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Cover Illustration: *Thick-billed Kingbird by Barry Kent MacKay*

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Ontario Bird Records Committee Report for 2012

Mark H. Cranford

Introduction

The Ontario Bird Records Committee (OBRC) evaluates documentation it receives of any record of a species or recognizable form that is on the Review Lists for Ontario (see www.ofo.ca). In addition, it reviews documentation relating to new species, new subspecies and new breeding species for the province. This, the 31st annual report, details the results of the adjudication of 173 records by the OBRC in 2012, of which the identification of 150 (86.7%) were accepted.

A total of 142 observers submitted documentation for review by the 2012 OBRC. Written reports were often accompanied by photographs, field notes and sketches. The trend towards submission of photographic evidence only, with little or no supporting written evidence, is an on-going concern. This makes it much more difficult for the OBRC to compile dates of occurrence and other required information. In addition, many details and circumstances associated with an observation, such as behaviour, comparisons to nearby birds and vocalizations, cannot be determined from photographic evidence alone. As such, we urge observers to submit written reports along with their images submitted to the OBRC. For those submitting photos to the Ontario Field Ornithologists' (OFO) website, please send the same photos, along with written documentation, directly to the current OBRC Secretary. With that being said, the OBRC reserves the right to use, as evidence, photographs that have been posted on the OFO website. Guidance regarding

Figure 1: Ontario Bird Records Committee for 2012. Left to right (standing): Doug McRae, Mark Gawn, Brandon Holden, Don Sutherland, Peter Burke, Mark Cranford, left to right (sitting): Mike Burrell, Ken Burrell, not present: Alan Wormington. *Photo: Mark K. Peck.*

the documentation of rare birds can be found on the OBRC page of the OFO website (www.ofo.ca).

The members of the 2012 OBRC were Brandon R. Holden (Chair), Mark H. Cranford (non-voting Secretary), Alan Wormington (non-voting Assistant to the Secretary), Kenneth G.D. Burrell, Mike V.A. Burrell, Peter S. Burke, Mark Gawn, R. Douglas McRae and Donald A. Sutherland (Figure 1). Mark K. Peck acted as Royal Ontario Museum (ROM) liaison for the OBRC.

Changes to the Checklist of Ontario Birds

Thick-billed Kingbird (*Tyrannus crassirostris*) is added to the Ontario list, bringing the total to 488 species. Hoary Redpoll is added as a new breeding species for Ontario, bringing the total in this category to 292 species.

Changes to the Ontario Review List

Thick-billed Kingbird is added to the Review List for southern Ontario.

Listing of Records

In the following species accounts, the total number of accepted records to date is indicated by a single number in parentheses. Accepted records are arranged taxonomically by their English and scientific names following the Seventh Edition of the American Ornithologists' Union Check-list of North American Birds (AOU 1998) and subsequent supplements (42nd to 53rd; http://www. aou.org/checklist/north/print.php). Date(s) of occurrence, number of birds, sex, plumage and location are provided when known. Place names in italics refer to a county, regional municipality or district in Ontario; they also appear in colour.

Records published here of critically rare breeding birds in Ontario may have specific locality information suppressed. The plumage terminology used here follows that of Humphrey and Parkes (1959). For a detailed explanation of plumage and molt terminology, see Pittaway (2000). Complementing the Humphrey and Parkes plumage designation, an age designation in parentheses is used where appropriate. The names of all contributors who provided documentation in the form of a specimen, photograph, video, sound recording or written description of the bird in the field are listed, while those contributors who are known to have discovered the bird(s) are also underlined. Additional discoverers of the bird are also listed (if known), even if they did not submit documentation. The OBRC file number is shown in parentheses at the end of each record.

The OBRC attempts to verify documented information prior to the acceptance and publication of a record, but occasionally inaccuracies will occur. Anyone with pertinent information that would correct or strengthen a published record, such as date(s) of occurrence, number of birds, plumages, location, discoverers, etc., is urged to communicate this to the Secretary.

All records that were not accepted because of insufficient evidence or questionable origin are listed separately. Contributors of all "insufficient evidence" and "origin uncertain" reports receive a letter from the Chairperson explaining the reasons for the decision; copies of the comments written by voting members are available upon request. An "insufficient evidence" report can be reconsidered by the OBRC if there becomes available new and substantial evidence that might reverse the decision.

All reports submitted to the OBRC are kept on permanent file at the ROM. Researchers and other interested individuals are welcome to examine any of the filed reports at the ROM, by appointment only. Please contact Mark K. Peck, Department of Natural History, Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario, M5S 2C6 (e-mail: markp@rom.on.ca or telephone 416-586-5523).

Acknowledgements

The OBRC appreciates the efforts of the numerous observers who took the time to submit documentation of their observations of rare birds for consideration by the 2012 OBRC. We also thank the following people who assisted the OBRC in acquiring additional data and other material evidence that supplemented the information submitted directly by observers and OBRC members, or by providing expert opinions on evidence submitted to the OBRC: James W. Arterburn, Margaret J.C. Bain, Adam M. Byrne, Nicholas G. Escott, Matt T. Heindel, Jean Iron, Stuart A. Mackenzie, Kevin A. McLaughlin, James M. Pawlicki, Ronald J. Pittaway, Brian D. Ratcliff, Ron Ridout, John M. Woodcock, Ross W. Wood and Doug Woods.

ACCEPTED RECORDS

Cinnamon Teal *Anas cyanoptera* (16)

2012 – one, male, definitive basic (adult), 17 November, Long Point (Big Rice Bay), *Norfolk* (Sandor Kocsis; 2012-122) – photo on file.

"Eurasian" Green-winged Teal *Anas crecca crecca* (6)

2012 – one, male, definitive basic (adult), 28 March – 9 April, Hillman Marsh, *Essex* (Brandon R. Holden; 2012-067).

1990 – one, male, definitive basic (adult), 27 March – 6 April, Long Point (Old Cut), *Norfolk* (Arun K. Bose, Jeffrey H. Skevington; 2012-008).

Harlequin Duck *Histrionicus histrionicus* North Only (25)

2012 – one, female, definitive basic (adult) or first basic (immature), 26 October, Netitishi Point, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen); 2012-115).

– one, female, definitive basic (adult) or first basic (immature), 30 October, Netitishi Point, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen); 2012-134).

Pacific Loon *Gavia pacifica* South Only (52)

2012 – one, prebasic molt (adult), 27 October – 1 November, Oshawa, *Durham* (Mark Patry, Gavin C. Platt; 2012-129) – photos on file.

– one, basic, 26 December, Stoney Creek, *Hamilton* (Brandon R. Holden; 2012-095).

2011 – one, basic, 3 December, Prince Edward Point, *Prince Edward* (Bruce E. Ripley; 2012-013) .

Eared Grebe *Podiceps nigricollis* North Only (21)

2012 – one, definitive alternate (adult), 31 May – 2 June, Rainy River, *Rainy River* (Michael S. Dawber, found by Tyler L. Hoar; 2012-100) – photo on file.

– one, definitive alternate (adult), 13 June, Wawa, *Algoma* (Jeremy L. Hatt, also found by Mark S. Field; 2012-065) – photo on file.

Western Grebe *Aechmophorus occidentalis* (37)

2012 – one, alternate, 24 April, Oshawa, *Durham* (Margaret J.C. Bain, Daniel S. Kaczynski, found by John A. Houston; 2012-033) – photos on file.

– one, alternate, 24-25 April, Van Wagners Beach, *Hamilton* (David M. Bell, Barbara N. Charlton, Mark S. Field, Joshua D. Vandermeulen, found by Robert Z. Dobos; 2012-032) – photos on file.

– one, 6-8 October, Batchawana Bay, *Algoma* (David M. Bell, found by Tyler L. Hoar; 2012-104).

– one, 16-28 October, Ottawa (Deschênes Rapids), *Ottawa* (Bruce M. Di Labio, found by Jean Dubois; 2012-172) – photos on file.

Northern Fulmar ***Fulmarus glacialis*** **(13)**

2012 – one, light morph, 29 October, Netitishi Point, *Cochrane* (Joshua D. Vandermeulen, Alan Wormington; 2012-132) – photo on file.

Southern James Bay in late fall appears to be by far the best location for observing this species in Ontario, with 7 of the 13 accepted records coming from this region (and time of year), despite minimal coverage.

Shearwater species ***Puffinus spp.*** **(1)**

2012 – one, 3 November, Netitishi Point, *Cochrane* (Alan Wormington; 2012-140).

Description was accepted as that of a shearwater, however, given the distance over which the observation occurred specific identification was not made.

Wilson's Storm-Petrel ***Oceanites oceanicus*** **(7)**

2012 – one, 30 October, Van Wagners Beach, *Hamilton* (Robert Z. Dobos, Brandon R. Holden, Robert Curry; 2012-110).

Remnants of Hurricane Sandy in lakes Ontario and Erie during 30 October–1 November created exceptionally favourable conditions for the inland deposition/displacement of many pelagic species.

Leach's Storm-Petrel ***Oceanodroma leucorhoa*** **(5)**

2012 – one, 30 October, Thickson Point, *Durham* (Glenn Coady; 2012-175).

– one, 30 October, Van Wagners Beach, *Hamilton* (David R. Don, Brandon R. Holden, David M. Bell, Cheryl E. Edgecombe, Robert Curry; 2012-108) – photos on file.

This species was widely displaced inland by Hurricane Sandy in the eastern United States. The storm became an extra-tropical cyclone just one hour before landfall in Brigantine, New Jersey, at 2000 EDT on 29 October 2012. The system had the largest wind field ever recorded for a Hurricane, with an 1850km diameter of tropical storm force winds at peak size early on the 29th. It is postulated these birds in Ontario are attributed to the intense onshore winds coming straight from the New England region directly into Lake Ontario at the times of observation.

Storm-Petrel species ***Oceanodroma spp.*** **(4)**

2012 – one, 30 October, Van Wagners Beach, *Hamilton* (Brandon R. Holden; 2012-109).

Also attributed to the Hurricane Sandy event, this record was submitted as a Leach's Storm-Petrel yet it was deemed that distance and duration of observation left doubt to a positive identification to species level

Magnificent Frigatebird ***Fregata magnificens*** **(4)**

2012 – one, juvenal, 30 June – 4 July, Port Glasgow, *Elgin* (30 June), Clearville, *Chatham-Kent* (1-2 July and 4 July), Rondeau Provincial Park/Rondeau Bay, *Chatham-Kent* (2-3 July), and Shrewsbury, *Chatham-Kent* ((3 July), David A. Martin, Sandra D. Leys, Alan Wormington, Richard B. McArthur, Joshua D. Vandermeulen, Barbara N. Charlton, Mark S. Field, found by D. Graham Decow, Dan Clark; 2012-111) – photos on file.

– one, juvenal, 7 September, Long Point (townsite), *Norfolk* (Ross W. Wood; 2012-116).

The *Elgin/Chatham-Kent* individual was exceptional for the species, insofar as it remained in a relatively confined area allowing observation by many observers (as attested by the number of listed observers). The 7 September record at Long Point could be a result of Hurricane Isaac, a large and slow moving hurricane that affected the Gulf Coast of the United States for several days in late August, before moving northwards.

Frigatebird species *Fregata spp.* (4)

2012 – one, male, definitive basic (adult), 23 and 25 August, Ipperwash Beach, *Lambton* (23 August) and Tobermory, *Bruce* (25 August) (Daved S. Read, Michael S. Jaworski, also found by Beth Read; 2012-114) – photo on file.

The OBRC was unable to assign this record to species given the difficulties in separating adult male Magnificent and Great Frigatebird, *F. minor*.

Northern Gannet *Morus bassanus* (45)

2012 – one, definitive basic (adult), 23 October, Netitishi Point, *Cochrane* (Joshua D. Vandermeulen, Alan Wormington; 2012-131).

This record represents the second record for northern Ontario. The first, an immature, 29 October 1981, was also observed at Netitishi Point (James 1983).

Figure 2: Immature Magnificent Frigatebird, Clearville, *Chatham-Kent on* 2 July 2012. *Photo: Sandra D. Leys*

Neotropic Cormorant ***Phalacrocorax brasilianus*** **(4)**

2012 – one, definitive alternate (adult), 16 May, Pelee Island (Fish Point), *Essex* (Mike V.A. Burrell, Kenneth G.D. Burrell; 2012-050).

Brown Pelican ***Pelecanus occidentalis*** **(9)**

2012 – one, juvenal, 24-25 August, Point Pelee National Park, *Essex* (24 August), Rondeau Provincial Park, *Chatham-Kent* (24 August) and Long Point (Bluff Bar), *Norfolk* (25 August) (Richard B. McArthur, Pierre Verfaillie, found by Kevin J. McMullan, Vincent Leoux; 2012-150).

After the Ontario observations, this Brown Pelican was then seen on 27 August at Buffalo, New York, where it was confirmed as a juvenile (Pawlicki 2012). Perhaps it was the same bird that later appeared along the Lake Erie shoreline in Ohio on both 3 September and 8 October; however, these subsequent observations could just as easily have pertained to yet another juvenile Brown Pelican that had been present in Ohio about 120 km inland from Lake Erie at Atwood Lake, *Carroll*, where it was present from 24-30 August (Ohio Bird Records Committee, *pers. comm.*).

Little Blue Heron ***Egretta caerulea*** **(77)**

2012 – one, definitive basic (adult), 23 May, Lighthouse Cove, *Essex/Chatham-Kent* (Ross W. Wood; 2012-084).

– one, juvenal, 23 July – 8 August, Holiday Beach Conservation Area, *Essex* (D. Vaughn Weseloh, Jeremy L. Hatt, Joshua D. Vandermeulen, also found by Kory J. Renaud; 2012-159) – photos on file.

– one, juvenal, 29 July – 14 August, Stromness, *Haldimand* (Douglas Happ, Wilf Podolak, also found by Mike Zebehazy, Holly Sweeney, Mike Buccieri; 2012-074) – photos on file.

2010 – one, definitive basic (adult), 27 July – 1 August, London, *Middlesex* (Leonard Manning, found by Jacklyn Goodwillie; 2012-072)

Green Heron ***Butorides virescens*** **North Only (6)**

2012 – one, adult, 22 June, Emo (12 km NNW of), *Rainy River* (Joshua D. Vandermeulen, also found by Dominic A. Cormier 2012-068).

Yellow-crowned Night-Heron ***Nyctanassa violacea*** **(44)**

2012 – one, definitive basic (adult), 12 September, Hillman Marsh, *Essex* (Joshua D. Vandermeulen; 2012-113).

White Ibis ***Eudocimus albus*** **(5)**

2012 – two, first alternate (immature), 11 May, Long Point (Old Cut), *Norfolk* (Stuart A. Mackenzie, also found by Fanny Senez-Gagnon, 2012-082).

Glossy Ibis ***Plegadis falcinellus*** **(60)**

2012 – one, definitive alternate (adult), 27-30 March, Port Rowan, *Norfolk* (Vicki Medeiros, Ron Ridout; 2012-071) – photos on file.

