

ONTARIO BIRDS

VOLUME 37 NUMBER 2
AUGUST 2019



JOURNAL OF THE ONTARIO FIELD ORNITHOLOGISTS

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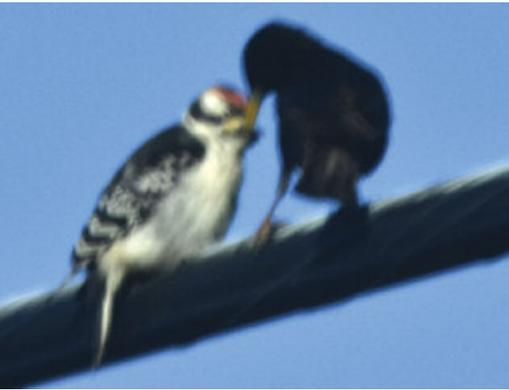
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Comment on Burbidge (2018)



Juvenile Downy Woodpecker begging from European Starling. *Photo: Geof Burbidge*

IN A RECENT ISSUE of *Ontario Birds* (December 2018), there was a short paper by Geof Burbidge concerning an observation of European Starlings feeding a fledgling Downy Woodpecker (Burbidge 2018). A couple of reasons were suggested to explain this unusual behavior, but another possibility, not mentioned, is nest piracy, which may then have resulted in a mixed-species clutch.

The term nest piracy, also referred to as nest appropriation or nest usurpation, was first used by Robinson (1985), though the act itself had been described much earlier (Favaloro 1942). It is loosely defined as one bird species appropriating the active nest of another for its own

breeding purposes (Segura *et al.* 2016). On rare occasions, the eggs of the nest's former occupants are incubated by the usurpers, which can result in peculiar and sometimes incompatible broods. For example, in May 2007, a birder here in Minnesota documented a day-old Canada Goose gosling being cared for by a pair of Osprey. The nesting platform had been occupied by the goose, but the Ospreys drove her off upon their return later that spring. The result was that the Ospreys inadvertently incubated a single Canada Goose egg to full term, even bringing the gosling a few fish after hatching. Descriptions of nest competition between Canada Geese and Ospreys are well-represented in the ornithological literature (Fannin 1894, Flath 1972) and I have witnessed a similar interaction between a Canada Goose and a Bald Eagle.

There are many well-known examples of mixed clutches among waterfowl — in both open ground nests and in cavities. I previously have found cavity nests holding mixed clutches which involved some combination of two of the following species: Wood Duck, Common Goldeneye, Bufflehead, Hooded Merganser and Common Merganser.

Generally, these cases are attributed to egg-dumping rather than nest piracy, but

without witnessing the event, differentiating between the two is difficult. A non-waterfowl example occurred in 2012, when I discovered a pair of territorial American Kestrels, which returned in the spring to a nest box in northern Minnesota to find it already occupied by European Starlings. The kestrels forced out the starlings and laid their own clutch among them. This resulted in the kestrels incubating a mixed clutch of six European Starling eggs and four eggs of their own. I do not know the outcome of this event, but based on the situation — including the aggressive presence of the kestrels and the absence of any starlings — I concluded this was a rarely reported example of nest piracy.

Starlings usurping the nesting cavities of North American woodpeckers has been described many times in the ornithological literature (e.g., Bent 1939, Howell 1943, Jackson and Jackson 2016), and I would suggest that this might be a plausible explanation for the events described by Burbidge (2018) in *Ontario Birds*.

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Anthony X. Hertzler
8461 Pleasant View Drive
Mounds View, Minnesota USA 55112
E-mail: axhertzler@gmail.com

Ontario Bird Records Committee Report for 2018

*Mike V.A. Burrell, Barbara N. Charlton, Kenneth G.D. Burrell,
Joshua D. Vandermeulen, Amanda C. Guercio, Blake A. Mann,
Donald A. Sutherland, Paul D. Pratt and William G. Lamond*

Introduction

This is the 37th annual report of the Ontario Bird Records Committee (hereafter 'OBRC' or 'Committee') of the Ontario Field Ornithologists (OFO). The OBRC reviews rare bird reports in Ontario based on documentation that has been submitted by the birding community. Species and subspecies evaluations are based on the Review Lists for Ontario, which can be found on the OFO website (www.ofo.ca). Any new species, subspecies, or first breeding records for Ontario are also reviewed. This report deals with the review of 169 records by the OBRC in 2018, of which 153 (91%) were accepted and two were sent for re-review by the incoming 2019 Committee. All reports reviewed by the 2018 Committee will be added to the permanent file kept at the Royal Ontario Museum (ROM).

The members of the 2018 Committee were Joshua D. Vandermeulen (chair), Mike V.A. Burrell (non-voting secretary), Kenneth G.D. Burrell (non-voting assistant to the secretary), Barbara N. Charlton (voting member and assistant to the secretary), Amanda C. Guercio, Blake A. Mann, Donald A. Sutherland, Paul D. Pratt and William G. Lamond (Figure 1). Mark K. Peck acted as the ROM liaison for the OBRC.

