2007. The main fall passage was by far the strongest event of the year. This passage ran from August 15 (2007) to October 17 (2004) with a high count of 264 on September 7, 2005. Of the 264 some 80 were by Laughlin Road and 150 were by Lust Road. To detail that influx, there were 11 on August 28 with 27 on September 4 and 264 on September 7, then 18 seen on September 12 with two on September 19. Normally that would be it but very exceptionally there were winter records. There was one by the Lake Level Canal on December 2, December 7, December 9 and December 13. This individual was with a small party of Barn Swallows of which there were three from November 30 to December 7 with two from December 9 to December 13. There may be only one other winter record for Florida.

Seen in the spring from April 3 (2005) to May 30 (2004, 2007) with an extension to June 12 in 2005, there were nine "clustered" influxes. The first peaked from April 3 (2005) to April 8 (2007) with a high count of four on April 3, 2005. The second peaked from April 15 (2007, 2008) to April 18 (2004) with high counts of three on April 17, 2005 and April 15, 2008. The next two influxes are indicated by isolated peak counts of three on April 23, 2006 and four on April 30, 2005. The fifth peaked from May 5 (2004) to May 9 (2008) with a high count of six on May 9, 2008. The sixth is indicated by a peak count of 12 on May 14, 2006. The seventh peaked from May 22 (2005) to May 25 (2008) with a high count of two on May 25, 2008. The last two influxes are indicated by isolated peak counts of one on May 30, 2004 and June 12, 2005. The early fall passage ran from July 3 (2005) to August 25 (2005), there were six "clustered" influxes. The first peaked from July 3 (2005) to July 9 (2008) with a high count of three on July 9, 2008. The second peaked from July 20 (2007) to July 21 (2004) with a high count of nine on July 20, 2007. The third peaked from July 26 (2008) to July 28 (2005, 2006) with a high count of seven on July 26, 2008. The fourth is indicated by a peak count of four on August 3, 2008. The fifth peaked from August 9 (2004) to August 11 (2006) with a high count of five on August 11, 2006. The sixth is indicated by a peak count of six on August 17, 2005. The main fall passage followed from August 15 (2007) to October 17 (2004), there were eight "clustered" influxes. The first is indicated by a peak count of 64 on August 22, 2007. The second peaked from August 26 (2004) to August 27 (2003) with high counts of 45 on August 26, 2004 and 83 on August 27, 2003. The third peaked from August 31 (2007) to September 1 (2006) with a high count of 14 on September 1, 2006. The fourth peaked from September 7 (2005) to September 9 (2004, 2007) with high counts of 13 on September 9, 2007 and 264 on September 7, 2005. The latter was the highest count during the first ten years of the survey. The fifth peaked from September 13 (2006) to September 14 (2003) with a high count of 14 on September 13, 2006. The sixth peaked on September 22 (2004, 2005) with a high count of seven on September 22, 2004. The

seventh peaked from September 28 (2007) to October 2 (2005) with a high count of 26 on September 28, 2007. The eighth peaked from October 11 (2004) to October 12 (2003) with a high count of 12 on October 11, 2004. Finally and very exceptionally there was one present from December 2, 2005 to December 13, 2005. It was with Barn Swallows by the Lake Level Canal.

Cliff Swallow (*Petrochelidon pyrrhonota*)

This is an uncommon passage migrant. Seen in the spring from March 18 (2005) to May 24 (2006), there were seven “clustered” influxes. The first was indicated by a peak count of one on March 18, 2005. This individual was still in first winter plumage. The second peaked from March 24 (2008) to March 25 (2007) with one on both dates. The third peaked from April 13 (2008) to April 14 (2004, 2006) with a high count of five on April 14, 2004. The fourth peaked from April 24 (2007) to April 28 (2006) with a high count of four on April 25, 2004. The last three influxes only occurred in 2006 and relate to singles on May 5, May 14 and May 24. The gaps between the sightings are such that I think it unlikely that one bird involved. As with the Tree Swallow the earliest fall sightings tend to relate to juveniles. There were juveniles on July 3, 2005, July 2, 2008 and July 6, 2008 with two on July 9, 2008. These 2008 sightings were at widely spaced locations. During this period there was also an adult on July 4, 2004. The early fall passage as a whole ran from July 2 (2008) to August 19 (2007), there were six “clustered” influxes. The first peaked from July 2 (2008) to July 4 (2004) with one on both dates. The second peaked from July 13 (2008) to July 15 (2007) with a high count of four on July 13, 2008. The third peaked from July 18 (2004) to July 23 (2005) with a high count of six on July 21, 2008. The fourth peaked on August 1 (2004, 2007) with a high count of six on August 1, 2007. The fifth peaked from August 6 (2008) to August 7 (2005) with a high count of three on August 6, 2008. The sixth is indicated by a peak count of three on August 11, 2004. Finally there was the main fall passage, this ran from August 17 (2005) to October 23 (2005), there were eight “clustered” influxes. The first peaked from August 17 (2005) to August 20 (2003) with a high count of ten on August 20, 2003. One of these an adult appeared to be of the south-western race *P.p.melanogaster*. The second peaked from August 25 (2006) to August 27 (2003) with a high count of four on August 27, 2003. The third peaked from September 1 (2006) to September 2 (2007) with a high count of four on September 2, 2007. The fourth is indicated by a peak count of one on September 8, 2004. The fifth peaked from September 12 (2005, 2007) to September 14 (2003) with high counts of three on September 12, 2005 and 41 on September 14, 2003. The latter was a one day event. The sixth is indicated by a peak count of one on September 21, 2006. The seventh peaked from September 28 (2007) to October 2 (2005) with high counts of 23 on September 28, 2007 and 71 on October 1, 2006. The latter is still the highest count for Zellwood.

It is also one of the highest counts for Florida. This was a single flock that was on the utility wires by Interceptor Road. They and other hirundines had been feeding over the Sod Farm. This was also for the most part a one day event as only seven seen on October 4 with six on October 6 and two on October 8. The eighth peaked from October 11 (2004, 2006) to October 16 (2005) with a high count of three on October 11, 2006.

Cave Swallow (*Petrochelidon fulva*)

This has become a very rare but annual passage migrant. All sightings show the characteristics of the Mexican race *P.f. pelodoma*. For the spring passage there were two adults on April 14, 2004 by Lake Apopka north of Lust Road. There was one by the Lake Level Canal on May 18, 2008 and there was an adult on May 22, 2005 by Lake Apopka north of Lust Road. For the late fall passage the first sighting involves a party of four by the Lake Level Canal on October 1, 2006. There was one by Laughlin Road on October 26, 2007. There was a party of 14 by Fishponds Road on October 28, 2005. This was followed by two at the Sand Farm on October 30, 2005 and one by Lake Apopka south of Hooper Farms Road on November 4, 2005. The count of 14 is still the highest count for Zellwood. Finally there were two by Laughlin Road on November 4, 2007. Perhaps one day an individual of the Caribbean race will be seen.

Barn Swallow (*Hirundo rustica*)

Common passage migrant and summer visitor, there were 36 breeding pairs in 2004 and there are likely to be similar numbers now. They nest in colonies under some of the bridges and under the overhang between two buildings at Plant Express. The main spring passage ran from February 22 (2004) to May 20 (2004) with a high count of 390 on April 17, 2005. The first birds to arrive in the spring took up residence at the local colonies, the earliest dates were: February 22, 2004, February 26, 2008, February 27, 2006, February 28, 2005 and March 2, 2007. Most species appear to be arriving earlier each year this one is instead arriving later each year, reason not known. To detail the 2005 influxes, there were four on February 28 with 12 on March 6 and 18 on March 13, then 14 seen on March 16 with seven on March 18. There were 24 on March 20 with 29 on March 24, 52 on March 27 and 74 on April 3, then 58 seen on April 6 with 46 on April 10. There were 245 on April 14 with 390 on April 17, then 152 seen on April 24 with 87 on May 1. I cannot tell when the spring passage ended and when the fall passage started so I have separated out the period with a lighter passage and called it the summer passage. This "event" ran from May 11 (2007) to July 16 (2006) with a high count of 185 on July 9, 2008. The main fall passage ran from July 6 (2005) to September 28 (2004) with an extension to October 19 in 2003. There were two elements to this passage initially there was a very rapid

passage to the south followed by an event where the majority stopped off passage to feed. The rapid passage ran to September 1 (2003) with the exception of 2004 when 703 on September 9 and 415 on September 16 flew to the south with none stopping off to feed. In 2003 the following flew to the south, there were 332 on August 20, 2,600 on August 24, 2,025 on August 27 and 1,300 on September 1. After that they were seen in the area with 750 on September 3, 415 on September 10, 235 on September 14, 152 on September 21 and declining numbers through to October 19. Taking the passage as a whole the highest counts were those of 2,600 on August 24, 2003 and 3,530 on July 28, 2006. To detail the 2006 influxes, there were 105 on July 19 with 360 on July 21, 475 on July 23, 585 on July 26 and 3,530 on July 28, then 1,620 seen on July 30 with 66 on August 4 and 31 on August 6. The two highest counts relate to birds that had roosted at the Sand Farm Cattail Marsh, they were counted as they left the roost for the south at first light. All but 280 of those seen on July 28 came out of that roost. To continue, there were 80 on August 8 with 260 on August 11 and 280 on August 16, then 123 seen on August 18. There were 295 on August 20 with 1,360 on August 23, then 335 seen on August 25 with 91 on August 27 and 82 on August 30. There were 360 on September 1 with 1,100 on September 6, then 320 seen on September 8 with 80 on September 10. The late fall passage ran from September 13 (2006) to November 22 (2005). The highest counts were of 500 on September 28, 2007 and October 16, 2005. To detail the last 2005 influx, there were eight on November 13 with 13 on November 15, then four seen on November 18 with two on November 22. In 2005 passage continued as there was a winter influx with three from November 30 to December 7 with two from December 9 to December 13. A Bank Swallow was with these swallows from December 2 to December 13.

The spring passage ran from February 22 (2004) to May 20 (2004), there were nine "clustered" influxes. The first two influxes are indicated by isolated peak counts of one on February 22, 2004 and five on February 29, 2008. The third peaked from March 9 (2007) to March 13 (2005) with a high count of 18 on March 13, 2005. The fourth peaked from March 21 (2008) to March 26 (2006) with a high count of 70 on March 26, 2006. The fifth peaked from March 30 (2008) to April 3 (2005) with a high count of 74 on April 3, 2005. The sixth peaked from April 15 (2008) to April 19 (2006) with high counts of 250 on April 16, 2007, 260 on April 15, 2008, 290 on April 19, 2006 and 390 on April 17, 2005. The seventh is indicated by a peak count of 100 on April 23, 2008. The eighth peaked from April 30 (2006) to May 2 (2008) with high counts of 134 on April 30, 2006 and 196 on May 2, 2008. The ninth peaked from May 5 (2004) to May 7 (2007) with high counts of 83 on May 5, 2004 and 200 on May 7, 2007. The "summer" passage ran from May 11 (2007) to July 16 (2006), there were nine "clustered" influxes. The first is indicated by a peak count of 95 on May 13, 2007. The second peaked from May 21 (2006) to May 26 (2004) with a high count of 135 on May 21, 2006. The third is indicated by a peak count of 125 on May 30, 2007. The fourth peaked on June 8 (2006, 2008) with a high count of 160 on June 8, 2008. The fifth is indicated by a peak count of 134 on June

13, 2007. The sixth peaked from June 18 (2008) to June 23 (2004) with a high count of 120 on June 18, 2008. The seventh peaked from June 26 (2005) to June 28 (2006) with a high count of 128 on June 26, 2005. The eighth peaked from July 6 (2007) to July 9 (2008) with a high count of 185 on July 9, 2008. The ninth peaked from July 11 (2004) to July 12 (2006) with a high count of 140 on July 12, 2006. The counts were now significantly higher. The main fall passage ran from July 6 (2005) to September 28 (2004) with an extension to October 19 in 2003, there were eight "clustered" influxes. The first is indicated by a peak count of 400 on July 16, 2008. The second peaked from July 20 (2007) to July 24 (2004) with a high count of 305 on July 20, 2007. The third peaked from July 28 (2006) to August 3 (2008) with high counts of 300 on August 1, 2007 and 3,530 on July 28, 2006. The latter was the highest count during the first ten years of the survey. The fourth peaked from August 8 (2007) to August 9 (2004) with a high count of 290 on August 8, 2007. The fifth peaked from August 15 (2007) to August 19 (2004) with a high count of 1,230 on August 19, 2004. The sixth peaked from August 22 (2007) to August 24 (2003) with high counts of 1,360 on August 23, 2006 and 2,600 on August 24, 2003. The seventh is indicated by a peak count of 1,230 on August 28, 2005. The eighth peaked from September 6 (2006) to September 9 (2004, 2007) with a high count of 1,100 on September 6, 2006. The counts were now significantly lower hence the "late" fall passage, this ran from September 13 (2006) to November 22 (2005), there were eight "clustered" influxes. The first is indicated by a peak count of 410 on September 13, 2006. The second peaked from September 19 (2007) to September 22 (2005) with a high count of 285 on September 22, 2005. The third peaked from September 28 (2007) to October 4 (2006) with a high count of 500 on September 28, 2007. The fourth peaked from October 10 (2007) to October 16 (2005) with a high count of 500 on October 16, 2005. The fifth is indicated by a peak count of 33 on October 22, 2003. The sixth peaked from October 25 (2006) to October 26 (2007) with a high count of 225 on October 26, 2007. The seventh peaked from October 28 (2005) to November 2 (2007) with a high count of 275 on November 2, 2007. The eighth peaked from November 14 (2004) to November 15 (2005) with a high count of 13 on November 15, 2005. Finally in 2005 there was a winter passage there were three from November 30 to December 7 with two from December 9 to December 13.

Carolina Chickadee (*Poecile carolinensis*)

This is an irregular visitor to the area. There was one at the Nursery on February 13, 2005. There were no further sightings until the early fall. There was one on the southern border on August 8, 2006 with one at the Sand Farm on September 7, 2003. In 2006 there was one at the Nursery from September 15 with two on October 1 and October 4, then one seen through the winter to February 4. On October 1, 2006 there was a third individual by the Lake Level Canal. The count of three was the highest count during the first ten years of the survey. Finally

there was one at the Nursery on November 11, 2007. Lake Apopka is at the southern limit of the breeding range of this species, the nearest site is not known.

Tufted Titmouse (*Baeolophus bicolor*)

This appears to an unusual species in that there is little to suggest passage. It occurs in the wooded borders. Despite its often near constant calling this can be a difficult bird to locate. In 2004 there were a total of 16 pairs and the population is probably unchanged. In both 2003/2004 and 2004 /2005 between one and four seen regularly, this dropped to one to three a day in 2005/2006. There were one to four a day in 2006/2007 with one to five a day in 2007/2008. On looking at the higher counts there was a pattern of sorts. There was a peak in February which might relate to pair formation or passage. I add the latter as I often consider this species to be paired at all times. There was a second peak from April to June with the highest number of high counts in June. That is perhaps to be expected as the only records of newly fledged young come from that month, there were two on June 2, 2004 with two on June 4, 2008. For an unknown reason there were few higher counts for July. The number of such counts was higher again in August and September this being due to the family parties roaming the area. Numbers were then lower for October and November. Surprisingly there were many more high counts for December. It is therefore just possible that birds pass through the area in December and again in February. The highest count was that of 15 on August 10, 2007. This was the highest count during the first ten years of the survey.

Brown-headed Nuthatch (*Sitta pusilla*)

There was one at the Sand Farm on December 17, 2003. This was in the remnant piece of pine woodland that the Bald Eagles nest in. This is the first record for Zellwood.

Carolina Wren (*Thryothorus ludovicianus*)

Resident with a breeding population of 171 pairs in 2004, numbers are likely to be a little lower now with the clearing of the fields. Now that should be it as there is no evidence of passage, but still the “clustered” influxes exist. In defining the various passages I have used the now traditional seasons with the exception of the break between the late spring and the summer passages, that is pure guess work. The summer passage therefore possibly ran from May 9 (2007) to July 14 (2004, 2006) with a high count of 66 on June 1, 2008. The early fall passage ran from July 6 (2007) to September 16 (2003, 2004) with a high count of 48 on August

31, 2007. The main fall passage ran from September 7 (2007) to December 3 (2003) with a high count of 55 on September 29, 2006. To detail the main 2004 influx, there were 17 on September 19 with 23 on September 22 and 33 on September 28, then 23 seen on October 3 with 20 on October 11, 18 on October 21, 17 on October 31, 13 on November 3, ten on November 7 and five on November 10. That looks like a normal influx involving passage. The winter passage ran from November 28 (2007) to January 11 (2004) with a high count of 56 on December 21, 2007. This was followed by the early spring passage that ran from January 5 (2007) to March 4 (2006) with a high count of 65 on February 15, 2008. Finally there was the main spring passage, this ran from February 28 (2007) to May 11 (2008) with a high count of 68 on April 8, 2008. Because these "influxes" puzzle me so much I am detailing the 2008 influxes, there were 54 on February 29 with 53 on March 2, 42 on March 4 and 34 on March 15. There were 58 on March 17 with 47 on March 21 and 35 on March 24. There were 60 on March 26 with 58 on March 28 and 56 on March 30. There were 59 on April 2 with 68 on April 8, then 64 seen on April 11 with 49 on April 13. There were 50 on April 15 with 57 on April 18, then 46 seen on April 20 with 37 on April 23. There were 50 on April 25 with 55 on April 27, then 53 seen on April 30 and May 2. There were 67 on May 4 with 46 on May 9 and 43 on May 11

The summer passage appears to run from May 9 (2007) to July 14 (2004, 2006), there were seven "clustered" influxes. The first peaked from May 13 (2007) to May 17 (2006) with high counts of 63 on May 16, 2008 and 65 on May 13, 2007. The second peaked from May 22 (2005) to May 24 (2006) with a high count of 51 on May 24, 2006. The third peaked from May 27 (2007) to June 1 (2008) with high counts of 57 on May 27, 2007 and 66 on June 1, 2008. The fourth peaked from June 11 (2006) to June 13 (2007) with a high count of 56 on June 11, 2006. The fifth peaked from June 18 (2008) to June 19 (2005) with a high count of 42 on June 18, 2008. The sixth peaked from June 25 (2008) to June 29 (2007) with a high count of 50 on June 25, 2008. The seventh peaked on July 2 (2006, 2008) with a high count of 44 on July 2, 2008. Numbers were significantly lower in the early fall, this passage ran from July 6 (2007) to September 16 (2003, 2004), there were eight "clustered" influxes. The first peaked from July 15 (2007) to July 19 (2006, 2008) with high counts of 38 on July 15, 2007 and July 19, 2008. The second peaked from July 22 (2007) to July 24 (2004) with a high count of 46 on July 22, 2007. The third peaked from July 30 (2006) to August 1 (2008) with a high count of 30 on August 1, 2008. The fourth peaked from August 6 (2006) to August 10 (2008) with a high count of 42 on August 8, 2007. The fifth peaked from August 16 (2004) to August 18 (2006) with a high count of 43 on August 17, 2007. The sixth is indicated by a peak count of 37 on August 24, 2003. The seventh peaked from August 30 (2005) to September 3 (2006) with a high count of 48 on August 31, 2007. The eighth is indicated by a peak count of 24 on September 9, 2004. The main fall passage ran from September 7 (2007) to December 3 (2003), there were 11 "clustered" influxes. The first peaked from September 8 (2006) to September 12 (2005) with a high count of 46 on September 9, 2007. The second peaked from September 15 (2006) to September 19

(2003) with a high count of 49 on September 19, 2003. The third peaked from September 28 (2004) to September 30 (2007) with a high count of 55 on September 29, 2006. The fourth is indicated by a peak count of 31 on October 5, 2003. The fifth peaked from October 10 (2007) to October 16 (2005) with a high count of 37 on October 10, 2007. The sixth is indicated by a peak count of 40 on October 19, 2007. The seventh peaked from October 23 (2005) to October 26 (2003) with a high count of 29 on October 26, 2003. The eighth peaked from November 2 (2005) to November 4 (2007) with a high count of 46 on November 4, 2007. The ninth peaked from November 10 (2006) to November 13 (2005) with a high count of 27 on November 13, 2005. The tenth peaked from November 17 (2004, 2006) to November 20 (2003) with a high count of 43 on November 18, 2007. The 11th peaked from November 24 (2006) to November 28 (2004) with a high count of 34 on November 24, 2006. The winter passage ran from November 28 (2007) to January 11 (2004), there were four “clustered” influxes. This was an even lighter event and that was expected as this species is known to call less in the winter. 2007 was however an exception as numbers were much higher that year. The first influx peaked from December 2 (2007) to December 7 (2003) with high counts of 24 on December 6, 2006 and 51 on December 2, 2007. The second peaked from December 12 (2007) to December 17 (2006) with high counts of 25 on December 17, 2006 and 51 on December 12, 2007. The third peaked on December 21 (2005, 2007) with high counts of 19 on December 21, 2005 and 56 on December 21, 2007. The fourth peaked from December 28 (2003) to December 30 (2004, 2005) with a high count of 25 on December 30, 2005. The early spring passage ran from January 5 (2007) to March 4 (2006), there were six “clustered” influxes. The first peaked from January 7 (2007) to January 11 (2006) with a high count of 51 on January 9, 2008. The second peaked from January 14 (2007) to January 20 (2006) with a high count of 57 on January 18, 2008. The third peaked from January 30 (2008) to February 1 (2006) with a high count of 46 on January 30, 2008. The fourth peaked from February 4 (2004) to February 8 (2005, 2008) with a high count of 48 on February 8, 2008. The fifth peaked from February 14 (2007) to February 15 (2008) with high counts of 33 on February 14, 2007 and 65 on February 15, 2008. The sixth peaked from February 23 (2005) to February 27 (2006) with a high count of 39 on February 27, 2006. Finally there was the main spring passage, this ran from February 28 (2007) to May 11 (2008), there were ten “clustered” influxes. This was the strongest event of the year. The first is indicated by a peak count of 54 on February 29, 2008. The second peaked from March 6 (2005) to March 8 (2006) with a high count of 49 on March 7, 2007. The third peaked from March 14 (2004) to March 18 (2005) with a high count of 58 on March 17, 2008. The fourth peaked from March 21 (2007) to March 26 (2008) with a high count of 60 on March 26, 2008. The fifth peaked from March 31 (2004) to April 4 (2007) with a high count of 39 on April 4, 2007. The sixth peaked from April 8 (2008) to April 11 (2007) with high counts of 44 on April 11, 2007 and 68 on April 8, 2008. The latter was the highest count during this set of five years. The seventh peaked from April 18 (2008) to April 20 (2005) with a high count of 57 on April 18, 2008. The eighth peaked

from April 27 (2008) to May 1 (2007) with a high count of 57 on May 1, 2007. The ninth peaked from May 3 (2006) to May 4 (2008) with high counts of 51 on May 3, 2006 and 67 on May 4, 2008. The tenth is indicated by a peak count of 61 on May 10, 2004. In all there were 46 “clustered” influxes, that is one of the higher totals.

Bewick’s Wren (*Thryomanes bewickii*)

This is a vagrant there being one near Lake Apopka south of Hooper Farms Road extension on October 15, 2003. This is the second record for Zellwood the first was one by Lust Road on February 25, 2000 and March 14, 2000.

House Wren (*Troglodytes aedon*)

Common passage migrant and winter visitor throughout the area, the fall passage was the strongest passage. This event ran from September 15 (2006) to December 8 (2006) with a high count of 408 on October 27, 2004. To detail the 2004 influxes, there were three on September 28 with 20 on October 3, 29 on October 6, 154 on October 11, 274 on October 17, 352 on October 24 and 408 on October 27, then 286 seen on October 31 with 248 on November 7 and 127 on November 10. There were 155 on November 14 with 161 on November 17, then 139 seen on November 21 with 101 on November 23, 82 on November 28, 76 on December 1 and 64 on December 5. Numbers were significantly lower during the winter passage. This event ran from December 4 (2005) to January 15 (2006) with a high count of 153 on December 17, 2007. Numbers were even lower for the early spring passage which ran from January 6 (2005) to March 4 (2006) with a high count of 109 on February 2, 2004. Whilst numbers were again lower for the late spring passage there was a clear peak in late March and early April. This passage ran from February 28 (2007) to May 7 (2006) with a high count of 96 on March 28, 2004. To detail the 2008 passage, there were 56 on February 29 with 66 on March 2, then 52 seen on March 15 with 38 on March 17 and eight on March 19. There were 40 on March 21 with 76 on March 26, 80 on March 28 and 91 on April 2, then 56 seen on April 7 with 51 on April 11, 48 on April 13, 31 on April 15, 30 on April 18, 20 on April 20, eight on April 23, six on April 27, five on May 2 and one on May 4. This long, slow decline was typical for this species. Finally there was an exceptionally late individual at the Sand Farm on May 20, 2008.

The fall passage ran from September 15 (2006) to December 8 (2006), there were seven “clustered” influxes. The first peaked from October 17 (2007) to October 21 (2005) with high counts of 272 on October 20, 2006 and 354 on October 21, 2005. The second peaked from October 26 (2003) to October 29 (2007) with high counts of 344 on October 26, 2003 and 408

on October 27, 2004. The latter was the highest count during this set of five years. The third peaked from November 2 (2005) to November 5 (2003) with high counts of 294 on November 2, 2005 and 311 on November 5, 2003. The fourth peaked from November 10 (2006) to November 11 (2005, 2007) with high counts of 204 on November 11, 2005 and 230 on November 11, 2007. The fifth peaked from November 17 (2004) to November 19 (2006) with a high count of 161 on November 17, 2004. The sixth is indicated by a peak count of 188 on November 25, 2005. The seventh peaked from November 29 (2006) to November 30 (2007) with a high count of 182 on November 30, 2007. The winter passage followed from December 4 (2005) to January 15 (2006), there were five "clustered" influxes. The first peaked from December 4 (2005) to December 9 (2003) with a high count of 138 on December 9, 2003. The second peaked from December 12 (2004) to December 17 (2007) with a high count of 153 on December 17, 2007. The third peaked from December 19 (2007) to December 23 (2005) with a high count of 132 on December 19, 2007. The fourth peaked on December 28 (2003, 2007) with a high count of 114 on December 28, 2003. The fifth peaked from January 4 (2006) to January 7 (2007) with a high count of 124 on January 6, 2008. Note how the peak counts gradually dropped from passage to passage. The early spring passage ran from January 6 (2005) to March 4 (2006), there were seven "clustered" influxes. The first is indicated by a peak count of 96 on January 6, 2005. For the other years this date fits into the fifth influx of the winter passage but I have placed it here as the final date of this 2005 influx is January 24, too late for the winter passage. The second peaked on January 14 (2004, 2007) with a high count of 96 on January 14, 2004. The third peaked from January 18 (2008) to January 20 (2006) with a high count of 103 on January 18, 2008. The fourth peaked on January 26 (2005, 2007) with a high count of 64 on January 26, 2005. The fifth peaked from February 1 (2006) to February 4 (2008) with a high count of 109 on February 2, 2004. The sixth peaked from February 9 (2007) to February 14 (2006) with a high count of 82 on February 12, 2008. The seventh peaked from February 20 (2008) to February 23 (2005) with a high count of 60 on February 20, 2008. Finally the late spring passage ran from February 28 (2007) to May 7 (2006), there were five "clustered" influxes. The first peaked from March 2 (2008) to March 6 (2005) with a high count of 72 on March 3, 2004. The second is indicated by a peak count of 56 on March 17, 2006. The third peaked from March 21 (2007) to March 24 (2005) with a high count of 42 on March 24, 2005. The fourth peaked from March 28 (2004) to April 2 (2008) with high counts of 91 on April 2, 2008 and 96 on March 28, 2004. The fifth peaked from April 11 (2007) to April 14 (2006) with a high count of 51 on April 11, 2007. Note that there were no influxes after this date just declining numbers into May. Very exceptionally there was a late individual at the Sand Farm on May 20, 2008.

Sedge Wren (*Cistothorus platensis*)

Least common of the three migrant wrens being seen on passage and through the winter, it is somewhat more restricted as to the habitat that it will use. It tends to be out in the fields with tall grasses especially if these fields are damp. The fall passage ran from October 1 (2006) to November 28 (2003) with a high count of 38 on November 14, 2007. To detail the 2007 influxes, there was one on October 5 with four on October 12, then two seen on October 19 with one on October 21, There were four on October 24 with six on October 26, eight on October 29 and nine on November 2, then eight seen on November 4 with three on November 7. There were six on November 9 with 20 on November 11 and 38 on November 14, then 25 seen on November 18 with 22 on November 21, 18 on November 23 and 12 on November 25. The winter passage was unusual in that it started early and finished late, perhaps two weeks longer than normal. The passage ran from November 23 (2004) to January 16 (2005) with a high count of 34 on December 2, 2007. Unlike the last species the winter passage was overall a little stronger than the fall passage. To detail the 2007/2008 influxes, there were 22 on November 28 with 33 on November 30 and 34 on December 2, then 26 seen on December 7 with 21 on December 12, 19 on December 14 and five on December 17. There were 21 on December 19 with 13 on December 26. There were 17 on December 28 with ten on December 30 and eight on January 4. There were 16 on January 6 with 13 on January 11 and five on January 14. The early spring passage followed from January 14 (2004) to March 3 (2004) with a high count of 27 on January 18, 2008. The main spring passage ran from March 1 (2006) to April 30 (2006) with a high count of 34 on April 14, 2006. To detail the 2006 influxes, there were 14 on March 1 with 12 on March 5, 11 on March 8, six on March 10 and five on March 12. There were six on March 15 with 11 on March 17, then seven seen on March 19 with six on March 22. There were eight on March 24. I was absent for three weeks and on my return there were 34 on April 14 with 15 on April 19, four on April 21, three on April 28 and two on April 30. This was the last of the wrens to arrive and often the first to leave.

The fall passage ran from October 1 (2006) to November 28 (2003), there were seven “clustered” influxes. In any one year there were normally three influxes per passage but because of the mixture of basic and regular influxes there often ended up for the five years being six or seven “clustered” influxes per passage. If the passage contains even more influxes they are going to be basic influxes. For the fall the first influx peaked from October 3 (2004) to October 4 (2006) with three on both dates. The second peaked on October 12 (2003, 2007) with a high count of five on October 12, 2003. The third is indicated by a peak count of six on October 21, 2005. The fourth peaked from October 27 (2004) to November 2 (2007) with high counts of 13 on October 29, 2006 and 23 on October 27, 2004. The fifth peaked from November 5 (2003) to November 7 (2005) with a high count of nine on November 5, 2003. The sixth peaked from November 14 (2004, 2007) to November 15 (2006) with high counts of 14 on

November 14, 2004, 17 on November 15, 2006 and 38 on November 14, 2007. The latter was the highest count during this set of five years. Again passage was very different from the House Wren as that species reached peak numbers in late October whilst this last influx in mid-November was probably the peak of the passage. The seventh influx peaked from November 23 (2003) to November 24 (2006) with a high count of 15 on November 24, 2006. The winter passage ran from November 23 (2004) to January 16 (2005), there were six “clustered” influxes. The first peaked from November 27 (2005) to November 28 (2004) with a high count of 17 on November 27, 2005. The second peaked from December 2 (2007) to December 3 (2003, 2006) with high counts of 19 on December 3, 2006 and 34 on December 2, 2007. The third peaked from December 11 (2005) to December 13 (2006) with a high count of 17 on December 13, 2006. The fourth peaked on December 19 (2004, 2007) with a high count of 21 on December 19, 2007. The fifth peaked from December 26 (2003) to December 31 (2006) with high counts of 17 on December 31, 2006 and December 28, 2007. The sixth peaked from January 4 (2004) to January 7 (2007) with a high count of 17 on January 7, 2007. The early spring passage followed from January 14 (2004) to March 3 (2004), there were seven “clustered” influxes. The first is indicated by a peak count of nine on January 14, 2004. The second peaked from January 18 (2008) to January 20 (2006) with high counts of 16 on January 19, 2007 and 27 on January 18, 2008. The third peaked from January 27 (2006) to January 28 (2008) with a high count of 17 on January 28, 2008. The fourth peaked from February 2 (2004) to February 4 (2007) with a high count of 19 on February 4, 2007. The fifth is indicated by a peak count of nine on February 12, 2008. The sixth peaked from February 16 (2005) to February 18 (2007) with a high count of 18 on February 16, 2005. The seventh peaked from February 20 (2008) to February 22 (2004) with a high count of 16 on February 20, 2008. The main spring passage ran from March 1 (2006) to April 30 (2006), there were eight “clustered” influxes. The first is indicated by a peak count of 14 on March 1, 2006. The second peaked from March 4 (2008) to March 7 (2004, 2007) with a high count of 15 on March 6, 2005. The third peaked from March 17 (2006) to March 21 (2007) with a high count of 11 on March 17, 2006. The fourth peaked on March 24 (2004, 2005, 2006) with high counts of eight on March 24, 2006 and 29 on March 24, 2005. The fifth peaked on March 28 (2007, 2008) with a high count of 15 on March 28, 2008. The sixth is indicated by a peak count of five on April 7, 2004. The seventh peaked from April 10 (2005) to April 11 (2008) with a high count of 15 on April 11, 2008. The eighth peaked from April 14 (2006) to April 19 (2007) with high counts of 16 on April 19, 2007 and 34 on April 14, 2006.

Marsh Wren (*Cistothorus palustris*)

A quite common passage migrant and winter visitor, it can be found in the vegetation along the banks of the various ditches, the canals together with the edge of Lake Apopka. Fall

passage noted from September 15 (2006) to December 7 (2004) with high counts of 174 on October 27, 2004 and 211 on November 9, 2005. However I have chosen to detail the influxes of 2007, there was one on September 26 with two on September 30, then one seen on October 5. There were three on October 7 with 16 on October 12 and 29 on October 14, then 14 seen on October 17. There were 15 on October 19 with 19 on October 21 and 36 on October 26, then 20 seen on October 29 with 17 on October 31. There were 21 on November 2 with 43 on November 4, 67 on November 9 and 136 on November 11, then 60 seen on November 14 with 19 on November 16. There were 115 on November 18 with 66 on November 23, 59 on November 25 and 39 on November 28. To detail the main 2005 influx, there were 26 on October 28 with 42 on October 30, 55 on November 4 and 211 on November 9, then 42 seen on November 11 with 39 on November 13 and 37 on November 15. Note how the three peak counts of 136, 115 and 211 all stand out as isolated high counts way above the rest of their respective influxes. The winter passage ran from November 24 (2006) to January 18 (2006) with a high count of 72 on December 2, 2007. The early spring passage ran from January 12 (2007) to March 2 (2005, 2007, 2008) with a high count of 63 on January 16, 2008. Finally the main spring passage ran from February 27 (2006) to May 11 (2007, 2008) with a high count of 60 on April 18, 2008. It may have no significance but there was a pattern to the peak counts. Counts climbed in the fall to a peak in early November only to fall back to a low in late December. Counts rose again to a peak in early January and fell again to a low at the end of February. Counts then rose again to a peak in mid-April just before the spring passage came to an end. This suggests that for this species the winter passage was really the second half of the fall passage. Just as interesting is the way the peak counts climbed all the way through the main spring passage that is even more unusual. So to detail the 2008 influxes, there were 26 on March 4 with 15 on March 15, 11 on March 17 and seven on March 19. There were 16 on March 21 with 33 on March 28, then 22 seen on April 2 with 20 on April 4. There were 27 on April 7 with 31 on April 11, 55 on April 15 and 60 on April 18, then 47 seen on April 20 with 45 on April 25, 34 on April 27, 25 on April 30, 12 on May 2, six on May 7 and one on May 11.

The fall passage ran from September 15 (2006) to December 7 (2004), there were eight "clustered" influxes. The first three are indicated by isolated peak counts of one on September 15, 2006, two on September 30, 2007 and 17 on October 8, 2006. The fourth peaked from October 14 (2007) to October 17 (2004) with a high count of 39 on October 17, 2004. The fifth peaked from October 25 (2006) to October 27 (2004) with high counts of 77 on October 26, 2003 and 174 on October 27, 2004. The sixth peaked from November 9 (2005) to November 11 (2007) with high counts of 136 on November 11, 2007 and 211 on November 9, 2005. The latter is still the highest count for Zellwood. The seventh peaked from November 16 (2003) to November 21 (2005) with high counts of 46 on November 19, 2006 and 115 on November 18, 2007. The eighth peaked from November 25 (2005) to November 28 (2003) with a high count of 71 on November 25, 2005. The winter passage ran from November 24 (2006) to January 18

(2006), there were five “clustered” influxes. The first peaked from December 2 (2007) to December 4 (2005) with a high count of 72 on December 2, 2007. The second peaked from December 9 (2003) to December 15 (2006) with a high count of 59 on December 12, 2007. The third peaked from December 19 (2004) to December 23 (2005) with a high count of 57 on December 23, 2005. The fourth peaked from December 26 (2007) to December 30 (2005) with a high count of 61 on December 30, 2005. The fifth peaked from January 3 (2007) to January 8 (2006) with a high count of 70 on January 6, 2008. The last influx could equally be placed in the early spring passage in which case the winter passage would have ended on January 11 (2004). The early spring passage ran from January 12 (2007) to March 2 (2005, 2007, 2008) or from January 4 (2008) if that influx was added to this passage. There were therefore either six or seven “clustered” influxes. The first peaked from January 14 (2007) to January 16 (2008) with a high count of 63 on January 16, 2008. The second peaked from January 21 (2004, 2007) to January 22 (2006) with a high count of 35 on January 21, 2007. The third peaked from January 28 (2008) to February 2 (2004) with a high count of 53 on January 28, 2008. The fourth peaked from February 7 (2007) to February 8 (2005) with a high count of 47 on February 8, 2005. The fifth is indicated by a peak count of 29 on February 14, 2006. The sixth peaked from February 20 (2008) to February 25 (2007) with a high count of 36 on February 20, 2008. Finally there was the main spring passage, this ran from February 27 (2006) to May 11 (2007, 2008), there were nine “clustered” influxes. The first peaked from February 29 (2004) to March 1 (2006) with a high count of 16 on March 1, 2006. The second peaked from March 4 (2007, 2008) to March 6 (2005) with a high count of 26 on March 4, 2008. The third peaked from March 10 (2006) to March 11 (2007) with a high count of 20 on March 10, 2006. The fourth peaked from March 21 (2007) to March 24 (2004, 2006) with a high count of 23 on March 21, 2007. The fifth peaked on March 28 (2007, 2008) with a high count of 33 on March 28, 2008. The sixth peaked from April 3 (2005) to April 7 (2004) with a high count of 35 on April 3, 2005. The seventh peaked from April 13 (2007) to April 14 (2005, 2006) with a high count of 47 on April 14, 2005. The eighth peaked on April 18 (2004, 2008) with high counts of 18 on April 18, 2004 and 60 on April 18, 2008. The ninth is indicated by a peak count of 32 on April 23, 2006. For the first five years the highest count was only that of 126 on November 5, 2000. There were three higher counts during this set of five years: 136 on November 11, 2007, 174 on October 27, 2004 and 211 on November 9, 2005.

Golden-crowned Kinglet (*Regulus satrapa*)

This species only occasionally comes this far south in Florida. There was one at the Nursery on October 31, 2004. Then there was what amounts to an invasion in 2006. There was one on the southern border from November 12 to November 17. There were two at the

Nursery from November 17 to November 22. There were therefore three in the area on November 17, this is still the highest count for Zellwood. All appeared to leave as there were no further sightings until December 6. On that date there was one on the southern border with another at the Sand Farm. There was one at the Nursery from December 10 to December 22. There were two at the Sand Farm on December 15. The bird of December 6 might just be one of these two birds. Finally for the early spring there were two at the Sand Farm on January 10, 2007. For 2006/2007 this all appears to add up to three in the fall, four to five in the winter and one in the early spring. There were no later records.

Ruby-crowned Kinglet (*Regulus calendula*)

Passage migrant and winter visitor to the wooded borders, this is a late fall migrant but the timing of the various passages does not appear to be affected. The fall passage ran from September 28 (2004) to December 7 (2007) with a high count of 67 on November 17, 2006. To detail the 2006 influxes, there was one on October 13 with four on October 18, five on October 25 and 11 on October 29, then six seen on November 1 with five on November 3. There were 13 on November 5 with 16 on November 8, 17 on November 10, 36 on November 12 and 67 on November 17, then 37 seen on November 22 with 32 on November 24 and 27 on November 26. There were 41 on November 29 with 37 on December 3, 16 on December 6 and 14 on December 8. The winter passage ran from December 5 (2004) to January 18 (2006) with a high count of 37 on December 15, 2006. To detail the 2006/2007 influxes, there were 21 on December 10 with 28 on December 13 and 37 on December 15, then 30 seen on December 20 with 24 on December 22, 19 on December 27, 17 on December 29 and 16 on January 3. There were 18 on January 5 with 19 on January 7, then 14 seen on January 10 with 13 on January 12. The early spring passage followed, it ran from January 4 (2004) to March 3 (2004) with a high count of 35 on January 28, 2008. To detail the 2008 influxes, there were 23 on January 18 with 24 on January 23, 25 on January 25 and 35 on January 28, then 28 seen on February 1 with 23 on February 4, 20 on February 8 and 12 on February 10. There were 32 on February 12 with 14 on February 15 and 12 on February 17. There were 16 on February 20 with 20 on February 24, then 16 seen on February 29 with 12 on March 2. Finally the late spring passage ran from March 2 (2005) to April 24 (2007) with a high count of 19 on March 23, 2007.

The fall passage ran from September 28 (2004) to December 7 (2007), there were eight "clustered" influxes. The first is indicated by a peak count of one on October 2, 2003. The second peaked from October 10 (2007) to October 13 (2004) with a high count of four on October 13, 2004. The third is indicated by a peak count of five on October 19, 2003. The fourth peaked from October 26 (2005) to November 2 (2005) with a high count of 11 on October 29, 2006. The fifth peaked from November 7 (2004) to November 9 (2003, 2007) with high counts

of 24 on November 7, 2004 and November 9, 2007. The sixth peaked from November 15 (2005) to November 17 (2006) with high counts of 41 on November 16, 2007 and 67 on November 17, 2006. The latter is still the highest count for Zellwood. The seventh peaked from November 22 (2005) to November 23 (2003) with a high count of 12 on November 22, 2005. The eighth peaked from November 28 (2004) to November 30 (2007) with high counts of 28 on November 30, 2007 and 41 on November 29, 2006. The winter passage which again was probably the second half of the fall passage followed. This passage ran from December 5 (2004) to January 18 (2006), there were five "clustered" influxes. The first is indicated by a peak count of four on December 7, 2003. The second peaked from December 12 (2004) to December 15 (2006) with high counts of 31 on December 12, 2004 and 37 on December 15, 2006. The third peaked from December 21 (2003) to December 23 (2005) with a high count of 12 on December 23, 2005. The fourth peaked from December 26 (2007) to December 28 (2003) with a high count of 24 on December 26, 2007. The fifth peaked from January 4 (2006) to January 7 (2007) with a high count of 22 on January 4, 2006. The early spring passage ran from January 4 (2004) to March 3 (2004), there were eight "clustered" influxes. The first peaked from January 11 (2004) to January 16 (2005) with a high count of 15 on January 16, 2005. The second peaked from January 19 (2007) to January 21 (2004) with a high count of 20 on January 19, 2007. The third peaked from January 26 (2007) to January 28 (2008) with high counts of 18 on January 26, 2007 and 35 on January 28, 2008. The fourth peaked from February 1 (2006) to February 2 (2005) with a high count of 18 on February 2, 2005. The fifth is indicated by a peak count of 17 on February 7, 2007. The sixth peaked from February 11 (2004) to February 13 (2005) with high counts of 12 on February 13, 2005 and 32 on February 12, 2008. The seventh peaked from February 23 (2007) to February 24 (2006, 2008) with a high count of 20 on February 24, 2008. The eighth is indicated by a peak count of five on February 29, 2004. Finally the late spring passage ran from March 2 (2005) to April 24 (2007), there were five "clustered" influxes. The first peaked from March 4 (2008) to March 7 (2007) with a high count of 17 on March 4, 2008. The second peaked on March 10 (2004, 2005) with a high count of 18 on March 10, 2005. The third peaked from March 23 (2007) to March 26 (2008) with a high count of 19 on March 23, 2007. The fourth peaked from April 10 (2005) to April 11 (2007) with a high count of seven on April 11, 2007. The fifth peaked from April 19 (2007) to April 20 (2008) with one on both dates. Numbers in the later years were naturally higher with the access to the Nursery.

Blue-gray Gnatcatcher (*Poliioptila caerulea*)

A common passage migrant and winter visitor, it can be found in the woods and also in the scrub along the borders. There was nothing to suggest that it bred in the survey area during these five years. There were however a few summer sightings. There was one on April 24, 2005

with singles on May 20, 2007 and May 22, 2005. There were two on June 8, 2006 with one on June 11, 2006. Then there was one from June 18, 2008 to June 22, 2008. There was an early fall passage from July 11 (2008) to September 3 (2003) with a high count of ten on August 17, 2007. For this species the main fall passage started exceptionally early, the passage ran from August 21 (2005) to December 10 (2006) with a high count of 167 on October 3, 2004. To detail the 2004 influxes, there were three on August 26 with 14 on August 29, 20 on September 1, 37 on September 12, 63 on September 19, 118 on September 22, 134 on September 28 and 167 on October 3, then 38 seen on October 6. There were 56 on October 11 with 84 on October 13, then 75 seen on October 21 with 66 on October 27, 50 on October 31, 49 on November 7, 42 on November 17, 34 on November 21 and 18 on December 1. The winter passage ran from November 30 (2007) to January 12 (2007) with a high count of 173 on December 7, 2007. To detail the 2007/2008 influxes, there were 56 on November 30 with 106 on December 2 and 173 on December 7, then 115 seen on December 9 with 81 on December 14 and 66 on December 17. There were 105 on December 19 with 84 on December 26, 56 on December 28, 47 on December 30 and 30 on January 2. There were 68 on January 4 with 55 on January 6 and 44 on January 9. The early spring passage then ran from January 8 (2006) to March 4 (2008) with a high count of 121 on January 28, 2008. To detail the 2008 influxes, there were 53 on January 11 with 60 on January 14, 80 on January 18, 93 on January 23, 115 on January 25 and 121 on January 28, then 82 seen on January 30 with 56 on February 1. There were 91 on February 4 with 74 on February 8, 68 on February 12, 65 on February 15 and 60 on February 17. There were 68 on February 20 with 82 on February 22 and 90 on February 29, then 47 seen on March 2 with 32 on March 4. The late spring passage ran from February 29 (2004) to April 10 (2005) with a high count of 61 on March 10, 2005. To detail the 2005 influxes, there were 45 on March 2 with 61 on March 10, then 30 seen on March 13 with 28 on March 16. There were 60 on March 18 with 35 on March 20, 14 on March 24 and five on March 30. There was also one on April 10.

There were a few summer records, there being singles on April 24, 2005, May 20, 2007 and May 22, 2005. There were also two on June 8, 2006 with one on June 11, 2006, then one seen from June 18, 2008 to June 22, 2008. There was a light early fall passage from July 11 (2008) to September 3 (2003), there were six "clustered" influxes. The first peaked from July 11 (2008) to July 14 (2004) with a high count of two on July 14, 2004. The second peaked from July 16 (2006) to July 20 (2007) with a high count of two on July 16, 2006. The third peaked from July 26 (2008) to July 28 (2006) with two on both dates. The fourth peaked from August 4 (2004) to August 8 (2006) with a high count of five on August 4, 2004. The fifth peaked from August 15 (2005) to August 19 (2004) with a high count of ten on August 17, 2007. The sixth peaked from August 25 (2006) to August 27 (2003) with a high count of six on August 27, 2003. The main fall passage ran from August 21 (2005) to December 10 (2006), there were 11 "clustered" influxes. The first peaked from September 10 (2003) to September 15 (2006) with a high count of 57 on

September 15, 2006. The second is indicated by a peak count of 73 on September 19, 2003. The third peaked from September 26 (2007) to September 29 (2006) with a high count of sixty on September 29, 2006. The fourth is indicated by a peak count of 167 on October 3, 2004. The fifth peaked from October 6 (2006) to October 10 (2007) with a high count of 83 on October 8, 2005. The sixth peaked from October 13 (2004) to October 15 (2003) with a high count of 84 on October 13, 2004. The seventh peaked from October 19 (2007) to October 21 (2005) with a high count of 60 on October 21, 2005. The eighth peaked from October 25 (2006) to October 26 (2003) with a high count of 50 on October 26, 2003. The ninth is indicated by a peak count of 43 on November 4, 2005. The tenth peaked from November 9 (2007) to November 13 (2005) with a high count of 49 on November 9, 2007. The 11th peaked from November 23 (2007) to November 25 (2005) with a high count of 73 on November 23, 2007. The winter passage followed from November 30 (2007) to January 12 (2007), there were five “clustered” influxes. The first peaked from December 1 (2003) to December 2 (2005) with a high count of 45 on December 2, 2005. The second peaked from December 5 (2004) to December 7 (2007) with high counts of 40 on December 5, 2004 and 173 on December 7, 2007. The latter is still the highest count for Zellwood. The third peaked from December 11 (2005) to December 15 (2003) with a high count of 53 on December 15, 2003. The fourth peaked from December 19 (2007) to December 22 (2004) with high counts of 48 on December 22, 2004, 49 on December 21, 2005, 49 on December 20, 2006 and 105 on December 19, 2007. The fifth peaked from December 28 (2005) to January 4 (2006, 2008) with a high count of 68 on January 4, 2008. The early spring passage ran from January 8 (2006) to March 4 (2008), there were six “clustered” influxes. The first peaked from January 11 (2006) to January 14 (2004) with 48 on both dates. The second peaked from January 19 (2007) to January 21 (2004) with a high count of 48 on January 21, 2004. The third peaked from January 26 (2007) to January 28 (2008) with high counts of 42 on January 26, 2007 and 121 on January 28, 2008. The fourth peaked from February 1 (2006) to February 7 (2007) with high counts of 59 on February 1, 2006, 91 on February 4, 2008 and 111 on February 4, 2004. The fifth peaked from February 13 (2005) to February 14 (2006) with a high count of 70 on February 14, 2006. The sixth peaked from February 24 (2006) to February 29 (2008) with high counts of 52 on February 24, 2006 and 90 on February 29, 2008. Finally there was the late spring passage, this ran from February 29 (2004) to April 10 (2005), there were five “clustered” influxes. The first peaked from February 29 (2004) to March 1 (2006) with high counts of 51 on February 29, 2004 and 52 on March 1, 2006. The second peaked from March 7 (2007) to March 10 (2005) with high counts of 22 on March 7, 2007 and 61 on March 10, 2005. The third peaked from March 17 (2008) to March 18 (2005) with high counts of eight on March 17, 2008 and 60 on March 18, 2005. The last two influxes are indicated by isolated peak counts of three on March 28, 2008 and one on April 10, 2005.