Figure 3: Juvenile Little Blue Heron, Stromness, *Haldimand* on 12-14 August 2012 *Photo: Wilf Podolak*

Figure 4: White-faced Ibis (adults), Holiday Beach Conservation Area, *Essex* on 9 September 2012. *Photo: Jason Craft*

White-faced Ibis *Plegadis chihi* (14)

2012 – one, definitive alternate (adult), 11 May, St. Clair National Wildlife Area, *Chatham-Kent* (Jeremy L. Hatt, Mark S. Field, Frank A. Pinilla, also found by Andrew E. Keaveney, Robert V. Pinilla; 2012-035).

– two, definitive alternate (adult); first alternate (immature), 3 June, Hillman Marsh, *Essex* (Alan Wormington; 2012-061) – photos on file.

– four, definitive prebasic molt (adults), 9 September, Holiday Beach Conservation Area, *Essex* (Jason Craft, Todd R. Pepper; 2012-124) – photo on file.

Before and after the observation at Holiday Beach Conservation Area, these four birds were present at Pointe Mouillee State Game Area, Michigan, where they were present from 2-16 September, with one bird remaining to 28 September (Adam M. Byrne, *pers. comm.*); the two locations are about 12 km apart.

Ibis species *Plegadis spp.* (60)

2012 – one, 23 March, Presqu'ile Provincial Park, *Northumberland* (R. Douglas McRae, also found by Rory MacKay; 2012-026).

This is the earliest *Plegadis* ibis ever recorded in Ontario.

Black Vulture *Coragyps atratus* North Only after 2011 (76)

2011/12 – up to six (maximum count), 19 October – 13 March, Queenston, *Niagara* (Gavin C. Platt, found by James M. Pawlicki, William W. Watson; 2012-043).

The birds at Queenston slowly built up in numbers as the season progressed, with the following maximum counts in sequential order of first appearance: one (19 October), three (12 November), four (24 November), five (27 November — but seen flying over the New York side) and six (13 March).

Mississippi Kite *Ictinia mississippiensis* (43)

2012 – one, first prebasic molt (immature), 22 May, Long Point (Old Cut), *Norfolk* (Stuart A. Mackenzie, also found by William F. Read, Ted Gent, Paula Gent, Hugh B. McArthur, Ted Maddeford; 2012-083) .

– one, definitive basic (adult), 28 May, Port Rowan, *Norfolk* (Ron Ridout, also found by Jon D. McCracken; 2012-090).

Swainson's Hawk *Buteo swainsoni* (60)

2012 – one, light morph, definitive basic (adult), 6 May, Cabot Head, *Bruce* (Martin S. Scott; 2012-037) .

– one, intermediate morph, juvenal, 28 October, Holiday Beach Conservation Area, *Essex* (Todd R. Pepper, Peter Gottschling, David R. Stimac; 2012-125) – photos on file.

– one, juvenal, 4 November, Port Stanley, *Elgin* (Jesse J. Pakkala, also found by Ross W. Wood; 2012-155).

2011 – one, light morph, first basic (immature), 28 April – 28 May, Long Point (Courtright Ridge), *Norfolk* (Janice J. Chard, also found by Jeff Siddal; 2012-146) – photos on file.

Figure 5: "Harlan's" Red-tailed Hawk, Moosonee, *Cochrane* on 29 September 2012.
Photo: Joshua D. Vandermeulen

– one, 8 May, Presqu'ile Provincial Park, *Northumberland* (Frederick M. Helleiner, also found by Lois K. Helleiner; 2012-147).

"Harlan's" Red-tailed Hawk *Buteo jamaicensis harlani* (2)

2012 – one, light morph, definitive basic (adult), 29 September, Moosonee, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen, also found by Mark W. Jennings; 2012-107) – photos on file.

This record is the first for northern Ontario and only the second record accepted by the OBRC (Dobos 1997).

Piping Plover *Charadrius melodus* (76)

2012 – one, female, definitive alternate (adult), 22-23 April, Long Point Provincial Park, *Norfolk* (Ron Ridout, found by Lucia Turkocova; 2012-098) – photo on file.

– one, male, alternate, 15-18 May, Presqu'ile Provincial Park, *Northumberland* (R. Douglas McRae, Paul R. O'Toole, also found by Sarah A.E. Petrasek; 2012-049) – photo on file.

– one, male, alternate, 22-25 May, Markham, *York* (Stan G. Long, Jean Iron; 2012-069) – photos on file.

Figure 6: "White-rumped" Whimbrel (middle bird), Etobicoke, *Toronto* on 22 May 2012.
Photo: David J. Milsom

"White-rumped" Whimbrel *Numenis phaeopus* (2)

2012 – one, 22 May, Etobicoke (Colonel Samuel Smith Park), *Toronto* (David J. Milsom, also found by Wayne E. Renaud, Tim McCarthy; 2012-053) – photos on file.

This exceptional rarity was clearly the claimed recognizable form; however, the OBRC and the observers were unable to determine which 'white-rumped' subspecies (*N. p. variegatus* or *N. p. phaeopus*) was involved (Matt T. Heindel *pers. comm.*).

Curlew Sandpiper *Calidris ferruginea* (30)

2012 – one, definitive alternate (adult), 25-27 May, Hillman Marsh, *Essex* (Joshua D. Vandermeulen, Cherise A. Charron, Alan Wormington, found by Dean J. Ware; 2012-054) – photos on file.

Black-legged Kittiwake *Rissa tridactyla* North Only (7)

2012 – two, first basic (immature), 30 October, Netitishi Point, *Cochrane* (Joshua D. Vandermeulen, Alan Wormington; 2012-133).

Ivory Gull *Pagophila eburnea* (31)

2012 – one, juvenal, 15 December, Lake Madawaska, *Renfrew/Lanark/Ottawa* (Michael W.P. Runtz, Richard Collins, Bruce M. Di Labio, Ben F. Di Labio; 2012-171) – photos on file.

Ross's Gull *Rhodostethia rosea* (11)

2012 – one, basic (adult) 1 November, Waverly Beach, *Niagara* (Kenneth G.D. Burrell, Brandon R. Holden, also found by Mike V.A. Burrell, Ross W. Wood; 2012-121).

Figure 7: Curlew Sandpiper, Hillman Marsh, *Essex* on 27 May 2012. *Photo: Cherise A. Charron*

Figure 8: Juvenile Ivory Gull, Lake Madawaska, *Renfrew* on 15 December 2012. *Photo: Michael W.P. Runtz*

This record, likely another storm blown bird associated with Hurricane Sandy, was potentially pulled south with the intense north winds associated with this system. Another definitive basic individual was seen on 30 October at Cayuga Lake in upstate New York (eBird 2013).

Laughing Gull ***Leucophaeus atricilla*** **North Only after 1993 (84)**

2012 – one, first alternate (immature), 17-20 August (but not observed between these dates), Paskwachi Point, *Cochrane* (Ross W. Wood, also found by Barbara N. Charlton, Jean Iron, Ross Trapper; 2012-166).

This is the third accepted record for northern Ontario. All records are from southern James Bay.

Figure 9: California Gull in second pre-basic molt, Long Point (Tip), *Norfolk* on 17 August 2012.
Photo: David M. Bell

Mew Gull *Larus canus* (28)

2012 – one, *brachyrhynchus*, definitive basic (adult), 27 September, Sault Ste. Marie, *Algoma* (Kirk W. Zufelt; 2012-118).

– one, *brachyrhynchus*, juvenal, 28 September – 19 October, Sault Ste. Marie, *Algoma* (Kirk W. Zufelt, Joshua D. Vandermeulen, Alan Wormington; 2012-119) – photos on file.

At Sault Ste. Marie, the juvenal bird was present at the local landfill until 11 October, and then seen once on 19 October along the city waterfront (St. Mary's River).

California Gull *Larus californicus* (63)

2012 – one, definitive basic (adult), 29 January – 20 February, Niagara Falls (Adam Beck Overlook), *Niagara* (James M. Pawlicki, Joshua D. Vandermeulen, W. Bradley Carlson, Gavin C. Platt, found by David D. Beadle, Paul N. Prior, Michael H. King; 2012-020) – photos on file.

– one, first alternate (immature), 18-19 May, Point Pelee National Park, *Essex* (Jean Iron, Jeremy L. Hatt; 2012-086) – photos on file.

– one, second basic (immature), 17 August, Long Point (Tip), *Norfolk* (David M. Bell, James Kennerley, also found by Matt K. Slaymaker, Reid Hildebrandt; 2012-157) – photos on file.

Figure 10: Slaty-backed Gull, Sault Ste. Marie, *Algoma* on 12 January 2012. *Photo: Kirk W. Zufelt*

Lesser Black-backed Gull *Larus fuscus* North Only (12)

2012 – one, definitive alternative (adult), 12 June, Pukaskwa National Park (Pic River mouth), *Thunder Bay* (Jeremy L. Hatt, Mark S. Field; 2012-064) – photos and video on file.

– one, juvenal/first basic (immature), 30 October, Netitishi Point, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen; 2012-135).

– one, juvenal/first basic (immature), 30 October, Netitishi Point, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen; 2012-136) – photos on file.

The two birds on the same day at Netitishi Point are considered different records, since they migrated past this location at different times and thus were never seen together.

Slaty-backed Gull *Larus schistisagus* (11)

2012 – one, definitive basic (adult), 12 January, Sault Ste. Marie, *Algoma* (Kirk W. Zufelt; 2012-014) – photos on file.

– one, definitive basic (adult), 30 December, Niagara Falls, *Niagara* (Willie C. D'Anna, Jean Iron, Ronald J. Pittaway, also found by Kim Hartquist, Betsy Potter, Ross E. Harris, Celeste Morien, Declan M. Troy; 2012-165) – photos on file.

2005 – one, definitive basic (adult), 11 December, Erieau, *Chatham-Kent* (Stephen R. Charbonneau, Blake A. Mann; 2012-130) – photo on file.

The bird at Niagara Falls on 30 December 2012 was later seen at the Lewiston Reservoir, New York, on 26 January 2013 (James M. Pawlicki, *pers. comm.*); the two locations are about 10 km apart.

Figure 11: Band-tailed Pigeon, Bracebridge, *Muskoka* on 4 February 2012. *Photo: Allan J.S. Sinclair*

Pomarine Jaeger ***Stercorarius pomarinus*** **North Only (37)**

2012 – one, intermediate or dark morph, juvenal, 30 October, Netitishi Point, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen; 2012-137).
– one, intermediate or dark morph, juvenal, 30 October, Netitishi Point, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen; 2012-138)
– photos on file.

The two birds on the same day are considered different records, since they migrated past this location at different times and thus were never seen together.

Razorbill ***Alca torda*** **(11)**

2012 – one, definitive basic (adult), 30 October, Thickson Point, *Durham* (Glenn Coady; 2012-176).

It is likely this individual was directly attributed to the Hurricane Sandy event.

Band-tailed Pigeon ***Patagioenas fasciata*** **(12)**

2012 – one, first prebasic molt (immature), 4-6 February, Bracebridge, *Muskoka* (Allan J.S. Sinclair, David M. Bell, Mike V. A. Burrell, Jean Iron, Stuart A. Mackenzie, Ronald J. Pittaway, Joshua D. Vandermeulen; 2012-019)
– photos on file.

White-winged Dove ***Zenaida asiatica*** **(39)**

2012 – one, male, definitive basic (adult), 15 January – 23 March, North Bay, *Nipissing* (Peter Mladen, Mary-Ann Saltstone, Joshua D. Vandermeulen, Martin J. Parker, M. Katherine Parker, Alan Wormington, Gavin C. Platt; 2012-017) – photos on file.

– one, 15 November, Long Point (Tip), *Norfolk* (Stuart A. Mackenzie, also found by Matt K. Slaymaker; 2012-092) – photo on file.

The bird at North Bay is the first winter record for Ontario.

Barn Owl ***Tyto alba*** **(10)**

2012 – one, definitive basic (adult), 21-25 June, *Haldimand* (Stuart A. Mackenzie; 2012-089).

2010 – one, 16 October, Rockway, *Niagara* (Glenn Coady; 2012-173).

Chuck-will's-widow ***Antrostomus carolinensis*** **(25)**

2012 – one, male, 3 May, Point Pelee National Park, *Essex* (Joshua D. Vandermeulen, found by Jacqueline Goldstein; 2012-045).

– one, male, 3 May, Long Point (Tip), *Norfolk* (Ron Ridout, also found by Stuart A. Mackenzie, Dayna L. LeClair; 2012-087).

Rufous Hummingbird ***Selasphorus rufus*** **(28)**

2012 – one, male, definitive basic (adult), 25-26 July, Loon Lake, *Thunder Bay* (Gord Pinner; 2012-075) – photos on file.

– one, male, definitive basic (adult), 4 August, Presqu'ile Provincial Park, *Northumberland* (William D. Gilmour; 2012-076).

– one, male, definitive basic (adult), 5-8 August, Kama Point, *Thunder Bay* (Margaret A. Evans; 2012-156) – photos on file.

Figure 12: Rufous Hummingbird, Bowmanville, *Durham* on 3 November 2012. *Photo: Glenn Coady*

– one, female, definitive prebasic molt (adult), 11 August – 8 November, Bowmanville, *Durham* (Cheryl O'Donnell, Glenn Coady, also found by Steven Cuss, 2012-151) – photos on file.

2011 – one, first basic (immature), 28 September – 24 December, Eganville, *Renfrew* (Jeffrey H. Skevington, found by Dennis Peterson, Lorna Peterson; 2012-007) – photos and video on file.

The age and sex of the bird at Bowmanville was determined by Cindy Cartwright, who caught, banded and released the bird on 4 November.

Say's Phoebe *Sayornis saya* (14)

2012 – one, 22 April, Kirkfield (Carden Alvar), *Kawartha Lakes* (Margaret J.C. Bain, Hugh G. Currie, found by Maris P. Apse; 2012-030).

Thick-billed Kingbird *Tyrannus crassirostris* (1)

2012 – one, female, definitive alternate (adult), 28-31 August, Presqu'ile Provincial Park, *Northumberland* (William D. Gilmour, Richard E. Lauzon, Joshua D. Vandermeulen, David M. Bell, Ben F. Di Labio, Bruce M. Di Labio, Luc S. Fazio, Frank G. Horvath, Sandra L. Horvath, Alan Wormington, Greg Piasetzki, Michael D. Williamson; 2012-158) – photos on file.

This exceptional rarity is the first for Ontario and second for Canada (Campbell *et al.* 1997:536), and first record east of the Mississippi River. The species has been increasing its numbers in southern Arizona and New Mexico since its first nesting north of the Mexico border in 1958 (Lowther 2002).

Scissor-tailed Flycatcher *Tyrannusforficatus* (64)

2012 – one, male, definitive alternate (adult), 14-17 April, Demorestville, *Prince Edward* (Mike V.A. Burrell, Barbara N. Charlton, Joshua D. Vandermeulen, Paul R. O'Toole, found by Marlene Bulpit; 2012-029) – photos on file.