Changes to the Checklist of Ontario Birds

An astounding five new species, White-crowned Pigeon (*Patagioenas leucocephala*), Costa's Hummingbird (*Calypte costae*), Calliope Hummingbird (*Selasphorus calliope*), Reddish Egret (*Egretta rufescens*) and Great Kiskadee (*Pitangus sulphuratus*) were added to the Ontario list, bringing the total to 501 species. Five new species is the most in one year since 1993 (see Burrell and Burrell (2016) for a summary of provincial species additions).



Figure 1. Ontario Bird Records Committee for 2018. Left to right (standing): Paul D. Pratt, Blake A. Mann, Joshua D. Vandermeulen, Donald A. Sutherland, Kenneth G.D. Burrell. Left to right (sitting): Amanda C. Guercio, Barbara N. Charlton, William G. Lamond. Not present: Mike V.A. Burrell. Photo: Mark K. Peck

Changes to the Review Lists

Beginning with the 2014 report (Burrell and Charlton 2015), the OBRC split the province into three review zones (South, Central and Lowlands). See Holden (2014) for more details.

No new species were added to the Lowlands Review List, leaving the total number of species recorded in this review zone at 330.

Beginning in 2019, reports of Eurasian Collared-Dove (*Streptopelia decaocto*) and White-winged Dove (*Zenaida asiatica*) in the Central Review Zone are no longer requested. Reports prior to 2019 are still requested for review. No new species were added to the Central Review List, leaving the total number of species recorded in this review zone at 383.

Beginning in 2019, reports of Eurasian Collared-Dove and White-winged Dove in the South Review Zone are no longer requested. Reports prior to 2019 are still requested for review. The addition of White-crowned Pigeon, Costa's Hummingbird, Calliope Hummingbird, Reddish Egret and Great Kiskadee brings the total number of species recorded in this review zone to 491.

No changes were made to the subspecies review list.

Fish Crow (*Corvus ossifragus*) was added to the list of species known to have bred, bringing the total number of breeding species to 292.

Listing of Records

For accepted records and records for which the identification was accepted but origin is questionable, the following information is provided where known: year and date(s) of occurrence, location, number of birds, plumage and sex of each individual, names of contributors and OBRC file number. For accepted records, the total number of records for the province (including 2018 reports) is indicated in parentheses after the species name. All contributors who have provided reports are listed; if a contributor is also a finder of the bird(s), the contributor's name is underlined. Additional finders of the bird(s) are also listed, where known, even if they did not provide documentation for review. Place names in italics refer to the county, regional municipality or district in Ontario. Common and scientific names, as well as taxonomy, follow the seventh edition of the Check-list of North American Birds published by the American Ornithologists' Union (1998), along with its annual supplements published in *The Auk: Ornithological Advances*, up to the 59th supplement (Chesser *et al.* 2018) inclusive. Plumage terminology uses the modified Humphrey and Parkes (1959) system following Howell (2010).

All records that were not accepted due to either insufficient evidence or questionable origin have been listed separately. Contributors of all "not accepted" records are notified in writing by the Committee. Reasons for the decision are explained, using information provided by voting members on their voting slips. Any "not accepted" record can be reconsidered by the OBRC if new or additional documentation is provided.

All documentation provided to the OBRC is permanently archived at the ROM. Researchers and other interested parties are welcome to examine any of this material evidence, by appointment. Please contact Mark Peck in writing at Department of Natural History, Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario, M5S 2C6, by email at markp@rom.on.ca or by telephone at 416-586-5523. Over the past several years, volunteers have been working to digitize the OBRC rare species documentation.

Acknowledgements

The OBRC appreciates the efforts of the 189 observers who took the time to submit documentation of rare birds for consideration by the 2018 Committee. We also thank the following people who assisted the Committee in the acquisition of additional data and other material evidence that supplemented the information submitted directly by observers and Committee members, or by providing expert opinions on material evidence submitted to the Committee: Cheryl Anderson, David M. Bell, Rinchen Boardman, Matt Brady, Peter S. Burke, Kyle Cameron, Glenn Coady, Pierre-Andre Crochet, Ian Davies, Bruce M. Di Labio, Jon Feenstra, Rob Fowler, Christian A. Friis, Peter R. Fuller, John Garrett, Kimball Garrett, Steve Hampton, Marshall Iliff, Jean Iron, Alvaro P. Jaramillo, Kevin Karlson, Paul Lehman, Tim B. Lucas, Stuart A. Mackenzie, Guy McCaskie, Kevin A. McLaughlin, Christina J. Nielsen, David Okines, James Pike, Ronald J. Pittaway, Brian D. Ratcliff, Steve Rottenborn, Scott Terrill, David Vander Pluym and Chris Wood.



Figure 2. Barnacle Goose at Schomberg, York on 22 March 2018. Photo: Joanne M. Redwood

Accepted Records

Black-bellied Whistling-Duck *Dendrocygna autumnalis* (7)

2018 – one, definitive basic, 14 June, Guelph, *Wellington* (Genevieve C.E. White; 2018-059) – photos on file.