Eastern Bluebird (*Sialia sialis*)

Perhaps surprisingly this species is only a vagrant to Zellwood. To support that there was in fact just one record for the five years. There was an immature at the Sand Farm on December 7, 2003.

Veery (*Catharus fuscescens*)

A regular if uncommon fall passage migrant, there were no spring records for this set of five years. All sightings came from the wooded borders. Seen in the fall from September 10 (2006) to October 22 (2006) in all some 35 birds seen. The majority were seen on or before October 6. There were a total of six "clustered" influxes. The first is indicated by a peak count of three on September 10, 2006. The second peaked from September 19 (2003, 2005) to September 23 (2007) with high counts of three on September 19, 2005 and five on September 23, 2007. The third peaked from September 27 (2006) to October 2 (2005) with high counts of three on September 27, 2006 and five on October 2, 2003. The fourth peaked from October 6 (2004) to October 8 (2005) with high counts of one on October 8, 2005 and six on October 6, 2004. The latter was the highest count during this set of five years. The fifth peaked from October 10 (2007) to October 13 (2006) with singles on three dates. The sixth is indicated by a peak count of two on October 22, 2006.

Gray-cheeked Thrush (*Catharus minimus*)

This is the least common of these fall migrant thrushes, there were no spring sightings. Seen in the fall from September 15 (2006) to October 24 (2007), there were five "clustered" influxes. There were 24 birds in all over the five years. The first influx peaked from September 15 (2006) to September 19 (2003) with a high count of two on September 15, 2006. The second peaked from September 25 (2006) to October 2 (2003) with high counts of two on three dates and five on September 25, 2006. The count of five was the highest count during the first ten years of the survey. The third is indicated by a peak count of one on October 6, 2004. The fourth peaked from October 8 (2005) to October 13 (2004) with a high count of two on October 10, 2007. The fifth peaked from October 20 (2006) to October 24 (2007) with a high count of two on October 21, 2004. Normally this species was only present for a single day but there was an influx in 2006, there were four on September 21 with five on September 25, then two seen on September 27 with one staying from September 29 to October 6.

Swainson's Thrush (*Catharus ustulatus*)

Another of the migrant thrushes again it was only seen in the fall with sightings from September 13 (2006) to October 24 (2004), there were five "clustered" influxes. There were 34 birds in all over the five years. The first influx peaked from September 19 (2003, 2005) to September 23 (2007) with a high count of two on September 19, 2003. The second peaked from September 27 (2006) to October 2 (2003) with high counts of six on September 27, 2006 and 12 on October 2, 2003. The latter was the highest count during this set of five years. The third peaked from October 6 (2004) to October 8 (2005) with high counts of three on October 6, 2004 and four on October 8, 2005. The fourth peaked from October 12 (2007) to October 13 (2006) with one on both dates. The fifth is indicated by a peak count of one on October 24, 2004.

Unlike the other two species this thrush tended to stop off passage on a regular basis. To detail two of the influxes, in 2003 there were two on September 29 with 12 on October 2, then three seen on October 5 with two on October 9 and one on October 12. In 2006 there were singles on September 13 and September 15 with two on September 17, three on September 21 and six on September 27, then singles seen on October 4 and October 6.

Hermit Thrush (*Catharus guttatus*)

A passage migrant and a winter visitor, it can be found in the wooded borders. In 2003/2004 there were only six records whilst in 2007/2008 there were 41. This dramatic change was brought about by the addition of the Nursery to the District's property. It was now possible to get inside a wood. The fall passage ran from October 18 (2006) to December 2 (2005) with a high count of five on November 17, 2006. To detail the 2006 influxes, there was one on October 18 with two on October 25, then one seen on November 8. There were three on November 10 and November 12 with five on November 17, then three seen on November 19 with one on November 24. The winter passage ran from December 2 (2007) to January 2 (2005) with a high count of nine on December 12, 2004. To detail the 2006/2007 influxes, there were two on November 26 with five on November 29 and eight on December 3, then seven seen on December 6 with one on December 13. There were three on December 15 with four on December 20, then three seen on December 22 with two on December 29. The early spring passage ran from January 2 (2008) to February 28 (2007) with a high count of four on January 24, 2007. There are very few records for the late spring; there was one from March 1, 2006 to March 8, 2006 with another from March 4, 2007 to March 7, 2007. There was also one from March 15, 2008 to March 17, 2008. Finally there was one on March 24, 2005.

The fall passage ran from October 18 (2006) to December 2 (2005), there were six “clustered” influxes. The first peaked from October 21 (2007) to October 25 (2006) with a high count of two on October 25, 2006. The second is indicated by a peak count of one on November 2, 2003. The third peaked from November 7 (2004, 2007) to November 9 (2005) with high counts of three on November 7, 2004 and November 9, 2005 with four on November 7, 2007. The fourth peaked from November 15 (2005) to November 17 (2004, 2006) with high counts of two on November 17, 2004 and November 15, 2005 with five on November 17, 2006. The fifth peaked from November 20 (2003) to November 21 (2007) with a high count of three on November 21, 2007. The sixth is indicated by a peak count of four on November 28, 2004. The winter passage followed from December 2 (2007) to January 2 (2005), there were four “clustered” influxes. This was the strongest event. The first peaked from December 2 (2007) to December 3 (2006) with high counts of two on December 2, 2007 and eight on December 3, 2006. The second peaked from December 9 (2005) to December 12 (2004) with high counts of one on December 9, 2005 and nine on December 12, 2004. The latter is still the highest count for Zellwood. The third peaked from December 19 (2007) to December 22 (2004) with high counts of four on December 20, 2006 and five on December 19, 2007. The fourth peaked from December 26 (2007) to December 31 (2003) with a high count of three on December 26, 2007. The early spring passage ran from January 2 (2008) to February 28 (2007), there were seven “clustered” influxes. The first peaked from January 2 (2008) to January 6 (2005) with two on both dates. The second peaked on January 16 (2005, 2008) with a high count of three on January 16, 2005. The third peaked from January 21 (2004) to January 24 (2007) with a high count of four on January 24, 2007. The fourth peaked from January 28 (2008) to January 30 (2005) with a high count of three on January 28, 2008. The fifth peaked from February 7 (2007) to February 8 (2008) with two on both dates. The sixth peaked from February 11, 2004 to February 13 (2005) with a high count of two on February 13, 2005. The seventh is indicated by a peak count of one on February 23, 2007. The few records for the late spring are detailed in segment one. The last was one on March 24, 2005.

Wood Thrush (*Hylocichla mustelina*)

This is a very rare fall passage migrant. There were only six sightings for the five years. For the late fall passage there were singles on September 30, 2007 at the Nursery, on October 1, 2006 at the Sand Farm, on October 2, 2003 at the Sand Farm, on October 11, 2004 at the Nursery, on October 15, 2003 on the eastern border north of Lust Road and on October 26, 2005 by Canal Road.

American Robin (*Turdus migratorius*)

A passage migrant and winter visitor with the greatest numbers in the early spring, when the fields were being roller-chopped they could often be seen out in the fields, they would however retreat to the woods if a predator threatened. Their numbers were very much influenced by the weather with the largest numbers being seen just ahead of a cold front. The picture was however complicated by a roost near the eastern border. This roost was in a citrus grove between Lust and Hooper Farms Roads. As with the kingbirds this roost was a major factor, to use 2006/2007 as an example. On December 29, 2006 I was near the Hooper Farms Road gate trying to estimate the numbers flying north into the roost, it came down to trying to estimate how many were passing per second. I mean a second and not a minute. I could not believe the numbers that this produced so I cut the figure and then I cut it again to reach a final figure of 240,000! That was I believe a gross under-estimate but it was enough to show that huge numbers were present. A few days later I was near the Lust Road gate and huge numbers were flying south. I think it quite possible that there were over a million birds in the roost that night...In order to identify the various influxes I ignored the roost counts, however I added them in later. In every year bar 2006/2007 I kept the roosts counts separate and I will identify those counts as necessary.

So the fall passage ran from October 12 (2005) to December 5 (2004) with a high count of 190 on November 12, 2006. The winter passage ran from November 27 (2005) to January 2 (2008) with high counts of 1,000 on December 16, 2005 and December 22, 2006. To detail the 2006 influxes, there were 400 on December 3 with one on December 6. There were three on December 8 with 32 on December 17, 170 on December 20 and 1,000 on December 22. Now everything changes. The early spring passage ran from December 26 (2003) to March 3 (2004) with high counts of 9,600 on January 25, 2008 and 240,000 (roost count) on December 29, 2006. To detail the 2006/2007 influxes, there were 240,000 on December 29, 2006 with 35,000 on January 3. There were 65,000 on January 5 with 110,000 on January 12, then 35,000 seen on January 14 with 13,000 on January 19, 9,000 on January 26, 7,500 on January 31, 350 on February 7 and 135 on February 9. There were 650 on February 11 with 50 on February 14 and 11 on February 16. There were 45 on February 18 with 81 on February 21 and 128 on February 23, then 60 seen on February 25. The late spring passage ran from February 27 (2006) to April 14 (2005) with a high count of 1,000 on March 18, 2005.

The fall passage ran from October 12 (2005) to December 5 (2004), there were five "clustered" influxes. The first is indicated by a peak count of one on October 12, 2005. The second peaked from November 1 (2006) to November 4 (2007) with a high count of 20 on November 4, 2007. The third peaked from November 11 (2005) to November 12 (2003, 2006) with a high count of 190 on November 12, 2006. The fourth peaked from November 16 (2007)

to November 17 (2004) with a high count of 20 on November 16, 2007. The fifth is indicated by a peak count of 102 on November 28, 2007. The winter passage ran from November 27 (2005) to January 2 (2008), there were four “clustered” influxes. The first peaked from December 1 (2003) to December 3 (2006) with a high count of 400 on December 3, 2006. The second is indicated by a peak count of two on December 9, 2007. The third peaked from December 16 (2005) to December 19 (2004) with a high count of 1,000 on December 16, 2005. The fourth peaked from December 22 (2006) to December 26 (2007) with a high count of 1,000 on December 22, 2006. The early spring passage was the strong event, this passage ran from December 26 (2003) to March 3 (2004), there were eight “clustered” influxes. The first peaked from December 29 (2006) to January 4 (2004) with high counts of 4,000 on January 1, 2006 and 240,000 on December 29, 2006 (roost count). The latter is still the highest count for Zellwood. This first influx would normally have been placed in the winter passage but because its affinity was clearly with the early spring passage I placed it here. The second peaked from January 11 (2008) to January 15 (2006) with high counts of 1,500 on January 11, 2008, 21,000 on January 15, 2006 (roost count) and 110,000 on January 12, 2007 (roost count). The third peaked from January 25 (2008) to January 30 (2005) with high counts of 9,600 on January 25, 2008 and 11,000 on January 29, 2006 (roost count). The fourth peaked from February 4 (2004) to February 8 (2006) with high counts of 700 on February 6, 2008, 4,800 on February 8, 2006 (roost count) and 10,300 on February 4, 2004 (roost count). The fifth peaked on February 11 (2004, 2007) with a high count of 2,040 on February 11, 2004. The sixth peaked from February 16 (2005) to February 19 (2006) with a high count of 2,400 on February 16, 2005. The last two influxes are indicated by isolated peak counts of 10,000 on February 22, 2004 (roost count) and 2,800 on February 29, 2004. The highest non-roost count for this passage was therefore that of 9,600 on January 25, 2008. Excluding the roost this was the highest count during the first ten years of the survey. By sharp contrast the late spring passage was a minor event, the passage ran from February 27 (2006) to April 14 (2005), there were six “clustered” influxes. The first is indicated by a peak count of 625 on February 27, 2006. The second peaked from March 2 (2005, 2007) to March 7 (2004) with a high count of 760 on March 2, 2005. The third is indicated by a peak count of 82 on March 11, 2007. The fourth peaked from March 17 (2006) to March 21 (2008) with high counts of 15 on March 17, 2006 and 1,000 on March 18, 2005. The fifth peaked from March 25 (2007) to March 26 (2006) with a high count of 18 on March 25, 2007. The sixth peaked from April 13 (2007) to April 14 (2005) with one on both dates.

Gray Catbird (*Dumetella carolinensis*)

A common passage migrant and winter visitor, there were records in the spring through to May 20th. In 2006 there was a male present from June 8 to June 30 but there was no

evidence of breeding. There were also a scattering of sightings from July 19 (2006) to September 7 (2003) with a high count of three on August 20, 2003. The main fall passage ran from September 10 (2006) to December 1 (2003, 2004) with a high count of 660 on October 12, 2003. To detail the 2003 influxes, there was one on September 19 with two on September 24, 23 on September 29, 86 on October 2, 185 on October 5, 413 on October 9 and 660 on October 12, then 272 seen on October 19 with 220 on October 22. There were 339 on October 26 with 213 on October 29 and 193 on November 2. There were 282 on November 5 with 214 on November 12, 170 on November 16, 133 on November 20, 84 on November 23, 77 on November 28 and 46 on December 1. Numbers were much lower for the winter passage, this ran from November 29 (2006) to January 18 (2006) with a high count of 224 on December 2, 2007. To detail the 2007/2008 influxes, there were 159 on November 30 with 224 on December 2, then 159 seen on December 7 with 132 on December 12, 118 on December 14 and 20 on December 17. There were 139 on December 19 with 78 on December 21 and 77 on December 26. There were 135 on December 28 with 64 on December 30 and two on January 2. Numbers even lower for the early spring passage, this event ran from January 4 (2008) to March 2 (2007) with a high count of 123 on January 6, 2008. The main spring passage was a much stronger passage, it ran from February 29 (2004) to May 20 (2007, 2008) with a high count of 172 on April 7, 2008. To detail the 2008 influxes, there were 36 on March 2 with 66 on March 15, then 44 seen on March 17 with 26 on March 21 and 11 on March 24. There were 36 on March 26 with 53 on March 28, 72 on March 30, 116 on April 2 and 172 on April 7, then 88 seen on April 9 with 64 on April 11. There were 103 on April 13 with 108 on April 20 and 122 on April 20, then 52 seen on April 23 with 51 on April 25. There were 64 on April 27 with 36 on April 30, 30 on May 2, 13 on May 4 and four on May 7. Later there was one on May 20.

There were a number of records for the summer passage which can be shown in the form of "clustered" influxes seven in all from June 8 (2006) to September 7 (2003). The first three are indicated by isolated peak counts of one on May 29, 2005, June 8, 2006 and July 19, 2006. The fourth peaked from July 28 (2006) to August 1 (2004) with high counts of one on three dates. The fifth is indicated by a peak count of one on August 9, 2004. The sixth peaked from August 20 (2003) to August 23 (2006) with a high count of three on August 20, 2003. The seventh is indicated by a peak count of one on September 7, 2003. The main fall passage ran from September 10 (2006) to December 1 (2003, 2004), there were seven "clustered" influxes. The first is indicated by a peak count of 143 on October 6, 2004. The second peaked from October 10 (2007) to October 13 (2006) with high counts of 217 on October 13, 2006 and 660 on October 12, 2003. The latter was the highest count during the first ten years of the survey. The third peaked from October 20 (2006) to October 23 (2005) with high counts of 214 on October 20, 2006 and 236 on October 23, 2005. The fourth is indicated by a peak count of 339 on October 26, 2003. The fifth peaked from November 2 (2005) to November 5 (2003) with high counts of 152 on November 2, 2005 and 282 on November 5, 2003. The sixth peaked from

November 9 (2007) to November 14 (2004) with high counts of 60 on November 14, 2004 and 297 on November 9, 2007. The seventh is indicated by a peak count of 95 on November 19, 2006. The winter passage followed from November 29 (2006) to January 18 (2006), there were five “clustered” influxes. The first peaked from November 29 (2006) to December 2 (2007) with high counts of 134 on November 29, 2006 and 224 on December 2, 2007. The second peaked from December 6 (2006) to December 7 (2004) with a high count of 117 on December 6, 2006. The third peaked from December 11 (2005) to December 15 (2006) with a high count of 112 on December 15, 2006. The fourth peaked from December 19 (2007) to December 23 (2005) with a high count of 139 on December 19, 2007. The fifth peaked from December 28 (2007) to January 4 (2006) with a high count of 135 on December 28, 2007. The early spring passage ran from January 4 (2008) to March 2 (2007), there were eight “clustered” influxes. The first is indicated by a peak count of 123 on January 6, 2008. The second peaked on January 14 (2004, 2007) with a high count of 85 on January 14, 2007. The third peaked from January 18 (2008) to January 20 (2006) with a high count of 70 on January 18, 2008. The fourth is indicated by a peak count of 80 on January 26, 2005. The fifth peaked from February 1 (2006) to February 2 (2004) with a high count of 84 on February 2, 2004. The sixth peaked from February 8 (2005) to February 12 (2008) with a high count of 74 on February 8, 2005. The seventh is indicated by a peak count of 54 on February 17, 2006. The eighth peaked from February 21 (2007) to February 24 (2008) with a high count of 62 on February 24, 2008. Now to the main spring passage, this ran from February 29 (2004) to May 20 (2007, 2008), there were nine “clustered” influxes. Numbers were quite low in March with exceptionally a very strong passage in April. The first influx peaked from March 3 (2004) to March 7 (2007) with 58 on both dates. The second is indicated by a peak count of 34 on March 9, 2004. The third peaked from March 15 (2008) to March 17 (2006) with a high count of 66 on March 15, 2008. The fourth peaked from March 26 (2006) to March 28 (2004, 2007) with a high count of 42 on March 28, 2007. The fifth peaked from April 7 (2008) to April 11 (2007) with high counts of 40 on April 11, 2007 and 172 on April 7, 2008. The sixth peaked from April 19 (2006) to April 20 (2005, 2008) with high counts of 51 on April 19, 2006 and 122 on April 20, 2008. The seventh peaked from April 23 (2004) to April 27 (2008) with a high count of 74 on April 24, 2007. The eighth peaked from May 13 (2007) to May 14 (2004) with a high count of five on May 13, 2007. The ninth peaked on May 20 (2007, 2008) with a high count of three on May 20, 2007.

Northern Mockingbird (*Mimus polyglottos*)

Resident, a passage migrant and in some years there was what amounted to a post-breeding gathering. In 2004 there were a total of 60 pairs. The population is likely to be similar now. The summer passage appeared to run from May 7 (2007) to July 1 (2005) with high counts

of 34 on May 16, 2004 and June 12, 2005. Fledged young were first noticed between June 2 (2004) and June 22 (2007). In 2004 and 2005 there was a very significant post-breeding gathering with high counts of 103 on July 11, 2005 and 118 on July 11, 2004. During these gatherings they did not gather at just one location rather various families would form loose associations at a number of sites. For the later years the highest count was that of 39 on July 11, 2007. This whole event ran from June 23 (2006) to August 4 (2006). To detail the 2004 influx, there were 29 on June 28 with 47 on July 7 and 118 on July 11, then 66 seen on July 14 with 47 on July 18, 45 on July 21, 28 on July 24, 16 on July 29 and 11 on August 1. The early fall passage ran from July 26 (2008) to September 16 (2004) with a high count of 43 on August 10, 2008. The main fall passage followed and it ran from September 4 (2005) to December 3 (2003) with a high count of 126 on October 8, 2006. There was clearly a fall passage in early October. To illustrate this I am detailing the 2006 influxes, there were 31 on September 27 with 51 on October 1, 73 on October 6 and 126 on October 8, then 53 seen on October 11 with 41 on October 13, 39 on October 15, 36 on October 18, 20 on October 20 and 12 on October 22. There were 13 on October 25 with 17 on October 27 and 20 on October 29, then 17 seen on November 1 with eight on November 5 and six on November 8. There were eight on November 10 with 15 on November 12, then eight seen on November 15 with five on November 19 and four on November 22. There were 12 on November 24 with nine on November 29 and one on December 1. The winter passage was the lightest event of the year, the passage ran from November 30 (2007) to January 14 (2008) with a high count of 22 on December 12, 2007. The early spring passage ran from January 10 (2007) to March 4 (2006) with a high count of 24 on February 11, 2004. Finally the main spring passage ran from February 28 (2005) to May 20 (2008) with a high count of 35 on April 10, 2005.

The summer passage ran from May 7 (2007) to July 1 (2005), there were five “clustered” influxes. The first peaked from May 14 (2006) to May 18 (2007) with a high count of 34 on May 16, 2004. The second is indicated by a peak count of 17 on May 23, 2008. The third peaked from May 30 (2007) to June 6 (2004) with a high count of 20 on May 30, 2007. The fourth peaked from June 11 (2006, 2008) to June 16 (2004) with a high count of 34 on June 12, 2005. The fifth peaked from June 19 (2006) to June 22 (2007) with a high count of 27 on June 22, 2007. The post-breeding gathering ran from June 23 (2006) to August 4 (2006), there were five “clustered” influxes. The first peaked from June 25 (2006) to June 27 (2008) with a high count of 37 on June 27, 2008. The second peaked from July 5 (2006) to July 6 (2008) with a high count of 31 on July 6, 2008. The third peaked on July 11 (2004, 2005, 2007) with high counts of 39 on July 11, 2007, 103 on July 11, 2005 and 118 on July 11, 2004. The fourth peaked on July 16 (2006, 2008) with a high count of 25 on July 16, 2006. The fifth peaked from July 20 (2007) to July 23 (2006) with a high count of 23 on July 20, 2007. For the first two years single influxes covered the whole of this event, from June 28 to August 1 in 2004 and from July 3 to July 31 in 2005. The early fall passage ran from July 26 (2008) to September 16 (2004), there were seven

“clustered” influxes. The first peaked from July 29 (2007) to July 30 (2008) with 24 on both dates. The second peaked from August 4 (2004) to August 6 (2006) with a high count of 20 on August 4, 2004. The third peaked from August 10 (2008) to August 15 (2005) with a high count of 43 on August 10, 2008. I have no idea what this isolated higher count means. The fourth is indicated by a peak count of 18 on August 18, 2006. The fifth peaked from August 22 (2004) to August 25 (2005) with high counts of 27 on August 24, 2003 and August 25, 2005. The sixth peaked from August 29 (2007) to August 30 (2006) with a high count of 28 on August 29, 2007. The seventh peaked on September 9 (2004, 2007) with a high count of 22 on September 9, 2007. This was followed by the main fall passage which ran from September 4 (2005) to December 3 (2003), there were eight “clustered” influxes. The first peaked from September 19 (2005) to September 26 (2007) with a high count of 47 on September 26, 2007. The second peaked from October 2 (2003) to October 3 (2004, 2007) with high counts of 47 on October 3, 2007 and 74 on October 2, 2003. The third peaked from October 8 (2005, 2006) to October 12 (2003) with high counts of 62 on October 8, 2005, 96 on October 12, 2003 and 126 on October 8, 2006. The latter is still the highest count for Zellwood. The fourth peaked from October 21 (2004) to October 23 (2005) with a high count of 47 on October 23, 2005. The fifth peaked from October 29 (2006) to November 4 (2007) with high counts of 23 on November 2, 2003 and 66 on November 4, 2007. The sixth peaked from November 11 (2007) to November 14 (2004) with a high count of 21 on November 11, 2007. The seventh peaked from November 18 (2007) to November 24 (2006) with a high count of 18 on November 20, 2003. The eighth is indicated by a peak count of 11 on November 30, 2005. Next there was the winter passage this ran from November 30 (2007) to January 14 (2008), there were five “clustered” influxes. The first is indicated by a peak count of 15 on December 7, 2003. The second peaked from December 11 (2005) to December 13 (2006) with a high count of 22 on December 12, 2007. The third peaked from December 19 (2007) to December 23 (2005) with a high count of 18 on December 19, 2007. The fourth peaked from December 27 (2004) to December 28 (2003) with a high count of 15 on December 28, 2003. The fifth peaked from January 3 (2007) to January 6 (2005, 2008) with a high count of 18 on January 6, 2005. The early spring passage ran from January 10 (2007) to March 4 (2006), there were eight “clustered” influxes. The first peaked from January 10 (2007) to January 14 (2004) with a high count of 17 on January 14, 2004. The second peaked from January 18 (2008) to January 19 (2007) with a high count of 14 on January 18, 2008. The third peaked from January 24 (2005) to January 25 (2006) with a high count of 23 on January 24, 2005. The fourth peaked from January 30 (2008) to February 2 (2004) with a high count of 16 on February 2, 2004. The fifth is indicated by a peak count of 19 on February 6, 2005. The sixth peaked on February 11 (2004, 2007) with a high count of 24 on February 11, 2004. The seventh peaked from February 14 (2006) to February 15 (2008) with a high count of 22 on February 15, 2008. The eighth peaked from February 20 (2005) to February 23 (2007) with a high count of 21 on February 22, 2004. Finally there was the main spring passage, this ran from February 28

(2005) to May 20 (2008), there were eight “clustered” influxes. The first peaked from March 4 (2008) to March 7 (2007) with a high count of 18 on March 4, 2008. The second peaked from March 14 (2004) to March 19 (2006) with a high count of 27 on March 14, 2004. The third peaked from March 23 (2007) to March 28 (2004, 2008) with a high count of 24 on March 28, 2004. The fourth peaked from April 1 (2007) to April 4 (2008) with a high count of 25 on April 4, 2008. The fifth peaked from April 10 (2005) to April 13 (2007) with a high count of 35 on April 10, 2005. The sixth peaked from April 20 (2008) to April 21 (2006) with a high count of 21 on April 21, 2006. The seventh peaked from April 30 (2008) to May 1 (2006) with a high count of 21 on May 7, 2008. The eighth peaked from May 5 (2004, 2006) to May 7 (2008) with a high count of 34 on May 5, 2004. In all there were 46 “clustered” influxes, which is on the high side. There is nothing too definite but there did appear to be a gradual fall in the numbers during the five years. Again there were the influxes even when there may be no passage but the post-breeding gathering and the passage in October were real events. There were 46 “clustered” influxes.

Brown Thrasher (*Toxostoma rufum*)

This species is present all year in the scrub borders especially where there are vines. The problem is that it can be exceptionally secretive outside of the breeding season. It is therefore hard to get a clear picture of its status. In 2004 there were a total of 38 breeding pairs and the population may be little changed. Seen in the summer from May 3 (2006) to July 21 (2008) with a high count of 16 on May 28, 2006. The early fall passage ran from July 13 (2007) to September 19 (2007) with a high count of 17 on August 27, 2006. This was followed by the main fall passage which ran from September 1 (2004) to November 7 (2007) with an extension to December 7 in 2005. There really does appear to be a passage at this time with high counts of 36 on October 12, 2005 and 46 on September 30, 2007. To detail the 2007 influxes, there were 16 on September 21 with 41 on September 26 and 46 on September 30, then 27 seen on October 3 with 23 on October 7, 16 on October 12, eight on October 14 and six on October 17. There were 14 on October 19 with ten on October 24, four on October 26 and one on October 29. There were seven on October 31 with three on November 4 and one on November 7. To detail the 2005 influxes, there were seven on September 19 with 19 on September 22, then six seen on October 2. There were 16 on October 8 with 36 on October 12, then 14 seen on October 19 with ten on October 23, three on October 26, two on October 28 and one on October 30. There were five on November 2 with six on November 4, then two seen on November 7. In this year there were further influxes, there were three on November 9 with four on November 11 and five on November 13, then two seen on November 18. There were three on November 20 and November 30 with one on December 2. Finally there were four on

December 7. All passage now stopped and only one to two now seen regularly through to the spring. This period with very low numbers varied from year to year so they are detailed below. From October 19, 2003 to March 10, 2004, from December 7, 2004 to March 2, 2005, from December 2, 2005 to February 19, 2006, from October 29, 2006 to February 25, 2007 and from November 7, 2007 to February 10, 2008. There was apparently a trend for the earlier return or appearance. Finally the spring passage ran from February 12 (2008) to May 11 (2008) with a high count of 20 on April 9, 2008.

The summer passage ran from May 3 (2006) to July 21 (2008), there were eight "clustered" influxes. The first two are indicated by isolated peak counts of 14 on May 7, 2006 and 11 on May 14, 2006. The third peaked from May 18 (2007), 2008) to May 22 (2005) with a high count of 13 on May 18, 2007. The fourth is indicated by a peak count of 16 on May 28, 2006. The fifth peaked from June 6 (2004) to June 8 (2007) with a high count of ten on June 8, 2007. The sixth peaked from June 16 (2004) to June 21 (2006) with a high count of 11 on June 20, 2008. The seventh peaked from June 27 (2007) to July 2 (2004) with a high count of 12 on June 27, 2007. The eighth peaked from July 5 (2006) to July 8 (2007) with a high count of 12 on July 8, 2007. The early fall passage ran from July 13 (2007) to September 19 (2007), there were six "clustered" influxes. The first peaked from July 14 (2004, 2006) to July 17 (2005) with a high count of 11 on July 14, 2006. The second peaked from July 22 (2007) to July 24 (2004, 2008) with a high count of 11 on July 24, 2004. The third peaked from July 28 (2006) to August 1 (2008) with a high count of nine on July 28, 2006. The fourth peaked from August 7 (2005) to August 9 (2004) with a high count of 12 on August 7, 2005. The fifth peaked from August 24 (2003) to August 28 (2005) with a high count of 17 on August 27, 2006. The sixth peaked from September 3 (2003) to September 5 (2007) with a high count of ten on September 3, 2003. The main fall passage followed from September 1 (2004) to November 7 (2007) with an extension to December 7 in 2005, there were ten "clustered" influxes. The first peaked from September 10 (2006) to September 12 (2004) with a high count of 15 on September 12, 2004. The second peaked from September 19 (2003) to September 22 (2005) with a high count of 19 on September 22, 2005. The third peaked from September 27 (2006) to September 30 (2007) with high counts of nine on September 27, 2006 and 46 on September 30, 2007. The latter was the highest count during the first ten years of the survey. The fourth peaked from October 3 (2004) to October 5 (2003) with a high count of 16 on October 3, 2004. The fifth peaked from October 11 (2006) to October 12 (2005) with high counts of 13 on October 11, 2006 and 36 on October 12, 2005. The sixth peaked from October 19 (2007) to October 21 (2004) with a high count of 14 on October 19, 2007. The seventh peaked from October 31 (2007) to November 4 (2005) with a high count of seven on October 31, 2007. The last three influxes only occurred in 2005 and they are represented by isolated peak counts of five on November 13, 2005, three on November 20, 2005 and four on December 7, 2005. There now followed periods where only one to two a day seen irregularly, the period varied from year to year, the dates are detailed in

segment one. Overall they covered the period October 19 (2003) to March 10 (2004). There were some isolated higher counts but they do not form any patterns. The highest count was that of six on February 4, 2004. Finally there was the spring passage, this ran from February 12 (2008) to May 11 (2008), there were ten "clustered" influxes. The first three are indicated by isolated peak counts of six on February 15, 2008, five on February 22, 2006 and 16 on March 2, 2008. The fourth peaked from March 7 (2007) to March 10 (2006) with a high count of 13 on March 7, 2007. The fifth peaked from March 14 (2007) to March 16 (2005) with a high count of 15 on March 15, 2008. The sixth peaked from March 19 (2006) to March 23 (2007) with a high count of ten on March 23, 2007. The seventh peaked from March 30 (2007, 2008) to April 3 (2005) with a high count of 11 on March 30, 2007. The eighth peaked from April 9 (2008) to April 14 (2006) with a high count of 20 on April 9, 2008. The ninth peaked from April 18 (2008) to April 21 (2007) with a high count of 11 on April 18, 2008. The tenth peaked from April 26 (2005) to May 2 (2004) with a high count of six on May 2, 2004 and May 1, 2007. There really did appear to be a fall passage, the actual high count for Zellwood is that of 74 on October 8, 2008.

European Starling (*Sturnus vulgaris*)

A resident, a passage migrant and a winter visitor but above all there was a major post-breeding gathering. There was a very small breeding population of seven pairs in 2004 but that population has now gone. The summer passage appears to cover the period March 4 (2006) to May 9 (2007) with a high count of 30 on March 24, 2004. This was followed by the main event of the year the post-breeding gathering, this ran from May 7 (2006) to August 15 (2007) with a high count of 2,040 on July 13, 2007. The first parties of fledged young were seen from May 14 (2004, 2008) to May 19 (2006). These birds gathered along the Lake Level Canal to gorge on the fruit of the Elderberry. The whole event lasted rather longer than I would have expected. To detail the 2007 influxes, there were three on May 11 with four on May 13, five on May 18, ten on May 2 and 46 on May 23, then 17 seen on May 25. There were 34 on May 27 with 150 on May 30 and 335 on June 8, then 50 seen on June 10. There were 123 on June 13 with 330 on June 22, then 70 seen on June 24. There were 90 on June 27 with 385 on June 29, 490 on July 1 and 1,010 on July 4, then 210 seen on July 6 with 63 on July 8. There were 760 on July 11 with 2,040 on July 13, then 435 seen on July 15 with 34 on July 18. There were 1,005 on July 20 with 200 on July 22, 150 on July 25, 122 on July 29, 64 on August 1, 18 on August 3 and one on August 5. There were 120 on August 8 with 21 on August 12 and one on August 15. The early fall passage was a minor event, it ran from August 16 (2004) to October 12 (2003) with a high count of 26 on August 17, 2007. The main fall passage was only a little stronger, the passage ran from October 12 (2005) to November 28 (2007) with a high count of 80 on October 29, 2006. By

contrast the winter passage which ran from November 28 (2003, 2004) to January 6 (2005) was stronger, the highest count was that of 230 on December 3, 2003. This species nests early so there was a single spring passage from January 4 (2008) to March 7 (2004) with a high count of 360 on January 19, 2004.

The summer passage appears to run from March 4 (2006) to May 9 (2007), there were seven "clustered" influxes. The first peaked from March 14 (2004) to March 18 (2005) with a high count of 28 on March 14, 2004. The second peaked from March 21 (2007) to March 24 (2004) with a high count of 30 on March 24, 2004. The next two influxes are indicated by isolated peak counts of 11 on March 27, 2005 and ten on April 13, 2008. The fifth peaked from April 17 (2005) to April 21 (2004) with a high count of ten on April 17, 2005. The sixth is indicated by a peak count of six on April 25, 2006. The seventh peaked from April 30 (2005) to May 2 (2004) with a high count of nine on May 2, 2004. The post-breeding gathering was an extended event, it ran from May 7 (2006) to August 15 (2007), there were ten "clustered" influxes. The first peaked from May 14 (2004) to May 15 (2005) with a high count of 22 on May 14, 2004. The second peaked from May 23 (2007, 2008) to May 24 (2006) with a high count of 70 on May 24, 2006. The third peaked from June 8 (2007) to June 12 (2005) with a high count of 345 on June 9, 2004. The fourth is indicated by a peak count of 385 on June 16, 2006. The fifth peaked from June 20 (2004) to June 23 (2006) with a high count of 330 on June 22, 2007. The sixth peaked from July 2 (2008) to July 4 (2007) with high counts of 465 on July 2, 2008 and 1,010 on July 4, 2007. The seventh peaked from July 12 (2006) to July 14 (2005) with high counts of 680 on July 14, 2005, 890 on July 12, 2006 and 2,040 on July 13, 2007. The latter is still the highest count for Zellwood. The eighth peaked from July 18 (2004) to July 23 (2006) with high counts of 1,005 on July 20, 2007 and 1,250 on July 18, 2004. The ninth is indicated by a peak count of 220 on July 27, 2008. The tenth peaked from August 6 (2006) to August 8 (2007) with a high count of 120 on August 8, 2007. The early fall passage ran from August 16 (2004) to October 12 (2003), there were six "clustered" influxes. The first peaked from August 17 (2005, 2007) to August 22 (2004) with a high count of 26 on August 17, 2007. The second peaked from August 27 (2003) to September 1 (2006) with a high count of 16 on August 27, 2003. The third is indicated by a peak count of 25 on September 5, 2007. The fourth peaked from September 12 (2005) to September 16 (2003) with a high count of nine on September 12, 2005. The fifth peaked from September 19 (2007) to September 22 (2005) with a high count of two on September 22, 2005. The sixth peaked from September 25 (2006) to September 28 (2004) with one on both dates. The low numbers in the second half of September and indeed the first half of October indicated that this species was for the most part absent during that period. The main fall passage ran from October 12 (2005) to November 28 (2007), there were five "clustered" influxes. The first is indicated by a peak count of four on October 13, 2004. The second peaked from October 21 (2005) to October 22 (2003) with a high count of 12 on October 22, 2003. The third peaked from October 29 (2006) to October 30 (2005) with a high

count of 80 on October 29, 2006. The fourth is indicated by a peak count of 13 on November 5, 2003. The fifth peaked from November 13 (2005) to November 18 (2007) with a high count of 60 on November 17, 2004. This was followed by the winter passage which ran from November 28 (2003, 2004) to January 6 (2005), there were five “clustered” influxes. The first peaked from November 28 (2004) to December 3 (2003) with a high count of 230 on December 3, 2003. The second is indicated by a peak count of 25 on December 10, 2006. The third peaked from December 17 (2003) to December 19 (2005) with a high count of 75 on December 17, 2003. The fourth peaked on December 22 (2004, 2006) with a high count of 134 on December 22, 2006. The fifth peaked from December 26 (2007) to December 31 (2003) with a high count of 35 on December 26, 2007. Finally there was the spring passage, this ran from January 4 (2008) to March 7 (2004), there were seven “clustered” influxes. The first peaked from January 4 (2008) to January 5 (2007) with a high count of 110 on January 4, 2008. The second is indicated by a peak count of 53 on January 11, 2004. The third peaked from January 16 (2005) to January 19 (2004) with a high count of 360 on January 19, 2004. The fourth peaked from January 28 (2004) to January 30 (2005) with a high count of 20 on January 29, 2006. The fifth peaked from February 9 (2007) to February 13 (2005) with a high count of nine on February 9, 2007. The sixth peaked from February 23 (2007) to February 27 (2004, 2006) with high counts of four on February 27, 2004 and February 27, 2006. The seventh is indicated by a peak count of 13 on March 2, 2008. For this species there were 40 “clustered” influxes and that is a lot better than the 46 “clustered” influxes noted for the Northern Mockingbird.

Common Myna (*Acridotheres tristis*)

This was an unexpected visitor presumably from south Florida. There was an immature at Airport Road on July 11, 2005. This is the only record for Zellwood.

American Pipit (*Anthus rubescens*)

Passage migrant and winter visitor numbers depending on there being areas with very short grass, bare earth or sparse vegetation. There was a minimal fall passage from October 27 (2006) to December 1 (2003) with a high count of six on November 23, 2003. The winter passage ran from November 28 (2004) to January 6 (2005) with an extension to January 18 in 2008. The highest count was that of 350 on December 14, 2007. To detail the 2007/2008 influxes, there were two on December 2 with one on December 12. There were 350 on December 14 with one on December 17. There were 12 on December 19 with 15 on December 26 and 70 on December 28, then 40 seen on December 30 with 32 on January 6, ten on January 16 and seven on January 18. The early spring passage ran from January 4 (2004, 2006) to

February 27 (2004) with a high count of 123 on February 11, 2004. To detail the 2004 influxes, there were eight on January 4 with 41 on January 16, then 35 seen on January 19 with six on January 25 and one on January 28. There were two on February 2 with 80 on February 8 and 123 on February 11, then three seen on February 18 with one on February 22. There were also two on February 27. The main spring passage ran from February 25 (2007) to March 21 (2008) with a high count of 64 on March 9, 2007. There were no records for 2004. To detail the 2007 influx, there was one on February 25 with two on March 2, three on March 4, four on March 7 and 64 on March 9, then three seen on March 14 with one on March 16. Finally there was a very late individual at the Sand Farm on April 21, 2007.

The fall passage ran from October 27 (2006) to December 1 (2003), there were four “clustered” influxes. The first peaked from October 27 (2006) to November 2 (2007) with one on both dates. The second is indicated by a peak count of two on November 7, 2004. The third peaked from November 11 (2005, 2007) to November 12 (2006) with a high count of three on November 12, 2006. The fourth peaked from November 21 (2007) to November 23 (2003) with a high count of six on November 23, 2003. The winter passage ran from November 28 (2004) to January 6 (2005) with an extension to January 18 in 2008, there were five “clustered” influxes. The first peaked from November 28 (2004) to December 3 (2003) with a high count of 20 on December 1, 2006. The second is indicated by a peak count of four on December 7, 2004. The third peaked from December 14 (2007) to December 17 (2006) with high counts of 35 on December 17, 2006 and 350 on December 14, 2007. The latter was the highest count during this set of five years. The fourth is indicated by a peak count of four on December 22, 2004. The fifth peaked from December 26 (2003, 2005) to December 28 (2007) with a high count of 70 on December 28, 2007. The early spring passage followed from January 4 (2004, 2006) to February 27 (2004), there were six “clustered” influxes. The first peaked from January 6 (2006) to January 9 (2005) with a high count of 34 on January 6, 2006. The second is indicated by a peak count of 41 on January 16, 2004. The third peaked from January 19 (2005, 2007) to January 23 (2008) with high counts of 40 on January 19, 2007 and January 23, 2008. The fourth peaked from February 8 (2008) to February 11 (2004) with high counts of 17 on February 8, 2008 and 123 on February 11, 2004. The fifth peaked from February 20 (2008) to February 24 (2006) with a high count of four on February 20, 2008. The sixth is indicated by a peak count of two on February 27, 2004. With the exception of the count of 123 the counts showed a gradual decline through this passage. This made the main spring passage all the more significant even though there were no records for 2004. This passage ran from February 25 (2007) to March 21 (2008), there were two “clustered” influxes. The first peaked from March 9 (2007) to March 10 (2006) with a high count of 64 on March 9, 2007. The second peaked from March 15 (2008) to March 18 (2005) with a high count of 45 on March 15, 2008. Finally there was a very late individual at the Sand Farm on April 21, 2007.

Cedar Waxwing (*Bombycilla cedrorum*)

This species is seen in variable numbers in the winter and the early spring. The main event was the main spring passage with an exceptional passage in 2007. When present this species can be found in the wooded borders. There was no fall passage as such so the winter passage may be in reality the fall passage with the early spring passage being the winter passage. The winter passage (by date) ran from December 1 (2003, 2004) to January 5 (2007) with a high count of 180 on December 29, 2006. For the other years the high count was that of six on December 1, 2004. There was no passage in 2005/2006 and 2007/2008. The 2006 influx was so unusual that it is detailed below. There were 57 on December 20 with 180 on December 29, then 60 seen on January 3 with 21 on January 5. The early spring passage ran from January 6 (2005) to February 27 (2006) with a high count of 140 on January 7, 2007. There was no passage in 2004. The main spring passage ran from February 28 (2005, 2007) to May 25 (2007) with a high count of 2,240 on April 8, 2007. The highest count for the other years was that of 225 on April 27, 2008. To take a closer look at the 2007 passage it was complicated as there were two separate events going on at the same time. In the early morning there was a passage coming from the west along the northern edge of Duda across the Sand Farm to the Lake Level Canal after which they turned to the north. Basically they were avoiding the fields and following the first tree line. There were 424 on March 23 with 213 on April 4 and 30 on April 8. The other event took place in the evening as flocks took off from the willows near the southern border traveling north to the kingbird/robin roost. I do not know whether in the early morning they left to the north but that seems most likely. To detail the 2007 influxes, there were 24 on February 28 with 30 on March 2, 37 on March 4 and 47 on March 9, then three seen on March 14. There were nine on March 16 with 25 on March 21 and 517 on March 23, then 17 seen on March 25. There were 86 on March 28 with 149 on March 30, 1,410 on April 4 and 2,240 on April 8, then 215 seen on April 11 with 166 on April 13, 106 on April 16, 86 on April 21, 28 on April 24 and 17 on April 27. There were 22 on April 28 with 39 on May 1, 53 on May 4 and 297 on May 9, then 110 seen on May 11 with 27 on May 16, ten on May 18 and one on May 25. The counts for the passage at the Sand Farm are included in these totals.

There was no fall passage but there was a very limited winter passage. The latter ran from December 1 (2003, 2004) to January 5 (2007), there were indications of three "clustered" influxes. The first peaked on December 1 (2003, 2004) with a high count of six on December 1, 2004. The other two influxes are indicated by isolated peak counts of three on December 22, 2004 and 180 on December 29, 2006. The early spring passage ran from January 6 (2005) to February 27 (2006), there were five "clustered" influxes. The first peaked from January 6 (2005) to January 7 (2007) with a high count of 140 on January 7, 2007. The second peaked from January 15 (2006) to January 20 (2008) with a high count of 25 on January 15, 2006. The third peaked from January 26 (2005) to January 29 (2006) with a high count of 93 on January 29,

2006. The fourth peaked from February 9 (2007) to February 10 (2006) with a high count of 125 on February 9, 2007. The fifth peaked from February 23 (2007) to February 24 (2006) with a high count of 85 on February 24, 2006. The main spring passage was the only significant event, the passage ran from February 28 (2005, 2007) to May 25 (2007), there were nine “clustered” influxes. The first peaked from March 9 (2007) to March 10 (2005, 2006) with a high count of 97 on March 10, 2006. The second is indicated by a peak count of 100 on March 19, 2006. The third peaked from March 23 (2007) to March 27 (2005) with high counts of 42 on March 27, 2005 and 517 on March 23, 2007. The fourth peaked from April 4 (2008) to April 10 (2005) with high counts of 30 on April 4, 2008 and 2,240 on April 8, 2007. The latter is still the highest count for Zellwood. To put this in perspective the previous high count was that of 615 on April 6, 1999. Note the closeness in the dates. The fifth influx peaked from April 13 (2008) to April 14 (2006) with a high count of 80 on April 13, 2008. The sixth peaked from April 26 (2005) to April 27 (2008) with a high count of 225 on April 27, 2008. The seventh is indicated by a peak count of eight on May 1, 2005. The eighth peaked from May 9 (2007) to May 10 (2004) with a high count of 297 on May 9, 2007. The ninth is indicated by a peak count of 176 on May 15, 2005. This is another species with a rush at the end of the spring passage.

Blue-winged Warbler (*Vermivora pinus*)

There was perhaps surprisingly just one record for this set of five years. There was one at the Nursery on September 2, 2007.

Tennessee Warbler (*Vermivora peregrina*)

A fall passage migrant seen in very low numbers with the exception of 2004 when there was a more significant passage. The fall passage ran from September 10 (2003, 2006) to November 1 (2006), there were six “clustered” influxes. The first peaked from September 10 (2003, 2006) to September 12 (2004) with one on three dates. The second peaked from September 21 (2006) to September 26 (2007) with a high count of two on September 26, 2007. The third peaked from September 28 (2004) to October 2 (2003) with high counts of one on September 28, 2004 and eight on October 2, 2003. The fourth peaked from October 12 (2005) to October 13 (2006) with one on both dates. The fifth peaked from October 17 (2007) to October 21 (2004) with high counts of two on October 17, 2007 and 29 on October 21, 2004. The latter is still the highest count for Zellwood. The sixth peaked from October 26 (2005) to November 1 (2006) with high counts of three on October 26, 2005 and October 27, 2004. To detail the 2004 influxes, there were singles on September 12 and September 28. There were 17

on October 17 with 29 on October 21, then one seen on October 24. There were also three on October 27. There was a single spring record as there was one at the Nursery on May 3, 2006.