– one, 20 April, Falkland, *Brant* (Stuart A. Mackenzie; 2012-081).

– one, 20 May, Point Pelee National Park, *Essex* (J. Bruce Falls, also found by E. Ann Falls; 2012-051).

– one, definitive alternate (adult), 6 June, Carp, *Ottawa* (Lynda C. Bennett, Ben F. Di Labio, also found by Georgina H. Doe; 2012-112) – photos on file.

– one, male, first basic (immature), 2-4 October, Fauquier, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen, also found by Mark W. Jennings; 2012-120) – photos on file.

Fork-tailed Flycatcher *Tyrannus savana* (9)

2012 – one, nominate *savana*, male,second prebasic molt (immature), 17-18 April, Long Point (Tip), *Norfolk* (Stuart A. Mackenzie, Mick J. Townsend, also found by Fernando Díaz, Richard Dobbins, Matt Iles, Oliver Slessor, Ross W. Wood; 2012-077) – photos on file.

This is the earliest Fork-tailed Flycatcher to be recorded in Ontario.

Figure 14: Scissor-tailed Flycatcher, Demorestville, *Prince Edward* on 16 April 2012. *Photo: Paul R. O'Toole*

Figure 13: Thick-billed Kingbird, Presqu'ile Provincial Park, *Northumberland* on 29 August 2012. *Photo: Alan Wormington*

Figure 15: Fork-tailed Flycatcher, Long Point (Tip), *Norfolk* on 17 April 2012. *Photo: Mick J. Townsend*

Figure 16: Bell's Vireo (left) with Warbling Vireo (right), Long Point (Courtright Ridge), *Norfolk* on 26 May 2011. *Photo Janice J. Chard*

Bell's Vireo *Vireo bellii* (14)

2012 – one, nominate *bellii*, 21 April, Point Pelee National Park, *Essex* (Stephen T. Pike, David M. Bell, Joshua D. Vandermeulen, also found by John A. Baker, Michael A. Baker; 2012-160) – photos on file.

2011 – one, nominate *bellii*, first basic, 26 – 28 May, Long Point (Courtright Ridge), *Norfolk* (Janice J. Chard, also found by Eleanor Page; 2012-169) – photos on file.

The bird at Point Pelee is the earliest spring migrant of the species to be found in Ontario.

Fish Crow *Corvus ossifragus* (22)

2012 – up to five (maximum count), 15 January – 26 February, Fort Erie, *Niagara* (Joshua D. Vandermeulen, Andrew E. Keaveney, David M. Bell, John Nishikawa, Greg Stuart, A. Geoffrey Carpentier, Kayo J. Roy, William W. Watson; 2012-016) – photos and audio on file.

– two, 14 March – 29 July, Bronte, *Halton* (David R. Don, Barbara N. Charlton, Mark H. Cranford; 2012-025) – photo on file.

– two, 26 March – 13 April, Guelph, *Wellington* (Erika K. Hentsch, Reuven D. Martin, David M. Bell; 2012-027).

– one, 4–5 May, Thickson Point, *Durham* (Glenn Coady, also found by Murielle Lecerf; 2012-174).

– one, 7 May, Turkey Point, *Norfolk* (David M. Bell; 2012-085).

Figure 17: Carolina Wren, Moosonee, Cochrane on 30 September 2012. *Photo: Alan Wormington*

The unprecedented widespread occurrences at non-traditional locations, away from western Lake Erie, indicates that the above birds presumably originated from the north-eastern part of the species' range, and entered Ontario via upstate New York. It is generally assumed that previous records for the province have originated from the Mississippi River Valley. At Fort Erie, it was impossible to determine how many Fish Crows were actually present, since varying numbers were found on various dates and birds were always amongst large flocks of American Crows; a maximum count of five birds was attained on 25 January (multiple observers).

Carolina Wren ***Thryothorus ludovicianus*** **North Only (6)**

2012 – one, male, 14 –20 August (but not observed between these dates), Marathon, *Thunder Bay* (Michael T. Butler, also found by Martha L. Allen; 2012-078) – audio on file.

– one, male, first prebasic molt (immature), 30 September, Moosonee, *Cochrane* (Alan Wormington, Joshua D. Vandermeulen, also found by Mark W. Jennings; 2012-079) – photos on file.

2012/13 – one, 10 November – 6 January, Michipicoten River (Village), *Algoma* (James M. Oleynik, Bob Elliott; 2012-080) – photos on file.

The bird at Moosonee is to date the most northerly occurrence in Ontario. These records are the first documented for this species in northern Ontario since 1990 (cf. Curry 1991).

Figure 18: Mountain Bluebird, Shetland, *Lambton* on 31 January 2012. *Photo: Alan Wormington*

Mountain Bluebird ***Sialia currucoides*** **(39)**

2012 – one, female, basic, 1 January – 5 February, Puslinch, *Wellington* (Brian C. Husband, Mike V.A. Burrell, Peter Caufield, Brandon R. Holden, Sandra L. Horvath, Joshua D. Vandermeulen, Gavin C. Platt, David M. Bell, also found by John A. Gerrath, Paul H. Kron; 2012-001) – photos on file.

– one, male, first basic (immature), 16 January – 19 February, Shetland, *Lambton* (Blake A. Mann, Denise Charbonneau Dykema, Frank G. Horvath, Sandra L. Horvath, Alan Wormington, found by J. Peter Chapman; 2012-002) – photos on file.

– one, female, first basic (immature), 12 February – 4 March, Prince Edward Point, *Prince Edward* (Mike V.A. Burrell, Paul R. O'Toole, found by Kathy E. Felkar, Michael R. Burge; 2012-003) – photos on file.

– one, male, first basic (immature), 15 December, Kingsville, *Essex* (Alan Wormington, also found by Richard P. Carr; 2012-170) – photos on file.

Townsend's Solitaire ***Myadestes townsendi*** **South Only After 2000 (75)**

2012 – one, first basic (immature), 9 November, Bernard Lake, *Parry Sound* (Donald R. Norman, also found by John Norman; 2012-096) – photo on file.

– one, first basic (immature), 9 November, Toronto (Tommy Tompson Park), *Toronto* (Amanda C. Guercio, also found by Paul Xamin, Charlotte England, Bronwyn Dalziel; 2012-097) – photos on file.

– one, first basic (immature), 18 November, Bells Corners, *Ottawa* (Wilson Hum; 2012-153) – photo on file.

2011 – one, 17 December, Aurora, *York* (R. Bruce Brydon; 2012-163).

Sage Thrasher ***Oreoscoptes montanus*** **(17)**

2012 – one, 30 September – 1 October, Long Point (Tip), *Norfolk* (Stuart A. Mackenzie, also found by Matt K. Slaymaker, Teresa Montras, Ted Gent, Eric Demers, Natalie Tripp, Sarah Nagl, Dominic A. Cormier; 2012-103) – photos on file.

Kirtland's Warbler ***Setophaga kirtlandii*** **(54)**

2012 – one, male, alternate, 5 May, Stoney Creek, *Hamilton* (Cheryl E. Edgecombe, Mike A. Veltri, Cathy Giancarlo, found by Ken Williams; 2012-046) – photos on file.

– one, male, alternate, 26 May, Kirkfield (Carden Alvar), *Kawartha Lakes* (Sean Smith, Martin J. Parker, Dan Q. Bone, Matthew C. Tobey; 2012-057) – photo and audio on file.

– one, male, alternate, 28 May, Goshen, *Huron* (Peter A. Read, also found by Scott A. Martin, Satu Pernanon, Shelly Lohnes; 2012-060).

"Audubon's" Yellow-rumped Warbler ***Setophaga coronata auduboni*** **(13)**

2012 – one, male, alternate, 25 April, Mississauga, *Peel* (Jo-Anne M. Woodbridge; 2012-034).

2012/13 – one, basic, 1 December – 6 January, Thunder Bay, *Thunder Bay* (Alan Moon, Nicholas G. Escott; 2012-088) – photos on file.

The Thunder Bay individual is the first accepted record of this form for northern Ontario.

Field Sparrow ***Spizella pusilla*** **North Only (20)**

2012 – one, male, first alternate, 24 May, Thunder Cape, *Thunder Bay* (John M. Woodcock, also found by Aya Y. Mizoi, Danielle L. Aube, Patrick J. Turgeon; 2012-148) – photos on file.

Lark Sparrow ***Chondestes grammacus*** **Before 2012 (97)**

2011 – one, 26 September, Bronte, *Halton* (Mark W. Jennings; 2012-010) – photo on file.

Grasshopper Sparrow ***Ammodramus savannarum*** **North Only (6)**

2012 – one, 26 May, Thunder Cape, *Thunder Bay* (Aya Y. Mizoi, also found by John M. Woodcock, Danielle L. Aube, Patrick J. Turgeon; 2012-149) – photo on file.

Henslow's Sparrow ***Ammodramus henslowii*** **(28)**

2012 – one, alternate, 27 May, Point Pelee National Park, *Essex* (Joshua D. Vandermeulen, found by Willam G. Lamond, Alan Wormington, Kevin A. McLaughlin; 2012-059) – photo on file.

– two, male, alternate, 9 June, Kirkfield (Carden Alvar), *Kawartha Lakes* (Ken Vogan, also found by Bridget Vogan, David Weare; 2012-062).

– one, male, alternate, 26 June – 16 July, Tehkummah, *Manitoulin* (John G. Lemon, Stephen J. Thorpe, found by Rodney C. Thompson, Christopher T. Bell; 2012-168).

Golden-crowned Sparrow *Zonotrichia atricapilla* (14)

2012 – one, first basic (immature), 12 February – 17 March, Vanier, *Ottawa* (Christopher C. Allaway, Stuart A. Mackenzie, Gavin C. Platt; 2012-005) – photos on file.

"Oregon" Dark-eyed Junco *Junco hyemalis oreganus* group After 2011 (3)

2012 – one, basic, 22 January, Staples, *Essex* (Marianne Reid-Balkwill; also found by Aaron J. Balkwill, Rosemary Reid; 2012-128) – photos on file.

– one, male, 11–12 October, Port Perry, *Durham* (A. Geoffrey Carpentier; 2012-105).

2012/13 – one, basic, 28 December – 17 March, Staples, *Essex* (Jeremy L. Hatt; 2012-164) – photos on file.

Summer Tanager *Piranga rubra* North Only (17)

2012 – one, female, first alternate, 16 May, Thunder Bay, *Thunder Bay* (John J. Schelling; 2012-066) – photos on file.

– one, female, definitive alternate (adult), 26-30 May, Longlac, *Thunder Bay* (Gary S. Selinger; 2012-058) – photos on file.

The bird at Longlac is the most northerly yet recorded in Ontario.

Western Tanager *Piranga ludoviciana* (42)

2012 – one, male, first alternate, 19-29 April, Stokes Bay, *Bruce* (Joshua D. Vandermeulen, Barbara N. Charlton, found by Jeremy Thorn, Elizabeth Thorn; 2012-042) – photos on file.

– one, female, first basic (immature), 16-30 December, Oshawa, *Durham* (Otto Peter, Gabriel Smith, Brendan P. Boyd, also found by Jim McKnight; 2012-177) – photos on file; specimen (skin) in ROM: #160332.

The bird at Stokes Bay on 19-29 April 2012 is the earliest spring migrant of the species to be recorded in Ontario. The bird at Oshawa (found dead) was collected on 2 January 2013.

Blue Grosbeak *Passerina caerulea* (88)

2012 – one, male, definitive alternate (adult), 9-10 May, Macdiarmid, *Thunder Bay* (Harold Michon, also found by Agnes Michon; 2012-038) – photo on file.

– one, male, definitive alternate (adult), 10-11 May, Goderich, *Huron* (Joshua D. Vandermeulen, found by David Lavigne; 2012-047) – photos on file.

– one, male, definitive alternate (adult), 11 May, Presqu'ile Provincial Park, *Northumberland* (David G. Bree; 2012-039) – photos on file.

– one, male, first alternate, 20 May, Point Pelee National Park, *Essex* (Joshua D. Vandermeulen, Alan Wormington, Adam C. Pinch, also found by Christopher A. Law; 2012-063).

– one, first alternate male, 22 May, Algonquin Provincial Park (Odenback), *Nipissing* (Jeffrey H. Skevington; 2012-052) – photos and video on file.

Figure 19: Western Tanager, Stokes Bay, *Bruce* on 22 April 2012. *Photo: Joshua D. Vandermeulen*

Figure 20: Blue Grosbeak, Presqu'ile Provincial Park, *Northumberland* on 11 May 2012. *Photo: David G. Bree*

Painted Bunting ***Passerina ciris*** **(33)**

2012 – one, male, definitive alternate (adult), 12-14 May, Orient Bay, *Thunder Bay* (Laurie McCollum, also found by Sharryn D. McCollum; 2012-048) – photo on file.

2007 – one, male, first alternate, 20 May, Scarborough, *Toronto* (unknown collector; 2012-179) – specimen (skin) in ROM: #160321.

The 2007 bird was recovered as a collision casualty from an office tower in Scarborough by volunteers from the Fatal Light Awareness Program (FLAP) and the specimen was recently identified and added to the permanent collections at the Royal Ontario Museum.

Dickcissel ***Spiza americana*** **North Only (27)**

2012 – one, male, definitive alternate (adult), 11 June, Rainy River (Wilson Creek Road), *Rainy River* (Jeremy L. Hatt, Mark S. Field; 2012-141) – photos on file.

– three, male, alternate (two) and female, alternate (one), 12 June – 4 July Rainy River (4 km ESE of), *Rainy River* (Michael S. Dawber, Joshua D. Vandermeulen, Tyler L. Hoar; 2012-142) – photos on file.

– four, male, alternate (three) and female, alternate (one), 17 June –14 July, Rainy River (2 km NNW of), *Rainy River* (Michael S. Dawber, Joshua D. Vandermeulen, found by Dan E. Lee; 2012-143) – photos on file.

– three, male, alternate (two) and female, alternate (one), 21 June –10 July, Burriss, *Rainy River* (Michael S. Dawber, Tyler L. Hoar; 2012-144) – photos on file.

– one, male, alternate, 24 June, Stratton, *Rainy River* (Tyler L. Hoar; 2012-178) – photos on file.

– one, male, alternate, 29 June –1 July, Emo (6.5 km N of), *Rainy River* (Michael S. Dawber, found by Allan G. Harris; 2012-145) – photos on file.

The 2012 irruption of Dickcissels into western Rainy River District was a remarkable event, likely linked to the ongoing drought throughout the midwestern United States.

Figure 21: Dickcissel carrying food, Rainy River (2 km NNW of), *Rainy River* on 14 July 2012.
Photo: Michael S. Dawber

Figure 22: Gray-crowned Rosy-Finch, Macdiarmid, *Thunder Bay* on 27 January 2012. *Photo: Joshua D. Vandermeulen*

Gray-crowned Rosy-Finch *Leucosticte tephrocotis* (20)

2012 – one, male, definitive basic (adult), *littoralis*, 4-5 January, Geraldton, *Thunder Bay* (Terry Saindon; 2012-018) – photo on file.

