



The Birds of Tom Renick County Park

January 1, 2016 to December 31, 2016

By

Harry Robinson

THE BIRDS OF TOM RENICK COUNTY PARK

ORMOND-BY-THE-SEA, VOLUSIA COUNTY,

FLORIDA

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INTRODUCTION

I have now completed 12 months of sea watching at this park together with frequent scans towards the Halifax River. In all I conducted 227 surveys and I spent 1,165 hours on the field work; I saw a total of 188 species for the year. The highest counts were 37,181 birds on November 20 and 59 species on May 6. I try to start each count at least 15 minutes before sunrise and stay at the park for a minimum of five hours a day. The following is a systematic list of all the species that I saw during the year (January 1 to December 31, 2016).

In writing this book I have used the same procedure that I used when writing a total of 18 books on the birds of Zellwood (Lake Apopka). I look for patterns in the counts for each species specifically for the rise and fall in the numbers. I treat each rise and then fall as an influx and it is this that I have documented here. It interests me that the same patterns occur here as they do at Zellwood. For the most part I have followed the seasons that I developed at Zellwood but I have adjusted them to fit in with the data for this year. As I gather more data the seasons that apply on the coast will become clearer.

There are going to be two very different concepts in play here. For the seabirds that are flying to the north or the south each day's counts in all probability involve new birds i.e. for Common Loon the counts of 19 and 13 will relate to 32 birds flying to the south. For the resident species and those shorebirds that stop off passage the counts are in all probability NOT cumulative i.e. for Mourning Dove the counts of nine, two, four, six and five will involve at least some of the same birds.

In this book I have in most cases identified the highest count for the year as this is the baseline for all future years. In say the 2017 report I will only show those higher counts that occurred in that year. What is then interesting is to look back at this year to see when the original high count was. Later high counts are often on the same date or very nearly so.

The scientists keep changing the species order and that causes problems for anyone trying to look at historical data that might be in a totally different sequence. At Zellwood I have written all the books using the same species order which means that you can open any two books and each species will be in the same place. The species order that I use dates from approx. 2000. I am continuing to use that species order here so even this book can be opened alongside one from Zellwood.

After the systematic List I have prepared a table (**Table A**) that shows the highest daily count for each species for the 12 months. A second set of columns shows those higher counts that came from the historical counts detailed in **Table B**. In Table B I detail the series of Christmas Bird Counts that I carried out at the park together with an exploratory visit on May 6, 2015. This is followed by a series of tables where I identify the Butterflies, Dragonflies, Amphibians, Reptile, Mammals and Grasshoppers that I have seen at the park during 2016.

ACKNOWLEDGEMENTS

At some point in 2011 I asked David Hartgrove if he would like me to take part in the upcoming Halifax River Audubon's Christmas Bird Count; I suggested that I do a "static" sea watch but where? He suggested Tom Renick County Park and for the next few years I and one or more birders carried out this count at the park. From January 1, 2016 I needed a new venue to study and this was the obvious choice as this site intrigued me; so the survey was born.

During the year a number of birders have joined me from time to time and I am grateful for their support. The most frequent visitors were Luddy Lambertson, Kim Ramos and Eli Schaperow thank you.

During the year I prepared a monthly newsletter and it proved hard to get it out to more than a few people. Joan Tague has come to my aid by adding my various projects to the Halifax River Audubon's web site including all the newsletters and the spreadsheet. Joan what you have done here fulfills a long held wish of mine, thank you so very much.

So now I have written a book on the first year's work. Joan has again come to me aid by providing a selection of the late Chuck Tague's photographs. Joan I have placed a number of Chuck's pictures in the center of the book to illustrate some of the species mentioned in the text. This is also something that I really appreciate thanks.

Mike Brothers has kindly provided a number of pictures and these too are much appreciated.

I find I can write these books but getting them ready for the printers is another matter. Rachel Gerker has again come to my aid by putting the photographs together, adding them to the book and getting the book ready for the printers. She has then adjusted the book so that it can go onto the web site. Rachel without your help this project would not have been completed thanks again.

Harry Robinson

Front cover: the photograph of the adult Northern Gannet was provided by Mike Brothers

.ANNOTATED CHECKLIST OF THE BIRDS OF TOM RENICK COUNTY PARK

The checklist that follows covers the year 2016. During the year I saw 188 species during 227 surveys. In all I was at the park for 1,165 hours. Whilst I concentrated on the ocean I also checked the visible areas towards the Halifax River. If it appears to be helpful I am including data from 2017 **any such entries will be in italics.**

Red-throated Loon (*Gavia stellata*)

There were a total of seven records. For the early spring passage there were singles on January 8 and January 9 with two on January 29, then one seen on February 20. For the late spring passage there was one on May 8. There were no late fall sightings. For the winter passage there were two on December 7 with one on December 23. The counts of two are the highest counts for the park.

Common Loon (*Gavia immer*)

This was a quite common visitor in January and February with higher numbers from late October to the end of the year. For the early spring passage there were singles on January 1 and January 2 with five on January 3, then three seen on January 8 with two on January 9. There were seven on January 10 with three to January 15 and singles to January 17. There were three on January 18 and January 21 with two on January 23 and singles to January 30. There were three on January 31 with singles on six dates to February 19. There were two on February 21 with one on February 28. That was the early spring passage. For the late spring passage there were singles on March 6, March 16, April 1 and April 13 with two on April 16, then one seen on May 6. For the late fall passage there were three on October 28, October 30 and November 1 with five on November 2, then one seen on November 4. There were two on November 5 with three on November 6, five on November 8, six on November 11 and 19 on November 12, then 13 seen on November 13 with four on November 15 and one on November 20. The count of 19 is the highest count for the park. On the 12 the wind was from the north-west at three mph and I counted for seven hours. There were five on November 22 with four on November 24 and three on November 25. There were 17 on November 26 with three on November 27 and one on November 30. That closed the late fall passage. Much lower numbers were now seen with the winter passage. There were singles from December 3 to December 7 with two on December 9, then one seen on December 13. There were two on December 14, December 16, December 21 and December 30 *with one on January 1. Finally for the winter passage there were four on January 9.*

Pied-billed Grebe (*Podilymbus podiceps*)

This was a vagrant. For the late fall passage there were singles on October 23, October 25 and November 12.

Horned Grebe (*Podiceps auritus*)

An irregular passage migrant and winter visitor the greatest numbers were seen during the winter passage. For the early spring passage there were singles on January 9 and January 17 with two on January 31. For the late spring passage there were singles on March 5 and March 12. For the late fall passage there were 12 on November 13 with one on November 16. The count of 12 is the highest count for the park. For the winter passage there were two on December 2 with nine on December 4, then eight seen on December 7 with five on December 16. There were eight on December 17 with singles on December 21 and December 23. *There was also one on January 9.* That completed the winter passage.

Cory's Shearwater (*Calonectris diomedea*)

This was a vagrant. For the summer passage there were five on June 19. The wind was from the north-east at 15 mph I counted for eight hours.

Greater Shearwater (*Puffinus gravis*)

This was a vagrant. For the summer passage there was also one on June 19.

Brown Booby (*Sula leucogaster*)

In all there were six records of seven birds from mid-April to early October. For the late spring passage there was an adult on April 15. For the summer passage there were single immatures on May 6 and May 18 with two immatures on June 26. The count of two is the highest count for the park. On the 26th the wind was from the east at 15 mph. For the early fall passage there was an immature on August 27. Finally for the late fall passage there was an immature on October 5.

Northern Gannet (*Morus bassanus*)

Seen from January to May 29 and again from October 28 numbers were heaviest during the winter passage. For the early spring passage there were 940 on January 1 with 675 on January 2 and 83 on January 3. There were 120 on January 4 with 174 on January 8, then 76 seen on January 9. In a later year it is likely that these two influxes would form part of the winter passage. In any case for the early spring passage there were 109 on January 10 with 346 on January 13, 554 on January 15 and 728 on January 17, then 203 seen on January 21 with 141 on January 23 and 98 on January 24. There were 280 on January 27 with 153 on January 28. There were 164 on January 29 with 208 on January 30 and 351 on February 4, then 155 seen on February 5 with 12 on February 6. There were 163 on February 7 with 37 on February 9. There were 66 on February 10 with 675 on February 12, then 202 seen on February 13 with 86 on February 14. There were 1,038 on February 15 with 229 on February 16 and 132 on February 19. On the 15th the wind was from the south-south-east at 10 mph and the count lasted five hours. There were 341 on February 20 with 298 on February 21, 144 on February 25, 143 on February 26, 98 on February 27 and 63 on February 28. That ended the early spring passage. For the late spring passage there were 188 on March 2 with 229 on March 3, then 148 seen on March 5 with 87 on March 6, 79 on March 9, 70 on March 11, 22 on March 13 and one on March 16. There were nine on March 18 with 11 on March 19 and 17 on March 20, then three seen on March 25 with singles to March 27. There were 14 on March 28 with 11 on March 30, nine on April 2 and four on April 3. There were 20 on April 6 with 47 on April 9, then 35 seen on April 10 with three on April 13. There were 657 on April 15 with 264 on April 16 and 128 on April 17. There were 276 on April 20 with 16 on April 23, 11 on April 24, nine on April 27, two to May 8 and singles to May 14. There were two on May 15 with singles on May 20, May 22 and May 29. That completed the late spring passage. There were no further sightings until the late fall passage started. For the late fall passage there were two on October 28 and October 29 with 14 on November 1 and 235 on November 2, then 175 seen on November 5 with 89 on November 6. There were 294 on November 8 with 184 on November 9 and 102 on November 11. There were 779 on November 12 with 260 on November 13 and 24 on November 15. There were 41 on November 16 with 197 on November 18, then 12 seen on November 19 with five on November 20. That was probably the early end of the late fall passage. The heaviest passage now started so for the winter passage there were 60 on November 22 with 174 on November 24, 527 on November 25, 1,029 on November 26 and 2,443 on November 27, then 171 seen on November 29. On the 27th the wind was from the north-east at 12 mph and the count lasted seven hours. There were 332 on November 30 with 418 on December 2, 1,033 on December 3 and 2,615 on December 4, then 392 seen on December 7 with 156 on December 9 and 148 on December 10. On the 4th the wind was from the south-east at seven mph and the count lasted for eight hours. There were 190 on December 11 with 315 on December 14, 1,185 on December 16 and 4,880 on December 17, then 3,110 seen on December 18 with 30 on

December 20. The count of 4880 is the highest count for the park the wind was from the south at six mph and I counted the passage for seven hours. There were 55 on December 21 with 483 on December 23, then 230 seen on December 24 with 58 on December 30 and 30 on December 31. *There were 39 on January 1 with 214 on January 3, 311 on January 4 and 670 on January 7, then 33 seen on January 8.* That concluded the winter passage.

American White Pelican (*Pelecanus erythrorhynchos*)

An irregular passage migrant; six of the ten sightings came from the early spring passage. For the early spring passage there were 18 on January 18 with 28 on January 29, three on January 30, 26 on February 7 and 12 on February 16. For the late spring passage there was one on March 28. For the late fall passage there were seven on October 26 with four on November 15. For the winter passage there were 20 on December 3 and 35 on December 21; the count of 35 being the highest count for the park. *In 2017 there were 14 on January 4 with 13 on January 8 and one on January 9.* That closed the winter passage.

Brown Pelican (*Pelecanus occidentalis*)

They were present all year the direction of movement varied day to day. The highest numbers were seen during the spring passages and again during the late fall passage. For the early spring passage there were 223 on January 1 with 255 on January 2, then 179 seen on January 3 with 166 on January 4. There were 743 on January 8 with 291 on January 9 and 75 on January 10. There were 186 on January 13 with 220 on January 15, then 190 seen on January 17 with 152 on January 18. There were 257 on January 21 with 282 on January 22 and 436 on January 23, then 153 seen on January 24 with 116 on January 27. There were 138 on January 28 with 587 on January 29, then 322 seen on January 30 with 30 on January 31. There were 31 on February 4 with 41 on February 5, then 31 seen on February 6 with 18 on February 7. That influx was the lightest during the year. There were 21 on February 9 with 67 on February 10 and 203 on February 13, then 114 seen on February 15 with 76 on February 16. There were 96 on February 19 with 161 on February 20, then 92 seen on February 21 with 38 on February 24. There were 88 on February 25 with 93 on February 26 and 137 on February 27, then 110 seen on March 2 with 76 on March 3. That was the early spring passage. For the main spring passage there were 281 on March 4 with 309 on March 6, then 181 seen on March 11 with 122 on March 12 and 91 on March 13. There were 417 on March 16 with 445 on March 18 and 1,058 on March 19, then 594 seen on March 20 with 302 on March 23. On the 19th the sea was calm and I counted for five hours. There were 418 on March 25 with 464 on March 26 and 808 on March 27, then 343 seen on March 30 with 317 on April 1. There were 659 on April 2 with 145

on April 3. There were 151 on April 6 with 179 on April 8 and 230 on April 9, then 222 seen on April 10 with 163 on April 13. There were 621 on April 15 with 755 on April 17, then 277 seen on April 20 with 118 on April 22 and 96 on April 23. There were 110 on April 24 with 168 on April 27, then 111 seen on April 29. There were 165 on April 30 with 171 on May 1 and 473 on May 4, then 376 seen on May 6 with 124 on May 7. That closed the main spring passage. This was also the end of the higher counts. For the summer passage there were 212 on May 8 with 269 on May 11 and 460 on May 14, then 252 seen on May 15 with 207 on May 18. There were 415 on May 20 with 318 on May 21, 134 on May 22, 129 on May 25 and 28 on May 27. There were 98 on May 28 with 174 on May 29 and 285 on May 30, then 210 seen on June 1 with 203 on June 3. There were 224 on June 4 with 258 on June 5 and 337 on June 6, then 274 seen on June 7 with 197 on June 8, 195 on June 12 and 64 on June 15. There were 91 on June 17 with 92 on June 18 and 365 on June 19, then 228 seen on June 25 with 135 on June 29 and 100 on July 1. That completed the summer passage. For the early fall passage there were 155 on July 2 with 92 on July 3. There were 131 on July 4 with 225 on July 6, then 128 seen on July 9 with 58 on July 10. There were 115 on July 13 with 137 on July 15 and 175 on July 17, then 161 seen on July 22 with 146 on July 23. There were 194 on July 24 with 126 on July 29, 120 on July 30 and 73 on July 31. There were 78 on August 3 with 188 on August 5, then 186 seen on August 6. There were 195 on August 7 with 162 on August 10, 84 on August 12 and 81 on August 13. There were 88 on August 14 with 162 on August 17 and 208 on August 20, then 125 seen on August 21 with 89 on August 24, 52 on August 26 and 45 on August 27. There were 211 on August 28 with 178 on August 31, 153 on September 1, 86 on September 2 and 39 on September 3. There were 90 on September 4 with 149 on September 5, then 119 seen on September 9 with 91 on September 11 and 89 on September 14. There were 213 on September 16 with 77 on September 17. There were 125 on September 18 with 206 on September 23, then 134 seen on September 25 with 83 on September 30 and 40 on October 1. There were 91 on October 2 with 57 on October 4 and 17 on October 5. That concluded the early fall passage. Now the high counts returned. For the main fall passage there were 408 on October 11 with 418 on October 12 and 487 on October 14, then 214 seen on October 15 with 180 on October 16 and 84 on October 19. There were 204 on October 22 with 216 on October 23 and 247 on October 25, then 138 seen on October 26 with 72 on October 28. There were 106 on October 29 with 203 on October 30, then 117 seen on November 1 with 112 on November 2 and 53 on November 4. There were 255 on November 5 with 70 on November 6. There were 209 on November 8 with 241 on November 9, 399 on November 12 and 951 on November 13, then 120 seen on November 15 with 72 on November 16 and 70 on November 18. There were 180 on November 19 with 191 on November 20 and 2,486 on November 24, then 633 seen on November 26 with 122 on November 27. The count of 2,486 is by far the highest count for the park. This was in a five hour period with a light easterly breeze! There were 633 on November 26 with 122 on November 27. There were 130 on November 29 with 486 on November 30, then 309 seen on

December 3 with 270 on December 4 and 205 on December 6. That ended the main fall passage. Counts were now lower again. For the winter passage there were 243 on December 7 with 352 on December 9, then 245 seen on December 11 with 135 on December 13, 118 on December 14 and 105 on December 16. There were 226 on December 17 with 105 on December 18. There were 158 on December 20 with 213 on December 23 and 332 on December 23, then 229 seen on December 24 with 34 on December 27. There were 41 on December 30 with 42 on December 31 and 304 on January 3, then 179 seen on January 6 with 145 on January 7 and 36 on January 8. That finished the winter passage.

Double-crested Cormorant (*Phalacrocorax auritus*)

Counts were quite low during the early spring passage to be followed by a strong passage in March and April with only a trace presence through the summer and the early fall. Counts were still low but more frequent during the late fall and winter passages. For the early spring passage there were ten on January 1 with 66 on January 2 and 103 on January 3, then 19 seen on January 4 with six on January 8 and two on January 9. There were four on January 10 with five on January 13, six on January 16 and seven on January 17, then three seen on January 21 with two on January 22. There were four on January 23 with 15 on January 24, then five seen on January 28 with two on January 29. There were 13 on January 30 with 204 on January 31, then six seen on February 4 with five on February 5 and one on February 6. There were two on February 7 with eight on February 12 and 12 on February 13, then five seen on February 14 with three on February 15 and one on February 16. There were six on February 19 with 17 on February 20 and 26 on February 21, then ten seen on February 24 with eight on February 25. There were 20 on February 26 with 17 on February 27 and nine on February 28. There were 44 on March 2 with 14 on March 4, six on March 5 and two on March 6. That was the early spring passage. Now we come to the main event of the year the main spring passage. There were 151 on March 9 with 22 on March 11. There were 42 on March 12 with 121 on March 13, then 22 seen on March 16. There were 75 on March 18 with 76 on March 19, then 34 seen on March 20. There were 35 on March 23 with 84 on March 25, 177 on March 26 and 235 on March 28, then 55 seen on March 30. There were 162 on April 1 with 1,310 on April 2, then 76 seen on April 8 with 33 on April 9 and 24 on April 10. The count of 1,310 is by far the highest count for the park. On this day there was rain early the wind was from the south-west at 15 mph and the count lasted six hours. There were 337 on April 13 with 214 on April 15 and 157 on April 16. There were 281 on April 17 with 137 on April 20, 97 on April 22, 43 on April 23, 23 on April 27, 19 on April 29, 16 on April 30, six on May 4 and four on May 5. That long decline indicated the end of the event. There were eight on May 6 with 14 on May 7, then eight seen on May 8 with seven on May 11. There were 15 on May 13 with one on May 14. That completed the main

spring passage. For the summer passage up to two a day were seen from May 15 to June 3 with four on June 4, then up to two a day seen again to June 24. There were four on June 25 with up to two a day to August 7. In all from May 15 they were only seen on 20 dates. That finished the summer passage. There was a minimal early fall passage with four on August 17 and singles on September 4 and September 14. There were eight on September 24 with one on September 30. That was the extent of the early fall passage. For the main fall passage there were three on October 11 and October 12 with ten on October 15, 14 on October 16 and 78 on October 26, then two seen on October 29. There were five on October 30 with 74 on November 1, then 12 seen on November 2 with two to November 8. There were three on November 9 with 27 on November 11 and 41 on November 12, then 26 seen on November 13 with nine on November 18 and two on November 19. There were four on November 20 with ten on November 22 and 15 on November 24, then four seen on November 25 with two on November 26. There were nine on November 26 with eight on November 29, six on November 30 and three on December 2. That ended the main fall passage. For the winter passage there were 20 on December 3 with seven on December 4, six on December 7, two on December 9 and one on December 10. There were 15 on December 11 with 16 on December 14 and 42 on December 17, then two seen on December 18 with one on December 20. There were two on December 21 with 73 on December 22, then five seen on December 24 with one on December 30. There were two on December 31 with 26 on January 1, then 21 seen on January 3 with six on January 4. There were 56 on January 6 with five on January 7 and two on January 8. That finished the winter passage.

Anhinga (*Anhinga anhinga*)

Seen from time to time (59 dates out of 227) there was a minor passage from mid-March to mid-April. All the sightings were over the Halifax River. For the early spring passage there were three on January 16 with singles to January 29. There were two on January 31 with later one on February 12. There were four on February 16 with two on February 19 and one on February 21. That was the extent of the early spring passage. For the main spring passage there was one on March 4 with two on March 5, 12 on March 11, 26 on March 16 and 52 on March 18, then one seen on March 20. There were two on March 26 with three on March 28, four on April 3 and 75 on April 9, then 12 seen on April 10 with four on April 20, two on April 22 and singles on April 27 and May 5. The count of 75 is the highest count for the park. On the 9th the wind was from the north-west at 15 mph and I counted for seven hours. That ended the main spring passage. For the summer passage there were singles on May 29 and June 3 with three on June 8, then two seen on June 12 that was it. For the early fall passage there were singles from July 3 to July 20 with three on August 3, then one seen on August 6. There were two on August 20 with five on August 25, then eight seen on September 3 and September 14 with three on

September 18 and singles to September 30. That closed the early fall passage. For the late fall passage there were three on October 1 and October 19 with two on October 25 and one on October 28. There were five on November 4 with two on November 15 and singles to November 19. That concluded the late fall passage. For the winter passage there were two on December 2 with one on December 6. Later there were five on December 11 with two on December 14. *There were also three on January 1 with one on January 3.*

Magnificent Frigatebird (*Fregata magnificens*)

This was a vagrant there were just four records for the year. For the summer passage there was one on June 1. For the early fall passage there was one on July 10. For the late fall passage there were singles on October 26 and November 26.

Hérons/Egrets

In the spring it was noticeable that many of the flocks migrating to the north were coming in from the south-east i.e. the flocks were cutting across from the cape rather than follow the coastline.

Great Blue Heron (*Ardea herodias*)

Present from late February to late November i.e. they was absent during the winter months. When present they could be seen along the shore or from mid-March to mid-April and again from mid-September to mid-October migrating flocks could be seen flying high to the north in the spring and south in the fall. The majority flew over the Halifax River but flocks were seen over a mile offshore. For the spring passage there were singles on February 21 and February 26 with five on March 4, then singles seen to March 12. There were two on March 18 with 73 flying to the north on March 19, then ten seen on March 20. On the 19th the sea was calm and I watched for five hours. There were 33 on March 25 with 17 on March 26 and one on March 18. There were 21 on April 2 with one on April 3. There were ten on April 8 with 15 on April 9, then one seen on April 13. That ended the spring passage. For the summer passage there were singles on April 15 and May 5 with five on May 13, then singles seen to May 30. There were nine on June 1 with two on June 4 and one on June 5. There were three on June 6 with one on June 12. There were three on June 24 with singles to June 29. That closed the summer passage. For the early fall passage there were singles from July 2 to July 10 with two on July 15 and July 16, then one seen on July 20. There were two on August 6 with three on August

14, then two seen on August 19 with one on August 20. There were six on August 21 with three on August 31 and one on September 1. That completed a shortened early fall passage. For the main fall passage there were 25 on September 3 with three on September 5 and singles to September 10. There were three on September 11 with 13 on September 14, then ten seen on September 16 with three on September 17 and one on September 18. There were four on September 23 with 54 on September 24, then 17 seen on September 25 with four on September 28. There were 35 on September 30 with 165 on October 1, then 33 seen on October 2 with three on October 4 and two on October 5. The count of 165 is the highest count for the park. There was no wind on the 1st and the survey lasted five hours (the same conditions as for March 19 when the spring high count occurred). There were 12 on October 11 with three to October 22. There were six on October 23 with eight on October 25, then one seen on October 26. There were two on October 30 with four on November 1 and November 11, then two seen on November 13 with one on November 18. Finally there were ten on November 24. *It surprises me that they leave the area for the winter but there was one on the shore on January 1.*

Great Egret (*Ardea alba*)

They were seen throughout the year in very low numbers most were seen flying over the Halifax River but they did from time to time turn up on the shore. During migration (April, late September and early October) they could be seen migrating far out at sea. For the early spring passage there were singles on January 4 and January 18 with two on January 30, then one seen on February 13. There were ten on February 16 with five on February 21 and one on February 25. That was the early spring passage. For the main spring passage there were two on February 27 with three on March 2, four on March 4 and five on March 5, then one seen on March 6. There were two on March 9 with seven to March 20 and eight on March 25, then five seen on March 28 with singles to April 6. There were 19 on April 8 with ten on April 13, two to April 30 and one on May 1. That closed the main spring passage it was a minimal event. For the summer passage there was one on May 5 with two on May 6, then four seen on May 7 and May 13 with three on May 14, two to May 20 and one on May 21. There were four on May 22 with singles to May 30. There were five on June 1 with singles to June 8. There were three on June 11 and June 12 with six on June 15, then two seen on June 17 with one on June 25. That finished the summer passage. For the early fall passage there were seven on July 2 with two to July 9 and one on July 10. There were two on July 13 and July 15 with three on July 16, then singles seen to July 22. There were two on July 23 with five on July 24, then singles seen to August 5. There were two on August 6 with one on August 7. There were two on August 20 with five on August 21, then four seen on August 31 with three on September 3 and one on

September 5. That ended the early fall passage. For the main fall passage there were three on September 10 with five on September 18 and ten on September 23, then nine seen on September 25 with one on September 28. There were five on September 30 with 30 on October 1 and 33 on October 2, then 15 seen on October 11 with three on October 22, two on October 29 and one on November 2. The count of 33 is the highest count for the park. On the 2nd the sea was calm and I counted for five hours. That completed the main fall passage. For the residual late fall passage there were singles from November 4 to November 9 with six on November 11, then two seen to November 15 with singles to November 19. There were two on November 22 with one on November 29. That closed this remnant event. For the winter passage there was one on December 3 with two on December 13, then singles seen on December 14, December 17, December 23 and December 24. *There were also singles on January 1 and January 3 with two on January 8, then one seen on January 9.* That finished the winter passage.