Barnacle Goose *Branta leucopsis* (3)

2018 – one, 13-25 March, Schomberg, York and Dunkerron, *Simcoe* (Amanda C. Guercio, Iain D.M. Fleming, Quinten F.R. Wiegiersma, Kiah R. Jasper, Mike V.A. Burrell, Dan J. MacNeal, W. Carter Dorscht, Joanne Redwood, found by Donald Gorham; 2018-002) – photos on file.

Burrell (2017) summarized the status of this species in Ontario and eastern North America and this bird fit nicely into the pattern shown by wild vagrants. As such, this relatively long-staying bird was a “tick” for many Ontario birders.

Mute Swan *Cygnus olor* **Central and Lowlands only** (19)

2018 – one, definitive basic, 29 June-8 July, Thunder Bay, *Thunder Bay* (Glenn C. Stronks, William F. Greaves, Brian D. Ratcliff, Lindy Wagenaar; 2018-112) – photos on file.

– one, definitive basic, 19 August-3 November, Mission Island, *Thunder Bay* (Glenn C. Stronks, found by Charles D. Bryan; 2018-113) – photo on file.

Eurasian Wigeon *Mareca penelope* **Central and Lowlands only after 1993 (76)**

2018 – one, definitive basic male, 5-7 May, Thunder Bay, *Thunder Bay* (Bradley I. Balec, William F. Greaves, Brian D. Ratcliff, James R.D. Barber, also found by Troy J. Balec; 2018-033) – photos on file.

“Eurasian” Green-winged Teal *Anas crecca crecca/nimia* **(10)**

2018 – one, definitive basic male, 22 March-8 April, Hillman Marsh, *Essex* (Janice E. Pelan, Jeremy L. Hatt, Michael D. Williamson, found by Jeremy M. Benseette, Kate Derbyshire; 2018-034) – photos on file.

Common Eider *Somateria mollissima* **South and Central only (26)**

2018 – one, first basic female, 7-15 November, Etobicoke, *Toronto* (Theresa Dobko, Quinten F.R. Wiegiersma, Dan J. MacNeal, Monika P. Croydon; 2018-017) – photos on file.

Harlequin Duck *Histrionicus histrionicus* **Central and Lowlands only (33)**

2018 – one, male, 26-27 April, Kapuskasing, *Cochrane* (Kyle Blaney; 2018-087) – photos on file.

Western Grebe *Aechmophorus occidentalis* **(53)**

2018 – one, basic, 7 April, Port Credit, *Peel* (Blake A. Mann, Joanne Redwood; 2018-149) – photos on file.

– one, 13 June, Victoria Point, *Simcoe* (Lawrence Grossman; 2018-150) – photos on file.

– one, basic, 4 November-1 December, Bright's Grove, *Lambton* (Matt C. Parsons, Blake A. Mann, Sean M. Jenniskens, Barbara N. Charlton, Quinten F.R. Wiegiersma, Janice E. Pelan, Jeremy L. Hatt; 2018-148) – photos on file.

A Western Grebe has appeared in the west end of Lake Ontario each spring since 2006 (with the exception of 2008 and 2014), strongly suggesting a returning bird.

White-crowned Pigeon *Patagioenas leucocephala* **(1)**

2018 – one, first basic, 14 November, Pembroke, *Renfrew* (Mark E. Dojczman; 2018-079) – photos on file.

An amazing record and a first for the province. The Committee considered the possibility of an escapee but deemed that unlikely given that the species does not appear to be regularly kept in captivity and is capable of long-distance flights to disperse between islands in the Caribbean (Bancroft *et al.* 2001). The distance from the core range of this record is similar to other extralimital records from Texas and Virginia (eBird 2019).



Figure 3. White-crowned Pigeon at Pembroke, *Renfrew* on 14 November 2018. *Photo: Mark E. Dojczman*

Eurasian Collared-Dove *Streptopelia decaocto* Lowlands only after 2018 (48)

- 2018** – one, basic, 18 April-5 May, Dutton, *Elgin* (Chris C. Leys, Quinten F.R. Wiegiersma, found by Nikki Benjamin; 2018-028) – photos on file.
- one, basic, 16-25 May, Long Point (Tip), *Norfolk* (William von Herff, Kyle Cameron, Samreen Munim, found by unknown finder; 2018-029) – photo on file.
 - one, basic, 31 May, Rainy River, *Rainy River* (Robert D. Saunders; 2018-031).
 - one, basic, 30 June, Rainy River, *Rainy River* (Michael S. Dawber; 2018-070) – photo on file.
 - one, basic, 12 August, Earleton, *Timiskaming* (Serge M. Gendron; 2018-026) – photos on file.
 - one, basic, 3-20 September, Brantford, *Brant* (Sarah E. Lamond, David R. Don, also found by William G. Lamond; 2018-022) – photos on file.
 - one, basic, 17-20 September, Brantford, *Brant* (Margaret Leonetti; 2018-023) – photos on file.
 - six, basic, 19-29 September, Brantford, *Brant* (Kayla and Kimberly Bezkorow, Anthony E. Zammit; 2018-021) – photos, video on file.
 - one, basic, 10 October, St. Joseph, *Huron* (Brandon R. Holden; 2018-024) – photos on file.
 - one, basic, 20-22 October, Thunder Cape Bird Observatory, *Thunder Bay* (Laura Tabbakh, TCBO, found by unknown finder; 2018-030) – photo on file.
 - two, basic, 26 October, St. Joseph, *Huron* (Brandon R. Holden; 2018-025) – photos on file.