– one, male, definitive basic (adult), nominate *tephrocotis*, 10 January – 9 February, Macdiarmid, *Thunder Bay* (Harold Michon, Gregory N. Stroud, Barbara N. Charlton, Joshua D. Vandermeulen, Jeremy L. Hatt, also found by Agnes Michon; 2012-015) – photos on file.

– one, male, definitive basic (adult), nominate *tephrocotis*, 24 January – 23 February, Rossport, *Thunder Bay* (Marco Tremblay, H. Gordon Smith; 2012-031) – photos on file.

These three observations bring the total number of accepted records of this species in Ontario in the past 10 years to 12. Adjacent states have also experienced a pronounced increase in extralimital sightings, with records (in the past ten years) for New York (first state record in 2011), Michigan, Minnesota, North Dakota and South Dakota (eBird 2013). This species has experienced a pronounced increase in vagrancy throughout eastern North America in recent years. It is interesting to note that individuals from both the *tephrocotis* and *littoralis* subspecies have been involved in recent extralimital records.

Hoary Redpoll *Acanthis hornemanni*

2004 – one nest (pair + 4 eggs), 28 June – 3 July, Oosteguanako Creek, *Kenora* (Peter S. Burke, found by Jon D. McCracken; 2012-127a).

– one nest (pair + 4 eggs), 29 June – 5 July, Oosteguanako Creek, *Kenora* (Colin D. Jones, Peter S. Burke; 2012-127b) – photos on file.

– one nest (pair + 3 young), 6-7 July, Oosteguanako Creek, *Kenora* (Peter S. Burke, Colin D. Jones; 2012-127c) – photos on file.

Location is the Hudson Bay shoreline, about 6-8 km south of West Pen Island. These records represent first confirmed breeding for Hoary Redpoll in Ontario (Burke *et al.*, *in prep.*).

"Hornemann's" Hoary Redpoll *Acanthis hornemanni hornemanni* (4)

2012 – five, 18 February, Matheson, *Cochrane* (Brandon R. Holden; 2012-011) – photos on file.

2011 – one, 2 November, Netitishi Point, *Cochrane* (Brandon R. Holden, also found by Kenneth G.D. Burrell, Mike V.A. Burrell, Barbara N. Charlton; 2012-012) – photos on file.

Not Accepted Records: Identification Accepted, Origin Questionable

Birds in this category are considered by the OBRC to be correctly identified, but their origin is questionable. These birds may have escaped or may have been released from captivity. However, if new evidence suggesting wild origin becomes available, such reports may be reconsidered by the OBRC.

2012
- European Goldfinch (*Carduelis carduelis*), one, definitive basic (adult), 2 January, London, *Middlesex* (Laura Dindia, also found by Marilyn Morton; 2012-126) – photos on file.
- European Goldfinch, one, basic, 9 December, Kapuskasing, *Cochrane* (Stanley Plaskett; 2012-154) – photos on file.

This species is routinely raised in captivity and is occasionally released to the wild. There is no evidence of breeding or long term survival in the province to date.

Not Accepted Records: Insufficient Evidence

The documentation received for the following reports generally was found not to be detailed enough to eliminate similar species unequivocally. In many cases, OBRC members felt that the species being described was likely correctly identified, but that the details provided in the report, perhaps due to factors such as the conditions during the observation, were insufficient. It should be noted that any of these reports may be re-submitted if additional documentation becomes available.

2012
- Barnacle Goose (*Branta leucopsis*), one, 19 April, Scugog Point, *Durham* (2012-041).
- "Eurasian" Green-winged Teal, one, 8 April, Port Royal, *Norfolk* (2012-162).
- Smew (*Mergellus albellus*), one, 6 March, Whitby, *Durham* (2012-023).
- Pacific Loon, one, 22 September, Marentette Beach, *Essex* (2012-117).
- Great Cormorant (*Phalacrocorax carbo*), one, 1 November, Netitishi Point, *Cochrane* (2012-139).
- Little Blue Heron, one, 11 May, Hillman Marsh, *Essex* (2012-040).
- Little Blue Heron, one, 4 July, North Gower, *Ottawa* (2012-073).
- Yellow-crowned Night-Heron, one, 23 July, Scarborough, *Toronto* (2012-070).
- Swainson's Hawk, one, 23 September, Port Rowan, *Norfolk* (2012-094).
- Whooping Crane (*Grus americana*), two, 25 May, MacTier, *Parry Sound* (2012-055).
- Piping Plover, one, 2 May, Long Point (Bluff Bar), *Norfolk* (2012-091).
- "White-rumped" Whimbrel, one, 31 August, Van Wagners Beach, *Hamilton* (2012-101).
- Slaty-backed Gull, one, 26-28 February, Owen Sound, *Grey* (2012-021).
- Arctic Tern (*Sterna paradisaea*), one, 2 November, Port Weller, *Niagara* (2012-152).
- Dovekie (*Alle alle*), one, 19 November, Netitishi Point, *Cochrane* (2012-093).
- Band-tailed Pigeon, one, 2 April, Milton, *Halton* (2012-028).
- Bell's Vireo, one, 26 May, St. Thomas, *Elgin* (2012-056).

– Townsend's Warbler (*Setophaga townsendi*), one, 3 May, Wheatley Provincial Park, *Chatham-Kent* (2012-036).
– "Pink-sided" Dark-eyed Junco (*Junco hyemalis mearnsi*), one, 18 March, Hillman Marsh, *Essex* (2012-044).
– Black-headed Grosbeak (*Pheucticus melanocephalus*), one, 16 August, Wellandport, *Niagara* (2012-123).

2011 – Eurasian Collared-Dove (*Streptopelia decaocto*), one, 7-9 September, South Porcupine, *Cochrane* (2012-004).
– Lark Bunting (*Calamospiza melanocorys*), one, 19 May, Hare Island, *Thunder Bay* (2012-006).

2010 – Lark Sparrow, one, 1 June, Kincardine, *Bruce* (2012-009).

Corrections/Updates to Previous OBRC Reports

2011 Report (Ontario Birds 30:106-148):

- under Blue Grosbeak, change number of accepted records from 84 to 83.
- under Hummingbird species *Selasphorus*, change number of accepted records from 12 to 11.

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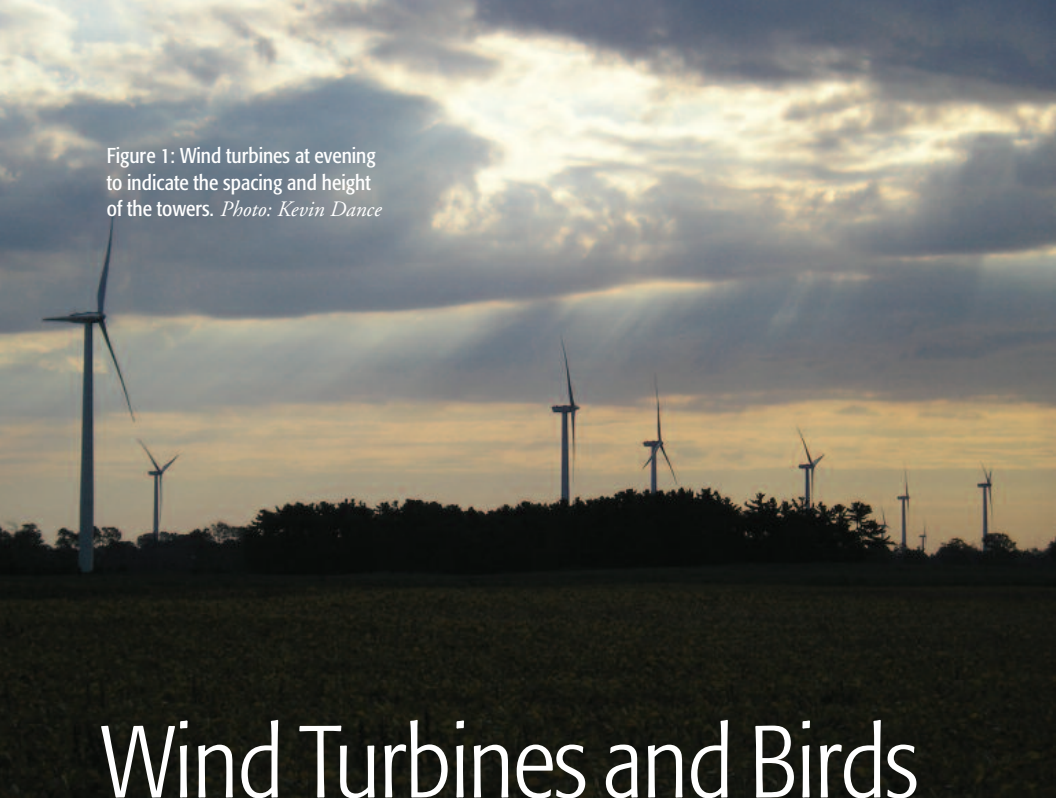

Figure 1: Wind turbines at evening to indicate the spacing and height of the towers. *Photo: Kevin Dance*

Wind Turbines and Birds

The Erie Shores Wind Farm Experience: Avian Mortality

Ross D. James

THE ERIE SHORES Wind Farm (ESWF) is located on the north shore of Lake Erie, extending about 29 km east and west of Port Burwell. In this area, large numbers of migrant birds are expected. Thousands of Tundra Swans (*Cygnus columbianus*) and other waterfowl are known to congregate in the Long Point marshes about 20 km to the east of ESWF (Ridout 2010). In some years at least, large groups flew inland in spring to forage in fields as far west as ESWF (pers. obs.). Large concentrations of diurnal raptors move west along the Lake Erie shore in autumn (Field 2004), thousands flying through ESWF (pers. obs.). Bald Eagles (*Haliaeetus leucocephalus*) are present all year, and one pair nested within the wind farm area (James 2008). Concentrations of diurnal migrants pass along the Lake Erie shores in autumn (James 2010, pers. obs.). Nocturnal migrants pass over the area in spring and autumn in huge numbers (Black 2000) and may occasionally concentrate in the shoreline areas, where they could be vulnerable to wind turbines when taking off and landing (Black 1988, Richardson 2000).

If there is a mortality problem for birds from modern wind turbines, it should be apparent at ESWF. Environment Canada requires mortality monitoring at all new wind turbine installations in Ontario, regardless of perceived threat. When I began monitoring at ESWF in 2006 only interim guidelines were available, with the "final" version available by July (Environment Canada 2006). But, as I tried to follow procedures outlined in this document, I became aware of problems that would affect the calculation of mortality. The main problem, that would affect a mortality estimate, was that an area searched was needed. This is readily calculated in grassland habitats, similar to the United States studies from which the monitoring procedures were adopted. But at ESWF, where crops were planted close around the turbine towers, a very different situation is observed. Another problem was related to scavenger removal studies, where bird carcasses were checked only once after a week, also a procedure that had been followed in the U.S.

This paper presents the results of efforts to try to find an alternative way of arriving at a reasonable estimate of mortality at ESWF, regardless of the numbers and types of migrants expected in the area, and to provide a mortality estimate at ESWF. It is an analysis of findings from more than 1400 hours of fieldwork, during 2006 and 2007, largely devoted to assessing mortality at ESWF.

Methods

ESWF consisted of 66 turbines placed in farm fields along the north shore of Lake Erie for a distance of about 2.5 km inland. They were spaced at least 300m apart, usually considerably more, at varying distances from the shore; woodlots, roads and crops were variable around them (Figure 1).They were 1.5 MW turbines on tubular towers, rising 80m at hub height, with blades spanning 77m. Thus, the lowest sweep of the blades was more than 40m above ground, 15-20m above taller tree heights. Maximum rotation was about 22 rpm in stronger winds. Direct visual searches were used to look for dead birds. When any remains were found, they were noted along with distance and direction from the base of the turbine. The identity of the item and, for carcasses, the nature of any visible injuries or possible cause of death, and an estimate of the length of time since death, were recorded.

Search Schedule: In March, over a three week period, a fairly quick scan of bare fields was made, at a variable number of turbines, anywhere swans were seen nearby in fields or flying past. In addition, in 2007, all turbines were searched carefully once to look for the remains of anything that might have been killed since the previous November.

Searching then extended for six weeks in spring, through May and the first couple weeks of June. In autumn, searching lasted over at least 12 weeks, from about mid-August into early November. Through late June and early July 2006, eight turbines nearest a Bald Eagle nest, on the north side of the wind farm, were searched once a week.

During the spring of 2006, all operating turbines were searched once a week.

In the autumn, half were searched at least once a week and the rest once every two weeks; five to seven near-shore turbines were monitored two or three times a week following days of heavy migration. In spring of 2007, 30 were searched twice a week and 36 once a week; in autumn all were searched at least once a week. In addition, another researcher independently made at least weekly searches of a subset of 12 turbines.

Search area: Before planting and after harvest, fields were searched to 40m from the tower and visually beyond that distance. Fields were walked in parallel transects, about 4-6m apart in grass and 6-10m apart in fields. Once planted, searching was restricted to laneways and around the tower base, or any smaller unplanted places. However, fields were carefully visually scanned as far as crop growth allowed.

Search time: Search times varied from 5 minutes in mid-summer when only a laneway and turbine base could be searched in a dense field of soybeans, to 45 minutes when an entire field could be searched carefully. Searching was as long as necessary to do a thorough search of any area available within 40m or the turbine tower.

Limitations and complications: A few turbines were located in orchards where grass was mowed regularly and all, or almost all, of the 40m radius could be searched throughout the year. But, at most turbines the area that could be searched varied weekly depending on planting and harvest schedules and on crop growth and die back. These varied from farm to farm, and even from turbine to turbine, week to week. Different layouts of laneways permitted differing lengths of field that could be scanned. Variable crop growth and soil type (sandy and smooth vs. clay and rough) affected the extent of visual searches for different sized or coloured birds, making it impossible to calculate any effective area searched each week.

Furthermore, the distance and direction at which carcasses were found seemed of no value in trying to assess a number per unit area. The location of specimens defied the expected. For example, after two days of strong winds in the same direction, a bird was found 16m up wind; or two fresh kills found the same morning, one 29m west and one 25m south of the same turbine. Winds varied locally depending on topography and location, and wind often varied hour by hour. The direction a bird went once hit would depend on many other factors: the direction and height it was flying and hence at what height and on what side of a turbine it may have struck the blade and the speed of blade rotation at that point.

In addition, the distribution of kills around turbines was not uniform. About 46% were found within 10m of the tower (searchable all year at almost all turbines). But, the area which could potentially be searched increases greatly with increasing distance from the tower. If the number found within 10m really did represent the density of kills, and if one assumed an equal distribution of carcasses, the mortality estimate would be quite large.

Also, birds were not distributed uniformly around a turbine with respect to compass direction. In 2007, some 45% of birds found were in the western quarter (where 34% of roads were) and only 11% were in the eastern quarter (also with about 34% of roads there); the remaining birds were distributed as follows: 23% to the north and 21% to the south. But, in 2006, it was 33% to the west, 20% east, 13% north and 33% south. The dispersion will vary year to year depending on many factors, and cannot be assumed to be uniform.