Snowy Egret (*Egretta thula*)

Present all year unlike the other herons this egret lived on the shore with just a few being seen over the Halifax River. There was a spring passage in March and April followed by higher numbers again during the breeding season. In the very early fall the young joined the adults on the shore. Later there was a separate fall migration during September. Numbers were lowest from October to February. For the early spring passage there was one on January 8 with two on January 9, then singles seen to January 30. There were two on January 31 with singles to February 12. There were five on February 14 with three on February 16 and two on February 20. There were nine on February 21 with singles to February 27. There were five on March 2 with singles to March 5. That was the early spring passage. For the main spring passage there were six on March 8 with 18 on March 5, then five seen on March 11 with one on March 12. There were seven on March 13 with 16 on March 20, 21 on March 23 and 28 on March 25, then two seen to March 27. There were four on March 28 and April 1 with one on April 2. There were two on April 3 with six on April 6 and 15 on April 8, then five seen on April 9. There were six on April 10 with 11 on April 13 and 29 on April 15, then one seen on April 16. There were three on April 20 with five on April 22 and six on April 24, then four seen on April 29 with two on April 30. That closed the main spring passage. For the summer passage there were three on May 1 with six on May 4, eight to May 7 and 31 on May 8, then two seen on May 11. There were three on May 13 with four on May 14, eight to May 18, nine on May 20 and 12 on May 22, then three seen on May 25 with two to May 28. There were six on May 29 with seven on May 30 and 15 on June 1, then nine seen on June 3 with three on June 3. There were five on June 5 with six on June 7 and 21 on June 8, then 16 seen on June 12 with 12 on June 17, nine on June

18 and five on June 19. There were 12 on June 24 with eight on June 25 and four on June 26. That completed the summer passage. For the early fall passage (with the juveniles) there were 14 on June 29 with 15 on July 2 and 20 on July 3, then 13 seen on July 4 with six on July 6. There were 11 on July 8 with 37 on July 9, then 15 seen on July 13 with 11 on July 15. The count of 37 is the highest count for the park. There were 21 on July 16 with 18 on July 17 and four on July 20. There were eight on July 22 with 26 on July 23, then one seen on July 24. There were 13 on July 27 with 18 on July 29 and 19 on July 31, then seven seen on August 3. There were nine on August 5 with 13 on August 6 and August 7, then six seen on August 10 with one on August 12. There were two on August 14 with three on August 19, then ten seen on August 20 and August 21 with four on August 24, two on August 26 and singles to August 28. That concluded the early fall passage. For the main fall passage there were three on August 31 with nine to September 3 and 28 on September 4, then two seen on September 5. There were eight on September 7 with 23 on September 9, then nine seen on September 10. There were 16 on September 11 with 20 on September 14, then seven seen on September 16 with six on September 17. There were eight on September 18 with 21 on September 23, then 20 seen to September 28 with four on September 30. There were five on October 1 with seven to October 4 and nine on October 5, then one seen on October 11. That closed the main fall passage. For the late fall passage there was one on October 12 with two to October 15 and three on October 16, then two seen on October 22 with one on October 23. There were three on October 25 with eight on October 26, then four seen to October 30 with two on November 1 and singles to November 5. There were two on November 6 with four on November 8, then two seen to November 11. There were four on November 12 with three to November 15 and one on November 16. There were three on November 18 with four on November 20, then three seen on November 22 with singles to November 26. That ended the late fall passage. For the winter passage there were two on November 29 with singles to December 4. There were five on December 9 with three on December 11 and singles to December 16. There were two on December 17 with singles to December 21. There were four on December 23 with singles on December 24 and December 30. *There were also two on January 3 and January 6 with one on January 7.* That concluded the winter passage.

Little Blue Heron (*Egretta caerulea*)

With three exceptions they were seen regularly from mid-March to late October. There was a spring passage in late March and early April and a fall passage in late August and early September. Most passage was over the sea. For the early spring passage there was one on January 30. For the main spring passage there was one on March 16 with 39 on March 20, then 22 seen on March 25 with 21 on March 28 and one on April 1. There were 41 on April 8 with

four on April 9 and one on April 10. There were three on April 13 with nine on April 15. That was the extent of the main spring passage. For the summer passage there was one on April 29 with three on May 5, then singles seen to May 13. There were three on May 15 with two on May 18. There were two on June 7 with seven on June 15, then three seen on June 24 with one on June 25. There was one on July 1 with two on July 3 and seven on July 6, then two seen on July 13 with one on July 24. That closed the summer passage. For the early fall passage there were two on August 3 with three on August 5 and 12 on August 6, then two seen to August 12 with singles to August 17. There were seven on August 31 with 73 on September 3, then one seen on September 4. The count of 73 is the highest count for the park. On the 3rd the wind was from the north-west at five mph and I was there for five hours. There were four on September 10 with nine on September 18, then two seen to October 4. Finally for this passage there were four on October 5. Later for the late fall passage there were singles on October 26 and November 20. There were no winter records.

Tricolored Heron (*Egretta tricolor*)

With just one exception they were seen regularly from late March to early November. There was a spring passage in early April and a fall passage in early September neither event was as strong as the equivalent events for the Little Blue Heron. Again passage was offshore. For the early spring passage there was one on February 21. For the main spring passage there were four on March 20 with three on March 28 and one on April 3. There were 27 on April 8 with two on April 9 and one on April 13. The count of 27 is the highest count for the park. On the 8th the wind was from the north-west at five mph and I was there for five hours. The weather conditions were identical for this and the previous species when it came to the highest counts. There were 19 on April 15 with three on April 20. That ended the main spring passage. For the summer passage there were singles on April 29 and May 4 with two on May 8 and May 11, then singles seen on seven dates to June 17. There were four on June 24 and July 3 with three on July 6 and one on July 13. There were two on July 15, July 23 and July 24 with singles to August 7. That completed the summer passage. For the early fall passage there were two on August 12 and August 19 with six on August 20, then five seen on September 3. There were 23 on September 14 with one on September 17. There were three on September 24 with two on October 1 and one on October 2. That concluded the early fall passage. For the late fall passage there were nine on October 4 and October 5 with four on October 11. There was one on October 22 with four on October 26, then two seen on November 1 with one on November 2. There were no later records.

Reddish Egret (*Egretta rufescens*)

This was a vagrant. For the summer passage there were single adults on May 4 and July 1. Both were over the Halifax River.

Cattle Egret (*Bubulcus ibis*)

Present from late January to early July with a minor passage in late March and early April. The main event was the fall passage this ran from late August to mid-October. There were three late December records which may indicate that the passage noted from late January really starts earlier. The bulk of the passage was offshore. For the early spring passage there were two on January 30 with three from February 4 to February 12, then one seen on February 14. There were three on February 16 and February 19 with six on February 20, then three seen on February 25 with one on February 26. That was the early spring passage. For the main spring passage there were 11 on February 27 with two on March 2 and one on March 4. There were four on March 5 with six on March 6, then three seen on March 9 with two on March 11. There were four on March 13 with 40 on March 20, then four seen on March 28. There were six on April 1 with 11 on April 8, then ten seen on April 10 with five on April 13 and two to April 20. There were nine on April 23 with one on April 27. That closed the main spring passage. For the summer passage there were two on April 30 and May 1 with three on May 6, then two seen on May 7 with singles to May 13. There were 13 on May 22 with one on May 29. There were also five on June 1. There was one on June 15 with five on June 17. There were also two on July 2 and July 3 with three on July 6. That completed the summer passage. For the fall passage (it was a single event) there were 46 on August 20 with 11 on August 21, five on August 31 and three on September 2. There were nine on September 3 with 40 on September 4, then three seen on September 14. There were 43 on September 23 with 57 on September 25 and 127 on October 1, then 103 seen on October 4 with seven on October 5. The count of 127 is the highest count for the park. On the 1st the sea was calm and I counted for five hours. In contrast on the 4th the wind was from the north-east at ten mph and again I counted for five hours. There were 12 on October 11 with 25 on October 12, then 16 seen on October 15. That concluded the fall passage. For the winter passage there was one on December 13 with two on December 21 and four on December 27, *then singles seen on January 7 and January 8.*

Green Heron (*Butorides virescens*)

There were just five records for the year so this nearly earns vagrant status. All the sightings were from the Halifax River. For the late spring passage there was one on April 23. For

the summer passage there was one on June 24. For the early fall passage there was one on July 8 with two on September 4. Finally for the late fall passage there was one on November 16.

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

This was a vagrant. One flew to the south-west over A1A on June 3 a summer record.

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

A summer visitor from mid-May to early August, in late June and July the juveniles joined the adults on the beach. The favored food appeared to be the ghost crabs. There were three September records. For the summer passage there were two on May 15 and May 20 with singles to June 1. There were three on June 3 with four on June 4, then three seen to June 11 with two to June 19 and one on June 24. At this point the juveniles started to join the adults on the beach. There were five on June 25 with three to June 29 and two on July 1. There were 12 on July 2 with three on July 4 and two to July 8. The count of 12 is the highest count for the park. There were three on July 9 with two on July 10 and one on July 15. There were two on July 16, July 20 and July 24 with one on August 5. There were two on August 6 with three on August 7. That was the end of this event. For the early fall passage there was one on September 14 with two on September 16. Later there was one on September 30.

White Ibis (*Eudocimus albus*)

With one exception they were seen from early March to at least early January, 2017. There was no discernible spring passage but in late June and early July there was a minor event involving juveniles. On two days in October there was a significant southerly passage. Finally good numbers were feeding around the houses across A1A in December and early January, 2017. For the early spring passage there was one on January 29. For the main spring passage there were 15 on March 2 with one on March 4. There were ten on March 9 with 15 on March 11, 17 on March 13 and 18 on March 16, then five seen on March 19 with three on March 20, two on March 23 and one on March 28. There were three on April 1 with four on April 2. That was probably the early end of the main spring passage. For the summer passage there was one on April 20 with 14 on April 22, then 13 seen on April 24 with four on May 6 and two on May 8. There were four on May 14 and May 25 with ten on May 29, then six seen on May 30 with three to June 8. Numbers now increased with the arrival of the juveniles. There were ten on June 12 with 11 on June 15 and 36 on June 17, then 11 seen on June 18 with six on June 25.

There were 54 on June 26 with 20 on June 29 and two on July 4. There were 28 on July 3 with 24 on July 9 and one on July 10. There were three on July 13 with two on July 22. There were five on July 29 with 25 on July 31, then 14 seen on August 10 with three on August 13. There were four on August 20 with 11 on August 21, then two seen on August 26 with one on September 1. That ended this event. For the main fall passage there were two on September 3 with five on September 4 and 19 on September 10, then ten seen on September 11 with seven on September 14 and two on September 17. There were 22 on September 18 with 14 on September 24 and three on September 25. There were four on September 28 with nine on September 30 and 354 on October 1, then 27 seen on October 2 with eight on October 11 and singles to October 19. The count of 354 is the highest count for the park they all flew to the south over the Halifax River. This was the day with the heaviest passage of Great Blue Herons. The sea was calm and I counted for five hours. There were 108 on October 22 with six on October 26 and five on November 1. On the 22nd the birds flew to the south over the Halifax River, the wind was from the north-west at five mph and I counted for five hours. There were 30 on November 4 with 12 on November 6, nine on November 9, four on November 12 and one on November 13. There were two on November 16 with seven on November 19 and 56 on November 20, then singles seen to December 2. That closed the main fall passage. For the winter passage there were two on December 7 with 30 on December 9 and 78 on December 13, then 60 seen on December 14 with 15 on December 17 and eight on December 18. There were 80 on December 21 with 29 on December 24 and one on December 31. *There were eight on January 1 with 70 on January 4, then 60 seen on January 7 with one on January 9.* That finished the winter passage.

Glossy Ibis (*Plegadis falcinellus*)

There were just 20 records for the year all were from the Halifax River. The records span the period from late March to early November. For the late spring passage there was one on March 26 with three on April 2. Later there were two on April 23 with nine on April 24. That was the extent of the late spring passage. For the summer passage there were eight on May 18. Later there was one on June 3 with six on June 8. For the early fall passage there were nine on July 4 with three on July 8. There was one on July 27 with four on July 30 and 15 on July 31, then five seen on August 5. The count of 15 was the highest count in 2016 for the park however there were 35 on January 21, 2017. There were 14 on August 20 with three on August 21. There were ten on September 4 with later four on September 25 and six on September 30. That closed the early fall passage. With 11 records this was by far the strongest event. For the late fall passage there were 11 on October 25 with six on November 6. *For the winter passage there was one on January 7.*

Roseate Spoonbill (*Platalea ajaja*)

In all there were 22 records from early March to late November; there were no August sightings. From March to mid-June all flew to the north and from early September all flew to the south. They were only seen over the Halifax River. For the spring passage there were five on March 2 with three later on March 30. There were also four on April 24 with two on May 6. There were two on May 22 and May 29 with 14 on June 1, 18 on June 5 and 41 on June 8, then six seen on June 15 and June 18. The count of 41 is the highest count for the park. All those detailed here were in flocks flying to the north. That ended the spring passage. There were singles on June 29 and July 3 with two on July 23. I did not note the direction in which they flew. There were no further records until the southerly fall passage started. Flying to the south there were eight on September 3 with five on September 11. There were also eight on September 23. There was one on September 30 with six on October 1. There were 21 on October 22 with later 23 on November 5. Finally there were six on November 20. The spring passage was the strongest event with 103 birds flying to the north as against 78 flying to the south in the fall.

Wood Stark (*Mycteria americana*)

Seemingly present in low numbers from late November to mid-April; there were also records from mid-June to late September. All the sightings were over the Halifax River. For the spring passage there were five on January 4 with one on January 16. There were seven on January 21 with 46 on January 29, then two seen to February 6 with one on February 10. The count of 46 is the highest count for the park. On the 29th the wind was from the north-west at ten mph and I counted for five hours. There were two on February 12 with five on February 16 and six on February 21, then two seen on February 27. Normally I would break the spring passage into two at this point but I feel that this was a single event. There were 26 on March 2 with 24 on March 4 and singles to March 11. There were three on March 13 with seven on March 18, then three seen on March 20 with two to March 30. There were three on April 1 with singles to April 16. That ended the spring passage. For the summer passage there was one on June 15. For the early fall passage there was one on June 29 with two on July 9 and five on July 20, then one seen on August 5. There were also two on August 13. There was one on September 3 with 28 on September 10, then 19 seen on September 14 with singles to September 28. That closed the early fall passage. For the late fall passage there were two on November 20 that was it. For the winter passage there were four on November 29 with five on December 6, then four seen to December 10 with two on December 14, December 23 and December 31. *There were two on January 1 and January 3 with three on January 4 and five on January 6, then two seen on January 8.* That concluded the winter passage.

Black Vulture (*Coragyps atratus*)

Present all year in varying numbers there appeared to be higher numbers in the early spring, early fall and again from late September to early November. Most were seen over the Halifax River but small numbers did cross to the barrier island. For the early spring passage there were 46 on January 4 with four to January 10. There were 12 on January 13 with 44 on January 16, then seven seen on January 17 with five on January 18. There were 22 on January 21 with 29 on January 24 and 63 on January 29, then 22 seen on January 30 with 19 on February 4. There were 53 on February 5 with nine on February 7 and eight to February 10. There were 13 on February 12 with 23 on February 14 and 97 on February 16, then 42 seen to February 21 with three to February 25. There were five on February 26 with 51 on February 27, then 21 seen on March 2 with 15 on March 4 and four on March 5. That was the early spring passage. For the late spring passage there were 59 on March 6 with 22 on March 9, 15 on March 11 and three to March 13. There were 39 on March 16 with 31 on March 18, 29 on March 20 and one on March 23. There were three on March 25 with seven on March 26 and 19 on March 28, then seven seen on April 1 with two on April 2. There were eight on April 3 and April 8 with 15 on April 10, then ten seen to April 20 with two on April 22. There were nine on April 23 with 11 on April 24, then nine seen on April 29 with two on April 30. That completed the late spring passage. For the summer passage there were nine on May 1 with 17 on May 5 and 54 on May 6, then 18 seen to May 11 with nine on May 13 and eight to May 15. There were 19 on May 18 with one on May 20. There were ten on May 21 with 13 on May 23, then six seen on May 25. There were seven on May 27 with eight on May 28, 11 on May 29 and 13 on June 3, then eight seen on June 4 with seven on June 5. There were ten on June 7 with 21 on June 8, then eight seen on June 11. There were 16 on June 12 with 19 on June 15 and 34 on June 17, then 14 seen on June 18 with three on June 19. That concluded the summer passage. For the early fall passage there were 24 on June 24 with 41 on June 29 and 131 on July 1, then 65 seen on July 3 with 22 on July 6, 15 on July 8 and five on July 9. There were 26 on July 10 with 19 on July 15, 12 on July 16 and three on July 17. There were 23 on July 20 with 14 on July 22 and nine on July 23. There were 25 on July 24 with six on July 27. There were ten on July 29 with 41 on July 30, then ten seen on July 31. There were 17 on August 3 and August 5 with 40 to August 10 and 49 on August 13, then 14 seen on August 17 with seven on August 19. There were ten on August 20 with 31 on August 21, then one seen on August 26. There were 15 on August 27 and September 2 with 71 on September 3 and 172 on September 4, then four seen on September 5. There were five on September 7 with 47 on September 9, 53 on September 10 and 118 on September 14, then 27 seen on September 16 with four on September 17. There were 24 on September 18 with 30 on September 23 and 53 on September 24, then 38 seen on September 28 with 29 on September 30. That finished the early fall passage. For the late fall passage (with one exception this was the lighter fall passage) there were 50 on October 1 with seven on October 2 and six on October 11. There were 15 on October 16 with 357 on October 22, then

63 seen on October 25 with 23 on October 26 and six on October 28. The count of 357 is by far the highest count for the park it is even a very high count for anywhere in Florida. The wind was from the north-west at five mph and I counted for five hours. There were 24 on October 29 with 77 on November 1, then 49 seen on November 4 with 13 on November 6 and five on November 8. There were 42 on November 11 with 24 on November 15, ten on November 16 and two on November 18. There were 21 on November 19 with 31 on November 20, then one seen on November 22. That ended the late fall passage. For the winter passage there were nine on November 24 with 12 on November 25, 13 on November 29, 31 on November 30 and 46 on December 2, then 19 seen on December 6 with three on December 7. There were 32 on December 10 with eight on December 11. There were 19 on December 13 with 25 on December 14, then three seen on December 18. There were four on December 21 with five on December 23, 12 on December 24, 13 on December 31, 19 on January 1 and 76 on January 4, then 63 seen on January 6 with 33 on January 8, 30 on January 9 and ten on January 13. That finished the winter passage.

Turkey Vulture (*Cathartes aura*)

Present all year unlike the last species they regularly visited the barrier island. Numbers for most of the year were low but there were two significant movements. There was a very strong passage in the spring in February and March with another heavy passage in the fall from late October to December. For the early spring passage there were singles on January 2, January 4 and January 9 with five on January 10, seven on January 13 and 16 on January 16, then three seen on January 13. There were four on January 18 with seven on January 21, then four seen on January 22 with two on January 23. That was the extent of the early spring passage. For the main spring passage there were 12 on January 24 with 24 on January 29 and 51 on February 4, then ten seen on February 5. There were 12 on February 6 with 13 on February 10, 66 on February 12 and 68 on February 13, then nine seen on February 14 with one on February 15. There were 43 on February 16 with six on February 19. There were 20 on February 20 with 139 on February 21, then 28 seen on February 24 with 15 on February 25, 13 on February 27 and four on February 28. There were 62 on March 2 with six on March 3. There were 26 on March 4 with 45 on March 5, then 28 seen on March 6 with 26 on March 11 and 11 on March 12. There were 31 on March 13 with 177 on March 16 and 265 on March 18, then 142 seen on March 20 with 27 on March 26, 22 on March 28, ten on April 1 and two on April 2. Whilst the count of 265 was a very high count it is not the highest count read on. The long decline of that influx indicated the end of an event in this case the main spring passage. Only low numbers were now seen through to October so in this instance I am treating the whole of that period as the summer passage. For the "summer" passage there were seven on April 3

with eight on April 6, then four seen on April 8 with three on April 10 and singles to April 16. There were two on April 20 with three on April 22 and April 24, then singles seen to April 29. There were two on April 30 with singles to May 5. There were two on May 6 with four on May 8, then singles seen to May 18. There were three on May 21 with singles to May 27. There were six on May 28 with five on June 1, two to June 8 and one on June 11. There were four on June 12 with 14 on June 15, then three seen on June 17 with two on June 18 and one on June 19. There were six on June 24 with ten on June 29, then six seen on July 2 with five on July 3, two on July 4 and one on July 6. There were five on July 8 with eight on July 9, then seven seen on July 13 with five on July 15, two on July 16 and one on July 17. There were five on July 20 with two on July 22 and one on July 23. There were two on July 24 with four to July 30, five on July 31, six on August 3 and eight on August 6, then singles seen to August 10. There were four on August 13 with one on August 14. There were three on August 17 with four on August 19 and five on August 21, then singles seen to September 1. There were two on September 2 with six on September 4, then five seen on September 7 with one on September 9. There were three on September 10 with four on September 11 and 11 on September 14, then five seen on September 16 with four on September 17. There were eight on September 18 with 16 on September 23, then 13 seen on September 24 with ten on September 25 and four on September 28. That ended the "summer" passage September being a transition month. For the main fall passage there were 14 on September 30 with 15 on October 1, then three seen on October 2 with two on October 4. There were three on October 11 with singles to October 15. There were six on October 16 with ten on October 19, 22 on October 22 and 45 on October 25, then 18 seen on October 26 with four on October 28. There were six on October 29 with seven on October 30, eight on November 1, 31 on November 4 and 40 on November 6, then 16 seen on November 8 with four on November 11. There were 230 on November 12 with 82 on November 5, 38 on November 16 and four on November 18. There were 68 on November 19 with 65 on November 20 and one on November 22. There were two on November 24 with 123 on November 25, then seven seen on November 26 with four on November 27. That closed the main fall passage. For the winter passage there were 33 on November 29 with 78 on December 2, then four seen on December 3 with two on December 4. There were 22 on December 6 with 11 on December 7 and nine to December 11. There were 741 on December 13 yes 741 with 25 on December 14, 11 on December 18 and three on December 21. The count of 741 is by far the highest count for the park. There was no wind and I counted for five hours. There were 15 on December 23 with 28 on December 24 and 64 on December 30, *then 38 seen on January 1 with 13 on January 3. There were 54 on January 4 with 14 on January 6 and eight on January 7.* That was the winter passage.

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

This was a vagrant. For the summer passage a party of five flew to the north up the Halifax River on June 8.

Snow Goose (*Chen caerulescens*)

This was a vagrant. For the early spring passage an adult light morph flew to the south down the Halifax River on February 27.

Brant (*Branta bernicla*)

This was a vagrant. For the late fall passage one flew to the south offshore on November 6.

Wood Duck (*Aix sponsa*)

This was a vagrant. For the late fall passage one flew to the south on November 8 it was the trailing bird in a flock of Black Scoters.

Gadwall (*Anas strepera*)

A very uncommon late fall and early winter passage migrant there were six records in all. For the late fall passage there were two on November 5 with five on November 15. There were two on November 18 with five on November 20. That was the extent of the late fall passage. For the winter passage there were three on December 4 with 14 on December 16; the count of 14 being the highest count for the park. On the 16th the wind was from the south-east at six mph and I counted for six hours.

American Wigeon (*Anas americana*)

An uncommon late fall and winter passage migrant; there was one spring record. For the late spring passage there were two on March 20. For the late fall passage there were two on November 5 with three on November 12, eight on November 13 and 15 on November 18, then four seen on November 26 with two on November 27. The count of 15 is the highest count

for the survey however there was a higher count of 18 on December 26, 2015. For the winter passage there were five on December 3 with 13 on December 14, then five seen to December 11 with two on December 14. Finally there were ten on December 16.

Mallard (*Anas platyrhynchos*)

This was a vagrant. For the early fall passage a male flew to the south down the Halifax River on September 3. For the late fall passage three flew to the south offshore on November 12.

Blue-winged Teal (*Anas discors*)

A passage migrant whilst there was a spring passage from mid-March to early May this was above all an early fall passage migrant. There was one record for the early spring passage but none were seen during the winter passage. For the early spring passage there was one on January 16. For the main spring passage there were nine on March 18 with 26 on March 19, then nine seen on March 25. There were 11 on March 28 with 32 on April 9, 39 on April 10 and 48 on April 15, then 14 seen on April 16 with 11 on April 24 and six on May 6. That was the main spring passage. For the early fall passage there were four on August 5. Later there were two on August 20 with 43 on August 26 and 248 on August 27, then 193 seen on September 1 with 119 on September 2, 12 on September 3 and four on September 4. There were 580 on September 9 with 1,790 on September 10, then 750 seen on September 11 with 51 on September 14, 36 on September 23, three on September 24 and two on September 25. The count of 1,790 is the highest count for the park. There was no wind and I counted for five hours. There were 1,060 on September 28 with one on September 30. On the 28th the sea was calm and I counted for five hours. That completed the early fall passage. Numbers were now much lower with the late fall passage. There were six on October 14 with 30 on October 19, then five seen on October 22 with two on October 23. There were nine on October 25 with seven on October 29, five on November 8 and one on November 13. Finally for the late fall passage there were three on November 20 with one on December 4.

Northern Shoveler (*Anas clypeata*)

This was an uncommon passage migrant there were just nine sightings. For the late spring passage there were three on March 19 with later one on April 2, two on April 3 and nine on April 9. For the early fall passage there were five on September 10. For the main fall passage

there were 30 on November 5 with two on November 12. The count of 30 is the highest count for the park. On the 5th the wind was from the north-east at 12 mph and I counted for six hours. There were also 14 on November 16. That closed the main fall passage. For the winter passage there were three on December 7.

Northern Pintail (*Anas acuta*)

There were also just nine records for this species in this case there was only one spring record. The other eight records related to the late fall and winter passages. For the late spring passage there were 14 on April 9. For the late fall passage there were 52 on November 5 with 65 on November 6, then three seen on November 8. There were 225 on November 12 with ten on November 13 and four on November 22. The count of 225 is the highest count for the park. The wind was from the north-west at three mph on that date and I counted for seven hours. That closed the late fall passage. For the winter passage there were four on December 10 with 14 on December 16. *There were also two on January 3.*

Green-winged Teal (*Anas crecca*)

There was a light spring passage from late March to early May together with a light early fall passage. This was above all a late fall passage migrant with the heaviest passage in November; there was also a minor winter passage. For the late spring passage there were 15 on March 25 with eight on March 28 and six on April 3. There were 12 on April 9 with four on April 10. Later there were three on May 6. That was the late spring passage. For the early fall passage there was one on August 31 with three on September 10, then two seen on September 14. There were eight on September 23 with nine on September 28, then two seen on September 30. That closed the early fall passage. For the main fall passage there were three on October 11 and October 25 with four on November 11, 34 on November 5, 140 on November 6 and 420 on November 12, then 41 seen on November 13 with 26 seen on November 16. There were 66 on November 18 with 76 on November 20, 134 on November 22 and 150 on November 27, then eight seen on December 3. That completed the main fall passage. For the winter passage there were 24 on December 4 with two on December 7. There were five on December 10 with 420 on December 16. The two counts of 420 are the highest counts for the park. *Finally there was one on January 1.*

Canvasback (*Aythya valisineria*)

This was a rare winter passage migrant there were just five records. For the winter passage there was one on November 27 with four on December 3, then two seen on December 11. There were 27 on December 16 with four on December 17. The count of 27 is the highest count for the park. On the 16th the wind was from the south-east at six mph and I counted for six hours. The single Canvasback on November 27th flew to the south in the middle of a flock of Green-winged Teals – it was totally out of place.

Redhead (*Aythya americana*)

There were nine records of this duck two were in the early spring, one in the late fall and six during the winter passage. For the early spring passage there was one on January 24 with two on February 4. For the late fall passage there were three on November 18. For the winter passage there was one on November 27 with four on December 3 and 37 on December 16, then one seen on December 18. The count of 37 is the highest count for the park. The 16th was also the best day for Canvasbacks. Finally for the winter passage there were 25 on December 20 with two on December 23.

Ring-necked Duck (*Aythya collaris*)

There were only five records for this species it was hard to locate in the flocks of Lesser Scaup. For the early spring passage there were singles on January 15 and February 24. For the late fall passage there was one on October 30 with three on November 12. For the winter passage there was one on December 4.