Orange-crowned Warbler (*Vermivora celata*)

This is a passage migrant and winter visitor to the wooded borders. Seen in the fall from October 9 (2003) to December 1 (2003) with high counts of 12 on November 17, 2004 and November 15, 2005. To detail the 2005 influxes, there was one on October 21 with three on October 23, then one seen on October 30. There were two on November 2 with one on November 7. There were three on November 9 with seven on November 11 and 12 on November 15, then five seen on November 20 with three on November 25 and one on November 27. The winter passage ran from November 28 (2007) to January 8 (2006) with a high count of ten on December 1, 2004. The early spring passage was the strongest event, this passage ran from December 31 (2006) to March 4 (2006) with high counts of 13 on February 11, 2007, February 15, 2008 and February 22, 2008. To detail the 2008 influxes, there were seven on January 4 with ten on January 6, then seven seen on January 11 with five on January 14 and two on January 16. There were six on January 18 with three on January 20. There were six on January 23 with seven on January 28, then two seen on January 30. There were seven on February 1 with nine on February 6, ten on February 10 and 13 on February 15, then 12 seen on February 17 with ten on February 20. There were 13 on February 22 with four on February 24 and one on February 26. This species departs early in the spring so the late spring passage was a minimal event, the passage ran from February 28 (2005) to March 30 (2008) with a high count of seven on March 4, 2008.

The fall passage ran from October 9 (2003) to December 1 (2003), there were four "clustered" influxes. The first is indicated by a peak count of one on October 9, 2003. The second peaked from October 23 (2005) to October 26 (2003) with a high count of three on October 23, 2005. The third peaked from October 31 (2004) to November 4 (2007) with a high count of five on November 4, 2007. The fourth peaked from November 15 (2005) to November 20 (2003) with high counts of seven on November 20, 2003 and November 18, 2007 there were also high counts of 12 on November 17, 2004 and November 15, 2005. The winter passage ran from November 28 (2007) to January 8 (2006), there were four "clustered" influxes. The first peaked from November 30 (2007) to December 2 (2005) with high counts of nine on November 30, 2007 and ten on December 1, 2004. The second is indicated by a peak count of six on December 15, 2003. The third peaked from December 19 (2004) to December 22 (2006) with a high count of nine on December 19, 2004. The fourth peaked from December 26 (2007) to December 30 (2004, 2005) with high counts of eight on December 30, 2005 and December 26, 2007. This was followed by the early spring passage that ran from December 31 (2006) to

March 4 (2006), there were eight “clustered” influxes. The first peaked on January 6 (2005, 2008) with high counts of eight on January 6, 2005 and ten on January 6, 2008. The second peaked from January 11 (2006) to January 14 (2004) with high counts of six on January 11, 2006 and 11 on January 14, 2004. The third peaked from January 18 (2008) to January 20 (2006) with six on both dates. The fourth peaked from January 24 (2007) to January 28 (2008) with a high count of seven on January 28 (2008). The fifth peaked from February 1 (2006) to February 6 (2005) with a high count of nine on February 6, 2005. The sixth peaked on February 11 (2004, 2007) with high counts of eight on February 11, 2004 and 13 on February 11, 2007. The seventh peaked from February 14 (2006) to February 16 (2005) with high counts of nine on February 14, 2006 and 13 on February 15, 2008. The eighth peaked from February 22 (2008) to February 23 (2007) with high counts of five on February 23, 2007 and 13 on February 22, 2008. The counts of 13 were the highest counts during this set of five years. Finally there was the late spring passage, this ran from February 28 (2005) to March 30 (2008), there were two “clustered” influxes. The first peaked from March 4 (2007, 2008) to March 6 (2005) with a high count of seven on March 4, 2008. The second peaked from March 8 (2006) to March 10 (2004) with a high count of three on March 8, 2006.

Nashville Warbler (*Vermivora ruficapilla*)

This is a very rare passage migrant and winter visitor. There were five records for the five years. Exceptionally for the early fall passage there was an adult at the Sand Farm on August 18, 2006. More normal for the late fall passage was one by the Hooper Farms Road gate on October 26, 2005. At Zellwood this species tends to be a long staying winter and early spring visitor so for the winter passage there was one near the Workshops from December 15, 2003 to January 14, 2004. There was one at the Sand Farm from December 21, 2007 to January 18, 2008. Finally for the early spring passage there was one at the Nursery from January 20, 2006 to March 1, 2006. This last individual could well have been present earlier.

Northern Parula (*Parula americana*)

Passage migrant and summer visitor to the wooded borders, in 2004 there were seven pairs and the population is likely to be similar now. Fledged young first noted between May 23 (2007) and July 1 (2005). The early spring passage was the strongest event of the year and this passage often came in two waves. Passage noted from February 8 (2008) to April 10 (2005) with a high count of 52 on March 18, 2005. To detail the 2005 influxes, there was one on February 13 and February 16. There was one on February 28 with three on March 6, five on March 10, nine on March 13, 39 on March 16 and 52 on March 18, then 25 seen on March 24 with eight

on March 27, five on March 30, two on April 6 and one on April 10. A very heavy passage such as that often covers up a series of influxes so in order to show the two waves the passage in 2008 is also detailed, there were three on February 20 with ten on February 22 and 15 on February 24, then eight seen on February 26 with four on February 29. There were eight on March 2 with 13 on March 4 and 25 on March 17, then seven seen on March 21 with six on March 28, four on March 30 and three on April 2. The late spring passage ran from March 26 (2006) to June 9 (2004) with a high count of nine on April 21, 2007. I cannot separate out any early fall passage from the summer passage so the whole ran from May 15 (2005) to September 10 (2006) with a high count of six on May 23, 2007. The main fall passage was more noticeable, the passage ran from September 5 (2007) to November 18 (2007) with a high count of 22 on October 17, 2004. To detail the 2004 influxes, there were five on September 9 with four on September 19. There were five on September 22 with two on October 3 and one on October 6. There were three on October 11 with eight on October 13 and 22 on October 17, then 12 seen on October 21 with three on October 24. For the winter passage there was one on the southern border on December 15, 2006. There was also one at the Sand Farm from December 12, 2007 to February 6, 2008. During this period on January 28, 2008 there was also one on the southern border. On February 8, 2008 there were three at the Sand Farm and two of them were singing. None were seen after that date.

The early spring passage ran from February 8 (2008) to April 10 (2005), there were four "clustered" influxes. The first peaked from February 8 (2008) to February 13 (2005) with a high count of three on February 8, 2008. The second peaked from February 24 (2008) to February 27 (2004) with a high count of 15 on February 24, 2008. The third peaked from March 4 (2006) to March 7 (2007) with high counts of 18 on March 4, 2006 and 28 on March 7, 2007. The fourth peaked from March 14 (2004) to March 21 (2007) with high counts of 14 on March 21, 2007, 25 on March 17, 2008 and 52 on March 18, 2005. The latter is still the highest count for Zellwood. The contrast between that event and the next two passages was absolute. The late spring passage ran from March 26 (2006) to June 9 (2004), there were seven "clustered" influxes. The first peaked from March 26 (2006) to March 28 (2004) with a high count of three on March 26, 2006. The second is indicated by a peak count of four on April 4, 2007. The third peaked from April 11 (2007, 2008) to April 14 (2005) with high counts of six on April 11, 2007 and April 11, 2008. The fourth peaked from April 18 (2007) to April 21 (2004, 2007) with a high count of nine on April 21, 2007. The fifth peaked from April 25 (2006, 2008) to April 26 (2005) with a high count of six on April 25, 2008. The sixth peaked from May 3 (2006) to May 5 (2004) with a high count of four on May 5, 2004. The seventh peaked on May 9 (2007, 2008) with five on both dates. The next event was probably a combination of the summer and the early fall passages. The whole event ran from May 15 (2005) to September 10 (2006), there were 12 "clustered" influxes. The first three influxes are indicated by isolated peak counts of one on May 15, 2005, six on May 23, 2007 and four on June 6, 2008. The fourth peaked on June 13 (2004, 2007) with

a high count of five on June 13, 2007. The fifth is indicated by a peak count of two on June 19, 2006. The sixth peaked from July 1 (2005) to July 4 (2007) with two on both dates. The seventh peaked from July 13 (2008) to July 14 (2006) with a high count of two on July 13, 2008. The eighth peaked from July 24 (2004) to July 26 (2008) with a high count of two on July 24, 2004. The ninth is indicated by a peak count of one on August 2, 2006. The tenth peaked from August 15 (2005) to August 20 (2003) with a high count of two on August 19, 2004. The 11th peaked from August 23 (2006) to August 24 (2007) with a high count of three on August 24, 2007. The 12th is indicated by a peak count of two on August 28, 2005. The main fall passage followed from September 5 (2007) to November 18 (2007), there were ten “clustered” influxes. The first peaked on September 9 (2004, 2007) with a high count of eight on September 9, 2007. The second peaked from September 14 (2003) to September 15 (2006) with a high count of eight on September 15, 2006. The third peaked from September 19 (2005) to September 22 (2004) with a high count of five on September 22, 2004. The fourth peaked from September 28 (2007) to October 1 (2006) with a high count of four on September 29, 2003. The fifth is indicated by a peak count of two on October 8, 2005. The sixth peaked from October 12 (2003) to October 13 (2006) with a high count of five on October 12, 2003. The seventh peaked from October 17 (2004) to October 19 (2007) with high counts of one on October 19, 2007 and 22 on October 17, 2004. The eighth is indicated by a peak count of one on October 26, 2005. The ninth peaked on November 2 (2003, 2007) with one on both dates. The tenth peaked from November 9 (2003) to November 16 (2007) with one on both dates. For the winter there was one on December 15, 2006. There was also one from December 12, 2007 to February 6, 2008 with a second bird present on January 28, 2008. Finally there were three on February 8, 2008, they were not seen later.

Yellow Warbler (*Dendroica petechia*)

Zellwood is one of the best places in Florida for this species in the fall. Whilst most sightings are from trees along the Lake Level Canal and the bank of Lake Apopka this species can also be found out in the middle of a field with quite tall vegetation. The fall passage ran from July 18 (2004) to October 23 (2005) with an extension to November 21 in 2004. The highest counts were those of 145 on August 24, 2003 and 232 on September 15, 2006. To detail the 2006 influxes, there was one on July 26 with two on July 30, three on August 4, six on August 6, 12 on August 8, 19 on August 13 and 22 on August 16, then 14 seen on August 23. There were 16 on August 25 with 32 on August 27, then 12 seen on August 30. There were 21 on September 1 with 46 on September 6, 110 on September 8, 114 on September 10, 169 on September 13 and 232 on September 15, then 42 seen on September 17 with 33 on September 21 and 22 on September 23. There were 25 on September 25 with 28 on September 27, then 15

seen on September 29 with 11 on October 1 and one from October 4 to October 11. There were two on October 13 and October 18 with one on October 20. There are just five spring records of singles on March 10, 2005, April 23, 2006. April 26, 2005, May 3, 2006 and May 14, 2006.

The fall passage ran from July 18 (2004) to October 23 (2005) with an extension to November 21 in 2004, there were eight “clustered” influxes. The first peaked from August 5 (2007) to August 10 (2008) with a high count of 49 on August 9, 2004. The second peaked from August 15 (2005, 2007) to August 16 (2006) with a high count of 31 on August 15, 2005. The third peaked from August 24 (2003) to August 28 (2005) with high counts of 65 on August 26, 2004 and 145 on August 24, 2003. The fourth peaked from September 12 (2004, 2007) to September 15 (2006) with high counts of 27 on September 12, 2004 and 232 on September 15, 2006. The latter is still the highest count for Zellwood. The fifth peaked from September 21 (2007) to September 22 (2005) with a high count of 84 on September 22, 2005. The sixth peaked from September 27 (2006) to September 28 (2004) with a high count of 28 on September 27, 2006. The seventh peaked from October 8 (2005) to October 13 (2006) with a high count of 15 on October 8, 2005. The eighth peaked from October 23 (2005) to October 24 (2004) with a high count of two on October 24, 2004. In 2004 there was also one that stayed at the Sand Farm from November 7 to November 21. There were just five spring sightings of singles on March 10, 2005, April 23, 2006, April 26, 2005, May 3, 2006 and May 14, 2006.

Chestnut-sided Warbler (*Dendroica pensylvanica*)

There were only 22 seen during the five years, all were in the wooded borders. There were no spring records. There was one on September 21, 2006. There were three on September 26, 2007 with one on September 28, 2007. There were two on September 29, 2003. There were two on September 30, 2007 with three on October 3, 2007. There were singles on October 1, 2006 and October 2, 2003. There was one on October 4, 2006 with two on October 6, 2006. There were three on October 6, 2004. There was one on October 7, 2007 with three on October 8, 2005, then one seen on October 9, 2003. Finally there was one from October 21, 2004 to October 27, 2004. With two exceptions all the sightings fell into a narrow two week band from September 26 to October 9. The counts of three were the highest counts during this set of five years.

Magnolia Warbler (*Dendroica magnolia*)

This is a very uncommon passage migrant as only 15 seen during the five years. Most sightings were in the wooded borders but it could on occasions be found in a scrubrier habitat.

For the fall there were singles on September 12, 2005 and September 28, 2004. There were two on October 9, 2003. There was one on October 11, 2004 with three on October 13, 2004 then two seen on October 21, 2004. One of these was at a new location. There was one on October 11, 2006. There were three on October 12, 2007 with one on October 19, 2007. There was also one on October 19, 2005 and October 26, 2005. The counts of three were the highest counts during the first ten years of the survey. For the spring there were singles on April 19, 2006 and April 26, 2005.

Cape May Warbler (*Dendroica tigrina*)

By contrast this was a spring passage migrant to the wooded borders. Passage noted from April 21 (2006) to May 22 (2005). There were no fall sightings. There were singles on April 21, 2006 and from April 23, 2006 to April 25, 2006. The individual on the 21st was at a very different location to the one on the 23rd/25th so I treated it as a separate record. There were three on April 25, 2004 with two on April 28, 2004. There were singles on April 26, 2005, April 27, 2007 and April 28, 2006. On April 30, 2008 a total of 16 seen, this is still the highest count for Zellwood. There was one on May 3, 2006 with six on May 5, 2006, then three seen on May 7, 2006. There was one on May 5, 2004. There were also three on May 7, 2008. That was the end of the main passage but there were two later records. There were singles on May 18, 2007 and May 22, 2005. There were total of 36 seen over the five years.

Black-throated Blue Warbler (*Dendroica caerulescens*)

Unlike the other warbler species covered recently this species was seen in both the spring and the fall. Most sightings were in the interior of the woods along the border. One feature that was very noticeable is that most sightings in the fall (16 out of 20) were for one day only. In the spring the counts were balanced five and five. Seen in the spring from April 16 (2007) to May 17 (2006), there were five "clustered" influxes. The first is indicated by a peak count of one on April 16, 2007. The second peaked from April 19 (2006) to April 26 (2005) with high counts of two on April 26, 2005 and April 25, 2006. The third peaked from April 28 (2004) to April 30 (2008) with high counts of five on April 28, 2004 and 15 on April 30, 2008. Both of these were one day events. The count of 15 is still the highest count for Zellwood. The last two influxes are indicated by isolated peak counts of four on May 7, 2006 and one on May 14, 2006. The fall passage ran from August 26 (2004) to November 12 (2006), there were nine "clustered" influxes. The first peaked on August 26 (2004, 2007) with one on both dates. The second peaked from September 12 (2004) to September 14 (2007) with a high count of two on September 14, 2007. The third is indicated by a peak count of one on September 21, 2006. The

fourth peaked from September 26 (2007) to October 3 (2004) with one on four dates. The fifth is indicated by a peak count of one on October 6, 2006. The sixth peaked from October 10 (2007) to October 12 (2005) with a high count of two on October 10,, 2007. The seventh peaked from October 16 (2005) to October 18 (2006) with a high count of two on October 21, 2004 and October 21, 2007. The eighth peaked from October 31 (2007) to November 2 (2005) with one on both dates. The ninth is indicated by a peak count of one on November 12, 2006. There were more sightings in the fall (24 birds on 29 dates) as against the spring (34 birds on 16 dates). Numbers were much lower in the fall.

Yellow-rumped Warbler (*Dendroica coronata*)

A common passage migrant and winter visitor, in some years there could be a major passage in the spring. Most were seen in the wooded borders however in very cold weather they also gathered in the vegetated canals. The fall passage ran from October 11 (2004) to December 7 (2005) with a high count of 250 on November 7, 2004. The winter passage ran from November 23 (2007) to January 6 (2006) with a high count of 275 on December 2, 2007. The early spring passage ran from January 3 (2007) to March 31 (2004) with high counts of 1,675 on March 1, 2006, 3,820 on February 20, 2005 and a very high 10,220 on February 23, 2007. This passage normally ended in late February or during the first few days of March but that was not the case for three of the five years. In 2004 the passage continued to March 31 with a peak count of 340 on February 4. In that case there was no later influx just numbers gradually falling away. The other years (March 18 in 2005 and March 16 in 2007) were predictable as those were the years with mega influxes. To detail the 2007 influxes, there were 165 on January 3 with 140 on January 5, then 105 seen on January 7 with 35 on January 10. There were 60 on January 12 with 210 on January 14 and January 19, then 175 seen on January 24 with 105 on January 26. There were 235 on January 29 with 285 on January 31, 355 on February 7, 585 on February 9, 1,770 on February 11, 3,670 on February 14, 3,820 on February 16, 6,440 on February 18, 9,230 on February 21 and 10,220 on February 23, then 5,600 seen on February 25 with 4,200 on February 28, 3,130 on March 4, 1,245 on March 7, 970 on March 9, 470 on March 11, 235 on March 14 and 160 on March 16. This was truly a mega influx. The late spring passage, or what was left of it after the long running early spring passage ran from March 10 (2006) to April 19 (2007) with a high count of 1,080 on March 18, 2007. To continue detailing the 2007 influxes, there were 825 on March 17 with 1,080 on March 18, then 155 seen on March 21 with 74 on March 23, 29 on March 25, 22 on March 28, six on March 30 and one on April 8. There was also a late individual on April 19. Finally there was a female showing the characteristics of the race *D.c.auduboni* on February 20, 2005.

The fall passage ran from October 11 (2004) to December 7 (2005), there were five “clustered” influxes. The first two influxes are indicated by isolated peak counts of one on October 12, 2003 and 135 on November 3, 2006. The third peaked from November 7 (2004, 2007) to November 10 (2006) with a high count of 250 on November 7, 2004. The fourth peaked from November 14 (2007) to November 19 (2006) with a high count of 200 on November 17, 2004. The fifth peaked from November 23 (2003) to November 25 (2005) with a high count of 145 on November 23, 2003. The winter passage followed from November 23 (2007) to January 6 (2006), there were four “clustered” influxes. The first peaked from November 29 (2006) to December 2 (2007) with a high count of 275 on December 2, 2007. The second peaked from December 12 (2004) to December 15 (2003, 2006) with a high count of 260 on December 15, 2003. The third peaked from December 19 (2007) to December 23 (2005) with a high count of 175 on December 19, 2007. The fourth peaked from December 26 (2003) to December 28 (2007) with a high count of 195 on December 27, 2004. The early spring passage was by far the strongest event, this passage ran from January 3 (2007) to March 31 (2004), there were seven “clustered” influxes. The first peaked from January 3 (2007) to January 6 (2005) with a high count of 240 on January 6, 2005. The second peaked from January 11 (2004, 2006, 2008) to January 14 (2007) with a high count of 210 on January 14, 2007. The third peaked from January 18 (2008) to January 20 (2006) with a high count of 135 on January 18, 2008. The fourth peaked from January 29 (2006) to February 4 (2004) with a high count of 340 on February 4, 2004. The fifth peaked from February 8 (2008) to February 10 (2006) with a high count of 140 on February 10, 2006. The sixth peaked from February 17 (2006) to February 23 (2007) with high counts of 690 on February 17, 2006, 3,820 on February 20, 2005 and 10,220 on February 23, 2007. The latter is still the highest count for Zellwood. The seventh peaked from February 29 (2008) to March 1 (2006) with high counts of 320 on February 29, 2008 and 1,675 on March 1, 2006. The late spring passage ran from March 10 (2006) to April 19 (2007), there were three “clustered” influxes. The first peaked from March 12 (2006) to March 15 (2008) with a high count of 690 on March 12, 2006. The second peaked from March 18 (2007) to March 20 (2005) with high counts of 785 on March 20, 2005 and 1,080 on March 18, 2007. The third is indicated by a peak count of one on April 19, 2007. This last passage was much reduced by the long running influxes in the early spring passage. Finally there was a female showing the characteristics of the race *D.c.auduboni* on February 20, 2005.

Black-throated Green Warbler (*Dendroica virens*)

This was a very uncommon late fall passage migrant with records for the late fall passage from October 9 (2003) to November 23 (2007). There was one at the Sand Farm on October 9, 2003. At the Workshops there were two on October 17, 2004 with one on October

21, 2005. At the Sand Farm there was one on October 25, 2006 with two on October 27, 2004 and one on October 29, 2007. There was one by Lake Apopka north of Lust Road on November 7, 2005. There was one by Lust Road gate on November 14, 2007. Finally for the fall there was one on the northern border on November 23, 2007. That comes to a total of 11 birds. There was just one winter record with one at the Sand Farm on January 4, 2006. The counts of two were joint high counts with others seen during the first five years.

Blackburnian Warbler (*Dendroica fusca*)

Another very uncommon fall passage migrant with sightings for the early fall passage from August 22 (2004) to September 21 (2006) there was one at the Nursery on August 22, 2004. There was one by Lake Apopka south of Hooper Farms Road on September 10, 2006. At the Nursery there were singles on September 12, 2007 and September 19, 2005. There was one at the Sand Farm on September 21, 2006. For the late fall passage there was one at the Nursery on October 13, 2004 with one by the Workshops on October 17, 2004. There was one at the Nursery on October 27, 2004. In 2003 there was an influx, there were four on September 29 with two on October 2 and one on October 5. The count of four is a joint high count as there were also four on September 19, 2000. That comes to a total of 12 birds for the five years.

Yellow-throated Warbler (*Dendroica dominica*)

A passage migrant which may on occasions be seen in the winter, the preferred habitat is the woods along the eastern and northern borders. The early fall passage ran from July 19 (2008) to October 3 (2007), there were nine "clustered" influxes. The first two are indicated by isolated peak counts of one on July 19, 2008 and August 1, 2004. The third peaked from August 8 (2006) to August 10 (2008) with a high count of two on August 10, 2008. The fourth peaked from August 15 (2005) to August 20 (2003) with a high count of two on August 15, 2005. The fifth peaked from August 24 (2007) to August 25 (2005) with a high count of four on August 25, 2005. The sixth peaked from August 29 (2004) to September 1 (2006) with a high count of four on September 1, 2006. The seventh is indicated by a peak count of three on September 10, 2003. The eighth peaked from September 19 (2003, 2004, 2005) to September 21 (2006) with a high count of five on September 21, 2006. The ninth is indicated by a peak count of eight on September 26, 2007. This is still the highest count for Zellwood. The late fall passage in contrast was a very minor event. This passage ran from September 28 (2004) to November 14 (2004), there were four "clustered" influxes. The first peaked from October 4 (2006) to October 8 (2005) with a high count of two on October 7, 2007. The second is indicated by a peak count of one on October 15, 2003. The third peaked on October 21 (2005, 2007) with a high count of two on

October 21, 2007. The fourth is indicated by a peak count of one on November 10, 2004. For most years there was no further passage until the early spring. For the winter passage there was one present from December 1, 2004 to January 6, 2005 with another from December 27, 2006 to December 29, 2006. Unlike the fall the passage in the spring was minimal. The early spring passage ran from January 7 (2007) to February 27 (2006), there were indications of six "clustered" influxes. The first is indicated by a peak count of two on January 12, 2007. The second peaked from January 16 (2005) to January 20 (2006) with one on both dates. The third peaked from February 2 (2005) to February 4 (2007) with a high count of two on February 2, 2005. The last three influxes are indicated by isolated peak counts of one on February 10, 2008, February 17, 2006 and February 27, 2006. The late spring passage was only represented by singles on March 16, 2005, March 24, 2005, March 21, 2008 and March 30, 2008.

Pine Warbler (*Dendroica pinus*)

Passage migrant and winter visitor being seen in the wooded borders, numbers tend to be low as most of the woods are of oak not pine. There were a few summer records. There was one on May 20, 2007. There was an immature female at the Sand Farm on June 8, 2006 and June 11, 2006. Later in 2006 there were singles on June 30 and July 12. I do not know whether or not these were the immature female. There was a minor early fall passage which ran from August 6 (2008) to September 19 (2004) with high counts of two on August 27, 2006 and September 7, 2003. There was no passage in 2005. Perhaps these sightings represent dispersal from local breeding sites rather than passage. The main fall passage ran from September 29 (2003) to November 28 (2007) with a high count of ten on November 15, 2005. Note the gap between this and the previous event. To detail the 2005 influxes, there was one from October 2 to October 12. There were two on October 19 with three on October 21, then two seen on October 23 with one on October 28. There were three on October 30 with two on November 2 and November 4, then one seen on November 11. There were ten on November 15 with singles on November 18 and November 22. The winter passage ran from November 25 (2005) to January 4 (2004, 2008) with a high count of six on December 12, 2007. This was followed by the early spring passage which ran from January 3 (2007) to March 4 (2008) with a high count of eight on February 20, 2008. To detail the 2008 influxes, there were three on January 6 with two on January 11 and one on January 16. There were two from January 18 to January 30 with one on February 8. There were three on February 12 with two on February 17. There were eight on February 20 with four on February 24 then singles seen to March 4. Finally there was the late spring passage which ran from March 2 (2005) to April 23 (2004) with a high count of five on March 18, 2005.

For the summer passage there was one on May 20, 2007. There was one from June 8, 2006 to June 11, 2006. Later singles were seen on June 30, 2006 and July 12, 2006. The number of birds involved in the 2006 sightings is not known. There was a minimal early fall event from August 6 (2008) to September 19 (2004), there were four “clustered” influxes. This event may involve local dispersal rather than longer distance passage. The first influx peaked from August 6 (2006) to August 9 (2004) with one on both dates. The second peaked on August 27 (2003, 2006) with a high count of two on August 27, 2006. The third peaked from September 2 (2007) to September 7 (2003) with a high count of two on September 7, 2003. The fourth is indicated by a peak count of one on September 19, 2004. The main fall passage ran from September 29 (2003) to November 28 (2007), there were six “clustered” influxes. The first peaked from September 29 (2003) to October 3 (2004) with a high count of two on September 29, 2003. The second peaked from October 11 (2006) to October 15 (2003) with a high count of five on October 14, 2007. The third peaked from October 18 (2006) to October 21 (2005) with three on both dates. The fourth peaked from October 30 (2005) to November 1 (2006) with a high count of three on October 30, 2005. The fifth peaked from November 10 (2006) to November 15 (2005) with high counts of three on November 14, 2004 and ten on November 15, 2005. The latter was the highest count during the first ten years of the survey. The sixth peaked from November 18 (2007) to November 19 (2006) with a high count of three on November 18, 2007. The winter passage ran from November 25 (2005) to January 4 (2004, 2008), there were four “clustered” influxes. The first peaked from November 25 (2005) to November 30 (2007) with a high count of three on November 30, 2007. The second peaked from December 12 (2007) to December 16 (2005) with high counts of five on December 16, 2005 and six on December 12, 2007. The third peaked from December 21 (2003) to December 22 (2006) with two on both dates. The fourth peaked from December 27 (2004) to December 28 (2007) with a high count of five on December 28, 2007. The early spring passage ran from January 3 (2007) to March 4 (2008), there were seven “clustered” influxes. The first peaked from January 3 (2007) to January 8 (2006) with a high count of four on January 8, 2006. The second is indicated by a peak count of three on January 12, 2007. The third peaked from January 16 (2005) to January 18 (2008) with two on both dates. The fourth peaked from January 24 (2007) to January 25 (2004) with a high count of two on January 24, 2007. The fifth peaked from January 30 (2005) to February 1 (2006) with a high count of four on February 1, 2006. The sixth peaked from February 11 (2004) to February 12 (2008) with a high count of three on February 12, 2008. The seventh peaked from February 17 (2006) to February 20 (2005, 2008) with high counts of four on February 18, 2007 and eight on February 20, 2008. Finally there was the late spring passage, this ran from March 2 (2005) to April 23 (2004), there were six “clustered” influxes. The first is indicated by a peak count of two on March 2, 2005. The second peaked on March 7 (2004, 2007) with two on both dates. The third peaked from March 15 (2006) to March 18 (2005) with a high count of five on March 18, 2005. The fourth is indicated by a peak count of four on March 24,

2008. The fifth peaked from March 30 (2008) to March 31 (2004) with a high count of three on March 30, 2008. The sixth is indicated by a peak count of one on April 21, 2004. The last influx is not as isolated as it appears as in other years this passage ended on April 8 in 2007 and April 13 in 2008.

Prairie Warbler (*Dendroica discolor*)

The only significant event was the fall passage. However they were present through the winter and the early spring in very low numbers. There were indications of a stronger passage in late March and early April. This species can be found in the woods and the scrubby areas. In the winter it tends to be in scrub by water. The fall passage ran from July 16 (2006, 2008) to October 29 (2003) with a high count of 83 on September 10, 2003. In this instance there was just one main fall passage. To detail the 2003 influxes, there were ten on August 20 with 15 on August 24, then ten seen on August 27. There were 13 on September 1 with 19 on September 3 and 83 on September 10, then 22 seen on September 14 with 17 on September 16. There were 33 on September 19 with 16 on September 21. There were 18 on September 24 with 19 on September 29, then 12 seen on October 2 with six on October 5. There were 14 on October 9 with six on October 19, four on October 26 and one on October 29. The situation now gets complicated as there was often little to suggest passage through to the spring. In 2003 and 2005 there were traces of a late fall passage from October 23 (2005) to November 28 (2003) with a high count of five on November 9, 2005. There were from one to two in the area regularly from October 31, 2004 to April 24, 2005 and from November 18, 2005 to May 3, 2006. There were from one to three in the area regularly from October 22, 2006 to April 24, 2007. There were from one to four in the area regularly from September 30, 2007 to April 23, 2008. The fifth year only joins in with the start of the winter passage, then one to two were seen regularly from December 1, 2003 to May 5, 2004. There was a trace of a winter passage from December 2 (2007) to December 23 (2005) with a high count of six on December 2, 2007. There were sufficient higher counts to identify an early spring passage from December 30 (2005) to March 4 (2006). The highest counts were of five on January 4, 2006, January 6, 2008, February 23, 2007 and February 24, 2006. The main spring passage ran from at least March 5 (2006) to May 5 (2004) with high counts of nine on March 26, 2008 and ten on April 11, 2007. Unexpectedly there was a summer record as there was a male on June 14, 2006 at the Sand Farm.

The main fall passage ran from July 16 (2006, 2008) to October 29 (2003), there were 11 “clustered” influxes. The first is indicated by a peak count of three on July 21, 2006. The second peaked from July 26 (2008) to July 31 (2005) with a high count of seven on July 28, 2006. The third peaked from August 6 (2006) to August 10 (2005, 2007) with a high count of 24 on August

9, 2004. The fourth peaked from August 15 (2007) to August 18 (2006) with a high count of 15 on August 18, 2006. The fifth peaked from August 21 (2005) to August 24 (2003) with a high count of 16 on August 21, 2005. The sixth peaked from August 31 (2005) to September 1 (2006) with a high count of 28 on September 1, 2006. The seventh is indicated by a peak count of 83 on September 10, 2003. This is still the highest count for Zellwood. The eighth peaked from September 19 (2003) to September 22 (2005) with high counts of 16 on September 21, 2006 and 33 on September 19, 2003. The ninth peaked from September 27 (2006) to September 29 (2003) with a high count of 19 on September 29, 2003. The tenth is indicated by a peak count of 12 on October 3, 2004. The 11th peaked from October 8 (2006) to October 10 (2007) with a high count of 14 on October 9, 2003. Passage was now very limited and intermittent. There were traces of a late fall "passage" in 2003 and 2005 from October 23 (2005) to November 28 (2003). There were traces of three "clustered" influxes. The first two are indicated by isolated peak counts of four on October 23, 2005 and five on November 9, 2005. The third peaked from November 12 (2003) to November 15 (2005) with three on both dates. For the other years there was a population of one to two from October 31, 2004 to April 24, 2005, of one to three from October 22, 2006 to April 24, 2007 and one to four from September 30, 2007 to April 23, 2008. In 2005 there were one to two from November 18, 2005 to May 3, 2006. The fifth year joins in with the winter passage with one to two from December 1, 2003 to May 5, 2004. There were enough higher counts to suggest a minor winter passage from December 2 (2007) to December 23 (2005), there were two "clustered" influxes. The first is indicated by a peak count of six on December 2, 2007. The second peaked from December 13 (2006) to December 16 (2005) with a high count of five on December 13, 2006. These higher counts gave a better impression of an early spring passage, this ran from December 30 (2005) to March 4 (2006), there were four "clustered" influxes. The first peaked from January 4 (2006) to January 6 (2008) with five on both dates. The second peaked from January 31 (2007) to February 1 (2006) with four on both dates. The third is indicated by a peak count of three on February 8, 2004. The fourth peaked from February 22 (2004) to February 24 (2006) with high counts of five on February 23, 2007 and February 24, 2006. The main spring passage was even clearer even though for most of the time there was no discernible passage above the basic levels detailed above. This passage ran from March 5 (2006) to May 5 (2004), there seven "clustered" influxes. The first is indicated by a peak count of four on March 5, 2006. The second peaked from March 10 (2005) to March 12, 2006 with three on both dates. The third peaked on March 26 (2006, 2008) with high counts of four on March 26, 2006 and nine on March 26, 2008. The fourth peaked from April 2 (2008) to April 4 (2007) with a high count of six on April 4, 2007. The fifth is indicated by a peak count of ten on April 11, 2007. The last two influxes are indicated by isolated peak counts of four on April 21, 2006 and two on May 3, 2006. Finally there was an unexpected summer record as there was a male at the Sand Farm on June 14, 2006.

Palm Warbler (*Dendroica palmarum*)

A common passage migrant and winter visitor with the majority being seen in the fields and the scrub filled sections of the border. The fall passage ran from September 5 (2007) to December 2 (2007) with a high count of 732 on September 29, 2003. To detail the 2003 influxes, there were two on September 10 with six on September 14, 23 on September 19, 26 on September 24 and 732 on September 29, then 316 seen on October 2 with 188 on October 5, 54 on October 9 and 47 on October 12. There were 390 on October 15 with 216 on October 19, 185 on October 22, 181 on October 26 and 142 on October 29. There were 203 on November 2 with 146 on November 5, 121 on November 9 and 101 on November 12. There were 105 on November 16 with 162 on November 20, then 122 seen on November 23 with 120 on November 28. The winter passage ran from November 29 (2006) to January 11 (2004) with a high count of 385 on December 4, 2005. The early spring passage was a stronger event, the passage ran from January 11 (2008) to March 4 (2008) with a high count of 625 on January 26, 2005. To detail the 2005 influxes, there were 410 on January 19 with 625 on January 26, then 460 seen on February 2 with 295 on February 6 and 265 on February 8. There were 485 on February 13 with 580 on February 20, then 320 seen on February 23 with 120 on February 28. Finally there was the late spring passage, this ran from February 27 (2004) to May 17 (2006) with a high count of 610 on March 1, 2006. Numbers remained quite high to the end of March. To detail the 2005 influxes, there were 435 on March 2 with 305 on March 10, 220 on March 13 and 185 on March 16. There were 190 on March 18 with 345 on March 20 and 360 on March 30, then 270 seen on April 3 with 195 on April 6, 162 on April 14, 69 on April 17, 28 on April 24, 13 on April 26, three on April 30 and one on May 5. There was also a late individual at the Workshops on May 26, 2004.

There was a single fall passage, this ran from September 5 (2007) to December 2 (2007), there were nine "clustered" influxes. The first peaked on September 21 (2006, 2007) with a high count of 54 on September 21, 2006. The second peaked from September 27 (2006) to September 30 (2007) with high counts of 108 on September 30, 2007 and 732 on September 29, 2003. The latter was the highest count during this set of five years. The third peaked from October 12 (2007) to October 16 (2005) with a high count of 390 on October 15, 2003. The fourth peaked from October 17 (2004) to October 21 (2007) with a high count of 300 on October 17, 2004. The fifth peaked from October 26 (2005) to October 31 (2004) with a high count of 348 on October 31, 2004. The sixth peaked from November 2 (2003) to November 4 (2005) with a high count of 309 on November 4, 2005. The seventh peaked from November 8 (2006) to November 9 (2007) with a high count of 130 on November 9, 2007. The eighth peaked from November 15 (2005) to November 20 (2003) with a high count of 235 on November 17, 2004. The ninth peaked from November 25 (2005) to November 28 (2007) with a high count of 355 on November 25, 2005. The winter passage followed from November 29 (2006) to January

11 (2004), there were four “clustered” influxes. The first peaked from December 1 (2006) to December 5 (2007) with a high count of 385 on December 4, 2005. The second peaked from December 15 (2003) to December 17 (2006, 2007) with a high count of 290 on December 15, 2003. The third is indicated by a peak count of 335 on December 22, 2004. The fourth peaked from December 27 (2006) to December 28 (2003, 2005) with a high count of 310 on December 28, 2005. The early spring passage was the strongest event of the year with passage from January 11 (2008) to March 4 (2008), there were nine “clustered” influxes. The first peaked from January 4 (2006, 2008) to January 6 (2005) with a high count of 335 on January 6, 2005. The second peaked on January 14 (2004, 2008) with a high count of 200 on January 14, 2004. The third peaked from January 20 (2006) to January 21 (2007) with a high count of 305 on January 20, 2006. The fourth peaked from January 26 (2005) to January 28 (2008) with high counts of 105 on January 28, 2008 and 625 on January 26, 2005. The fifth peaked from February 1 (2008) to February 2 (2004) with a high count of 430 on February 2, 2004. The sixth peaked from February 10 (2006, 2008) to February 11 (2007) with a high count of 405 on February 11, 2007. The seventh peaked from February 17 (2008) to February 18 (2007) with a high count of 460 on February 18, 2007. The eighth peaked from February 20 (2005) to February 22 (2006) with high counts of 425 on February 22, 2006 and 580 on February 20, 2005. The ninth peaked from February 25 (2007) to February 29 (2008) with a high count of 365 on February 25, 2007. The late spring passage ran from February 27 (2004) to May 17 (2006), again there were nine “clustered” influxes. The first peaked from March 1 (2006) to March 4 (2007) with high counts of 435 on March 2, 2005 and 610 on March 1, 2006. The second is indicated by a peak count of 135 on March 8, 2006. The third peaked from March 15 (2008) to March 18 (2007) with a high count of 200 on March 18, 2007. The fourth peaked from March 24 (2004, 2006) to March 26 (2008) with a high count of 175 on March 24, 2006. The fifth peaked from March 28 (2007) to March 30 (2005) with a high count of 360 on March 30, 2005. The sixth peaked from April 7 (2004) to April 9 (2008) with a high count of 89 on April 7, 2004. The seventh peaked from April 13 (2007) to April 14 (2006) with a high count of 161 on April 13, 2007. With this species the numbers are often higher towards the end of the spring passage. The eighth influx peaked from April 25 (2006) to April 30 (2008) with a high count of 34 on April 25, 2006. The ninth influx is indicated by a peak count of two on May 17, 2006. There was also a late individual by the Workshop on May 26, 2004.

“Yellow Palm Warblers” (*Dendroica palmarum hypochrysea*)

This, the eastern race of the Palm Warbler was a regular passage migrant and winter visitor but in very low numbers. They were noted from October 7 (2007) to April 13 (2007). This breaks down as follows: December 15, 2003 to March 19, 2004, October 11, 2004 to April 10,

2005, October 16, 2005 to March 24, 2006, October 22, 2006 to April 13, 2007 and October 7, 2007 to March 24, 2008. I have summarized the sightings on a seasonal basis in the table below.

Survey year	Fall	Winter	Early spring	Late spring	Totals
2003/2004	0	4	5	4	13
2004/2005	4	4	14	7	29
2005/2006	8	7	8	4	27
2006/2007	5	15	19	9	48
2007/2008	9	5	8	2	24

The higher daily counts were those of seven on January 11, 2008, eight on December 29, 2006, January 16, 2008 and January 24, 2007 with at least nine on April 13, 2007. Whilst it may not be a fact I feel that this race sticks much more to the edges of woodland as I have seen very limited numbers out in the fields.

Bay-breasted Warbler (*Dendroica castanea*)

There were only seven records of eight birds for the five years. There was one by Lake Apopka south of Hooper Farms Road on October 15, 2003, one at the Nursery on October 21, 2004 and one by the Workshops on October 31, 2004. There was one at the Nursery on November 1, 2006 with two there on November 2, 2007. The count of two is still the highest count for Zellwood. There was one at the Sand Farm on November 4, 2005. Finally there was one by the Lake Level Canal on November 5, 2003. This is a woodland species.

Blackpoll Warbler (*Dendroica striata*)

There were just four individuals seen during the fall on six dates whilst there was a noticeable spring passage. This is another woodland species. The spring passage ran from April 19 (2006) to May 24 (2006) with a high count of 73 on May 5, 2006. To detail the 2006 influxes, there were two on April 19 and April 23 with four on April 25, then two seen on April 30. There were 38 on May 3 with 73 on May 5, then 11 seen on May 7 with three on May 10 and one on May 14. There were four on May 17. Finally there was a late individual by Lake Apopka north of Lust Road on May 24, 2006. For the fall there were singles on October 11, 2004, October 13, 2006, October 15, 2006, October 21, 2004, October 24, 2004 and October 22, 2003.

The spring passage ran from April 19 (2006) to May 24 (2006), there were six “clustered” influxes. The first peaked from April 24 (2005) to April 25 (2006) with a high count of four on April 25, 2006. The second peaked from April 27 (2008) to April 29 (2007) with high counts of six on April 27, 2008 and 20 on April 28, 2004. The third peaked on May 5 (2004, 2006) with high counts of eight on May 5, 2004 and 73 on May 5, 2006. The latter is still the highest count for Zellwood. The fourth is indicated by a peak count of 17 on May 11, 2007. The fifth peaked from May 16 (2004) to May 17 (2006) with a high count of four on May 17, 2006. The sixth is indicated by a peak count of one on May 24, 2006. The very limited fall passage ran from October 11 (2004) to October 24 (2004), there were two “clustered” influxes. The first peaked from October 11 (2004) to October 13 (2006) with one on both dates. The second peaked from October 21 (2004) to October 22 (2003) with one on both dates.

Cerulean Warbler (*Dendroica cerulea*)

This is a rare passage migrant as there were only five records for the five years. For the early fall passage there was one on July 24, 2008 at the Sand Farm. There were singles at the Nursery on August 19, 2004, September 1, 2004 and September 1, 2006. Finally there was one at the Sand Farm on September 15, 2006.

Black-and-white-Warbler (*Mniotilta varia*)

Regular passage migrant and winter visitor but only in small numbers, most sightings were from the wooded borders. I have broken the fall passage into two events but quite possibly it should be treated as one. Interestingly there appears to be a slightly stronger passage in November. There was a very early record of one on July 11, 2007 otherwise the early fall passage ran from August 4 (2004) to September 23 (2006) with a high count of six on August 9, 2004. To detail the 2004 influxes, there were two on August 4 with six on August 9, then three seen on August 11 with one on August 19. There were three on August 29 with two from September 9 to September 16. The main fall passage ran from September 19 (2004) to December 6 (2006) with a high count of ten on September 22, 2004. To continue detailing the 2004 influxes, there were four on September 19 with ten on September 22, then two seen on September 28 with one to October 11. There were two on October 13 with one to October 24. There were two on October 31 with one to November 14. There was limited passage in both the winter and the early spring. The winter passage ran from December 1 (2004) to January 9 (2005) with high counts of two on December 8, 2006 and December 26, 2005. The early spring passage ran from January 3 (2007) to February 24 (2006, 2008) with high counts of two on six

dates. The main spring passage ran from February 29 (2008) to May 10 (2006) with high counts of four on April 10, 2005 and April 30, 2008. This passage was only significant during April.

There was a very early individual on July 11, 2007 otherwise the early fall passage ran from August 4 (2004) to September 23 (2006), there were five “clustered” influxes. The first two influxes are indicated by isolated peak counts of six on August 9, 2004 and two on August 15, 2007. The third peaked from August 21 (2005) to August 23 (2006) with a high count of three on August 21, 2005. The fourth peaked from August 29 (2004) to August 31 (2005) with three on both dates. The fifth peaked from September 10 (2003) to September 14 (2007) with a high count of five on September 14, 2007. The count of six on August 9, 2004 appears to be an anomaly and this passage together with the main fall passage could be treated as one event if the peak counts were anything to go by. The main fall passage ran from September 19 (2004) to December 6 (2006), there were eight “clustered” influxes. The first is indicated by a peak count of ten on September 22, 2004. This is still the highest count for Zellwood. The second peaked from October 2 (2003) to October 4 (2006) with a high count of five on October 4, 2006. The third peaked from October 8 (2005) to October 13 (2004) with high counts of two on three dates. The fourth peaked from October 18 (2006) to October 22 (2003) with a high count of two on October 22, 2003. The fifth peaked from October 26 (2006) to October 31 (2004) with high counts of two on three dates. The sixth peaked from November 7 (2007) to November 9 (2005) with a high count of four on November 7, 2007. The seventh peaked from November 15 (2005) to November 17 (2006) with a high count of three on November 17, 2006. The eighth peaked from November 26 (2006) to November 30 (2007) with a high count of three on November 26, 2006. Note the higher peak counts in November. The winter passage was perhaps the weakest event with passage from December 1 (2004) to January 9 (2005), there were five “clustered” influxes. The first peaked from December 1 (2004) to December 2 (2005) with one on both dates. The second peaked on December 8 (2003, 2006) with a high count of two on December 8, 2006. The next two influxes are indicated by isolated peak counts of one on December 12, 2007 and December 19, 2004. The fifth peaked from December 26 (2005) to December 28 (2007) with a high count of two on December 26, 2005. The early spring passage followed from January 3 (2007) to February 24 (2006, 2008), there were five “clustered” influxes. The first peaked from January 4 (2006) to January 5 (2007) with two on both dates. The second peaked from January 16 (2004, 2005) to January 18 (2008) with high counts of two on January 16, 2005 and January 18, 2008. The third peaked from January 25 (2008) to January 30 (2005) with a high count of two on January 25, 2008. The fourth peaked from February 17 (2006) to February 20 (2008) with a high count of two on February 17, 2006. The fifth peaked on February 23 (2005, 2007) with one on both dates. The main spring passage ran from February 29 (2008) to May 10 (2006), there were nine “clustered” influxes. The first peaked from February 29 (2008) to March 2 (2005, 2007) with a high count of two on March 2, 2005. The second is indicated by a peak count of one on March 8, 2006. The third peaked from March 13 (2005) to March 17 (2006)

with a high count of two on March 13, 2005. The fourth peaked from March 27 (2005) to March 30 (2007) with a high count of two on March 27, 2005. The passage was now stronger as if it were a separate event. The fifth peaked from April 10 (2005) to April 11 (2008) with a high count of four on April 10, 2005. The sixth peaked from April 21 (2007) to April 25 (2006) with high counts of two on both dates. The seventh is indicated by a peak count of four on April 30, 2008. The last two influxes are indicated by isolated peak counts of one on May 5, 2004 and May 10, 2006.

American Redstart (*Setophaga ruticilla*)

This is a common passage migrant in the wooded borders. Exceptionally there was a female at the Sand Farm on February 14, 2006 and February 17, 2006. The spring passage ran from March 23 (2007) to June 2 (2004) with high counts of 24 on May 5, 2004 and 26 on May 13, 2007. The main passage was limited to a two week period from April 30 to May 13. To detail the 2007 influxes, there was one on March 23. There was one on April 16 and April 24 with two on April 29, then one seen on May 7. There were four on May 9 with seven on May 11 and 26 on May 13, then 11 seen on May 16 with five on May 18 and one on May 20. Finally there was one on May 27. The early fall passage ran from August 1 (2007, 2008) to September 19 (2007) with a high count of ten on September 14, 2007. The main fall passage ran from September 9 (2004) to November 2 (2005) with a high count of 27 on October 11, 2004. To detail the 2004 influxes, there were three on September 9 with four on September 19 and 15 on September 22, then one seen on September 28. There were nine on October 3 with four on October 6. There were 27 on October 11 with ten on October 13 and two on October 17. There were six on October 21 with three on October 24. Finally for the fall there was a late individual on November 17, 2006. There was also a single winter record as there was one at the Sand Farm on December 14, 2007.