Furthermore, in 2006, birds thrown out for scavenger removal studies (see below) were only being checked once a week. It should be obvious that scavenger removal rate is a variable, with more birds disappearing through the week the longer they have been out (until about a week old when they are so well rotted as to be of little further interest) (Figure 2). Just checking birds once a week, as initial guidelines recommended, provided only one removal rate. Yet at the same time there is a higher probability of finding fresh kills because of scavenger removal. Applying a week long removal rate to mainly fresh kills would also inflate mortality rate. Through the spring of 2007, it was becoming clear to me that the procedures being followed were not going to provide an accurate estimate of mortality.

Figure 2: A well rotted dead passerine bird that would not likely be of much further interest to a scavenger. *Photo: Kevin Dance*

Revised Sampling: Visual searching can never account for everything. Effective sampling is necessary. But, trying to guess the area searched, and considering an even distribution of mortality around turbines was proving to be impossible. In the autumn of 2007, I followed a different procedure, building on what was already being done, but paying more specific attention to scavenger removal and search timing. It was anticipated that these procedures might permit the estimation of mortality by several different methods.

I considered six turbines (in 2007; five in 2006) as control areas. At these turbines it was possible to search grassy areas around these turbines throughout the year as they were in orchards where grass was routinely mowed throughout the year. Using these controls, it was possible to get a measure of the proportion of mortality found on laneways compared to surrounding fields.

I also carefully selected four sets of eight turbines to sample over four days each week. These 32 were chosen because they represented turbines across the entire wind farm in proportion to the numbers found in eastern and western sectors. Half were closer to trees; half were more than 50m from trees to the base of the tower, half had lights; they encompassed those close to the Lake Erie shore as well as those further inland; they included some with the highest mortality in 2006, and included four of the six controls. I started searches at these sets as soon as light permitted (shortly before sunrise) and searched as quickly as possible, while taking as much time as needed for a careful search of available area, visually or actually accessible.

Since most mortality is nocturnal, early surveying allowed the most accurate assessment of daily mortality at a sample of turbines each day (considering fresh specimens only), while minimizing scavenger removal. The two other control turbines, not part of these 32 early morning sets, were given priority for searching as soon as possible in the morning. The order of the set searched varied week to week as did the scavenger removal trials. At these 32, the search on laneways was extended to 80m to assess what proportion of mortality might be found beyond the usual 40m search radius. All other turbines were searched once a week as time permitted.

It is difficult to know exactly how long a turbine kill has been lying on the ground. However, it is possible to tell if the carcass is fresh or nearly fresh, has been there only a few days (fly eggs and with a distinct odour) or is more nearly a week old or older (maggoty, rotted, ripe or already dehydrated). In this way birds found could be divided into three time periods. This was always done conservatively, assigning birds to an older time period when uncertain. These three categories were used because not only specimens from the autumn of 2007 could reasonably be assigned to a time group, but also it was possible to go back through the record of all carcasses from 2006, and the spring of 2007, and similarly assign them to one of the three age groups.

Scavenger Removal Trials: To estimate how quickly scavengers removed carcasses before they could be found, birds of various sizes were deliberately thrown out

and monitored for removal. In the autumn of 2007, six birds were thrown out every week (and four fresh birds were left in place) for a total of 64 birds. No turbine ever got more than one bird per month and birds were widely scattered across the wind farm. This avoided attracting predators to any one place, and accounted for any potential change in predators throughout the season. Specimens were thrown out roughly as expected of kill distribution — most within 10m of the tower, some on laneways and relatively few beyond 20m. Most were medium to small birds corresponding to what is typically found as mortality. They were thrown out on Monday afternoons, prior to one hour before sunset. They were checked again the following day to provide a one-day removal rate. Any remaining carcasses were checked again on Friday to provide a mid week removal rate, and again on the following Monday to provide a week-long removal rate. In calculating mortality, the three removal rates were then applied to the three time periods in which the carcasses found could readily be assigned.

Observer Efficiency Trials: Several methods were tried, but the most comprehensive and effective involved two people simultaneously throwing out birds for each other at different turbines out of sight of each other, and then switching turbines, and doing our regular searches. First we threw out a variable number on grassy, but cut fields. Then we threw out from 0 to 2 birds on laneways and switched to do our regular searches. A total of 28 birds was used — 20 on grassy fields and eight on laneways. All birds used were thrush size or smaller, assuming any large birds would be readily apparent. While such searches were not conducted in secret, there were many reasons for not even trying to do so — impractical if not impossible, unduly complicating a study, and, to some, interfering with a study and even dishonesty. The method outlined avoided potential scavenger removal or movement, trespassing, scheduling problems, and carcass durability study, plus provided immediately useful results on different substrates and did not entangle the studies.

Estimating Mortality: To estimate avian mortality at the wind farm, several different data sets (from different groups of turbines) were considered, and several different calculations were made with some data sets where possible (for varying areas and time periods). In all calculations, adjustments were made for scavenger removal and for observer efficiency. Where only birds found in autumn were used, adjustment was made for those potentially missed in spring. Where only those found within 40m were used, adjustment was made for those potentially found beyond that distance. For all calculations, correction factors were applied to arrive at a mortality estimate of the number of native birds per turbine per year (hereafter nb/t/y).

Method 1 – Controls, using numbers of native birds found at turbines searchable all around, first using only the six from the autumn of 2007, and then combining with the five from 2006. Calculations were made using only birds found on laneways, then using all birds found.

Method 2 – 32 Sampled Turbines, One Day Mortality, using only the number of fresh native birds found on laneways, as a proportion of those expected had it been possible to search all turbines every day each week.

Method 3 – 32 Sampled Turbines, All Carcasses on Laneways, using the number of native birds of any age found on laneways as a proportion of those expected had it been possible to search all turbines every day each week.

Method 4 – All Turbines, using numbers of native birds found at all turbines, first birds found only on laneways, then anywhere around turbines, for 2007 alone and then combined for 2006 and 2007. Additional calculations were done to allow mortality rates for all birds including non-native birds.

Results

Carcass Durability: Some carcasses will disappear after a week, even after two, but if not removed within a week, particularly in warm weather, most are no longer of interest to scavengers. Some older carcasses may be moved, even over several metres, as if just being played with. However, a Red-eyed Vireo (*Vireo olivaceus*) was visible for more than two months. A Ruby-throated Hummingbird (*Archilochus colubris*), in grass, was still visible after 3.5 weeks. A couple of kinglets remained visible for four and 4.5 weeks each (Figure 3). Hermit Thrushes (*Catharus guttatus*) remained visible for 11 and 12 weeks. Birds as small as Brown Creeper (*Certhia americana*), Hermit Thrush and Cedar Waxwing (*Bombycilla cedrorum*), thrown out for scavenger removal in October 2006, were still visible after 5 months, in March 2007.

Figure 3: Kinglet that has been dead for some time. Such a carcass would likely remain untouched and visible for several weeks even in a grassy area. *Photo: Kevin Dance*

Search Results: It was readily possible to find even small feathers, either on grass or bare soil. These were molted feathers and had nothing to do with mortality. Damage to birds was typically minimal, many showing no visible external sign of injury. For a number of birds no cause of death could be established, however, birds were generally considered turbine kills if found near turbines, even when cause of death was uncertain. During 2006, from 7 May to 15 June (6 weeks) and 16 August to 15 November (14 weeks), the number of native bird species found was 29 (plus one found by K. Dance) and in 2007, from 1 May to 15 June (8 weeks) and 21 August to 8 November (12 weeks) there were 29 found also, as follows:

In 2006

Turkey Vulture (*Cathartes aura*)	1
Sharp-shinned Hawk (*Accipiter striatus*)	1
Virginia Rail (*Rallus limicola*)	1
Mourning Dove (*Zenaida macroura*)	1
Yellow-bellied Sapsucker (*Sphyrapicus varius*)	1
Warbling Vireo (*Vireo gilvus*)	2
Red-eyed Vireo(*Vireo olivaceus*)	4
Bank Swallow (*Riparia riparia*)	3
Golden-crowned Kinglet (*Regulus satrapa*)	6
Ruby-crowned Kinglet (*Regulus calendula*)	2
Hermit Thrush (*Catharus guttatus*)	1
Cedar Waxwing (*Bombycillia cedrorum*)	2
Magnolia Warbler (*Setophaga magnolia*)	2
Yellow-rumped Warbler (*S. coronata*)	1
Black-and-white Warbler (*Mniotilta varia*)	1
Indigo Bunting (*Passerina cyanea*)	1

In 2007

Cooper's Hawk (*Accipiter cooperii*)	1
Red-tailed Hawk (*Buteo jamaicensis)*	1
Ring-billed Gull (*Larus delewarensis*)	1
Mourning Dove	1
Ruby-throated Hummingbird	2
Downy Woodpecker (*Picoides pubescens*)	1
Least Flycatcher (*Empidonax minimus*)	1
Philadelphia Vireo (*Vireo philadelphicus*)	2
Red-eyed Vireo	7
Blue Jay (*Cyanocitta cristata*)	2
Horned Lark (*Eremophila alpestris*)	1
Bank Swallow	3
Barn Swallow (*Hirundo rustica*)	1
Golden-crowned Kinglet	1
Ruby-crowned Kinglet	1
American Robin (*Turdus migratorius*)	1
Magnolia Warbler	1
Rose-breasted Grosbeak (*Pheucticus ludovicianus*)	1

Figure 4: Dead bat, a fresh carcass, and showing no visible sign of injury. Bats were more frequent victims than birds, but both were often found showing no sign of injury outwardly, and very few had a severed part. *Photo: Kevin Dance*

The majority of turbine-related mortalities was passerine birds as expected (79%) of which nocturnal migrants made up about half the passerines (48.9%). Although there were hundreds of diurnal raptor migrants observed, and thousands more unseen diurnal migrants that would have passed low enough to be at blade height, we found only one migrant each year over 12 weeks of searching in autumn (Figures 4 and 5). It is likely that few if any more were missed. Larger birds are readily visible if present, and even where scavenged, numbers of feathers are typically left behind, feathers that would last over many weeks, and visible in fields even after crops were harvested. Despite thousands of diurnal passerine migrants observed in autumn, only five casualties were found in the migration season, and two or three may not have been migrating yet. Of all casualties, only six species were found both years, all very common species, and for most, numbers fluctuated from year to year.

Towers Involved: Native bird species were found at 19 turbines in each of the two years of study, extending over the extent of the wind farm. Only four of 66 turbines (6%) had bird kills in both years, and at 33 turbines (50%) no mortality was ever found. In 2006, a disproportionate number was found in the eastern sector. In 2007, this trend was reversed.

Figure 5: A larger bird readily visible. Note the wing apparently severed. One of a very few instances of such an injury and one of a very few raptors killed despite thousands in the area each autumn. *Photo: Kevin Dance*

Over the two years, the distribution of mortality was close to the proportion of turbines in each sector (30% of mortality at 36% of turbines in the western sector). Usually, only 1 or 2 birds were found at any one turbine; one had three in 2006, and one had five in the western sector in 2006; one in the eastern sector had five in 2007. Any of the higher numbers observed at one turbine in 2006 were not repeated the following year. Again, the distribution of mortality was not found to be uniform or predictable.

Scavenger Removal Rates: Removal rates for the 64 birds in the autumn of 2007 were: One day – 17.2%; at mid week – 43.7%; after one week – 54.7%. These rates were used in all calculations of mortality.

Observer Efficiency: On first searches, in the autumn of 2007, with the usual search times, 21.4% of carcasses were missed. This rate was used in correcting mortality calculations. More of the birds thrown out, but missed on the first search, were found on subsequent searches at a later date, as would be expected for any searches for turbine mortality. But, the additional birds were not considered in adjusting rates. The higher rate from the first search was used in all calculations.

When using a different method to assess observer efficiency in spring, a higher proportion was found when there was less plant growth. If anything, the observer efficiency rate used in mortality calculations tended to maximize the mortality estimates.

On Versus Off Laneways: In determining a correction factor for use in adjusting mortality found on laneways only, to account for the proportion found in fields, the proportions found on and off laneways were considered at: the controls, the selected 32, and all towers, in spring, in autumn, and all year, in 2007; at controls only, and at all towers in 2006; at controls, and at all towers in 2006 and 2007 combined. The highest proportion of off-laneway mortality was found at the control turbines, whether in 2006 (83.3%), in 2007 (85.7%), or for both years combined (84.6%). The controls were considered to provide probably the most accurate proportion, given the unpredictable scatter of birds around turbines. The results at the controls were also relatively similar each year or when combined. In all calculations of mortality of native birds, the highest proportion (85.7%) was used for the proportion expected off laneways. This also tended to maximize the mortality estimates.

Distance from Turbine Towers: Carcasses were found from the base of towers up to 46m away (average 17.7m). More than 80% were within 30m, and only about 5% were beyond 40m (8.7% of those found on laneways). The proportion found on laneways only, beyond 40m, was highest for the 32 selected turbines specifically searched for them in the autumn of 2007 (at 20%). This proportion was used in corrections for the proportion beyond 40m, although it may not have been the most accurate, as it represented only one bird of only five found.

Proportion Found in Spring: As with the previous adjustment, many different possibilities were considered. However, because of the unpredictable distribution in time and space, and nothing found in several instances, most were unusable. The highest sample sizes and most consistent proportions came from the use of all mortality found at all turbines. In any calculations involving a correction for a proportion found in spring, the proportion for the appropriate year(s) was used: for 2007 – 26.1%, for 2006 – 25%, and for the combined years 25.5%.

Mortality Estimates

Method 1 – Control Towers

Calculations using native birds found only on laneways gave mortality estimates of 0.54 (2007) and 0.53 (2006) nb/t/y. However, using all carcasses found gave estimates of 2.38 (2007) and 2.4 (2006 and 2007) nb/t/y.

Method 2 – 32 Sampled Turbines, One Day Mortality

Only one native bird was found, yielding a mortality estimate of 0.87 nb/t/y.

Method 3 – 32 Sampled Turbines, All Carcasses on Laneways

Only three native birds were found, giving a mortality estimate of 0.6 nb/t/y.

Method 4 – All Turbines

Mortality estimates using birds found only on laneways at all turbines combined ranged from 0.41 to 0.66 nb/t/y with data from either 2006 or 2007 or both years combined. Mortality estimates using birds found anywhere around all turbines combined ranged from 0.72 to 0.75 nb/t/y with data from each year.

Discussion

Mortality estimates calculated from birds found only on laneways and extrapolated to the total area, gave estimates that were always below one. While laneways are the only areas that are always searchable, using only numbers found on laneways to estimate mortality provided low estimates compared to other North American installations (Erickson *et al.* 2001, National Wind Coordinating Committee 2010). The relatively small sample sizes, combined with the variable and uneven distribution of carcasses around turbines could readily skew results. Using laneway carcasses is undoubtedly an inaccurate method of estimating mortality. It would also be reasonable to rule out any method that relied on only one or two specimens, where estimates were also very low (*e.g.* Methods 2 and 3).