Greater Scaup (*Aythya marila*)

There was a light early spring passage (11 sightings) with a heavy passage in the late fall (11 sightings). It is very likely that this species was under-counted and that many were thought to be Lesser Scaup. For the early spring passage there was one on January 2 with 16 on January 8, then five seen on January 10 with one on January 15. There were six on January 17 with singles on January 22 and January 23. There were eight on January 27 with singles on February 10 and February 24. Finally for the early spring passage there were two on February 26. For the late fall passage there were 42 on November 5 with five on November 13 and four on November 20. There were also six on November 25. That closed the late fall passage. For the

winter passage there were 156 on December 3 with eight on December 4 and one on December 7. There were 385 on December 10 with 38 on December 11. There were 1,060 on December 16 with 55 on December 23. The count of 1,060 is the highest count for the park. The wind on the 16th was from the south-east at six mph and I counted for six hours (see Canvasback and Redhead text). *There were also 20 on January 3.* That ended the winter passage.

Lesser Scaup (*Aythya affinis*)

This was a common spring passage migrant from January to late March. It was however predominately a late fall and winter passage migrant with exceptionally high numbers on two dates. For the early spring passage there were 42 on January 1 with 260 on January 2, then 87 seen on January 3 with ten on January 8. There were ten on January 8 with 15 on January 9, 123 on January 10 and 1,266 on January 13, then 23 seen on January 15 with 15 on January 16. There were 56 on January 17 with 54 on January 21, 18 on January 22 and 11 on January 23. There were 55 on January 27 with 380 on January 29 and 1,300 on January 31, then 290 seen on February 4 with ten on February 5. There were 490 on February 6 with 14 on February 9 and one on February 10. There were 980 on February 12 with 15 on February 13. There were 75 on February 14 with 1,520 on February 15, then 1,150 seen on February 16 with six on February 20 and three on February 21. There were 15 on February 24 with 63 on February 25, then eight seen on February 26. That closed the early spring passage. For the late spring passage there were 120 on February 27 with 445 on March 4 and 1,100 on March 11, then two seen on March 13. There were three on March 18 with 20 on March 19 and 105 on March 25, then two seen on March 28. That ended the late spring passage. For the late fall passage there was one on October 23 with 21 on October 25, then ten seen on October 26 with five on October 29. There were 17 on November 1 with 985 on November 5, then 560 seen on November 6 with 195 on November 8 and 71 on November 9. There were 515 on November 11 with 1,115 on November 12, then 556 seen on November 13 with 290 on November 15, 225 on November 18 and 18 on November 20. There were 10,770 on November 22 with 48 on November 24, 24 on November 26, five to November 29 and one on December 2. On the 22nd the wind was from the north at five mph and I counted for five hours. That completed the late fall passage. For the winter passage there were 2,010 on December 3 with 3,150 on December 4, then 103 seen on December 6. There were 175 on December 9 with 2,400 on December 10, then 1,260 seen on December 11 with 31 on December 13. There were 37 on December 14 with a massive 17,200 on December 16, then 3,150 seen on December 17 with 185 on December 18 and three on December 20. The count of 17,200 is the highest count for the park – see Greater Scaup, Canvasback and Redhead (this was duck day). The wind on this day was from the south-east at

six mph and I counted for six hours. There were 50 on December 21 with 61 on December 23, then 25 seen on December 30 with 15 on December 31 *and one on January 1. There were 15 on January 3 with 50 on January 7, then 18 seen on January 8 with 16 on January 9.* That concluded the winter passage.

Surf Scoter (*Melanitta perspicillata*)

Whilst there were records (three) for the early spring passage this was above all a late fall and winter passage migrant. This species will have been under-recorded due to the difficulties in separating them from the flocks of Black Scoter. For the early spring passage there were singles on January 17 and January 21 with two on February 7. For the late fall passage there was one on October 30 with six on November 8, seven on December 11 and 13 on November 13, then two seen to November 16 with one on November 22, The count of 13 is the highest count for the park. On the 13th the wind was at five mph but from variable directions I counted for seven hours. That closed the late fall passage. For the winter passage there were three on November 29 with nine on November 30, then four seen on December 7 with two on December 10 and one on December 14. There were also three on December 18. *Later there was one on January 1.* That completed the winter passage.

White-winged Scoter (*Melanitta fusca*)

There were just six records for this very uncommon scoter. For the early spring passage there was one on January 10. For the late spring passage there were singles on February 28 and March 2. For the late fall passage there was one on November 13. For the winter passage there was one on December 3 with two on December 8. *Later there was one on January 4.*

Black Scoter (*Melanitta nigra*)

In January there were large rafts of these ducks on the sea but these had all left by the 22nd. Small numbers continued to be seen to late February. From February 26 to February 28 there was a stronger passage to the north. A few continued to be seen through to May 1. They were seen in the fall from October 30 with a heavy passage in mid-November and again in early December. There were no rafts in January 2017. Earlier I had carried out Christmas Bird Counts at this location for five years and there were rafts offshore in only two of the five years (2013 and 2015). For the early spring passage there were 1,245 on January 1 with 420 on January 2 and 70 on January 3. There were 254 on January 4 with 1,280 on January 8 and 1,760 on

January 9, then 660 seen on January 10 with 35 on January 13. There were 1,500 on January 15 with 1,190 on January 16, 770 on January 17, 487 on January 21, 52 on January 22, 22 on January 23, 20 on January 24 and 18 on January 27. That long decline shows well their departure. There were 222 on January 28 with 40 on January 30 and 26 on January 31. There were 59 on February 4 with 79 on February 5, then 62 seen on February 6 with 53 on February 7, 28 on February 10 and three on February 12. There were five on February 13 with 30 on February 15, then three seen on February 16. There were six on February 19 with seven on February 20 and 65 on February 21, then 11 seen on February 24. Now the very short lived passage started. There were 49 on February 25 with 268 on February 26, 320 on February 27 and 501 on February 28, then 27 seen on March 2 with 12 on March 4, two on March 5 and one on March 6. That closed the early spring passage. For the late spring passage there was one on March 9 with 11 on March 11, then three seen on March 19 with two on March 20 and one on March 25. There were six on March 28 with singles to April 2. There were four on April 9 with singles on three dates to April 22. Finally for the late spring passage there were two on April 23 with one on May 1. For the late fall passage there were seven on October 30 with 34 on November 5, 105 on November 6 and 2,280 on November 8, then 485 seen on November 9 with 340 on November 11. There were 1,230 on November 12 with 2,940 flying to the south on November 13, then 313 seen on November 15 with 129 on November 18, 24 on November 19 and 20 on November 20. The count of 2,940 is the highest count for the park. The wind was variable at five mph and I counted for seven hours. There were 1,365 on November 22 with 120 on November 24. There were 149 on November 25 with 665 on November 26, then 566 seen on November 27 with 371 on November 29 and five on November 30; that ended the late fall passage. For the winter passage there were 63 on December 2 with 153 on December 5, then 132 seen on December 4 with ten on December 6. There were 2,840 on December 7 with 113 on December 10 and 38 on December 11. That was so nearly the high count. The wind was from the north-west at three mph and I counted for seven hours. There were 41 on December 13 with 49 on December 14, 143 on December 16, 199 on December 17 and 270 on December 20, then 154 seen on December 23 with 82 on December 24, 64 on December 30 and 21 on December 31. *There were 26 on January 1 with 44 on January 3 and 46 on January 7, then 14 seen on January 8 with one on January 9.* That finished the winter passage. During the late fall and winter all the major flights were to the south.

Long-tailed Duck (*Clangula hyemalis*)

This was a vagrant for the late fall passage one flew to the south close to the shore on November 9.

Bufflehead (*Bucephala albeola*)

In all there were 11 records for this duck three were for the early spring passage, two for the late fall passage and six for the winter passage. For the early spring passage there were three on January 2 with one on January 8, then four seen on January 13. For the late fall passage there were three on November 13 and November 25. For the winter passage there were eight on December 7 with three on December 9. There were four on December 11 with 12 on December 16 and 18 on December 17. The count of 18 is the highest count for the park. The wind was from the south at six mph and I counted for seven hours. *Finally for the winter passage there were three on January 9.*

Common Goldeneye (*Bucephala clangula*)

There were four records for this year. For the early spring passage there was one on January 24. For the late fall passage there was one on November 25. Finally for the winter passage there were singles on December 7 and *January 8.*

Hooded Merganser (*Lophodytes cucullatus*)

This is an inland species that rarely migrates offshore...For the late spring passage there was one on March 19. For the late fall passage there was one on November 16 with 14 on November 22 (they flew to the south). On the 24th a total of 14 again flew to the south. I can only guess that they had returned north on either the 22nd or the 23rd.

Red-breasted Merganser (*Mergus serrator*)

Present in the spring from January to May 30 with a minor passage in late March and early April. The fall passage (from November 5) was much stronger with an even stronger winter passage. All the sightings were offshore. For the early spring passage there was one on January 1 with 33 on January 2, then 13 seen on January 3 with eight on January 4, six on January 8 and two on January 9. This influx really belongs to the winter passage but for this first year I am including it for all species in the early spring passage. For what will be the early spring passage there were 30 on January 10 with four on January 15, two on January 21 and one on January 22. There were two on January 24 with seven on January 28, then five seen on February 4 with two on February 7. There were two on February 21 with one on February 24. That was the early spring passage. For the main spring passage there was one on March 9 with

four on March 11, then three seen on March 13 with one on March 18. There were four on March 19 with three on March 20 and two on March 23. There were five on March 25 with one on March 26. There were four on March 27 with 16 on March 28, then five seen on April 2. There were six on April 3 with 29 on April 15, then six seen on April 16 with two on April 23 and singles to May 6. There were three on May 11 with singles to May 18. There were also two on May 30. That closed the main spring passage. For the late fall passage there were five on November 5 with 28 on November 11, 46 on November 12 and 98 on November 13, then five seen on November 18 with two on November 19. There were eight on November 20 with 152 on November 22, then 80 seen on November 24 with 37 on November 25, 27 on November 27, 21 on November 30 and four on December 2. On November 22 the wind was from the north at five mph and I counted for five hours. That long decline suggests that the late fall and winter passages may be separate events. For the winter passage there were 56 on December 3 with 90 on December 4 and 220 on December 7, then 58 seen on December 9 with 37 on December 10, 20 on December 11 and one on December 13. The count of 220 is the highest count for the park. The wind was from the north-west at three mph and I counted for seven hours on the 7th. There were six on December 14 with 159 on December 16, then 25 seen on December 17 with six on December 18. On the 16th the wind was from the south-east at six mph and I counted for six hours. There were 87 on December 21 with 39 on December 23, 18 on December 30 and seven on December 31. *There were 28 on January 1 with eight on January 3, four on January 4 and one on January 7.* That ended the winter passage.

Osprey (*Pandion haliaetus*)

Present all year in very low numbers often there was one out over the sea with another one over the Halifax River. Sometimes there were two over the sea. During the year there were six counts of four, two counts of five, two counts of six and one count of eight; all eight were hunting over the sea. I am going to show the "influxes" just in case with the addition of other year's data a pattern emerges. For the early spring passage there were singles from January 2 to January 10 with three on January 13, then two seen on January 16 with one on January 17. There were two from January 18 to January 27 with three on January 29, then two seen to January 31 with singles to February 6. There were two from February 10 to February 16 with three on February 21, then two seen on February 26 with one on February 27. That was the early spring passage. For the late spring passage there were two on March 2 with three on March 4 and four on March 5, then singles seen to March 9. There were two on March 11 and March 13 with three on March 16, then two seen on March 18 with one on March 19. There were three on March 20, March 23 and March 26 with singles to March 30. There were three on April 1 with two to April 8 and singles to April 13. There were two from April 15 to April 17

with three on April 20, then two seen to April 23 with one on April 24. There were two on April 27 with three on April 29, then one seen on April 30. That closed the late spring passage. For the summer passage there were two on May 1 and May 5 with three on May 6 and May 8, then two seen to May 13 with singles to May 18. There were two on May 20 with three from May 21 to May 27, then two seen to May 29. There were three on May 30 with two to June 5 and singles to June 7. There were two from June 8 to June 15 with four on June 17, then two seen to June 19 with one on June 24. There were three on June 25 and June 29 with two on July 1. That ended the summer passage. For the early fall passage there were three from July 2 to July 4 with two to July 8. There were three on July 9 with two to July 15 and one on July 16. There were two from July 17 to July 24 with singles to July 29. There were two on July 30 and July 31 with three on August 3, then two seen on August 6 with singles to August 12. There were four on August 13 with singles to August 20. There were two on August 21 with singles to September 2. There were two on September 3 with three on September 4, then two seen to September 10 with one on September 11. There were three on September 14 with two to September 17. There were three on September 18 with four on September 24 and five to September 28, then six seen on September 30 with two to October 5 and one on October 11. That last influx really appears to be just that an influx. That concluded the early fall passage. For the late fall passage there were two on October 12 and October 14 with singles to October 16. There is now a second real influx. There were two on October 19 with three to October 23, six on October 26 and eight on October 29 (there were also four on October 28), then three seen on October 30 with two to November 4. The count of eight is the highest count for the park. There were three on November 5 and November 8 with four on November 11, then two seen to November 16. There were three from November 18 to November 22 with singles to November 25. There were two on November 26 and November 29 with one on November 30. That completed the late fall passage. For the winter passage there was one on December 2 with three on December 3, then singles seen to December 6. There were two on December 7 with singles to December 10. There were two from December 11 to December 16 with singles to December 23. There were two on December 31 *and January 1 with one on January 4. There were two on January 6 and January 8 with one on January 9.* That ended the winter passage.

Swallow-tailed Kite (*Elanoides forficatus*)

There were four records for the breeding season with 20 records for the early fall passage. Nearly all the sightings were of birds over the barrier island and they were all moving to the south. For the breeding season there were singles on March 20, March 23 and April 29 with three on May 13. For the early fall passage there was one on June 17 with two on June 24 and nine on June 29, then eight seen on July 2 with two on July 3. There were 19 on July 4 with

two on July 6. There were three on July 8 with four on July 9 and 20 on July 10, then four seen on July 15 with three on July 20 and singles to July 24. The count of 20 is the highest count for the park. There was no wind on the 10th and I counted for five hours. There were four on July 27 with six on July 29 and July 30, then four seen on July 31 and August 3. Whilst working their way south they would often pause to circle over the parking lot.

Mississippi Kite (*Ictinia mississippiensis*)

This was a vagrant. For the early fall passage an adult flew to the south with the Swallow-tailed Kites on June 29. It may be a few years before another is seen.

Bald Eagle (*Haliaeetus leucocephalus*)

They were present in the area from January to May 11 and again from August 20 to the end of the year, there was also one on June 24. They were normally seen over the Halifax River but they did go after the oceanic Ospreys. Normally just one to two a day noted regularly. For the early spring passage there were two on January 10. Later there were singles on January 21 and January 30 with two from January 31 to February 9, then one seen on February 14. There were three on February 16 with two on February 21 and one on February 25. That was the early spring passage. For the late spring passage there were singles from March 2 to March 18 with three on March 20, then two seen on March 27 with singles to April 10. There were two on April 13 with singles to April 29. Finally for the late spring passage there were two on April 30 with singles to May 1 and May 11. For the summer passage there was one on June 24. For the early fall passage there were singles on August 20, August 21, September 4, September 14 and September 16 with three on September 23, then two seen on September 24 with one on September 25. There were also three on September 28. That completed the early fall passage. For the late fall passage there was one on October 11 with two on October 19, then one seen on October 22. There were two on October 23 and October 25 with singles to November 15. There were three on November 16 with singles to November 30; that finished the late fall passage. For the winter passage there were singles on six dates from December 2 to December 23. *There was one on January 3 with two on January 4, then singles seen to January 9.* That ended the winter passage. The counts of three are the highest counts for the park.

Harrier (*Circus cyaneus*)

This was an uncommon early spring and late fall passage migrant the majority were seen in October. All the sightings were over the Halifax River. For the early spring passage there were singles on February 24 and March 2. For the late fall passage there was one on September 30 with four on October 1, then one seen on October 2. The count of four is the highest count for the park. There were singles on October 19 and October 22 with two on October 23. Later there was one on November 19. That closed the late fall passage. For the winter passage there were singles on December 30 and *January 1*.

Sharp-shinned Hawk (*Accipiter striatus*)

Another uncommon passage migrant with four sightings in the spring and six in the late fall. They travelled along the barrier island or over the river. For the early spring passage there were singles on January 24, January 27 and February 16. For the late spring passage there was one on March 4. For the late fall passage there were singles on October 2, October 22, October 25, November 1 and November 4 with later two on November 20; the count of two being the highest count for the park. That closed the late fall passage. *For the winter passage there were singles on January 6 and January 8.*

Cooper's Hawk (*Accipiter cooperii*)

This was a resident with a pair breeding on the barrier island near the park; even so they were elusive. For the early spring passage there was one on January 21 with two on February 4, then singles seen on three dates to February 28. For the late spring passage there were three on March 18 with singles later on April 6 and April 10; the count of three being the highest count for the park. For the summer passage there were singles on 11 dates from May 1 to June 5 with two on June 8, then singles seen on June 17 and June 24. That closed the summer passage. For the early fall passage there singles on 11 dates from July 1 to August 21 with two on September 9, September 14 and September 18, then singles seen to September 28. For the late fall passage there were singles on six dates from October 16 to November 9. For the winter passage there were singles on six dates from December 2 to *January 9*.

Red-shouldered Hawk (*Buteo lineatus*)

A resident outside of the breeding season they were absent after May 15 and before August 3; normally just one to two a day were seen regularly. For the early spring passage there were singles on February 13 and February 27 with two on February 28, then one seen on March 2. For the late spring passage there were singles on 11 dates from March 5 to April 24. For the summer passage there was one on May 15. There were no further sightings until August. For the early fall passage there were two on August 3 with singles on six dates to September 11. There were two on September 14 with three on September 18, then two seen on September 24 with one on September 25. That count of three is the highest count for the park. That closed the early fall passage. For the late fall passage there were singles on five dates from October 2 to October 22 with two on October 23, November 11 and November 12, then singles seen on five dates to November 25. For the winter passage there were singles on December 21, December 24 and January 1.

Short-tailed Hawk (*Buteo brachyurus*)

This was a vagrant. For the summer passage there was a light morph over the Halifax River on June 15. The wind was from the north-west at five mph so that should not have pushed it to the coast.

Red-tailed Hawk (*Buteo jamaicensis*)

Perhaps exceptionally one actually wintered across A1A from the park. It was seen on 12 dates from January 8 to February 27. During this period there were two on February 10 and February 25. For the late spring passage there were singles on March 16, March 27, April 20, May 8 and May 13. These individuals were over the Halifax River. There were no summer sightings. For the early fall passage there were singles on July 29 and August 21, these were across the river. There were no further sightings until late October. For the late fall passage there was one on October 22 with two on November 15 and November 19, then one seen on November 20. For the winter passage there were singles on December 3, December 10 and January 4. The counts of two are the highest counts for the park.

American Kestrel (*Falco sparverius*)

An adult male was in residence across A1A from the park when the survey started on January 1. It stayed there until March 23. What had to be the same male returned to the same perches on September 25; it was still there at the end of the year. On October 22 and October 30 two were seen so the second individual will have been an additional migrant.

Merlin (*Falco columbarius*)

Both the Merlin and the Peregrine Falcon will have been under-recorded. With so many buildings in the vicinity it was not possible to see all that flew by as they often flew too low. There was a spring passage in April with the return passage in the fall in September and October. For the early spring passage there was one on February 9. For the main spring passage there were singles on March 28 and April 2 with two on April 8, April 10 and April 17, then one seen on April 23. For the early fall passage there was one on September 14 with three on September 18 and September 28, then two seen on October 1 (there was also one on September 24). For the main fall passage there was one on October 4 with two on October 5 and October 11, then five seen on October 12 with singles on October 19 and October 22. The count of five is the highest count for the park. On the 12th the wind was from the north-north-east at 15 mph and I counted for five hours. Finally for the main fall passage there was one on November 16. Exceptionally for the winter passage there was one on January 1 – it was flying to the north....

Peregrine Falcon (*Falco peregrinus*)

Whilst there were two records for the spring passages this was a fall passage migrant with the heaviest passage in late September and early October. For the early spring passage there was one on January 8. For the late spring passage there was one on April 29. For the fall passage there were singles on September 14, September 23, September 24 and September 25 with 26 on September 30, then eight seen on October 1 with seven on October 2, six on October 4 and two on October 5. The count of 26 is the highest count for the park. On the 30th the wind was variable at five mph and I counted for five hours. There were four on October 11 with 12 on October 12, then four seen on October 14. There were five on October 15 with eight on October 16, then two seen on October 19. There were three on October 22 with two on October 26 and one on November 2. Later there were singles on November 12, November 19 and November 29. That completed the fall passage.

Sandhill Crane (*Grus canadensis*)

This was a vagrant. For the early spring passage three flew to the south on January 30 over the Halifax River. For the late fall passage two flew to the south over the Halifax River on October 2.

Black-bellied Plover (*Pluvialis squatarola*)

Present all year although records were less frequent during the summer. There appeared to be a clear passage from late April to late May and again from late August to mid-September. For the early spring passage there were seven on January 1 with two on January 3 and singles to January 8. There were two on January 9 with nine on January 10, then singles seen to January 18. There were two on January 21 with singles to January 24. There were two on January 28 with three on January 29, then singles seen on eight dates to February 13. There were three on February 14 with two on February 16 and one on February 19. There were two on February 20 with singles to February 28. That was the early spring passage. For the main spring passage there was one on March 2 with two on March 4, then singles seen on four dates to March 12. There were four on March 13 with five on March 18, then three seen on March 20 with two on March 30 and singles to April 2. There were three on April 3 with seven on April 9, then two seen on April 10 with one on April 13. There were ten on April 15 with three on April 17 and singles to April 23. There were six on April 24 and April 29 with four on April 30. There were five on May 1 with six on May 4, then five seen on May 5 with three on May 6. There were ten on May 7 with six on May 8 and four on May 11. There were five on May 13 and May 14 with six on May 15, then four seen on May 18 with one on May 20. There were seven on May 21 with two on May 22 and one on May 25. That ended the extended main spring passage. For the summer passage there was one on May 30 with two on June 1, then one seen on June 7. There were also three on June 19. Later there was one on July 3. With the exception of this last sighting there was a break from June 20 to July 22. For the early fall passage there was one on July 23 with two from August 10 to August 20, then one seen on August 21. There were five on August 27 with nine on August 31, 15 on September 1 and 29 on September 2, then nine seen on September 3 with four on September 4 and three on September 5. The count of 29 is the highest count for the park that was the day of Tropical Storm Hermine. There were six on September 7 with five on September 10 and four on September 11. There were eight on September 14 with five on September 16, three on September 18, two to September 25 and one on September 30. That was the end of the early fall passage but it was also the end of the actual fall passage. For the late fall passage there were two on October 1 and October 2 with three on October 4, then two seen to October 12 with singles to October 19. There were two on October 22 with singles to October 25. There were two on October 26 with three on November

2, then two seen on November 4 with singles to November 9. There were two on November 12 with singles to November 16. There were two from November 18 to November 24 with three on November 25, then two seen on November 26 with singles to November 29; that finished the late fall passage. For the winter passage there was one on December 3 with five on December 4, then two seen to December 9 with one on December 10. There were two on December 11 with seven on December 14, then four seen on December 16 with singles to December 20. There were two on December 21 with nine on December 23, *then singles seen to January 9.*

Wilson's Plover (*Charadrius wilsonia*)

This was a vagrant. For the winter passage there was one on the beach on November 30 and December 2.

Semipalmated Plover (*Charadrius semipalmatus*)

A late spring passage migrant from late April to late May there were also a few records for the early fall passage. For the late spring passage there were six on April 23 with two on April 24 and singles on four dates to May 4. There were seven on May 5 with five on May 6. There were 13 on May 7 with ten on May 11, five on May 14 and three on May 15. The count of 13 is the highest count for the park. There were seven on May 18 with 11 on May 21, then ten seen on May 22 with four to May 29. That closed the late spring passage. For the early fall passage there was one on August 31 with two on September 1, then one seen on September 9. There were also two on September 11. Exceptionally there was a winter sighting there was one on the shore on December 14.

Piping Plover (*Charadrius melodus*)

This was a vagrant. For the late spring passage there was one on the shore on April 30 and for the early fall passage there was one on the shore on August 13.

Killdeer (*Charadrius vociferus*)

An irregular visitor from January to late June and again from early September to the end of the year; normally only singles recorded. For the early spring passage there was one on

January 9. Later there was one on five dates from February 16 to February 28. That was the early spring passage. For the main spring passage there were singles on March 28 and April 1. There were also singles from April 13 to April 20 with two on April 22, then singles seen on seven dates to May 22. There were two on May 27 with singles to June 8. Finally for the main spring passage there were singles on June 24 and June 25. There were no summer sightings. For the early fall passage there were two on September 4 with one on September 11. There were three on September 18 with later singles from September 30 to October 2. That ended the early fall passage. For the main fall passage there was one on October 16 with four on October 22, then one seen on November 1. There were two on November 2 with singles on four dates to November 13. There were eight on November 20 with one on November 25. The count of eight is the highest count for the park. That concluded the main fall passage. For the winter passage there were singles on December 2, December 9, December 16, December 17 and December 30 *with three on January 6.*

American Oystercatcher (*Haematopus palliatus*)

Whilst there were single late spring and summer sightings this was a rare late fall passage migrant. For the late spring passage there was one on April 27. For the summer passage there was one on June 8. For the late fall passage there was one on October 15 with three on October 28, then one seen on November 1. Finally there were two on November 2. The count of three is the highest count for the park.

Black-necked Stilt (*Himantopus mexicanus*)

This was a surprisingly common early fall passage migrant. Whilst some flew south over the Halifax River the majority flew to the south up to a mile off shore. In all 117 flew to the south. For the early fall passage there nine on June 7 with 23 on June 8, then three seen on June 17. There were 16 on June 18 with two on June 25. There were 27 on June 26 however there were no sightings for the next month. The count of 27 is the highest count for the park. Passage resumed on July 23 when two seen. There were 15 on August 5 with six on August 19. Finally for the early fall passage there were 12 on August 21 with two on August 27. It will be interesting to see if this break holds true in 2017.

American Avocet (*Recurvirostra americana*)

This was a vagrant. For the early fall passage there was one on August 5 with two on August 24. They all flew to the south near the shore.

Greater Yellowlegs (*Tringa melanoleuca*)

This was a rare passage migrant there being one spring and four fall records. For the late spring passage there was one on April 24. For the early fall passage there were singles on August 5 and September 1 with two on September 3. For the late fall passage there was one on October 22.

Lesser Yellowlegs (*Tringa flavipes*)

This was also a rare passage migrant there being one record for the early spring passage and four for the early fall passage. For the early spring passage there were two on February 26. For the early fall passage there were singles on August 7, August 12, September 1 and September 2.

Solitary Sandpiper (*Tringa solitaria*)

This was another rare passage migrant with five records; two were for the late spring passage and three were for the early fall passage. For the late spring passage there were singles on April 24 and May 6. For the early fall passage there were singles on August 7, August 27 and September 11.