2018/19 – two, basic, 18 December-8 January, Hamilton, *Hamilton*
(Joshua D. Vandermeulen, Robert H. Curry, Sarah E. Lamond; 2018-027)
– photos on file.

As has been predicted for some time, this species finally appears to be colonizing the province. The twelve records in 2018 are the most in a single year, following eight in 2017 (Burrell *et al.* 2018), six in 2016 (Burrell *et al.* 2017) and five in 2014 (Burrell and Charlton 2015).

The Committee had a difficult task separating this species from the similar African Collared-Dove (*Streptopelia roseogrisea*). After consulting experts with experience with the two species it became apparent that the two species (particularly in North America, where a significant number of Eurasian Collared-Doves have descended from captive stock) are only safely separated by voice or genetics. It also appears that within North America, African Collared-Dove is very rare. There very well could be African Collared-Doves (or hybrids) occasionally showing up in Ontario, but the Committee felt the most pragmatic approach was to treat all reports of these two species as Eurasian Collared-Dove, unless there was evidence (voice recording or genetics) to suggest otherwise. If any readers would like to read a copy of the briefing note prepared on this subject by the secretary for the Committee, please contact the secretary.

The Committee no longer requests documentation of this species in the Southern or Central Review Zones.

White-winged Dove *Zenaida asiatica* Lowlands only after 2018 (72)

- 2018** – one, basic male, 7 April-15 September, Rondeau Provincial Park, *Chatham-Kent* (P. Allen Woodliffe, Quinten F.R. Wieggersma, Kiah R. Jasper, Jeremy L. Hatt, Blake A. Mann, found by James T. Burk and Stephen R. Charbonneau; 2018-166) – photos on file.
- one, basic, 28 April-3 May, Long Point (Tip), *Norfolk* (Kyle Cameron, Emily Emptage, also found by Samreen Munim and Tobias Lilja; 2018-157) – photo on file.
 - one, basic, 3-6 May, Sandhurst Shores, *Lennox and Addington* (N. Anthony Kaduck, found by David Edwards, John Hall; 2018-156) – photos on file.
 - one, basic, 26 May-1 June, Ottawa, *Ottawa* (Michelle A. Martin, found by Charles M. Francis; 2018-158) – photos on file.
 - one, basic, 29 May-5 June, Selim, *Thunder Bay* (Catherine A. Smith, Joe Kutcher; 2018-167) – photos on file.
 - one, basic female, 13 July-31 August, Rondeau Provincial Park, *Chatham-Kent* (Blake A. Mann, found by Melvin VanKoughnett; 2018-169) – photo on file.
 - one, basic, 28 July, Clute, *Cochrane* (Tricia Bird; 2018-155) – photos on file.
 - one, basic, 8 November, Thunder Bay, *Thunder Bay* (Troy Balec; 2018-168) – photos on file.

Ontario birders have witnessed a remarkable increase in this species. In Ontario, there were only six records prior to the year 2000. An additional 26 records occurred between the year 2000 and 2009, and with this year's total, Ontario now has 40 records since the current decade began. The Committee no longer requests documentation of this species in the Southern or Central Review Zones.

The Rondeau Provincial Park bird is almost certainly a returning male, present at the same site 25 May-4 July 2015 (Burrell and Charlton 2016), 2 May-15 August 2016 (Burrell *et al.* 2017) and 9 April-26 August 2017 (Burrell *et al.* 2018). In 2018, he was joined by a second individual (presumed female) for much of July and August and it was speculated by local birders that they were attempting to nest. However, no confirmed breeding evidence was found.

Black-billed Cuckoo *Coccyzus erythrophthalmus* **Lowlands only (3)**

2018 – one, definitive basic, 14 July-11 August, Longridge Point, *Cochrane* (R. Douglas McRae; 2018-060).

Chuck-will's-widow *Antrostomus carolinensis* **(38)**

2018 – one, basic male, 18 May-1 July, South Bay, *Prince Edward* (David I. Pryor, found by Peter B. Hogenbirk; 2018-019) – audio on file.

This marks the sixth consecutive year a singing male has been observed at this location (Holden 2014, Burrell and Charlton 2015 and 2016, Burrell *et al.* 2017 and 2018), strongly suggesting it is the same bird returning each year.