Mortality estimates calculated from all birds found around all turbines also tended to be lower than elsewhere in North America. In these estimates, there was a variable area searchable through the year, with much if not all of the off-laneway fields unavailable at times. At the control towers, the average distance from the turbine tower at which birds were found was 23.3m (versus 17.7m at all turbines) and only 15.4% were within 10m of the tower (versus 46.4% at all turbines). This further indicates that a significant proportion of carcasses are being missed where fields around a turbine cannot be searched during much of the year. Despite most carcasses being found closer to the turbines, an unknown proportion are going to be missed, giving inaccurate results.

At the control turbines, the mortality estimates were close to two, and with a correction factor for a proportion missed beyond 40m (obtained from laneways of other turbines), the estimate was about 2.4 birds/turbine/year — closer to what might be expected from other studies. This would suggest that estimates from areas that can be searched all year are the only ones that are going to provide reasonable estimates of mortality. However, the correction factor used for a proportion beyond 40m (20%) could be high, as it was based on a very small sample size. In all of the searches conducted at all turbines over two years, the proportion found on laneways beyond 40m was only 8.7%. Birds on laneways are typically readily visible, many seen before even getting out of a vehicle to start searching. The true value is probably somewhere between 20 and 8.7 percent.

Also, two of six control turbines in 2007, and two of five in 2006, were nearshore turbines, where average mortality was apparently slightly higher (unpublished data). In the control sample, nearshore turbines made up 33% and 40% of turbines sampled in two different years, whereas in the wind farm they comprised only 13.6% of the total. This, in conjunction with all correction factors tending to maximize estimates, may have elevated the mortality estimates.

Overall, the most accurate estimates of mortality, as might be expected, probably came from areas that could be searched all year and for which the fewest correction factors were used. However, all results are compromised to an unknown extent by small sample sizes, and the varying random scatter of carcasses from year to year. Given: that correction factors used to calculate mortality tended to maximize mortality; that no more native birds were found in 2007 than 2006 when turbines were not operating for a full year; that mortality of any native birds was found at only 19 of 66 turbines (<30%) each year; that at only four turbines (6%) was any mortality of native birds found in both 2006 and 2007; that after two years of searching no carcasses of native birds were found at half the turbines; that no birds were found at all on 30% of weeks spent searching; that even when fields cannot be walked on (except carefully to retrieve a carcass), they can be scanned to some extent from laneways well beyond 10m, even to 40m for large birds; a mortality estimate of native birds of between 2 and 2.5 birds/turbine/year seems reasonable and in line with estimates from other North American installations (Friesen 2011). The estimates would have been somewhat higher (e.g. 2.58 b/t/y) had non-native Rock Pigeons (*Columba livia*) been included, or had my searches continued later in 2007 (one other casualty known).

Considering that, on average, for residential areas, from 1-10 birds per year are expected to be killed at every building, and that numbers can be considerably higher (20-30) (Klem 1990, Dunn 1993), the mortality estimates for the Erie Shores Wind Farm are about what one could expect at most any home on average. By contrast, with no attempt at systematic surveys, where scavenger removal must have been at least as high, and where vehicle traffic would quickly obliterate many, over the same search period in 2007 as for turbines, 81 native bird species were readily found dead on roads, within the wind farm, while traveling between turbines. The road kills involved more species than found under turbines each year (at least 23 species); more Bank Swallows and Mourning Doves than recorded in 2 years at turbines; 14 species never found at turbines (Killdeer (*Charadrius vociferus*), Eastern Screech-Owl (*Megascops asio*), Eastern Kingbird (*Tyrannus tyrannus*), Gray Catbird (*Dumetella carolinensis*), Brown Thrasher (*Toxostoma rufum*), Yellow Warbler (*Setophaga petechia*), Song Sparrow (*Melospiza melodia*), Lincoln's Sparrow (*M. lincolnii*), White-crowned Sparrow (*Zonotrichia leucophrys*), Common Grackle (*Quiscalus quiscula*), Brown-headed Cowbird (*Molothrus ater*), Orchard Oriole (*Icterus spurius*), Baltimore Oriole (*I. galbula*) and American Goldfinch (*Spinus tristis*)); more passerine migrants in one year than recorded in two years at turbines, and as many or more nocturnal migrants than found under all turbines in either 2006 or 2007. Undoubtedly many more could have been found by regular searches and by searching roadsides more carefully.

Despite being close to the shores of Lake Erie, where thousands of birds are known to pass in autumn, mortality was

relatively low, and not out of line with mortality estimates from other wind turbine installations in Ontario (Friesen 2011). What is notable is that there was no waterfowl mortality observed, despite large numbers in the area during migration and some nesting there. Notable also is very low raptor mortality (separately estimated at 0.004 nb/t/y) despite thousands migrating through the facility every year and some summering. ESWF is not comparable to other wind farms where high raptor mortality has been recorded (*i.e.* Altamont Pass, California, and Tarifa, Spain). ESWF turbines are not lined up to winds coming from one direction, are widely spaced to deal with variable wind, and blades turn at relatively low speeds with blades visible to birds. Most mortality involved common nocturnal migrants, as is consistent with most other installations (Erickson *et al.* 2001, National Wind Coordinating Committee 2010). Given the variety of species involved, the estimated rate of mortality could not be considered significant to bird populations, particularly when compared to other sources of avian mortality (see Erickson *et al.* 2001). Diurnal birds were very lightly impacted; they were obviously unafraid of the turbines (James 2010, unpublished observations), and could readily see and avoid them.

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And, to those who contributed opposition and negativity, I also offer recognition. They provided incentive to carry on over many tedious weeks of searching for a problem that, for birds at least, remains elusive. I would invite them, and anyone else, to go and stand near a turbine during the autumn migration, to see what I have seen — thousands of birds moving as usual through the wind farm along the shores where they have gone before.

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Historical Overview, Seasonal Timing and Abundance of Bonaparte's Gull at Point Pelee, Ontario

Alan Wormington

Figure 1. Western Lake Erie showing the location of the study area (Point Pelee Birding Area).

Introduction

The Bonaparte's Gull (*Chroicocephalus philadelphia*) is a widespread and common species across most of North America, where it is usually found in association with both freshwater and coastal marine environments. Despite its abundance and familiarity, it nonetheless is one of the least known of the gulls with respect to breeding (Burger and Gochfeld 2002). Other aspects of the bird's ecology, including migration and winter habits, are also incompletely known (Braune 1989). On a more local basis, in Ontario there have been a few published studies that describe various aspects of the species at specific locations. Such studies include those for the Niagara River (Beardslee 1944, Kirk *et al.* 2008), Durham Regional Municipality (Pittaway 1991) and Point Pelee (Wormington 2001a, 2013a).

The purpose of this paper is to present a comprehensive account on the status of Bonaparte's Gull at Point Pelee, to include detailed information on seasonal timing, abundance, and dynamics of the various age classes. "Point Pelee" refers to the official Point Pelee Birding Area, which is a standard Christmas Bird Count circle (24 km/15 mile diameter) centred just north of Point Pelee National Park; the area includes Wheatley and Wheatley Provincial Park to the northeast, and Leamington and Seacliff Beach to the northwest (Figure 1).

Methods and Sources of Information

Information for this paper is derived from multiple sources. Since the late 1970s, the author has consistently compiled seasonal summaries of bird sightings for the Point Pelee Birding Area; these include both personal sightings and also those of many visiting birders. For the period prior to the late 1970s, a wealth of information exists in the "Stirrett Files" that are housed at Point Pelee National Park. These files were compiled by George M. Stirrett, former Chief Naturalist of Canada's National Park system, and cover the period from the 1870s to the early 1970s. Again, these comprise sightings made by visiting birders, in addition to extensive information gleaned from the published literature. Despite the abundance of information on Bonaparte's Gull at Point Pelee, much of the *useable* data pertains to recent times, since on an annual basis consistent and detailed reporting of all bird species here did not begin until the late 1970s. Thus most of the data on Bonaparte's Gull presented in this paper are based on that general time period to the present.

The interpretation of records rests largely with the author, who has studied in detail the seasonal status of Bonaparte's Gull at Point Pelee since the early 1980s. The interpretation of data can occasionally be subjective; however, over the longer term distinctive seasonal patterns have emerged that can support the various viewpoints that have evolved over time. To describe the various ages of Bonaparte's Gull, for clarity I have elected to use an age-based system rather than a plumage-based system. Thus various groups are discussed and categorized based on their age, even though plumage descriptors are sometimes added for additional clarity. Especially for gulls, the age-based system was first popularized by Grant (1982).

Historical Overview

Further research is required to confirm when Bonaparte's Gull was first recorded at Point Pelee. However, it appears certain that the first *published* record pertains to 20 September 1900, when William E. Saunders and Henry H. Gould noted "Bonaparte gulls" along the Lake Erie shoreline at a location that would be at or close to Hillman Marsh (Gould 1901). Not long afterwards, Taverner and Swales (1907) stated that Bonaparte's Gull was "Without doubt a common and regular migrant." Stirrett (1973a) labelled Bonaparte's Gull as an "Abundant and regular transient" at Point Pelee, and the species is still abundant here today (Wormington 2013b). Thus, it can be concluded that Bonaparte's Gull has always been common (if not abundant) at Point Pelee for at least 100+ years.

Figure 2. A concentration of Bonaparte's Gulls on 26 November 2003 at Wheatley Harbour, a favourite feeding and loafing location for this species within the Point Pelee Birding Area. *Photo: Alan Wormington*

The abundance of Bonaparte's Gull at Point Pelee can be attributed to a number of factors. The waters of the western basin of Lake Erie are both shallow and rich in food sources, and this has always attracted huge numbers of various waterbirds, including gulls. Point Pelee proper hosts a wide range of habitats that specifically attract large numbers of Bonaparte's Gulls. These include abundant offshore waters, long stretches of accessible shoreline (mostly sand beaches), large marshes (Hillman Marsh and Pelee Marsh), several harbours and marinas (Wheatley, Sturgeon Creek and Leamington), and expansive areas of large and very flat agricultural fields. All of these habitats are compacted into a relatively small area, and apparently provide excellent benefits for the species — namely areas for both feeding and loafing (see Figure 2).

Seasonal Status and Timing

The seasonal status of Bonaparte's Gull at Point Pelee is extremely complex. On a year-round basis this includes both spring and fall migrations, in addition to populations that also summer and winter here (Figure 3). Depending on the time of year, the behaviour of adult and immature birds can be markedly different, and this further adds to the overall complexity. Also, immature birds form the bulk of the summering population, but this age class is exceedingly rare during the few winters when the species is present. The seasonal status and timing of Bonaparte's Gull at Point Pelee is presented below in separate sections, for both spring and fall migrations, and for summer and winter seasons.

Common (Abundant) Spring and Fall Transient
Common (Often Abundant) Summer Visitor (Non-Breeding)
Irregular Rare to Uncommon (Usually Absent) Winter Visitor

(Winter / February 13, 16, March 1) **March 12 – May 18** (May 25, 26 / Summer)
(Summer / June 28, July 6, 8) **July 12 – January 16** (January 29, 30, February 2 / Winter)

Figure 3. A summary of the status of Bonaparte's Gull at Point Pelee throughout the year.
Dates in bold text indicate "normal" first and last dates for migration (spring and fall); dates not in bold text indicate extreme migration dates. (From Wormington 2013b).

Spring Migration

Bonaparte's Gulls at Point Pelee during spring (and fall) engage in what has been described as a "two-tier" migration (Wormington 2001a, Tozer 2012:150-151). After departing their wintering grounds, birds initially make a long-distance flight to a specific region, where at that location they remain for some time while molting into summer (breeding) plumage. Later they then make another long-distance flight, this time essentially direct to their boreal breeding grounds. Such a migration strategy is undertaken by a number of species, including some gulls, waterfowl and shorebirds.

The earliest three records for spring migrants at Point Pelee are as follows:

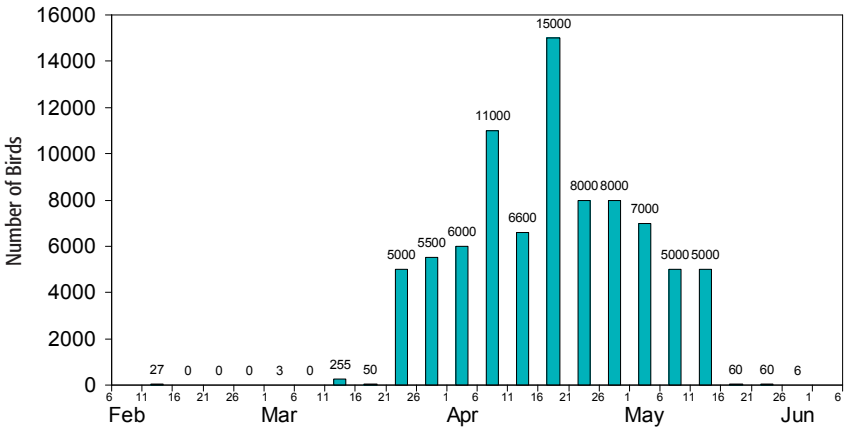
- **13 February 2001:** 27 adults, Wheatley Harbour (Alan Wormington, Henrietta T. O'Neill). Prior to this observation no wintering Bonaparte's Gulls had been present at Point Pelee, and the last fall migrants were reported in late December (Wormington 2001b). For the Lake Erie shoreline in Ohio, none were reported after about 15 January, and that was a single bird only (John V. Pogacnik, pers. comm.). The spring migration of 2001 started exceptionally early at Point Pelee, with 13 species (including Bonaparte's Gull) found on record-early dates up to just 20 February alone (Wormington 2001c).
- **16 February 1990:** one adult, Wheatley Harbour (Alan Wormington). At Point Pelee no other Bonaparte's Gulls had been recorded since the last fall migrant (one only) on 5 January (Wormington 1990). Also, Bonaparte's Gulls were essentially absent all winter from along the Ohio shoreline of Lake Erie (Peterjohn 1990), where hundreds or thousands are sometimes present.
- **1 March 2004:** one adult, Wheatley Harbour (Alan Wormington). No wintering birds had been present at Point Pelee, and the last fall migrants (900) were present 5-13 January inclusive (Wormington 2004).

The first spring migrants typically arrive at Point Pelee during the general time frame of 15-25 March. The first migrants are usually few in number, but shortly thereafter there is a surge of arrivals, and this surge of new migrants typically appears in late March or early April. From then until early May or the

middle of May, spring migrants remain abundant at Point Pelee (Figure 4). During this time period the vast majority of birds are adults, since first-summer immatures do not become numerous until early May or later (see section on Summer). At some point in early to mid-May, there is often a sudden exodus of adult birds, and these flights can be triggered by a surge of warm weather arriving from the south. This exodus thus coincides with the passage of Bonaparte's Gulls at more northerly locations, such as southeastern Manitoba where Taylor (1993) stated that most adults pass through quickly during the period of about 10-22 May.