Willet (*Tringa semipalmata*)

Present all year normally in low numbers there was however a marked northerly passage even in January and February. In April there was a major passage to the north. The event of the year was a massive early fall passage with very large numbers on the shore from mid-July to mid-September. For the early spring passage to the north there were seven on January 1 with 11 on January 2, then eight seen on January 3. There were 29 on January 4 with 19 on January 8, 17 on January 10, eight on January 13, two to January 17 and one on January 18. The counts of one and two related to the local population the higher counts were the

migrants. There were five on January 21 with singles to January 23. There were 13 on January 24 with two on January 27. There were six on January 28 with 19 on January 29, then three seen on January 30 with two on January 31 and singles to February 5. There were 41 on February 6 with six on February 7 and two on February 9. There were 15 on February 10 with eight on February 13, two on February 14 and one on February 15. There were three on February 16, February 19 and February 21 with seven to February 25, 14 on February 26 and 22 on February 27, then nine seen on February 28 with six on March 2 and one on March 3. That was the early spring passage. For the main spring passage there were 17 on March 4 with 18 on March 5, then 14 seen on March 6 with ten on March 11 and seven on March 12. There were eight on March 13 with 12 on March 16, then seven seen on March 18 with six on March 19. There were 22 on March 20 with 17 on March 25 and two on March 26. There were four on March 27 and March 28 with 12 on March 30, then three seen to April 2. Now the heavy passage started. There were 16 on April 3 with 18 on April 6, 25 on April 8 and 227 on April 9, then 190 seen on April 10 with 74 on April 15 and 15 on April 16. There were 103 on April 17 with 21 on April 20 and five on April 22. That was the extent of the heavy passage. There were 17 on April 23 with 22 on April 24, then 12 seen on April 29 with four on April 30. There were five on May 1 with seven on May 4 and May 5, then three seen to May 8. There were 22 on May 11 with six on May 13 and five on May 14. There were nine on May 18 with 20 on May 20, then five seen on May 21 with two to May 27. There were three from May 28 to June 4 with singles to June 8. Any passage to this point was to the north so I treat this as the end of the main spring passage. After a ten day break the early fall passage started with passage to the south. There was one on June 18 with two on June 25, four on July 1 and 13 on July 2, then four seen to July 4 with three to July 8. Now the "massive" passage started. There were 15 on July 9 with 18 on July 10, 35 on July 13, 59 on July 15, 73 on July 16 and 198 on July 20, then 112 seen on July 22. There were 135 on July 23 with 260 on July 24, then 141 seen on July 27 with 115 on July 29. There were 240 on July 30 with 174 on August 3 and 131 on August 5. There were 235 on August 6 with 283 on August 7, then 222 seen on August 10 with 167 on August 13, 115 on August 14, 113 on August 17 and 81 on August 19. There were 446 on August 20 with 360 on August 21, 143 on August 24, 25 on August 26 and seven on August 27. The count of 446 is the highest count for the park. There were 27 on August 28 with 62 on August 31, 94 on September 1, 121 on September 3 and 194 on September 4, then 109 seen on September 5 with 85 on September 9, 40 on September 10 and 21 on September 11. That ended the "massive" passage. There were 54 on September 14 with 45 on September 16, 29 on September 17 and eight on September 18. There were 43 on September 23 with 17 on September 24. There were 18 on September 25 with 25 on September 28, then nine seen on September 30. That completed the very long early fall passage. For the late fall passage there were 12 on October 1 and October 2 with 17 on October 4, then nine seen on October 5 with three on October 11 and two on October 12. There were six on October 14 and October 15 with 14 on October 16, then five

seen on October 19 with two to October 23. There were four on October 25 with 19 on October 28, then one seen on October 29. There were three on November 1 with 15 on November 2, then four seen on November 4. There were six to November 5 with 12 on November 8, then three seen on November 9 with two on November 11. There were four on November 12 with nine on November 13, then three seen on November 15. There were four on November 16 with six on November 18, then singles seen to November 20. There were four on November 22 with five on November 24, seven on November 26 and 22 on November 27, then five seen on November 29 with two on November 30 and one on December 2. That concluded the late fall passage. For the winter passage there were 36 (flying to the north.....) on December 3 with 15 on December 4, four on December 6 and singles to December 10. There were four on December 11 with ten on December 13, then eight seen on December 16 with one on December 17. There were three on December 18 with 16 on December 20, then 14 seen on December 21 with 13 on December 24 and two on December 27. There were three on December 30 with four on December 31 *and six on January 1, then five seen on January 3 with three to January 7.* The passage was to the north all month. That finished the winter passage.

Spotted Sandpiper (*Actitis macularius*)

This was a spring passage migrant from early April to late May with a minor return passage in the early fall. All sightings were of birds on the shore or flying close to it. For the spring passage there were two on April 8 and April 9 with singles on April 13, April 15 and April 22. There were three on April 24 with singles on April 27 and April 29. There were two on May 5 with one on May 7. There were two on May 11 with singles on May 13 and May 15. There were four on May 18 with one on May 20. The count of four is the highest count for the park. That ended the spring passage. For the early fall passage there were singles on August 3, August 5, August 7, August 10, September 2 and September 4. There were no later records.

Whimbrel (*Numenius phaeopus*)

Whilst there were five records for the early fall passage this was a quite common late spring passage migrant. For the early spring passage there was one on February 21. For the main spring passage there was one on April 3 with 11 on April 9, then nine seen on April 10 with two on April 13. There were six on April 15 with 14 on April 16, then one seen on April 17. The count of 14 is the highest count for the park. There were two on April 24. Later there was one on May 5 with eight on May 6, then one seen on May 7. That closed the main spring passage. For the summer passage there were two on June 19 this may prove to be a very unusual record.

For the early fall passage there were singles on August 5, August 7, August 24 and September 1 with two on September 10.

Long-billed Curlew (*Numenius americanus*)

This was a vagrant. For the late spring passage one flew to the north along the shore on April 15.

Marbled Godwit (*Limosa fedoa*)

There were five records of which four were for the early fall passage. For the late spring passage there was one on April 10. For the early fall passage there were singles on July 15, August 24, September 1 and September 10.

Ruddy Turnstone (*Arenaria interpres*)

Present all year except for a three week break in June. There appeared to be two separate spring passages the first from February 24 to March 20 and the second from April 27 to May 21. I have not come across this situation before. The fall was normal as there was a distinct passage from August 19 to September 14. For the early spring passage there were ten on January 1 with 11 on January 3, 12 on January 4 and 19 on January 8, then 16 seen on January 10 with 14 on January 13, four on January 15, two on January 16 and singles to January 18. There were three on January 21 with two to January 23. There were 22 on January 24 with nine on January 28 and four on January 29. There were five on January 30 with 17 on January 31, then 13 seen on February 4 with five on February 5. There were six on February 6 with seven on February 7, 12 on February 10 and 14 on February 13, then ten seen to February 15 with eight on February 19 and two on February 20. That was the early spring passage. For the main spring passage there were seven on February 21 with 21 on February 24, then three seen to February 27. There were four on February 28 with 56 on March 2, then 35 seen on March 4 with 31 on March 5, 26 on March 9, 22 on March 11, 21 on March 12, 18 on March 16, six on March 18 and five on March 19. There were 26 on March 20 with two on March 23. That ended the first of the two spring events. There were three on March 25 with six on March 26 and March 28, then two seen on March 30. There were four on April 1 with eight on April 2 and 11 on April 8, then seven seen to April 13 with three on April 15. There were 16 on April 16 with four on April 17 and two on April 20. Now the second event started. There were four on April 22 and April 23 with nine on April 24, 11 on April 27, 27 on April 29, 32 on April 30, 33 on May 4

and 64 on May 6, then 38 seen on May 7 with 15 on May 8. There were 26 on May 11 with 48 on May 13, then 28 seen to May 15 with 26 on May 18, 17 on May 21, four on May 28, three on June 1 and two to June 5. That event really ended on May 21. There were four on June 7 with three on June 12 and June 17. That closed the main spring passage. For the early fall passage there were six on July 3 with three on July 6. Later there was one on July 23 with five on July 24, then three seen on July 27 with one on July 29. There were six on July 30 with eight on July 31, then one seen on August 3. There were two on August 5 with three on August 6, then five seen on August 7 and August 10 with four on August 12. Now the heavier fall passage started. There were 20 on August 14 with 25 on August 19 and 31 on August 20, then 25 seen on August 21 with two on August 24. There were ten on August 26 with 13 to August 28 and 45 on August 31, then 20 seen on September 1. There were 32 on September 2 with 51 on September 3 and 83 on September 4, then 28 seen on September 7 with nine on September 9. The count of 83 is the highest count for the park. There were ten on September 10 with 19 on September 11 and 30 on September 14, then 14 seen on September 16 with three on September 17. That ended this event. There were ten on September 18 with 18 on September 23 and 20 on September 24, then 14 seen on September 25 with four on September 30. That completed the early fall passage. For the late fall passage there were ten on October 1 with 25 on October 2, then 21 seen on October 5 with three on October 11. There were four on October 12 with 15 on October 14, then five seen on October 16 with three on October 22. There were 11 on October 23 with five on October 25. There were seven on October 26 with ten on October 28, then five seen on November 1 with four on November 4 and two on November 5. There were 11 on November 6 with 23 on November 8, then 19 seen on November 9 with 13 on November 12, eight on November 13 and six on November 15. There were 14 on November 16 with 11 on November 18 and seven on November 19. There were 14 on November 20 with 13 on November 22, ten on November 25 and nine on November 26; that finished the late fall passage. For the winter passage there were ten on November 27 with 15 on November 29, then eight seen on November 30 with six to December 3. There were seven on December 4 with 17 on December 7, then three seen on December 9. There were four on December 10 with five on December 11 and 24 on December 13, then 14 seen on December 14 with 11 on December 16, five on December 17, four on December 20 and two on December 21. There were 23 on December 23 with ten on December 27 and two on December 30. *There were two on January 1 with four on January 3 and 21 on January 6, then five seen to January 8.* That concluded the winter passage.

Red Knot (*Calidris canutus*)

A common passage migrant and winter visitor; flocks could frequently be seen working their way along the beach. The heaviest spring passage ran from January 28 to February 20 and the heaviest passage in the fall ran from November 8 to December 21. It is possible that there was a short break between the fall and the winter passages. For the early spring passage there were two on January 1 with 40 on January 3 and 76 on January 8, then 75 seen on January 10 with 44 on January 13, 30 to January 17, 25 on January 18 and seven on January 21. There were 80 on January 22 with 30 on January 23. There were 67 on January 24 and January 27 with 350 on January 28, then 80 seen on January 29 with 60 on January 30. There were 95 on January 31 with 175 on February 5 and 335 on February 7, then 30 seen on February 9 with 26 on February 10. There were 77 on February 12 with 109 on February 13 and 420 on February 14, then 145 seen on February 15 with 127 on February 16. The count of 420 is the highest count for the park. There were 205 on February 19 with 120 on February 20, 30 on February 24, 21 on February 25, 11 on February 27 and five on March 4. Such long declines often indicate the end of an event in this case the heaviest spring passage and also the end of the early spring passage. For the late spring passage there were 60 on March 5 with 42 on March 9 and ten on March 11. There were 15 on March 12 with 33 on March 13, then one seen on March 16. There were three on March 18 with 12 on March 19, then two seen on March 20. Later there were three on April 3 with four on April 13. Finally there was a straggler for the late spring passage on May 6. For the late fall passage there were 26 on October 23 with 42 on October 25, then 22 seen on October 28. There were 35 on November 2 with 180 on November 8, then 112 seen on November 11 with 80 on November 12. There were 295 on November 13 with 220 on November 16, 110 on November 18 and 41 on November 19. There were 50 on November 20 with 58 on November 22, 61 on November 24, 155 on November 26 and 250 on November 27, then 84 seen on November 29 with 30 on November 30; that finished the late fall passage. For the winter passage there were 155 on December 3 with 260 on December 4, then 210 seen on December 7 with 45 on December 9. There were 53 on December 10 with 110 on December 11 and 159 on December 14, then 95 seen on December 17 with 76 on December 18. There were 85 on December 20 with 194 on December 21, then 93 seen on December 23 with 87 on December 24. There were 112 on December 27 with 89 on December 30 and 36 on December 31. *There were 44 on January 1 with 102 on January 3, 105 on January 6 and 240 on January 7, then 154 seen on January 8 with 21 on January 9.* That concluded the winter passage.

Sanderling (*Calidris alba*)

Present on the beach year round even if the sightings were more limited from June 7 to July 20. There was a strong spring passage from April 24 to May 22 with a lesser passage in the

fall from August 21 to September 25. As with the Ruddy Turnstone there are indications of an earlier spring passage from February 25 to March 26. For the early spring passage there were six on January 1 with 21 on January 3, then three seen on January 4. There were 16 on January 8 with 54 on January 9, then 53 seen on January 10 with 16 on January 15, 15 to January 18, seven on January 21 and singles to January 23. There were six on January 24 with 20 on January 27, then ten seen on January 28 with nine on January 31 and one on February 4. There were 21 on February 5 with 14 on February 7, eight on February 9, six on February 10 and one on February 12. There were seven on February 13 with six on February 15 and four on February 17. There were 21 on February 19 with ten on February 20. That was the early spring passage. For the main spring passage and the first of the two events there were 14 on February 21 with 61 on February 25, then 49 seen on February 26 with two on February 27. There were 21 on February 28 with 39 on March 2, then 27 seen on March 5 with one on March 6. There were 31 on March 9 with 97 on March 11, then 47 seen on March 13 with nine on March 16. There were 31 on March 18 with 34 on March 19 and 55 on March 20, then 24 seen on March 23 with 21 on March 25. There were 36 on March 26 with 20 on March 28, 19 on March 30 and eight on April 1. The first event really ended after March 26. There were 25 on April 2 with 20 on April 6 and nine on April 8. There were 47 on April 9 with 16 on April 10, ten on April 13, six on April 15 and five on April 16. There were 16 on April 17 with seven to April 22. Now the heaviest passage started there were 29 on April 23 with 50 on April 24, 59 on April 27 and 79 on April 30, then 41 seen on May 1 with 32 on May 4. There were 430 on May 5 with 193 on May 6, 130 on May 7, 102 on May 8 and 63 on May 11. The count of 430 is the highest count for the park. There were 172 on May 13 with 170 on May 14, 109 on May 15 and 93 on May 18. There were 146 on May 20 with 121 on May 21, 46 on May 22, 11 on May 25, five on June 1 and singles to June 7. The heaviest passage really ended on May 21. There were two on June 17 with three on June 18, then one seen on June 19. That finished the main spring passage. For the early fall passage there were three on June 29. Later there were two on July 13 with four on July 20, then one seen on July 24. There were two on July 27 with four on July 29, 12 to August 3, 14 on August 6, 32 on August 7 and 43 on August 10, then 21 seen on August 12 with 20 on August 13. Now the heavier passage started there were 22 on August 14 with 25 on August 17, 33 on August 19 and 56 on August 21, then 11 seen on August 24. There were 39 on August 26 with 60 on August 28 and 66 on September 1, then 53 seen on September 2. There were 59 on September 3 with 66 on September 4, then 57 seen on September 7 with 41 on September 9 and 35 on September 10. There were 55 on September 11 with 165 on September 14, then 71 seen on September 16 with 37 on September 17 with 13 on September 18. There were 46 on September 23 with 34 on September 25, 25 on September 30, 19 on October 1 and 18 on October 2. That ended the heavier passage and it was also the end of the early fall passage. For the late fall passage there were 22 on October 4 with 53 on October 5, then 46 seen on October 12 with 30 on October 14, 26 on October 15 and two on October 16. Counts were now by

comparison very low. There were six on October 22 with eight on October 23, then three seen on October 25 with one on October 26. There were four on October 28 with 24 on October 29, then five seen on November 1 with two to November 4. There were six on November 5 with 12 on November 8 and 20 on November 9, then 17 seen on November 12 with 12 on November 15, seven on November 16, six on November 18, four on November 20 and three on November 22. There were 14 on November 24 with six on November 25, four on November 26 and three on November 27. That completed the late fall passage. For the winter passage there were 14 on November 29 with two to December 4. There were three on December 6 with four on December 7, then two seen to December 10. There were three on December 11 with nine on December 13 and 16 on December 14, then ten seen on December 16 with three on December 17. There were 11 on December 18 with six on December 20 and four on December 21. There were 33 on December 23 with seven on December 27 and two to December 31. *There were three on January 1 with 26 on January 3, then six seen on January 6 with one on January 7.* That concluded the winter passage.

Semipalmated Sandpiper (*Calidris pusilla*)

There was a marked spring passage from April 29 to May 29 with a lesser early fall passage from July 20 to September 14. For the late spring passage there were three on April 29 with seven on May 4, 115 on May 5 and 161 on May 6, then 110 seen on May 8 with 12 on May 11 and six on May 13. The count of 161 is the highest count for the park. There were 43 on May 14 and May 15 with 35 on May 18 and five on May 20. There were seven on May 21 with 137 on May 22, then ten seen on May 29. That closed the late spring passage. For the early fall passage there were 18 on July 20 with 14 on July 22 and eight to July 24. There were ten on July 27 with 32 on July 29, then 12 seen on July 30 with six on July 31 and two on August 3. There were 26 on August 5 with 47 on August 7, then 13 seen on August 12 with eight on August 14 and two on August 21. There were 63 on September 1 with 18 on September 2 and 12 on September 3. Later there were 12 on September 14. That ended the early fall passage.

Western Sandpiper (*Calidris mauri*)

An uncommon passage migrant there were only 14 records for the year; eight of them were for the early fall passage. For the early spring passage there were four on February 10. For the late spring passage there was one on May 1. For the early fall passage there were nine on July 22 with one on July 27. There were also eight on July 31. A month later there were two on August 28 with eight on August 31, then two seen on September 1. There were also eight on September 10. Finally for the early fall passage there were 27 on September 25. The count of 27

is the highest count for the park. For the late fall passage there was one on November 22. For the winter passage there were three on December 3 with two on December 4. Later there were six on December 16. *Finally for the winter passage there were 11 on January 4.*

Least Sandpiper (*Calidris minutilla*)

A quite common late spring and early fall passage migrant, the highest numbers were seen during the spring passage. For the late spring passage there was one on April 3. Later there were five on April 24 with two on April 27. There were 18 on April 29 with one on May 1. There were two on May 4 with 21 on May 5 and 29 on May 6, then 25 seen on May 7 with two on May 8. There were 55 on May 11 with two on May 13. The count of 55 was the highest count for 2016 but there was a higher count of 160 on May 6, 2015. There were ten on May 14 with 12 on May 15, then singles seen on May 21 and May 22. That closed the late spring passage. For the early fall passage there were two on June 29. Later there was one on July 13 with eight on July 16 and 15 on July 20, then two seen on July 29. There was one on August 5 with two on August 7 and eight on August 10, then one seen on August 14. There were six on August 31 with 14 on September 1, then eight seen on September 2 with six on September 14. That completed the early fall passage.

White-rumped Sandpiper (*Calidris fuscicollis*)

This was a rare late spring passage migrant. For the late spring passage there were two on May 5 with three on May 6, then one seen on May 7. The count of three was the highest count for 2016 but there was a higher count of five on May 6, 2015. Finally there were three on May 8.

Pectoral Sandpiper (*Calidris melanotos*)

There were just eight records and six of them were for the early fall passage. For the late spring passage there were seven on May 6 with eight on May 7. For the early fall passage there were singles on August 7 and August 13. There were five on August 31 with 71 on September 1, then 35 seen on September 2 with 23 on September 3. The count of 71 is the highest count for the park.

Dunlin (*Calidris alpina*)

There were just five records. For the early spring passage there were 12 on January 15 with one later on February 4. The count of 12 is the highest count for the park. For the late spring passage there were eight on May 21. For the late fall passage there was one on November 8. *Finally for the winter passage there were two on January 3.*

Stilt Sandpiper (*Calidris himantopus*)

This was a vagrant. For the early fall passage there were eight on July 31 with three on September 1; the count of eight being the highest count for the park.

Short-billed Dowitcher (*Limnodromus griseus*)

An uncommon passage migrant most were seen during the early fall passage. For the late spring passage there was one on April 24 with two on May 6, then one seen later on May 30. For the early fall passage there was one on August 7. There were five on August 24 with two on August 28 and September 1. There were seven on September 2 with one on September 3. Finally there were 16 on September 9 with 18 on September 14. The count of 18 is the highest count for the park.

Wilson's Snipe (*Gallinago delicata*)

This was a vagrant. For the late fall passage one flew to the south on October 12.

Red-necked Phalarope (*Phalaropus lobatus*)

This was a vagrant. For the late spring passage there was one on April 15.

Pomarine Jaeger (*Stercorarius pomarinus*)

Seen in the spring through to March 4 and they were seen again in the fall from November 1. The fall passage was light this year there were no strong north-easterly winds. For the early spring passage there were three on January 2 with one on January 3. There were four on January 4 and January 8 with three on January 9, two to January 15 and one on January 16.

There were two on January 17 with singles to January 23. There were two on January 24 with singles to February 5. There were three on February 24 and February 25 with five on February 26, then one seen on February 27. That was the early spring passage. For the late spring passage there were two on March 2 with singles on March 3 and March 4 that was it. For the late fall passage there was one on November 1 with 67 on November 2, then one seen on November 5 (that was such a good start....). The count of 67 is the highest count for the park. There were six on November 6 with singles on November 12 and November 25. There were three on November 27 with two on November 30. That closed the late fall passage. For the winter passage there were four on December 3 with 15 on December 4, then eight seen to December 11 with four on December 16. There were seven on December 17 with three on December 18 and one on December 21. There were four on December 23 with six on December 30, then singles seen to January 1. There were 27 on January 3 with four on January 6 and two on January 7. That completed the winter passage.

Parasitic Jaeger (*Stercorarius parasiticus*)

This was a quite common early spring passage migrant but only low numbers were seen during the late spring, fall and winter passages. For the early spring passage there was one on January 1 with six on January 2, seven to January 4 and 24 on January 8, then 11 seen on January 9 with four on January 10. There were eight on January 13 with 38 on January 15 and 53 on January 17, then seven seen on January 18 with one on January 21. The count of 53 was the highest count for the park in 2016 but there were 70 on January 3, 2017. There were 20 on January 22 with four on January 23, three on January 24 and two on January 27. Counts were now lower there were seven on January 28 with four on January 29, two on January 30 and one on January 31. There were four on February 4 with five on February 5, then singles seen to February 9. There were two on February 10 with five on February 12, then three seen on February 14 with one on February 15. There were three on February 16 with four on February 19 and 12 on February 24, then seven seen on February 26 with one on February 28. That was the early spring passage. For the late spring passage there were two on March 2 and March 5 with one on March 6 that was it. For the early fall passage there was one on August 26 with two on August 28, then one seen on September 5. There were also two on September 9. That was the extent of the early fall passage. For the main fall passage there were singles on October 2 and October 5. There was later one on October 15. There was one on October 29 with two on November 2, then one seen on November 13. There were two on November 20 with one on November 26. That ended the main fall passage. For the winter passage there were two on November 30, December 4 and December 6 with one on December 7. There were two on December 11 with singles on December 16 and December 18. There were three on December

21 with one on December 30. *There was one on January 1 with 70 on January 3, then seven seen on January 4 with two on January 6. The count of 70 is the highest count for the park. There were four on January 7 with nine on January 8, then three seen on January 9 with one on January 13.* That was the winter passage.

Laughing Gull (*Larus atricilla*)

Present all year in varying numbers with the heaviest passage from November to January; the lowest counts were in June. Passage could be in either direction this did not appear to be tied to the season. The heaviest passage was very early in the morning. For the early spring passage there were 320 on January 1 with 2,610 on January 2, then 630 seen on January 4 with 54 on January 8. There were 190 on January 9 with 810 on January 10, 1,120 on January 13 and 1,250 on January 15, then 20 seen on January 16. There were 200 on January 17 with 380 on January 18, 3,390 on January 21 and 7,550 on January 22, then 270 seen on January 23. There were 340 on January 24 with 410 on January 27 and 760 on January 28, then 710 seen on January 30 with 640 on January 31, 160 on February 4, 90 on February 5 and 30 on February 6. There were 320 on February 7 with 740 on February 9 and 2,370 on February 12, then 270 seen on February 15 with 50 on February 14. There were 1,200 on February 16 with 100 on February 16 and 80 on February 19. There were 620 on February 20 with 3,030 on February 24, then 880 seen on February 26 with 650 on February 27, 230 on February 28 and 70 on March 2. That was the early spring passage. Counts were now much lower with the late spring passage there were 150 on March 3 and March 4 with 580 on March 5 and 880 on March 6, then 670 seen on March 11 with 130 on March 13 and 41 on March 16. There were 440 on March 18 with 205 on March 20 and 40 on March 23. There were 655 on March 25 with 340 on March 27, 280 on March 28 and 45 on March 30. There were 55 on April 1 with 80 on April 2, then 65 seen on April 3 with 60 on April 6 and 40 on April 8. There were 90 on April 9 with 225 on April 10, then 15 seen on April 13. There were 150 on April 15 with 310 on April 16 and 600 on April 17, then seven seen on April 20. There were 39 on April 22 with 48 on April 23 and 346 on April 24, then 48 seen to April 30 with 32 on May 1. That closed the late spring passage. For the summer passage there were 33 on May 4 with 85 on May 5 and 100 on May 6, then 41 seen on May 8 with 36 on May 11 and 15 on May 13. There were 81 on May 14 with 75 on May 15, 71 on May 18, 70 on May 21 and 41 on May 22. There were 90 on May 25 with 92 on May 27 and 94 on May 29, then 91 seen on May 30 with 36 to June 3. There were 51 on June 4 with 21 on June 5 and 18 on June 6. There were 123 on June 7 with 64 on June 11, 43 on June 12 and 14 on June 15. There were 75 on June 17 with 271 on June 19, then 86 seen on June 25 with 66 on June 26, 43 on June 29, 17 on July 1 and seven on July 2. That completed the summer passage. For the early fall passage there were 15 on July 3 with 52 on July 4, then 37 seen on July 6 with

31 on July 8 and 13 on July 9. There were 16 on July 10 with 67 on July 13, then 45 seen on July 16 with 41 on July 17 and 21 on July 20. There were 61 on July 22 with 95 on July 24, then 58 seen on July 27 with 22 on July 29. There were 48 on July 30 with 104 on July 31, 114 on August 5 and 125 on August 7, then 100 seen on August 10 with 68 on August 12 and 55 on August 13. There were 274 on August 14 with 143 on August 17 and 75 on August 19. There were 159 on August 20 with 126 on August 21, 117 on August 24, 57 on August 26 and 54 on August 27. There were 247 on August 28 with 143 on August 31, 58 on September 1 and 27 on September 2. There were 107 on September 3 with 68 on September 4, 54 on September 5 and 49 on September 7. There were 82 on September 9 with 248 on September 11, then 106 seen on September 16 with 57 on September 17. There were 420 on September 18 with 152 on September 23 and 148 on September 24. There were 182 on September 25 with 120 on September 28 and 28 on September 30. That completed the early fall passage. For the main fall passage there were 83 on October 1 with 94 on October 2, 341 on October 4 and 622 on October 5, then 250 seen on October 11 with 215 on October 12, 165 on October 14, 84 on October 15 and 24 on October 16. There were 385 on October 19 with 23 on October 22. There were 230 on October 23 with 290 on October 25 and 869 on October 28, then 206 seen on October 29 with 160 on October 30. Now the major passage started there were 337 on November 1 with 615 on November 2 and 3,240 on November 5, then 1,920 seen on November 8 with 805 on November 9 and 560 on November 11. There were 1,320 on November 12 with 6,235 on November 13, then 35 seen on November 15. There were 140 on November 16 with 380 on November 18, 10,350 on November 19 and 36,000 on November 20, then 15,300 seen on November 24 with 1,710 on November 25 and 820 on November 26. The count of 36,000 is the highest count for the park. On the 20th the wind was from the north-west at seven mph and I counted for five hours. There were 4,900 on November 27 with 610 on November 30 and 60 on December 2. That ended the main fall passage. With the winter passage numbers were a little lower. There were 520 on December 3 with 4,200 on December 4, then 1,430 seen on December 7 with 90 on December 9. There were 950 on December 10 with 1,010 on December 11, then 90 seen on December 13 with 85 on December 14. There were 360 on December 16 with 2,920 on December 17, then 800 seen on December 18 with 200 on December 20 and 30 on December 21. There were 755 on December 23 with 550 on December 24, then 36 seen on December 27. There were 170 on December 30 with 290 on December 31, 4,950 on January 1 and 10,700 on January 3, then 1,880 seen on January 6 with 1,650 on January 8 and 700 on January 13. On the 3rd the wind was from the north at ten mph I counted for five hours. That concluded the winter passage.