For the spring there was a very early individual at the Sand Farm on February 14, 2006 and February 17, 2006. The actual spring passage ran from March 23 (2007) to June 2 (2004), there were nine in "clustered" fluxes. The first two influxes are indicated by isolated peak counts of one on March 23, 2007 and March 30, 2005. The third peaked from April 13 (2008) to April 17 (2004) with a high count of two on April 13, 2008. The fourth peaked from April 21 (2006) to April 24 (2005) with four on both dates. The fifth peaked from April 29 (2007) to April 30 (2005, 2008) with a high count of 15 on April 30, 2008. The sixth peaked from May 3 (2006) to May 7 (2008) with high counts of ten on May 7, 2008, 17 on May 3, 2006 and 24 on May 5, 2004. The seventh peaked from May 13 (2007) to May 14 (2008) with high counts of five on May 14, 2008 and 26 on May 13, 2007. The eighth peaked from May 22 (2005) to May 24 (2006) with a high count of two on May 22, 2005. The ninth peaked from May 27 (2007) to June 2

(2004) with one on both dates. The early fall passage ran from August 1 (2007, 2008) to September 19 (2007), there were six “clustered” influxes. The first peaked on August 1 (2007, 2008) with a high count of three on August 1, 2007. The second peaked from August 7 (2005) to August 11 (2004) with a high count of three on August 11, 2004. The third peaked from August 15 (2007) to August 20 (2003) with a high count of seven on August 17, 2005. The fourth is indicated by a peak count of four on August 24, 2007. The fifth peaked on September 1 (2004, 2006) with a high count of seven on September 1, 2006. The sixth is indicated by a peak count of ten on September 14, 2007. Next came the main fall passage, this ran from September 9 (2004) to November 2 (2005), there were six “clustered” influxes. The first peaked on September 21 (2006, 2007) to September 22 (2004, 2005) with high counts of eight on September 21, 2007 and 15 on September 22, 2004. The second peaked on September 29 (2003, 2006) with a high count of ten on September 29, 2003. The third peaked from October 2 (2005) to October 5 (2003) with a high count of ten on October 5, 2003. The fourth peaked from October 10 (2007) to October 11 (2004) with high counts of five on October 10, 2007 and 27 on October 11, 2004. The latter was the highest count during this set of five years. The fifth peaked from October 17 (2007) to October 18 (2006) with a high count of three on October 18, 2006. The sixth peaked from October 21 (2004, 2005) to October 22 (2006) with a high count of six on October 21, 2004. There was a late record of one on November 17, 2006. Exceptionally there was a winter record as there was one at the Sand Farm on December 14, 2007.

Prothonotary Warbler (*Protonotaria citrea*)

This is a very uncommon passage migrant there being four records for the spring and 12 for the fall. All the sightings were in the wooded borders or the lines of willows along some of the ditches. For the spring there were singles on March 24, 2004 and March 28, 2004, April 14, 2005, April 19, 2006 and April 23, 2008. For the fall there was one on August 1, 2004 with two on August 9, 2004. No more than two a day have been recorded at Zellwood. Then singles seen on August 13, 2006, August 24, 2003, August 27, 2006, August 29, 2004, September 1, 2006, September 10, 2003, September 12, 2005, September 30, 2007 and October 12, 2003. Unlike many species in the fall this one does not normally stop off-passage.

Worm-eating Warbler (*Helmitheros vermivora*)

Just eight seen over the five years with five in the fall and three in the spring, all sightings were from the wooded borders. For the spring there was one on April 24, 2005 and April 30, 2005 with others on April 30, 2008 and May 5, 2006. For the fall there were singles on August 19, 2004, September 12, 2007 and September 14, 2007, then two seen on September

22, 2004. This is still the highest count for Zellwood. Finally there was one on September 19, 2005.

Swainson's Warbler (*Limnothlypis swainsonii*)

The status of this species is unknown as it is so secretive as it walks along the ground in thick cover by water. In all over the five years only six seen, there were five in the fall and one in the spring. For the spring there was one on April 18, 2008, this was at the Sand Farm. For the fall there was one on the southern border on August 16, 2004. All the other sightings were from the Sand Farm. There were singles on August 17, 2007, September 1, 2004, September 8, 2006 and September 14, 2003.

Ovenbird (*Seiurus aurocapilla*)

This is first and foremost a fall passage migrant with lesser numbers in the winter and the spring. During this set of five years this species was common on fall migration in the thick cover along the canal that separated the Sand Farm from Duda. This cover has matured and this species is less common now. At other times of the year it could be found in the wooded borders. For this species the passage in the fall is reversed with the main fall passage ahead of a minor late fall passage. The main fall passage ran from August 18 (2006) to November 17 (2004) with a high count of 92 on September 27, 2006. To detail the 2006 influxes, there was one on August 18 and August 23. There were three on September 1 with four on September 6, ten on September 10 and 11 on September 15, then eight seen on September 17 with seven on September 21, six on September 23 and September 25. There were 92 on September 27 with 52 on September 29, 25 on October 1 and 17 on October 4. There were 38 on October 6 with 43 on October 8, then 24 seen on October 13 with ten on October 22, eight on October 27, three on October 29 and two on November 8. The late fall passage ran from October 17 (2007) to December 7 (2005) with a high count of 19 on October 23, 2005. The winter passage ran from November 28 (2003, 2004) to January 9 (2005) with a high count of four on four dates December 9, 2005, December 20, 2006, December 26, 2005 and January 5, 2007. The early spring passage ran from January 8 (2006) to March 9 (2007) with a high count of four on February 9, 2007, February 21, 2007 and February 24, 2006. The main spring passage ran from March 8 (2006) to May 3 (2006) with a high count of five on March 12, 2006 and April 24, 2007. The contrast between these four events and the main fall passage was so stark.

The main fall passage ran from August 18 (2006) to November 17 (2004), there were seven "clustered" influxes. The first peaked from August 18 (2006) to August 22 (2004) with one

on three dates. The next two influxes are indicated by isolated peak counts of three on August 28, 2005 and five on September 9, 2007. The fourth peaked from September 15 (2006) to September 16 (2004) with high counts of 11 on September 15, 2006 and 30 on September 16, 2004. The fifth peaked from September 19 (2003) to September 22 (2005) with high counts of 18 on September 19, 2003 and 50 on September 22, 2005. The sixth peaked from September 26 (2007) to October 2 (2003) with high counts of 15 on October 2, 2003, 37 on September 28, 2004 and 92 on September 27, 2006. The latter is still the highest count for Zellwood. The seventh peaked from October 8 (2006) to October 12 (2007) with high counts of 15 on October 12, 2007, 43 on October 8, 2006 and 47 on October 11, 2004. Now numbers fell dramatically. The late fall passage ran from October 17 (2007) to December 7 (2005), there were five "clustered" influxes. The first peaked from October 19 (2007) to October 23 (2005) with a high count of 19 on October 23, 2005. The second is indicated by a peak count of eight on October 31, 2007. The third peaked from November 7 (2005) to November 10 (2006) with a high count of eight on November 7, 2005. The fourth peaked from November 15 (2005) to November 18 (2007) with a high count of seven on November 15, 2005. The fifth is indicated by a peak count of three on November 21, 2004. The winter passage ran from November 28 (2003, 2004) to January 9 (2005), there were five "clustered" influxes. The first peaked from November 28 (2003) to November 30 (2007) with high counts of two on November 29, 2006 and November 30, 2007. The second peaked from December 7 (2004, 2007) to December 9 (2005) with a high count of four on December 9, 2005. The third peaked from December 19 (2004) to December 21 (2007) with a high count of four on December 20, 2006. The fourth peaked from December 26 (2003, 2005) to December 30 (2004) with a high count of four on December 26, 2005. The fifth is indicated by a peak count of four on January 5, 2007. This was followed by the early spring passage which ran from January 8 (2006) to March 9 (2007), there were seven "clustered" influxes. The first peaked from January 8 (2006) to January 9 (2008) with a high count of three on January 9, 2008. The second is indicated by a peak count of three on January 14, 2007. The third peaked on January 19 (2004, 2005) with a high count of two on January 19, 2004. The fourth peaked from January 29 (2007) to February 1 (2006) with a high count of three on January 29, 2007. The fifth peaked from February 4 (2004) to February 9 (2007) with a high count of four on February 9, 2007. The sixth peaked from February 21 (2007) to February 24 (2006) with four on both dates. The seventh peaked from February 27 (2004) to February 28 (2005) with a high count of two on February 28, 2005. The main spring passage ran from March 8 (2006) to May 3 (2006), there were also seven "clustered" influxes. This passage was only minimally stronger than the early spring passage. The first influx peaked from March 10 (2005) to March 12 (2006) with a high count of five on March 12, 2006. The second is indicated by a peak count of one on March 19, 2004. The third peaked from March 24 (2005) to March 26 (2008) with a high count of two on March 24, 2005. The fourth is indicated by a peak count of one on March 31, 2004. The fifth peaked from April 10 (2005) to April 14 (2006) with a high

count of three on April 11, 2007. The sixth peaked from April 20 (2008) to April 24 (2007) with a high count of five on April 24, 2007. The seventh peaked from April 30 (2008) to May 3 (2006) with one on both dates.

Northern Waterthrush (*Seiurus noveboracensis*)

During this period this was a common fall passage migrant, a less common late spring passage migrant and an increasing visitor in the winter and the early spring. Most sightings were by the canal that runs east-west between Duda and the Sand Farm. The main fall passage was the event of the year, this passage ran from August 17 (2005) to October 19 (2005) with extensions to November 10 in 2004 and to November 23 in 2003. The highest counts were those of 120 on September 22, 2005 and 188 on September 28, 2004. To detail the 2004 influx, there were three on August 26 with five on August 29, seven on September 1, 19 on September 9, 23 on September 12, 55 on September 16, 58 on September 22 and 188 on September 28, then 53 seen on October 3 with 51 on October 6. To detail the 2005 influxes, there was one on August 17 with five on August 21, 24 on August 28, 39 on August 31 and 41 on September 7, then 33 seen on September 12 with 21 on September 19. There were 120 on September 22 with 71 on October 2, 63 on October 8, 28 on October 12, 13 on October 16 and eight on October 19. The late fall passage ran from September 28 (2007) to December 9 (2003) with a high count of 34 on October 3, 2007. The winter passage ran from November 30 (2007) to January 10 (2007) with high counts of 17 on December 5, 2007 and December 19, 2007. Counts have gradually been climbing during the five winters with peak counts of three in 2003/2004, eight in 2004/2005, 12 in 2005/2006, 16 in 2006/2007 and 17 in 2007/2008. A similar increase occurred with the early spring passage (from five to 21). This passage ran from January 4 (2008) to March 9 (2007) with a high count of 21 on February 15, 2008. The late spring passage was different as there appeared to be a passage with declining numbers from February 29 (2004, 2008) to April 7 (2004), the highest count was that of 12 on March 2, 2008. It was as if this event represented the departure of those present during the early spring passage. The second half of this passage from April 4 (2007) to May 31 (2006) was clearly a significant spring passage with a high count of 26 on April 20, 2005. To detail the 2005 influxes of the latter event, there were 11 on April 6 with 19 on April 14 and 26 on April 20, then 17 seen on April 26 with two on April 30 and one on May 1. There was also one on May 15 and May 22.

This species is said not to sing much on spring passage but that is clearly not true as the following shows. In 2004 five out of 14 were singing on April 21 with five out of 15 on April 23, six out of 13 on April 25, ten out of 20 on April 28, seven out of 14 on May 2, ten out of 14 on May 5 and one out of one on May 10. In 2005 three out of 26 were singing on April 20 with one out of ten on April 24, five out of 17 on April 26, one out of two on April 30 with one out of one

on May 15 and May 22. In 2007 three out of ten were singing on April 24 with three out of 11 on April 29. In 2008 two out of eight were singing on April 25 with four out of ten on April 27.

The main fall passage ran from August 17 (2005) to October 19 (2005) with extensions to November 10 in 2004 and November 23 in 2003, there were five “clustered” influxes. The first is indicated by a peak count of three on August 27, 2003. The second peaked from September 7 (2005) to September 10 (2006) with high counts of 41 on September 7, 2005 and 73 on September 10, 2006. The third peaked from September 14 (2003) to September 17 (2006) with high counts of 51 on September 14, 2003 and 81 on September 17, 2006. The fourth peaked from September 21 (2007) to September 22 (2005) with high counts of 36 on September 21, 2007 and 120 on September 22, 2005. The fifth peaked from September 27 (2006) to September 29 (2003) with high counts of 45 on September 29, 2003, 70 on September 27, 2006 and 188 on September 28, 2004. The latter is still the highest count for Zellwood. The late fall passage ran from September 28 (2007) to December 9 (2003), there were six “clustered” influxes. The first peaked from October 2 (2006) to October 3 (2007) with a high count of 34 on October 3, 2007. The second is indicated by a peak count of eight on October 13, 2006. The next “influx” is interesting as one of the two influxes really relates to the main fall passage it just happens that the peak count of 71 on October 31, 2004 falls well inside this passage. The combined influx peaked from October 26 (2005) to October 31 (2004) with high counts of 32 on October 29, 2007 and “71 on October 31, 2004”. The fourth peaked from November 11 (2007) to November 15 (2006) with a high count of 16 on November 11, 2007. The fifth is indicated by a peak count of 19 on November 18, 2007. The sixth peaked from November 25 (2005) to December 1 (2006) with a high count of 16 on December 1, 2006. The winter passage followed from November 30 (2007) to January 10 (2007), there were five “clustered” influxes. The first peaked from December 5 (2007) to December 7 (2004) with high counts of eight on December 7, 2004 and 17 on December 5, 2007. The second peaked from December 11 (2005) to December 15 (2006) with high counts of nine on December 11, 2005 and 16 on December 15, 2006. The third peaked from December 19 (2004, 2007) to December 23 (2005) with high counts of ten on December 23, 2005 and 17 on December 19, 2007. The fourth peaked from December 30 (2007) to January 1 (2006) with high counts of 12 on January 1, 2006 and 15 on December 30, 2007. The fifth peaked from January 5 (2007) to January 6 (2005) with high counts of ten on January 6, 2005 and 11 on January 5, 2007. I have shown the second highest count because 2007 dominated the highest counts. The early spring passage ran from January 4 (2008) to March 9 (2007), there were seven “clustered” influxes. The first is indicated by a peak count of 16 on January 9, 2008. The second peaked from January 14 (2007) to January 15 (2006) with 13 on both dates. The third peaked from January 19 (2004) to January 23 (2008) with high counts of four on January 19, 2004 and 20 on January 23, 2008. The fourth peaked from January 29 (2007) to February 1 (2006) with high counts of 14 on January 29, 2007 and 17 on January 30, 2008. The fifth peaked on February 8 (2005, 2008) with high counts of 11

on February 8, 2005 and 18 on February 8, 2008. The sixth peaked from February 11 (2007) to February 15 (2008) with high counts of 18 on February 11, 2007 and 21 on February 15, 2008. The seventh peaked from February 23 (2005) to February 28 (2007) with high counts of 12 on February 23, 2005 and 20 on February 28, 2007. The main spring passage appears to be two events. The first event involved the gradual departure of the early spring passage birds, this passage ran from February 29 (2004, 2008) to April 7 (2004), there were four “clustered” influxes. The first peaked from March 2 (2005, 2008) to March 3 (2004) with a high count of 12 on March 2, 2008. The second peaked from March 8 (2006) to March 13 (2005) with a high count of 11 on March 11, 2007. The third peaked from March 20 (2005) to March 21 (2007) with a high count of nine on March 21, 2007. The fourth peaked from March 28 (2007) to March 31 (2004) with a high count of seven on March 28, 2007. The second event relates to what was clearly the main passage of the spring. This ran from April 4 (2007) to May 31 (2006), there were six “clustered” influxes. The first peaked from April 9 (2008) to April 11 (2007) with a high count of 14 on April 9, 2008. The second peaked from April 19 (2007) to April 23 (2008) with a high count of 26 on April 20, 2005. The third peaked from April 28 (2004, 2006) to April 29 (2007) with a high count of 25 on April 28, 2006. The fourth peaked on May 7 (2006, 2008) with a high count of ten on May 7, 2006. The fifth peaked from May 11 (2007) to May 17 (2006) with a high count of 17 on May 17, 2006. The sixth is indicated by a peak count of one on May 31, 2006.

Louisiana Waterthrush (*Seiurus motacilla*)

A common passage migrant a statement that not too many places in Florida can make, it used the same habitats as the Northern Waterthrush. The spring passage ran from February 8 (2005) to April 30 (2006) with a high count of 46 on April 14, 2006. To detail the 2008 influxes, there was one on February 20 with two on February 22, five on February 24, then three seen on March 2 with one on March 4. There was one on March 15 with two on March 17 and five on March 21, then three seen on March 24. There were four on March 26 with six on March 28, eight on March 30 and 32 on April 4, then 18 seen on April 7 with five on April 9, four on April 13, two on April 18 and one on April 20. There were also two on April 23 with one on April 27. Finally there was a very late individual on May 17, 2006. Perhaps just as unlikely there was one by Pole Road extension on June 23, 2004. It is after the longest day so I treat this as a fall record. The actual fall passage ran from July 12 (2006) to October 2 (2005) with a high count of 68 on August 26, 2004. To detail the 2004 influxes, there was one on July 24 with three on August 1, four on August 4, five on August 9 and 12 on August 11, then seven seen on August 19. There were nine on August 22 with 68 on August 26, then 13 seen on August 29 with ten on September 1. There were 29 on September 9 with five on September 16, two on September 19

and one on September 22. Finally there were three on September 28. Very exceptionally there was a winter record. There was one at the Sand Farm from October 24, 2004 to January 6, 2005. So many of these strays tend to leave at the end of a passage, in this case at the end of the winter passage.

The spring passage ran from February 8 (2005) to April 30 (2006), there were nine "clustered" influxes. The first peaked from February 8 (2005) to February 11 (2004) with a high count of two on February 10, 2006. The second peaked from February 19 (2006) to February 24 (2008) with a high count of five on February 24, 2008. The third peaked from March 7 (2004, 2007) to March 12 (2006) with high counts of six on March 10, 2005 and March 7, 2007. The fourth peaked from March 19 (2004) to March 21 (2008) with a high count of seven on March 19, 2004. The fifth is indicated by a peak count of four on March 24, 2006. The sixth peaked from March 27 (2005) to March 31 (2004) with high counts of five on March 28, 2007 and 34 on March 27, 2005. The seventh is indicated by a peak count of 32 on April 4, 2008. The eighth peaked from April 11 (2007) to April 14 (2006) with high counts of six on April 11, 2007 and 46 on April 14, 2006. The ninth peaked from April 19 (2007) to April 23 (2008) with a high count of ten on April 19, 2007. There was a very late individual on May 17, 2006. On June 23, 2004 there was one by Pole Road extension. I treat this as a fall record. The fall passage was the stronger of the two events, this passage ran from July 12 (2006) to October 2 (2005), again there were nine "clustered" influxes. The first peaked from July 12 (2006) to July 16 (2008) with one on both dates. The second peaked from July 28 (2006) to August 5 (2007) with a high count of six on August 5, 2007. The third peaked from August 10 (2005) to August 13 (2008) with a high count of 15 on August 13, 2008. The fourth peaked from August 17 (2007) to August 21 (2005) with a high count of 25 on August 20, 2006. The fifth peaked from August 26 (2004) to August 27 (2006) with high counts of 21 on August 27, 2006 and 68 on August 26, 2004. The latter was the highest count during the first ten years of the survey. The sixth peaked from August 29 (2007) to September 3 (2003, 2006) with high counts of 20 on August 29, 2007 and 41 on September 3, 2003. The seventh peaked from September 9 (2004) to September 13 (2006) with a high count of 29 on September 9, 2004. The eighth peaked from September 19 (2005) to September 21 (2003, 2007) with a high count of five on September 21, 2003. The ninth peaked from September 28 (2004) to September 29 (2006) with a high count of three on September 28, 2004. Very exceptionally there was a winter record. There was one at the Sand Farm from October 24, 2004 to January 6, 2005. It kept to a short stretch of a Ludwigia filled ditch by the main Sand Farm/Duda canal.

Kentucky Warbler (*Oporornis formosus*)

There was just one record for the five years. There was one at the Sand Farm on April 25, 2008, it was singing.

Common Yellowthroat (*Geothlypis trichas*)

This is a common passage migrant and winter visitor. There are a few summer records but there was no evidence of breeding. The late spring passage normally ends in late May but there were records to June 5 (2008), this makes it hard to identify any summer records. There were singles in 2004 on June 2, June 16, July 2 and July 24. These sightings were all at the Sand Farm. Only the June 16 record does not tie in with an influx for the spring or the fall. In 2007 there was one at the Sand Farm from June 10 to July 11, no evidence of breeding. The early fall passage ran from July 1 (2005) to September 1 (2003) with high counts of three on seven dates. The main fall passage was by contrast the main event of the year. The passage ran from August 22 (2007) to December 3 (2003) with high counts of 706 on October 5, 2003 and 856 on September 22, 2004. To detail the 2003 influxes, there were seven on September 3 with 39 on September 10, 55 on September 14 and 97 on September 19, then 40 seen on September 21. There were 88 on September 24 with 235 on September 24, 613 on October 2 and 706 on October 5, then 294 seen on October 12 with 204 on October 15, 197 on October 19, 153 on October 26, 83 on November 2, 81 on November 5 and 51 on November 9. There were 130 on November 12 with 121 on November 16, 109 on November 23, 105 on December 1 and 70 on December 3. To detail the 2004 influxes, there were two on August 26 with six on September 1, 38 on September 9, 43 on September 12, 82 on September 16 and 856 on September 22, then 314 seen on September 28 with 187 on October 3 and 140 on October 6. There were 352 on October 11 with 215 on October 13, 139 on October 17 and 119 on October 21. There were 159 on October 24 with 135 on October 27, 107 on November 3, 94 on November 7 and 62 on November 10. There were 88 on November 14 with 104 on November 17, then 77 seen on November 21 with 63 on November 23, 61 on November 28 and 31 on December 1. On September 22, 2004 a total of 604 out of the 856 were seen along a 1.5 mile stretch of track running west from the Sand Farm Bridge. 221 of 314 were seen likewise on September 28. I have detailed both of these passages as the numbers were so high, the old high count was only that of 321 on October 2, 2002. The winter passage was by contrast a much lighter passage, this event ran from November 29 (2006) to January 16 (2005) with a high count of 123 on December 30, 2005. The early spring passage was similar, the passage ran from January 12 (2007) to March 7 (2004) with a high count of 125 on January 19, 2004. The late spring passage was the weakest passage of the year, this passage ran from March 2 (2005) to June 5 (2008) with a high count of 75 on March 12, 2006.

The summer is detailed in segment one. The early fall passage ran from July 1 (2005) to September 1 (2003), there were six “clustered” influxes. The first three are indicated by isolated peak counts of one on July 1, 2005, July 9, 2008 and July 19, 2006. The fourth peaked from July 26 (2008) to July 30 (2006) with a high count of three on July 27, 2007. The last two influxes are indicated by isolated peak counts of three on August 9, 2004 and August 24, 2003. The main fall passage ran from August 22 (2007) to December 3 (2003), there were ten “clustered” influxes. The first is indicated by a peak count of 24 on September 12, 2007. The second peaked from September 19 (2003) to September 22 (2004) with high counts of 97 on September 19, 2003 and 856 on September 22, 2004. The latter is still the highest count for Zellwood. The third peaked from September 26 (2007) to September 27 (2006) with a high count of 193 on September 27, 2006. The fourth peaked from October 3 (2007) to October 5 (2003) with high counts of 145 on October 3, 2007 and 706 on October 5, 2003. The fifth peaked from October 8 (2005, 2006) to October 11 (2004) with high counts of 209 on October 8, 2006, 294 on October 8, 2005 and 352 on October 11, 2004. The sixth peaked from October 21 (2005) to October 24 (2004) with a high count of 159 on October 24, 2004. The seventh peaked from October 29 (2007) to November 2 (2005) with a high count of 135 on November 2, 2005. The eighth peaked from November 9 (2005, 2007) to November 12 (2003) with a high count of 130 on November 12, 2003. The ninth peaked from November 17 (2004, 2006) to November 18 (2007) with a high count of 104 on November 17, 2004. The tenth peaked from November 24 (2006) to November 25 (2005) with a high count of 188 on November 25, 2005. The winter passage followed from November 29 (2006) to January 16 (2005), there were six “clustered” influxes. The first peaked from November 29 (2006) to November 30 (2007) with a high count of 69 on November 30, 2007. The second peaked from December 4 (2005) to December 9 (2003) with a high count of 109 on December 4, 2005. The third peaked from December 11 (2005) to December 13 (2006) with a high count of 115 on December 11, 2005. The fourth peaked from December 19 (2004) to December 23 (2005) with a high count of 103 on December 23, 2005. The fifth peaked from December 26 (2007) to December 30 (2005) with a high count of 123 on December 30, 2005. The sixth peaked from January 5 (2007) to January 6 (2005, 2008) with a high count of 111 on January 6, 2008. The early spring passage ran from January 12 (2007) to March 7 (2004), there were seven “clustered” influxes. The first is indicated by a peak count of 80 on January 13, 2006. The second peaked from January 18 (2008) to January 20 (2006) with a high count of 125 on January 19, 2004. The third peaked from January 24 (2007) to January 27 (2006) with a high count of 81 on January 27, 2006. The fourth peaked from January 31 (2007) to February 2 (2004, 2005) with a high count of 122 on February 2, 2004. The fifth peaked from February 12 (2008) to February 17 (2006) with a high count of 111 on February 17, 2006. The sixth peaked on February 23 (2005, 2007) with a high count of 58 on February 23, 2005. The seventh is indicated by a peak count of 77 on February 29, 2004. The late spring passage ran from March 2 (2005) to June 5 (2008), there were nine “clustered” influxes. The first peaked from March 6 (2005) to

March 7 (2007) with a high count of 74 on March 6, 2005. The second peaked from March 12 (2006) to March 15 (2008) with a high count of 75 on March 12, 2006. The third peaked from March 20 (2005) to March 21 (2007) with a high count of 72 on March 20, 2005. The fourth peaked from April 9 (2008) to April 11 (2007) with a high count of 18 on April 9, 2008. The fifth peaked from April 20 (2005) to April 25 (2004, 2008) with a high count of 30 on April 23, 2006. The sixth peaked from April 30 (2006) to May 1 (2007) with a high count of 28 on April 30, 2006. The seventh peaked from May 5 (2004) to May 7 (2008) with a high count of 28 on May 5, 2004. The eighth peaked from May 11 (2007) to May 15 (2005) with a high count of 19 on May 14, 2006. The ninth peaked from May 29 (2005) to May 30 (2008) with a high count of two on May 30, 2008.

Hooded Warbler (*Wilsonia pusilla*)

An uncommon passage migrant with five records for the spring and 12 records of 13 birds for the fall. For the spring passage there were singles on March 22, 2004, March 30, 2008, April 7, 2008, April 14, 2005 and April 26, 2005. For the early fall passage there were singles on August 5, 2007, from August 15, 2007 to August 17, 2007, on August 16, 2004, August 21, 2005, August 23, 2006, August 24, 2003 and August 26, 2007. There were two on August 28, 2005. This is a joint high count as there were also two on April 17, 1999. Singles then seen from August 29, 2004 to September 1, 2004, on August 30, 2006, September 1, 2003 and September 12, 2005. Eight were seen at the Sand Farm with six at the Nursery and singles on the northern border, by Canal Road and by the Lake Level Canal. All but two of the fall sightings fell within a two week period from August 15 to September 1.

Wilson's Warbler (*Wilsonia pusilla*)

This is another uncommon fall to early spring passage migrant. There were nine records for the fall, two for the winter and five for the early spring. For the fall there were singles on August 24, 2003, September 22, 2004, September 29, 2003, October 2, 2005, October 17, 2004, October 26, 2003, November 17, 2004, November 21, 2004 and November 25, 2005. The sighting on August 24, 2003 is one of the earliest fall records for Florida. For the winter there were singles on December 22, 2006 and December 30, 2004. For the early spring there were singles on January 7, 2007, from January 16, 2005 to January 26, 2005, from January 21, 2004 to January 25, 2004, on January 26, 2005 and January 27, 2006. Again eight were seen at the Sand Farm with five along the eastern border and singles at the Nursery and the Lake Level Canal. There was no particular peak to the fall passage but the early spring passage was centered from

January 16 to January 27. It may be significant that this was the only season with sightings on more than one date.

Canada Warbler (*Wilsonia canadensis*)

This is a vagrant to central Florida. The sole Zellwood sighting was of a female by the Sod Farm on August 24, 2003.

Yellow-breasted Chat (*Icteria virens*)

A decreasing summer visitor due in large part to the clearing of the thick vegetation from the fields by roller-chopping, there was a huge population of 103 pairs in 2004 but only 16 pairs located in 2005, 2007 and 2008. There were five pairs in 2006. These later counts are only partial counts as I did not walk the eastern border in the later years. Even so the counts will be much reduced. Outside of the breeding season it was very hard to locate, they seemed to disappear as soon as they stopped singing. They were present during the fall and the early spring with a significant late spring passage. There were just two winter records for the five years. The main spring passage ran from April 7 (2008) to May 23 (2007) with a high count of 24 on May 2, 2004. To detail the 2004 influx, there was one on April 18 with five on April 21, eight on April 23, 20 on April 25 and 24 on May 2, then 13 seen on May 5. The summer passage ran from May 10 (2004) to July 23 (2005, 2006) with high counts of 32 on June 2, 2004 and 41 on May 23, 2004. To detail the 2004 influxes, there were 23 on May 10 with 37 on May 14 and 41 on May 23, then 24 seen on May 26 with 21 on May 30. There were 32 on June 2 with 23 on June 13, 12 on June 28 and eight on July 2. There were 13 on July 4 with six on July 11, five on July 14, two on July 18 and one on July 21. For the later years the highest counts were those of 12 on May 20, 2008, May 27, 2007 and June 21, 2006. With the cessation of song everything changed. There was a minimal event from July 8 (2007) to August 25 (2006) with a high count of seven on July 13, 2007. I believe that this passage covered the departure of the summer visitors. There were indications of passage through the fall from September 1 (2004) to November 23 (2004) with a high count of two on September 3, 2003. The winter sightings relate to singles at the Sand Farm on December 15, 2003 and December 31, 2003. It is possible that just one individual involved in those records. In contrast there was an early spring passage from January 6 (2006) to April 8 (2007) with a high count of two on February 6, 2005. This event normally ended at the end of February but I could not separate out a late spring passage so in this instance I treated the early spring passage as covering an extended period.

The main spring passage ran from April 7 (2008) to May 23 (2007), there were five “clustered” influxes. The first peaked from April 13 (2007) to April 19 (2006) with a high count of eight on April 15, 2008. The second is indicated by a peak count of five on April 25, 2006. The third peaked from April 29 (2007) to April 30 (2005) with a high count of four on April 29, 2007. The fourth peaked from May 2 (2004) to May 4 (2008) with high counts of ten on May 4, 2008 and 24 on May 2, 2004. The fifth peaked from May 10 (2006) to May 13 (2007) with a high count of nine on May 10, 2006. The summer passage ran from May 10 (2004) to July 23 (2005, 2006), there were five “clustered” influxes. The first peaked from May 20 (2008) to May 23 (2004) with high counts of 12 on May 20, 2008 and 41 on May 23, 2004. The latter is still the highest count for Zellwood. The second peaked from May 27 (2007) to June 2 (2004) with high counts of 12 on May 27, 2007 and 32 on June 2, 2004. The third peaked from June 4 (2006) to June 5 (2005) with a high count of nine on June 4, 2006. The fourth peaked from June 21 (2006) to June 26 (2005) with a high count of 12 on June 21, 2006. The fifth peaked from July 2 (2006) to July 4 (2004) with a high count of 13 on July 4, 2004. The next event was really the declining summer passage without the males singing to show their locations. This “passage” ran from July 8 (2007) to August 25 (2006), there were five “clustered” influxes. The first two are indicated by isolated peak counts of seven on July 13, 2007 and three on July 19, 2008. The third peaked from July 24 (2004) to July 26 (2006) with three on both dates. The fourth peaked from August 6 (2006) to August 7 (2005) with one on both dates. The fifth peaked from August 21 (2005) to August 23 (2006) with a high count of three on August 21, 2005. The fall passage ran from September 1 (2004) to November 23 (2004), there were eight “clustered” influxes. The first peaked from September 1 (2004) to September 3 (2003) with a high count of two on September 3, 2003. The second is indicated by a peak count of one on September 7, 2005. The third peaked from September 22 (2004) to September 24 (2003) with one on three dates. The fourth peaked from October 2 (2005) to October 5 (2003) with one on four dates. The fifth peaked from October 8 (2005) to October 11 (2004) with one on both dates. The next two influxes are indicated by isolated peak counts of one on October 26, 2003 and November 10, 2006. The eighth peaked from November 22 (2005) to November 23 (2004) with one on both dates. The only winter records came from 2003, there were singles on December 15 and December 31. Finally the early spring passage ran from January 6 (2006) to April 8 (2007), there were eight “clustered” influxes. The first peaked from January 6 (2006) to January 7 (2007) with one on both dates. The second peaked from January 30 (2008) to February 6 (2005) with a high count of two on February 6, 2005. The third is indicated by a peak count of one on February 14, 2006. The fourth peaked from February 27 (2004) to March 2 (2005) with one on both dates. The fifth peaked on March 16 (2005, 2007) with one on both dates. The sixth peaked on March 19 (2004, 2006) with one on both dates. The seventh is indicated by a peak count of one on March 24, 2005. The eighth peaked from March 28 (2004, 2008) to April 1 (2007) with one on all three dates.

Summer Tanager (*Piranga rubra*)

This was a very uncommon passage migrant with just two records for the spring and five records of six birds for the fall. For the spring passage there were singles at the Sand Farm on April 9, 2008 and by Lake Apopka south of Hooper Farms Road on April 23, 2006. For the early fall passage there were singles on August 8, 2007 at the Nursery, on August 15, 2005 at the Sand Farm, on August 27, 2006 on the southern border and on September 14, 2007 at the Nursery. Finally there were two on September 29, 2003 at the Sand Farm. This is a joint high count as there were also two on October 19, 1999.

Scarlet Tanager (*Piranga olivacea*)

There were just four fall records for this species. For the late fall passage there was one on September 28, 2007 with two on October 10, 2007, one on October 11, 2004 and one on October 26, 2007. All sightings were at the Nursery. I consider the 2007 records to be far enough apart to relate to different birds. The count of two on October 10, 2007 is the highest count for Zellwood.

Western Tanager (*Piranga ludoviciana*)

There was an immature male at the Sand Farm on December 9, 2007. This is the first record for Zellwood.

Eastern Towhee (*Pipilo erythrophthalmus*)

For the most part this is a resident but there were elements of passage as two other races were seen during these five years. In 2004 there were a 207 breeding pairs but the population will be significantly lower now with the clearing of the fields. The greatest numbers will still breed at the Sand Farm which was not involved in the roller-chopping and mowing cycle. This species has to be a resident with just a veneer of passage but the "clustered" influxes are still there, 49 in all. That was one of the highest totals. For simplicity I have still used the standard passage descriptions even if I doubt that there was any passage at that time. The summer passage ran from April 26 (2005) to June 16 (2004) with a high count of 93 on May 13, 2007. The early fall passage ran from June 10 (2007) to October 12 (2005) with a high count of 130 on August 1, 2004. The higher counts here I believe only relate to the fledged young joining the population. To detail the 2004 influxes, there were 84 on June 20 with 56 on June 23. There

were 58 on June 28 with 63 on July 2 and 75 on July 4, then 66 seen on July 7 with 63 on July 11. There were 65 on July 14 with 106 on July 18, then 100 seen on July 24. There were 102 on July 29 with 130 on August 1, then 116 seen on August 9 with 97 on August 11, 91 on August 16, 75 on August 19 and 48 on August 22. There were 64 on August 26 with 107 on August 29, then 49 seen on September 1 with 43 on September 9, 33 on September 16 and ten on September 22. The late fall passage ran from September 21 (2007) to December 3 (2006) with a high count of 61 on October 12, 2003. This was followed by the winter passage which ran from November 23 (2007) to January 6 (2006) with a high count of 40 on December 7, 2007. The early spring passage ran from January 4 (2004, 2008) to March 4 (2008) with a high count of 102 on February 20, 2008. To detail the 2008 influxes, there were 24 on January 4 with 37 on January 6 and 41 on January 11, then 28 seen on January 14. There were 35 on January 16 with 57 on January 18, then 44 seen on January 23 with 23 on January 25. There were 43 on January 28 with 52 on January 30, 72 on February 1 and 73 on February 6, then 58 seen on February 8 with 57 on February 10. There were 92 on February 12 with 85 on February 15 and 55 on February 17. There were 102 on February 20 with 95 on February 24, 89 on February 29, 73 on March 2 and 59 on March 4. There has to be a certain amount of passage during this event but the bulk of the increase in numbers will be because of the greater activity in the spring. Finally the late spring passage ran from February 20 (2005) to April 28 (2006) with a high count of 93 on April 9, 2008.

Of the two races recorded at Zellwood that breed elsewhere nearly all of the sightings relate to the race *P.e.rileyi* from north Florida and southern Georgia. For the winter there were single males on November 30, 2007 and December 13, 2005. For the early spring there was one on January 11, 2004 with another from January 11, 2006 to January 29, 2006. In 2006 there was one at a different location on January 20. There was also one on January 30, 2008 with one on February 20, 2005 and March 6, 2005. These last two sightings could relate to the same individual. In 2006 there was a male at the Sand Farm singing from April 23 to August 18, it was presumably paired but I did not see its mate. Also at the Sand Farm there were singles singing on August 1, 2008 and August 25, 2005. The more northerly race *P.e.erythrophthalmus* is much rarer. There was one on February 16, 2005 by the side of Lake Apopka south of Hooper Farms Road. On March 16, 2005 there were two by Lake Apopka near the entrance of the Lake Level Canal with one at that site on March 30, 2005.

The summer passage ran from April 26 (2005) to June 16 (2004), there were seven "clustered" influxes. The first is indicated by a peak count of 70 on April 27, 2008. The second peaked from May 1 (2007) to May 4 (2008) with high counts of 65 on May 4, 2008 and 81 on May 2, 2004. The third is indicated by a peak count of 93 on May 13, 2007. The fourth peaked from May 18 (2008) to May 19 (2006) with high counts of 81 on May 18, 2008 and 83 on May 19, 2006. The fifth peaked from May 22 (2005) to May 23 (2004) with high counts of 67 on May

23, 2004 and 80 on May 22, 2005. The sixth peaked from May 27 (2007) to June 1 (2008) with high counts of 72 on June 1, 2008 and 81 on May 28, 2006. The seventh is indicated by a peak count of 63 on June 6, 2004. The early fall passage was an extended event, the passage ran from June 10 (2007) to October 12 (2005) there were 13 “clustered” influxes. The first peaked from June 11 (2008) to June 14 (2006) with a high count of 69 on June 11, 2008. The second peaked from June 20 (2004) to June 23 (2006) with a high count of 93 on June 23, 2006. The third peaked from June 26 (2005) to June 30 (2006) with high counts of 94 on June 30, 2006 and 102 on June 26, 2005. The fourth peaked from July 4 (2004, 2007) to July 6 (2005) with a high count of 75 on July 4, 2004. The fifth peaked from July 13 (2007) to July 14 (2006) with a high count of 77 on July 14, 2006. The sixth peaked from July 17 (2005) to July 18 (2004) with high counts of 91 on July 17, 2005 and 106 on July 18, 2004. The seventh peaked from July 21 (2006) to July 24 (2008) with high counts of 53 on July 24, 2008 and 95 on July 21, 2006. The eighth peaked from July 27 (2007) to August 2 (2006) with high counts of 76 on July 27, 2007, 100 on August 2, 2006 and 130 on August 1, 2004. The latter was the highest count during this set of five years. The ninth peaked from August 5 (2007) to August 10 (2005) with a high count of 72 on August 10, 2005. The next three influxes are indicated by isolated peak counts of 74 on August 16, 2006, 34 on August 22, 2007 and 37 on September 10, 2006. The 13th influx peaked from September 19 (2003) to September 22 (2005) with a high count of 46 on September 19, 2003. Numbers were now much lower during the late fall passage which ran from September 21 (2007) to December 3 (2006), there were eight “clustered” influxes. The first peaked from September 27 (2006) to September 28 (2004) with a high count of 35 on September 28, 2004. The second peaked from October 3 (2007) to October 6 (2006) with a high count of 29 on October 6, 2006. The third peaked from October 12 (2003) to October 16 (2005) with a high count of 61 on October 12, 2003. The fourth peaked from October 21 (2007) to October 26 (2003) with a high count of 48 on October 26, 2003. The fifth peaked from November 1 (2006) to November 4 (2007) with a high count of 33 on November 1, 2006. The sixth peaked from November 9 (2005) to November 10 (2006) with a high count of 31 on November 9, 2005. The seventh peaked on November 14 (2004, 2007) with a high count of 39 on November 14, 2007. The eighth peaked from November 23 (2003, 2004) to November 25 (2005) with a high count of 27 on November 23, 2004. The winter passage ran from November 23 (2007) to January 6 (2006), there were five “clustered” influxes. The first is indicated by a peak count of 16 on December 2, 2005. The second peaked from December 6 (2006) to December 9 (2005) with a high count of 40 on December 7, 2007. The third is indicated by a peak count of 27 on December 15, 2006. The fourth peaked from December 19 (2004, 2007) to December 23 (2005) with a high count of 33 on December 19, 2007. The fifth peaked from December 28 (2003, 2007) to January 1 (2006) with a high count of 32 on December 28, 2007. This was followed by the early spring passage which ran from January 4 (2004, 2008) to March 4 (2008), there were eight “clustered” influxes. The first is indicated by a peak count of 29 on January 5, 2007. The second

peaked on January 11 (2006, 2008) with a high count of 41 on January 11, 2008. The third peaked from January 16 (2005, 2007) to January 20 (2006) with a high count of 57 on January 18, 2008. The fourth peaked from February 1 (2006) to February 2 (2004, 2005) with a high count of 48 on February 2, 2005. The fifth peaked from February 6 (2008) to February 7 (2007) with a high count of 73 on February 6, 2008. The sixth peaked from February 10 (2006) to February 12 (2008) with high counts of 33 on February 10, 2006 and 92 on February 12, 2008. The seventh peaked from February 14 (2007) to February 17 (2006) with a high count of 72 on February 14, 2007. The eighth peaked from February 20 (2008) to February 23 (2007) with high counts of 66 on February 23, 2007 and 102 on February 20, 2008. Finally the late spring passage ran from February 20 (2005) to April 28 (2006), there were eight “clustered” influxes. The first peaked from February 28 (2005) to March 2 (2007) with a high count of 64 on March 2, 2007. The second peaked from March 6 (2005) to March 8 (2006) with a high count of 65 on March 7, 2004. The third peaked from March 14 (2007) to March 15 (2008) with a high count of 75 on March 15, 2008. The fourth peaked from March 19 (2006) to March 21 (2008) with a high count of 66 on March 21, 2008. The fifth peaked from March 25 (2007) to March 28 (2004) with a high count of 59 on March 25, 2007. The sixth peaked from April 6 (2005) to April 7 (2004) with a high count of 76 on April 6, 2005. The seventh peaked from April 9 (2008) to April 14 (2006) with high counts of 77 on April 14, 2006 and 93 on April 9, 2008. The eighth peaked from April 20 (2008) to April 25 (2006) with a high count of 76 on April 20, 2008. There were 49 “clustered” influxes.

Chipping Sparrow (*Spizella passerina*)

An uncommon passage migrant and winter visitor to the wooded borders, there were a total of nine seen in the fall with six in the winter, seven in the early spring and two in the late spring. The late fall passage ran from October 15 (2003) to November 25 (2007), there were five “clustered” influxes. The first peaked from October 15 (2003) to October 17 (2004) with one on both dates. The second peaked from October 19 (2007) to October 23 (2005) with one on both dates. The next two influxes are indicated by isolated peak counts of two on October 29, 2006 and one on November 9, 2005. The fifth peaked on November 23 (2003, 2007) with one on both dates. The winter passage ran from December 2 (2005) to January 8 (2006), there were four “clustered” influxes. The first peaked from December 2 (2005) to December 5 (2007) with one on both dates. The last three influxes are indicated by isolated peak counts of one on December 14, 2007, two on December 21, 2003 and one on January 1, 2006. The early spring passage ran from January 19 (2004) to February 14 (2006), there were three “clustered” influxes. The first peaked from January 19 (2004) to January 20 (2006) with a high count of two on January 20, 2006. The second is indicated by a peak count of two on January 28, 2004. The

third peaked from February 2 (2005) to February 6 (2008) with one on both dates. Finally there were two on April 13, 2008 by Hooper Farms Road gate. The counts of two were the highest counts during this set of five years. The only long staying birds were a party of two by the Hooper Farms Road gate from January 20, 2006 to February 14, 2006.

Clay-colored Sparrow (*Spizella pallida*)

An uncommon passage migrant, unlike the last species this one can be found out in the fields. The late fall passage ran from October 31 (2007) to December 1 (2004, 2006), there were four “clustered” influxes. The first two are indicated by isolated peak counts of one on October 31, 2007 and November 7, 2005. The third peaked from November 16 (2003) to November 21 (2004) with a high count of three on November 21, 2004. The fourth peaked from November 28 (2004) to November 29 (2006) with one on both dates. The winter passage was the strongest event, the passage ran from December 3 (2003) to January 9 (2005), there were six “clustered” influxes. The first is indicated by a peak count of two on December 3, 2003. The second peaked on December 9 (2005, 2007) with a high count of four on December 9, 2005. The third peaked from December 12 (2004) to December 15 (2003, 2006) with a high count of four on December 15, 2006. The fourth peaked on December 26 (2003, 2005) with a high count of four on December 26, 2005. The fifth peaked from December 27 (2006) to January 1 (2006) with a high count of seven on December 30, 2004. This was the highest count during this set of five years. As most of the fields were now meadows numbers were low when compared to the numbers present when the fields were full of weeds. The high count is actually that of 46 on February 3, 1999. The sixth influx peaked on January 4 (2004, 2008) with a high count of two on January 4, 2004. The early spring passage was a minor event with passage only from January 8 (2006) to February 14 (2007), there were four “clustered” influxes. The first peaked from January 8 (2006) to January 12 (2007) with a high count of two on January 8, 2006. The second peaked from January 16 (2005) to January 19 (2004) with a high count of four on January 19, 2004. The third peaked from January 30 (2005) to February 1 (2008) with one on both dates. The fourth peaked from February 10 (2006) to February 12 (2008) with two on both dates. There were very few records for the late spring passage. In 2006 there was an influx from February 27 to March 10 with peak counts of two on March 1 and March 4, later there was one on March 26. There were two April sightings with one on April 10, 2005 and two on April 25, 2004 at the Sand Farm.

Field Sparrow (*Spizella pusilla*)

In contrast to the last two species this is just a winter visitor and a spring passage migrant, the early spring passage being the strongest event. The only fall records relate to one

on November 19, 2006 and November 22, 2006. The winter passage ran from December 3 (2006) to January 9 (2005, 2008) with a high count of two on December 26, 2003. The early spring passage ran from January 11 (2004, 2008) to March 4 (2006) with a high count of 13 on February 12, 2006. To detail the 2006 influxes, there was one on January 13 with seven on January 20, then five seen on January 22 with one on January 25. There were seven on January 27 with five on February 8 and one on February 10. There were 13 on February 12 with three on February 14 and February 17, then one seen to March 4. The late spring passage ran from March 6 (2005) to March 30 (2005) with a high count of six on March 16, 2007. The lack of a fall passage is unusual.

For the late fall passage there was one on November 19, 2006 and November 22, 2006, that is it. The winter passage ran from December 3 (2006) to January 9 (2005, 2008), there were four "clustered" influxes. The first peaked from December 3 (2006) to December 7 (2003) with one on both dates. The second peaked from December 15 (2003, 2006) to December 19 (2007) with one on three dates. The third peaked from December 23 (2005) to December 27 (2004, 2006) with a high count of two on December 26, 2003. The fourth peaked from January 1 (2006) to January 2 (2008) with one on both dates. Now to the main event, the early spring passage. This passage ran from January 11 (2004, 2008) to March 4 (2006), there were eight "clustered" influxes. The first is indicated by a peak count of three on January 11, 2004. The second peaked on January 16 (2005, 2007) with one on both dates. The third peaked from January 20 (2006) to January 23 (2008) with a high count of seven on January 20, 2006. The fourth peaked from January 26 (2007) to January 28 (2004) with high counts of five on January 28, 2004, seven on January 27, 2006 and ten on January 26, 2007. The fifth is indicated by a peak count of seven on February 2, 2005. The sixth peaked from February 7 (2007) to February 8 (2005) with a high count of five on February 8, 2005. The seventh peaked on February 12 (2006, 2008) with high counts of two on February 12, 2008 and 13 on February 12, 2006. The latter was the highest count during the first ten years of the survey. The eighth is indicated by a peak count of three on February 18, 2005. The late spring passage was a minor event with passage from March 6 (2005) to March 30 (2005), there were four "clustered" influxes. The first two are indicated by isolated peak counts of one on March 6, 2005 and six on March 16, 2007. The third peaked from March 19 (2006) to March 22 (2004) with a high count of two on March 22, 2004. The fourth is indicated by a peak count of one on March 30, 2005.