Spring migrants at Point Pelee spend a great deal of time foraging, and during this time they can be found just about anywhere. This includes all shorelines, both inshore and offshore waters of Lake Erie, local harbours, marinas and marshes, and agricultural fields (especially those that are wet or flooded).

Figure 4. Maximum daily counts for Bonaparte's Gull during spring migration at Point Pelee, presented in 5-day intervals.



The highest counts ever reported for spring migrants at Point Pelee are as follows:

- **18,000** – 13 May 1978: Northeast Beach to Tip (Alan Wormington, Keith J. Burk). Unfortunately the number of adult birds (spring migrants) and first-summer immatures (potential summering birds) were not differentiated for this sighting, thus this record is not included in Figure 4. The very late date would suggest that a significant portion of these birds (probably more than 50%) would have been first-summer immatures. Likely most of these immatures continued northward as spring migrants, but some undoubtedly summered at Point Pelee as well.
- **15,000** – 18 April 1983: virtually all adults, Wheatley Harbour including adjacent fields (Donald A. Sutherland). Earlier at the same location, 11,000 birds were counted on 9 April; and the same year 8,000 birds were present on 30 April from Wheatley Harbour to the Onion Fields (Wormington 2013b).

- **7,000** – 7 April 2011: virtually all adults, Wheatley Harbour (Alan Wormington)
- **6,600** – 11 April 2006: virtually all adults, Wheatley Harbour (Alan Wormington)
- **5,500** – 20-22 April 2012: all adults, Wheatley Harbour (Alan Wormington)

The latest three records for spring migrants (adults) at Point Pelee are as follows:

- **26 May 1983:** six summer-plumaged adults, Wheatley Harbour (Alan Wormington). These very late migrants were presumably a result of a spring that was characterized as cold, wet and late, not only at Point Pelee but also across southern Ontario as a whole (Runtz 1983, Weir 1983).
- **25 May 1996**: two summer-plumaged adults, Tip (Alan Wormington).
- **25 May 2008:** 12 summer-plumaged adults, Wheatley Harbour (Alan Wormington, Richard P. Carr). The day before this observation (24 May) an exceptional 60 adults were still present at this location (Wormington 2008); the presence of so many very late adults can be attributed to the very late (cold) spring at the time.

Summer

Taverner and Swales (1907) correctly stated that "A few immatures may remain during the summer." They were, of course, referring to first-summer (one-year-old) immatures (Figure 5), which in modern times can be found almost every summer at Point Pelee in considerable numbers. Favourite locations where summering birds congregate include the Tip, Northeast Beach, Onion Fields, Hillman Marsh, Sturgeon Creek and Leamington Marina including adjacent Seacliff Beach. These summering birds are extremely gregarious, and the majority are likely to concentrate at a single location where they typically remain for several days or longer. For unknown reasons they may then shift to a different (nearby) location. During their stay at Point Pelee, summering birds do not seem to spend much time feeding; instead, they generally pass the day by simply loafing.

A few first-summer immatures may appear early in spring with arriving adults, but significant numbers do not begin to arrive until the first week of May (or sometimes in late April). Tabulations for first-summer immatures are presented for the middle of April through to early August (Figure 6), but not all birds during this period necessarily pertain to those that summered at Point Pelee. Maximum numbers are often present during May, but many of these birds are spring migrants that will eventually depart the area to summer elsewhere. As to when the spring passage of first-summer immatures is over is not precisely known, since each year the latest migrants may pass through slightly later (on average) than the latest adults. However, certainly by the first of June all birds present at Point Pelee can be assumed to be summering. Tabulations for first-summer immatures extend to early August only. After that time it becomes increasingly difficult to isolate these one-year-old birds, since they have molted into second-winter plumage and thus are similar in appearance to adult

Figure 5. A first-summer (one-year-old) immature Bonaparte's Gull at the Tip of Point Pelee on 2 May 2013. *Photo: Joshua D. Vandermeulen*

birds; furthermore, adult birds by this time have arrived *en masse* as fall migrants.

The highest counts ever reported for first-summer immatures at Point Pelee, during specific summer seasons (and on or after 1 June), are as follows:

- **2,300** – 21 June 2006: Leamington Marina (Alan Wormington)
- **2,200** – 18 July 1995: Tip (Alan Wormington, David J. Milsom); the same year 1,400 birds were counted on 19 June, with 900 at the Tip and 500 at SW Hillman Marsh (Wormington 1995a).
- **2,200** – 24 June 2007: west side of Tip (Alan Wormington *et al.*); the same year 1,800 birds were counted on 14 July at the east side of the Tip, and 1,300 were present on 8 June at Hillman Marsh (Wormington 2007a)
- **1,600** – 1 June 2012: 900 at Onion Fields and 700 at Leamington Marina (Alan Wormington); the same year 800 birds were found on 20 July at Seacliff Beach (Wormington 2012a).
- **800** – 21 June 2003: Tip (Alan Wormington)

Most years there is a sizable population of summering birds at Point Pelee, but some summers there are considerably fewer. An example is 2001, when the maximum daily count for the entire season was only 15 birds on 14 June, and no other observation exceeded two birds on any single date (Wormington 2001d).

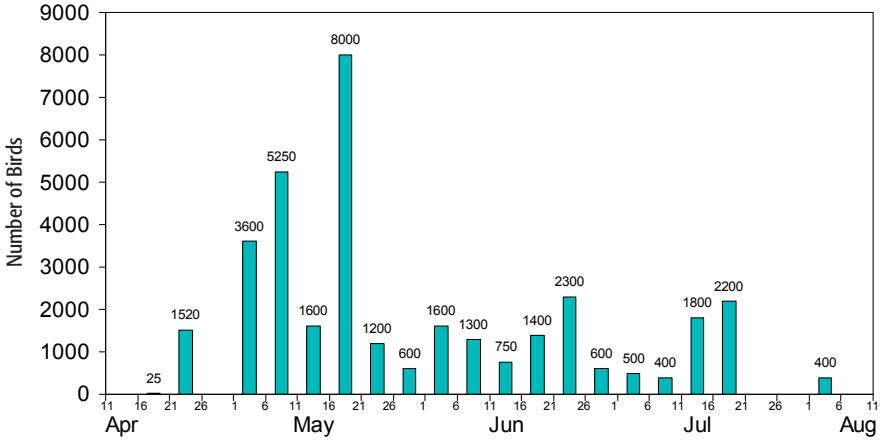


Figure 6. Maximum daily counts for first-summer (immature) Bonaparte's Gulls at Point Pelee, presented in 5-day intervals.

Birds that appear to be "adult-like" are occasionally found amongst the flocks of typical first-summer immatures. There is no reason why a healthy, adult Bonaparte's Gull would summer at Point Pelee, and close examination of such individuals always demonstrates that they do not fall into this category. These birds invariably pertain to (1) true adults that are either sick or injured; or (2) birds that appear to be adults, but when observed closely are actually second-summer immatures (and thus are not sexually mature). An oddity that is also sometimes encountered amongst the summering birds pertains to apparent adults that are in "winter" plumage, entirely lacking a black head (and some of these individuals might in fact be second-summer birds).

Fall Migration

The fall migration of Bonaparte's Gull at Point Pelee extends over a remarkable length of time, often from the middle of July to the middle of January — half a year or more (Figure 7). During this period adult birds initially arrive in breeding plumage, complete with a black hood; while at Point Pelee they then undergo a complete wing and body molt before eventually leaving the area in fresh winter plumage. Similar to spring migration, birds during fall again engage in a "two-tier" migration strategy as described previously. For Bonaparte's Gull specifically, Howell and Dunn (2007:302-305) refer to this migration pattern as a "bimodal fall passage."

The start of fall migration is very early and involves adult birds in immaculate summer (breeding) plumage. The earliest arrivals are presumably failed breeders. One needs to be cautious when trying to detect the first fall migrants at Point Pelee, since occasional "adult-like" birds also summer here (see previous section on Summer). The arrival of the first

adult and juvenile birds during fall migration has been monitored very closely at Point Pelee since 1980 (Table 1). Much of these data were originally published by Wormington (2001a), covering the years 1980 to 2001 inclusive; at that time it was calculated that adult birds predate those of the first juveniles by a mere 10.5 days on average. Wormington (2001a) also described observations that indicate adult birds may retain pair-bonds up until at least the end of July, thus the first fall migrants often involve mated pairs (or multiples thereof). Excluding a single exception on 1 September 2010 (Wormington 2013a), during the entire fall migration period adult Bonaparte's Gulls always outnumber all other age classes combined.

The earliest three records for fall migrants at Point Pelee are as follows:

- **28 June 2005:** four summer-plumaged adults (two pairs?), NW Hillman Marsh (Alan Wormington, Dean J. Ware). The following day (29 June) an additional five early adults were found, with three at Seacliff Beach and two at Sturgeon Creek Marina (Wormington 2005).
- **6 July 2001:** 18 summer-plumaged adults, NE Hillman Marsh (Dean J. Ware, Alan Wormington)

Table 1. Fall arrival date and number for the first adult and juvenile Bonaparte's Gulls recorded at Point Pelee, for the years 1980 to 2013 inclusive.

Year	First Adults (#)	First Juveniles (#)	Year	First Adults (#)	First Juveniles (#)
1980	no data	5 August (3)	1997	29 July (35)	31 July (1)
1981	no data	3 August (2)	1998	10 July (4)	20 July (1)
1982	22 July (12)	2 August (1)	1999	18 July (35)	24 July (15)
1983	19 July (6)	9 August (3)	2000	30 July (500)	3 August (2)
1984	19 July (3)	27 July (3)	2001	6 July (18)	23 July (2)
1985	21 July (2)	31 July (3)	2002	10 July (14)	5 August (7)
1986	25 July (5)	3 August (3)	2003	27 July (3)	14 August (5)
1987	11 July (3)	27 July (1)	2004	1August (4)	7 August (4)
1988	20 July (16)	28 July (1)	2005	28 June (4)	24 July (2)
1989	20 July (25)	28 July (3)	2006	12 July (1)	20 July (3)
1990	16 July (1)	4 August (7)	2007	14 July (53)	21 July (1)
1991	21 July (12)	27 July (2)	2008	20 July (30)	27 July (2)
1992	15 July (2)	30 July (2)	2009	11 July (2)	28 July (1)
1993	17 July (4)	27 July (4)	2010	18 July (6)	24 July (4)
1994	23 July(2)	26 July (3)	2011	13 July (6)	24 July (1)
1995	8 July (1)	23 July (1)	2012	9 July (4)	19 July (1)
1996	15 July (2)	28 July (1)	2013	13 July (3)	27 July (1)

- **8 July 1995:** one summer-plumaged adult, Tip (Alan Wormington). It is interesting that this adult bird was reluctant to mix with the summering immatures that were also present. Also of note, the earliest juvenile Bonaparte's Gull ever recorded at Point Pelee, up to the time, was also in 1995, on 23 July (Wormington 2001a).

The behaviour of fall migrants at Point Pelee is variable, depending on the time period involved. For the period when Bonaparte's Gulls first arrive *en masse* (late July or shortly thereafter), and through much of August, birds are often sedentary. Huge flocks often congregate at specific sites where they remain for extended periods, and here they seem to be largely inactive; the only exception being short feeding sessions made to the nearby waters of Lake Erie. Favoured sites during this time period often include Seacliff Beach, the Onion Fields (located directly north of Point Pelee National Park), Pelee Marsh, and the Tip.

September is an interesting month for Bonaparte's Gull at Point Pelee. It is common knowledge locally that adult Bonaparte's Gulls during September can be strangely elusive, if not virtually absent at times. It is not unusual for several days to pass without encountering a single bird. Most years the vast majority of juvenile birds have already departed by early September (Wormington 2013a), but the whereabouts of adult birds remain largely unaccounted for. It is highly unlikely that the population has vacated Lake Erie (including Point Pelee) by migrating south, since the species as a whole is not regular any distance south of the Great Lakes until later in the fall (Howell and Dunn 2007:302-305).

Exactly where the adult population is residing during much of September remains largely a mystery, but since this is when they are completing their molt, possibly they remain far offshore on Lake Erie and thus mostly unseen. A recent observation may confirm this possibility: on 14 September 2013 several thousand Bonaparte's Gulls (mostly adults) were present offshore from Erieau, Chatham-Kent Municipality, while on the very same day virtually none could be found at Point Pelee (pers. obs.). This may imply a more pelagic behaviour of the species during the month of September, and may also imply that birds are more concentrated in the central basin of Lake Erie rather than the western basin.

Furthermore, the re-appearance of adult Bonaparte's Gulls at Point Pelee (typically in late September) may be related to the "fall turnover" of water columns within Lake Erie. This occurs when the water temperature in the epilimnion cools down so that the density gradient in the water column disappears and wind action will cause the water to mix top to bottom. This occurs only if the water column has been thermally stratified during the summer (Hutchinson 1957). This condition regularly occurs in the central and eastern basins of Lake Erie, but is very rare in the western basin (Joseph H. Leach, pers. comm.). Even more interesting is the fact that the "fall turnover" typically occurs in late September or early October, which is precisely the time when numbers of adult Bonaparte's Gulls make a

re-appearance at Point Pelee. Obviously a considerable amount of additional research is required to determine if these possible associations are valid.

It is usually the last week of September when significant numbers of Bonaparte's Gulls make a re-appearance at Point Pelee, and this coincides when adult birds have completed their molt to winter plumage. From then until their final departure sometime later (as late as early to mid January), birds can be highly nomadic as they seem to be constantly on the move in what presumably must be searches for productive feeding areas. It is not uncommon to encounter hundreds if not thousands of birds one day, to be followed the next day by far lesser numbers and sometimes virtually none. The Tip of Point Pelee is the premiere location to witness the daily movement of such birds, where large numbers may pass in a short period of time. On a day-to-day basis the direction of flight is highly variable, but on a specific day the flight direction is usually constant; generally the heaviest flights occur during the morning hours, but late-day movements are not uncommon. Presumably these daily flights are related to feeding,with changing winds and other unknown factors dictating their direction. When birds stop to feed, it is generally over onshore waters of Lake Erie; very late in the season they may also concentrate at various marinas and harbours, particularly Wheatley Harbour which is a favoured location. During this late-fall time period, significant numbers are rarely encountered in local marshes or in agricultural fields (in contrast to earlier in the season).

The highest counts ever reported for fall migrants at Point Pelee are as follows:

- **17,000** – 22 December 1984: this total was attained during the Christmas Bird Count that was conducted on this date; the vast majority of birds were concentrated at Leamington Marina, Sturgeon Creek, Wheatley Harbour, Hillman Marsh, and the Tip (multiple observers).
- **15,000** – 31 October 1992: Tip to Leamington Marina (Alan Wormington, Jon L. Dunn, Sue Tackett).
- **12,000** – 28 August 2006: Onion Fields (Alan Wormington, Iain Ewing).
- **12,000** – 5 August 2007: all adults, Seacliff Beach to Pelee Marsh (Alan Wormington).
- **12,000** – 26 October 2007: Tip (Alan Wormington)
- **11,000** – 13 September 1987: Lake Erie at Wheatley Provincial Park (Alan Wormington).