Horned Grebe Photographed by Chuck Tague



Cory's Shearwater Photographed by Mike Brothers



Brown Booby Photographed by Mike Brothers



Northern Gannet Photographed by Mike Brothers



Brown Pelican Photographed by Chuck Tague



Wood Stork Photographed by Chuck Tague



Lesser Scaup Photographed by Chuck Tague



Osprey Photographed by Chuck Tague



Semipalmated Plover Photographed by Chuck Tague



Willet Photographed by Chuck Tague



Spotted Sandpiper Photographed by Chuck Tague



Sanderling Photographed by Chuck Tague



Semipalmated Sandpiper Photographed by Chuck Tague



Red-necked Phalarope Photographed by Chuck Tague



Laughing Gull Photographed by Chuck Tague



Bonaparte's Gull Photographed by Chuck Tague



Herring Gull Photographed by Chuck Tague



Great Black-Backed Gull Photographed by Chuck Tague



Sandwich Tern Photographed by Chuck Tague



Common Tern Photographed by Chuck Tague



Forster's Tern Photographed by Chuck Tague



Least Tern Photographed by Chuck Tague



Black Tern Photographed by Mike Brothers



Black Skimmer Photographed by Chuck Tague

Franklin's Gull (*Larus pipixcan*)

This was a very rare passage migrant. For the early spring passage there was one in first-winter plumage on January 2. For the late fall passage there were singles in first-winter plumage on November 18 and November 26. Finally for the winter passage there was one in first-winter plumage on December 18.

Bonaparte's Gull (*Larus philadelphia*)

They were seen in low numbers from January to late April and again from early November. For the early spring passage there were three on January 2 with five on January 4 and 11 on January 8, then eight seen on January 9 with three on January 10 and two on January 13. There were five on January 17 and January 18 with eight on January 23 and January 29, then one seen on February 5. There were two on February 6 with 21 on February 7, then singles seen to February 19. The count of 21 was the highest count for the 2016 but there were 49 on December 22, 2012. There were three on February 26 with two on February 27 and one on March 5. That was the early spring passage. For the late spring passage there was one on March 9. Later there was one on March 28 with three on April 2, then one seen on April 9. Finally for the late spring passage there were two on April 16 with one on April 22. For the late fall passage there were singles on November 2, November 11 and November 12 with two on November 25. For the winter passage there were two on December 2 with one on December 3. There were 12 on December 6 with two on December 10 and one on December 11. There were 17 on December 16 with seven on December 17, three on December 23 and one on December 27. *There were also singles on January 8 and January 15.* That closed the winter passage.

Ring-billed Gull (*Larus delawarensis*)

With the exception of early January they were seen in quite low numbers through to May 14 and again from October 1 even though there was an isolated sighting on August 26. For the early spring passage there were 330 on January 1 with 110 on January 2 and 40 on January 3. There were 870 on January 4 with 70 on January 8 and 45 on January 9. The count of 870 is the highest count for the park. There were 95 on January 10 with 110 on January 13, then 50 seen to January 17. There were 60 on January 18, January 22 and January 23 with 40 on January 27 and 25 on January 28. There were 130 on January 29 with 50 on January 30 and 30 to February 4. There were 40 on February 5 with 75 on February 7, then 55 seen on February 10 with 40 on February 12 and 15 to February 14. There were 35 on February 15, February 16 and February 19 with 20 on February 21, 15 on February 24 and ten on February 25. There were 30

on February 26 with 45 on February 27, then five seen on February 28. That was the early spring passage. For the late spring passage there were 15 on March 2 with 32 on March 3 and 65 on March 4, then 25 seen on March 6 with 15 on March 9, ten on March 11 and seven on March 12. There were 30 on March 13 with 23 on March 18 and eight on March 19. There were 15 on March 20 and March 23 with 16 on March 25 and 20 on March 26, then 15 seen to April 1 with ten on April 2. There were 11 on April 3 with 15 on April 6, 16 on April 8 and 41 on April 9, then 25 seen on April 13 with 18 on April 15, ten on April 17, six on April 20 and five on April 22. There were seven on April 23 with four on April 24, three to April 29 and singles to May 8. There were two on May 11 with singles on May 13 and May 14. That closed the late spring passage. For the early fall passage there was one on August 26. For the main fall passage there were singles on October 1 and October 11 with two on October 12 and four on October 14, then one seen on October 15. There were three on October 23 with four on October 25 and eight on October 28, then five seen on October 30 with four on November 1, three to November 4 and two on November 5. There were three on November 6 with 24 on November 8, then 13 seen on November 9 with two on November 11. There were 11 on November 12 with 23 on November 13, then 16 seen on November 15 with four on November 16. There were 24 on November 18 with 30 on November 20, then seven seen on November 22 with six on November 24. There were 24 on November 25 with 14 to November 27. That completed the main fall passage. For the winter passage there were 26 on November 29 with 31 on November 30, then 19 seen on December 3 with 16 on December 4, 12 on December 6 and ten on December 7. There were 15 on December 9 with 19 on December 10 and 60 on December 11, then 11 seen on December 13. There were 41 on December 14 with 77 on December 16, then 52 seen on December 17 with 47 on December 18, 39 on December 20 and 22 on December 21. There were 48 on December 23 with 17 on December 24. There were 38 on December 27 with 72 on December 30, then 59 seen on December 31 *with 28 on January 1. There were 230 on January 3 with 27 on January 6 and five on January 7.* That ended the winter passage.

Herring Gull (*Larus argentatus*)

Seen in the spring from January to May 18 and in the fall from September 9 to the end of the year; the heaviest passage was from mid-January to mid-March. For the early spring passage there were 20 on January 1 with 12 on January 2 and two on January 3. There were 125 on January 4 with 256 on January 9, then 26 seen on January 10 with 11 on January 13. There were 205 on January 15 with 22 on January 16. Now the heavier passage started there were 86 on January 17 with 106 on January 18, 177 on January 21 and 1,135 on January 22, then 181 seen on January 24 with 75 on January 27, 72 on January 28 and 25 on January 29. There were 111 on January 30 with 101 on January 31, 24 on February 5 and three on February 6. There

were 46 on February 7 with ten on February 9. There were 23 on February 10 with 1,240 on February 12 and 1,470 on February 13, then 270 seen on February 15 with 142 on February 16 and 25 on February 19. There were 227 on February 20 with 373 on February 21 and 672 on February 24, then 556 seen on February 26 with 336 on February 27 and 19 on February 28. There were 193 on March 2 with 1,286 on March 3, 1,509 on March 4 and 1,730 on March 5, then 605 seen on March 6 with 27 on March 9. That was the early spring passage. The count of 1,730 was the highest count for the park in 2016 however there were 1,880 on January 21, 2017. On the 5th the wind was from the north-east at ten mph and I counted for five hours. In contrast on January 21, 2017 the wind was from the south at six mph and I counted for five hours go figure! Counts were now lower the strong passage was over. For the late spring passage there were 182 on March 11 with 19 on March 12 and eight on March 13. There were 22 on March 16 with 13 on March 18 and two on March 19. There were 24 on March 20 with 50 on March 25 and 105 on March 26, then 27 seen on March 27 with 21 on March 28 and 13 on March 30. There were 29 on April 1 with 21 on April 2, seven on April 3, four on April 6 and one on April 8. There were seven on April 9 with four on April 10 and two on April 13. There were 67 on April 15 with 34 on April 17, six on April 20, three on April 23 and two on April 24. There were four on April 29 and April 30 with one on May 1. There were two on May 4 with singles to May 6. There were three on May 7 with one later on May 18. That concluded the late spring passage. For the early fall passage there were singles on September 9, September 10, September 14, September 17 and September 18. For the main fall passage there were singles on September 30 and October 2 with 19 on October 5, then 12 seen on October 12 with two on October 14. There were three on October 15 with 17 on October 16 and 50 on October 19, then nine seen on October 23 with four on October 25 and three on October 26. There were 27 on October 28 with 26 on October 29 and five on October 30. There were 15 on November 1 with 20 on November 2, then 11 seen to November 8. There were 23 on November 9 with one on November 11. There were six on November 12 with seven on November 13, then four seen on November 15 with one on November 18. There were 37 on November 19 with 85 on November 20, then 46 seen on November 24 with 38 on November 25. There were 105 on November 26 with 81 on November 27 and three on November 29. That ended the late fall passage. For the winter passage there were 271 on November 30 with one on December 2. There were 24 on December 3 with 165 on December 4, then 43 seen on December 7 with four on December 9. There were seven on December 10 with 72 on December 11, then four seen on December 13 with three on December 14. There were 13 on December 16 with 47 on December 17, then 14 seen on December 20 with seven on December 21. There were 33 on December 23 with 13 on December 24 and five to December 30. There were 45 on December 31 *with 210 on January 1 and 910 on January 3, then 91 seen on January 4 with 68 on January 6. There were 140 on January 7 with 36 on January 8, 16 on January 9 and ten on January 13.* That finished the winter passage.

Thayer's Gull (*Larus thayeri*)

This was a vagrant. For the early spring passage one in first-winter plumage flew to the north on February 26.

Iceland Gull (*Larus glaucoides*)

This was a vagrant. For the winter passage one in first-winter plumage flew to the south on December 18. It crossed over from the ocean to the Halifax River.

Lesser Black-backed Gull (*Larus fuscus*)

They were seen in low numbers on 18 dates from January 2 to April 15 and on 19 dates from September 17 to December 23. For the early spring passage there were singles on January 2 and January 8 with three on January 9, then one seen on January 10. There were two on January 13 with singles to January 17. There were two on January 21 with singles on January 23 and January 31. There were two on February 7. Later there was one on February 19 with two on February 24, then one seen on February 26. That was the early spring passage. For the late spring passage there were singles on March 3, March 13 and April 1 with two on April 15. That closed the late spring passage. For the early fall passage there was one on September 17. For the main fall passage there were two on October 5 with singles on 11 dates to November 24. For the winter passage there were two on November 26 with seven on November 30, then two seen on December 7. The count of seven is the highest count for the park. Later there were singles on December 20 and December 23. *There were also three on January 3.* That completed the winter passage.

Glaucous Gull (*Larus hyperboreus*)

This was a vagrant there were just three spring sightings. For the early spring passage there were singles on January 9 and January 27 both were in first-winter plumage. For the late spring passage there was one in first-winter plumage on March 4. *For the winter passage and 2017 there were singles in first-winter plumage on January 3 and January 6.*

Great Black-backed Gull (*Larus marinus*)

A spring passage migrant normally fewer than ten a day were seen to May 14. Seen in the fall from August 14 sightings were less frequent. The winter passage was the strongest event of the year. For the early spring passage there were singles on January 1 and January 3 with three on January 8 and 12 on January 9, then two seen on January 10 with singles to January 16. There were two on January 17 with six on January 18, then five seen on January 21 with one on January 22. There were two on January 23 with eight on January 24, then seven seen on January 28 with two to January 30. There were five on January 31 with two on February 4 and one on February 6. There were five on February 7 with three on February 9 and two on February 10. There were three on February 12 and February 14 with five on February 15, then three seen to February 19 with singles to February 21. There were three on February 24 with seven on February 26, then three seen on February 28 with one on March 2. That was the early spring passage. For the late spring passage there were four on March 3 with two on March 4 and singles to March 6. There were three on March 12 with singles to March 20. There were three on March 25 with one on March 26. There were two on March 27 with three on April 1, then two seen to April 9 with one on April 13. There were 18 on April 15 with nine on April 16 and four on April 17. Later there were singles on May 7 and May 14. That closed the late spring passage. For the early fall passage there was one on August 14 with two on August 31, then singles seen on September 10 and September 23. For the main fall passage there was one on October 4 with four on October 5, then two seen to October 15. There were three on October 30 with one on November 1. There were also two on November 13. That completed the main fall passage. For the winter passage there was one on November 25 with two on November 26, four on November 27 and 13 on November 30, then singles seen to December 3. There were nine on December 4 with six on December 7 and singles to December 11. There were 17 on December 16 with 24 on December 17, then three seen on December 18 with two on December 23 and singles to December 31. The count of 24 is the highest count for the park. On the 17th the wind was from the south at six mph and I counted for seven hours. *There were three on January 1 with eight on January 3, then three seen on January 6 with two on January 14.* That concluded the winter passage.

Black-legged Kittiwake (*Rissa tridactyla*)

This was a vagrant. For the late spring passage one in first-winter plumage flew to the north on March 6 – an unusual date.

Gull-billed Tern (*Geochelidon nilotica*)

There were just seven records for this uncommon passage migrant. For the late spring passage there were two on May 7 with one on May 18. For the early fall passage there were two on July 4 with singles later on August 20, September 5 and September 9. Finally for the early fall passage there were two on September 17.

Caspian Tern (*Hydroprogne caspia*)

Whilst there were records for the other seasons this was really a fall passage migrant. For the early spring passage there were singles on January 1, January 4, January 8, January 13, January 18, February 12, February 25 and February 26. For the late spring passage there was one on March 26. For the summer passage there were singles on June 19 and June 25. For the early fall passage there were four on June 29 with one on July 2. There were two on July 4 with three on July 8 and seven on July 16, then singles seen on July 23 and July 29. The count of seven is the highest count for the park. There were four on August 5 with two on August 14. Later there was one on August 28. There were two on September 14 with five on September 24, then two seen on September 30 with one on October 1. That closed the early fall passage. For the late fall passage there was one on October 22 with two on October 23 and three on October 26, then singles seen to November 1. There were two on November 2 with singles to November 6. There were three on November 8 with six on November 9, then two seen on November 13 with singles to November 16. There were two on November 18 and November 24 with one on November 26. That completed the late fall passage. For the winter passage there were singles on November 30, December 2 and December 13. *Later there was one on January 3.* That ended the winter passage.

Royal Tern (*Thalasseus maxima*)

Present all year there were extended passages in both the spring and the fall. In the spring the heavier passage ran from January 18 to April 17 and in the fall the heavier passage ran from July 22 to November 18. It is more normal for the heavier passage to occupy a quite narrow period. For the early spring passage there were 13 on January 1 with 32 on January 2, then 27 seen on January 3 with 17 on January 4. There were 52 on January 8 with 39 on January 9, 29 on January 13, eight on January 15 and six on January 16. Now the heavier passage started there were 12 on January 17 with 156 on January 18, then 14 seen on January 21 with seven on January 22. There were 131 on January 23 with 109 on January 27 and 98 on January 28. There were 429 on January 29 with 67 on January 30, 65 on January 31 and 15 on February 4. There

were 852 on February 5 with 90 on February 6, 37 on February 7 and 26 on February 9. The count of 852 was the highest count for the park in 2016 however there were 879 on February 10, 2017. On the 5th the wind was from the north at 15 mph and I counted for five hours. On February 10, 2017 the wind was also from the north at eight mph and I again counted for five hours. There were 92 on February 10 with 630 on February 13, then 242 seen on February 14 with 20 to February 16. There were 210 on February 19 with 165 on February 22 and 40 on February 24. There were 315 on February 25 with 375 on February 26 and 466 on February 27, then 242 seen on February 28 with 39 on March 2 and 20 on March 3. That was the early spring passage. For the late spring passage there were 222 on March 4 with 146 on March 6 and 26 on March 9. There were 39 on March 11 with 40 on March 12, 50 on March 13 and 161 on March 16, then 74 seen on March 18 with 25 on March 19. There were 75 on March 20 with 82 on March 23 and 125 on March 15, then 86 seen on March 26 with 53 on March 27. There were 125 on March 28 with 173 on March 30, then 35 seen on April 1. There were 61 on April 2 with 71 on April 3, 133 on April 8, 155 on April 10 and 186 on April 15, then 136 seen on April 17 with 26 on April 20 and 21 on April 22. That ended the heavier passage. There were 28 on April 23 with 27 on April 27 and 19 on April 29. There were 29 on April 30 with 24 on May 1 and 11 on May 4. That closed the late spring passage. For the summer passage there were 39 on May 5 with 34 on May 7, 33 on May 8, 23 on May 11 and ten on May 13. There were 24 on May 14 with 43 on May 20, then 31 seen on May 22 with 26 on May 25. There were 29 on May 27 with 32 on May 28, 40 on May 29 and 45 on May 30, then 21 seen on June 1 with 14 on June 3. There were 30 on June 4 with 13 to June 6. There were 17 on June 7 with 28 on June 8 and 73 on June 11, then 27 seen on June 15 with 14 on June 17. There were 29 on June 18 with 86 on June 19, then 49 seen on June 25 with 18 on June 26, eight on June 29 and two on July 1. There were seven on July 2 with 29 on July 3 and 39 on July 4, then 14 seen on July 6 with eight on July 8 and two on July 10. There were 18 on July 13 with 27 on July 16, then ten seen on July 17. That finished the summer passage. For the early fall passage and the return of the heavier passage there were 16 on July 20 with 110 on July 22 and 138 on July 24, then 53 seen on July 27 with 26 on July 29, 24 on July 30 and 22 on July 31. There were 88 on August 3 with 95 on August 5, then 34 seen to August 7. There were 96 on August 10 with 55 on August 12. There were 76 on August 13 with 106 on August 14, then 101 seen on August 17 with 85 on August 20 and 20 on August 21. There were 102 on August 24 with 93 on August 26, 90 on August 27, 84 on August 28, 75 on August 31 and 22 on September 1. There were 80 on September 2 with 92 on September 3, 97 on September 5 and 98 on September 9, then 62 seen on September 11 with 56 on September 14 and 50 on September 16. There were 91 on September 17 with 49 on September 18, 35 on September 23 and nine on September 24. There were 61 on September 25 with 30 on September 28 and 21 on September 30. That closed the early fall passage. Counts were now higher again with the main fall passage there were 134 on October 1 with 276 on October 4 and 393 on October 5, then 259 seen on October 12 with 210 on October 14 and 153

on October 15. There were 341 on October 16 with 268 on October 19, 98 on October 23 and 67 on October 25. There were 148 on October 26 with 720 on October 28, then 240 seen on October 29 with 168 on October 30. The count of 720 is the third highest count for the park. There were 319 on November 1 with 404 on November 2, then 256 seen on November 5 with 153 on November 8 and 62 on November 9. There were 102 on November 11 with 167 on November 12, then 129 seen on November 13 with 18 on November 15. There were 60 on November 16 with 85 on November 18 and 245 on November 19, then 62 seen on November 20 with 27 on November 22. That was the end of the heavier fall passage. There were 29 on November 24 with 37 on November 25 and 68 on November 26, then 65 seen on November 29 with 21 on November 30. That concluded the main fall passage. For the winter passage there were 43 on December 2 with 144 on December 3, then 68 seen on December 4 with 19 on December 6 and 12 on December 17. There were 26 on December 9 with 33 on December 10, then 29 seen on December 11 with 11 on December 13. There were 33 on December 14 with 18 on December 17 and six on December 18. There were 30 on December 20 with 65 on December 21 and 85 on December 23, then nine seen on December 24. There were 15 on December 27 with 41 on December 30, then 35 seen on December 31 *with 31 on January 1*. There were 72 on January 3 with 11 on January 4. There were 13 on January 6 with 16 on January 7 and 83 on January 8, then 32 seen on January 9 with 15 on January 13. That closed the winter passage.

Sandwich Tern (*Thalasseus sandvicensis*)

They were only seen in low numbers from January to May 6; there were later two June records. The early fall passage started on July 23 and numbers were immediately higher than those in the spring passage. There was a peak passage in mid-August with another for the late fall passage in late October. The winter passage held the highest count but the heavy passage that started in July ended in mid-December; only low numbers then seen. For the early spring passage there were two on January 1 with five on January 2 and six on January 3, then singles seen to January 8. There were four on January 9 with seven on January 10, then singles seen to January 16. There were two on January 17 and January 22 with 14 on January 24, then nine seen on January 27 with four on January 29, two to February 4 and singles to February 7. There were two on February 9 with singles to February 21. There were five on February 24 and February 26 with one on February 27. That was the early spring passage. For the late spring passage there were two on March 4 with three on March 6, then singles seen to March 13. There were two on March 19 and March 20 with singles to March 25. There were two on March 30 with three on April 2, then two seen on April 8 with one on April 9. There were three on April 15 with two to April 17. There were eight on April 23 with two on April 27 and singles to May 5.

There were also three on May 6. That closed the late spring passage. For the summer passage there were two on June 1 with later one on June 17. For the early fall passage there were three on July 23 with four on July 24 and July 30, then one seen on July 31. There were 25 on August 3 with 46 on August 5, then five seen on August 6. There were 14 on August 7 with 32 on August 10, 67 on August 13 and 138 on August 14, then 101 seen on August 17 with 33 on August 20 and eight on August 21. There were 62 on August 24 with 11 on August 27 and six on August 28. There were 11 on August 31 with 14 on September 1 and 46 on September 2, then 19 seen on September 3 with 15 on September 4. There were 43 on September 5 with 80 on September 9, then 17 seen on September 11 with 16 on September 14. There were 18 on September 16 with 32 on September 17 and 40 on September 18, then 39 seen on September 23 with 26 on September 25, 14 on September 28 and eight on September 30. With the peak counts in mid-August the early fall passage really was a separate event from the late fall passage. For the late fall passage there were 15 on October 1 with 17 on October 2, then 13 seen on October 5 with 11 on October 11, six on October 12 and four on October 14. There were 45 on October 15 with 94 on October 19 and 108 on October 22, then 44 seen on October 23 with 15 on October 25. There were 48 on October 26 with 69 on October 28 and 111 on October 30, then 74 seen on November 1 with 22 on November 2 and 17 on November 4. There were 89 on November 5 with 41 on November 8, 40 on November 9 and 19 on November 11. There were 44 on November 12 with 66 on November 13, then 48 seen on November 15. There were 56 on November 16 with 88 on November 18, then 59 seen on November 20 with 33 on November 22, 26 on November 24 and 23 on November 25. The late fall passage had its own set of peak counts in late October. For the winter passage there were 32 on November 26 with 66 on November 29, 88 on December 2 and 335 on December 3, then 88 seen on December 4 with 23 on December 7 and nine on December 9. The count of 335 was the highest count for the survey in 2016 but there was a higher count of 405 on January 27, 2017. On the 3rd the wind was from the north-east at ten mph and I counted for seven hours. On January 27, 2017 the wind was from the north-west at four mph and I counted for five hours. There were 20 on December 10 with 30 on December 11 and 47 on December 14, then 37 seen on December 17 with eight to December 20 and seven on December 21. There were nine on December 23 with two on December 24 and one on December 27. There were 20 on December 30 with ten on December 31. *There were 14 on January 1 with 17 on January 3, then four seen on January 6 with three on January 7. There were 19 on January 8 with seven on January 9 and five on January 13.* That concluded the winter passage.

Roseate Tern (*Sterna dougallii*)

This was a rare passage migrant; there was one record for the spring and four for the early fall. For the late spring passage there was one on April 9. For the early fall passage there was one on July 22 with two on August 10, then singles seen on August 17 and September 1.

Common Tern (*Sterna hirundo*)

Whilst there were records for the late spring passage this was a common early fall passage migrant; the heaviest passage was in early September. The passage continued to early November but only low numbers were seen after September. For the late spring passage there were three on March 30 with ten on April 2, then six seen to April 17 with five on April 24 and one on May 7. There were also five on May 18. That was the extent of the late spring passage. There were two “summer” records as five were seen on June 1 with 29 on June 19. I have no idea what these records represent. For the early fall passage there were singles on July 16 and July 20 with two on July 22 and four on July 24. Now the heavier passage started. There were 133 on August 3 with 243 on August 5, then nine seen on August 6. There were 49 on August 7 with 124 on August 10, then 69 seen on August 12 with 63 on August 13. There were 146 on August 14 with 63 on August 17, 35 on August 20, 23 on August 24, seven on August 26 and two on August 27. There were 20 on August 28 with 30 on August 31, 75 on September 1, 271 on September 2 and 405 on September 3, then 204 seen on September 5 with 11 on September 7. There were 521 on September 9 with 568 on September 10, then 480 seen on September 11 with 62 on September 16 and 26 on September 17. The count of 568 is the highest count for the park. On the 10th the sea was calm and I counted for five hours. There were 76 on September 18 with 292 on September 23, then 67 seen on September 24 with seven on September 25 and six on September 28. That was the end of the heavier passage and it was also the end of the early fall passage. For the late fall passage there were eight on October 1 with 13 on October 5 and 29 on October 15, then 22 seen on October 22 with singles on October 29 and November 2.

Arctic Tern (*Sterna paradisaea*)

This was a vagrant. For the “summer passage” there were two adults on June 19; I really do not know to which passage this record belongs. For the early fall passage there were two adults on August 27 with three adults on September 2. The count of three is the highest count for the park.