Vesper Sparrow (*Pooecetes gramineus*)

A quite common passage migrant and winter visitor, they can normally be found near the wooded borders as they habitually fly up into the trees when threatened. In only one instance did I find a flock so far out in the fields that there were no trees to fly to and that was

down Lust Road. The late fall passage ran from November 2 (2005) to December 7 (2004) with high counts of eight on November 23, 2004 and November 28, 2003. The winter passage ran from November 25 (2007) to January 21 (2004) with a high count of 29 on January 6, 2008. This event was longer than normal. To detail the 2007/2008 influxes, there were three on November 25 with four on November 30, six on December 2 and seven on December 7, then two seen on December 9. There were four on December 12 with nine on December 14, 11 on December 17 and 14 on December 19, then 13 seen on December 21 with four on December 26. There were 14 on December 28 with three on December 30. There were six on January 2 with 12 on January 4 and 29 on January 6, then 23 seen on January 9 with ten on January 11 and six on January 14. The early spring passage followed from January 11 (2006) to March 2 (2007) with a high count of 24 on January 16, 2008. To continue detailing the 2008 influxes, there were 24 on January 16 with six on January 18 and two on January 25. There were eight on January 28 with four on January 30 and two on February 6. There was one on February 12 and February 15. There were also four on February 20. The late spring passage ran from March 2 (2005) to April 6 (2005) with a high count of nine on March 8, 2006. In 2005 the last influx was as follows, there were six on March 16 with five on March 18, four on March 27 and one on April 6.

The late fall passage ran from November 2 (2005) to December 7 (2004), there were four "clustered" influxes. The first peaked from November 2 (2005) to November 5 (2003, 2006) with high counts of two on November 5, 2003 and November 5, 2006. The second is indicated by a peak count of six on November 12, 2006. The third peaked from November 18 (2007) to November 23 (2004) with a high count of eight on November 23, 2004. The fourth peaked on November 28 (2003, 2004) with a high count of eight on November 28, 2003. The winter passage followed and this was the most important event. The passage ran from November 25 (2007) to January 21 (2004), there were four "clustered" influxes. The first peaked from December 7 (2007) to December 10 (2006) with a high count of ten on December 9, 2005. The second peaked from December 15 (2003) to December 19 (2007) with high counts of 14 on December 19, 2007 and 22 on December 15, 2003. The third peaked from December 28 (2007) to January 3 (2007) with high counts of eight on January 3, 2007 and 14 on December 28, 2007. The fourth peaked on January 6 (2005, 2008) with high counts of ten on January 6, 2005 and 29 on January 6, 2008. The latter was the highest count during the first ten years of the survey. The early spring passage ran from January 11 (2006) to March 2 (2007), there were seven "clustered" influxes. The first peaked from January 12 (2007) to January 16 (2008) with high counts of eight on January 13, 2006 and 24 on January 16, 2008. The second peaked from January 21 (2007) to January 24 (2005) with high counts of ten on January 24, 2005 and 14 on January 22, 2006. The third peaked from January 28 (2008) to February 2 (2004) with a high count of nine on February 2, 2004. The fourth peaked from February 4 (2007) to February 8 (2006) with high counts of six on February 6, 2005 and February 4, 2007 with 16 on February 8, 2006. The fifth peaked from February 12 (2008) to February 16 (2005) with a high count of eight

on February 16, 2005. The sixth peaked from February 19 (2006) to February 21 (2007) with a high count of eight on February 19, 2006. The seventh is indicated by a peak count of five on February 27, 2006. Finally the late spring passage ran from March 2 (2005) to April 6 (2005), there were four “clustered” influxes. The first peaked from March 2 (2005) to March 4 (2007) with six on both dates. The second peaked from March 8 (2006) to March 10 (2004) with a high count of nine on March 8, 2006. The third peaked from March 15 (2006) to March 16 (2005) with a high count of eight on March 15, 2006. The fourth peaked from March 21 (2008) to March 26 (2006) with a high count of four on March 26, 2006. The numbers did not dwindle away so much with this species.

Lark Sparrow (*Chondestes grammacus*)

There were only three records for the five years. There was one at the Sand Farm on December 28, 2003 with another there on December 7, 2004. Finally there was an adult near the Lust Road gate on August 21, 2005.

Savannah Sparrow (*Passerculus sandwichensis*)

This is a common passage migrant and winter visitor with the greatest numbers in the early spring. Seen in the late fall from September 28 (2007) to December 1 (2003, 2004) with high counts of 73 on October 22, 2006 and November 4, 2007. The winter passage ran from November 27 (2005) to January 7 (2007) with a high count of 157 on December 21, 2003. To detail the 2003 influx, there were 50 on December 3 with 113 on December 7, 121 on December 15, 141 on December 17 and 157 on December 21, then 135 seen on December 28 with 89 on December 31. Just one influx covered the whole passage. To detail the 2007/2008 influxes, there were 62 on November 30 with 103 on December 5 and 121 on December 9, then 102 seen on December 14 with 74 on December 17. There were 118 on December 19 with 131 on December 21 and 146 on December 28, then 138 seen on January 2 with 128 on January 4. The early spring passage was the strongest event of the year, the passage ran from December 30 (2005) to March 7 (2004) with a high count of 446 on January 26, 2005. This species is interesting in that numbers gradually climbed through the fall and winter passages to a peak in late January. One could say that all the passages were in this instance a single event. The influxes tended to start and finish at appropriate times so I am sticking to the normal series of passages. To detail the 2005 influxes, there were 113 on January 2 with 132 on January 6, 156 on January 16, 307 on January 19, 385 on January 24 and 446 on January 26, then 235 seen on January 30 with 185 on February 2 and 106 on February 6. There were 135 on February 8 with 155 on February 13, then 73 seen on February 20 with 48 on February 23 and 33 on February

28. The late spring passage ran from March 1 (2006) to May 19 (2006) with a high count of 155 on March 26, 2006. Finally there was an exceptionally late individual on May 30, 2004 by the Lake Level Canal.

The late fall passage ran from September 28 (2007) to December 1 (2003, 2004), there were six “clustered” influxes. The first peaked from October 10 (2007) to October 11 (2004) with six on both dates. The second peaked from October 16 (2005) to October 17 (2004) with a high count of ten on October 16, 2005. The third peaked from October 22 (2006) to October 26 (2003) with a high count of 73 on October 22, 2006. The fourth is indicated by a peak count of 60 on October 29, 2006. The fifth peaked from November 3 (2004) to November 7 (2005) with a high count of 73 on November 4, 2007. The sixth peaked from November 22 (2005) to November 24 (2006) with a high count of 70 on November 22, 2005. The winter passage ran from November 27 (2005) to January 7 (2007), there were four “clustered” influxes. The first peaked from December 1 (2006) to December 5 (2004) with a high count of 69 on December 2, 2005. The second peaked from December 9 (2005, 2007) to December 10 (2006) with a high count of 121 on December 9, 2007. The third is indicated by a peak count of 157 on December 21, 2003. The fourth peaked from December 26 (2005) to December 31 (2006) with high counts of 131 on December 27, 2004 and 146 on December 28, 2007. Now we come to the main event, the early spring passage. This passage ran from December 30 (2005) to March 7 (2004), there were eight “clustered” influxes. The first peaked from January 6 (2008) to January 11 (2004) with a high count of 182 on January 11, 2004. The second peaked from January 14 (2008) to January 15 (2006) with a high count of 134 on January 14, 2008. The third is indicated by a peak count of 79 on January 21, 2007. The fourth peaked from January 26 (2005) to January 31 (2007) with high counts of 312 on January 28, 2004 and 446 on January 26, 2005. The latter was the highest count during this set of five years. The fifth peaked from February 6 (2008) to February 8 (2006) with a high count of 91 on February 8, 2006. The sixth peaked from February 13 (2005) to February 14 (2006) with a high count of 155 on February 13, 2005. The seventh peaked from February 18 (2004, 2007) to February 20 (2008) with a high count of 155 on February 18, 2004. The eighth is indicated by a peak count of 48 on February 26, 2008. Numbers now much lower, the late spring passage ran from March 1 (2006) to May 19 (2006), there were ten “clustered” influxes. The first peaked from March 2 (2005) to March 4 (2006, 2007) with a high count of 61 on March 2, 2005. The second peaked from March 10 (2004) to March 11 (2007) with a high count of 42 on March 10, 2004. The third peaked on March 19 (2006, 2008) with a high count of 58 on March 19, 2006. The fourth peaked from March 22 (2004) to March 26 (2006) with a high count of 155 on March 26, 2006. The fifth peaked from March 31 (2004) to April 4 (2007, 2008) with a high count of 39 on March 31, 2004. The sixth peaked from April 11 (2007) to April 13 (2008) with a high count of 32 on April 13, 2008. The seventh peaked from April 17 (2005) to April 21 (2007) with a high count of 26 on April 17, 2005. The eighth peaked from April 25 (2004) to April 28 (2006) with a high count of 58 on April 28, 2006. The ninth peaked from April 30

(2008) to May 5 (2004) with a high count of nine on April 30, 2008. The tenth peaked from May 11 (2007) to May 14 (2008) with a high count of six on May 11, 2007. There was also an exceptionally late individual on May 30, 2004.

Grasshopper Sparrow (*Ammodramus savannarum*)

An uncommon passage migrant and winter visitor, again the largest numbers were in the early spring. This is a skulking species so it is doubtless under-recorded. There were just two records for the fall, there being singles on October 19, 2003 and November 9, 2005. There was a minimal winter passage from November 28 (2004) to January 6 (2006), there were four "clustered" influxes. The first peaked from November 28 (2004) to November 30 (2007) with one on both dates. The second peaked from December 3 (2003) to December 6 (2006) with one on both dates. The third peaked on December 17 (2003, 2007), also with one on both dates. The fourth is indicated by a peak count of one on December 26, 2005. So far every record has been detailed. The early spring passage was better, the passage ran from January 2 (2008) to February 11 (2004), there were five "clustered" influxes. The first peaked from January 4 (2004) to January 6 (2005) with a high count of three on January 4, 2004. The second is indicated by a peak count of two on January 14, 2008. The third peaked from January 19 (2005) to January 22 (2006) with high counts of two on January 22, 2006 and three on January 19, 2005. The counts of three were the highest counts during this set of five years. The fourth influx is indicated by a peak count of two on January 28, 2008. The fifth peaked from February 4 (2004) to February 6 (2005) with a high count of two on February 4, 2004. Exceptionally this passage ended early, on February 11 in 2004. It is as if the birds that had come to central Florida for the "winter" had left to be replaced later by migrants from further south. There was in fact a minimal late spring passage from March 16 (2005) to April 24 (2007), there were four "clustered" influxes. The first peaked from March 16 (2005) to March 18 (2007) with one on both dates. The next two influxes are indicated by isolated peak counts of two on March 26, 2006 and one on April 10, 2005. The fourth peaked from April 19 (2006) to April 24 (2007) with a high count of two on April 19, 2006. There are a number of species that tend to leave in the early spring to be followed later by migrants from presumably further south.

Henslow's Sparrow (*Ammodramus henslowii*)

There were just five records for the five years. For the late fall passage there were singles by Hooper Farms Road on November 3, 2004 and at the Sand Farm on November 9, 2005. There was only one winter record with one at the Sand Farm on December 21, 2003. For the early spring there were singles on January 16, 2007 and February 2, 2005, both were at the

Sand Farm. This species will have been under-recorded. It is very adept at keeping out of sight in thick grass by water.

Fox Sparrow (*Passerella iliaca*)

This is a vagrant as Zellwood is well south of its normal winter range. There was just one record with one at the Sand Farm on December 27, 2006. This was of the nominate race *P.i. iliaca*.

Song Sparrow (*Melospiza melodia*)

A regular passage migrant and winter visitor in small numbers, most are found in thick cover by water. Whilst there was one on September 16, 2003 the fall passage really ran from October 2 (2005) to December 3 (2003), there were five “clustered” influxes. The first is indicated by a peak count of one on October 2, 2005. The second peaked from October 24 (2007) to October 27 (2004, 2006) with a high count of four on October 27, 2004. The third is indicated by a peak count of two on November 2, 2005. The fourth peaked from November 7 (2004) to November 12 (2003) with a high count of five on November 12, 2003. The fifth peaked from November 20 (2005) to November 23 (2003) with a high count of five on November 21, 2004. The winter passage ran from November 29 (2006) to January 7 (2007), there were five “clustered” influxes. The first peaked from November 29 (2006) to November 30 (2005) with two on both dates. The second is indicated by a peak count of seven on December 9, 2003. The third peaked from December 16 (2005) to December 17 (2006) with a high count of five on December 17, 2006. The fourth peaked from December 19 (2004, 2007) to December 23 (2005) with a high count of six on December 19, 2004. The fifth peaked from December 27 (2004) to December 30 (2005) with a high count of seven on December 28, 2003. This was followed by the early spring passage which ran from January 4 (2006) to February 22 (2004), there were six “clustered” influxes. The first peaked from January 6 (2005) to January 8 (2006) with high counts of four on January 8, 2006 and eight on January 6, 2005. The latter was the highest count during this set of five years. The second peaked from January 12 (2007) to January 14 (2004) with a high count of seven on January 14, 2004. The third is indicated by a peak count of four on January 18, 2008. The fourth peaked from January 24 (2007) to January 27 (2006) with a high count of two on January 27, 2006. The fifth peaked from February 1 (2008) to February 2 (2004) with a high count of six on February 1, 2008. The sixth peaked from February 9 (2007) to February 11 (2004) with a high count of five on February 11, 2004. In three of the five years there was a break before the late spring passage started. The late spring passage ran from February 25 (2007) to April 14 (2005), there were five “clustered” influxes.

The first peaked from February 25 (2007) to February 27 (2006) with one on both dates. The second peaked from March 2 (2005) to March 3 (2004) with high counts of one on March 2, 2005 and of five on March 3, 2004. The third is indicated by a peak count of one on March 22, 2006. The fourth peaked from March 28 (2007) to March 30 (2005) with a high count of two on March 30, 2005. The fifth peaked from April 11 (2007) to April 14 (2005) with one on both dates. This last event was the weakest of the year. The early spring passage may have been a little stronger than the winter passage but the difference is minimal.

Lincoln's Sparrow (*Melospiza lincolnii*)

This is a very uncommon passage migrant and winter visitor. It is normally found in thick scrub by water. There was a fall passage from October 17 (2004) to November 26 (2006), there were five "clustered" influxes. The first is indicated by a peak count of one on October 17, 2004. The second peaked from October 26 (2003) to October 29 (2006) with one on both dates. The third is indicated by a peak count of one on November 7, 2004. The fourth peaked from November 16 (2003) to November 20 (2005) with a high count of two on November 20, 2005. The fifth is indicated by a peak count of one on November 26, 2006. The number of isolated peak counts was always higher when the passage was very light. The winter passage ran from December 1 (2003) to January 9 (2005), there were three "clustered" influxes. The first is indicated by a peak count of five on December 7, 2003. This is a joint high count for Zellwood as there were also five on November 17, 2002. The second peaked from December 11 (2005) to December 15 (2006) with two on both dates. The third peaked on December 21 (2003, 2007) with two on both dates. In 2004 there was one by Hooper Farms Road from November 7 through the winter to January 9, 2005, it left at the end of the winter passage. The early spring passage was another short event with passage from January 8 (2008) to February 18 (2007), there were three "clustered" influxes. The first is indicated by a peak count of one on January 5, 2007. The second peaked from January 14 (2004, 2007) to January 18 (2008) with one on three dates. The third is indicated by a peak count of one on January 30, 2005. Quite a few of the sparrows have this mid-spring break and it is situations like this that led me to divide the spring passage into two separate events. The late spring passage ran from March 1 (2006) to April 19 (2006), there were four "clustered" influxes. The first two are indicated by isolated peak counts of one on March 1, 2006 and March 10, 2005. The third peaked from March 19 (2004) to March 20 (2005) with one on both dates. The fourth peaked from April 18 (2004) to April 19 (2006) with one on both dates. In other words just six individuals seen during this passage. Finally the one on April 18, 2004 was singing at the Sand Farm.

Swamp Sparrow (*Melospiza georgiana*)

A very common fall passage migrant with lesser numbers in the winter and the spring, numbers appear to have declined a bit over the five years. This was probably due to changes to the vegetation out in the fields. For example the 2003/2004 winter had a high count of 283 on December 7, 2003 as against 143 on December 19, 2007. The early spring had a high count of 204 on February 2, 2004 as against 113 on January 6, 2008 and the late spring had a high count of 115 on March 28, 2004 as against 64 on March 28, 2008. The late fall passage ran from October 2 (2005) to December 9 (2007) with an extension to December 19 in 2004. The highest count was that of 1,126 on November 21, 2004. To detail the 2004 influxes, there were two on October 11 with four on October 17, 35 on October 24 and 249 on October 27, then 173 seen on October 3. There were 200 on November 3 with 324 on November 7, then 220 seen on November 10. There were 296 on November 14 with 970 on November 17 and 1,126 on November 21, then 368 seen on November 23 with 251 on December 1, 182 on December 7, 166 on December 12, 161 on December 16 and 137 on December 19. The winter passage ran from December 6 (2006) to January 11 (2004) with a high count of 283 on December 7, 2003. To continue detailing the 2004 influxes, there were 175 on December 22 with 119 on December 27 and 97 on December 30. That was all that was left of the winter passage after the earlier long running major fall passage. The early spring passage ran from January 2 (2005) to March 2 (2007, 2008) with a high count of 204 on February 2, 2004. Finally the late spring passage ran from February 29 (2004) to May 19 (2006) with a high count of 115 on March 28, 2004.

The late fall passage ran from October 2 (2005) to December 9 (2007) with an extension to December 19 in 2004, there were six "clustered" influxes. The first two are indicated by isolated peak counts of three on October 19, 2007 and 249 on October 27, 2004. The third peaked from November 9 (2005) to November 10 (2006) with a high count of 235 on November 9, 2005. The fourth peaked from November 12 (2003) to November 17 (2006) with a high count of 320 on November 14, 2007. The fifth peaked from November 21 (2004) to November 23 (2003) with high counts of 435 on November 23, 2003 and 1,126 on November 21, 2004. The latter is still the highest count for Zellwood. The sixth peaked from November 29 (2006) to December 2 (2007) with high counts of 207 on December 2, 2007 and 478 on November 30, 2005. The winter passage ran from December 6 (2006) to January 11 (2004), there were four "clustered" influxes. Numbers gradually fell during this event. The first peaked from December 6 (2006) to December 7 (2003) with a high count of 283 on December 7, 2003. The second peaked from December 11 (2005) to December 13 (2006) with a high count of 273 on December 11, 2005. The third peaked from December 19 (2007) to December 23 (2005) with a high count of 175 on December 22, 2004. The fourth peaked from December 28 (2003) to December 30 (2005) with a high count of 186 on December 28, 2003. The early spring passage followed from January 2 (2005) to March 2 (2007, 2008), there were six "clustered" influxes.

The first influx peaked on January 6 (2005, 2008) with a high count of 194 on January 6, 2005. The second peaked from January 11 (2006) to January 14 (2004, 2007) with a high count of 200 on January 14, 2004. The third peaked from January 18 (2008) to January 21 (2007) with a high count of 129 on January 20, 2006. The fourth peaked from February 1 (2006) to February 2 (2004, 2005) with a high count of 204 on February 2, 2004. After the fourth influx numbers dropped dramatically, that is equivalent to the break in the passage with the other species of sparrow. The fifth peaked from February 7 (2007) to February 12 (2008) with a high count of 89 on February 11, 2004. The sixth peaked from February 17 (2006) to February 23 (2007) with a high count of 79 on February 17, 2006. Finally the late spring passage ran from February 29 (2004) to May 19 (2006), there were nine “clustered” influxes. The first is indicated by a peak count of 72 on February 29, 2004. The second peaked from March 4 (2008) to March 6 (2005) with a high count of 68 on March 5, 2006. The third peaked from March 14 (2007) to March 17 (2006) with a high count of 76 on March 17, 2006. The fourth peaked from March 23 (2007) to March 24 (2005) with a high count of 69 on March 24, 2005. The fifth peaked on March 28 (2004, 2008) with a high count of 115 on March 28, 2004. The sixth peaked from April 7 (2004) to April 11 (2007) with a high count of 67 on April 7, 2004. The seventh peaked on April 14 (2005, 2006) with a high count of 83 on April 14, 2005. The eighth peaked from April 18 (2008) to April 19 (2007) with a high count of 49 on April 18, 2008. The ninth peaked from April 28 (2004) to April 30 (2008) with a high count of 17 on April 30, 2008.

White-throated Sparrow (*Zonotrichia albicollis*)

This is a very uncommon passage migrant and winter visitor, perhaps 27 birds in all seen. It kept to very thick vegetation and was very hard to locate. There was a fall passage from October 19 (2003) to December 2 (2005), there were five “clustered” influxes. The first is indicated by a peak count of one on October 19, 2003. The second peaked from November 4 (2007) to November 7 (2005) with one on both dates. The next two influxes are indicated by isolated peak counts of one on November 13, 2005 and November 23, 2005. The fifth peaked from November 28 (2004) to November 29 (2006) with one on both dates. The winter passage ran from December 1 (2003) to January 1 (2006), there were four “clustered” influxes. The first is indicated by a peak count of two on December 1, 2003. The second peaked from December 7 (2003) to December 8 (2006) with a high count of two on December 7, 2003. The third peaked from December 21 (2007) to December 26 (2003) with one on both dates. The fourth is indicated by a peak count of one on January 1, 2006. The early spring passage followed from January 4 (2004) to February 23 (2007), there were five “clustered” influxes. The first peaked from January 4 (2004) to January 9 (2008) with one on both dates. The second peaked from January 14 (2007) to January 16 (2005) with one on both dates. The next three influxes are

indicated by isolated peak counts of one on January 20, 2008, one on February 13, 2005 and of six on February 23, 2007. The latter was the highest count during the first ten years of the survey. The flock of six was at the Nursery. The actual high count is that of seven on March 4, 2009, they were at the same location.

White-crowned Sparrow (*Zonotrichia leucophrys*)

Unlike the last species this sparrow is a more visible and a commoner passage migrant and winter visitor. It can be found in more open habitats as long as there is some cover nearby. The late fall passage ran from November 3 (2004) to December 3 (2003) with a high count of 15 on November 21, 2004. To detail the 2004 influx, there were three on November 3 with eight on November 7, 14 on November 14 and 15 on November 21, then 12 seen on November 23. The winter passage ran from November 27 (2005) to January 4 (2004, 2006) with high counts of 19 on December 1, 2004 and December 12, 2004. To continue detailing the 2004/2005 influxes, there were 14 on November 28 with 19 on December 1, then three seen on December 5. There were six on December 7 with 19 on December 12, then 12 seen on December 19 with nine on December 27 and seven on January 2. The early spring passage followed from January 6 (2005, 2006, 2008) to March 10 (2004) with a high count of 32 on February 28, 2005. This was the strongest event, but not by much. To continue detailing the 2005 influxes, there were 15 on January 6 with 22 on January 9, then 18 seen on January 16 with four on January 19 and two on January 24. There were 11 on January 26 with 16 on February 2, then 15 seen on February 8 with eight on February 13. There were 17 on February 16 with 19 on February 20, 22 on February 23 and 32 on February 28, then six seen on March 2 with three on March 6. Finally there was the late spring passage which ran from March 1 (2006) to April 28 (2004) with high counts of 14 on March 16, 2007 and 16 on March 6, 2005. There was only a significant event in the years 2005 and 2007. To continue detailing the 2005 influxes, there were 16 on March 6 with 14 on March 16, eight on March 24 and two on April 3. There were three on April 10 with two to April 20. That completes the detailing of the 2004/2005 "year".

The late fall passage ran from November 3 (2004) to December 3 (2003), there were four "clustered" influxes. The first peaked from November 5 (2003) to November 7 (2007) with a high count of two on November 7, 2007. The second peaked from November 9 (2005) to November 10 (2006) with a high count of nine on November 9, 2005. The third peaked from November 16 (2003) to November 18 (2007) with high counts of two on November 18, 2007 and 14 on November 16, 2003. The fourth is indicated by a peak count of 15 on November 21, 2004. The winter passage ran from November 27 (2005) to January 4 (2004, 2006), there were five "clustered" influxes. The first peaked from November 29 (2006) to December 1 (2004) with high counts of nine on November 29, 2006 and 19 on December 1, 2004. The second is

indicated by a peak count of eight on December 9, 2007. The third peaked from December 12 (2004) to December 15 (2003) with high counts of seven on December 15, 2003 and 19 on December 12, 2004. The fourth peaked on December 21 (2005, 2007) with a high count of 11 on December 21, 2005. The fifth peaked from December 28 (2003) to January 1 (2006) with a high count of nine on January 1, 2006. The early spring passage ran from January 6 (2005, 2006, 2008) to March 10 (2004), there were eight “clustered” influxes. The first peaked from January 6 (2008) to January 7 (2007) with a high count of five on January 6, 2008. The second peaked from January 9 (2005) to January 11 (2006) with high counts of ten on January 11, 2006 and 22 on January 9, 2005. The third peaked from January 14 (2007) to January 20 (2006) with a high count of seven on January 20, 2006. The fourth peaked from January 29 (2006) to February 2 (2004, 2005) with high counts of 14 on January 29, 2006 and 16 on February 2, 2005. The next two basic influxes are indicated by isolated peak counts of two on February 7, 2007 and one on February 16, 2007. The seventh peaked on February 22 (2004, 2008) with a high count of five on February 22, 2004. The eighth is indicated by a peak count of 32 on February 28, 2005. This was the highest count during this set of five years. The late spring passage ran from March 1 (2006) to April 28 (2004), there were four “clustered” influxes. The first peaked from March 1 (2006) to March 6 (2005) with high counts of four on March 1, 2006 and 16 on March 6, 2005. The second is indicated by a peak count of 14 on March 16, 2007. The third peaked from April 9 (2008) to April 10 (2005) with a high count of three on April 10, 2005. The fourth is indicated by a peak count of one on April 23, 2006.

Dark-eyed Junco (*Junco hyemalis*)

This species is a vagrant anywhere in central Florida. There was one of the “Slate-colored” race *J.h.hyemalis* at the Sand Farm on December 17, 2003. This is the only Zellwood record.

Northern Cardinal (*Cardinalis cardinalis*)

This is a very common resident and just possibly a passage migrant. The only areas where it does not occur are out in the grass fields and the flooded fields. In 2004 there were a total of 593 breeding pairs. The only note I have of fledged young was of two on May 16, 2004. The summer passage ran from April 19 (2007) to August 11 (2006) with a high count of 222 on May 20, 2007. The early fall passage ran from July 27 (2007) to October 2 (2005) with a high count of 123 on September 13, 2006. The main fall passage ran from September 1 in 2004 but otherwise it ran from September 23 (2007) to December 8, 2006) with a high count of 140 on October 12, 2003. The winter passage was as expected the quietest event but surprisingly the

peak counts climbed through the passage and also through the early spring passage to late January. That I do not understand. This passage ran from December 2 (2005) to January 12 (2007) with a high count of 62 on December 26, 2007. The early spring passage ran from December 27 (2004) to March 7 (2004) with a high count of 130 on March 1, 2006. The only major event of the year was the main spring passage which ran from February 29 (2008) to May 1 (2005) with high counts of 340 on March 17, 2006 and 344 on April 9, 2008. To detail the 2006 influxes, there were 130 on March 5 with 156 on March 8, 167 on March 12 and 340 on March 17, then 174 seen on March 22 with 102 on March 24. There were 210 on April 14 with 234 on April 19, then 198 seen on April 23 with 179 on April 25 and 126 on April 28. I was out of the country between these two influxes, hence the lack of counts. The one day peak in the first influx is very suggestive of passage. To detail the 2008 influxes, there were 134 on February 29 with 144 on March 2 and 161 on March 17, then 135 seen on March 21 with 75 on March 24. There were 179 on March 26 with 176 on March 28 and 153 on March 30. There were 244 on April 2 with 171 on April 4. There were 344 on April 9 with 296 on April 11, 293 on April 13, 256 on April 18, 239 on April 20, 194 on April 23, 184 on April 25, 170 on April 27 and 121 on April 30. During this period I will have been taking the same route each day so that is not a factor.

The summer passage ran from April 19 (2007) to August 11 (2006), there were ten "clustered" influxes. The first peaked from May 1 (2007) to May 4 (2008) with a high count of 188 on May 1, 2007. The second is indicated by a peak count of 213 on May 13, 2007. The third peaked from May 20 (2007) to May 24 (2006) with a high count of 222 on May 20, 2007. The fourth peaked from May 27 (2007) to June 1 (2008) with a high count of 174 on May 27, 2007. The fifth peaked from June 6 (2004) to June 11 (2008) with a high count of 144 on June 6, 2004. The sixth peaked on June 22 (2007, 2008) with a high count of 107 on June 22, 2007. The seventh peaked from June 26 (2005) to July 2 (2008) with a high count of 129 on June 28, 2004. The eighth is indicated by a peak count of 113 on July 12, 2006. The ninth peaked from July 16 (2008) to July 18 (2004) with a high count of 138 on July 17, 2005. The tenth peaked from July 22 (2007) to July 26 (2006) with a high count of 87 on July 22, 2007. Numbers were significantly lower during the next passage. The early fall passage ran from July 27 (2007) to October 2 (2005), there were six "clustered" influxes. The first peaked from July 29 (2007) to July 30 (2008) with a high count of 67 on July 29, 2007. The second peaked from August 8 (2008) to August 10 (2005, 2007) with a high count of 93 on August 9, 2004. The third peaked from August 21 (2005) to August 26 (2004) with a high count of 79 on August 26, 2004. The fourth peaked from August 31 (2007) to September 4 (2005) with a high count of 101 on September 1, 2006. The fifth peaked from September 13 (2006) to September 16 (2007) with a high count of 123 on September 13, 2006. The sixth peaked from September 19 (2003) to September 22 (2005) with a high count of 106 on September 22, 2005. The main fall passage ran from September 1 in 2004 but for the other years this passage ran from September 23 (2007) to December 8 (2006), there were ten "clustered" influxes. From time to time I have a problem in deciding to which

passage a particular influx belonged. In this case the problem lies with the “clustered” influx that peaked from September 26 (2007) to September 28 (2004). This was comprised of three influxes, they ran from: September 27, 2006 to October 4, 2006, September 23, 2007 to October 5, 2007 and September 1, 2004 to October 24, 2004. There is probably no correct answer. I have placed it in the main fall passage. This first influx peaked from September 26 (2007) to September 28 (2004) with a high count of 127 on September 28, 2004. The second peaked from October 6 (2006) to October 7 (2007) with a high count of 115 on October 6, 2006. The third peaked on October 12 (2003, 2005) with a high count of 140 on October 12, 2003. The fourth peaked from October 17 (2007) to October 21 (2005) with a high count of 100 on October 18, 2006. The fifth peaked from October 26 (2007) to October 27 (2004) with a high count of 69 on October 26, 2007. The sixth peaked from November 1 (2006) to November 4 (2007) with a high count of 58 on November 2, 2005. The seventh peaked from November 9 (2005) to November 12 (2003) with a high count of 66 on November 12, 2003. The eighth peaked from November 17 (2004, 2006) to November 18 (2007) with a high count of 53 on November 17, 2006. The ninth peaked from November 24 (2006) to November 25 (2005) with a high count of 63 on November 24, 2006. The tenth is indicated by a peak count of 62 on November 30, 2007. The winter passage followed from December 2 (2005) to January 12 (2007), there were four “clustered” influxes. The first peaked from December 9 (2003) to December 11 (2005) with a high count of 47 on December 11, 2005. The second peaked from December 13 (2006) to December 16 (2004) with a high count of 50 on December 13, 2006. The third peaked from December 20 (2006) to December 21 (2005) with a high count of 55 on December 20, 2006. The fourth peaked from December 26 (2007) to December 31 (2006) with a high count of 62 on December 26, 2007. The early spring passage ran from December 27 (2004) to March 7 (2004), there were eight “clustered” influxes. The first peaked on January 6 (2006, 2008) with a high count of 72 on January 6, 2008. The second peaked from January 14 (2004) to January 16 (2005) with a high count of 80 on January 16, 2005. The third peaked from January 19 (2007) to January 20 (2006) with a high count of 80 on January 19, 2007. The fourth peaked from January 23 (2008) to January 26 (2007) with a high count of 126 on January 23, 2008. The fifth peaked from February 1 (2006, 2008) to February 2 (2004, 2005) with a high count of 101 on February 2, 2004. The sixth peaked from February 9 (2007) to February 14 (2006) with a high count of 117 on February 11, 2004. The seventh peaked from February 23 (2005) to February 25 (2007) with a high count of 110 on February 23, 2005. The eighth peaked from February 29 (2004) to March 1 (2006) with a high count of 130 on March 1, 2006. Finally the main event, the main spring passage which ran from February 29 (2008) to May 1 (2005), there were seven “clustered” influxes. The first is indicated by a peak count of 110 on March 7, 2007. The second peaked on March 17 (2006, 2008) with high counts of 161 on March 17, 2008 and 340 on March 17, 2006. The third is indicated by a peak count of 179 on March 26, 2008. The fourth peaked from March 28 (2004) to April 2 (2008) with a high count of 244 on April 2, 2008. The fifth peaked from April

9 (2008) to April 11 (2007) with high counts of 179 on April 11, 2007 and 344 on April 9, 2008. The latter is still the highest count for Zellwood. The sixth is indicated by a peak count of 307 on April 14, 2005. The seventh peaked from April 18 (2004) to April 19 (2006) with a high count of 234 on April 19, 2006. In all there were 45 “clustered” influxes.

Rose-breasted Grosbeak (*Pheucticus ludovicianus*)

A very uncommon passage migrant, there being just 12 records of 13 birds for the five years. In the early spring passage there were singles at the Sand Farm on January 16, 2007, February 1, 2008, February 5, 2006 and February 14, 2006. I have treated these last two sightings as relating to one individual even though the sightings were rather far apart. There was also one on the eastern border north of the McDonald Canal on February 27, 2004. For the late spring passage there was one on April 24, 2005 at the Nursery. For the early fall passage there were singles at the Nursery on September 4, 2005 and September 14, 2007. The main fall passage was the strongest passage there was one at the Sand Farm on October 3, 2007 and October 5, 2007 with one at the Nursery on October 10, 2007 and one at the Lake Level Canal on October 12, 2003. There were two at the Sand Farm on October 17, 2004. This was the highest count during the first ten years of the survey. Finally there was one at the Sand Farm on October 25, 2006. There were four for the early spring with one for the late spring and seven records of eight birds for the fall.

Blue Grosbeak (*Guiraca caerulea*)

This is a passage migrant, a summer visitor and a regular winter visitor. In 2004 there were 81 pairs but the breeding population will be smaller now with the clearing of the fields. This species had taken to nesting widely but it will still be breeding in good numbers along the edge of the wooded borders. Whilst I will have seen fledged young every year the only ones noted were in 2004. There were two on June 9 and two on July 29. The summer passage ran from May 16 (2004) to August 7 (2005) with high counts of 33 on June 13, 2004 and June 19, 2006. The early fall passage ran from July 13 (2007) to October 26 (2003) with a high count of 72 on October 1, 2006. This was the heaviest passage of the year. To detail the 2004 influxes, there were 22 on August 1 with 20 on August 9, 18 on August 16, 11 on August 19, seven on August 26 and four on September 9. There were 69 on September 12 with 22 on September 16, four on September 19 and one on September 22. It is quite possible that birds only arrived on the two dates August 1 and September 12. Of the 69 seen on September 12 a total of 68 were seen just to the north of the Hooper Farms Road gate. The late fall passage was a minor event and even this petered out in November. Excluding 2006 this passage ended between November

4 (2007) to November 23 (2004). The late fall passage ran from October 10 (2007) to December 3 (2006) with a high count of ten on October 16, 2005. For a species that is not meant to winter in the United States let alone Florida there was quite a strong passage at that time. The winter passage ran from November 27 (2004) to January 6 (2005) with a high count of 16 on December 31, 2003. In contrast the early spring passage was clearly the weakest event of the year and that is surprising as this leaves the event that should not exist (the winter passage) as a standalone passage. The early spring passage ran from December 30 (2005) to March 8 (2006) with a high count of nine on February 27, 2006. The main spring passage ran from March 10 (2006) to May 23 (2007) with a high count of 44 on May 2, 2004. To detail the 2004 influxes, there was one on March 19. There were eight on April 18 with 18 on April 21, 19 on April 25 and 44 on May 2, then 23 seen on May 10 with 19 on May 14.

The summer passage ran from May 16 (2004) to August 7 (2005), there were seven "clustered" influxes. The first peaked from May 20 (2004) to May 23 (2008) with a high count of 29 on May 20, 2004. The second peaked on June 8 (2006, 2008) with a high count of 22 on June 8, 2006. The third is indicated by a peak count of 33 on June 13, 2004. The fourth peaked from June 19 (2005, 2006) to June 22 (2007) with a high count of 33 on June 19, 2006. The fifth peaked from June 28 (2004) to July 2 (2006) with a high count of 24 on June 28, 2004. The sixth peaked from July 14 (2006) to July 18 (2004) with a high count of 31 on July 18, 2004. The seventh peaked from July 21 (2006) to July 24 (2004, 2008) with a high count of 21 on July 21, 2006. The early fall passage ran from July 13 (2007) to October 26 (2003), there were eight "clustered" influxes. This was the strongest event of the year. The first peaked from July 30 (2008) to August 1 (2004, 2007) with a high count of 39 on August 1, 2007. The second peaked from August 6 (2006) to August 10 (2005) with a high count of 23 on August 6, 2006. The third peaked from August 18 (2006) to August 21 (2005) with a high count of 27 on August 18, 2006. The fourth is indicated by a peak count of 27 on August 25, 2006. The fifth peaked from August 29 (2007) to September 1 (2003) with a high count of 17 on August 31, 2005. The sixth peaked from September 10 (2003, 2006) to September 12 (2004) with high counts of 12 on September 10, 2003 and 69 on September 12, 2004. The seventh peaked from September 19 (2007) to September 22 (2005) with a high count of 22 on September 22, 2005. The eighth peaked from October 1 (2006) to October 3 (2004, 2007) with high counts of 16 on October 2, 2003 and 72 on October 1, 2006. The latter is still the highest count for Zellwood. Passage now became very light by comparison. The late fall passage ran from October 10 (2007) to December 3 (2006), there were seven "clustered" influxes. The first peaked from October 16 (2005) to October 18 (2006) with a high count of ten on October 16, 2005. The second peaked on October 21 (2004, 2008) with a high count of six on October 21, 2008. The third peaked from October 24 (2007) to October 26 (2005) with a high count of eight on October 26, 2005. The fourth peaked from October 31 (2007) to November 3 (2004) with a high count of seven on November 2, 2005. Passage now very limited as there were three isolated peak counts of four on November 9,

2005, five on November 17, 2006 and one on November 24, 2006. It was only in 2006 that the passage continued into December. The winter passage was probably the most important event as this species is not “meant” to winter in the United States. This passage ran from November 27 (2004) to January 6 (2005), there were five “clustered” influxes. The first peaked on November 28 (2003, 2004) with a high count of five on November 28, 2003. The second peaked from December 2 (2005) to December 7 (2007) with a high count of three on December 2, 2005. The third peaked from December 14 (2007) to December 15 (2003) with high counts of two on December 14, 2007 and eight on December 15, 2003. The fourth is indicated by a peak count of two on December 21, 2007. The fifth peaked from December 27 (2004) to December 31 (2003) with high counts of one on December 27, 2004 and 16 on December 31, 2003. The early spring passage ran from December 30 (2005) to March 8 (2006), there were eight “clustered” influxes. The first peaked from January 3 (2007) to January 4 (2006, 2008) with a high count of three on January 4, 2006 and January 4, 2008. The second peaked on January 11 (2004, 2006) with three on both dates. The third peaked from January 16 (2008) to January 19 (2005) with a high count of four on January 18, 2006. The next two influxes are indicated by isolated peak counts of three on January 25, 2004 and one on February 1, 2008. The sixth peaked from February 4 (2007) to February 6 (2005) with one on both dates. The seventh is indicated by a peak count of eight on February 12, 2006. The eighth peaked from February 26 (2008) to February 27 (2004, 2006) with a high count of nine on February 27, 2006. Finally the main spring passage ran from March 10 (2006) to May 23 (2007), there were seven “clustered” influxes. The first is indicated by a peak count of eight on March 12, 2006. The second peaked on March 19 (2004, 2006) with a high count of three on March 19, 2006. The next two influxes are indicated by isolated peak counts of eight on March 26, 2006 and one on April 3, 2005. The fifth peaked from April 17 (2005) to April 21 (2007) with a high count of ten on April 19, 2006 and April 21, 2007. The sixth peaked from April 30 (2005) to May 3 (2006) with high counts of 17 on April 30, 2005 and 44 on May 2, 2004. The seventh peaked from May 13 (2007) to May 16 (2008) with high counts of 19 on May 13, 2007 and 27 on May 15, 2005. In all there were 42 “clustered” influxes.

Indigo Bunting (*Passerina cyanea*)

This can be a common passage migrant, a summer visitor and a winter visitor. This has proved to be one of the more interesting species. In 2004 there were a total of 157 pairs throughout the field system. Originally they had only bred along the eastern border but they had taken in a big way to breeding out in the fields. With the clearance of the fields the breeding population will have shrunk back to the eastern border. Again I will have seen fledged young each year but the only note was of three on August 1, 2004. It is not possible to separate out the spring passage from the summer event with any certainty as there was much overlap i.e.

the local breeding birds on territory while more northerly breeding birds continued to move through. I have taken the summer to run from May 23 (2004) to August 22 (2004) with a high count of 49 on June 2, 2004. In mid-August numbers drop sharply with the seeming departure of the summer visitors so this minor event I treat as an early fall passage. This passage ran from August 13 (2006) to September 21 (2003, 2007) with a high count of nine on September 12, 2004. The main fall passage ran from September 17 (2006) to November 10 (2004) with high counts of 178 on October 23, 2005, 336 on October 15, 2003 and an astounding 840 on October 26, 2007. All three of these counts are some of the highest ever for Florida. These three passages are so significant that I am going to detail the three passages. In 2005 there were two on September 19 with 23 on October 2, 46 on October 12, 71 on October 16, 90 on October 19 and 178 on October 23, then 67 seen on October 26 with 34 on October 30, 22 on November 2 and nine on November 4. In 2003 there three on September 24 with 15 on September 29 and 43 on October 2, then 16 seen on October 5. There were 22 on October 9 with 26 on October 12 and 336 on October 15, then 88 seen on October 19 with 52 on October 26, 13 on October 29, 12 on November 5 and six on November 9. Of the 336 seen on October 15 a total of 225 were to the north of Hooper Farms Road gate. In 2007 there were four on September 23 with five on September 26 and 17 on September 30, then 16 seen on October 3 with ten on October 5. There were 17 on October 7 with 40 on October 10, 108 on October 12, 116 on October 14, 181 on October 17, 230 on October 19, 401 on October 21, 665 on October 24 and 840 on October 26, then 82 seen on October 29 with 54 on October 31, 24 on November 2, 23 on November 4, three on November 7 and one on November 9. This would qualify as a rarity, a type 3 mega influx. Every count of 100 or more would in their own right count as one of the highest ever for Florida! In each year this passage tapered off very quickly at the end of October. The remainder of the period normally occupied by the main fall passage I am treating as being the "late" main fall passage. It is a horrible term but as I use the word late to signify lesser it kind of works. This passage ran from November 3 (2006) to November 29 (2006) with a high count of 17 on November 12, 2003. To detail that 2003 influx, there were 17 on November 12 with nine on November 16, six on November 20, five on November 23 and three on November 28. The winter passage ran from November 28 (2004) to January 11 (2004) with a high count of 32 on December 21, 2003. The early spring passage ran from January 5 (2007) to April 6 (2005) with a high count of 12 on January 21, 2004. This passage normally ends at the end of February but for this species the same very low numbers continued to early April in 2005 so I am treating the passage as continuing into April. For the other years the early spring passage ended between March 11 (2007) and March 17 (2006). There were just no sightings until the main spring passage started. This passage ran from April 6 (2007) to June 6 (2008) with a high count of 30 on May 2, 2004. As I stated earlier I do not know when this passage actually ended.

The summer passage ran from May 23 (2004) to August 22 (2004), there were 11 "clustered" influxes. The first peaked from June 2 (2004) to June 5 (2005) with a high count of

49 on June 2, 2004. The second peaked from June 8 (2007) to June 11 (2006) with a high count of 26 on June 8, 2007. The third is indicated by a peak count of 26 on June 15, 2008. The fourth peaked from June 21 (2006) to June 22 (2007, 2008) with a high count of 29 on June 22, 2007 and June 22, 2008. The fifth peaked from June 26 (2005) to June 28 (2004) with a high count of 34 on June 28, 2004. The sixth is indicated by a peak count of 31 on July 1, 2007. The seventh peaked from July 10 (2006) to July 13 (2007) with a high count of 38 on July 13, 2007. The eighth is indicated by a peak count of 24 on July 19, 2008. The ninth peaked from July 24 (2004) to July 30 (2006) with a high count of 30 on July 30, 2006. The tenth peaked from August 4 (2004) to August 6 (2008) with a high count of 25 on August 4, 2004. The 11th is indicated by a peak count of 20 on August 11, 2006. The summer visitors appeared to leave which led to a minor early fall passage from August 13 (2006) to September 21 (2003, 2007), there were five “clustered” influxes. The first is indicated by a peak count of five on August 16, 2006. The second peaked from August 22 (2007) to August 26 (2004) with a high count of six on August 22, 2007. The third peaked from August 28 (2005) to August 29 (2007) with a high count of six on August 28, 2005. The fourth is indicated by a peak count of nine on September 12, 2004. The fifth peaked from September 16 (2007) to September 19 (2003) with a high count of four on September 16, 2007. The main fall passage ran from September 17 (2006) to November 10 (2004), there were four “clustered” influxes. The first peaked from September 30 (2007) to October 2 (2003) with a high count of 43 on October 2, 2003. The second is indicated by a peak count of 41 on October 8, 2006. The third peaked from October 15 (2003) to October 17 (2004) with high counts of 72 on October 17, 2004 and 336 on October 15, 2003. The fourth peaked from October 22 (2006) to October 26 (2007) with high counts of 40 on October 22, 2006, 178 on October 23, 2005 and 840 on October 26, 2007. The latter is still the highest count for Zellwood. The “late” main fall passage ran from November 3 (2006) to November 29 (2006), there were four “clustered” influxes. The first two are indicated by isolated peak counts of three on November 3, 2006 and 16 on November 9, 2005. The third peaked from November 12 (2003) to November 17 (2004) with a high count of 17 on November 12, 2003. The fourth is indicated by a peak count of two on November 24, 2006. The winter passage ran from November 28 (2004) to January 11 (2004), there were again four “clustered” influxes. The first peaked from November 28 (2004) to December 2 (2007) with a high count of 15 on December 2, 2007. The second peaked from December 17 (2007) to December 19 (2004, 2005) with a high count of four on December 19, 2004. The third is indicated by a peak count of 32 on December 21, 2003. The fourth peaked from December 28 (2007) to January 2 (2005) with a high count of seven on December 28, 2007. The extended early spring passage ran from January 5 (2007) to April 6 (2005), there were ten “clustered” influxes. The first peaked from January 7 (2007) to January 11 (2006) with three on three dates. The second peaked on January 14 (2004, 2007) with a high count of three on January 14, 2007. The third peaked from January 20 (2006) to January 21 (2004) with high counts of nine on January 20, 2006 and 12 on January 21, 2004. The

fourth peaked from January 24 (2007) to January 26 (2005) with three on both dates. The fifth is indicated by a peak count of three on January 31, 2007. The sixth peaked from February 13 (2005) to February 17 (2006) with a high count of three on February 17, 2006. The seventh is indicated by a peak count of one on January 29, 2008. The eighth peaked from March 3 (2004) to March 7 (2007) with a high count of four on March 6, 2005. The ninth peaked from March 14 (2004) to March 16 (2005) with a high count of two on March 16, 2005. The tenth is indicated by a peak count of one on March 27, 2005. The main spring passage ran from April 6 (2007) to June 6 (2008), there were six “clustered” influxes. The first is indicated by a peak count of six on April 13, 2007. The second peaked from April 30 (2006) to May 2 (2004) with a high count of 30 on May 2, 2004. The third peaked from May 4 (2008) to May 7 (2006) with a high count of 20 on May 4, 2008. The fourth peaked from May 14 (2004) to May 15 (2005) with a high count of 29 on May 15, 2005. The last two influxes are indicated by isolated peak counts of 27 on May 20, 2007 and 26 on May 28, 2008. This time there were 44 “clustered” influxes.