Black-chinned Hummingbird *Archilochus alexandri* **(2)**

2017 – one, definitive basic male, 30 June, Etobicoke, *Toronto* (Vincent Falardeau; 2018-062) – photos on file.

An amazing record — the observer was right to question the excellent photos. Unfortunately, the photos weren't critically examined until many months after the sighting so it is not known how long the bird was in the area.



Figure 4. Black-chinned Hummingbird at Etobicoke, *Toronto* on 30 June 2017. Photo: Vincent Falardeau



Figure 5. Costa's Hummingbird at Niagara Falls, *Niagara* on 18 November 2017.

Photo: Cindy E.J. Cartwright

Costa's Hummingbird *Calypte costae* (1)

2017 – one, first basic male, 3 October-2 December, Niagara Falls, *Niagara* (Cindy E.J. Cartwright, found by unknown finder; 2018-068)

– photos on file.

Another amazing hummingbird record and a first for the province. Unfortunately there was no chance for birders to enjoy this rare vagrant. However, diagnostic evidence was obtained.

Calliope Hummingbird *Selasphorus calliope* (1)

2018 – one, first basic male, 18 October-29 November, Goderich, *Huron* (Dan J. MacNeal, Frank G. Horvath, Kayo J. Roy, Janice E. Pelan, found by Linda Straughan-Johnston; 2018-014) – photos on file.

A remarkable record; hundreds of Ontario birders were able to enjoy this provincial first over the course of its stay.



Figure 6. Calliope Hummingbird at Goderich, *Huron* on 20 November 2018. *Photo: Frank G. Horvath*



Figure 7. Purple Gallinule at John R. Park Homestead Conservation Area, Essex on 2 September 2018.
Photo: Quinten F.R. Wiegiersma

Purple Gallinule *Porphyrio martinicus* (22)

2018 – one, definitive basic, 18 August-28 September, John R. Park Homestead Conservation Area, Essex (Jeremy L. Hatt, Barbara N. Charlton, Quinten F.R. Wiegiersma, found by Brad Oullette; 2018-126) – photos, video on file.

Black-necked Stilt *Recurvirostra americana* (22)

2018 – two, basic, 25 May, Blenheim, Chatham-Kent (Stephen R. Charbonneau, P. Allen Woodliffe; 2018-011) – photos on file.

**American Avocet *Himantopus mexicanus* Central and Lowlands
only after 1999 (77)**

2018 – one, definitive alternate, 30 May, Mission Island, *Thunder Bay* (Donna S. MacIntyre, David L. MacIntyre; 2018-051) – photo on file.

**Piping Plover *Charadrius melodus* Central and Lowlands only
after 2013 (91)**

2018 – one, definitive alternate, 22 May, Terrace Bay, *Thunder Bay* (Peggy M.L. Campbell, also found by Mark A. Campbell; 2018-082) – photos on file.

Ruff *Calidris pugnax* South after 2013 only (16)

2018 – one, 25-27 April, Antrim, *Ottawa* (Robert J. Cermak, Bruce M. Di Labio; 2018-115) – photos on file.

– one, definitive alternate male, 12-15 May, Minesing Wetlands, *Simcoe* (Logan Baldwin, found by Larry Durkee; 2018-109) – photo on file.

– one, definitive alternate male, 15-16 May, Minesing Wetlands, *Simcoe* (Logan Baldwin; 2018-110) – photos on file.

– one, female, 17-18 May, Minesing Wetlands, *Simcoe* (Isabel J. Apkarian, found by unknown finder; 2018-108) – photos on file.

– one, alternate female, 21 May, Embrun, *Prescott and Russell* (Jamie Spence, Michelle A. Martin; 2018-114) – photos, video on file.

– one, first alternate female, 7 June, Lynde Creek, *Durham* (Michael J. Ferguson, Jean Iron, Ronald J. Pittaway, Barbara N. Charlton, also found by Charmaine M. Anderson; 2018-107) – photos on file.

– one, alternate female, 9-10 June, Port Perry, *Durham* (A. Geoffrey Carpentier; 2018-116) – photos on file.

The distinctive appearance of males in alternate plumage allow for some interesting insights into individual dispersal. For instance, it is clear that two different males were present in *Simcoe* on the same day, but not seen together. The two females seen in early June in *Durham* may have involved a single individual; however, the Committee was unable to confirm this.

After several years with very few reports (which prompted addition to the South Review List), this species has experienced a renaissance with eleven records in the past two years, compared with two during the first three years (2014-2106) that it was on the South Review List. If the trend continues it may be a short-lived stint on the review list!

Western Sandpiper *Calidris mauri* South after 2016 only (8)

2018 – one, juvenal, 26-27 August, Presqu'île Provincial Park, *Northumberland* (Jon P. Ruddy, N. Anthony Kaduck, Jean Iron, also found by William D. Gilmour, Gillian Mastromatteo, Julie Friend, Brian Puttock; 2018-151) – photos on file.