Forster's Tern (*Sterna forsteri*)

Seen from January to early April and from early August to the end of the year; the only significant event was the early spring passage. For the early spring passage there was one on January 1 with 37 on January 2, then 33 seen on January 3 with 11 on January 4. There were 120 on January 8 with 22 on January 10 and 19 on January 13. There were 22 on January 15 with 63 on January 17, then 56 seen on January 18 with 41 on January 22, 36 on January 23 and 24 on January 24. There were 47 on January 27 with 144 on January 29, then 16 seen on January 30. There were 22 on January 31 with 44 on February 4 and 97 on February 5, then 20 seen on February 6. There were 39 on February 7 with 60 on February 9, then 32 seen on February 10 with 27 on February 12. There were 419 on February 13 with 131 on February 14 and 16 on February 15. The count of 419 is the highest count for the park. On the 13th the wind was from the north-west at ten mph and I counted for five hours. There were 18 on February 16 with 48 on February 19, then 29 seen on February 20 with 23 on February 21. There were 38 on February 24 with 19 on February 25, 14 on February 26, 11 on February 27, four on February 28 and three on March 2. That was the end of the heaviest passage and the end of the early spring passage. For the late spring passage there were eight on March 3 with seven to March 9, five on March 16, two on March 18 and singles on March 19 and March 25. Later there were two on March 30 and April 2. That was the extent of the late spring passage. For the early fall passage there were singles on August 5 and August 13 with two on August 14, then one seen on August 19. There were two from August 24 to September 1 with three on September 3, then singles seen to September 9. There were two on September 16 with four on September 17, then two seen on September 18 with one on September 24. There were three on September 25 with two on October 1. That closed the early fall passage. For the main fall passage there were eight on October 11 with two on October 14. There were six on October 15 and October 16 with 18 on October 19, then 15 seen on October 22 with 14 on October 23 and 12 on October 25. There were 18 on October 26 and October 28 with 16 on October 30 and eight on November 1. There were 17 on November 2 with 27 on November 5 and 44 on November 6, then seven seen on November 8 with six on November 9, three to November 12 and two on November 13. There were 14 on November 15 with two on November 16. There were five on November 18 with nine on November 20, then five seen on November 22 with four on November 24. There were seven on November 25 and November 26 with 23 on November 27, then eight seen on November 30 with four on December 2. That completed the main fall passage. For the winter passage there were nine on December 3 with one on December 4. There were three on December 6 with five to December 10 and 12 on December 11, then one seen on December 13. There were seven on December 14 with 19 on December 16, then 15 seen on December 17 with eight on December 18 and five on December 20. There were 72 on December 21 with 25 on December 23, eight on December 24 and five on December 27. There were 30 on December 30 with nine on December 31. *There were 14 on January 1 with 42 on*

January 3, then 17 seen on January 4 with eight on January 6. There were 17 on January 7 with 20 on January 8, then five seen on January 9. That finished the winter passage.

Least Tern (*Sternula antillarum*)

Present from April 1 to September 17 by far the strongest event was the spring passage. There was a much weaker return passage in July. For the spring passage there were five on April 1 with six on April 2, then five seen on April 3 with two on April 6. There were six on April 8 with 20 on April 9, 43 on April 13, 47 on April 15, 123 on April 16 and 153 on April 17, then 18 seen to April 22. The count of 153 is the highest count for the park. On the 17th the wind was from the east at 15 mph I counted for five hours. There were 33 on April 23 with 28 on April 24, 24 on April 29, 15 on May 1 and eight on May 4. I am treating this as the end of the spring passage so for the summer passage there were 17 on May 5 with 21 on May 6, then 12 seen on May 7 with ten on May 8. There were 38 on May 11 with 41 on May 13 and 47 on May 15, then 17 seen on May 18 with five on May 20. There were 12 on May 21 with 24 on May 22, then six seen on May 25. There were eight on May 27 with 13 on May 28 and 14 on May 30, then 12 seen on June 1 with four on June 3. There were 21 on June 4 with ten on June 5 and seven on June 6. There were nine on June 7 with 17 on June 8 and 46 on June 11, then 20 seen on June 15 with 15 on June 17, ten on June 19 and two to June 25. That closed the summer passage. For the fall passage there were six on June 26 and June 29 with 12 on July 1, then ten seen on July 2 with six on July 3. There were 14 on July 4 and July 6 with 20 on July 8, then seven seen on July 9. There were eight on July 10 with 15 on July 13 and 73 on July 15, then 23 seen on July 17 with ten on July 20. There were 30 on July 22 with 11 on July 24, five on July 27 and two on July 29. There were six on July 30 with nine on August 3 and 19 on August 5, then seven seen on August 6. There were 16 on August 7 with 27 on August 10, then 21 seen on August 12 with 17 on August 13, seven on August 14 and two on August 17. There were three on August 19 with five on August 26, 14 on August 31 and 38 on September 2, then 27 seen on September 3 with 19 on September 5, seven on September 9 and singles on September 11 and September 17. That completed the fall passage.

Black Tern (*Chlidonias niger*)

There were no spring sightings. It was however a major early fall passage migrant with a very heavy passage in early September. On most days the passage was very early in the morning. For the fall passage there were singles on July 6 and July 30 with four on August 3 and seven on August 5, then five seen on August 6 with two on August 7. There were 22 on August 10 with four on August 12, two on August 14 and one on August 17. There were three on

August 21 with 81 on August 24, then 37 seen on August 27 with ten on August 28 and eight on August 31. Now the main passage started there were 14 on September 1 with 920 on September 2, then 61 seen on September 3 with three on September 4. There were 34 on September 5 with 1,450 on September 9 and 1,620 on September 10, then 754 seen on September 11 with 94 on September 14, 24 on September 16, five on September 17 and one on September 23. The count of 1,620 is the highest count for the park, the peak count for the Common tern was also on this date. On the 10th the sea was calm and I counted for five hours. That closed the fall passage.

Black Skimmer (*Rynchops niger*)

Seen in every month normally under 20 a day were seen. There were three very high counts of flocks flying to the south in January, November and December. Most were seen in the very early morning often before sunrise but those three major events took place during mid-morning. For the early spring passage there were four on January 1 with 17 on January 8 and 38 on January 10, then two seen on January 15. There were 15 on January 16 and January 18 with 26 on January 21, then ten seen on January 22 with seven on January 23. There were 385 flying to the south on January 24 with 24 on January 28, 23 on January 29, ten on January 30, eight on January 31 and two on February 4. The count of 385 is the highest count for the park. The wind was from the north-west at ten mph and I counted for six hours. There were six on February 5 with eight on February 6 and 44 on February 7, then nine seen on February 10 with seven on February 12. There were 68 on February 13 with 24 on February 15, 13 on February 16, ten on February 20, nine on February 25, seven on February 26, three on February 27 and two to March 6. That was the early spring passage. For the late spring passage there were three on March 9 with eight on March 13 and 26 on March 18, then five seen on March 19 with three on March 30. There were 20 on April 8 with 19 on April 13, 13 on April 15, eight on April 23, seven on April 24 and five on April 29. That closed the late spring passage. The summer passage followed there were only limited sightings in June. There were six on May 4 with ten on May 6 and 16 on May 7, then five seen on May 8 with two on May 13. There were six on May 14 and May 15 with nine on May 18 and 13 on May 20, then nine seen on May 22 with four to May 27. There were five on May 28 with seven on May 29, then one seen on June 4. There were six on June 12 with four on June 18. That completed the summer passage. For the early fall passage there were two on July 9 with one on July 13. There were two on July 20 and July 24 with three on August 5 and August 7, then one seen on August 14. There were also two on August 26. There were two on September 11 with five on September 14. There were four on September 23 with five on September 24, then four seen on September 25. That ended a weak early fall passage. For the main fall passage there were six on October 2 with eight on October 4, then

two seen on October 5. There were three on October 14 and October 19. Later there were 19 on November 13 with 204 flying to the south on November 15, then 23 seen on November 22 with seven to November 30 and two on December 2. On the 15th the wind was from the north-west at four mph and I counted for five hours. That concluded the main fall passage. For the winter passage there were nine on December 4 with ten on December 7, then five seen on December 9 with two on December 10 and one on December 11. There were four on December 13 with 187 flying to the south on December 16, then 32 seen on December 17 with four on December 18 and two on December 20. The wind was from the south-east at six mph and I counted for six hours. There were six on December 21 with 23 on December 23, then three seen on December 24. There were seven on December 27 with 75 on December 31, then five seen on January 1 with one on January 3. There were six on January 4 with 39 (flying to the south) on January 8, then one seen on January 13. That ended the winter passage.

Black Guillemot (*Cephus grille*)

This was a vagrant. For the early spring passage an adult in winter plumage flew to the south on January 23. This is the first record for Florida and in all probability the first record for the south-eastern United States.

Rock Pigeon (*Columba livia*)

When I started this project I spent little time looking towards the Halifax River so there will be comparatively few records for January in particular for all of the following species. With just one year's records I do not really see a pattern for this species but as always there are the influxes. For the early spring passage there were four on January 1 with 18 on January 10, then 14 seen on January 21 with 11 on February 4, eight on February 7 and one on February 9. There were 12 on February 10 with eight on February 13 and two to February 15. There were six on February 16 with ten on February 21, then four seen on February 25 with one on February 27. That was the extent of the early spring passage. For the late spring passage there were seven on February 28 with two to March 5 and one on March 6. There were six on March 9 with ten on March 13, then six seen on March 18 with one on March 19. There was one on March 30 with four on April 1, then singles seen to April 6. There were two on April 8 with three to April 15, five on April 16 and six on April 17, then four seen on April 20 with three on April 22 and two to April 24. That closed the late spring passage. For the summer passage there were four on April 27 with seven on April 29 and eight on April 30, then four seen on May 4 with three to May 7. There were 17 on May 8 with four on May 11 and one on May 13. There were four on May 14 with 12 on May 15 and 14 on May 20, then eight seen on May 22 with seven on May 27

and one on May 28. There were nine on May 29 with ten on June 1, then two seen on June 3 with one on June 4. There were two on June 5 with four on June 6, five on June 8, six on June 11, nine on June 12 and 15 on June 15, then 12 seen on June 18 with six on June 24 and four to June 26. There were 11 on June 29 and July 1 with singles to July 2. That ended the summer passage. For the early fall passage there were five on July 4 with three on July 6 and one on July 8. There were six on July 9 with ten on July 15, then three seen on July 20 with two on July 22 and one on July 23. There were two on July 24 with five on July 27, eight on July 29 and 14 on July 30, then 15 seen on August 3 and August 6 with eight on August 10 and three on August 12. There were 20 on August 13 with four on August 14. There were seven on August 17 with 18 on August 19, then 17 seen on August 21 with six on August 24 and two on August 27. There were six on August 28 with 11 on August 31, then six seen on September 2 with two on September 3. There were eight on September 4 with 22 on September 5, then 12 seen on September 9 with three on September 10. There were four on September 11 with eight on September 16, nine on September 17 and 13 on September 24, then two seen on September 25 with one on September 28. That completed the early fall passage. For the late fall passage there were four on September 30 with eight on October 1, then four seen to October 4. There were six on October 5 with 12 on October 12 and 13 on October 14, then seven seen on October 15. There were eight on October 16 with 17 on October 19, then eight seen on October 22. There were nine on October 23 with 21 on October 25, then three seen to October 28 with one on October 29. There were three on October 30 with four on November 1, then one seen on November 4. There were two on November 6 with five on November 9, then four seen on November 11 with one on November 13. There were eight on November 15 with 18 on November 16, then ten seen on November 18 with eight on November 20, four on November 25 and two on November 26; that finished the late fall passage. For the winter passage there were nine on November 29 with seven on December 2, two on December 6 and one on December 11. There were singles on December 14, December 20 and December 23 with 21 on December 24 and 34 on December 30, then two seen on December 31. The count of 34 is the highest count for the park. *There were 17 on January 1 with 15 on January 6 and six on January 7. There were 20 on January 8 with 25 on January 9, then two seen on January 13.* That ended the winter passage.

Eurasian Collared-Dove (*Streptopelia decaocto*)

A resident normally under ten a day seen there were only a few higher counts and most of these were in the early fall and winter passages. There were three higher counts of 17 and this may be the normal limit for this location. For the early spring passage there were three on January 1 and January 2 with two on January 3 and one on January 4. There were four on

January 8 with two to January 13. There were three on January 15 with four on January 16, then three seen on January 18 with two on January 21. There were seven on January 22 with four on January 24 and two on January 27. There were seven on January 23 with three to January 30. There were five on January 31 with three to February 5. There were ten on February 6 with four on February 10 and two on February 12. There were six on February 13 with two to February 15. There were six on February 16 with two to February 25 and one on February 26. That was the early spring passage. For the late spring passage there were three on February 27 with two to March 2 and singles to March 5. There were two on March 6 and March 9 with one on March 11. There were two from March 12 to March 16 with three on March 18 and March 20, then two seen to March 28 with one on March 30. There were three on April 1 with two to April 8 and one on April 9. There were two on April 10 with three on April 13, then one seen on April 15. There were two on April 16 with three on April 20 and six on April 22, then four seen from April 23 to April 27 with one on April 29. That closed the late spring passage. For the summer passage there were two on April 30 with three on May 1, then one seen on May 4. There were two from May 5 to May 8 with four on May 11, then three seen on May 14 with two on May 18 and one on May 20. There were two on May 21 with three on May 22, then singles seen to May 28. Counts from June to the end of the year were a little higher. There were two on May 29 with three on May 30 and six on June 1, then four seen on June 4 with three on June 5 and two on June 7. There were four from June 8 to June 15 with two to June 18. There were three on June 19 with four on June 24, then three seen to June 26. That ended the summer passage. For the early fall passage there were four on June 29 with nine on July 1, then four seen to July 3. There were seven on July 4 with four on July 6, three to July 9 and two on July 10. There were five on July 13 with three to July 17. There were four on July 20 with five on July 22, then four seen on July 23 with two on July 24. There were five on July 27 and July 29 with nine on July 30 and 14 on July 31, then nine seen on August 3 with eight on August 6 and one on August 7. There were 17 on August 10 with three on August 12. There were four from August 13 to August 20 with six on August 21, then four seen to August 27 with three to August 31 and two to September 3. There were four on September 4 with five on September 5 and six on September 7, then three seen on September 9. There were four on September 10 with 17 on September 14, then three seen on September 16. There were five on September 17 with eight on September 18, then seven seen on September 25 with five to September 30 and three on October 1. That concluded the early fall passage. For the late fall passage there were six on October 2 with 11 on October 4, then singles seen to October 11. There were four on October 12 with two on October 14. There were three on October 15 with nine on October 16, then three seen on October 19. There were four on October 22 with seven on October 23, then four seen on October 25 with three on October 28 and two on October 30. There were 16 on November 1 with nine on November 4, five on November 6 and one on November 8. There were six on November 9 with four to November 12 and one on November 13. There were three

on November 15 with nine on November 16, then three seen on November 18. There were four on November 19 with 14 on November 20, then four seen on November 24 with two on November 25; that finished the late fall passage. For the winter passage there were five on November 26 with 15 on November 29 and 17 on December 2, then two seen to December 4. There were 14 on December 6 with five on December 10, four on December 13, three on December 14 and singles to December 17. There were three on December 18 with 21 on December 21, then three seen on December 24 with two on December 30. The count of 21 is the highest count for the park. There were four on December 31 *with five on January 1 and seven on January 3, then two seen on January 4. There were five on January 6 with eight on January 7, then three seen on January 8.* That was the winter passage.

White-winged Dove (*Zenaida asiatica*)

Excepting two spring sightings this was an uncommon summer visitor with records to early August. For the early spring passage there was one on January 30. For the late spring passage there was one on March 18. For the summer passage there was one on May 29 with two on June 5, then singles seen on June 8, June 11 and June 12. There were three on June 24 with two on July 1. The count of three is the highest count for the park. That ended the summer passage. For the early fall passage there were two on July 2 and July 4 with singles on July 6 and July 13. Finally there were two on August 3.

Mourning Dove (*Zenaida macroura*)

Present all year counts were significantly higher during the summer and early fall passages. For the early spring passage there were nine on January 1 with two on January 2. There were four on January 3 with six on January 4, then five seen on January 8 with four on January 9. There were nine on January 10 with eight on January 15 and three on January 16. There were 11 on January 18 with three to January 24 and two on January 27. There were three on January 28 and January 29 with six on January 30 and nine on January 31, then six seen to February 6 with five on February 7 and two on February 9. There were six on February 10 with 15 on February 12, then nine seen on February 13 with six on February 15 and five on February 16. There were seven on February 19 with eight on February 20 and ten on February 21, then five seen on February 24 with four on February 25 and three to February 27. That was the early spring passage. For the late spring passage there were seven on February 28 with eight on March 2, then one seen on March 3. There were four on March 4 with six to March 6 and 12 on March 9, then eight seen on March 12 with seven to March 16. There were eight on March 18 and March 19 with six on March 23 and five on March 25. There were six on March 26 and

March 28 with seven on March 30 and eight on April 1, then six seen on April 2 with four on April 6 and three on April 8. There were five on April 9 with three to April 15. There were four on April 16 with five on April 17 and ten on April 20, then six seen on April 22 with four on April 23. There were five on April 24 with six on April 27 and 12 on April 29, then nine seen on May 1 with four to May 5. That completed the late spring passage. Numbers were now higher for the next two events. For the summer passage there were seven May 6 and May 8 with 12 on May 11, then nine seen on May 14 with seven on May 15 and six on May 18. There were seven on May 20 with 22 on May 21, then 20 seen on May 22 with five on May 25. There were six on May 27 with seven on May 28 and eight on May 29, then seven seen to June 4 with six on June 5 and four on June 6. Now the highest counts started. There were seven on June 7 with ten on June 8 and 22 on June 11, then 18 seen on June 15 with ten on June 18 and three on June 19. There were 14 on June 24 with ten on June 25 and nine on June 26. That ended the summer passage. For the early fall passage there were 12 on June 29 with 24 on July 1, then 13 seen on July 2 with nine on July 3. There were 19 on July 4 with 22 on July 6, then seven seen to July 9. There were ten on July 10 and July 13 with 25 on July 16, then 11 seen on July 20 with nine on July 22. There were 12 on July 23 with 13 on July 24, then nine seen to July 29. There were 16 on July 30 with 14 on August 3 and seven on August 5. There were 16 on August 6 and August 10 with 27 on August 13, then eight seen on August 14 with seven on August 17. The count of 27 is the highest count for the park. There were 16 on August 19 with 19 on August 21, then 11 seen on August 24 with four on August 26. That was the end of the highest counts. There were nine on August 27 with 12 on August 28 and 13 on August 31, then seven seen on September 1 with three on September 2. There were 14 on September 3 with 15 on September 4, then 11 seen on September 7 with ten on September 9. There were 13 on September 10 with 14 on September 11 and 16 on September 14, then eight seen on September 16. There were 14 on September 17 with 16 on September 18, then 15 seen on September 24 with seven on September 25 and two on September 28. That concluded the early fall passage. Numbers were now lower again. For the late fall passage there were five from September 30 to October 2 with four on October 5 and three on October 11. There were six on October 12 with four on October 14 and three on October 15. There were five on October 16 with nine on October 22 and ten on October 25, then six seen on October 26 with two on October 28. There were three on October 30 with four on November 1, five on November 4, six on November 6 and eight on November 9, then seven seen to November 12 with five on November 13 and two on November 15. There were nine on November 16 with two on November 18 and one on November 19. There were 12 on November 20 with seven on November 22 and two to November 25. There were nine on November 26 with eight on November 27 and seven on November 29; that finished the late fall passage. For the winter passage there were nine on November 30 with 12 on December 2, then three seen on December 3. There were four on December 4 with six on December 6 and nine on December 9, then eight seen to December 13 with seven on December 14 and one on

December 16. There were three on December 17 and December 18 with six on December 20 and 16 on December 21, then 12 seen on December 23 with four on December 24 and two on December 27. There were six on December 30 with seven on December 31 *and 13 on January 1, then 11 seen on January 4 with ten on January 7 and five on January 8.* That was the winter passage.

Common Ground-Dove (*Columbina passerina*)

It is likely that a pair bred locally there were in all 16 sightings. For the early spring passage there was one on February 20. For the late spring passage there were singles on March 30, April 16 and April 29. For the summer passage there were singles on June 18, June 24 and June 29. For the early fall passage there were singles on July 6, July 13 and July 20 with two on July 22, then singles seen on July 23, July 27, August 3, August 21 and September 7. There were no later records.

Nanday Parakeet (*Nandayus nenday*)

This was a rare visitor that I hoped would stay to breed but they did not. Two were seen on March 26, April 3 and April 13. Later two were seen again on June 1.

Common Nighthawk (*Chordeiles minor*)

There were just three records it is possible that they bred in the area. There were singles on April 24, May 8 and May 11.

Chimney Swift (*Chaetura pelagica*)

A summer visitor that was present from April to early October; they probably bred just to the south of the park. For the spring passage there was one on April 1 with two to April 9 and six on April 20, then two seen to April 23. There were three on April 24 and April 27 with six on April 30, then five seen on May 6 with two on May 7. That was the spring passage. For the summer passage there were three on May 8 with two to May 21. There were eight on May 22 with one on May 25. There were two on May 27 with four on May 28, then three seen to June 1 with two to June 6 and one on June 7. There were three on June 8 with two on June 11 and one on June 12. There were three on June 15 and June 17 with two to June 25 and singles to July 1.

That completed the summer passage. For the early fall passage there were two on July 2 with six on July 3, then four seen to July 6. There were 13 from July 8 to July 10 with three to July 15 and two on July 16. There were three on July 17 with two on July 22 and one on July 23. There were two on July 24 with nine on July 27, 13 on July 29 and 15 on July 30, then nine seen on August 3 with six on August 6 and singles to August 12. The count of 15 is the highest count for the park. There were two on August 13 and August 20 with singles to August 31. There were five on September 3 with three on September 4. There was one on September 11 with three on September 14, then two seen on September 18 with one on September 24. There were nine on September 25 with five on September 30 and three on October 1. That ended the early fall passage there were no later sightings.

Ruby-throated Hummingbird (*Archilochus colubris*)

This was a vagrant. For the early fall passage there was one on August 20.

Belted Kingfisher (*Megasceryle alcyon*)

This was a rare passage migrant with a total of 18 records from March 25 to December 13. The majority were seen flying by offshore. For the late spring passage there were singles on March 25 and April 2 with two on April 8, then one seen on April 15. For the early fall passage there were singles on July 10 and August 6 with two on August 7, then singles seen on September 1, September 2, September 4 and September 16. There were two on September 25 with one on September 28. That closed the early fall passage. For the late fall passage there were singles on November 2, November 5, November 15 and November 19. Why were there no October sightings? Finally for the winter passage there was one on December 13. The counts of two are the highest counts for the park.

Red-bellied Woodpecker (*Melanerpes carolinus*)

There was a single pair resident across A1A from the park they were seen all year. The adults and one young were seen on July 4, July 6 and July 29.

Yellow-bellied Sapsucker (*Sphyrapicus varius*)

This was a vagrant. For the late fall passage there was one on November 19.

Downy Woodpecker (*Picoides pubescens*)

There were just four sightings during the year it is still possible that they bred locally. For the late spring passage there were singles on March 6 and March 20. For the summer passage there was one on June 18. For the late fall passage there was one on November 20.

Pileated Woodpecker (*Dryocopus pileatus*)

There were just three records this year I suspect the birds came from the other side of the Halifax River. For the early spring passage there were singles on January 18 and January 31. For the late spring passage there were two on April 13. *Finally for the winter passage in 2017 there was one on January 6.*

Eastern Phoebe (*Sayornis phoebe*)

There were six sightings this year; four were for the late fall passage. For the early spring passage there was one on January 16. For the late spring passage there was one on March 13. For the late fall passage there was one on October 25 with two on November 4, then singles seen on November 16 and November 18. *In 2017 and that year's early spring passage there was one on January 18; perhaps this was the bird from January 16 in 2016.*

Great Crested Flycatcher (*Myiarchus crinitus*)

There were just three summer records so it may have bred locally. For the summer passage there were singles on June 3, June 8 and July 1.

Eastern Kingbird (*Tyrannus tyrannus*)

There was a short-lived fall passage from August 5 to September 16; there were just two records for the spring passage. For that passage there were singles on April 10 and May 7. For the early fall passage there were 25 on August 5 with one on August 21. There were 37 on September 3 with one on September 9. The count of 37 is the highest count for the park. There were nine on September 14 with three on September 16. That closed the early fall passage.

Gray Kingbird (*Tyrannus dominicensis*)

This was a vagrant. For the early fall passage there were singles on July 8 and July 10.

Loggerhead Shrike (*Lanius ludovicianus*)

There were records for the spring and the early fall but as a family party was seen in August they may have bred locally. For the early spring passage there was one on February 28. For the late spring passage there were singles on March 20, April 1 and April 13. For the summer passage there was one on May 15. For the early fall passage there were two on July 2 and July 4 with singles on three dates to July 22. There were two on July 24 with later three on August 20, then singles seen on September 3 and September 25. The count of three is the highest count for the park. The party of three involved a pair and their offspring. That closed the early fall passage. For the late fall passage there were singles on October 1 and November 19.

Red-eyed Vireo (*Vireo olivaceus*)

This was a vagrant. For the early fall passage there was one on July 9.

Blue Jay (*Cyanocitta cristata*)

A pair was present throughout the year; it is likely that a second pair and their brood were in the area in July. For the early spring passage there were singles on January 21 and January 30 with two on February 10, then singles seen on five dates to February 21. For the late spring passage there were two on February 28 with one on March 4. There were singles on three dates from March 27 to April 1. Later there were singles on April 8 and April 15 with two on April 20 and April 24, then one seen on May 1. That closed the late spring passage. For the summer passage there were two on May 11 with one on May 13. There were singles on June 3 and June 5 with two on June 8 and four on June 11, then one seen on June 15. There were three on June 18 and June 24 with five on June 29, then one seen on July 1. That completed the summer passage. For the early fall passage there were two on July 3 with six on July 8, then singles seen to July 10. The count of six is the highest count for the park. There were three on July 13 with two to July 16. There were three on July 17 with two to July 23. There were three on July 24 with two on July 29 and singles on eight dates to September 23. There were two on September 24 and September 25 with one on September 30. That ended the early fall passage.

For the late fall passage there were three on October 1 with singles to October 12. There were three on October 15 with singles to October 19. There were two from October 22 to October 25 with singles to November 2. There were two from November 4 to November 12 with one on November 13. There were two from November 15 to November 19 with singles to November 25. That concluded the late fall passage. For the winter passage there were three on November 29 with singles to December 13. There were two on December 14 with three on December 17, then two seen on December 24 with one on December 31. *There were two on January 1 with singles to January 13.* That was the winter passage.

American Crow (*Corvus brachyrhynchos*)

This was a vagrant. For the late fall passage there were three on October 25 with two later on November 19.