Painted Bunting (*Passerina ciris*)

In 2004 there were 22 singing adult or immature males on territory during the summer. Unlike the Blue Grosbeak and the Indigo Bunting this species never left the border woods where they set up their territories. Whilst they would sometimes sing from the top of a tree they were much more likely to be singing from a concealed perch inside the foliage. Numbers may be a little lower now. It was always interesting to walk along the eastern border and listen to all three species singing at the same time. There was no evidence of breeding; it was present throughout the year but only in small numbers. The summer passage appeared to run from May 9 (2007) to August 8 (2007), there were eight “clustered” influxes. The first peaked from May 10 (2006) to May 15 (2005) with high counts of three on May 10, 2006 and May 13, 2007. The second peaked from May 20 (2008) to May 26 (2004) with high counts of three on May 23, 2007 and 12 on May 26, 2004. The latter is still the highest count for Zellwood. This count does not signify passage rather it occurred during the Breeding Bird Survey. The third is indicated by a peak count of four on June 1, 2008. The fourth peaked from June 8 (2007) to June 13 (2004) with a high count of six on June 13, 2004. This total was also probably high due to the work on the Breeding Bird Survey. The fifth peaked from June 22 (2007) to June 26 (2005) with three on both dates. The sixth peaked from July 2 (2006) to July 6 (2007) with three on both dates. The seventh peaked from July 11 (2008) to July 14 (2006) also with three on both dates. The eighth peaked from July 24 (2004) to July 30 (2008) with high counts of three on July 24, 2004 and July 28, 2005. This was followed by the weakest event of the year, the early fall passage. This passage ran from August 4 (2004) to September 29 (2003), there were six “clustered” influxes. The first peaked from August 4 (2004) to August 10 (2007) with a high count of two on August

10, 2007. The second is indicated by a peak count of one on August 19, 2004. The third peaked from August 26 (2007) to September 1 (2003) with one on three dates. The fourth peaked from September 8 (2006) to September 9 (2007) with a high count of two on September 8, 2006. The last two influxes are indicated by isolated peak counts of one on September 17, 2006 and two on September 24, 2003. Both the main fall passage and the winter passage are featureless. The main fall passage ran from October 2 (2005) to November 28 (2004), there were six "clustered" influxes. The first peaked from October 2 (2005) to October 3 (2007) with a high count of two on October 3, 2007. The second peaked from October 6 (2006) to October 11 (2004) with a high count of two on October 11, 2004. The third peaked from October 16 (2005) to October 19 (2003) with a high count of two on October 16, 2005. The fourth is indicated by a peak count of two on November 2, 2004. The fifth peaked from November 10 (2006) to November 12 (2003) with two on both dates. The sixth is indicated by a peak count of one on November 17, 2006. The winter passage ran from November 28 (2003, 2007) to January 14 (2007), there were six "clustered" influxes. The first peaked on November 28 (2003, 2007) with one on both dates. The second peaked from December 7 (2004) to December 9 (2003, 2005) with a high count of two on December 7, 2004. The third peaked from December 13 (2006) to December 17 (2007) with a high count of two on December 13, 2006. The fourth peaked from December 23 (2005) to December 26 (2003) with a high count of three on December 26, 2003. The fifth is indicated by a peak count of two on December 30, 2004. The sixth peaked from January 4 (2004) to January 6 (2008) with a high count of two on January 4, 2004. Up to this point from the summer to the winter this has to be the least interesting species. There was however some activity in both spring passages. The early spring passage ran from January 8 (2006) to February 28 (2007), there were seven "clustered" influxes. As the spring passage is actually meant to be restricted to April/May the higher counts during this passage raise questions about that fact. The first influx is indicated by a peak count of four on January 8, 2006. The second peaked on January 16 (2004, 2005, 2007) with a high count of three on January 16, 2004. The third peaked from January 20 (2006) to January 25 (2008) with a high count of three on January 20, 2006. The fourth peaked from January 31 (2007) to February 2 (2004) with a high count of four on January 31, 2007. The fifth is indicated by a peak count of nine on February 5, 2006. The sixth peaked from February 12 (2008) to February 14 (2007) with a high count of two on February 14, 2007. The seventh peaked from February 18 (2004) to February 23 (2007) with a high count of two on February 23, 2007. There really does appear to be passage through January and the first week of February. The late spring passage ran from February 27 (2006) to May 18 (2008), there were seven "clustered" influxes. The first peaked from March 2 (2005) to March 7 (2007) with a high count of eight on March 5, 2006. The second peaked from March 16 (2005) to March 18 (2007) with two on both dates. The third is indicated by a peak count of one on March 30, 2005. The fourth peaked from April 13 (2008) to April 17 (2005) with one on both dates. That count of eight really stands out against the very low peak counts from February 14 (2007) to April 17

(2005), that has to be passage. Now to the official spring passage, the fifth peaked from April 21 (2006) to April 25 (2004) with a high count of four on April 25, 2004. The sixth peaked from April 30 (2006) to May 1 (2007) with a high count of five on May 1, 2007. The seventh peaked from May 5 (2004) to May 7 (2008) with a high count of three on May 7, 2008. There were 40 “clustered” influxes. It would seem that there were from 40 to 47 “clustered” influxes per species.

Dickcissel (*Spiza americana*)

This is one of the special species as far as Zellwood is concerned. It is normally an uncommon late spring passage migrant, a very variable summer visitor with a minor fall passage. Sightings in the winter and the early spring are minimal. It is the summer that makes this species special. Normally this species does not breed anywhere near Florida but it has taken to breeding at Zellwood in most summers. In 2004 there were four males and at least one female by Hooper Farms Road. No fledged young seen. There was also a singing male way out in the fields to the south of Lust Road on May 16. It is possible that there was a colony out there. This species does tend to nest in loose groups. 2005 is the year, in that year 142 males and 13 females located. To break it down into areas, there were 48 males and five females by Laughlin Road, 59 males and four females by Lust Road, 18 males and two females by Airport Road and 17 males and two females by Hooper Farms Road. The females are exceptionally hard to locate and the young even more so. Immatures were seen by Airport Road on August 3 and by Hooper Farms Road on August 7. I have no idea how many males found mates and how many pairs actually bred or attempted to breed. It is very likely that some of the 143 continued north. In 2006 there were 14 males at various locations with an immature at the Sand Farm on August 2. In 2007 there was a single male by Interceptor Road but I do not believe that there was a female. No males located in the summer of 2008. This species bred in those fields with thick vegetation especially if there were scattered taller plants to use as song posts. They were often out in the middle of a group of fields far from the roads so it is very likely that many pairs missed.

The main spring passage ran from April 18 (2004, 2008) to May 30 (2004) with an extension to July 11 in 2005. The high count was that of 143 on May 22, 2005. This was really the summer high count but the peak count date fits in with this passage. The summer ran from May 31 (2006) to September 6 (2006) with a high count of 56 on July 7, 2005. To detail the 2005 influxes that cover both passages, there were two on April 25 with 64 on April 30, 82 on May 1, 136 on May 15 and 143 on May 22, then 92 seen on May 29 with 89 on June 5, 88 on June 19, 69 on June 26, 61 on July 1, 54 on July 3, 45 on July 6 and 44 on July 11. There were 46 on July 14 with 56 on July 7, then 40 seen on July 20 with 23 on July 23, 14 on July 28, four on July 31,

four with an immature on August 3 and one with an immature on August 7. There was one on August 25 with two on August 31, then one seen on September 4. The last two influxes represent the summer passage. The early fall passage ran from September 3 (2003) to October 17 (2004) with a high count of three on September 19, 2003. The late fall passage just consists of two records. There were three on November 18, 2005 with one on November 21, 2004. The winter passage was no better as it comprised just two influxes. The first ran from December 21, 2003 to December 31, 2003 with a peak count of six on December 21, 2003. The second ran from December 23, 2005 to December 30, 2005 with a peak count of two on December 23, 2005. The closeness of the dates is very interesting. The early spring passage was just as limited there being two on January 11, 2006 with singles on January 21, 2004 and February 29, 2004.

The main spring passage ran from April 18 (2004, 2005) to May 30 (2004) with an extension to July 11 in 2005, there were five "clustered" influxes. The first is indicated by a peak count of one on April 18, 2008. The second peaked from April 25 (2004) to April 29 (2007) with a high count of five on April 25, 2004. The next two influxes are indicated by isolated peak counts of three on May 3, 2006 and four on May 14, 2006. The fifth peaked from May 22 (2005) to May 27 (2007) with high counts of one on May 27, 2007 and 143 on May 22, 2005. The latter is still the highest count for Zellwood. The summer passage ran from May 31 (2006) to September 6 (2006), there were seven "clustered" influxes. The first is indicated by a peak count of three on June 2, 2004. The second peaked from June 8 (2006, 2007) to June 13 (2004) with a high count of four on June 8, 2006. The third is indicated by a peak count of three on June 28, 2007. The fourth peaked from July 5 (2006) to July 7 (2005) with high counts of four on July 5, 2006 and 56 on July 7, 2005. The last three influxes are indicated by isolated peak counts of one on July 21, 2006, 14 on July 28, 2005 and three on August 20, 2006. The early fall passage ran from September 3 (2003) to October 17 (2004), there were four "clustered" influxes. The first is indicated by a peak count of one on September 3, 2003. The second peaked from September 7 (2007) to September 12 (2005) with a high count of two on September 8, 2004. The third peaked from September 19 (2003) to September 23 (2007) with a high count of three on September 19, 2003. The fourth peaked from October 12 (2007) to October 13 (2004) with a high count of two on October 12, 2007. The late fall passage only occurred in two years with passage from November 18 (2005) to November 21, 2004. This formed a single "clustered" influx with a peak count of three on November 18, 2005. The winter passage ran from December 21 (2003) to December 31 (2003), there was one "clustered" influx. This peaked from December 21 (2003) to December 23 (2005) with a high count of six on December 21, 2003. The early spring passage was no better there were three records for the five years. There were two on January 11, 2006 with singles on January 21, 2004 and February 29, 2004.

Bobolink (*Dolichonyx oryzivorus*)

This can be an exceptionally common spring passage migrant with much smaller numbers in the fall. They roost in the cattails and feed out in the fields. Seen in the spring from April 10 (2005) to June 5 (2005) with high counts of 14,000 on April 28, 2006 and 16,550 on April 30, 2008. They roosted in the cattail marshes at Duda. On April 28, 2006 there were 13,000 at this roost. On leaving the roost they crossed the Lake Level Canal and proceeded to feed throughout Unit One i.e. north of the McDonald Canal. The other thousand were in the fields between Lust and Hooper Farms Road. I have no such breakdown for the 16,550 but they too came out of a roost in the Duda cattails. These may be the highest spring counts for Florida. At Zellwood the majority were males with much lower numbers of females as they traveled later. In 2004 there were few males by May 10. A constant babble comes from the feeding parties. To detail the 2006 influx, there were two on April 19 with 375 on April 21, 1,325 on April 23, 4,200 on April 25 and 14,000 on April 28, then 7,800 seen on April 30 with 2,500 on May 3, 1,900 on May 7, 90 on May 10, 65 on May 12, 60 on May 14, 30 on May 17, 18 on May 19, 14 on May 21 and one on May 24. To detail the 2008 influxes, there were seven on April 13 with 23 on April 15, 210 on April 18, 305 on April 20, 420 on April 23, 1,640 on April 25 and 16,550 on April 30, then 530 seen on May 2 with 350 on May 7, 45 on May 9 and 20 on May 11. There were 57 on May 14 with three on May 16. There were four on May 18 with seven on May 20, then one seen on May 25. The fall passage ran from August 15 (2005) to October 29 (2003) with a high count of 455 on September 4, 2005. Finally there was a very late individual at Hooper Farms Road on November 21, 2004. This was by the intersection with Airport Road.

The spring passage ran from April 10 (2005) to June 5 (2005), there were five “clustered” influxes. The first is indicated by a peak count of 15 on April 10, 2005. The second peaked from April 26 (2005) to April 30 (2008) with high counts of 595 on April 29, 2007, 1,735 on April 26, 2005, 2,590 on April 28, 2004, 14,000 on April 28, 2006 and 16,550 on April 30, 2008. The latter is still the highest count for Zellwood. The third is indicated by a peak count of 57 on May 14, 2008. The fourth peaked from May 20 (2008) to May 22 (2005) with a high count of seven on May 20, 2008. The fifth is indicated by a peak count of one on June 5, 2005. The fall passage ran from August 15 (2005) to October 29 (2003), there were eight “clustered” influxes. The first peaked from September 2 (2007) to September 4 (2005) with high counts of 33 on September 2, 2007 and 455 on September 4, 2005. The second is indicated by a peak count of 21 on September 8, 2006. The third peaked from September 14 (2007) to September 19 (2003) with a high count of 90 on September 16, 2004. The fourth peaked from September 21 (2006, 2007) to September 22 (2005) with a high count of 86 on September 22, 2005. The next two influxes are indicated by isolated peak counts of 47 on September 28, 2004 and six on October 5, 2007. The seventh peaked from October 19 (2003) to October 22 (2006) with a high count of three on October 19, 2003. The eighth is indicated by a peak count of one on October 29, 2003. Finally

there was an exceptionally late individual on November 21, 2004. This was at the junction of Hooper Farms Road and Airport Road.

Red-winged Blackbird (*Agelaius phoeniceus*)

Probably the most intriguing species with totally different patterns in 2004 and 2005 from those in the later years, for much of the year this species roosts in the cattail marshes, the marsh of choice being the Sand Farm Cattail Marsh through to the fall of 2005. After that time the major roost split up into many smaller roosts at Duda and along the shore of Lake Apopka. In the first two years the females would stop coming to the roost first in the breeding season as they settled onto their eggs. When the young hatched the males would join them out in the fields at night. This species breeds out in the fields especially those fields with thick woody vegetation. If a field has been mowed so often that grass is the vegetation then any breeding pairs will be in the border vegetation. For much of this period there was mowing and roller-chopping. Countless nests will have been destroyed. The adults would then go to the cattail marshes to roost at night until they tried to nest again. At the end of the breeding season a post-breeding gathering formed of this and the two species of grackle. In the first analysis I went into this in detail. This time I am going to show how different the two periods were during some of the events. In 2004 a total of 1,537 breeding pairs located which might produce a total population of some 6,000 birds at the end of that season. That number will be important later.

The summer passage ran from April 2 (2008) to June 8 (2007) with a high count of 1,000 on April 14, 2006. There was no difference between the two periods at this season. This was followed by a post-breeding gathering in the first two years. This passage ran from May 31 (2006) to August 26 (2004) with high counts of 208,000 on August 9, 2004 and 303,000 on July 17, 2005. For the later years the high count was that of 4,800 on June 30, 2006. To detail the 2005 influxes, there were 1,550 on June 5 with 4,500 on June 12, 6,300 on June 19 (that's the local breeding population), 17,500 on June 26, 26,000 on July 1, 32,000 on July 3, 86,000 on July 6, 137,000 on July 11, 245,000 on July 14 and 303,000 on July 17, then 285,000 seen on July 20 with 52,000 on July 23 and 3,700 on July 28. Just where did 280,000 go to in just one week? They were not at any other local roost. There were 134,000 on July 31 with 58,000 on August 3, 26,000 on August 7, 18,500 on August 10, 13,100 on August 15 and 8,400 on August 17. The passage in 2004 was very similar it just involved three influxes not two. For 2004 the post-breeding gathering ended on August 26. In 2003 there had been no post-breeding gathering but an event did start on July 23, *there were 290 on July 23 with 930 on July 25, 2,030 on July 27, 3,020 on July 30, 5,075 on August 5, 13,970 on August 8, 18,030 on August 10 and 27,000 on August 13.* This then led into the first of two major influxes during the early fall passage. The early fall passage was for all years bar 2003 and 2005 and to an extent 2006 a minor passage.

This passage ran from August 6 (2006) to October 12 (2003) with an extension to October 28, 2005. For the ordinary years the high counts were those of 1,800 on August 31, 2007 and 2,600 on September 1, 2004. There was an unexpectedly strong passage in 2006 with high counts of 14,400 on August 20 and 13,700 on September 1. In 2005 the post-breeding gathering appeared to continue through this passage with a high count of 103,000 on August 21. This was now joined by 2003 with its delayed post-breeding gathering, the high count being that of 115,000 on September 16. To continue detailing the 2005 influxes, there were 103,000 on August 21 with 33,700 on August 25. There were 76,000 on August 28 with 86,000 on August 31 and 101,000 on September 4, then 53,000 seen on September 7 with 25,200 on September 12, 17,700 on September 19, 15,800 on September 22, 6,500 on October 2, 1,650 on October 12, 1,500 on October 19, 900 on October 23, 850 on October 26 and 500 on October 28. The late fall passage ran from September 19 (2004) to December 4 (2005) with for the years other than 2003 high counts of 5,400 on November 23, 2004 and 6,200 on November 11, 2005. In 2003 there was very exceptionally a heavy passage with a peak count of 53,000 on November 28. To detail the 2003 influxes, there were 210 on October 15 with 460 on October 19, 1,100 on October 22, 1,420 on October 26 and 14,800 on November 2, then 10,670 seen on November 5 with 9,800 on November 9. There were 14,100 on November 12 with 24,100 on November 16, 30,400 on November 20, 40,000 on November 23 and 53,000 on November 28, then 41,000 seen on December 1 with 31,000 on December 3. This event continued through the next passage with a high count of 54,000 on December 15, 2003. The actual winter passage ran from December 1 (2004, 2006) to January 19 (2004). For the years other than 2003/2004 the high count was that of 8,900 on December 22, 2006. Back to the 2003/2004 influxes, there were 35,000 on December 7 with 54,000 on December 15, then 51,000 seen on December 17 with 30,400 on December 21, 9,200 on December 26, 7,200 on December 28, 6,330 on December 31, 3,300 on January 4, 3,100 on January 11, 2,200 on January 14, 950 on January 16 and 310 on January 19. Whilst this heavy passage was new for Zellwood the post-breeding events were previously unknown, full stop. I cannot imagine the catchment area to produce a count of 303,000. By comparison the two spring passages were normal for all the years. The early spring passage ran from January 11 (2006, 2008) to March 7 (2007) with a high count of 12,000 on February 9, 2007. The late spring passage ran from February 29 (2004) to April 29 (2007) with a high count of 3,800 on March 18, 2005.

The summer passage ran from April 2 (2008) to June 8 (2007), there were six "clustered" influxes. The first is indicated by a peak count of 1,000 on April 14, 2006. The second peaked from April 20 (2005) to April 21 (2004) with a high count of 770 on April 21, 2004. The third peaked from April 25 (2008) to April 28 (2004) with a high count of 700 on April 25, 2008. The fourth is indicated by a peak count of 850 on May 4, 2007. The fifth peaked from May 10 (2004) to May 15 (2005) with a high count of 850 on May 15, 2005. The sixth peaked from May 23 (2004) to May 25 (2008) with a high count of 750 on May 23, 2004. This was the weakest event.

The post-breeding gathering ran from May 31 (2006) to August 26 (2004), there were six “clustered” influxes. The first peaked from June 10 (2007) to June 11 (2006) with a high count of 1,700 on June 11, 2006. The second peaked from June 30 (2006) to July 1 (2007) with a high count of 4,800 on June 30, 2006. The third peaked from July 9 (2008) to July 11 (2004) with high counts of 1,500 on July 9, 2008 and 133,000 on July 11, 2004. The fourth peaked from July 16 (2008) to July 20 (2007) with high counts of 2,300 on July 20, 2007 and 303,000 on July 17, 2005. The latter is still the highest count for Zellwood. The fifth peaked from July 29 (2004) to August 1 (2007, 2008) with high counts of 2,200 on July 30, 2006, 134,000 on July 31, 2005 and 182,000 on July 29, 2004. The sixth peaked from August 8 (2008) to August 9 (2004) with high counts of 1,200 on August 8, 2008 and 208,000 on August 9, 2004. The early fall passage ran from August 6 (2006) to October 12 (2003) with an extension to October 28, 2005. In 2003 and 2005 this was a continuation of the post-breeding gathering. There were six “clustered” influxes. The first peaked from August 17 (2007) to August 21 (2005) with high counts of 14,400 on August 20, 2006 and 103,000 on August 21, 2005. The second is indicated by a peak count of 650 on August 24, 2007. The third peaked from August 31 (2007) to September 1 (2004, 2006) with a high count of 13,700 on September 1, 2006. The fourth peaked from September 3 (2003) to September 9 (2007) with high counts of 74,000 on September 3, 2003 and 101,000 on September 4, 2005. The fifth is indicated by a peak count of 115,000 on September 16, 2003. The sixth peaked from September 21 (2006) to September 23 (2007) with a high count of 1,200 on September 23, 2007. The late fall passage ran from September 19 (2004) to December 4 (2005), there were nine “clustered” basic influxes. The first peaked from October 3 (2004) to October 5 (2007) with a high count of 3,900 on October 3, 2004. The second is indicated by a peak count of 1,500 on October 11, 2006. The third peaked from October 17 (2004) to October 22 (2006) with a high count of 1,150 on October 17, 2004. The fourth is indicated by a peak count of 1,500 on October 26, 2007. The fifth peaked from October 29 (2006) to November 2 (2003) with high counts of 3,600 on October 31, 2004 and 14,800 on November 2, 2003. The sixth peaked from November 4 (2005) to November 7 (2004) with a high count of 3,600 on November 7, 2004. The seventh peaked from November 11 (2005) to November 16 (2007) with a high count of 6,200 on November 11, 2005. The eighth is indicated by a peak count of 5,400 on November 23, 2004. The ninth peaked from November 26 (2006) to November 30 (2007) with high counts of 5,200 on November 26, 2006 and 53,000 on November 28, 2003. The winter passage ran from December 1 (2004, 2006) to January 19 (2004), there were six “clustered” influxes. The first peaked from December 3 (2006) to December 5 (2004, 2007) with a high count of 6,000 on December 5, 2004. The second peaked from December 9 (2004) to December 10 (2006) with a high count of 6,000 on December 9, 2005. The third peaked from December 15 (2003) to December 19 (2004) with high counts of 4,800 on December 19, 2004 and 54,000 on December 15, 2003. The fourth peaked from December 22 (2006) to December 26 (2005) with a high count of 8,900 on December 22, 2006. The last two influxes are indicated

by isolated peak counts of 2,300 on December 30, 2007 and 4,900 on January 6, 2006. The early spring passage followed from January 11 (2006, 2008) to March 7 (2007), there were six “clustered” influxes. The first peaked from January 11 (2008) to January 15 (2006) with a high count of 2,900 on January 15, 2006. The second peaked from January 21 (2004, 2007) to January 25 (2006) with a high count of 4,600 on January 21, 2007. The third is indicated by a peak count of 1,500 on February 1, 2008. The fourth peaked from February 8 (2006) to February 9 (2007) with high counts of 3,400 on February 8, 2006 and 12,000 on February 9, 2007. The fifth is indicated by a peak count of 2,800 on February 18, 2007. The sixth peaked from February 20 (2005, 2008) to February 24 (2006) with a high count of 3,600 on February 24, 2006. Finally the late spring passage ran from February 29 (2004) to April 29 (2007), there were five “clustered” influxes. The first peaked from March 3 (2004) to March 6 (2005) with a high count of 3,250 on March 3, 2004. The second is indicated by a peak count of 1,000 on March 11, 2007. The third peaked from March 18 (2005) to March 21 (2008) with a high count of 3,800 on March 18, 2005. The fourth is indicated by a peak count of 1,100 on March 25, 2007. The fifth peaked from March 31 (2004) to April 4 (2007) with a high count of 2,250 on March 31, 2004. There were in all 47 “clustered” influxes.

Eastern Meadowlark (*Sturnella magna*)

A resident in any areas with very short grass, this tended to mean the Sod Farm, the Sand Farm and near the Lust Road gate. There was also the suggestion of a fall passage in some of the years. In 2004 there were 43 pairs. The population is probably a little lower now. The summer covered the period April 18 (2004, 2008) to August 1 (2004) with a high count of 32 on May 20, 2004. The early fall passage ran from July 19 (2008) to September 28 (2007) with a high count of 11 on July 27, 2007. This was the weakest event of the year. It was not that the birds were absent it was that they were very quiet and secretive whilst molting. The main fall passage ran from September 21 (2006) to December 7 (2003) with a high count of 37 on November 23, 2003. Numbers were quite high early in the passage with declining numbers to mid-November. Then there was what at least in two years appeared to be a short-lived passage. To illustrate what may be a passage in mid-October I am detailing the 2004 influxes, there were three on September 22 with four on September 28, nine on October 6 and 28 on October 11, then one seen from October 13 to October 24. There were two on October 27 with six on October 31, then four seen on November 3. There were five on November 7 with ten on November 14, then seven seen on November 17 with six on November 23 and four on November 28. It is the count of 28 on October 11 that suggests passage. In 2003 the main influx had four on November 20 with 37 on November 23, then 13 seen on December 1 with three on December 7. In 2007 to detail the last two influxes, there were nine on November 11 with ten

on November 18, 21 on November 23 and 24 on November 25, then nine seen on November 28. There were 20 on November 30 with 17 on December 2 and one on December 5. These influxes do appear to indicate passage. The winter passage followed from December 1 (2006) to January 11 (2004) with a high count of 12 on December 9, 2007. There was more activity with the early spring passage but there was no real evidence of passage. This event ran from January 9 (2008) to March 2 (2007) with a high count of 24 on February 12, 2008. Finally the main spring passage ran from February 27 (2004) to April 26 (2005) with a high count of 29 on March 15, 2008.

The summer passage ran from April 18 (2004, 2008) to August 1 (2004), there were ten "clustered" influxes. The first peaked from April 21 (2007) to April 23 (2004) with a high count of 19 on April 23, 2004. The second peaked from May 1 (2005) to May 5 (2006) with a high count of 22 on May 2, 2008. The third is indicated by a peak count of ten on May 14, 2006. The fourth peaked on May 20 (2004, 2007) with high counts of 26 on May 20, 2007 and 32 on May 20, 2004. The fifth is indicated by a peak count of 29 on May 28, 2008. The sixth peaked from June 11 (2006) to June 12 (2005) with 22 on both dates. The seventh peaked from June 18 (2008) to June 21 (2006) with a high count of 25 on June 18, 2008. The eighth peaked from June 27 (2007) to July 2 (2006) with a high count of 18 on June 27, 2007. The ninth peaked from July 8 (2007) to July 11 (2005) with a high count of 16 on July 8, 2007. The tenth is indicated by a peak count of 15 on July 15, 2007. The early fall passage ran from July 19 (2008) to September 28 (2007), there were seven "clustered" influxes. The first is indicated by a peak count of seven on July 21, 2008. The second peaked from July 27 (2007, 2008) to July 28 (2005) with a high count of 11 on July 27, 2007. The third peaked from August 2 (2006) to August 5 (2007) with high counts of six on August 2, 2006 and August 3, 2008. The fourth peaked from August 15 (2007) to August 16 (2006) with a high count of six on August 15, 2007. The fifth peaked from September 5 (2007) to September 9 (2004) with a high count of six on September 9, 2004. The sixth is indicated by a peak count of two on September 14, 2003. The seventh peaked from September 21 (2007) to September 23 (2006) with a high count of six on September 23, 2006. The main fall passage ran from September 21 (2006) to December 7 (2003), there were eight "clustered" influxes. The first peaked from September 29 (2003) to October 1 (2006) with a high count of 15 on September 29, 2003. The second peaked from October 9 (2003) to October 12 (2005) with a high count of 28 on October 11, 2004. The third is indicated by a peak count of 16 on October 21, 2007. The fourth peaked from October 28 (2005) to November 1 (2006) with a high count of 14 on October 28, 2005. The fifth peaked from November 9 (2003) to November 11 (2005) with a high count of 14 on November 10, 2006. The sixth peaked from November 14 (2004) to November 19 (2006) with high counts of ten on November 14, 2004 and November 18, 2005. The seventh peaked from November 23 (2003) to November 26 (2006) with high counts of 24 on November 25, 2007 and 37 on November 23, 2003. The latter was the highest count during this set of five years. The eighth peaked from November 30 (2007) to December 1 (2004) with a high count of 20 on November 30, 2007. The winter passage followed from December 1

(2006) to January 11 (2004), there were five “clustered” influxes. The first peaked from December 7 (2005) to December 10 (2006) with a high count of 12 on December 9, 2007. The second peaked from December 16 (2004) to December 17 (2006) with a high count of seven on December 17, 2006. The third is indicated by a peak count of nine on December 23, 2005. The fourth peaked from December 27 (2004) to December 29 (2006) with a high count of ten on December 28, 2003. The fifth is indicated by a peak count of nine on January 4, 2008. The early spring passage ran from January 9 (2008) to March 2 (2007), there were seven “clustered” influxes. The first is indicated by a peak count of nine on January 11, 2006. The second peaked from January 14 (2004) to January 16 (2005, 2007) with a high count of eight on January 16, 2005. The third peaked from January 18 (2008) to January 20 (2006) with a high count of 18 on January 18, 2008. The fourth peaked from February 1 (2008) to February 2 (2004, 2005) with a high count of eight on February 1, 2008. The fifth peaked from February 9 (2007) to February 12 (2008) with high counts of 18 on February 9, 2007 and 24 on February 12, 2008. The sixth peaked from February 22 (2008) to February 23 (2005) with a high count of 18 on February 22, 2008. The seventh is indicated by a peak count of 15 on February 28, 2007. Finally the main spring passage ran from February 27 (2004) to April 26 (2005), there were five “clustered” influxes. The first peaked from March 7 (2004, 2007) to March 10 (2006) with a high count of 14 on March 7, 2007. The second peaked from March 15 (2008) to March 19 (2006) with high counts of 22 on March 16, 2005, 24 on March 16, 2007 and 29 on March 15, 2008. The third peaked from March 26 (2008) to March 28 (2007) with high counts of 18 on March 27, 2005 and March 26, 2008. The fourth peaked from April 4 (2008) to April 6 (2005) with a high count of 23 on April 4, 2008. The fifth peaked from April 11 (2007) to April 13 (2008) with a high count of 24 on April 13, 2008. There were just 42 “clustered” influxes.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)

This is an irregular fall and winter visitor. There were five records of six birds for the five years. For the late fall passage there were two females by the Lake Level Canal on October 18, 2006. This was late in the day as flocks stopped for one final feed before crossing the canal to roost in the Duda Cattail Marshes. There was a female at the Sand Farm on November 3, 2006 it was with Brown-headed Cowbirds. There was a male by Pole Road on November 23, 2004. For the winter passage there was a male at the Sand Farm on December 3, 2006 and December 6, 2006. Finally there was a female by Laughlin Road on December 26, 2005, January 1, 2006 and January 6, 2006. It was with Red-winged Blackbirds.

Brewer's Blackbird (*Euphagus cyanocephalus*)

There were three records for the five years. There was a male at the Sand Farm on November 22, 2006. There was a female by Lust Road on December 2, 2007 it was with Boat-tailed Grackles and Brown-headed Cowbirds. There was also a female by Laughlin Road on January 6, 2006 and January 22, 2006. If I had not been looking for the Yellow-headed Blackbird I would not have found this individual.

Common Grackle (*Quiscalus quiscula*)

A resident, a passage migrant and a winter visitor, in 2004 and 2005 there were also very significant post-breeding gatherings. Normally this species kept to the wetter pieces of woodland with the exception of the two post-breeding gatherings when they joined the other species at the Sand Farm Cattail Marsh. In 2004 there was a breeding population of 45 pairs scattered in small colonies in the wetter areas of woodland. The summer passage ran from April 14 (2006) to June 20 (2004) with a high count of 51 on April 21, 2006. This was followed by the post-breeding gathering which ran from June 8 (2006) to August 29 (2004) with a high count of 117,000 on July 17, 2005. For the later years the highest count was that of 3,600 on June 14, 2006. In 2005 a single influx covered virtually the whole passage whereas in 2006 and 2007 there were six influxes each year. To detail the 2004 influxes there were 11 on June 23 with 26 on June 28, 37 on July 2 and 76 on July 4, then 72 seen on July 7 with 30 on July 11. There were 65 on July 14 with 130 on July 18, 8,200 on July 21, 17,200 on July 24. 19,100 on July 29 and 23,000 on August 1, then 3,000 seen on August 4 with 750 on August 9, 185 on August 11, 80 on August 16, 50 on August 22, 23 on August 26 and six on August 29. To detail the 2005 influxes, there had been nine on June 12, then 4,000 seen on June 19 with 32,800 on June 26, 67,000 on July 1, 75,000 on July 3, 102,000 on July 6, 105,000 on July 11, 110,000 on July 14 and 117,000 on July 17, then 37,000 seen on July 20 with 17,000 on July 23, 1,200 on July 31, 400 on August 3 and 25 on August 7. There were 400 on August 10 with two on August 15. The early fall passage ran from August 17 (2005, 2007) to October 8 (2005) with a high count of 176 on September 21, 2003. The main fall passage ran from October 2 (2003) to December 3 (2003) with a high count of 260 on November 23, 2007. The winter passage followed from November 29 (2006) to January 16 (2008) with a high count of 390 on December 17, 2003. The early spring passage ran from January 6 (2005) to March 7 (2004) with a high count of 920 on January 25, 2008. Finally the late spring passage ran from February 29 (2008) to April 23 (2008) with a high count of 50 on March 12, 2006. With the exception of the two post-breeding gatherings there were no significant features to the passage at any time during the year.

The summer passage ran from April 14 (2006) to June 20 (2004), there were eight “clustered” influxes. The first is indicated by a peak count of ten on April 16, 2008. The second peaked from April 20 (2005) to April 21 (2006) with a high count of 51 on April 21, 2006. The third peaked from April 27 (2007) to April 28 (2004, 2006) with a high count of 38 on April 28, 2006. The fourth is indicated by a peak count of 20 on May 2, 2008. The fifth peaked from May 9 (2007) to May 10 (2004) with a high count of 16 on May 10, 2004. The sixth peaked from May 19 (2006) to May 20 (2008) with a high count of 15 on May 19, 2006. The seventh peaked from May 26 (2004) to May 29 (2005) with a high count of 48 on May 27, 2007. The eighth is indicated by a peak count of 20 on June 4, 2008. The post-breeding gathering ran from June 8 (2006) to August 29 (2004), there were eight “clustered” influxes. The first peaked from June 13 (2007) to June 18 (2008) with high counts of 46 on June 18, 2008 and 3,600 on June 14, 2006. The second is indicated by a peak count of 433 on June 25, 2006. The third peaked from July 1 (2007) to July 4 (2004) with a high count of 76 on July 4, 2004. The fourth peaked from July 9 (2008) to July 13 (2007) with a high count of 490 on July 12, 2006. The fifth peaked from July 16 (2008) to July 17 (2005) with high counts of 12 on July 16, 2008 and 117,000 on July 17, 2005. The latter is still the highest count for Zellwood. The sixth peaked from July 22 (2007) to July 26 (2006) with a high count of 1,800 on July 26, 2006. The seventh peaked from August 1 (2004, 2007) to August 3 (2008) with high counts of 70 on August 2, 2006 and 23,000 on August 1, 2004. The eighth peaked from August 10 (2005) to August 13 (2006) with a high count of 400 on August 10, 2005. The early fall passage ran from August 17 (2005, 2007) to October 8 (2005), there were six “clustered” influxes. The first peaked from August 19 (2007) to August 20 (2006) with a high count of 28 on August 20, 2006. The second peaked from August 24 (2003) to August 28 (2005) with a high count of 53 on August 24, 2003. The third is indicated by a peak count of 37 on September 2, 2007. The fourth peaked from September 7 (2005) to September 10 (2006) with a high count of 131 on September 9, 2004. The fifth peaked from September 17 (2006) to September 22 (2005) with a high count of 176 on September 21, 2003. The sixth peaked from September 27 (2006) to September 28 (2004) with a high count of 11 on September 27, 2006. This was followed by the main fall passage which ran from October 2 (2003) to December 3 (2003), there were eight “clustered” influxes. The first is indicated by a peak count of 32 on October 2, 2003. The second peaked from October 10 (2007) to October 15 (2006) with a high count of ten on October 12, 2005. The third peaked from October 17 (2004) to October 21 (2005) with a high count of 23 on October 19, 2003. The fourth is indicated by a peak count of 76 on October 26, 2007. The fifth peaked from November 5 (2003, 2006) to November 7 (2004, 2007) with a high count of 105 on November 7, 2007. The sixth peaked from November 12 (2006) to November 16 (2008) with a high count of 87 on November 16, 2008. The seventh is indicated by a peak count of 37 on November 19, 2006. The eighth peaked from November 23 (2004, 2007) to November 25 (2005) with a high count of 260 on November 23, 2007. The winter passage ran from November 29 (2006) to January 16 (2008), there were

seven “clustered” influxes. The first peaked from December 1 (2006) to December 2 (2007) with a high count of 42 on December 2, 2007. The second peaked from December 5 (2004) to December 7 (2005) with a high count of 116 on December 5, 2004. The third peaked from December 10 (2006) to December 14 (2007) with a high count of 85 on December 14, 2007. The fourth is indicated by a peak count of 390 on December 17, 2003. The fifth peaked from December 21 (2005, 2007) to December 22 (2004) with a high count of 190 on December 21, 2007. The sixth is indicated by a peak count of 40 on December 28, 2005. The seventh peaked from January 3 (2007) to January 4 (2008) with a high count of 25 on January 4, 2008. The early spring passage ran from January 6 (2005) to March 7 (2004), there were eight “clustered” influxes. The first two influxes are indicated by isolated peak counts of 13 on January 7, 2007 and 210 on January 13, 2006. The third peaked on January 19 (2004, 2005) with a high count of 21 on January 19, 2004. The fourth peaked from January 25 (2008) to January 28 (2004) with high counts of 215 on January 26, 2007 and 920 on January 25, 2008. The fifth peaked from February 1 (2006) to February 4 (2007) with a high count of 150 on February 4, 2007. The sixth is indicated by a peak count of 23 on February 11, 2004. The seventh peaked from February 17 (2006) to February 20 (2005, 2008) with a high count of 330 on February 18, 2007. The eighth peaked from February 24 (2006) to February 27 (2004) with a high count of 32 on February 27, 2004. Finally the late spring passage ran from February 29 (2008) to April 23 (2008), there were five “clustered” influxes. The first peaked from March 4 (2006) to March 7 (2007) with a high count of 35 on March 4, 2006. The second peaked from March 12 (2006) to March 15 (2008) with a high count of 50 on March 12, 2006. The third peaked from March 18 (2005) to March 21 (2007) with a high count of 45 on March 19, 2004. The fourth peaked from March 26 (2006, 2008) to March 30 (2007) with high counts of 30 on March 27, 2005 and March 26, 2006. The fifth peaked from April 6 (2005) to April 9 (2008) with a high count of 40 on April 9, 2008. There were a grand total of 50 “clustered” influxes, perhaps that is a record.

Boat-tailed Grackle (*Quiscalus major*)

A resident, a passage migrant and a winter visitor with in 2004 and 2005 a massive post-breeding gathering. This species nests in colonies in the cattails or in the willows that were during this period mainly along the Lake Level Canal. In 2004 there were a total of 154 pairs and that number could only produce a total population of say 500 birds. This species nests quite early so the summer passage is treated as running for March 30 (2005) to May 30 (2007) with high counts of 250 on April 6, 2005, April 24, 2007 and May 16, 2007. The first fledged young were seen out in the fields with their parents from May 20 (2004). There was a major post-breeding gathering in 2004 and 2005 with a lesser event in 2006. A major roost formed at the Sand Farm Cattail Marsh for these two events. This event ran from May 14 (2008) to August 13

(2006) with high counts of 97,000 on July 18, 2004 and 167,000 on July 14, 2005. There was a single mega influx in 2004. To detail this 2004 influx, there were 80 on May 16 with 150 on May 20, 490 on May 23 (the local population), 1,660 on May 30, 2,800 on June 2, 6,040 on June 6, 8,430 on June 9, 12,100 on June 13, 20,400 on June 16, 32,400 on June 20, 40,750 on June 23, 44,500 on June 28, 51,000 on July 2, 58,000 on July 4, 63,000 on July 7, 81,000 on July 11, 90,400 on July 14 and 97,000 on July 18. There was no count on the 21st due to fog. Then 80,400 seen on July 24 with 78,500 on July 29, 27,100 on August 1, 9,000 on August 4, 1,000 on August 9 and 250 on August 11. There was a single mega influx in 2005, there were 255 on May 29 with 530 on June 5 (again the local population), 3,350 on June 12, 6,050 on June 19, 20,700 on June 26, 51,000 on July 1, 73,000 on July 3, 113,000 on July 6, 163,000 on July 11 and 167,000 on July 14, then 107,000 seen on July 17 with 35,000 on July 20, 28,000 on July 23, 1,200 on July 28, 120 on July 3, 40 on August 3 and ten on August 7. The early fall passage ran from August 10 (2005, 2008) to October 11 (2004, 2006) with a high count of 7,300 on September 16, 2003. In both 2004 and 2005 there was a secondary post-breeding gathering during this passage. In 2003 whilst outside the period covered by this analysis there had been a minor post-breeding gathering with counts that rose from 150 on July 4 to 5,510 on August 13. As with 2004 & 2005 there was a continuing gathering during what was for the other years the early fall passage. To detail the 2003 influxes, there were 4,020 on August 20 which completed the previous influx. There were 5,140 on August 24 with 5,300 on September 1 and 5,410 on September 3, then 5,030 seen on September 7 with 5,020 on September 10. There were 6,700 on September 14 with 7,300 on September 16, then 5,280 seen on September 21 with 1,850 on September 24, 1,650 on September 29, 265 on October 2 and 20 on October 5. The late fall passage ran from October 9 (2003) to November 28 (2004) with a high count of 2,300 on October 31, 2004. The winter passage followed from November 20 (2003) to January 6 (2005, 2008) with a high count of 9,550 on December 15, 2003. To detail the 2003 influxes, there were 240 on November 20 with 1,660 on November 23 and 4,850 on November 28, then 3,800 seen on December 1. There were 4,150 on December 3 with 5,100 on December 7 and 9,550 on December 15, then 8,200 seen on December 17 with 3,700 on December 21, 2,020 on December 26, 550 on December 28, 110 on December 31 and 105 on January 4. The early spring passage ran from January 4 (2006) to March 10 (2004) with high counts of 1,300 on February 8, 2006 and February 29, 2004. The late spring passage only ran from March 2 (2008) to April 4 (2004) with a high count of 420 on March 17, 2006. Two final notes, there was a nearly complete albino at the Sand Farm on August 29, 2004. On February 1, 2008 two adult males were fighting at the Sand Farm Cattail Marsh. One of them stood on the back of the other and stayed there until the other drowned.

The summer passage ran from March 30 (2005) to May 30 (2007), there were seven “clustered” influxes. The first is indicated by a peak count of 110 on April 2, 2008. The second peaked from April 6 (2005) to April 9 (2008) with a high count of 250 on April 6, 2005. The third

is indicated by a peak count of 165 on April 14, 2004. The fourth peaked from April 23 (2006) to April 24 (2007) with a high count of 250 on April 24, 2007. The fifth peaked on April 30 (2005, 2008) with a high count of 160 on April 30, 2005. The sixth peaked from May 5 (2004) to May 9 (2008) with a high count of 180 on May 5, 2004. The seventh peaked from May 14 (2006) to May 16 (2007) with a high count of 250 on May 16, 2007. The post-breeding gathering ran from May 14 (2008) to August 13 (2006), there were seven “clustered” influxes. The first four influxes are indicated by isolated peak counts of 130 on May 20, 2008, 500 on June 8, 2007, 8,400 on June 16, 2006 and 650 on June 22, 2008. Normally these isolated peak counts relate to basic influxes but the opposite is true here. In both 2004 and 2005 there were mega influxes that covered the whole passage i.e. they covered up an array of regular and basic influxes hence the isolated peak counts. The fifth influx peaked from June 30 (2006) to July 1 (2007) with a high count of 2,000 on June 30, 2006. The sixth peaked from July 14 (2005) to July 18 (2004) with high counts of 800 on July 15, 2007, 97,000 on July 18, 2004 and 167,000 on July 14, 2005. The latter is still the highest count for Zellwood. The seventh peaked from July 26 (2006) to August 1 (2008) with high counts of 380 on August 1, 2008 and 12,000 on July 26, 2006. This was followed by the early fall passage or for the first three years the continuing post-breeding gathering. This event ran from August 10 (2005, 2008) to October 11 (2004, 2006), there were eight “clustered” influxes. The first peaked from August 10 (2005, 2008) to August 12 (2007) with a high count of 2,560 on August 10, 2005. The second peaked from August 20 (2006) to August 22 (2004) with a high count of 2,500 on August 22, 2004. The third peaked from August 26 (2007) to August 28 (2005) with a high count of 225 on August 28, 2005. The fourth peaked on September 3 (2003, 2006) with a high count of 5,410 on September 3, 2003. The fifth is indicated by a peak count of 150 on September 10, 2006. The sixth peaked from September 16 (2003, 2007) to September 19 (2005) with a high count of 7,300 on September 16, 2003. The seventh peaked from September 25 (2006) to September 26 (2007) with a high count of 75 on September 25, 2006. The eighth peaked from October 3 (2004) to October 5 (2007) with a high count of 6,840 on October 3, 2004. The late fall passage ran from October 9 (2003) to November 28 (2004), there were six “clustered” influxes. The first peaked from October 12 (2007) to October 13 (2004) with a high count of 650 on October 13, 2004. The second peaked from October 18 (2006) to October 19 (2003, 2005) with a high count of 300 on October 18, 2006. The third peaked from October 25 (2006) to October 26 (2007) with a high count of 100 on October 25, 2006. The fourth peaked from October 31 (2004) to November 4 (2007) with a high count of 2,300 on October 31, 2004. The fifth peaked from November 11 (2005) to November 16 (2007) with a high count of 800 on November 11, 2005. The sixth peaked from November 21 (2004) to November 24 (2006) with a high count of 2,250 on November 21, 2004. The winter passage ran from November 20 (2003) to January 6 (2005, 2008), there were five “clustered” influxes. The first peaked from November 27 (2005) to December 1 (2004, 2006) with high counts of 2,500 on December 1, 2004 and 4,850 on November 28, 2003. The second is

indicated by a peak count of 270 on December 9, 2005. The third peaked from December 15 (2003, 2006) to December 16 (2004, 2005) with high counts of 2,000 on December 16, 2004 and 9,550 on December 15, 2003. The fourth peaked from December 23 (2005) to December 26 (2007) with a high count of 930 on December 23, 2005. The fifth peaked from December 29 (2006) to January 2 (2008) with a high count of 1,000 on December 30, 2004. The early spring passage ran from January 4 (2006) to March 10 (2004), there were nine “clustered” influxes. The first peaked from January 4 (2006) to January 5 (2007) with a high count of 650 on January 4, 2006. The second peaked from January 11 (2004, 2006, 2008) to January 12 (2007) with a high count of 700 on January 11, 2008. The third peaked from January 20 (2006) to January 24 (2005) with a high count of 1,100 on January 24, 2005. The fourth is indicated by a peak count of 950 on January 29, 2006. The fifth peaked from February 4 (2004, 2007) to February 8 (2006) with a high count of 1,300 on February 8, 2006. The sixth peaked from February 11 (2007) to February 12 (2008) with a high count of 500 on February 12, 2008. The seventh peaked from February 16 (2005) to February 18 (2004) with a high count of 545 on February 18, 2004. The eighth peaked from February 22 (2008) to February 24 (2006) with a high count of 1,100 on February 24, 2006. The ninth peaked from February 28 (2007) to March 2 (2005) with a high count of 1,300 on February 29, 2004. Finally there was the late spring passage, this ran from March 2 (2008) to April 4 (2004), there were four “clustered” influxes. The first peaked from March 4 (2007) to March 5 (2006) with a high count of 400 on March 4, 2007. The second is indicated by a peak count of 380 on March 10, 2005. The third peaked from March 14 (2004) to March 18 (2005) with a high count of 420 on March 17, 2006. The fourth is indicated by a peak count of 80 on March 26, 2008. I did consider putting this last event into the summer passage but the counts are significantly higher so I kept it as a separate event. There were a total of 47 “clustered” influxes. I still wonder about the size of the catchment area for the post-breeding gatherings of all three species.

Shiny Cowbird (*Molothrus bonariensis*)

An irregular visitor to Zellwood there was a late spring passage and in 2005 there was what has to be a post-breeding gathering! Otherwise there were scattered records through the year. For the early spring passage there was a male at the Sand Farm on January 18, 2008. For the summer passage there were singles on April 29, 2007, May 1, 2007, May 1, 2005, and May 10, 2006. There were two on May 17, 2006 with one on May 20, 2004. For the post-breeding gathering there was one on June 13, 2007 with two on July 2, 2008. Now to the 2005 records, there were four on June 19 with six on June 26, nine on July 1 and 13 on July 3, then six seen on July 6 with four on July 11 and two on July 14. There were eight on July 20 with singles on July 23 and July 28. On looking at the locations where they were seen it is possible to estimate the

numbers involved, that total comes to 26. The count of 13 is still the highest count for Zellwood. For the early fall passage there was one on September 12, 2005 with three on September 17, 2006. For the late fall passage there were singles seen on October 16, 2005 and October 28, 2005. Finally for the winter passage there was a female by the Lust Road Pump House on December 3, 2003. In all that appears to come to a total of 43 birds for the five years.

Bronzed Cowbird (*Molothrus aeneus*)

This remains a vagrant. The only record relates to a female by the Lust Road gate on October 29, 2006.