Figure 8. Piping Plover at Terrace Bay, *Thunder Bay* on 22 May 2018. *Photo: Peggy M.L. Campbell*



Figure 9. Western Sandpiper at Presqu'île Provincial Park, *Northumberland* on 26 August 2018.
Photo: N. Anthony Kaduck

Willet *Tringa semipalmata* **Central and Lowlands only (27)**

2018 – one, 5 May, Little Pigeon Bay, *Thunder Bay* (Allan G. Harris; 2018-159)
– photos on file.

- one, 20 May, Hurkett Cove Conservation Area, *Thunder Bay* (William F. Greaves, also found by Glenn C. Stronks, Jeffrey N. Robinson, Lindy Wagenaar; 2018-160).

Dovekie *Alle alle* (6)

2018 – one, basic, 27 December, Whitby, *Durham* (Glenn Coady, Michael J. McEvoy, Phillip J. Holder, found by Carolyn Van Goch; 2018-018)
– photos, specimen on file.

This bird was found very freshly deceased and was sent to the Royal Ontario Museum to become a specimen. It is one of only a handful of records for the province and the third for Lake Ontario. All five previous records spanned the dates 23 October-30 November, as such this record is exceptional for its lateness.

Thick-billed Murre *Uria lomvia* (5)

2017 – one, basic, 20 November, Vaughan, *York* (Amanda C. Guercio, found by unknown finder; 2018-128) – photo on file.

This bird was picked up in a weakened state on a roadside and delivered to Vaughan animal services before being transferred to the Toronto Wildlife Centre, where it was ultimately euthanized. The four previous records occurred in the period 25 November -5 December and may correspond with birds being frozen out of water bodies to the north.

Sabine's Gull *Xema sabini* **Central and Lowlands only (5)**

2018 – one, definitive basic or alternate, 21 August, Longridge Point, *Cochrane* (R. Douglas McRae, Quinten F.R. Wiegiersma, also found by Nathan F. Hood, Ethan C. Gosnell, Jack Riley; 2018-117) – photo on file.
– one, juvenal, 25 August, Longridge Point, *Cochrane* (James A. Kennerley, Quinten F.R. Wiegiersma, also found by Nicole Richardson, Nathan F. Hood, Ethan C. Gosnell, Jack Riley; 2018-118) – photos on file.

The 21 August record was of a complete, feathered wing attached to a sternum found on the beach. While most of the corpse is missing it clearly belongs to an adult Sabine's Gull. The finders suspected that the bird had died sometime in 2018.

Black-headed Gull *Chroicocephalus ridibundus* **South after 2015 only (6)**

2018 – one, definitive basic, 17 June, Point Pelee National Park, *Essex* (Blake A. Mann; 2018-063) – photos on file.

California Gull *Larus californicus* (67)

2018 – one, third basic, 9-12 November, Watford, *Lambton* (Brandon R. Holden, Sean M. Jenniskens, Scott A. Connop; 2018-042) – photos on file.



Figure 10. Wing of a Sabine's Gull found at Longridge Point, Cochrane on 21 August 2018.

Photo: Quinten F.R. Wiegersma



Figure 11. Slaty-backed Gull at Brantford, *Brant* on 13 December 2018. Photo: Richard D. Poort

Slaty-backed Gull *Larus schistisagus* (20)

- 2011** – one, definitive basic, 14 November, Sault Ste. Marie, *Algoma* (Michael T. Butler, Martha L. Allen; 2018-047) – photos on file.
- 2018** – one, definitive basic, 24 November-4 December, North Bay, *Nipissing* (Renee J. Levesque, Nicole Richardson, also found by Lori Anderson; 2018-143) – photos on file.
- one, definitive basic, 11-15 December, Brantford, *Brant* (Richard D. Poort, Dan J. MacNeal; 2018-144) – photos on file.
- 2018/19** – one, definitive basic, 11 December-5 January, Brantford, *Brant* (James Lees, Dan J. MacNeal; 2018-145) – photos on file.

The occurrence of two adult Slaty-backed Gulls at the same location (Brantford landfill) in eastern North America is exceptional and the first such occurrence in Ontario. It is part of a steady increase in this vagrant species to this region.

Arctic Tern *Sterna paradisaea* South and Central only (30)

- 2018** – one, definitive alternate, 3 June, Ottawa (Britannia), *Ottawa* (Jon P. Ruddy, also found by Brian L. Morin, Vincent Fyson, Alice Tremblay; 2018-007).
– one, definitive alternate, 5-7 June, Oakville, *Halton* (Robert H. Curry, Sarah E. Lamond, found by Dominik Halas; 2018-006) – photos on file.

Neotropic Cormorant *Phalacrocorax brasilianus* (19)

- 2018** – one, basic, 4 May, Darlington Provincial Park, *Durham* (Michael J. Ferguson, also found by Tyler L. Hoar; 2018-099) – photo on file.

Least Bittern *Ixobrychus exilis* Central and Lowlands only (4)

- 2018** – one, basic male, 29 May-6 June, Thunder Bay, *Thunder Bay* (Glenn C. Stronks; 2018-091) – audio on file.