Fish Crow (*Corvus ossifragus*)

Present all year in low numbers there was a minor spring passage from late January to late March. For the early spring passage there were five on January 1 with ten on January 3, then four seen on January 8 with one on January 9. There were two on January 10 with 16 on January 13, then one seen on January 15. There were six on January 16 with 17 on January 18, then 15 seen on January 22 with seven on January 24 and one on January 27. There were nine on January 28 with 32 on January 29, then 21 seen on January 30 with ten on February 4 and one on February 5. There were seven on February 6 with ten on February 9 and 30 on February 10, then nine seen on February 12. There were ten on February 13 with 12 on February 14 and 16 on February 15, then 14 seen on February 16 with six on February 19. There were 16 on February 20 and February 21 with 25 on February 24, then 11 seen on February 26 with six on February 27. That was the early spring passage. For the main spring passage there were 16 on February 28 with 85 on March 2, then 68 seen on March 4 with four on March 5. The count of 85 was the highest count for the park in 2016 however there were 96 on February 12, 2017. There were nine on March 6 with 28 on March 9, then 21 seen on March 11 with five on March 12. There were 24 on March 13 with 13 on March 18 and three on March 19. There were ten on March 20 with 27 on March 23, then 11 seen on March 25 with six on March 26 and three on March 27. Counts were now lower for the rest of the year. There were ten on March 28 with eight on March 30, four on April 1 and three on April 2. There were seven on April 3 with nine on April 6, then six seen on April 8 with five on April 9. There were ten on April 10 with two on April 13. There were four on April 15 with five on April 16 and eight on April 17, then seven seen on April 20 with four on April 23 and three on April 24. There were four on April 27 and

April 30 with two on May 1 and one on May 4. That closed the main spring passage. For the summer passage there were seven on May 5 with three to May 7 and two on May 8. There were three on May 11 with four from May 13 to May 18, then three seen to May 27. There were five on May 28 with ten on May 30, then three seen to June 4. There were six on June 5 with three on June 6 and two on June 7. There were seven on June 8 with six on June 11 and two on June 12. There were three on June 15 and June 17 with 11 on June 18, then eight seen on June 24 with four on June 25 and one on June 26. That completed the summer passage. For the early fall passage there were three on June 29 with five on July 1 and seven on July 4, then five seen on July 6 with four on July 8 and two on July 9. There were six on July 10 with eight on July 13, then six seen on July 15 with three to July 17. There were 13 on July 20 with three to July 23. There were five on July 24 and July 29 with three on July 30 and two on July 31. There were 21 on August 3 with six on August 6, five on August 10 and two on August 12. There were eight on August 13 with nine on August 17 and August 20, then two seen to August 24. There were five on August 26 with two on August 27 and one on August 28. There were eight on August 31 with 15 on September 3, then nine seen on September 4 with two on September 5. There were five on September 7 with three from September 9 to September 11. There were four on September 14 with 16 on September 16, then three seen on September 17. There were six on September 18 and September 24 with eight on September 25 and 11 on September 28, then five seen on September 30. That ended the early fall passage. For the main fall passage there were seven on October 1 with 25 on October 2, then one seen on October 5. There were two on October 11 and October 12 with 12 on October 15, then two seen to October 19. There were three on October 22 with nine on October 23, then three seen on October 25 with two on October 26. There were five on October 28 with one on October 29. There were two on October 30 with four on November 1 and 15 on November 4, then 12 seen on November 6 with two to November 11. There were 24 on November 12 with two on November 15. There were five on November 16 and November 18 with 13 on November 19, then four seen on November 20 with singles to November 24. There were 16 on November 25 with ten on November 29, three to December 2 and one on December 3. That concluded the main fall passage. For the winter passage there were two on December 4 with four on December 6 and eight on December 7, then three seen on December 9 with one on December 10. There were two on December 11 with four on December 13, then one seen on December 14. There were three on December 18 with 29 on December 23, then five seen on December 24. There were 21 on December 30 with 31 on December 31, *then nine seen on January 1 with six on January 3 and four on January 4. There were 14 on January 6 with 16 on January 9, then one seen on January 13;* that finished the winter passage.

Purple Martin (*Progne subis*)

This was an occasional visitor from March 2 to September 4; numbers were exceptionally low. There were no spring sightings. For the summer passage there were singles on March 2, March 28 and April 8 with two on April 24, then singles seen on May 6 and May 7. This species nests so early that all the following records probably relate to the early fall passage. There were singles on May 18 and May 22 with three on May 29, then singles seen on May 30, June 1 and June 8. The count of three is the highest count for the park. There were later singles on July 3, July 30 and August 21 with two on August 27, then singles seen on September 3 and September 4. There were no later records.

Tree Swallow (*Tachycineta bicolor*)

In the spring they were seen from January to mid-May with the main passage in early March. They were seen in the fall from July 3 but the passage really started on September 25; the heaviest passage was in the first half of November. For the early spring passage there were 370 on January 1 with 120 on January 4 and three on January 8. Later there were five on February 16. That was the extent of the early spring passage. For the main spring passage there were 968 on March 2 with 2,940 on March 4, then three seen on March 6 with one on March 9. There were 495 on March 16 with 154 on March 18 and one on March 23. There were two on March 25 and March 26 with 63 on March 28, then two seen on April 2. There were 65 on April 8 with six on April 9 and two to April 20. There were six on April 23 with three on April 24. There were nine on May 6 with three on May 8 and two on May 13. That closed the main spring passage. For the early fall passage there was an adult on July 3. Later there were singles (not aged) on August 21, September 3 and September 25. There were 40 on September 28 with 20 on September 30 and three on October 1. That ended the early fall passage. For the main fall passage there were nine on October 22 with 13 on October 23 and 255 on November 4, then three seen on November 8. There were 70 on November 9 with 6,325 on November 11, then 12 seen on November 12 with three on November 13. The count of 6,325 is the highest count for the park. There were 155 on November 15 with 750 on November 16, then 160 seen on November 19 with 45 on November 25, 38 on November 26, 15 on December 2 and 12 on December 7. Surprisingly there were no records for the winter passage in 2016 or early 2017.

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)

This was a vagrant. For the late spring passage there was one on March 23.

Bank Swallow (*Riparia riparia*)

This was an uncommon late spring and early fall passage migrant. For the late spring passage there was one on April 8 with two on April 23 and April 29, then five seen on May 4 with one on May 5. There were 13 on May 6 with singles on May 7 and May 8. That was the late spring passage. For the early fall passage there were singles on June 29, July 27 and July 31 with 14 on August 3, then four seen on August 5 with two on August 6. The count of 14 is the highest count for the park. There were three on August 7 with two on August 21. There were five on August 31 with two on September 3 and one on September 14. That closed the early fall passage.

Cliff Swallow (*Petrochelidon pyrrhonota*)

There were just six records and five of them were for the early fall passage. For the late spring passage there was one on May 6. For the early fall passage there were two on July 31 with singles on August 3 and August 6. There were five on September 3 this is the highest count for the park. Finally for the early fall passage there was one on September 28.

Barn Swallow (*Hirundo rustica*)

This was a common spring passage migrant with the heaviest passage in early May. The fall passage was lighter but there was still a marked passage in early August. For the spring passage there were singles on March 6 and March 13 with 17 on March 16, then singles seen to March 19. There were four on March 20 with 41 on March 23, then 12 seen on March 28 with three on April 2. There were 418 on April 8 with 20 on April 9. There were 36 on April 10 with 138 on April 13, then 120 seen on April 15 with 19 on April 20 and one on April 22. There were 264 on April 23 with 1,053 on April 24, then 64 seen on April 29 with one on April 30. There were 421 on May 4 with 8,460 on May 6, then 5,700 seen on May 7 with 1,140 on May 8, 163 on May 13 and 84 on May 14. The count of 8,460 is the highest count for the park. There were 144 on May 15 with 194 on May 18, then 12 seen on May 20 with six on May 21. There were 36 on May 22 with two on May 28 and singles on May 29 and May 30. Up to the 30th birds were flying to the north. That was the end of the spring passage. The early fall passage started on June 12 as that was the first day with birds flying to the south. For the early fall passage there were four on June 12 with two to June 17 and singles to June 26. There were two on June 29 with three to July 4 and five on July 16, then two seen on July 22. Now the main passage started there were four on July 30 with 57 on July 31, 1,040 on August 3 and 1,429 on August 5, then 1,250 seen on August 6 with 90 on August 7, 13 on August 13, five on August 14 and four on

August 17. There were 48 on August 20 with 147 on August 21 and 445 on August 31, then 14 seen on September 1. There were 67 on September 2 with 425 on September 3, then 108 seen on September 4 with nine on September 5, eight on September 14 and one on September 16. There were 31 on September 23 with five on September 24. There were 27 on September 25 with 87 on September 28, then 28 seen on September 30 with six on October 2. That completed the early fall passage. For the late fall passage there were 17 on November 4 that was it.

Tufted Titmouse (*Baeolophus bicolor*)

This was a rare visitor; there may be a pair close to the Halifax River that occasionally comes up to A1A. Singles were seen on four dates i.e. May 8, July 6, July 9 and October 25.

Carolina Wren (*Thryothorus ludovicianus*)

A resident across A1A from the park a maximum of five males were heard singing on territory. From October to late January they are normally silent so they go un-recorded. The first was one on January 30 and the last was on August 7. There were later records of singles on August 17, September 3, September 28, October 1 and November 16. Normally just singles noted but there were higher counts of three on March 23, two on March 25, four on April 24, two on April 30, three on May 1, two on May 4, five on May 8 (the highest count for the park), two on May 13, three on May 15, three on May 18, two on June 15, three on July 8, three on July 13, two on July 22 and two on July 24.

House Wren (*Troglodytes aedon*)

There was one present in the park from January 1 to April 1 this is one of the few species to actually use the park. Hurricane Matthew may have blocked the possibility of one in the fall.

Sedge Wren (*Cistothorus platensis*)

This was a vagrant. For the late fall passage there was one in the park on October 22.

Blue-gray Gnatcatcher (*Polioptila caerulea*)

This was a vagrant. For the late spring passage there was one on April 2. For the early fall passage there was one on September 23.

American Robin (*Turdus migratorius*)

At the moment January is the month in both 2016 and 2017 with high counts in the second half of the month. A light passage then continued through to early March. The fall passage started in early November with the higher counts starting in late December. For the early spring passage there were 1,240 on January 30 with 730 on January 31, 70 on February 4, 41 on February 12 and four on February 13. The count of 1,240 was the highest count for the park but in 2017 a total of 3,920 were seen on February 8. There were 52 on February 14 with two on February 16. There were 21 on February 19 with 180 on February 20, then 14 seen on February 21 with four on February 24. There were six on February 25 with 62 on February 26 and 127 on February 27, then 108 seen on February 28 with 16 on March 2. That was the early spring passage. For the late spring passage there were 53 on March 4 with 74 on March 5, then 55 seen on March 6 with two on March 11. That closed the late spring passage. For the late fall passage there were six on November 9 with 42 on November 11, then 24 seen on November 12. There were 34 on November 15 with 186 on November 19 and 425 on November 25, then 40 seen on November 26 with 32 on December 2 and two on December 6. That ended the late fall passage. For the winter passage there were two on December 7 with 21 on December 13, then 14 seen on December 14 with five on December 20. There were 108 on December 23 with 885 on December 30, then 470 seen on December 31 with ten on January 1. There were 120 on January 3 with 425 on January 4, then 370 seen on January 6 with 17 on January 7. There were 340 on January 8 with 265 on January 9 and 185 on January 13. That completed the winter passage.

Gray Catbird (*Dumetella carolinensis*)

This was a vagrant. For the late spring passage there was one on March 30.

Northern Mockingbird (*Mimus polyglottos*)

A resident there were three pairs locally the highest numbers were seen when the young fledged from mid-June to mid-July. For the early spring passage there were singles from

January 1 to January 10 with two on January 16, then singles seen to February 12. These low numbers relate to the birds not actively holding territories at this time that was about to change. There were two on February 13 with three to February 16, four on February 19 and five on February 21, then singles seen to February 27. That was the early spring passage. For the late spring passage there were four on February 28 with six on March 2, then one seen on March 3. There were three on March 4 with four on March 5, then three seen on March 6 with two on March 9. There were four on March 11 with three on March 12 and two to March 16. There were four on March 18 with two on March 19 and one on March 20. There were four on March 23 with three to March 28 and one on March 30. There were four on April 1 with two on April 3 and singles to April 9. There were three on April 10 and April 13 with two on April 15 and singles to April 17. There were three from April 20 to April 23 with four on April 24, then two seen to April 30. That closed the late spring passage. For the summer passage there were three on May 1 with two on May 5 and one on May 6. There were three on May 7 and May 8 with four on May 11, then three seen on May 14 with one on May 15. There were two on May 18 with three on May 21 and five on May 22, then two seen on May 27 with one on May 28. There were three on May 29 with four on May 30 and June 1, then three seen on June 4 with one on June 6. There were four on June 8 with three on June 12 and two on June 15. There were seven on June 17 with six on June 18 and one on June 19. The three counts of seven are the highest counts for the park. There were three on June 24 with five on June 25, then one seen on June 26. That ended the summer passage. For the early fall passage there were five on June 29 with seven on July 1, then six seen on July 2 with four on July 3. There were six on July 4 and July 8 with four to July 13 and two on July 15. There were three on July 16 with seven on July 17, then six seen to July 24 with five on July 27, four on July 29, three on July 30 and two on July 31. There were four on August 3 with five on August 5, then three seen to August 10 with one on August 12. There were two from August 13 to August 17 with three on August 19, then singles seen to September 3. There were two on September 4 with six on September 7, then three seen on September 9 with singles to September 11. There were two on September 14 with singles to September 17. There were four on September 18 with five on September 25, then two seen to September 30. That concluded the early fall passage. For the late fall passage there were three on October 1 and October 2 with singles to October 12. There were two on October 14 and October 15 with four on October 16, then two seen on October 19 with one on October 22. There were two on October 23 with four on October 25, then two seen on October 26 with one on October 28. There were three on October 29 and November 1 with two to November 6 and one on November 8. There were two on November 9 with three on November 11, then two seen to November 13 with one on November 15. There were two on November 16 with four on November 18 and five on November 19, then four seen on November 20 with two to November 24 and singles to November 27; that finished the late fall passage. For the winter passage there were three on November 29 and December 2 with two to December 7 and singles to December

10. There were two on December 11 with four on December 14, then three seen on December 17 with singles to December 31. *There were two from January 1 to January 6 with one on January 8.* That was the winter passage.

Brown Thrasher (*Toxostoma rufum*)

A summer visitor being present from March 9 to September 5; there was a single pair. On July 13 the two adults and a juvenile were seen creating the highest count for the park.

European Starling (*Sturnus vulgaris*)

Present all year I do not know how many pairs bred locally. From early January to mid-February numbers were quite high after which only low numbers seen to the end of May. Counts then with the arrival of the juveniles gradually climbed to a peak in late July and early August; this event I call a "post-breeding gathering". Numbers then fell back to low levels again for September and early October. Finally the main event started the combined late fall and winter passages. For the early spring passage there were 11 on January 1 with 25 on January 2, 74 on January 3, 108 on January 4 and 470 on January 8, then 60 seen on January 9 with 15 on January 10. There were 310 on January 13 with 200 on January 15, 70 on January 16 and 20 on January 17. There were 42 on January 18 with 120 on January 21, then 90 seen on January 22 with five on January 23. There were 125 on January 24 with 45 on January 27 and eight on January 28. There were 45 on January 29 with 80 on January 30 and 90 on February 4, then 12 seen on February 5. There were 70 on February 6 with 170 on February 7, then 115 seen on February 9 with 60 on February 10, 45 on February 13, 15 to February 16 and eight on February 19. Counts were now at a low level until June. There were ten on February 20 with 11 on February 21 and 42 on February 24, then 20 seen on February 25 with three on February 26. That was the early spring passage. For the late spring passage there were seven on February 27 with ten on February 28 and 27 on March 2, then 20 seen on March 4 with 15 on March 6, 14 to March 11, 11 on March 12 and six on March 13. There were 16 on March 16 with nine on March 18, six on March 19 and three on March 20. There were six on March 23 with seven on March 25, then five seen on March 26 with four to March 28. There were 12 on March 30 with 21 on April 1, then nine seen on April 2 with seven on April 3. That closed the late spring passage. This species nests so early the summer passage starts here. There were 14 on April 6 with 15 on April 8, then eight seen on April 10 with six to April 15. There were 16 on April 16 with nine on April 20 and eight on April 22. There were 18 on April 23 with ten on April 24, six on April 27 and three on April 29. There were 12 on April 30 with 15 on May 4, then three seen on May 5. There were 12 on May 6 with 16 on May 7, then six seen on May 8. There were ten

on May 11 with 24 on May 13, then 14 seen on May 14 with 12 on May 15. There were 20 on May 18 with 55 on May 21, then 20 seen on May 22 with 16 on May 25 and 15 on May 27. That ended the summer passage. For the post-breeding gathering there were 41 on May 28 with 39 on May 29 and ten on May 30. There were 20 on June 1 with 50 on June 3, then 12 seen on June 4. There were 20 on June 5 with 41 on June 6, 65 on June 7 and 90 on June 8, then 50 seen on June 11 with 20 on June 12. There were 28 on June 15 with 34 on June 17 and 46 on June 18, then 20 seen on June 24 with 15 to June 26. There were 62 on June 29 with 73 on July 1, then 30 seen on July 2. There were 35 on July 3 with 45 on July 4, 50 to July 9 and 60 on July 10, then 75 seen on July 15 and July 16 with 65 on July 20 and 50 on July 22. There were 160 on July 23 with 50 on July 24 and 45 on July 27. There were 60 on July 29 with 95 on July 30, then 180 seen on July 31 and August 3 with 160 on August 5, 70 on August 6, 60 on August 10 and 30 on August 12. That was the end of the post-breeding gathering. For the balance of the early fall passage there were 40 on August 13 with 50 to August 17 and 112 on August 20, then 90 seen to August 26 with eight on August 27. There were 14 on August 28 with 125 on August 31, then 90 seen on September 2 with 35 on September 4 and 30 on September 5. There were 50 on September 7 with 20 to September 10. There were 30 on September 11 with 50 on September 14, then 43 seen on September 16 with 20 to September 18. There were 45 on September 23 with 65 on September 25, then 52 seen on September 30 with ten on October 1. That completed the early fall passage. For the main fall passage there were 40 on October 2 and October 4 with 25 to October 12 and ten on October 14. There were 50 on October 15 with 115 on October 16, then 40 seen on October 19. There were 50 on October 22 with 65 on October 23, then 60 seen on October 26 with 35 on October 28 and 20 on October 29. There were 130 on October 30 with 55 on November 1 and 30 on November 2. There were 60 on November 4 with 40 on November 6 and 25 on November 8. Now the heaviest passage started. There were 310 on November 9 with 75 on November 11 and 15 on November 12. There were 25 on November 13 with 115 on November 15 and 205 on November 16, then 30 seen to November 19. There were 170 on November 20 with 305 on November 22 and 540 on November 24, then 230 seen on November 25 with 110 on November 26. There were 120 on November 27 with 480 on November 29, then 60 seen on November 30 with 25 to December 3 and 20 on December 4; that finished the main fall passage but the heaviest passage continues through the winter passage. For the winter passage there were 530 on December 6 with 760 on December 7, then 130 seen on December 9 with 50 on December 11 and 40 on December 13. The count of 760 is the highest count for the park. There were 60 on December 14 with 20 on December 16 and ten on December 17. There were 70 on December 18 with 460 on December 20, then 140 seen on December 21. There were 200 on December 23 with 225 on December 24, then 210 seen on December 30 with 150 on December 31, 60 on January 3, 55 on January 4 and 50 on January 6. There were 90 on January 7 with 130 on January 9, then 13 seen on January 13. That concluded the winter passage.

Cedar Waxwing (*Bombycilla cedrorum*)

A spring passage migrant; there were two records for the late fall passage. For the early spring passage there were 35 on January 10. Later there were 60 on January 28 with 160 on January 30, then 12 seen on January 31. The count of 160 is the highest count for the park. There were 25 on February 10 with 75 on February 12, then 60 seen on February 20. There were 75 on February 26 with 15 on February 27 and 13 on February 28. That was the early spring passage. For the late spring passage there were 22 on March 2 with 35 on March 6, 40 on March 13 and 82 on March 16, then 80 seen on March 19 with 75 on March 20, 65 on March 22, 50 on March 25 and 35 on March 26. There were 52 on March 27 with 110 on March 28, then 102 seen on March 30 with 55 on April 1, 38 on April 3 and 12 on April 6. There were 72 on April 8 with 17 on April 19. There were 30 on April 13 with 40 on April 15, then eight seen on April 20. That closed the late spring passage. Finally for the late fall passage there were 13 on November 11 with 20 on November 26. *For the winter passage in 2017 there were ten on January 7.*

Northern Parula (*Parula americana*)

This was a vagrant. For the early fall passage there was a male on July 8.

Yellow Warbler (*Dendroica petechia*)

This was a vagrant. For the early fall passage there was one on August 10.

Yellow-rumped Warbler (*Dendroica coronata*)

They were present from January to April 2 and again from October 22 through to the spring of 2017; the highest counts in the spring were in February and in the fall the highest counts were in late November. For the early spring passage there were singles on January 24, January 29 and January 30 with 72 on February 4, then six seen on February 13 with three on February 15. There were nine on February 16 with 15 on February 19 and 18 on February 20, then 14 seen on February 21 with one on February 24. There were two on February 25 with three on February 26 and nine on February 27, then six seen on February 28 with five on March 2 and two on March 3. That ended the early spring passage. For the late spring passage there were five on March 4 with four to March 6. There were six on March 9 with four on March 11, two to March 18 and one on March 19. There were two on March 20 and March 25 with singles

to April 2. That closed the late spring passage. For the late fall passage there were singles on October 22 and October 30 with nine on November 4, then singles seen to November 16. There were three on November 18 with 104 on November 20, then four seen on November 22 with two on November 24. The count of 104 is the highest count for the park. There were seven on November 25 with 13 on November 26, then three seen on November 29 with two on November 30. That completed the late fall passage. For the winter passage there were nine on December 2 with two on December 6 and one on December 11. There were two on December 13 and December 14 with singles to December 18. There were three on December 24 with 35 on December 30, then seven seen on December 31 *with three on January 1 and one on January 3. There were five on January 4 with ten on January 6 and 27 on January 8, then 14 seen on January 9 with two on January 13.* That was the winter passage.

Yellow-throated Warbler (*Dendroica dominica*)

This was a vagrant. For the early fall passage there were two on September 4.

Prairie Warbler (*Dendroica discolor*)

This was a vagrant with single records for the spring and the fall. For the late spring passage there was one on April 1. For the early fall passage there was one on August 3.

Palm Warbler (*Dendroica palmarum*)

One was present from January to March 28 with two on January 27 and February 9. Later for the late spring passage there were two on April 23 with one on May 4. Possibly the same individual returned on October 11 and stayed into 2017. There were also for the late fall passage two on October 25, November 12 and November 15 with three on November 16, then two seen on November 22 and November 25. For the winter passage there were two on December 2 with singles to December 18. There were three on December 20 with four on December 21, then two seen on December 23 and December 24 *with singles to January 13.* The count of four is the highest count for the park.

Blackpoll Warbler (*Dendroica striata*)

This was a vagrant. For the late spring passage there were singles on May 4 and May 14.

American Redstart (*Setophaga ruticilla*)

This was a rare late spring and early fall passage migrant. For the late spring passage there were singles on April 23 and May 14. For the early fall passage there was one on September 30.

Northern Waterthrush (*Seiurus noveboracensis*)

This was a vagrant. For the late spring passage there was one on April 15.

Louisiana Waterthrush (*Seiurus motacilla*)

This was a vagrant. For the early fall passage there was one on August 5.

Common Yellowthroat (*Geothlypis trichas*)

This was the commonest of these migrant warblers most were seen during the late spring passage. For the late spring passage there were two on March 28 with later one on April 15. There were three on April 23 with singles on six dates to May 8. There were three on May 13 with singles on May 15, May 18 and May 20. The counts of three are the highest counts for the park. That closed the late spring passage. For the early fall passage there was one on September 4 with later two on September 23 and September 25, then one seen on September 30. There were also two on October 1. That completed the early fall passage. For the late fall passage there was one on October 23.

Hooded Warbler (*Wilsonia citrina*)

This was a vagrant. For the early fall passage there was a female n September 3.

Eastern Towhee (*Pipilo erythrophthalmus*)

This was a vagrant. For the late spring passage there was one on March 30.

Chipping Sparrow (*Spizella passerina*)

This was a vagrant. For the winter passage there was one on December 13.

Savannah Sparrow (*Passerculus sandwichensis*)

This was a vagrant. For the late spring passage there was one on March 27 and for the late fall passage there was one on November 11.

White-crowned Sparrow (*Zonotrichia leucophrys*)

This was another vagrant. For the late fall passage there was an immature on November 26.

Northern Cardinal (*Cardinalis cardinalis*)

A resident there were a number of pairs across A1A from the park. For the early spring passage there were singles on six dates from January 1 to January 18 with two on January 30 and February 4, then singles seen to February 9. There were three on February 12 with five on February 14, then three seen on February 16 with two on February 19 and one on February 20. There were three on February 21 with one on February 26. That was the early spring passage. For the late spring passage there were three from February 28 to March 5 with two on March 6. There were three on March 9 with two to March 12. There were three on March 13 and March 18 with two on March 19. There were three on March 20 with four on March 23, then three seen on March 27 with two on March 28. There were three on March 30 with two on April 1 and singles to April 13. There were four on April 15 with two to April 20 and one on April 22. There were two on April 23 with three on April 24, then singles seen to May 1. That closed the late spring passage. For the summer passage there were singles on May 5 and May 6 with two on May 7 and four on May 8, then two seen on May 11 with one on May 13. There were four on May 14 with three on May 15, then singles seen to May 21. There were three on May 22 with singles to May 28. There were three on May 29 with one on May 30. There were two on June 1 and June 3 with three on June 5, then one seen on June 6. There were two on June 8 with six on June 11 and eight on June 15, then four seen on June 18 with three on June 25 and two on June 26. The count of eight is the highest count for the park. That ended the summer passage. For the early fall passage there were three on June 29 with four on July 1, then three seen on July 3 with two on July 4 and singles to July 9. There were three on July 10 and July 13

with two on July 15. There were three on July 16 with two to July 23 and one on July 24. There were two on July 27 with three on July 29, then two seen on July 30 with one on August 3. That was the end of the influxes. As in January there were only now scattered records to the end of the year as they had stopped flying up onto the utility wires to sing. For the remainder of the early fall passage there were singles on August 19, September 4, September 14, September 24, September 25 and September 30. For the late fall passage there were singles on October 12 and October 25, November 4 and November 6. For the winter passage there were two on December 7 and December 11 with singles on December 16, December 17 and December 24. *There was one on January 1 with three on January 4, then singles seen on January 7, January 9 and January 13.* That completed the winter passage.

Blue Grosbeak (*Guiraca caerulea*)

This was a vagrant. For the early fall passage there was one on July 29.

Bobolink (*Dolichonyx oryzivorus*)

For this year at least this was a rare passage migrant. For the late spring passage there were 12 on April 23 with 65 on May 8. The count of 65 is the highest count for the park. For the early fall passage there were three on September 14 that was it.

Red-winged Blackbird (*Agelaius phoeniceus*)

This was decidedly uncommon this year there were just 18 records for the whole year with no sightings in August and October. For the early spring passage there were four on January 24 with 20 on January 30, then one seen on February 6. There were also 25 on February 20 this is the highest count for the park. That was the early spring passage. For the late spring passage there were singles on March 11, April 1 and April 27. For the summer passage there were singles on May 6, June 1, June 3 and June 24. For the early fall passage there were singles on July 3, July 15 and September 3. For the late fall passage there were three on November 18 with one on November 20. For the winter passage there were singles on December 11 and December 16. *There were also three on January 1.* That closed the winter passage.