Bonaparte's Gull is known as an exceptionally late fall migrant in southern Ontario, and at Point Pelee it is not uncommon for significant numbers to regularly linger well into the middle of January before making a final departure. The latest three records for fall migrants at Point Pelee are as follows:

- **2 February 1995:** 14 adults, Wheatley Harbour (Alan Wormington). Prior to this observation very large numbers of Bonaparte's Gulls were lingering at Wheatley Harbour, including 550 birds on 21-23 January and 200 on 26 January (Wormington 1995b). A single adult still present on 7 February is difficult to categorize

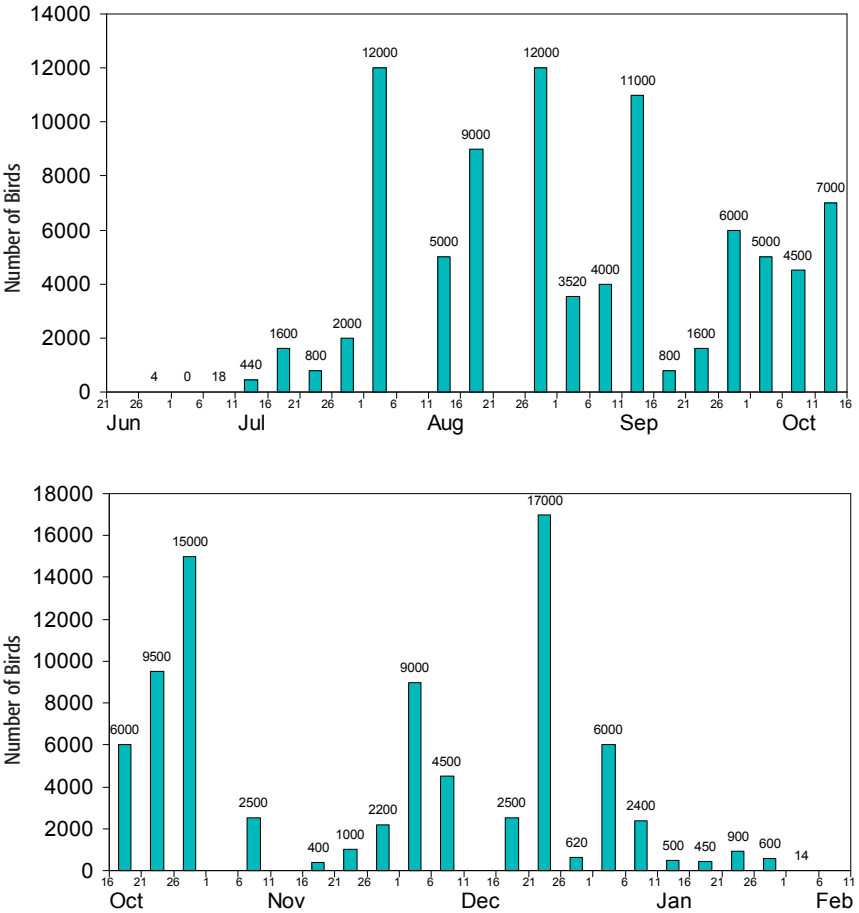


Figure 7. Maximum daily counts for Bonaparte's Gull during fall migration at Point Pelee, presented in 5-day intervals.

(it may have overwintered), but afterwards no additional birds were reported until the first spring migrants (80) were found on 22 March (Wormington 1995c).

- **30 January 2013:** one adult, flying south off Tip via east side (Alan Wormington). After this observation, the species was not reported again at Point Pelee until the first spring migrants (two) were seen on 10 March (Wormington 2013c).
- **29 January 2007:** 600, Wheatley Harbour (Alan Wormington). After this observation there were no subsequent sightings at Point Pelee until the first spring migrant appeared on 14 March (one bird only), along with numerous birds immediately thereafter (Wormington 2007b). Along

the Lake Erie shoreline in Ohio, where large numbers of Bonaparte's Gulls sometimes overwinter, none remained this season; at Cleveland, where most are seen, there were 100+ birds on 3 February, only two birds on 16-17 February (one of which was eaten by a Peregrine Falcon, *Falco peregrinus*), and no birds on or after 18 February until the first spring migrants made an appearance some time later (John V. Pogacnik, pers. comm.).

Juvenile Birds

The migration of juvenile Bonaparte's Gulls is unique, and is markedly different from adults. The first juveniles typically arrive at Point Pelee in late July (Table 1), before quickly increasing in numbers during August (Wormington 2013a). Their very early arrival indicates that they presumably make a more-or-less direct flight from the species' boreal breeding grounds to the lower Great Lakes, which is a behaviour similar to adult birds. Unlike the adult population, which remains abundant at Point Pelee very late into the fall season, the vast majority of juvenile birds depart by early September, or by mid September at the very latest (Figure 9). Then for the remainder of the fall season (until January) only a very small number of juvenile birds (now in first-winter plumage) remain behind, and they comprise just a very small percentage of the overall population.

The earliest four records for juvenile birds at Point Pelee are as follows:

- **19 July 2012:** one, Seacliff Beach (Alan Wormington); see Figure 8
- **20 July 1998:** one, Tip (Alan Wormington, Henrietta T. O'Neill)
- **20 July 2006:** three, Seacliff Beach (Adam J. Hall e*t al.*)
- **21 July 2007:** one, Seacliff Beach (Adam C. Pinch)

Figure 8. A record-early juvenile Bonaparte's Gull for the Point Pelee Birding Area, at Seacliff Beach (Leamington) on 19 July 2012. *Photo: Alan Wormington*

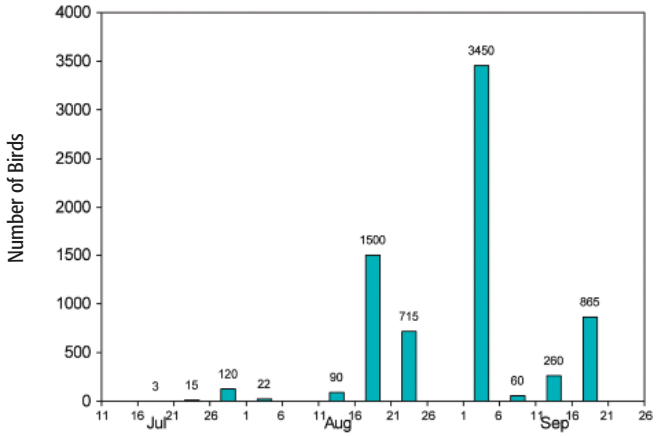


Figure 9. Maximum daily counts for juvenile Bonaparte's Gulls at Point Pelee, presented in 5-day intervals.

Wormington (2013a) reported a huge number of juvenile Bonaparte's Gulls that were migrating past Wheatley Harbour on 1 September 2010. A total of 3,450 juveniles was tallied, by far the highest count ever for this age class at Point Pelee. Other than juveniles only about 80 additional birds were involved in this passage (comprising other age classes), thus the juvenile birds on this date comprised a remarkable 98% of all birds counted. This event is the only recorded instance during fall migration at Point Pelee when adult birds did not outnumber all other age classes combined.

Winter

In Ontario, true overwintering of Bonaparte's Gull is a relatively rare event, even though many authors have routinely listed "winter records" in various publications. For example, Speirs (1985:339-342) provided a long series of supposed "winter" records for multiple locations in southern Ontario, but virtually all of these pertain to late-fall migrants within the time frame of early December to early January inclusive. He listed, in fact, only a single record that can be categorized as a true wintering record — three birds on 7 February [1953] at Point Pelee (from Stirrett 1973b). The only location in the province where Bonaparte's Gull is regular as a true overwintering species is the Niagara River, where in modern times small numbers can be found during most seasons (James M. Pawlicki, pers. comm.). However, the species has not always been a regular wintering species there. For example, Baillie (1949) stated that due to the prevalence of open water, upwards of 300 Bonaparte's Gulls remained along the Niagara River throughout February of 1949, which was the first wintering of the species there since the 1931-1932 season.

At Point Pelee the overwintering of Bonaparte's Gull is likewise a rare event, even though fall migrants may linger well into the middle of January (with 16 January considered a "normal" last date for fall migration, as shown in Figure 3). In total, Bonaparte's Gull has been recorded as wintering at Point Pelee, during only eight winter seasons. Prior to the late

1980s, the only reported sighting that could be categorized as true wintering pertains to the three birds reported by Robert E. Mara at "Point Pelee" on 7 February 1953 (Stirrett Files; Stirrett 1973b). Wintering was not recorded again until the 1986-1987 season, and all other records have occurred thereafter.

Numbers recorded during winter have ranged from very low numbers only, to many birds numbering into the thousands (see Figure 10). As to be expected, wintering birds are typically present during mild winters when Lake Erie is consistently free of widespread ice coverage. The winter when the greatest number of birds was recorded was 2001-2002, when the maximum count was 6,000 birds on 10 March. This is an exceptional number for wintering birds, but Currie (2002) stated that temperatures in southern Ontario for the season were 8.6° F. warmer than average, and 2.0° F. warmer than the previous warmest winter (1997-1998). (It is interesting to note that the winter of 1997-1998 also saw wintering birds at Point Pelee.) Wintering birds are typically found foraging over inshore waters of Lake Erie, and principally they have been found in an area extending from the Tip to Wheatley Harbour (Figure 11). The vast majority of all wintering birds have been adults, but a few first-winter immatures can also be present when overall numbers are high. As in the late-fall period, wintering Bonaparte's Gulls generally avoid the local marshes and agricultural fields.

The highest counts reported during specific winter seasons at Point Pelee are as follows:

- **6,000** – 10 March 2002: all adults, Wheatley Harbour to Hillman Marsh (Alan Wormington). Slightly earlier in the season lesser numbers were also recorded, including 1,600 birds on 28 February and 600 on 26 February (Wormington 2002).
- **4,000** – 14 March 2006: all adults (except for three first-winter immatures), Wheatley Harbour (Ian M. Richards, Alan Wormington). Lesser numbers were recorded earlier in the

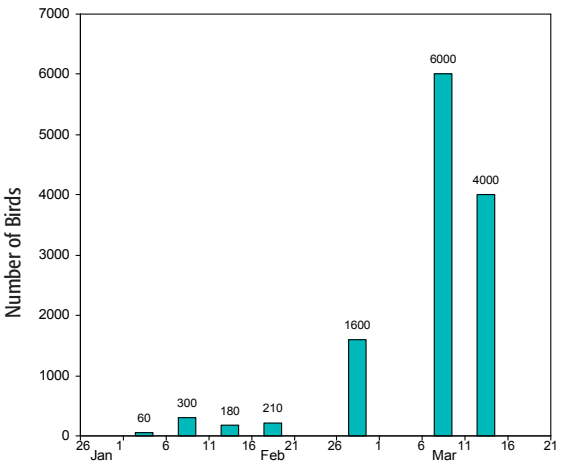


Figure 10. Maximum daily counts for wintering Bonaparte's Gulls at Point Pelee, presented in 5-day intervals.

winter, including 700 on 9 March (Wormington 2006a), 180 on 13 February, and 300 on 6 February (Wormington 2006b).

- **700** – 11 March 2012: NW Hillman Marsh (Blake A. Mann). Lesser numbers were recorded earlier in the winter, including 320 on 27 February and 60 on 1 February (Wormington 2012b).
- **550** – 27 February 1998: Tip (Alan Wormington); 210 birds were also recorded on 18 February (Wormington 1998).

During years when Bonaparte's Gull has wintered at Point Pelee, there has sometimes been a major uptick in numbers very late in the season, namely during the period of late February to the middle of March (Figure 10). Such late-winter increases were documented in 1998, 2002, 2006 and 2012, but not reported in 1953, 1987, 1989 or 1991 (the only other years when wintering was recorded). These late-season increases have always corresponded to significant warming trends at the time, when any remaining ice on Lake Erie was mostly or completely eliminated, and such events have also corresponded to years when significant numbers were known to be wintering along the Lake Erie shoreline in Ohio. These are not spring migrants (although a small percentage of the total may be so), since during typical (cold) winters when the species is completely absent on Lake Erie (including Ohio), spring migrants do not normally appear at Point Pelee until the general time frame of 15-25 March (and even then in very small numbers only). Similarly, for

Figure 11. An adult, winter-plumaged Bonaparte's Gull at Wheatley Harbour on 8 March 2002. This bird was one of thousands that wintered at this site during the 2001-2002 season. *Photo: Alan Wormington*

New York State as a whole, Burger and Brownstein (1968) stated that spring migration of Bonaparte's Gull begins in the last week of March. It seems probable that these late-winter concentrations are derived from birds that are already wintering elsewhere on Lake Erie (predominately in Ohio waters), and they simply move to Point Pelee when conditions become suitable. Almost all of these late-winter concentrations have been in the vicinity of Wheatley Harbour, a location that is highly favoured by the species.

Records of wintering at Point Pelee are clustered almost entirely in the modern time-frame. It is not known if this is due to an actual increase in the frequency of overwintering, or is simply a result of increased observer effort. Perhaps it is a combination of both factors, and future sightings may provide additional clarity.

Overnight Roosting Areas

There are exceptionally few published sources to indicate if Bonaparte's Gulls regularly migrate at night, or if the species is otherwise active during the night-time hours. Burger and Gochfeld (2002) stated that the species "occasionally migrates at night" which is based on a single incident only as reported by Taylor (1993). Otherwise the evidence is wanting.

At Point Pelee there is no evidence that Bonaparte's Gulls are mobile during night-time (nocturnal) hours; all sightings here are strictly confined to daylight (diurnal) periods. However, for all times of the year at Point Pelee, it is not known where Bonaparte's Gulls spend the night. Locations where the species roost overnight at Point Pelee are not known, but a number of assumptions can be made. Throughout the year, it is common knowledge that at or just after sunset the numbers of all gulls (including Bonaparte's Gulls) decrease dramatically at Point Pelee, as birds slowly drift offshore. For Bonaparte's Gull specifically, there is never any distinct direction that the birds fly (other than offshore) to suggest that there is any land-based overnight roosting area either at or near Point Pelee that birds might be heading towards. Thus it can be assumed that Bonaparte's Gulls from Point Pelee spend the night on Lake Erie, and presumably well offshore at unknown distances. There is a possibility that at certain times of the year (primarily summer and early fall) some birds may roost overnight on mud islands within Pelee Marsh, but this requires further study.

On 11 January 1985, 400 Bonaparte's Gulls were present at Wheatley Harbour. At sunset about half of these birds flew due south out into Lake Erie, as if migrating (pers.obs.). Just two days later on 13 January only three birds remained at Wheatley Harbour, and these were the last fall migrants for the season (Wormington 1985). Whether the birds on 11 January were truly migrating, or just going offshore to roost for the night, is not known.

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