Brown-headed Cowbird (*Molothrus ater*)

This is a passage migrant, a winter visitor and perhaps surprisingly a summer visitor. In 2004 there were a total of eight pairs. The number of pairs is probably similar now. Individuals could often be seen in the summer sitting motionless atop a utility pole. The host species appear to be Red-winged Blackbirds and Northern Mockingbirds. Juveniles have been seen from June 13 (2004). The late spring passage really only occurs in March as by April only a few can be found. There was a distinct increase with the summer passage, this event ran from April 14 (2006) to June 9 (2004) with a high count of 21 on April 20, 2005. For this species I have split off the second half of the summer passage into a separate event as most of the adults have left leaving the juveniles. These juveniles were noted from June 13 (2004) to July 21 (2008). In some years there was an early fall passage that started early covering up this event. To detail the 2004 influx, there was one on June 13 with three on June 16, four on June 20, five on June 23, nine on June 28, 11 on July 2 and 15 on July 4, then five seen on July 7 with four on July 11 and three on July 14. To detail the number of juveniles seen during the same period, there was one on June 13 with one on June 16, two on June 20, four on June 23, five on June 28, 11 on July 2 and 15 on July 4. I have no information after that date probably because adults returned again. It is interesting that on July 2 and July 4 only juveniles located. The early fall passage ran from July 2 (2006) to October 2 (2005) with a high count of 180 on September 19, 2007. The main fall passage ran from September 16 (2003) to November 28 (2003, 2007) with a high count of 300 on November 3, 2006. The winter passage was a more significant event, the passage ran from November 30 (2007) to January 9 (2005) with an extension to January 19 in 2004 the high count was that of 800 on December 28, 2005. The early spring passage was the main event of the year, this passage ran from January 8 (2006) to March 9 (2007) with high counts of 3,150 on February 20, 2005 and 3,500 on January 29, 2006. To detail the 2005 influxes, there were two on January 16 with eight on January 24 and 146 on January 30, then 15 seen on February 2. There were 68

on February 6 with 156 on February 8, 520 on February 16 and 3,150 on February 20, then 400 seen on February 23. The late spring passage then ran from February 28 (2005) to April 14 (2005) with a high count of 2,250 on March 10, 2005. To continue detailing the 2005 influxes, there were 550 on February 28 with 1,300 on March 2 and 2,250 on March 10, then 45 seen on March 13 with one on March 16. There were 117 on March 18 with just one on March 30. There were eight on April 10 with one on April 14. Note the scarcity of sightings in April leading up to the arrival of the summer visitors.

The summer passage ran from April 14 (2006) to June 9 (2004), there were four "clustered" influxes. The first peaked from April 20 (2005) to April 24 (2007) with a high count of 21 on April 20, 2005. The second is indicated by a peak count of 13 on May 2, 2004. The third peaked from May 13 (2007) to May 16 (2008) with a high count of five on May 14, 2006. The fourth is indicated by a peak count of two on May, 30, 2007. Note how the number of adults decreased during this event. The "juvenile season" ran from June 1 (2008) to July 21 (2008) with juveniles being actually recorded from June 13 (2004) to July 21 (2008). All the influxes in which juveniles noted have been included in this event, there were six "clustered" influxes. The first is indicated by a peak count of two on June 1, 2008. The second peaked from June 11 (2006) to June 13 (2007) with a high count of 15 on June 11 (2006) (no juveniles). The third peaked on June 19 (2005, 2006) with a high count of ten on June 19, 2006. The fourth is indicated by a peak count of two on June 27, 2005. The fifth peaked from July 4 (2004) to July 6 (2007) with a high count of 15 on July 4, 2004 (all were juveniles). The sixth peaked from July 9 (2008) to July 11 (2005) with a high count of seven on July 9, 2008 (all were juveniles). The early fall passage ran from July 2 (2006) to October 2 (2005), there were nine "clustered" influxes. The first peaked from July 10 (2006) to July 13 (2007) with a high count of 33 on July 10, 2006. The second peaked from July 18 (2004) to July 21 (2006) with a high count of 20 on July 21, 2006. The third peaked from July 24 (2004) to July 29 (2007) with a high count of 34 on July 29, 2007. The fourth is indicated by a peak count of 36 on August 4, 2006. The fifth peaked from August 10 (2005, 2007) to August 13 (2006, 2008) with a high count of 70 on August 10, 2007. The next two influxes are indicated by isolated peak counts of 20 on August 19, 2007 and seven on August 26, 2004. The eighth peaked from August 29 (2007) to September 3 (2003) with a high count of 18 on August 30, 2006. The ninth peaked from September 17 (2006) to September 19 (2005, 2007) with a high count of 180 on September 19, 2007. The main fall passage ran from September 16 (2003) to November 28 (2003, 2007), there were five "clustered" influxes. The first two influxes are indicated by isolated peak counts of 65 on October 2, 2003 and 16 on October 11, 2004. The third peaked from October 30 (2005) to November 3 (2004, 2006) with a high count of 300 on November 3, 2006. The fourth is indicated by a peak count of 20 on November 9, 2007. The fifth peaked from November 20 (2003, 2005) to November 25 (2007) with a high count of 205 on November 20, 2003. During this passage there were no sightings in 2006 after September 23 or before November 10. The winter passage ran from November 30

(2007) to January 9 (2005) with an extension to January 19 in 2004, there were only three “clustered” influxes. The first peaked from December 1 (2006) to December 5 (2007) with a high count of 275 on December 3, 2003. The second peaked from December 13 (2005, 2006) to December 19 (2007) with a high count of 130 on December 13, 2005. The third peaked from December 28 (2003, 2005, 2007) to December 31 (2006) with high counts of 350 on December 28, 2003 and 800 on December 28, 2005. The early spring passage was the strongest event with passage from January 8 (2006) to March 9 (2007), there were five “clustered” influxes. The first peaked from January 9 (2008) to January 14 (2007) with a high count of 87 on January 9, 2008. The second peaked from January 18 (2006) to January 23 (2008) with a high count of 150 on January 18, 2006. The third peaked from January 29 (2006) to January 30 (2005, 2008) with high counts of 146 on January 30, 2005 and 3,500 on January 29, 2006. The latter was the highest count during the first ten years of the survey. The fourth peaked from February 9 (2007) to February 10 (2006) with a high count of 350 on February 10, 2006. The fifth peaked from February 20 (2005) to February 26 (2008) with high counts of 490 on February 22, 2004 and 3,150 on February 20, 2005. Finally the late spring passage ran from February 28 (2005) to April 14 (2005), there were four “clustered” influxes. The first peaked from March 3 (2004) to March 5 (2006) with a high count of 60 on March 5, 2006. The second is indicated by a peak count of 2,250 on March 10, 2005. The third peaked from March 18 (2005) to March 27 (2007) with a high count of 117 on March 18, 2005. The fourth peaked from April 7 (2004, 2008) to April 10 (2005) with a high count of eight on April 10, 2005.

Orchard Oriole (*Icterus spurius*)

A summer visitor with pairs nesting in trees especially those scattered along the side of Lake Apopka. Zellwood is at the southern limit of the breeding range so it is perhaps surprising that there were 22 pairs in 2004. The population may be a little lower now. There appeared to be a minor spring passage from April 9 (2008) to May 9 (2008) with a high count of 12 on April 25, 2004. There was no discernible fall passage the adults just seemed to drift away leaving the juveniles to follow later. There was just the suggestion of a later passage involving juveniles. So the summer passage was treated as running from May 7 (2006) to July 29 (2007) with a high count of 24 on July 1, 2005. To detail the 2005 influxes, there were seven on May 15 with ten on May 29 and 16 on June 12, then nine seen on June 19. There were 11 on June 26 with 24 on July 1 (this included some juveniles), then nine seen on July 6 with four on July 11. There were nine on July 14 with five on July 17, four on July 23 and one on July 28. The last event with one exception appears to involve only juveniles. This passage ran from July 23 (2006) to September 3 (2003) with high counts of four on August 17, 2007 and September 3, 2003. The exception

was an adult female that was seen on August 8, 2006. Finally there was a winter record as there was one at the Sand Farm on December 19, 2007 and December 21, 2007.

The spring passage ran from April 9 (2008) to May 9 (2008), there were three “clustered” influxes. The first is indicated by a peak count of eight on April 18, 2008. The second peaked from April 24 (2005) to April 27 (2007) with a high count of 12 on April 25, 2004. The third peaked from May 3 (2006) to May 4 (2008) with a high count of 11 on May 4, 2008. The summer passage ran from May 7 (2006) to July 29 (2007), there were ten “clustered” influxes. The first is indicated by a peak count of ten on May 10, 2006. The second peaked from May 13 (2007) to May 16 (2008) with a high count of 13 on May 16, 2008. The third peaked from May 20 (2007) to May 21 (2006) with a high count of 13 on May 21, 2006. The fourth peaked from May 26 (2004) to May 31 (2006) with high counts of 17 on May 31, 2006 and May 30, 2008. The fifth peaked from June 8 (2007) to June 9 (2004) with a high count of 14 on June 9, 2004. The sixth peaked from June 12 (2005) to June 16 (2006) with high counts of 16 on June 12, 2005 and June 13, 2008. The seventh peaked from June 20 (2004) to June 22 (2008) with 11 on both dates. The eighth peaked from July 1 (2005) to July 2 (2008) with a high count of 24 on July 1, 2005. This was the highest count during the first ten years of the survey. The ninth peaked from July 5 (2006) to July 8 (2007) with a high count of ten on July 8, 2007. The tenth peaked from July 14 (2005, 2006) to July 19 (2008) with a high count of nine on July 14, 2005. The “juvenile season” ran from July 23 (2006) to September 3 (2003), there were five “clustered” influxes. The first is indicated by a peak count of two on July 23, 2006. The second peaked from July 29 (2004) to August 2 (2006) with high counts of three on July 29, 2004 and August 1, 2008. The third is indicated by a peak count of three on August 12, 2007. The fourth peaked from August 16 (2004) to August 17 (2007) with a high count of four on August 17, 2007. The fifth peaked from August 31 (2005) to September 3 (2003) with a high count of four on September 3, 2003. With the exception of the adult on August 8, 2006 the last adult was seen on July 29 (2007).

Baltimore Oriole (*Icterus galbula*)

This is an uncommon passage migrant with most sightings in the fall. There were singles on September 3, 2006 and September 10, 2003 then two seen on September 19, 2003 with five on September 24, 2003 and seven on September 29, 2003, then four seen on October 2, 2003. There were two on September 15, 2006 with one on September 19, 2004. There was one on September 23, 2007 with two on September 26, 2007, then singles seen on September 30, 2007 and October 3, 2007. There were singles on October 8, 2005 and October 12, 2005 with three on November 9, 2003. Finally for the fall there were singles on November 20, 2003 and November 25, 2005. There would appear to have been 19 individuals seen during the fall passage. There were no winter records. Seen in the early spring from January 7 (2007) when

one seen. There were also singles on January 13, 2006, January 21, 2004. January 27, 2006, January 29, 2006 and February 4, 2004, just five birds in all. For the late spring passage there were singles on three dates, March 7, 2004, April 14, 2005 and April 28, 2004. This makes for a total of 27 birds for the five years.

Purple Finch (*Carpodacus purpureus*)

There was a female/immature at the Nursery on November 26, 2006. This is the only record for Zellwood.

House Finch (*Carpodacus mexicanus*)

The first records for Zellwood were of singles at the Nursery and by Canal Road on November 17, 2004. It is now an irregular passage migrant and winter visitor. For the early spring passage there was one on February 4, 2007 with for the late spring passage one on May 11, 2008. There were no summer records. For the early fall passage there were singles on July 4, 2005, July 14, 2005 and August 10, 2007. The main fall passage was marginally the strongest event with singles on October 26, 2005, October 26, 2007 and November 4, 2007. There were three on November 11, 2007 with one on November 14, 2007. The count of three was the highest count during the first ten years of the survey. There were also two on November 17, 2004. For the winter passage there was one on December 1, 2006 with two on December 5, 2004, singles then seen on December 19, 2007 and December 30, 2007. In all there were a total of 16 birds seen over the five years.

Pine Siskin (*Spinus pinus*)

The second record for Zellwood occurred in 2007 when one seen at the Nursery on February 11, 2007. It was with a flock of some 30 American Goldfinches.

American Goldfinch (*Spinus tristis*)

This is a regular passage migrant and winter visitor to the wooded borders even if it is normally only seen in small numbers. The fall passage ran from November 10 (2004, 2006) to December 6 (2006) with a high count of 136 on November 28, 2004. The next highest counts were only those of 12 on November 25, 2007 and November 29, 2006. To detail the 2004 influx,

there was one on November 10 with seven on November 14, 20 on November 17, 30 on November 21, 41 on November 23 and 136 on November 28, then 72 seen on December 1 with 14 on December 5. The winter passage ran from November 30 (2007) to January 14 (2004) with a high count of 48 on December 30, 2004. The early spring passage was the strongest event of the year with passage from January 7 (2007) to March 5 (2006) with a high count of 196 on February 20, 2008, of these 185 were at the Nursery. To detail the 2008 influxes, there were three on January 9 with five on January 14 and 72 on January 18, then four seen on January 23 with one on January 25. There were two on January 28 with 16 on February 1 and 30 on February 4, then three seen on February 6. There were seven on February 8 with 11 on February 10, 28 on February 12, 41 on February 17 and 196 on February 20, then 55 seen on February 24 with 23 on February 26, 11 on March 2 and four on March 4. The late spring passage ran from March 3 (2004) to April 15 (2008) with a high count of 50 on March 15, 2008. With the exception of 2008 the highest count was that of seven on March 6, 2005. To detail the exceptional 2008 influxes, there were 50 on March 15 with two on March 19. There were 13 on March 21 with eight on March 24, four on March 28 and three on April 7. There were five on April 9 with three on April 15. Finally there were three late records. There were two on April 24, 2005 with one on April 29, 2007. The latest was one at the Nursery on May 7, 2006.

The late fall passage ran from November 10 (2004, 2006) to December 6 (2006), there were three "clustered" influxes. The first is indicated by a peak count of six on November 16, 2007. The second peaked on November 20 (2003, 2005) with a high count of four on November 20, 2003. The third peaked from November 25 (2007) to November 30 (2005) with high counts of 12 on November 29, 2006 and November 25, 2007 with 136 on November 28, 2004. The winter passage ran from November 30 (2007) to January 14 (2004), there were five "clustered" influxes. The first peaked from December 2 (2007) to December 7 (2003) with a high count of 35 on December 2, 2007. The second peaked from December 11 (2005) to December 12 (2004) with a high count of 35 on December 12, 2004. The third peaked from December 17 (2006) to December 19 (2007) with a high count of 14 on December 17, 2006. The fourth peaked from December 27 (2006) to December 30 (2004, 2007) with high counts of 24 on December 28, 2003 and 48 on December 30, 2004. The fifth is indicated by a peak count of nine on January 3, 2007. The early spring passage ran from January 7 (2007) to March 5 (2006), there were seven "clustered" influxes. The first is indicated by a peak count of three on January 11, 2006. The second peaked from January 16 (2005, 2007) to January 21 (2004) with high counts of 33 on January 16, 2005 and 72 on January 18, 2008. The third peaked from January 24 (2007) to January 28 (2004) with a high count of 47 on January 24, 2007. The fourth peaked from February 2 (2005) to February 4 (2008) with a high count of 30 on February 4, 2008. The fifth peaked from February 11 (2007) to February 12 (2006) with a high count of 34 on February 12, 2006. The sixth peaked from February 20 (2008) to February 24 (2006) with high counts of 11 on February 24, 2006 and 196 on February 20, 2008. The latter is still the highest count for

Zellwood. The seventh peaked on February 28 (2005, 2007) with a high count of 44 on February 28, 2007. The late spring passage was a minor event with the exception of 2008 which was detailed in segment one. This passage ran from March 3 (2004) to April 15 (2008), there were five "clustered" influxes. The first peaked from March 3 (2004) to March 6 (2005) with a high count of seven on March 6, 2005. The second peaked from March 10 (2006) to March 15 (2008) with high counts of six on March 11, 2007 and 50 on March 15, 2008. The third peaked from March 18 (2007) to March 21 (2008) with high counts of five on March 20, 2005 and 13 on March 21, 2008. The last two influxes are indicated by isolated peak counts of one on March 28, 2004 and five on April 9, 2008. Finally there were two on April 24, 2005 with singles on April 29, 2007 and May 7, 2006.

House Sparrow (*Passer domesticus*)

Up to two pairs bred on the northern border up to and including 2003. No pairs nested in 2004 or in any of the later years. It actually no longer occurs in the area. There were no winter records and the only record for the early spring passage related to one on January 18, 2006. For the main spring passage there were singles on March 4, 2006, March 9, 2007, March 15, 2006, and March 17, 2006 with two on March 19, 2006. There was also one on March 19, 2004. For the summer passage there were two on April 20, 2005 with singles to May 15, 2005. There were two on May 10, 2006 with singles to May 19, 2006. There was also one on June 8, 2006. For the early fall passage there was one on July 9, 2008 with two on July 18, 2004. Singles then seen on July 23, 2005, August 7, 2005 and August 25, 2005. Finally for this passage there were two on September 4, 2005. For the late fall passage there were singles on October 17, 2004 and November 16, 2003.

Exotic Passerines

Zebra Finch (*Amanadava subflava*)

The only record for Zellwood involves one near Hooper Farms Road gate on September 7, 2005. This is an African species.

Pin-tailed Whydah (*Vidua macroura*)

This is another African species. There was a pair by Hooper Farms Road gate on September 22, 2005 with the female there on October 2, 2005. The male was singing. The male was in breeding plumage but the tail feathers were broken off. On June 11, 2006 there was a male at the same location, this time it had full tail feathers

ADDENDUM A

The Influxes

All the way through this analysis and all the way through the first analysis I detailed numerous influxes for many individual species. I also showed every “clustered” influx together with the isolated peak counts. To me an influx signifies passage but why do all these resident species exhibit the same pattern as known migrants? Is it possible that there is a veneer of migration on top of the resident population? Do the non-breeding birds create these influxes?

Even more puzzling to me is the apparent clustering of the peak counts of these influxes. Is bird migration so regimented that the various influxes follow the same timing year upon year? It is likely that global warming will be adjusting the timing of the various passages so it is probable that only a few years can be safely put together. In this instance I am only looking at a span of five years.

I am wary that a variable could be causing the patterns that I describe but I cannot identify a possible problem. Counts were done on Wednesdays and Sundays and later Wednesdays, Fridays and Sundays. The extra day did not alter anything. I am the sole counter so it cannot be because of observer bias.

I know absolutely nothing about statistics but some kind of analysis is needed to identify the probabilities that the influxes are real and that the clustering is not just a happenstance. If there is anyone out there who would like to use my data to do a statistical analysis can they contact me at; sirharrydeland@gmail.com.

I have selected 43 of the species that were present through the year and I have identified the number of influxes recorded for each of these species. These are detailed below.

Species	# of influxes	Species	# of influxes
Pied-billed Grebe	37	Killdeer	43
Double-crested Cormorant	40	Eurasian Collared-Dove	34
Anhinga	40	Mourning Dove	43
Great Blue Heron	41	Common Ground-Dove	43
Great Egret	40	Red-bellied Woodpecker	44
Snowy Egret	38	Downy Woodpecker	46
Little Blue Heron	35	White-eyed Vireo	46
Tricolored Heron	38	Blue Jay	45
Cattle Egret	40	American Crow	41
Green Heron	40	Fish Crow	43
Black-crowned Night-Heron	39	Carolina Wren	46
White Ibis	42	Northern Mockingbird	46
Glossy Ibis	44	European Starling	40
Black Vulture	44	Eastern Towhee	49
Turkey Vulture	41	Northern Cardinal	45
Wood Duck	39	Blue Grosbeak	42
Mottled Duck	43	Indigo Bunting	44
Osprey	41	Red-winged Blackbird	47
Red-shouldered Hawk	43	Eastern Meadowlark	42
Red-tailed Hawk	43	Common Grackle	50
King Rail	33	Boat-tailed Grackle	47
Common Gallinule	41		

These counts break down as follows.

33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1	1	1	0	1	2	2	6	5	3	7	4	2	4	2	0	1	1

Top row: number of influxes. Bottom row: number of species. The number of influxes runs from 33 to 50 but 25 of the species had between 40 and 44 influxes per year.

TABLE A

Summary of the days that the site was visited, the hours spent surveying and the number of species seen.

Year	Days	Totals	Hours	Totals	# species
1998/2003		505		6,247	
2003/2004	104	609	1,380	7,627	257
2004/2005	94	703	1,261	8,888	253
2005/2006	131	834	1,629	10,517	260
2006/2007	147	981	1,803	12,320	267
2007/2008	152	1,133	1,801	14,121	265

Please note the year runs from August 15 to August 14. Most birders record the number of species a calendar year format.

2003	265
2004	255
2005	259
2006	266
2007	265
2008	278

Parts of 2003 and 2008 are outside the period covered by this analysis

TABLE B

The Spreadsheet

All the sightings day by day have been entered onto a master spreadsheet, this is ongoing. For some 12 years the spreadsheet was kept by Bill Pranty and his work is much appreciated. The spreadsheet is now held by the author and copies may be obtained by contacting me at sirharrydeland@gmail.com.

From August 2010 a monthly spreadsheet has been prepared together with accompanying notes on the more interesting events during that month. These can also be obtained from the author.

TABLE C

This is a Systematic List of all species seen from August 15, 1998 to August 14, 2008 together with details of the highest daily counts during the ten years.

Where the same high count or counts of single individuals occur on more than one day then only the first date is given.

SPECIES	HIGHEST DAILY COUNT	DATE OF THAT COUNT
Pacific Loon	1	12.11.2005
Common Loon	3	12.8.2006
Pied-billed Grebe	750	11.18.1998
Horned Grebe	3	11.11.1998
Red-necked Grebe	1	11.24.2006
Eared Grebe	4	1.1.1999
Sooty Shearwater	1	8.15.2004
American White Pelican	4,370	1.29.1999
Brown Pelican	6	4.30.2005
Double-crested Cormorant	7,800	2.22.2004
Anhinga	520	7.2.2008
American Bittern	60	3.24.2004
Least Bittern	76	7.9.2008
Great Blue Heron	395	12.3.1998
Great White Heron	3	6.22.2008
Great Egret	2,390	12.5.2004
Snowy Egret	2,585	11.7.2004
Little Blue Heron	735	12.1.2004
Tricolored Heron	385	11.17.2004

Reddish Egret	1	3.21.2000
Cattle Egret	6,400	9.16.2004
Green Heron	236	8.16.2004
Black-crowned Night-Heron	208	10.13.2004
Yellow-crowned Night-Heron	27	4.25.2006
White Ibis	5,970	3.30.2005
Glossy Ibis	3,825	12.1.2004
White-faced Ibis	2	11.11.2001
Roseate Spoonbill	30	6.26.2002
Wood Stork	1,130	11.18.1998
Black Vulture	1,340	2.28.2007
Turkey Vulture	1,750	1.20.2008
White-faced Whistling-Duck	1	5.7.2000
Black-bellied Whistling -Duck	345	1.1.2006
Fulvous Whistling-Duck	840	10.22.2003
Greater White-fronted Goose	3	10.28.2001
Snow Goose	90	12.18.1998
Ross's Goose	2	12.7.1998
Canada Goose	3	10.29.1998
Egyptian Goose	3	7.23.2006
Black Swan	1	6.10.2002
Muscovy Duck	4	11.18.2005
Wood Duck	288	12.27.2006
Gadwall	222	11.22.1999
American Wigeon	186	12.18.1998
American Black Duck	3	12.7.1998
Mallard	103	10.24.2004
Mottled Duck	197	8.20.1999
Blue-winged Teal	10,500	11.2.1998
Cinnamon Teal	3	1.19.1999
Northern Shoveler	770	1.27.1999
Northern Pintail	420	12.16.1998
Green-winged Teal	12,565	12.18.1998
"Common Teal"	1	1.22.2006
Canvasback	5	12.7.1998
Redhead	18	1.3.2002
Ring-necked Duck	11,900	12.3.1998
Greater Scaup	12	12.17.2007
Lesser Scaup	760	2.10.2008
Black Scoter	2	11.22.2006
Bufflehead	11	12.16.2004
Common Goldeneye	2	11.22.2005

Hooded Merganser	100	1.12.1999
Red-breasted Merganser	6	1.7.1999
Ruddy Duck	34,000	1.4.2006
Osprey	162	2.24.2008
Swallow-tailed Kite	1,560	7.26.2006
White-tailed Kite	1	6.30.2000
Snail Kite	1	7.16.1999
Mississippi Kite	1	5.5.2004
Bald Eagle	109	11.13.2005
Northern Harrier	305	12.12.2004
Sharp-shinned Hawk	26	11.30.2007
Cooper's Hawk	45	8.25.2006
Red-shouldered Hawk	133	9.29.2006
Broad-winged Hawk	3	9.29.2006
Short-tailed Hawk	1	9.30.1999
Swainson's Hawk	2	11.11.2007
Red-tailed Hawk	175	11.30.2007
Rough-legged Hawk	3	2.23.2000
Golden Eagle	1	1.8.1999
Crested Caracara	1	7.27.1999
Eurasian Kestrel	1	2.26.2003
American Kestrel	38	11.5.2003
Merlin	8	9.30.2007
Peregrine Falcon	4	10.12.1999
Ring-necked Pheasant	1	5.6.2002
Common Peafowl	1	9.10.2006
Wild Turkey	2	10.16.2005
Gray Partridge	2	9.14.2003
Northern Bobwhite	105	6.1.2008
Yellow Rail	1	3.9.2003
Black Rail	1	6.4.2003
Clapper Rail	1	11.28.2003
King Rail	523	8.23.2006
Virginia Rail	9	2.16.2005
Sora	394	11.22.2006
Purple Gallinule	97	4.25.2004
Common Moorhen	2,370	10.11.2006
American Coot	16,720	11.18.1998
Limpkin	5	5.14.2001
Sandhill Crane	227	11.30.2005
Whooping Crane	8	3.21.2000
Black-bellied Plover	346	12.3.1998

American Golden Plover	6	10.26.1999
Semipalmated Plover	134	5.15.2002
Piping Plover	1	5.20.2002
Killdeer	1,935	2.9.2003
Black-necked Stilt	368	9.17.1998
American Avocet	75	1.11.1999
Greater Yellowlegs	415	12.16.1998
Lesser Yellowlegs	1,195	12.16.1998
Solitary Sandpiper	76	5.7.2006
Willet	8	7.27.1999
Spotted Sandpiper	13	5.15.2002
Upland Sandpiper	6	4.20.1999
Whimbrel	2	4.23.2008
Long-billed Curlew	1	6.25.1999
Marbled Godwit	2	11.25.1998
Ruddy Turnstone	8	5.6.2002
Red Knot	12	5.14.2001
Sanderling	5	5.20.2002
Semipalmated Sandpiper	1,540	5.23.2002
Western Sandpiper	965	9.11.1998
Least Sandpiper	2,450	12.31.1998
White-rumped Sandpiper	37	5.23.2002
Baird's Sandpiper	2	8.6.2000
Pectoral Sandpiper	690	9.16.2001
Sharp-tailed Sandpiper	1	9.26.2002
Dunlin	210	11.13.1998
Curlew Sandpiper	1	9.2.1998
Stilt Sandpiper	490	10.21.1998
Buff-breasted Sandpiper	23	9.11.1998
Ruff	2	11.25.1998
Short-billed Dowitcher	670	10.29.1998
Long-billed Dowitcher	1,890	1.12.1999
Wilson's Snipe	1,090	1.4.2004
American Woodcock	12	12.7.2005
Wilson's Phalarope	21	9.2.1998
Red-necked Phalarope	2	9.28.2004
Red Phalarope	1	9.16.2001
Pomarine Jaeger	2	5.6.2001
Laughing Gull	114	4.11.2001
Franklin's Gull	21	12.4.1998
Little Gull	1	1.7.2001
Bonaparte's Gull	465	1.28.2008

Ring-billed Gull	18,000	2.8.2005
Herring Gull	88	2.3.1999
Thayer's Gull	1	3.31.2004
Lesser Black-backed Gull	2	12.11.1998
Great Black-backed Gull	1	1.27.2006
Gull-billed Tern	4	4.20.1999
Caspian Tern	208	2.10.1999
Royal Tern	1	12.16.1998
Sandwich Tern	4	5.7.2007
Roseate Tern	1	5.20.2008
Common Tern	103	10.31.2007
Arctic Tern	3	10.31.2007
Forster's Tern	611	1.16.2008
Least Tern	77	4.15.2007
Sooty Tern	1	6.12.2005
Black Tern	500	9.2.1998
Black Skimmer	120	2.3.1999
Rock Pigeon	106	6.25.1999
Eurasian Collared-Dove	36	6.7.1999
White-winged Dove	24	9.19.2001
Mourning Dove	2,370	7.30.2008
Common Ground-Dove	111	5.21.2003
Budgerigar	1	7.23.1999
Cockatiel	1	9.2.2002
Black-billed Cuckoo	1	5.10.1999
Yellow-billed Cuckoo	52	6.8.2006
Smooth-billed Ani	1	6.26.2003
Groove-billed Ani	6	2.6.2005
Barn Owl	25	12.22.2006
Eastern Screech-Owl	2	12.20.1998
Great Horned Owl	10	1.30.2005
Burrowing Owl	1	6.18.2003
Barred Owl	11	10.8.2006
Long-eared Owl	1	1.11.2004
Short-eared Owl	9	12.29.2006
Northern Saw-whet Owl	1	11.5.2002
Lesser Nighthawk	1	12.16.1998
Common Nighthawk	1,233	9.11.2002
Chuck-will's-widow	16	5.23.2004
Eastern Whip-poor-will	4	11.5.2006
Chimney Swift	6,800	10.11.2004
Ruby-throated Hummingbird	2	10.13.2002

Black-chinned Hummingbird	1	12.19.1999
Belted Kingfisher	24	11.3.2004
Red-headed Woodpecker	3	9.10.2003
Red-bellied Woodpecker	91	10.1.2006
Yellow-bellied Sapsucker	10	12.13.2006
Downy Woodpecker	49	3.28.2007
Hairy Woodpecker	1	3.13.1999
Red-cockaded Woodpecker	1	6.23.2003
Northern Flicker	16	10.8.2006
Pileated Woodpecker	12	11.4.2007
Olive-sided Flycatcher	1	4.20.2005
Eastern Wood-Pewee	7	9.27.2006
Yellow-bellied Flycatcher	1	10.11.2004
Acadian Flycatcher	4	9.10.2003
Alder Flycatcher	1	9.14.2003
Willow Flycatcher	1	7.27.1999
Least Flycatcher	23	12.19.2007
Eastern Phoebe	416	10.26.2003
Vermillion Flycatcher	2	3.4.2002
Ash-throated Flycatcher	16	12.14.2007
Brown-crested Flycatcher	2	3.1.2006
Great Crested Flycatcher	45	5.16.2007
Tropical Kingbird	1	12.9.2001
Cassin's Kingbird	2	2.29.2004
Western Kingbird	72	1.27.2002
Eastern Kingbird	347	8.31.1999
Gray Kingbird	2	10.21.1998
Scissor-tailed Flycatcher	8	12.11.2005
Fork-tailed Flycatcher	1	7.23.2000
Loggerhead Shrike	18	2.3.2002
White-eyed Vireo	56	10.1.2006
Bell's Vireo	1	2.6.2000
Yellow-throated Vireo	2	4.3.2002
Blue-headed Vireo	18	3.2.2008
Philadelphia Vireo	1	10.14.1999
Red-eyed Vireo	17	9.21.2000
Black-whiskered Vireo	1	9.10.2006
Blue Jay	180	10.17.2007
Florida Scrub-Jay	2	4.17.2002
American Crow	21	9.16.2007
Fish Crow	4,400	1.27.2002
Purple Martin	2,850	6.20.2004

Tree Swallow	71,000	3.10.2006
Northern Rough-winged Swallow	28	10.11.2004
Bank Swallow	264	9.7.2005
Cliff Swallow	71	10.1.2006
Cave Swallow	14	10.28.2005
Barn Swallow	3,530	7.28.2006
Carolina Chickadee	3	10.1.2006
Tufted Titmouse	15	8.10.2007
Brown-headed Nuthatch	1	12.17.2003
Carolina Wren	103	4.24.2003
Bewick's Wren	1	2.25.2000
House Wren	674	11.5.2000
Winter Wren	1	1.19.2003
Sedge Wren	108	11.26.2000
Marsh Wren	211	11.9.2005
Golden-crowned Kinglet	3	11.17.2006
Ruby-crowned Kinglet	67	11.17.2006
Blue-gray Gnatcatcher	173	12.7.2007
Eastern Bluebird	6	12.21.2002
Veery	12	10.2.2002
Gray-cheeked Thrush	5	9.25.2006
Bicknell's Thrush	1	5.27.2000
Swainson's Thrush	36	9.26.2001
Hermit Thrush	9	12.12.2004
Wood Thrush	1	10.19.1999
American Robin	240,000	12.29.2006
Gray Catbird	660	10.12.2003
Northern Mockingbird	126	10.8.2006
Brown Thrasher	46	9.30.2007
European Starling	2,040	7.13.2007
Common Myna	1	7.11.2005
American Pipit	570	12.8.1998
Cedar Waxwing	2,240	4.8.2007
Blue-winged Warbler	2	9.3.2000
Tennessee Warbler	29	10.21.2004
Orange-crowned Warbler	36	12.15.2000
Nashville Warbler	1	1.11.1999
Northern Parula	52	3.18.2005
Yellow Warbler	232	9.15.2006
Chestnut-sided Warbler	6	9.21.2000
Magnolia Warbler	3	10.13.2004
Cape May Warbler	16	4.30.2008

Black-throated Blue Warbler	15	4.30.2008
Yellow-rumped Warbler	10,220	2.23.2007
Black-throated Green Warbler	2	12.20.1998
Blackburnian Warbler	4	9.19.2000
Yellow-throated Warbler	8	9.26.2007
Pine Warbler	10	11.15.2005
Prairie Warbler	83	9.10.2003
Palm Warbler	3,120	2.26.2003
Bay-breasted Warbler	2	11.2.2007
Blackpoll Warbler	73	5.5.2006
Cerulean Warbler	2	9.21.2000
Black-and-white Warbler	10	9.22.2004
American Redstart	48	5.14.2001
Prothonotary Warbler	2	4.14.2002
Worm-eating Warbler	2	9.22.2004
Swainson's Warbler	1	8.16.2000
Ovenbird	92	9.27.2006
Northern Waterthrush	188	9.28.2004
Louisiana Waterthrush	68	8.26.2004
Kentucky Warbler	1	4.14.1999
Common Yellowthroat	856	9.22.2004
Hooded Warbler	2	4.17.1999
Wilson's Warbler	2	1.26.2005
Canada Warbler	1	8.24.2003
Yellow-breasted Chat	41	5.23.2004
Summer Tanager	2	10.19.1999
Scarlet Tanager	2	10.10.2007
Western Tanager	1	12.9.2007
Eastern Towhee	228	7.30.2003
Bachman's Sparrow	1	1.16.2005
Chipping Sparrow	4	4.14.2002
Clay-colored Sparrow	46	2.3.1999
Field Sparrow	13	2.12.2006
Vesper Sparrow	29	1.6.2008
Lark Sparrow	1	2.9.1999
Savannah Sparrow	860	12.8.1998
Grasshopper Sparrow	12	2.17.1999
Henslow's Sparrow	1	11.20.1998
Le Conte's Sparrow	1	12.16.1998
Nelson's Sparrow	1	11.5.2000
Fox Sparrow	1	2.17.1999
Song Sparrow	16	12.16.2002

Lincoln's Sparrow	5	11.17.2002
Swamp Sparrow	1,126	11.21.2004
White-throated Sparrow	6	2.23.2007
White-crowned Sparrow	51	2.3.1999
Dark-eyed Junco	1	12.17.2003
Lapland Longspur	1	10.16.1998
Northern Cardinal	344	4.9.2008
Rose-breasted Grosbeak	2	10.17.2004
Blue Grosbeak	72	10.1.2006
Lazuli Bunting	1	1.7.2002
Indigo Bunting	840	10.26.2007
Painted Bunting	12	5.26.2004
Dickcissel	143	5.22.2005
Bobolink	16,550	4.30.2008
Red-winged Blackbird	303,000	7.17.2005
Eastern Meadowlark	62	1.24.2002
Yellow-headed Blackbird	5	12.31.1998
Rusty Blackbird	13	12.3.1998
Brewer's Blackbird	1	12.19.2001
Common Grackle	117,000	7.17.2005
Boat-tailed Grackle	167,000	7.14.2005
Shiny Cowbird	13	7.3.2005
Bronzed Cowbird	1	11.23.1998
Brown-headed Cowbird	3,500	1.29.2006
Orchard Oriole	24	7.1.2005
Baltimore Oriole	7	9.29.2003
Bullock's Oriole	1	1.22.2003
Purple Finch	1	11.26.2006
House Finch	3	11.11.2007
Pine Siskin	1	4.30.2003
American Goldfinch	196	2.20.2008
House Sparrow	7	12.8.1998
Orange Bishop	1	4.6.2003
Bronze Mannikin	1	11.18.2001
Zebra Finch	1	9.7.2005
Pin-tailed Whydah	2	9.22.2005

The following species were recorded by others at Zellwood prior to the start of the survey on August 15, 1998 and none of these were located during the first ten years of the survey. Two have been seen since: there was a Wilson's Plover on September 10, 2008 and a Hudsonian Godwit on June 22, 2011.

Brant	1	10.24.1981
White-cheeked Pintail	1	8.18.1973
Ferruginous Hawk	2	12.19.1983
Southern Lapwing	1	7.23.1961
Wilson's Plover	1	8.3.1974
Hudsonian Godwit	32	9.3.1986
Brown Noddy	1	9.10.1965
Golden-winged Warbler	1	8.17.1974

There were 349 species in the main list with a further eight species from the historical records. Of the 357 species a total of 14 were exotics so the more acceptable total stands at 343.

In Appendix A. I provide an abbreviated systematic list giving details of the pre-survey records making a total of 357 species that have been traced to date.

APPENDIX A

The historical bird sightings at Zellwood – a partial systematic list

Most people visited Zellwood in the fall for the shorebirds. This means that there is a serious bias towards wetland species. The following is a selection of the more interesting records.

Pied-billed Grebe (*Podilymbus podiceps*)

Up to 30 a day recorded with 150 on July 31, 1983. A pair bred in 1976 as an adult and four chicks seen on July 22, 1976.

American White Pelican (*Pelecanus erythrorhynchos*)

The highest count for the flooded fields was that of 25 on July 16, 1988.

Double-crested Cormorant (*Phalacrocorax auritus*)

Counts of up to 30 noted regularly with higher counts of 40 on March 20, 1992 and 52 on November 13, 1991.

Anhinga (*Anhinga anhinga*)

There were normally from one to five in the area with a high count of ten on August 17, 1991.

Least Bittern (*Ixobrychus exilis*)

There were only two sightings over the years, there being singles on July 30, 1987 and August 8, 1995.

Great Blue Heron (*Ardea herodias*)

There were normally up to 30 a day with 40 on August 23, 1970 and 33 on November 13, 1991.

Great Egret (*Ardea alba*)

The counts were very variable; however in August there were regularly counts of 250. The highest count was that of 500 on August 8, 1970.

Snowy Egret (*Egretta thula*)

There were up to 70 a day seen with higher counts of 120 on August 13, 1989, 200 on September 2, 1990 and 225 on August 5, 1995.

Little Blue Heron (*Egretta caerulea*)

Up to 75 a day seen regularly with higher counts of 100 on August 23, 1970 and 562 on August 20, 1995.

Tricolored Heron (*Egretta tricolor*)

Numbers were lower for this species, normally up to 35 seen but there were 52 on August 20, 1995.

Cattle Egret (*Bubulcus ibis*)

This has been a common species for a long time with counts of up to 600 a day. The highest counts were those of 1,000 on September 10, 1989 and 1,500 on July 29, 1972.

Green Heron (*Butorides virescens*)

In the fall there were up to 50 a day with higher counts of 75 on August 8, 1970 and 100 on August 16, 1970.

Black-crowned Night-Heron (*Nycticorax nycticorax*)

There were fewer records for this species but up to ten a day were seen with 13 on August 1, 1971 and 20 on August 8, 1970.

Yellow-crowned Night-Heron (*Nyctanassa violacea*)

Very surprisingly there was only one record, there being one on July 30, 1977.

White Ibis (*Eudocimus albus*)

In the fall there were up to 400 a day seen regularly in July and August with a high count of 416 on July 22, 1976.

White Ibis/Scarlet Ibis

There was a hybrid on July 25, 1980.

Glossy Ibis (*Plegadis falcinellus*)

In the fall there were up to 150 a day from July to September with a high count of 175 on September 15, 1973.

Roseate Spoonbill (*Platalea ajaja*)

A total of 12 records traced spanning the period July 1st to September 3rd, normally only one to three seen with six present on two dates. The highest count was that of 14 on September 3, 1988. The highest count for the survey is that of 71 on July 10, 2011.

Wood Stork (*Mycteria americana*)

Up to 350 seen through the year with in the fall a high count of 600 on August 7, 1986.

Black Vulture (*Coragyps atratus*)

There were only four records for a species that is now recorded on nearly every visit. The highest count was that of six on September 9, 1972.

Turkey Vulture (*Cathartes aura*)

Up to 40 seen regularly with a high count of 62 on November 13, 1991, as with the last species these numbers are very low.

Black-bellied Whistling-Duck (*Dendrocygna autumnalis*)

To detail all the records, there were two on August 15, 1974 with one on July 1, 1975 and two from July 2 into September, 1975. There were singles on August 7, 1978 and July 20, 1980. Finally there were counts of three on July 30, 1988 and August 25, 1997. We have come so far from these early years the high count now stands at a staggering 1,660 on February 5, 2010.

Fulvous Whistling-Duck (*Dendrocygna bicolor*)

This was a common fall resident with high counts of 350 on August 19, 1996 and 474 on August 5, 1995. There were records of it nesting in 1983, 1984, 1988 and 1991. For a long time the survey high count stood at 366 but the highest count is now that of 840 they were seen on October 22, 2003.

Snow Goose (*Chen caerulescens*)

This species was probably a more frequent visitor than the records suggest, it and most of the other wildfowl species will pass through the area after the fall birding was over. The only records were of 21 on October 30, 1981, 13 on November 6, 1991 and three on November 13, 1991.

BRANT (*Branta bernicla*)

This is a true vagrant it is a coastal species that is not seen in Florida every year, it is all the more remarkable for there to be an inland record. There was one present from October 24, 1981 to October 31, 1981.

Wood Duck (*Aix sponsa*)

There was a very high count of 100 on August 23, 1970 otherwise no more than ten a day recorded.

Gadwall (*Anas strepera*)

Exceptionally there were five on August 20, 1995, more normal were two on November 6, 1991 and November 13, 1991.

American Wigeon (*Anas americana*)

The only sightings came from 1991 with ten on November 6 and five on November 13.

Mallard (*Anas platyrhynchos*)

There were only seven records, the highest count being that of eight on October 21, 1990.

Mottled Duck (*Anas fulvigula*)

This species was always present with counts of up to 60 a day. There were high counts of 80 on August 20, 1995 and 100 on August 29, 1970. The highest counts are still in the early fall but they are in September now. The highest is that of 217 on September 14, 2008.

Blue-winged Teal (*Anas discors*)

This species was also always present in the fall, the earliest date being July 1, 1976. The counts were very variable with high counts of 600 on September 9, 1972, 750 on August 25, 1973 and 1,000 on September 15, 1973. A pair bred in 1990 as a female was seen with three ducklings on August 18. No further evidence of breeding until 2011 when a female seen with four ducklings.

Northern Shoveler (*Anas clypeata*)

Seen in the fall from September 1 (1974) to November 6 (1991), normally only one to six a day seen but there were 20 on November 6, 1991.

WHITE-CHEEKED PINTAIL (*Anas bahamensis*)

The status of this individual is uncertain, it could be a naturally occurring vagrant or possibly an escape from captivity, regardless there was one on August 18, 1973 and August 19, 1973. This is the only Zellwood record.

Northern Pintail (*Anas acuta*)

This is another of the late arriving ducks. The only record was of one on November 6, 1991.

Green-winged Teal (*Anas crecca*)

There were just two records over the years. There was one on September 18, 1970 with a party of 15 on November 6, 1991.

Canvasback (*Aythya valisineria*)

This species is still an irregular visitor. The only records here were of singles on August 17, 1975 and August 17, 1981. Note that both sightings were on the same date.

Redhead (*Aythya americana*)

There was just one record for this uncommon species, there being one on September 23, 1983.

Ring-necked Duck (*Aythya collaris*)

This species migrates too late for it to be seen in numbers, the only sightings were of one on August 19, 1973 and a party of five on November 6, 1991.

Greater Scaup (*Aythya marila*)

There was just one record for this always scarce visitor, there being one from January 7, 1978 to January 15, 1978.

Lesser Scaup (*Aythya affinis*)

This species is common on Lake Apopka during the winter but the birders did not go to Zellwood then. The only record was of a party of eight on November 6, 1991.

Hooded Merganser (*Lophodytes cucullatus*)

This is another winter visitor. The only record was that of two on November 13, 1991.

Ruddy Duck (*Oxyura jamaicensis*)

This species winters in numbers in excess of 10,000 on Lake Apopka however the only records here were of singles on August 7, 1986 and from September 1, 1973 to September 15, 1973. There was one early spring record. There were 450 on February 11, 1928.

Osprey (*Pandion haliaetus*)

This is another very common species where the sightings, pre-survey were very low, only up to five a day seen.

Bald Eagle (*Haliaeetus leucocephalus*)

This species is for the most part absent until October so the limited number of sightings is to be expected. Up to two a day were seen on seven dates with eight on November 13, 1991 and 11 on November 17, 1992.

Northern Harrier (*Circus cyaneus*)

Recorded in the fall from August 17 (1969) with sightings through to April 16 (1992) in the spring. The highest count was that of 15 on November 6, 1991.

Sharp-shinned Hawk (*Accipiter striatus*)

The only records came from 1992. There were singles on February 22 and November 17

Cooper's Hawk (*Accipiter cooperii*)

This species is now resident at Zellwood. There was not a single record from the earlier years.

Red-shouldered Hawk (*Buteo lineatus*)

This is a resident in the wooded borders. The highest count was that of six on August 16, 1970.

Swainson's Hawk (*Buteo swainsoni*)

There was a single winter record. There was one on January 7, 1984.

Red-tailed Hawk (*Buteo jamaicensis*)

This is another resident species but in the early fall from 1 to 2 a day seen with a high count of five on September 15, 1973. There were nine on November 13, 1991.

FERRUGINOUS HAWK (*Buteo regalis*)

Very exceptionally two immatures were present from December 19, 1983 to March 5, 1984. This is the first record for Florida.

American Kestrel (*Falco sparverius*)

The records span the period September 10 (1989) to March 20 (1992) with a high count of five on October 16, 1990.

Merlin (*Falco columbarius*)

The only record was that of one on November 6, 1991.

Peregrine Falcon (*Falco peregrinus*)

The only records relate to singles that were seen in the fall on four dates from September 2 (1980) to November 13 (1991).

Northern Bobwhite (*Colinus virginianus*)

There were very few sightings of this resident species. There were up to two on three dates with eight on July 14, 1977. The situation has changed so much. The high count now stands at 105 on June 1, 2008.

King Rail (*Rallus elegans*)

The only records relate to two on July 28, 1976 and one on August 16, 1976.

Sora (*Porzana carolina*)

The only records relate to singles on September 9, 1972 and September 19, 1976.

Purple Gallinule (*Porphyrio martinica*)

Seen in very low numbers through the fall, no more than two a day reported with the exception of nine on August 16, 1970 and ten on July 21, 1974.

Common Gallinule (*Gallinula galeata*)

In the fall counts of up to 300 common but there was also a count of 2,000 on September 23, 1966. Until 2006 the survey high count was below 2,000, it now stands at 5,110 on October 18, 2010.

American Coot (*Fulica americana*)

Recorded in the fall from July 28 (1973) with increasing numbers in September. The high count was that of 90 on November 13, 1991. One was seen sitting on a nest on July 22, 1976.

Limpkin (*Aramus guarauna*)

Seen in the fall from August 8 (1970) to September 9 (1972) with a high count of three on August 22, 1971.

Sandhill Crane (*Grus canadensis*)

The only records were those of two on August 22, 1971 and two on August 23, 1970. Note the closeness of these dates.

Whooping Crane (*Grus americana*)

There were two from August 1, 1994 to August 13, 1994.

SOUTHERN LAPWING (*Vanellus chilensis*)

There was one on July 23, 1961. At present this species is not on the official list of accepted species for the United States but it is possible that this situation will change.

Black-bellied Plover (*Pluvialis squatarola*)

There were up to 65 a day seen in the fall with a high count of 100 on November 6, 1991.

American Golden-Plover (*Pluvialis dominica*)

This was a regular migrant with sightings in the fall from August 3 (1994) to November 13 (1991). The first were two on August 3, 1994. Normally only one to two seen when present but there were higher counts of eight on September 18, 1983, ten on November 13, 1991, 11 on September 1, 1986, 17 on September 20, 1990 and 24 on November 26, 1991. There were

two spring records with one on March 6, 1965 and three on April 16, 1992. During the survey the highest count is only that of six on October 26, 1999.

Wilson's Plover (*Charadrius wilsonia*)

This species is exceptionally rare inland. There was a single record of one on August 3, 1974. Whilst there was no record during the first ten years of the survey, there has been one since. There was one on September 10, 2008.

Semipalmated Plover (*Charadrius semipalmatus*)

Fall passage noted from July 21 (1974) to October 16 (1990) with peak passage in August. Normally up to 25 a day seen but there were 100 on August 18, 1990 and 175 on August 13, 1995. The highest count for the survey is only that of 134 on May 15, 2002.

Piping Plover (*Charadrius melodus*)

This will always be a vagrant inland in Florida. The only record relates to one from August 18, 1974 to September 3, 1974. This was the first inland record for Florida. There is now a second record with one on May 20, 2002.