Common Grackle (*Quiscalus quiscula*)

They were seen from January to July 22 and again from October 2, a break at that time of year is most unusual. Only low numbers were seen. For the early spring passage there were eight on January 1 and January 8 with three on January 10 and one on January 13. There were six on January 16 with four on January 18 and two on January 21. There were three on January 22 with six on January 24, then singles seen to January 29. There were 16 on January 30 with eight on January 31 and two on February 4. There were three on February 6 and February 9 with four on February 10, eight on February 12 and 25 on February 13, then four seen to February 15 with three on February 16 and two to February 21. There were five on February 24 with six on February 25, then three seen on February 26 with two on February 27. That was the early spring passage. For the late spring passage there were four on February 28 with 11 on March 2, then eight seen on March 4 with four on March 5. There were ten on March 6 with three to March 12 and two on March 13. There were six on March 16 with five on March 18, four on March 19 and three on March 20. There were seven on March 23 with four on March 25, two on March 27 and singles to March 30. There were two from April 1 to April 6 with three on April 8 and April 9, then one seen on April 10. There were three on April 13 with 20 on April 15, then two seen on April 16 with singles to April 30. That closed the late spring passage. For the summer passage there were two from May 1 to May 7 with four on May 8, then singles seen to May 13. There were two from May 14 to May 21 with 11 on May 22, then three seen to May 29 with singles to June 1. There were six on June 8 with two on June 11 and one on June 12. There were two on June 15 and June 18 with one on June 25. That completed the summer passage. For the early fall passage there were two from June 29 to July 2 with singles to July 8. There were two on July 9 with four on July 13, then singles seen to July 22. That was the unexpected end to this passage except for two on September 4. For the late fall passage there were three on October 2. Later there were singles on October 23 and October 25 with two on November 1 and November 11, then one seen on November 15. There were two on November 16 with singles to November 19. There were nine on November 20 with singles to November 24. There were two on November 25 with three on November 26, then two seen on November 30 with one on December 2. That concluded the late fall passage. For the winter passage there were six on December 7 with ten on December 11, then eight seen on December 13 with two on December 14. There were 15 on December 17 with one on December 18. There were three on December 23 with 11 on December 24 and 32 on December 30, *then 17 seen on January 1 with ten on January 3 and six on January 4. There were 105 on January 6 with 26 on January 7 and two on January 8.* The count of 32 was the highest count for the park but in 2017 there was a higher count of 105 on January 6. *There were 30 on January 9 with 12 on January 13.* That ended the winter passage.

Boat-tailed Grackle (*Quiscalus major*)

Present all year in low numbers the early spring passage probably had the heavier passage. For the early spring passage were singles on January 1, January 3 and January 8 with five on January 10 and 14 on January 13, then six seen on January 15 with four on January 16. There were 12 on January 18 with four to January 24. There were five on January 27 with eight on January 29 and 42 on January 30, then 14 seen on January 31 with 13 to February 5, eight on February 6 and five on February 9. There were six on February 10 with 18 on February 12, 28 on February 13 and 50 on February 14, then 14 seen on February 16 with seven on February 19 and three on February 20. The count of 50 is the highest count for the park. There were ten on February 21 with eight on February 24, seven on February 25 and four on February 26. There were 14 on February 27 with 23 on February 28, then 21 seen on March 2 with two on March 3. That was the early spring passage. For the summer passage (this species nests so early) there were 34 on March 4 with 14 on March 5, six on March 6 and four on March 9. There were five on March 11 with eight on March 12, nine to March 18 and 32 on March 19, then nine seen on March 20 with three to March 25 and two to March 26. There were three on March 27 with six on March 28, then two seen on March 30. There were five on April 1 with eight on April 3, then six seen on April 6 with four on April 8. There were five on April 9 with nine on April 10, then seven seen to April 16 with four on April 17. There were ten on April 20 with 11 on April 23, then seven seen on April 27 with four to April 30. There were seven on May 1 with four on May 5 and three on May 6. There were six on May 7 and May 11 with four to May 14. That closed the summer passage. For the post-breeding gathering there were six on May 15 with eight on May 18 and 39 on May 21, then 12 seen on May 22 with three on May 27 and two on May 28. There were 11 on May 29 with five on June 1, four on June 4 and two to June 7. There were nine on June 8 with four on June 11, three on June 12 and one on June 15. There were three from June 17 to June 24 with four on June 25 and nine on June 26, then two seen on June 29. That concluded the post-breeding gathering. For the early fall passage there were six on July 1 and July 3 with two to July 8. There were seven on July 9 with five to July 13, two on July 15 and one on July 16. There were two on July 17 with three on July 20, then singles seen to July 27. There were 14 on July 29 with seven on July 30, four on August 3 and two to August 10. There were three on August 12 and August 13 with five on August 14 and ten on August 17, then three seen to August 20 with two to August 24 and singles on 13 dates to September 23. There were four on September 24 with singles to September 30; that finished the early fall passage. For the late fall passage there were two from October 1 to October 11 with three on October 12 and six on October 14, then singles seen to October 19. There were two on October 22 with ten on October 23, then two seen to October 28 with one on October 29. There were three on October 30 and November 1 with singles on eight dates to November 24. There were two on November 25 with singles to November 27. That completed the late fall passage. For the winter passage there were two on December 2 with singles to December 6. There were five on

December 7 with eight on December 13 and December 14, then two seen on December 17 with one on December 21. There were two on December 23 with 44 on December 24, then three seen on December 31. *There were six on January 1 with three to January 4. There were 14 on January 6 with seven on January 7 and two on January 9.* That was the winter passage.

Brown-headed Cowbird (*Molothrus ater*)

The main event runs from late November to late January; counts in February were lower. There was a second lesser event in March after which very low numbers were seen to mid-April. There was the trace of an early fall passage with an extended gap until the main event started in early November. For the early spring passage there were 320 on January 16 with 155 on January 24, 40 on January 29, 30 on January 30 and five on January 31. The count of 320 was a joint high count for the park. There were 13 on February 4 with 55 on February 5, then 12 seen on February 7 with eight on February 9. There were 37 on February 10 with 20 on February 12 and 11 on February 13. There were 26 on February 14 with 63 on February 15, then 35 seen on February 16 with eight on February 19. There were 29 on February 20 with 33 on February 21, 55 on February 25 and 85 on February 26, then 60 seen on February 27 with 14 on February 28. That was the early spring passage. For the late spring passage there were 165 on March 2 with 20 on March 3. There were 110 on March 4 with 155 on March 5, then 82 seen on March 6 with 30 on March 9. There were 130 on March 11 with 70 on March 13, 55 on March 16 and 35 on March 18. There were 80 on March 19 with 40 on March 20 and ten on March 23. There were 71 on March 25 with one on March 26. There were two on March 27 with ten on March 28 and 18 on April 1, then three seen on April 2 with one on April 3. There were six on April 6 with three on April 16. That closed the late spring passage. There were no summer sightings. For the early fall passage there were singles on July 10 and July 13 with two on July 17. Later there was one on August 12. That was the extent of the early fall passage. For the late fall passage there were two on November 4 and November 9 with 15 on November 11, 21 on November 16, 44 on November 23 and 160 on November 24, then 130 seen on November 25 with 120 on November 26, 90 on November 29 and 25 on November 30. That ended the late fall passage. For the winter passage there were 40 on December 2 with 60 on December 4 and 320 on December 7, then 150 seen on December 13 with 15 on December 14. The count of 320 was the joint high count for the park in 2016 but in 2017 there were 615 on January 16. There were 30 on December 17 with 95 on December 20, 120 on December 23 and 165 on December 24, then 150 seen on December 30 with ten on December 31 *and five on January 1. There were 30 on January 3 with ten on January 4 and four on January 6.* That completed the winter passage.

Baltimore Oriole (*Icterus galbula*)

This was a vagrant. For the late spring passage there were two adult males on April 10. For the late fall passage there was a single adult male on November 8, November 9, November 16 and November 20.

House Finch (*Carpodacus mexicanus*)

A summer visitor in very low numbers there were records for the early spring and the late fall. For the early spring passage there were two on January 1. For the late spring passage there was one on March 13 with two from March 23 to April 8 – they were prospecting for a nest site. For the summer passage there were singles on April 24, May 7, June 8 and June 18. For the early fall passage there were two on July 23 with four on July 24 and ten on August 7. The count of ten is the highest count for the park. Later there were eight on September 4. That closed the early fall passage. For the late fall passage there were four on October 15. Later there were four on November 16 with one on November 29. That was it.

American Goldfinch (*Spinus tristis*)

This was a vagrant. For the early spring passage there were two on February 20. For the winter passage there were two on December 3 with four on December 23; the count of four was the highest count for the park in 2016 but there were seven on February 1, 2017.

House Sparrow (*Passer domesticus*)

A resident the counts however did vary numbers were higher in March and again in July and August. For the early spring passage there were two on January 1 with eight on January 3, then one seen on January 4. There were three on January 8 with five on January 10, then four seen to January 16 with one on January 18. There were two on January 21 with ten on January 22, then five seen on January 27 with three on January 28 and two on January 29. There were four on January 30 with three on January 31 and one on February 4. There were four on February 6 with two on February 9 and one on February 10. There were two on February 12 with six on February 13 and 11 on February 14, then three seen on February 15. There were seven on February 16 with nine on February 19 and 14 on February 20, then 11 seen on February 21 with two on February 24. There were four on February 25 with 16 on February 26, then six seen on February 27. That was the early spring passage. For the late spring passage and

the higher counts there were eight on February 28 with 19 on March 2, then 11 seen on March 4 with five to March 6. There were 13 on March 9 with five on March 11 and two on March 12. There were four on March 13 and March 16 with nine on March 18 and 14 on March 20, then four seen on March 23 with three on March 25 and two to March 28. That was the end of the higher counts. There were three on March 30 and April 1 with seven on April 3, then five seen to April 8 with four to April 10. There were six on April 16 with one on April 17. There were four from April 20 to April 24 with three on April 27 and two to April 30. That closed the late spring passage. For the summer passage there were six on May 1 with two to May 5. There were six on May 6 with five on May 7 and three on May 8. There were six from May 11 to May 14 with four on May 15. There were five on May 18 with six on May 20, seven on May 21, eight on May 27 and nine on May 28, then eight seen on May 29 with five on May 30. There were six on June 1 with seven on June 3, then four seen to June 5 with two on June 6. There were three on June 7 with six on June 8, then five seen on June 11 with four on June 12. There were six on June 15 and June 17 with nine on June 18, then six seen on June 24 with four on June 25. That completed the summer passage. For the early fall passage there were five on June 26 with six on June 29, nine on July 1 and 13 on July 2, then ten seen on July 3 with five to July 8 and four on July 9. Now the main event started (an influx of juveniles). There were six on July 10 and July 13 with nine on July 15, 13 on July 16 and 22 on July 17, then 13 seen on July 20 with 11 on July 23 and eight on July 24. There were 14 on July 27 with 12 to July 30. There were 15 on July 31 with 13 on August 5 and 11 on August 6. There were 16 on August 7 with eight on August 10. There were ten on August 12 with 12 on August 13 and 27 on August 17, then 13 seen on August 19 with five on August 21 and singles to August 28. The count of 27 is the highest count for the park. This also marked the end of this major event. There were two on September 1 with three on September 3 and seven on September 4, then four seen on September 5 with one on September 7. There were five on September 9 with six on September 11, then four seen to September 16. There were 12 on September 18 with three on September 23. There were six on September 24 with seven on September 25, then six seen on September 28 with four on September 30. That ended the early fall passage. For the late fall passage there were eight on October 1 with six on October 2 and two on October 4. There were three on October 5 with six on October 12, then five seen on October 14 with four to October 16. There were five on October 19 with eight on October 22, then six seen to October 26 with one on October 28. There were seven on October 30 and November 1 with five on November 4 and one on November 5. There were six on November 6 with four on November 9 and one on November 11. There were three on November 12 and November 13 with four on November 15 and six on November 16, then four seen on November 18 with two on November 19. There were ten on November 20 with two on November 22 and one on November 24. There were four on November 25 with five on November 26, then one seen on November 29. That concluded the late fall passage. For the winter passage there were eight on November 30 with nine on

December 2, then two seen to December 7. There were four on December 11 with six on December 13, then four seen on December 14 with one on December 18. There were five on December 20 and December 21 with eight on December 24 and nine on December 31, *then three seen on January 1 with one on January 3. There were ten on January 4 with five to January 7 and three on January 8.* That finished the winter passage.

TABLE A**THE HIGHEST DAILY BIRD COUNTS**

The following table gives the highest daily count during 2016 for each species. This table will be updated annually. I have also added columns for the historical counts.

Species	Highest daily count	Date of highest count	Historical High Count	Date of this count
Red-throated Loon	2	1.29.16		
Common Loon	19	11.12.16		
Pied-billed Grebe	1	10.23.16		
Horned Grebe	12	11.13.16		
Cory's Shearwater	5	6.19.16		
Greater Shearwater	1	6.19.16		
Sooty Shearwater			1	12.22.12
Brown Booby	2	6.26.16		
Northern Gannet	4,880	12.17.16		
American White Pelican	35	12.21.16		
Brown Pelican	2,486	11.24.16		
Double-crested Cormorant	1,310	4.2.16		
Anhinga	75	4.9.16		
Magnificent Frigatebird	1	6.1.16		
Great Blue Heron	165	10.1.16		
Great Egret	33	10.2.16		
Snowy Egret	37	7.9.16		
Little Blue Heron	73	9.3.16		
Tricolored Heron	27	4.8.16		
Reddish Egret	1	5.4.16		
Cattle Egret	127	10.1.16		
Green Heron	2	9.4.16		
Black-crowned Night-Heron	1	6.3.16		
Yellow-crowned Night-Heron	12	7.2.16		
White Ibis	354	10.1.16		
Glossy Ibis	15	7.31.16		
Roseate Spoonbill	41	6.8.16		
Wood Stork	46	1.29.16		
Black Vulture	357	10.22.16		
Turkey Vulture	741	12.13.16		

Black-bellied Whistling-Duck	5	6.8.16		
Snow Goose	1	2.27.16		
Brant	1	11.6.16		
Wood Duck	1	11.8.16		
Gadwall	14	12.16.16		
American Wigeon	15	11.18.16	18	12.26.15
Mallard	3	11.12.16		
Blue-winged Teal	1,790	9.10.16		
Northern Shoveler	30	11.5.16		
Northern Pintail	225	11.12.16		
Green-winged Teal	420	11.12.16		
Canvasback	27	12.16.16		
Redhead	37	12.16.16		
Ring-necked Duck	3	11.12.16		
Greater Scaup	1,060	12.16.16		
Lesser Scaup	17,200	12.16.16		
Surf Scoter	13	11.13.16		
White-winged Scoter	2	12.18.16		
Black Scoter	2,940	11.13.16		
Long-tailed Duck	1	11.9.16		
Bufflehead	18	12.17.16		
Common Goldeneye	1	1.24.16		
Hooded Merganser	14	11.22.16		
Red-breasted Merganser	220	12.7.16		
Osprey	8	10.29.16		
Swallow-tailed Kite	20	7.10.16		
Mississippi Kite	1	6.29.16		
Bald Eagle	3	2.16.16		
Northern Harrier	4	10.1.16		
Sharp-shinned Hawk	2	11.20.16		
Cooper's Hawk	3	3.18.16		
Red-shouldered Hawk	3	9.18.16		
Short-tailed Hawk	1	6.15.16		
Red-tailed Hawk	2	2.10.16		
American Kestrel	2	10.22.16		
Merlin	5	10.12.16		
Peregrine Falcon	26	9.30.16		
Sandhill Crane	3	1.30.16		
Black-bellied Plover	29	9.2.16		
Wilson's Plover	1	11.30.16		
Semipalmated Plover	13	5.7.16		
Piping Plover	1	4.30.16		

Killdeer	8	11.20.16		
American Oystercatcher	3	10.28.16		
Black-necked Stilt	27	6.26.16		
American Avocet	2	8.24.16		
Greater Yellowlegs	2	9.3.16		
Lesser Yellowlegs	2	2.26.16		
Solitary Sandpiper	1	4.24.16		
Willet	446	8.20.16		
Spotted Sandpiper	4	5.18.16		
Whimbrel	14	4.16.16		
Long-billed Curlew	1	4.15.16		
Marbled Godwit	1	4.10.16		
Ruddy Turnstone	83	9.4.16		
Red Knot	420	2.14.16		
Sanderling	430	5.5.16		
Semipalmated Sandpiper	161	5.6.16		
Western Sandpiper	27	9.25.16		
Least Sandpiper	55	5.11.16	160	5.6.15
White-rumped Sandpiper	3	5.6.16	5	5.6.15
Pectoral Sandpiper	71	9.1.16		
Dunlin	12	1.15.16		
Stilt Sandpiper	8	7.31.16		
Short-billed Dowitcher	18	9.14.16		
Wilson's Snipe	1	10.12.16		
Red-necked Phalarope	1	4.15.16		
Pomarine Jaeger	67	11.2.16		
Parasitic Jaeger	53	1.17.16		
Laughing Gull	36,000	11.20.16		
Franklin's Gull	1	1.2.16		
Bonaparte's Gull	21	2.7.16	49	12.22.12
Ring-billed Gull	870	1.4.16		
Herring Gull	1,730	3.5.16		
Thayer's Gull	1	2.26.16		
Iceland Gull	1	12.18.16		
Lesser Black-backed Gull	7	11.30.16		
Glaucous Gull	1	1.9.16		
Great Black-backed Gull	24	12.17.16		
Black-legged Kittiwake	1	3.6.16		
Gull-billed Tern	2	5.7.16		
Caspian Tern	7	7.16.16		
Royal Tern	852	2.5.16		
Sandwich Tern	335	12.3.16		

Roseate Tern	2	8.10.16		
Common Tern	568	9.10.16		
Arctic Tern	3	9.2.16		
Forster's Tern	419	2.13.16		
Least Tern	153	4.17.16		
Black Tern	1,620	9.10.16		
Black Skimmer	385	1.24.16		
Razorbill			1	12.22.12
Black Guillemot	1	1.23.16		
Rock Pigeon	34	12.30.16		
Eurasian Collared-Dove	21	12.21.16		
White-winged Dove	3	6.24.16		
Mourning Dove	27	8.13.16		
Common Ground-Dove	2	7.22.16		
Nanday Parakeet	2	3.26.16		
Common Nighthawk	1	4.24.16		
Chimney Swift	15	7.30.16		
Ruby-throated Hummingbird	1	8.20.16		
Belted Kingfisher	2	4.8.16		
Red-bellied Woodpecker	3	7.4.16		
Yellow-bellied Sapsucker	1	11.19.16		
Downy Woodpecker	1	3.6.16		
Pileated Woodpecker	2	4.13.16		
Eastern Phoebe	2	11.4.16		
Great Crested Flycatcher	1	6.3.16		
Eastern Kingbird	37	9.3.16		
Gray Kingbird	1	7.8.16		
Loggerhead Shrike	3	8.20.16		
Red-eyed Vireo	1	7.9.16		
Blue Jay	6	7.8.16		
American Crow	3	10.25.16		
Fish Crow	85	3.2.16		
Purple Martin	3	5.29.16		
Tree Swallow	6,325	11.11.16		
Nth. Rough-winged Swallow	1	3.23.16		
Bank Swallow	14	8.3.16		
Cliff Swallow	5	9.3.16		
Barn Swallow	8,460	5.6.16		
Tufted Titmouse	1	5.8.16		
Carolina Wren	5	5.8.16		
House Wren	1	1.1.16		
Sedge Wren	1	10.22.16		

Blue-gray Gnatcatcher	1	4.2.16		
American Robin	1,240	1.30.16		
Gray Catbird	1	3.30.16		
Northern Mockingbird	7	6.17.16		
Brown Thrasher	3	7.13.16		
European Starling	760	12.7.16		
Cedar Waxwing	160	1.30.16		
Northern Parula	1	7.8.16		
Yellow Warbler	1	8.10.16		
Yellow-rumped Warbler	104	11.20.16		
Yellow-throated Warbler	2	9.4.16		
Prairie Warbler	1	4.1.16		
Palm Warbler	4	12.21.16		
Blackpoll Warbler	1	5.4.16		
American Redstart	1	4.23.16		
Northern Waterthrush	1	4.15.16		
Louisiana Waterthrush	1	8.5.16		
Common Yellowthroat	3	4.23.16		
Hooded Warbler	1	9.3.16		
Eastern Towhee	1	3.30.16		
Chipping Sparrow	1	12.13.16		
Savannah Sparrow	1	3.27.16		
White-crowned Sparrow	1	11.26.16		
Northern Cardinal	8	6.15.16		
Blue Grosbeak	1	7.29.16		
Bobolink	65	5.8.16		
Red-winged Blackbird	25	2.28.16		
Common Grackle	32	12.30.16		
Boat-tailed Grackle	50	2.14.16		
Brown-headed Cowbird	320	1.16.16		
Baltimore Oriole	2	4.10.16		
House Finch	10	8.7.16		
American Goldfinch	4	12.23.16		
House Sparrow	27	8.17.16		

In all 188 species were seen in 2016; there were two historical species making a grand total of 190 species for the park.

TABLE B**HISTORICAL BIRD COUNTS AT THE PARK**

This table covers the Christmas Birds Counts that I did at the park from 2011 to 2015 together with an exploratory visit on May 6, 2015. The highest counts are not included in Table A unless the count is higher in which case it is listed in the right hand columns. There are two species (Sooty Shearwater and Razorbill) that were only seen during the earlier visits these are detailed here and in the right hand columns of Table A.

Species	12.26.11	12.22.12	12.28.13	12.27.14	5.6.15	12.24.15	12.26.15
Common Loon	6	3		2		1	3
Horned Grebe	1	2					
Sooty Shearwater		1					
Northern Gannet	615	217	476	1,017	18	541	2,590
Brown Pelican	520	485	263	570	194	273	219
Double-crested Cormorant	42	30	59	16	1	16	12
Magnificent Frigatebird			1				
Great Egret							1
Snowy Egret		1		3	1	1	
Tricolored Heron					1		
Cattle Egret			1		1		
Yellow-crowned N-Heron					1		
Roseate Spoonbill				1			
Turkey Vulture		1	1	1			3
American Wigeon	2	1					18
Northern Shoveler		19			6		
Green-winged Teal		1					
Redhead							2
Greater Scaup		8				17	18
Lesser Scaup	81		36	8		100	353
Surf Scoter	1		1			2	
White-winged Scoter			2				1
Black Scoter	1	42	1,363	216		294	1,520
Long-tailed Duck			1				
Red-breasted Merganser	35	3	37	10	1	4	15
Osprey			1	2	1	1	2
American Kestrel							1

Species	12.26.11	12.22.12	12.28.13	12.27.14	5.6.15	12.24.15	12.26.15
Black-bellied Plover	4	3	3	1	1	4	1
Semipalmated Plover					12		
Killdeer		1					
Greater Yellowlegs					1		
Willet	11	9	11	8	3	4	8
Ruddy Turnstone	19	3	8	37	4	7	9
Red Knot		5	12	58		38	73
Sanderling	36	38	9	9	28	10	13
Semipalmated Sandpiper					40		
Least Sandpiper					160		
White-rumped Sandpiper					5		
Pectoral Sandpiper					15		
Dunlin					5		
Pomarine Jaeger	4	7	1			5	4
Parasitic Jaeger	7	34	26	2	1	16	2
Laughing Gull	900	344	895	400	27	670	1,100
Bonaparte's Gull	4	49	4			46	1
Ring-billed Gull	135	40	780	147	1	350	295
Herring Gull	185	8	210	855	5	26	12
Lesser Black-backed Gull	3	2	1				
Glaucous Gull	1			2			
Great Black-backed Gull	8	4	7	11		2	2
Gull-billed Tern					2		
Caspian Tern	1	5	1	1			
Royal Tern	241	412	140	120	26	53	12
Sandwich Tern	8	356	6	3		3	19
Roseate Tern					2		
Common Tern					1		
Forster's Tern	38	62	32	12		53	12
Least Tern					1		
Black Skimmer	7	7	56	3		15	100
Razorbill		1					
Rock Pigeon	11	9	2				4
Eurasian Collared-Dove	2		2	6			3
Mourning Dove	4	1	7	5			8
Red-bellied Woodpecker							1
Fish Crow							2
Tree Swallow						8	
House Wren			1				
Northern Mockingbird							2

Species	12.26.11	12.22.12	12.28.13	12.27.14	5.6.15	12.24.15	12.26.15
European Starling	220		350	111		1	26
Palm Warbler	1	1	1	2			
Northern Cardinal							1
Common Grackle							25
Boat-tailed Grackle	2	1	2	6			3
House Sparrow							5

TABLE C

BUTTERFLIES

This table covers the Butterflies that I saw at the park during 2016. I indicate the first date on which I saw each species in 2016. A separate column will be used for each year to indicate the earliest date (if seen) in each year.

Species	First date
Polydamus Swallowtail	6.3.16
Black Swallowtail	2.4.16
Giant Swallowtail	5.22.16
Eastern Tiger Swallowtail	3.26.16
Palamedes Swallowtail	3.12.16
Checkered White	5.11.16
Great Southern White	1.1.16
Cloudless Sulphur	1.1.16
Large Orange Sulphur	9.23.16
Barred Yellow	11.12.16
Little Yellow	11.20.16
Gulf Fritillary	2.26.16
Zebra Heliconian	3.28.16
Pearl Crescent	4.27.16
Red Admiral	2.28.16
Common Buckeye	5.6.16
White Peacock	5.22.16
Monarch	2.24.16
Long-tailed Skipper	1.1.16
Salt-Marsh Skipper	3.29.16

TABLE D

DRAGONFLIES

This table covers the dragonflies that I saw at the park during 2016. I indicate the first date on which I saw each species in 2016. A separate column will be used for each year to indicate the earliest date (if seen) in each year.

Species	First Date
Common Green Darner	1.1.16
Regal Darner	5.5.16
Prince Baskettail	4.1.16
Red-veined Pennant	5.7.16
Faded Pennant	4.1.16
Eastern Pondhawk	4.1.16
Seaside Dragonlet	5.30.16
Needham's Skimmer	4.27.16
Blue Dasher	4.1.16
Wandering Glider	1.1.16
Spot-winged Glider	6.17.16
Eastern Amberwing	4.13.16
Carolina Saddlebags	3.27.16
Black Saddlebags	6.15.16

TABLE E

AMPHIBIANS AND REPTILES

This table covers the Amphibians and Reptiles that I saw at the park during 2016. I indicate the first date on which I saw each species in 2016. A separate column will be used for each year to indicate the earliest date (if seen) in each year.

Species	First Date
Oak Toad	2.15.16
Greenhouse Frog	5.20.16
Squirrel Treefrog	6.18.16
Cuban Treefrog	5.18.16
Mediterranean Gecko	6.7.16
Loggerhead Sea Turtle	1.16.16
Green Anole	4.1.16
Brown Anole	1.1.16
Six-lined Race Runner	4.27.16
South-eastern Five-lined Skink	4.24.16
Mole Skink	7.27.16
Florida Black Racer	3.12.16

TABLE F

MAMMALS

This table covers the Mammals that I saw at the park during 2016. I indicate the first date on which I saw each species in 2016. A separate column will be used for each year to indicate the earliest date (if seen) in each year.

Species	First Date
Northern Yellow Bat	10.1.16
Marsh Rabbit	1.2.16
Gray Squirrel	3.18.16
Long-snouted Spinner Dolphin	3.2.16
Striped Dolphin	1.17.16
Atlantic Bottle-nosed Dolphin	2.21.16
Killer Whale	12.2.16
Risso's Dolphin	3.6.16
Right Whale	2.10.16
West Indian Manatee	10.1.16

TABLE G

GRASSHOPPERS

This table covers the Grasshoppers that I saw at the park during 2016. I indicate the first date on which I saw each species in 2016. A separate column will be used for each year to indicate the earliest date (if seen) in each year.

Species	First Date
American Grasshopper	4.23.16
Lubber Grasshopper	7.15.16