Great Egret *Ardea alba* Central and Lowlands only (22)

- 2018** – one, definitive basic, 25-26 April, Red Lake, *Kenora* (Merle Nisly; 2018-084) – photos on file.
– one, definitive alternate, 25-28 April, Pringle, *Thunder Bay* (Mary-Jane Baumgartz, Christine C. Drake, Kyle Drake, Lindy Wagenaar; 2018-086) – photos on file.
– one, definitive alternate, 26-28 April, Kenora, *Kenora* (Eric Matheson, Christopher J.S. Martin, found by unknown finder; 2018-085) – photos on file.

Snowy Egret *Egretta thula* Central and Lowlands only after 1997 (34)

- 2018** – one, definitive alternate, 2 May, Redditt, *Kenora* (Kyle Myschowoda, also found by Christopher J.S. Martin; 2018-127) – photo on file.

Little Blue Heron *Egretta caerulea* (83)

- 2018** – one, first basic, 9 August-3 September, Harrington, *Oxford* (Norman Holden, J. Brett Fried, Dan J. MacNeal, Isabel J. Apkarian, Kiah R. Jasper, Quinten F.R. Wiegiersma, Robert H. Curry; 2018-093) – photos on file.
– one, first basic, 14-18 September, Preston, *Waterloo* (William G. Wilson, Raymond P. Vander Kooy, also found by Brian R. Johnson, Donald J. Thomas; 2018-094) – photos on file.

It is possible, given the non-overlapping dates and geographic proximity, that these two records involved the same individual.

Tricolored Heron *Egretta tricolor* (42)

- 2018** – one, definitive basic, 31 May, Toronto (Tommy Thompson Park), *Toronto* (Noam Markus, David I. Pryor, found by Ruth Danella; 2018-147) – photos on file.



Figure 12. Reddish Egret at Oliphant, Bruce on 29 August 2018. Photo: Ethan C. Gosnell

Reddish Egret *Egretta rufescens* (1)

2018 – one, first basic, 5 August-16 September, Oliphant, Bruce (Brian P. Robin, Sarah E. Taylor, Kiah R. Jasper, Glenn Coady, Christopher J. Escott, Dan J. MacNeal, Kayo J. Roy, Bruce M. Di Labio, Todd R. Hagedorn, Jeremy L. Hatt, Quinten F.R. Wiegiersma, also found by Sarah E. Taylor; 2018-140) – photos on file.

Another extremely exciting first provincial record that was enjoyed by hundreds of birders. It was first reported to the birding community when found 22 August by Kiah R. Jasper and Alfred Raab. However, after word spread, documentation came to light which extended the bird's stay by seventeen days. This species was certainly on the radar of many Ontario birders but was still an exciting addition to the Ontario list of birds.

Yellow-crowned Night-heron *Nycticorax violacea* (58)

2018 – one, juvenal, 27-29 July, South Baymouth, Manitoulin (Dominik Halas; 2018-162) – photos on file.

- one, juvenal, 27 July-12 August, Hamilton, Hamilton (Barbara N. Charlton, Richard D. Poort, Robert H. Curry, found by Barry S. Cherriere; 2018-165) – photos on file.



Figure 13. Yellow-crowned Night-Heron at Hamilton, *Hamilton* on 27 July 2018. Photo: Barbara N. Charlton

- one, juvenal, 1-22 August, Cambridge, *Waterloo* (William D. Van Hemessen, Ellen L. Horak, Todd R. Hagedorn, J. Brett Fried, Sarah E. Lamond, Robert H. Curry, Dan J. MacNeal, also found by Courtney Beneteau, Julie Scott, Kyle Vanin, Daniel Knee; 2018-164) – photos on file.
- one, juvenal, 28 August-5 September, Caledonia, *Haldimand* (Ethan C. Gosnell, Quinten F.R. Wiegiersma, found by Karen M. Petrie; 2018-161) – photos on file.
- one, juvenal, 17 September-1 October, Ajax, *Durham* (Patricia Cetinkaya, Michael J. Ferguson, Jean Iron; 2018-163) – photos on file.

The five observations in 2018 ties 1985 for the most in a single year, while there have been an unprecedented nine records over the previous two years. The closest comparison in a two-year stretch was six in 1985-86.

White-faced Ibis *Plegadis chibi* (23)

2018 – one, definitive alternate, 1 June, Rowan Mills, *Norfolk* (Ron Ridout, Barbara N. Charlton, found by Adam P. Timpf, Mary E. Gartshore, Peter Carson; 2018-078) – photos on file.



Figure 14. Swallow-tailed Kite at Jack Lake, *Simcoe* on 27 August 2018. Photo: Isabel J. Apkarian

Swallow-tailed Kite *Elanoides forficatus* (19)

- 2018 – one, basic, 5 May, Prince Edward Point, *Prince Edward* (David Okines, also found by Erin Feddema, Lee Boudreau, Sam Shepperd, Phillip Mercier, Jessica Bao; 2018-049).
- one, definitive basic, 25-29 August, Jack Lake, *Simcoe* (Matt D. Stuart, Dan J. MacNeal, Isabel J. Apkarian, Scott F. Gibson, Quinten F.R. Wiegiersma, also found by Steve Buccilli; 2018-146) – photos on file.