Killdeer (*Charadrius vociferus*)

This was a common bird in the fall with counts of up to 100 a day. There were higher counts of 136 on November 13, 1991 and 500 on November 17, 1992. In the spring the highest count was that of 135 on February 20, 1992. The highest counts are actually in the winter when Zellwood was not visited. The high count is that of 2,815 on January 2, 2009.

Black-necked Stilt (*Himantopus mexicanus*)

This was a common fall visitor with counts of up to 125 a day. There were higher counts as there were 128 on August 20, 1995 with 142 on August 1, 1991, 149 on August 5, 1995 and 250 on August 14, 1993. Those dates suggest two influxes.

American Avocet (*Recurvirostra americana*)

This was a regular fall visitor from July 29 (1978) to October 16 (1990) with a high count of nine on August 20,

Greater Yellowlegs (*Tringa melanoleuca*)

This was another common migrant recorded from July 1 (1975) to November 13 (1991). The highest counts were those of 400 on July 21, 1974, 500 on August 3, 1974 and 800 on August 5, 1995. The highest count for the survey is only that of 415 on December 16, 1998.

Lesser Yellowlegs (*Tringa flavipes*)

This was one of the commonest fall migrants with counts of 200 to 500 a day. The highest counts were of 900 on August 5, 1995 and 1,000 on August 22, 1971. The highest count for the survey, a winter count is that of 1,195 on December 16, 1998.

Solitary Sandpiper (*Tringa solitaria*)

This was a regular migrant from July 14 (1977) to September 10 (1989) with high counts of eight on July 26, 1997 and August 12, 1973.

Willet (*Tringa semipalmata*)

There were a total of 20 records spanning the period July 30 (1977) to September 15 (1973). Normally one to eight seen when present but there were ten on September 4, 1971, 18 on August 23, 1970, 19 on August 14, 1976 and an exceptionally high count of 40 on August 16, 1978. The highest count for the survey is only that of eight on July 27, 1999.

Spotted Sandpiper (*Actitis macularius*)

This was a regular migrant from July 1 (1976) to September 15 (1973). Normally one to 11 seen but there were 15 on July 21, 1974 with 19 on July 29, 1972. The best the survey can do is a count of 13 on May 15, 2002.

Upland Sandpiper (*Bartramia longicauda*)

This was one of the searched for species and it is therefore probably the most recorded species. Even so it was still uncommon. The records cover the period July 31 (1998) to September 10 (1989). Flocks of up to 20 seen regularly in the fall with higher counts of 33 on August 17, 1974 and 40 on August 21, 1993. In the spring the only counts were of 23 on April 16, 1992 and four on April 16, 1994. Both counts were on the same date. During the survey the highest count has only been that of six on April 20, 1999. The Sod Farm is missed.

Whimbrel (*Numenius phaeopus*)

This will probably always be a rare species inland. The only records were those of singles on July 30, 1966, August 3, 1974, August 24, 1971 and September 12, 1980.

HUDSONIAN GODWIT (*Limosa haemastica*)

This was probably the missing species from the survey. In earlier years there was one on September 7, 1980 with another from September 16, 1983 to September 18, 1983. There were

also three on August 31, 1986 with 32 on September 3, 1986. The missing has been found as there was one on June 22, 2011.

Marbled Godwit (*Limosa fedoa*)

This was an uncommon species with singles on nine dates from August 16 (1970) to September 15 (1973).

Ruddy Turnstone (*Arenaria interpres*)

This was a regular fall migrant with records from July 28 (1973, 1975) to September 20 (1990). Normally one to five seen when present but there were eight on September 20, 1990. The survey does no better there were also eight on May 6, 2002.

Red Knot (*Calidris canutus*)

This will probably always be an uncommon migrant. There were sightings from August 17 (1991) to September 10 (1989) with a high count of five on August 25, 1973. There were only seven records.

Sanderling (*Calidris alba*)

This was another uncommon migrant with up to two a day on seven dates from July 28 (1973) to September 19 (1976).

Semipalmated Sandpiper (*Calidris pusilla*)

This was a common fall migrant with the peak passage in August. There were counts of 500 with 1000 on August 3, 1974 and 1,500 on August 19, 1973. The survey high count is that of 1,540 on May 23, 2002. One wonders what would have been seen if the fields had also been flooded in April and May.

Western Sandpiper (*Calidris mauri*)

This was a less common peep with most of the counts ranging from one to 39. There were some counts in the 100's with a very high count of 2,100 on August 5, 1995. The highest count for the survey is that of 965 on September 11, 1998. It is the habitat that we are missing.

Least Sandpiper (*Calidris minutilla*)

This was one of the commonest shorebirds with high counts of 1,000 on August 22, 1971, 1,000 on August 5, 1995 and 2,500 on September 4, 1971. That count only just beats the survey's high count. That stands at 2,450 on December 31, 1998.

White-rumped Sandpiper (*Calidris fuscicollis*)

This is really a spring migrant but it does surprise me that there was only one fall sighting. There were two from August 31, 1986 to September 1, 1986.

Baird's Sandpiper (*Calidris bairdii*)

This is a rarity anywhere in Florida. There were three records with singles on August 14, 1971, September 10, 1989 and September 20, 1990. All I can think is that birders generally over-looked the White-rumped Sandpipers that had to be passing through in very small numbers.

Pectoral Sandpiper (*Calidris melanotos*)

This was another of the very common fall migrants with sightings from July 14 (1977) to November 13 (1991). Counts were often in the range of 500 to 1,000 with high counts of 2,000 on August 20, 1965, 2000 on August 23, 1970 and 3,000 on August 22, 1971. Note the closeness of the dates for the higher counts. The survey lags far behind as the highest count is only that of 965 on September 12, 2008.

Sharp-tailed Sandpiper (*Calidris acuminata*)

This is a national rarity. There was a juvenile on August 12, 1973 and August 13, 1973. There is now a second Zellwood record as there was another juvenile at the Sod Farm on September 26, 2002.

Dunlin (*Calidris alpina*)

This is for the most part a late fall migrant so it is not so unexpected that there was only one record for the early fall passage. There was one on August 1, 1991. In the late fall there were ten on November 6, 1991 with 32 on November 13, 1991.

Curlew Sandpiper (*Calidris ferruginea*)

This is another national rarity if not as rare as the Sharp-tailed Sandpiper. There were singles on September 18, 1967, from April 28, 1968 to May 1, 1968, on August 18, 1985 and from August 17, 1986 to August 19, 1986.

Stilt Sandpiper (*Calidris himantopus*)

This was a common fall migrant with sightings from July 7 (1975) to October 16 (1990). The counts were very variable with 21 counts of 25 or less and six counts of 100 or less. The highest counts were of 151 on July 21, 1988, 170 on August 1, 1991, 200 on August 3, 1974, 230

on August 19, 1996, 280 on August 10, 1995 and 400 on August 18, 1990. At least the survey has a higher count for this species as there were 490 on October 21, 1998.

Buff-breasted Sandpiper (*Tryngites subruficollis*)

This was another of the searched for species with sightings in the fall from July 31 (1976) to November 17 (1992). Normally fewer than 15 a day seen when present but there were 21 on September 20, 1990 with 32 on August 19, 1972 and 45 on September 1, 1975.

Ruff (*Philomachus pugnax*)

This is an occasional visitor. There were six records in all. Singles were seen from July 13, 1966 to July 26, 1996, on September 4, 1974, on September 29, 1984, on August 16, 1986, on August 6, 1988 and from July 27, 1991 to September 7, 1991.

Short-billed Dowitcher (*Limnodromus griseus*)

This was another common fall migrant with sightings from July 21 (1974) to November 13 (1991). Counts were often in the range 25 to 75 with high counts of 130 on August 1, 1991, 200 on August 31, 1974 and 400 on August 24, 1974. The highest count for the survey is that of 670 on October 29, 1998. Perhaps the birders were no longer going to Zellwood at the time of the peak passage.

Long-billed Dowitcher (*Limnodromus scolopaceus*)

This is a late migrant so few records are to be expected. There were singles on August 17, 1991 and August 23, 1970 with two on August 29, 1970.

Wilson's Snipe (*Gallinago delicta*)

This is an uncommon early fall passage migrant, the main passage is later. The earliest date was that of August 3, 1974 when one seen. There are eight other August records of one to three birds a day.

Wilson's Phalarope (*Phalaropus tricolor*)

This was a regular fall migrant from July 22 (1976) to September 8 (1980). There were many counts of up to 50 a day with four counts in the 50 to 60 range. The higher counts were 60 on September 1, 1973, 75 on August 18, 1974 and 93 on August 17, 1975. Two of the three dates link up. We have not done well with the survey as the high count is only that of 21 on September 2, 1998 and that date links up with the other peak count.

Red-necked Phalarope (*Phalaropus lobatus*)

This is a pelagic species so it will always be rare inland. There were singles on August 31, 1974 and September 8, 1984.

Laughing Gull (*Larus atricilla*)

Seen in the fall from July 21 (1974) to September 6 (1991), up to 25 a day seen during this period. In the spring there were 18 on April 16, 1992.

Ring-billed Gull (*Larus delawarensis*)

Seen in the fall from July 1 (1976), there were no more than ten a day. Later there were 300 on November 17, 1992. In the spring there were 255 on February 20, 2002, 155 on March 20, 1992 and seven on April 16, 1992.

Herring Gull (*Larus argentatus*)

There were no early fall records, the only sighting was of two on November 13, 1991.

Gull-billed Tern (*Geochelidon nilotica*)

Noted in the fall on eight dates from July 14 (1977) to September 1 (1996) with a high count of five on August 19, 1972. For the survey the highest counts have been of four a day.

Caspian Tern (*Hydroprogne caspia*)

Seen in the fall on 13 dates from July 22 (1976) to November 13 (1991) with a high count of 26 on August 20, 1995. For the early spring passage there were four on February 20, 1992.

Sandwich Tern (*Thalasseus sandvicensis*)

This is likely to always be a rarity inland in Florida. There were two records with one on July 16, 1975 and two on August 31, 1975.

Common Tern (*Sterna hirundo*)

This is a coastal species whose status inland is uncertain, it is probably over-looked. The only records were of two on June 30, 1981, two on July 29, 1972 and one on September 1, 1973.

Forster's Tern (*Sterna forsteri*)

There were under 30 a day seen in the fall from July 18 (1975) with a high count of 45 on September 2, 1990. In 1992 there were 46 on February 20 with two on March 20.

Least Tern (*Sternula antillarum*)

This is a very early fall migrant so most have probably gone by the time the fields flooded. There were only six records through to September 2 (1990) with a high count of 21 on July 9, 1976.

Black Tern (*Chlidonias niger*)

This is one of the most recorded species. Seen in the fall from July 1 (1976) to September 9 (1972) with most counts in the range of 45 to 50 birds. There were higher counts of 142 on August 17, 1974, 150 on August 29, 1970 and 200 on August 19, 1972. Counts have been higher during the survey. The highest were those of 500 on September 2, 1998 and 532 on August 24, 2008. Note how the peak counts link up for influxes.

BROWN NODDY (*Anous stolidus*)

This is a tropical oceanic species that had to be blown inland by a hurricane. There was one on September 10, 1965.

Black Skimmer (*Rynchops niger*)

There were a total of ten records covering the period July 1 (1976) to September 15 (1973) with a high count of ten on July 21, 1974.

Rock Pigeon (*Columba livia*)

This is normally a casual visitor to the area. The highest count was that of 18 on November 6, 1991.

Eurasian Collared-Dove (*Streptopelia decaocto*)

This is only a casual visitor to the fields. The only record relates to one on July 21, 1991.

White-winged Dove (*Zenaida asiatica*)

This is another species that does not often visit the fields. There was a single record of one on August 27, 1986.

Mourning Dove (*Zenaida macroura*)

Now this species does get out into the fields with up to 250 a day in the fall.

Common Ground-Dove (*Columbina passerina*)

There were always some out in the fields. The highest count was that of 30 on August 19, 1972.

Budgerigar (*Melopsittacus undulatus*)

This will be an escape from a collection as against a wanderer from the west Florida feral population. There was one in August 1970. The survey can add a second individual there being one on July 23, 1999.

Yellow-billed Cuckoo (*Coccyzus americanus*)

This is a summer resident, but the records here could relate to fall migrants. Seen in the fall on nine dates to September 4 (1971) with a high count of seven on September 4, 1971.

Smooth-billed Ani (*Crotophaga ani*)

This south Florida specialty has always been a vagrant in central Florida. There were singles on July 20, 1974 and September 26, 1974. To have the only historical sightings in the same year is extraordinary; perhaps this individual had summered in this area. There is one record from the survey there being one on June 26, 2003.

Barn Owl (*Tyto alba*)

This nocturnal species would be hard to locate as access to the fields was only granted during daylight hours. In all singles were seen on five dates.

Owls

The resident nocturnal owls were not recorded at all with the exception of the Barn Owl detailed above.

Short-eared Owl (*Asio flammeus*)

There were only scattered sightings of this owl that does hunt to a degree in the early morning and the evening. Up to seven seen in the winter of 1964/1965, there were also six on November 24, 1986. In the spring there was one on April 16, 1992. With access before daylight the survey has not done much better, the highest count is that of nine on December 29, 2006.

Common Nighthawk (*Chordeiles minor*)

Whilst this is a nocturnal species it can be seen early and late. There were sightings on just four dates to September 20 (1990) with a high count of seven on September 4, 1971.

Chimney Swift (*Chaetura pelagica*)

This should have been a noticeable fall migrant but there was only one fall record. Did no one look up (me included)? The one record was of 20 on October 16, 1990.

Ruby-throated Hummingbird (*Archilochus colubris*)

In contrast to the last species this one basically avoided open areas so to have four sightings was reasonable. There were singles apart for two on August 22, 1971. That was also the latest date.

Belted Kingfisher (*Megaceryle alcyon*)

Seen in the fall from July 21 (1974) to November 17 (1992) with a high count of seven on August 31, 1989. There were also three on February 20, 1992 and two on March 20, 1992.

Woodpeckers

Red-bellied, Downy, Northern Flicker and Pileated all recorded but no more than three a day for the Red-bellied and Downy Woodpeckers. Only singles of the Northern Flicker and Pileated Woodpeckers noted.

Eastern Phoebe (*Sayornis phoebe*)

This is a late migrant so few records expected, the highest count was that of ten on November 6, 1991.

Western Kingbird (*Tyrannus verticalis*)

There was a single record of what later became a regular winter visitor. There was one on September 1, 1965.

Gray Kingbird (*Tyrannus dominicensis*)

This is another species that I would have expected to be seen more frequently, there were just two records. There were singles on September 1, 1965 and September 15, 1973.

Loggerhead Shrike (*Lanius ludovicianus*)

This species was seen through the fall with high counts of ten on September 9, 1972 and 15 on July 1, 1976. The highest count for the survey is that of 18 on February 3, 2002.

White-eyed Vireo (*Vireo griseus*)

This is a resident and the records indicate no more than three a day in the fall.

Red-eyed Vireo (*Vireo olivaceus*)

This is never a common migrant, here singles were seen on three dates in the fall with two on August 1, 1971.

Purple Martin (*Progne subis*)

This is a very early fall migrant with the bulk of the passage in June. The only record relates to three on July 1, 1976.

Tree Swallow (*Tachycineta bicolor*)

The first in the fall was seen on July 26 (1997) with for the early fall a high count of 100 on August 15, 1971. Later there were 120 on November 6, 1991. The highest count was in the spring, a count of 510 on March 20, 1992.

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)

Seen in the fall from July 26 (1997) to September 20 (1990) with a high count of ten on August 19, 1972.

Bank Swallow (*Riparia riparia*)

Seen in the fall from July 26 (1997) to October 1 (1977) with over 100 present on October 1, 1977. Otherwise no more than ten a day noted. The highest count for the survey is that of 265 on August 20, 2008.

Cliff Swallow (*Petrochelidon pyrrhonota*)

Seen in the fall on four dates from July 31 (1998) to September 18 (1970) with a high count of two on August 20, 1997.

Barn Swallow (*Hirundo rustica*)

Passage noted in the fall through to November 13 (1991) with high counts of 440 on November 6, 1991, 750 on August 24, 1974 and 2,000 on August 15, 1971. The highest count for the survey is a very high 9,300 on August 22, 2008, that would link up to form an influx.

American Robin (*Turdus migratorius*)

The only record was that of one on November 13, 1991. This is such a late migrant that I would not expect earlier records.

Northern Mockingbird (*Mimus polyglottos*)

This is a common resident. The highest count was that of 50 on August 19, 1972. The highest count for the survey now stands at 126 on October 8, 2006.

Brown Thrasher (*Toxostoma rufum*)

This is a summer resident and a passage migrant but the fall passage peaks in October too late for the birders searching for shorebirds. The highest count here is that of 11 on July 29, 1972.

American Pipit (*Anthus rubescens*)

Whilst there were three on November 6, 1991 and November 13, 1991 the high count was that of 220 on November 17, 1992. In the spring there were 105 on April 16, 1992 with a very late bird on May 16, 1966. The highest count for the survey was that of 820 on January 2, 2009. It is a great pity that the fields were not checked through the winter, if they had I wonder just what the highest count would have been.

GOLDEN-WINGED WARBLER (*Vermivora chrysoptera*)

The only information that I have is that there was one on August 17, 1974. There is no survey record to date.

Orange-crowned Warbler (*Vermivora celata*)

There was a single spring record of one on March 20, 1992.

Yellow Warbler (*Dendroica petechia*)

Seen regularly in the fall through to September 15 (1973) with a late individual on November 12, 1966. The highest count was that of 25 on August 22, 1971. The highest count for the survey is that of 232 on September 15, 2006.

Yellow-throated Warbler (*Dendroica dominica*)

The only records were of five on July 29, 1972 and two on August 19, 1972. The highest count for the survey is not that much better, there were eight on September 26, 2007.

Prairie Warbler (*Dendroica discolor*)

This is a common passage migrant. The highest count was that of eight on July 29, 1972.

Palm Warbler (*Dendroica palmarum*)

There was one on August 22, 1971, this is one of the earliest fall records for Florida. There were no further sightings until October 16 (1990). The highest count is that of 205 on November 6, 1991.

Prothonotary Warbler (*Protonotaria citrea*)

Seen on a total of six dates from July 26 (1980) to August 22 (1971) with high counts of three on July 26, 1980 and August 17, 1974. No more than two a day have been seen during the survey.

Northern Waterthrush (*Seiurus noveboracensis*)

Seen in the fall from August 16 (1970) with a high count of five on August 25, 1973.

Louisiana Waterthrush (*Seiurus motacilla*)

The only record was of one on August 31, 1991. That surprises me as this is a common early fall passage migrant out in the fields, they can turn up along any of the ditches or canals.

Kentucky Warbler (*Oporornis formosus*)

This is at best an irregular passage migrant so a single sighting is to be expected. There was one on August 22, 1971.

Yellow-breasted Chat (*Icteria virens*)

There was one on February 21, 1984.

Field Sparrow (*Spizella pusilla*)

There was one on January 7, 1978.

Lark Sparrow (*Chondestes grammacus*)

There was one on August 28, 1975, this is always a rarity.

Savannah Sparrow (*Passerculus sandwichensis*)

The highest count was that of 100 on November 6, 1991.

Fox Sparrow (*Passerella iliaca*)

There was one on February 7, 1965. There were no further sightings until one seen on February 17, 1999. This will always be a rarity at Zellwood.

White-crowned Sparrow (*Zonotrichia leucophrys*)

There were three on January 7, 1978.

Blue Grosbeak (*Guiraca caerulea*)

There was a pair on July 9, 1984 and a singing male was noted on July 9, 1985. This species has probably bred at Zellwood for many years. Finally there were five on August 4, 1990.

Indigo Bunting (*Passerina cyanea*)

Males noted singing on July 28, 1973 and July 29, 1972 so this species was also breeding many years ago, otherwise only singles seen in the fall with the six on August 4, 1990.

Bobolink (*Dolichonyx oryzivorus*)

In the fall five seen on September 9, 1972, there was also one on September 2, 1976 with in the spring 52 on April, 16, 1992.

Red-winged Blackbird (*Agelaius phoeniceus*)

The highest count was that of 1,500 on August 19, 1972.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)

There was one on August 22, 1965. This is always a special species.

Common Grackle (*Quiscalus quiscula*)

The high count was that of 200 on August 19, 1972.

Boat-tailed Grackle (*Quiscalus major*)

The highest count was that of 670 on November 6, 1991.

Brown-headed Cowbird (*Molothrus ater*)

There were 21 on July 8, 1985, otherwise not reported until 400 seen on August 13, 1995. This was also the highest count.

American Goldfinch (*Spinus tristis*)

There were no fall or winter records. In the spring there was one on March 20, 1992.

Acknowledgments

This historical systematic list would not have been possible without the use of the records that Bill Pranty had collected together from various sources. Your help Bill is much appreciated. To those of you who sent in records to Bill I thank you. I would like to single out Paul Fellers for the extensive and very detailed notes that he kept of his visits to Zellwood.

Additional Records

If any reader of this report has any additional bird records for Zellwood for any period can they be sent to:

Harry Robinson at 2455 East Lake Drive, DeLand, Florida, 32724 or by email to: sirharrydeland@gmail.com.

APPENDIX B

Dragonflies and Damselflies

I have not kept a daily log of these insects. All I have recorded is the first date on which each species was seen in each calendar year. Thus the cycle is different from the bird report which runs from August 15 to August 14. Below I have listed all the species that were seen during the first ten years together with the earliest date on which each species seen in each or any of the five years covered here.

Species	2004	2005	2006	2007	2008
Ebony Jewelwing (<i>Calopteryx maculata</i>)					
Common Spreadwing (<i>Lestes australis</i>)	3.31.04	4.14.05	9.23.06		
Variable Dancer (<i>Argia fumipennis</i>)				9.7.07	3.26.08
Powdered Dancer (<i>Argia moesta</i>)					4.23.08
Familiar Bluet (<i>Enallagma civile</i>)	5.23.04	7.17.05	2.10.06	3.4.07	2.4.08
Purple Bluet (<i>Enallagma coecum</i>)					
Cherry Bluet (<i>Enallagma concisum</i>)			3.22.06		
Atlantic Bluet (<i>Enallagma doubledayi</i>)	5.23.04	4.10.05	4.21.06	5.7.07	
Florida Bluet (<i>Enallagma pollutum</i>)	5.14.04	5.22.05		5.18.07	
Orange Bluet (<i>Enallagma signatum</i>)			3.17.06		
Vesper Bluet (<i>Enallagma vesperum</i>)			3.22.06		
Citrine Forktail (<i>Ischnura hastata</i>)	4.7.04	1.2.05	1.6.06	5.20.07	1.6.08
Fragile Forktail (<i>Ischnura posita</i>)	1.14.04	1.2.05	1.4.06	1.7.07	1.9.08
Rambur's Forktail (<i>Ischnura ramburii</i>)	2.4.04	1.2.05	2.10.06	1.7.07	1.6.08
Southern Sprite (<i>Nehalennia intergricollis</i>)	2.29.04	2.28.05	2.10.06	4.11.07	2.8.08
Duckweed Firetail (<i>Telebasis byersi</i>)				7.8.07	3.19.08
Comet Darner (<i>Anax longipes</i>)			5.19.06		2.29.08
Common Green Darner (<i>Anax junius</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.2.08
Blue-faced Darner (<i>Coryphaeschna adnexa</i>)	5.16.04	4.14.05	4.21.06	1.7.07	1.4.08
Regal Darner (<i>Coryphaeschna ingens</i>)	3.14.04	4.10.05	3.24.06	4.1.07	4.15.08
Swamp Darner (<i>Epiaeschna heros</i>)	3.7.04	3.16.05	3.22.06	3.23.07	3.21.08
Twilight Darner (<i>Gynacantha nervosa</i>)	6.6.04	2.6.05	10.22.06	8.29.07	1.6.08
Cyrano Darner (<i>Nasiaeschna pentacantha</i>)	8.22.04	4.10.05	4.19.06	4.19.07	5.4.08
Phantom Darner (<i>Triacanthagyna trifida</i>)	9.16.04	1.2.05	1.8.06	9.7.07	

Two-striped Forceptail (<i>Aphylla williamsoni</i>)	5.16.04	6.12.05	5.19.06	6.29.07	4.4.08
Gray-green Clubtail (<i>Arigomphus pallidus</i>)	4.14.04	4.26.05	3.15.06	3.18.07	3.21.08
Southeastern Spinyleg (<i>Dromogomphus armatus</i>)					8.10.08
Cypress Clubtail (<i>Gomphus minutus</i>)	4.17.05				5.7.08
Dragonhunter (<i>Hagenius brevistylus</i>)	5.26.04	6.26.05		6.27.07	6.4.08
Russet-tipped Clubtail (<i>Stylurus plagiatus</i>)			4.25.06	7.1.07	7.2.08
Illinois River Cruiser (<i>Macromia georgina</i>)			4.30.06		
Prince Baskettail (<i>Epitheca princeps</i>)	3.28.04	3.27.05	3.24.06	4.4.07	4.2.08
Common Baskettail (<i>Epitheca cynosura</i>)	2.16.04	1.26.05		1.16.07	1.14.08
Sepia Baskettail (<i>Epitheca sepia</i>)					
Florida Baskettail (<i>Epitheca stella</i>)		3.13.05	3.4.06	3.9.07	
Four-spotted Pennant (<i>Brachymesia gravida</i>)	4.18.04	4.20.05	4.14.06	4.4.07	3.24.08
Amanda's Pennant (<i>Celithemis amanda</i>)				7.8.07	5.20.08
Red-veined Pennant (<i>Celithemis bertha</i>)		6.26.05	6.14.06		5.28.08
Halloween Pennant (<i>Celithemis eponina</i>)	4.14.04	4.6.05	3.19.06	5.13.07	5.2.08
Banded Pennant (<i>Celithemis fasciata</i>)	5.10.04	6.19.05	5.21.06	5.23.07	5.14.08
Faded Pennant (<i>Celithemis ornata</i>)	3.19.04	6.26.05	3.22.06		6.29.08
Scarlet Skimmer (<i>Crocothemis servilia</i>)	3.31.04	3.30.05	4.21.06	3.25.07	3.17.08
Pin-tailed Pondhawk (<i>Erythemis plebeja</i>)	3.28.04	2.23.05	5.21.06	1.5.07	1.11.08
Eastern Pondhawk (<i>Erythemis simplicicollis</i>)	1.4.04	2.23.05	2.22.06	3.2.07	2.8.08
Great Pondhawk (<i>Erythemis vesiculosa</i>)					3.28.08
Little Blue Dragonlet (<i>Erythrodiplax minuscula</i>)	4.28.04	4.17.05	4.23.06	5.23.07	4.9.08
Blue Corporal (<i>Ladona deplanata</i>)					4.25.08
Golden-winged Skimmer (<i>Libellula auripennis</i>)	5.14.04	4.30.05	4.23.06	5.16.07	5.2.08
Bar-winged Skimmer (<i>Libellula axilena</i>)	6.13.04	4.24.05			4.30.08
Slaty Skimmer (<i>Libellula incesta</i>)	6.2.04	4.10.05	4.14.06	4.16.07	3.17.08
Needham's Skimmer (<i>Libellula needhami</i>)	5.10.04	4.24.05	4.23.06	5.9.07	4.27.08
Great Blue Skimmer (<i>Libellula vibrans</i>)	6.13.04	6.12.05	4.28.06	6.29.07	4.11.08
Marl Pennant (<i>Macrodiplax balteata</i>)		5.15.05	5.5.06	8.10.07	9.7.08
Hyacinth Glider (<i>Miathyria marcella</i>)	3.14.04	3.27.05	3.15.06	4.1.07	3.17.08
Roseate Skimmer (<i>Orthemis ferruginea</i>)	4.14.04	1.2.05	1.11.06	1.3.07	1.6.08
Blue Dasher (<i>Pachydiplax longipennis</i>)	3.7.04	1.19.05	2.27.06	1.21.07	1.14.08
Wandering Glider (<i>Pantala flavescens</i>)	5.5.04	5.22.05	4.21.06	4.8.07	1.20.08
Spot-winged Glider (<i>Pantala hymenaea</i>)	4.28.04	6.12.05	6.14.06	7.1.07	5.11.08
Eastern Amberwing (<i>Perithemis tenera</i>)	3.7.04	3.27.05	3.22.06	3.2.07	2.26.08
Carolina Saddlebags (<i>Tamea carolina</i>)	2.29.04	1.6.05	1.22.06	3.2.07	1.9.08
Black Saddlebags (<i>Tamea lacerata</i>)	2.22.04	2.23.05	3.12.06	3.9.07	2.8.08
Red Saddlebags (<i>Tamea anusta</i>)	3.14.04	3.27.05	4.28.06	5.1.07	3.24.08

There were a total of 16 damselflies and 46 dragonflies seen during the ten years. The only species missed during this set of five years were Ebony Jewelwing, Purple Bluet and Sepia Baskettail.

APPENDIX C

Butterflies

Again I have not kept a daily log of these insects. I have instead noted the first date in each calendar year on which each species seen. Below I list all the species seen during the ten years together with the earliest date on which each species seen in each or any of the five years covered here.

Species	2004	2005	2006	2007	2008
Pipevine Swallowtail (<i>Battus philenor</i>)	8.4.04	6.5.05	5.31.06		7.2.08
Polydamus Swallowtail (<i>Battus polydamus</i>)			9.27.06	8.5.07	5.25.08
Zebra Swallowtail (<i>Eurytides marcellus</i>)				9.28.07	
Black Swallowtail (<i>Papilio polyxenes</i>)	2.2.04	1.2.05	2.8.06	1.3.07	2.1.08
Giant Swallowtail (<i>Papilio cresphontes</i>)	2.4.04	2.2.05	1.27.06	2.7.07	1.6.08
Eastern Tiger Swallowtail (<i>Papilio glaucus</i>)	2.22.04	1.2.05	2.5.06	3.2.07	2.8.08
Spicebush Swallowtail (<i>Papilio troilus</i>)	3.28.04	2.28.05	3.19.06	2.9.07	2.22.08
Palamedes Swallowtail (<i>Papilio palamedes</i>)	3.7.04	6.5.05	3.19.06	2.28.07	3.30.08
Checkered White (<i>Pontia protodice</i>)	4.18.04	1.2.05	3.19.06	1.7.07	1.11.08
Cabbage White (<i>Pieris rapae</i>)	5.26.04		5.10.06	3.23.07	3.19.08
Great Southern White (<i>Ascia monuste</i>)	1.4.04	1.2.05	3.4.06	1.3.07	1.6.08
Orange Sulphur (<i>Colias eurytheme</i>)	2.4.04	2.8.05	1.22.06	1.21.07	3.2.08
Southern Dogface (<i>Colias cesonja</i>)	4.21.04	8.21.05	1.1.06	5.16.07	8.27.08
Cloudless Sulphur (<i>Phoebis sennae</i>)	1.4.04	1.2.05	1.4.06	1.3.07	1.6.08
Orange-barred Sulphur (<i>Phoebis philea</i>)		8.21.05	9.1.06		
Large Orange Sulphur (<i>Phoebis agarithe</i>)		8.7.05	5.31.06	3.9.07	5.11.08
Barred Yellow (<i>Eurema daira</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.4.08
Little Yellow (<i>Eurema lisa</i>)	3.3.04	1.2.05	1.11.06	3.9.07	1.6.08
Sleepy Orange (<i>Eurema nicippe</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.6.08
Dainty Sulphur (<i>Nathalis iole</i>)	3.3.04	3.20.05	1.13.06	3.18.07	1.4.08
Great Purple Hairstreak (<i>Atlides halesos</i>)					3.26.08
Banded Hairstreak (<i>Satyrium calanus</i>)		6.12.05			2.29.08

White M Hairstreak (<i>Parrhasius m-album</i>)		1.19.05		1.21.07	2.8.08
Gray Hairstreak (<i>Strymon melinus</i>)	1.11.04	1.19.05	1.1.06	1.3.07	1.6.08
Red-banded Hairstreak (<i>Calycopis cecrops</i>)		2.20.05		1.26.07	2.20.08
Cassius Blue (<i>Leptotes cassius</i>)	7.24.04		11.12.06	1.14.07	
Ceraunus Blue (<i>Hemiargus ceraunus</i>)				5.25.07	2.1.08
Spring Azure (<i>Celastrina ladon</i>)					5.4.08
American Snout (<i>Libytheana carinenta</i>)	4.7.04	4.14.05	3.26.06	5.25.07	3.26.08
Gulf Fritillary (<i>Agraulis vanillae</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.4.08
Zebra Heliconian (<i>Heliconius charitonia</i>)	1.11.04	1.2.05	1.1.06	1.3.07	1.4.08
Variegated Fritillary (<i>Euptoieta claudia</i>)	5.5.04	3.30.05	4.14.06	5.7.07	1.11.08
Phaon Crescent (<i>Phyciodes phaon</i>)	5.10.04	6.5.05	2.22.06	5.25.07	2.8.08
Pearl Crescent (<i>Phyciodes tharos</i>)	3.3.04	1.6.05	2.1.06	1.7.07	1.6.08
Question Mark (<i>Polygonia interrogationis</i>)	4.18.04	2.28.05	2.22.06	2.14.07	2.26.08
American Lady (<i>Vanessa virginiensis</i>)	1.19.04	1.19.05	1.4.06	1.5.07	1.4.08
Painted Lady (<i>Vanessa cardui</i>)	3.22.04	3.30.05	1.8.06	6.27.07	1.4.08
Red Admiral (<i>Vanessa atalanta</i>)	1.4.04	1.6.05	1.1.06	1.3.07	1.4.08
MIMIC (<i>Hypolimnys misippus</i>)				10.26.07	
Common Buckeye (<i>Junonia coenia</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.2.08
White Peacock (<i>Anartia jatrophae</i>)	1.14.04	1.2.05	1.1.06	1.3.07	1.2.08
Red-spotted Purple (<i>Limenitis arthemis</i>)				6.13.07	
Viceroy (<i>Limenitis archippus</i>)	1.4.04	1.2.05	1.8.06	1.3.07	2.15.08
Hackberry Emperor (<i>Asterocampa celtis</i>)	4.28.04	4.10.05	3.22.06	4.11.07	4.11.08
Tawny Emperor (<i>Asterocampa clyton</i>)	4.28.04	4.17.05	4.23.06	4.13.07	4.18.08
Carolina Satyr (<i>Hermeuptychia sosybius</i>)	3.3.04	1.2.05	1.1.06	1.3.07	1.6.08
Monarch (<i>Danaus plexippus</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.6.08
Queen (<i>Danaus gilippus</i>)	1.4.04	1.2.05	1.1.06	1.19.07	1.6.08
Silver-spotted Skipper (<i>Epargyreus clarus</i>)		2.20.05	3.15.06	1.14.07	2.10.08
Long-tailed Skipper (<i>Urbanus proteus</i>)	1.14.04	1.2.05	1.1.06	1.3.07	1.2.08
Dorantes Skipper (<i>Urbanus dorantes</i>)	8.29.04	1.2.05	1.8.06	1.5.07	1.6.08
Southern Cloudywing (<i>Thorybes bathyllus</i>)					
Confused Cloudywing (<i>Thorybes confusis</i>)					
Juvenal's Duskywing (<i>Erynnis juvenalis</i>)				2.11.07	2.6.08
Horace's Duskywing (<i>Erynnis horatius</i>)	4.25.04	2.16.05	1.25.06	3.7.07	1.20.08
Zarucco Duskywing (<i>Erynnis zarucco</i>)	7.4.04	6.26.05		5.18.07	2.15.08
Common Checkered-Skipper (<i>Pyrgus communis</i>)	2.11.04	1.19.05	1.6.06	1.3.07	1.4.08
Tropical Checkered-Skipper (<i>Pyrgus oileus</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.2.08
Swarthy Skipper (<i>Nastra iherminier</i>)					
Neamathla Skipper (<i>Nastra neamathla</i>)					9.5.08
Clouded Skipper (<i>Lerema accius</i>)	1.25.04	1.6.05	1.1.06	1.3.07	1.11.08
Least Skipper (<i>Ancyloxypha numitor</i>)		2.28.05		7.4.07	
Southern Skipperling (<i>Copaeodes minimus</i>)	3.14.04	5.22.05	6.4.06	5.18.07	1.23.08

Fiery Skipper (<i>Hylephila phyleus</i>)	1.14.04	1.2.05	1.29.06	1.16.07	1.6.08
Dotted Skipper (<i>Hesperia attalus</i>)		10.28.05			
Tawny-edged Skipper (<i>Polites themistocles</i>)					4.11.08
Whirlabout (<i>Polites vibex</i>)	8.11.04	2.28.05	3.19.06	3.30.07	1.6.08
Southern Broken-Dash (<i>Wallengrenia otho</i>)				10.3.07	
Northern Broken-Dash (<i>Wallengrenia egeremet</i>)					
Sachem (<i>Atalopedes campestris</i>)	7.21.04	2.13.05	3.8.06	2.23.07	1.6.08
Delaware Skipper (<i>Atrytone logan</i>)					8.6.08
Byssus Skipper (<i>Problema byssus</i>)			10.18.06	9.21.07	
Dun Skipper (<i>Euphytes vestris</i>)	5.10.04	8.3.05		8.8.07	3.19.08
Dusted Skipper (<i>Atrytonopsis hianna</i>)				9.23.07	4.18.08
Eufala Skipper (<i>Lerodea eufala</i>)			10.13.06	9.26.07	1.6.08
Twin-spot Skipper (<i>Oligoria maculata</i>)	5.14.04		9.13.06	1.16.07	8.10.08
Brazilian Skipper (<i>Calpodus ethlius</i>)			10.4.06	9.16.07	9.19.08

There were a total of 73 species seen over the ten years. There were four species of skippers that were only seen during the first set of five years. These were the Southern Cloudywing, the Confused Cloudywing, the Swarthy Skipper and the Northern Broken-Dash. A surprising number of species can be seen at the beginning of January if it is a mild winter. There were 11 species on January 4, 2004, 20 species on January 2, 2005, 14 species on January 1, 2006, 17 species on January 3, 2007 and four species on January 2, 2008. In 2008 if one included the next two visits the total jumps to 27.

APPENDIX D

Amphibians and Reptiles

There is no daily log of these creatures rather I noted the first date on which each species was seen in each calendar year. Below I list all the species seen during the first ten years of the survey together with the earliest date on which each species seen in each or any of the five years covered here.

Species	2004	2005	2006	2007	2008
Eastern Newt (<i>Notophthalmus viridescens</i>)		1.21.05			
Southern Toad (<i>Bufo terrestris</i>)	1.4.04	1.9.05	1.1.06	1.3.07	1.6.08
Oak Toad (<i>Bufo quercicus</i>)		7.17.05			4.2.08
Greenhouse Frog (<i>Eleutherodactylus planirostris</i>)	3.3.04	2.8.05	1.11.06	1.12.07	1.11.08
Southern Cricket Frog (<i>Acris gryllus</i>)	3.19.04	7.1.05	6.16.06	1.16.07	4.11.08
Spring Peeper (<i>Hyla crucifer</i>)	1.14.04	1.9.05	1.1.08	1.3.07	1.6.08
Green Treefrog (<i>Hyla cinerea</i>)	1.4.04	1.6.05	1.1.06	1.3.07	1.6.08
Barking Treefrog (<i>Hyla gratiosa</i>)	3.10.04	2.23.05	2.17.06	3.16.07	2.17.08
Pinewoods Treefrog (<i>Hyla femoralis</i>)	9.28.04		5.14.06	6.10.07	2.17.08
Squirrel Treefrog (<i>Hyla squirella</i>)	5.10.04	5.1.05	4.30.06	3.32.07	3.2.08
Cope's Gray Treefrog (<i>Hyla chrysoscelis</i>)	1.4.04	1.16.05	1.1.06	1.3.07	1.9.08
Southern Chorus Frog (<i>Pseudacris nigrita</i>)	5.10.04	3.13.05	1.18.06	1.16.07	1.23.08
Ornate Chorus Frog (<i>Pseudacris ornata</i>)	3.19.04	3.27.05	1.20.06	1.7.07	1.23.08
Little Grass Frog (<i>Pseudacris ocularis</i>)	5.16.04	3.13.05	5.24.06	2.25.07	2.17.08
Eastern Narrow-mouthed Frog (<i>Gastrophyne carolinensis</i>)	5.2.04	4.24.05	5.31.06	6.8.07	4.9.08
Bull Frog (<i>Rana catesbeina</i>)	3.7.04	3.27.05	3.24.06	3.23.07	3.2.08
Pig Frog (<i>Rana grylio</i>)	3.3.04	2.23.05	2.24.06	1.7.07	1.23.08
Bronze Frog (<i>Rana clamitans</i>)	4.23.04	4.6.05	4.19.06	7.4.07	3.30.08
Southern Leopard Frog (<i>Rana utricularia</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.6.08
American Alligator (<i>Alligator mississippiensis</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.2.08
Common Snapping Turtle (<i>Chelydra serpentina</i>)	2.16.04	2.2.05	6.28.06	4.11.07	5.23.08
Stinkpot (<i>Sternotherus odoratus</i>)				4.11.07	4.2.08
Loggerhead Musk Turtle (<i>Sternotherus minor</i>)					5.30.08
Mud Turtle (<i>Kinosternon subrubrum</i>)			5.31.06		

Striped Mud Turtle (<i>Kinosternon bauri</i>)	2.16.04	4.3.05	3.22.06	1.5.07	3.19.08
Box Turtle (<i>Terrapene carolina</i>)	11.7.04	6.12.05	10.13.06		
Florida Cooter (<i>Pseudemys floridana</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.6.08
Florida Redbelly Turtle (<i>Pseudemys nelsoni</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.6.08
Chicken Turtle (<i>Deirochelys reticularia</i>)	2.16.04	1.2.05	2.5.06	1.19.07	5.14.08
Gopher Tortoise (<i>Gopherus polphemus</i>)	1.16.04		8.18.06		7.24.08
Florida Softshel I (<i>Apalone ferox</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.2.08
Green Anole (<i>Anolis carolinensis</i>)	3.14.04	4.3.05	2.22.06	2.21.07	3.17.08
Brown Anole (<i>Anolis sagrei</i>)	3.19.04	1.24.05	3.15.06	1.31.07	3.2.08
Six-lined Racerunner (<i>Cnemidophorus sexlineatus</i>)	3.24.04			3.23.07	7.24.08
Ground Skink (<i>Scincella lateralis</i>)			4.21.06	9.5.07	6.11.08
Broad-headed Skink (<i>Eumeces laticeps</i>)	3.31.04		3.19.06	5.18.07	4.25.08
Southeastern Five-lined Skink (<i>Eumeces inexpectatus</i>)	8.11.04	7.1.05	3.22.06	1.7.07	3.19.08
Mole Skink (<i>Eumeces egregius</i>)					
Eastern Glass Lizard (<i>Ophisaurus ventralis</i>)				5.18.07	5.9.08
Island Glass Lizard (<i>Ophisaurus compressus</i>)				9.16.07	
Florida Green Water Snake (<i>Nerodia floridana</i>)		7.20.05		3.23.07	4.7.08
Brown Water Snake (<i>Nerodia taxispilota</i>)					
Banded Water Snake (<i>Nerodia fasciata</i>)	4.25.04	1.9.05	3.10.06	1.3.07	1.9.08
Swamp Snake (<i>Seminatrix pygaea</i>)			2.19.06	3.18.07	7.9.08
Brown Snake (<i>Storeria dekayi</i>)	6.6.04	2.16.05	8.16.06	8.3.07	1.9.08
Striped Crayfish Snake (<i>Regina alleni</i>)				4.24.07	1.14.08
Garter Snake (<i>Thamnophis sirtalis</i>)	1.11.04	1.6.05	1.22.06	2.25.07	2.17.08
Ribbon Snake (<i>Thamnophis sauritus</i>)		4.26.05	2.8.06	3.2.07	2.6.08
Eastern Hognose Snake (<i>Heterodon platirhinos</i>)		8.28.05	5.17.06		
Ringneck Snake (<i>Diadophis punctatus</i>)		4.20.05	7.16.06	7.25.07	7.6.08
Mud Snake (<i>Farancia abacura</i>)			11.3.06		
Racer (<i>Coluber constrictor</i>)	2.16.04	1.6.05	1.22.06	2.14.07	3.30.08
Eastern Coachwhip (<i>Masticophis flagellum</i>)		3.30.05			4.20.08
Rough Green Snake (<i>Opheodrys aestivus</i>)	11.14.04	3.24.05	3.17.06	4.4.07	4.11.08
Indigo Snake (<i>Drymarchon corais</i>)					8.3.08
Corn Snake (<i>Elaphe guttata</i>)	9.16.04	3.6.05	1.1.06	4.1.07	2.1.08
Rat Snake (<i>Elaphe obsoleta</i>)	1.11.04	3.24.05	3.12.06	1.7.07	6.8.08
Cottonmouth (<i>Agkistrodon piscivorus</i>)		3.13.05	4.23.06	3.25.07	4.7.08
Pygmy Rattlesnake (<i>Sistrurus miliarius</i>)			5.31.06		
Eastern Diamondback Rattlesnake (<i>Crotalus adamaneus</i>)					

There were over the ten years a total of 19 species of amphibians and 41 species of reptiles seen. Three species were only seen during the first set of five years, they were: Mole Skink, Brown Water Snake and the Eastern Diamondback Rattlesnake.

APPENDIX E

Mammals

There is no daily log of the mammals seen rather I noted the first date on which each species seen in the calendar year. Below I list all the species seen over the ten years together with the earliest date on which each species seen in each or any of the five years covered here.

Species	2004	2005	2006	2007	2008
Virginia Opossum (<i>Didelphis virginiana</i>)	1.16.04	1.6.05	1.8.06	1.14.07	1.2.08
Southern Short-tailed Shrew (<i>Blarina carolinensis</i>)			1.15.06	2.16.07	1.16.08
Least Shrew (<i>Cryptotis parva</i>)			7.2.06		
Nine-banded Armadillo (<i>Dasypus novemcinctus</i>)	5.16.04	2.28.05	4.21.06	8.10.07	4.2.08
Easter Cottontail (<i>Sylvilagus floridanus</i>)	1.4.04	7.3.05	2.27.06	1.3.07	1.28.08
Marsh Rabbit (<i>Sylvilagus palustris</i>)	1.4.04	1.2.05	1.1.06	1.3.07	1.2.08
Gray Squirrel (<i>Sciurus carolinensis</i>)	2.4.04	3.6.05	1.8.06	3.16.07	1.28.08
Southern Flying Squirrel (<i>Glaucomys volans</i>)	2.29.04	4.30.05	9.3.06	5.18.07	4.7.08
Southeastern Pocket Gopher (<i>Geomys pinetis</i>)			1.15.06		
Marsh Rice Rat (<i>Oryzomys palustris</i>)	10.3.04	3.2.05	7.2.06	5.1.07	7.6.08
Eastern Harvest Mouse (<i>Reithrodontomys humulis</i>)				5.30.07	5.23.08
Cotton Mouse (<i>Peromyscus gossypinus</i>)					
Hispid Cotton Rat (<i>Sigmodon hispidus</i>)	3.31.04	4.26.05	1.18.06	1.12.07	1.16.08
Eastern Woodrat (<i>Neotoma floridana</i>)				4.27.07	
Round-tailed Muskrat (<i>Neofiber alleni</i>)				7.15.07	5.11.08
Norway Rat (<i>Rattus norvegicus</i>)	11.14.04			7.22.07	
House Mouse (<i>Mus musculus</i>)			10.13.06		
Coyote (<i>Canis latrans</i>)	1.14.04	1.6.05	1.6.06	1.3.07	1.2.08
Red Fox (<i>Vulpes vulpes</i>)	1.16.04	7.14.05	1.10.06	4.1.07	2.15.08
Gray Fox (<i>Urocyon cinereoargenteus</i>)	4.7.04	8.7.05	1.8.06	3.11.07	
Black Bear (<i>Ursus americanus</i>)	2.22.04			12.19.07	10.26.08
Raccoon (<i>Procyon lotor</i>)	1.4.04	1.2.05	1.1.06	1.7.07	1.6.08
Long-tailed Weasel (<i>Mustela frenata</i>)			2.5.06	5.27.07	9.3.08
Spotted Skunk (<i>Spilogale putorius</i>)	7.4.04	10.30.05			
Striped Skunk (<i>Mephitis mephitis</i>)		1.30.05	1.1.06	2.23.07	

River Otter (<i>Lutra canadensis</i>)	1.4.04	1.2.05	1.11.06	1.26.07	1.2.08
Bobcat (<i>Lynx rufus</i>)	1.21.04	1.19.05	1.6.06	1.5.07	1.4.08
Florida Panther (<i>Felis concolor coryi</i>)					
Wild Boar (<i>Sus scrofa</i>)			9.21.06		

Over the ten years a total of 29 species seen whilst two, the Cotton Mouse and the Florida Panther were not seen during this five year period.

REFERENCES

During the preparation of the text the only works consulted were:

Stevenson, Henry M and Anderson Bruce H their work "The Bird Life of Florida"1994 University Press of Florida.

This work was consulted frequently when preparing the main text.

Pranty, Bill A Birder's Guide to Florida 5th edition 2005. American Birding Association.

This work was used for species order, species names and appropriate scientific names for the life forms detailed in appendices B to E.