Always a thrill to see, these are the first records since 2013. The *Simcoe* bird is just the fifth fall record and provided an incredible “one-two punch” for birders chasing the Reddish Egret.

Mississippi Kite *Ictinia mississippiensis* (64)

- 2018 – one, basic, 11 May, Point Pelee National Park, *Essex* (Scott Gibson; 2018-095).
- one, basic, 16 May, Point Pelee National Park, *Essex* (Amanda C. Guercio; 2018-122).

Figure 15. Barn Owl at Dean Lake,
Algoma on 11 November 2017.

Photo: Jim Trottier

Barn Owl *Tyto alba* (13)

2017 – one, basic, 11 November, Dean Lake, *Algoma* (Jim Trottier, Carter Dorscht, found by unknown finder; 2018-054) – photo on file.

Lewis's Woodpecker

Melanerpes lewis (11)

2011 – one, basic, 12-13 May, Cape Croker, *Bruce* (Anthony (Miptoon) Chegahno, found by unknown finder; 2018-092) – photos on file.

Say's Phoebe *Sayornis saya* (27)

1992 – one, basic, 16 May, Pointe des Chênes, *Algoma* (David I. Pryor, also found by Russell C. Pryor; 2018-046).

2018 – one, basic, 30 April-4 May, Rosspoint, *Thunder Bay* (Nicholas G. Escott, Allan F. Gilbert,

Joseph P. Campbell; 2018-120) – photos on file.

– one, basic, 26 September, Eriean, *Chatham-Kent* (P. Allen Woodliffe, found by Keith J. Burk; 2018-119) – photo on file.

– one, basic, 27 September-1 October, Algonquin Provincial Park (old airfield), *Nipissing* (Ashley P. Baines, Michelle A. Martin, also found by Nichole Baines; 2018-142) – photos on file.

The *Nipissing* bird was first found and identified by Lev A. Frid on 29 September, however, after the sighting was reported, Ashley P. Baines realized she had actually photographed it on 27 September. Amazingly, this is not even a new species for this location as one spent 22-24 September 2010 here (Roy 2001).

Vermilion Flycatcher *Pyrocephalus rubinus* (8)

2018 – one, definitive basic male, 27 April, Long Point (Tip), *Norfolk* (Samreen Munim, Tobias Lilja Nordin, also found by Kyle Cameron, Emily Emprage; 2018-129) – photos on file.

This is just the second spring record of this species for the province.





Figure 16. Great Kiskadee at Rondeau Provincial Park, *Chatham-Kent* on 18 October 2018.

Photo: P. Allen Woodliffe

Great Kiskadee *Pitangus sulphuratus* (1)

2018 – one, basic, 7 September-9 December, Rondeau Provincial Park, *Chatham-Kent* (Stephen R. Charbonneau, Blake A. Mann, Janice E. Pelan, Quinten F.R. Wiegiersma, Norman K. Holden, P. Allen Woodliffe, Bruce M. Di Labio, Trisha Snider, Dan J. MacNeal, Kayo J. Roy, found by Laura R. Dragon; 2018-111) – photos, audio on file.

The bird of the year! You cannot ask for much more from a vagrant; this bird put on a great show over an extended period of time such that virtually everyone who tried eventually got to enjoy it. The Great Kiskadee was not only a first for Ontario, but a new species for Canada.

Figure 17. Western Kingbird (yes, standing on ice!)
at Turkey Point, *Norfolk* on 15 December 2018.

Photo: Barbara N. Charlton



Cassin's Kingbird *Tyrannus vociferans* (5)

- 2018** – one, basic female, 1 June, Renwick,
Chatham-Kent (Kenneth G.D. Burrell,
Brandon R. Holden; 2018-066)
– photos on file.

Luckily Brandon R. Holden was ready with his camera to capture distinctive images of this bird as it flew past the observers as they watched for diurnal migrants.

Western Kingbird *Tyrannus verticalis*
**Central before 1998, South before
1998 and after 2016 (85)**

- 2018** – one, basic, 11-13 May, St. Mary's
Island, *Algoma* (W. Carter Dorscht,
found by Elijah J. Rodgers; 2018-137)
– photos on file.
- one, basic, 22-23 September, Prince Edward Point National Wildlife Area,
Prince Edward (Kevin Seymour, Kyle Blaney, Mark J. Patry, Peter R. Fuller,
Matthew C. Tobey, David J. Milsom, found by Peter B. Hogenbirk; 2018-136)
– photos on file.
 - one, first basic, 26-27 September, Clear Creek, *Norfolk* (Stuart A. Mackenzie,
Ron Ridout, Adam P. Timpf; 2018-135) – photos on file.
 - one, basic, 3 November, Long Point (Tip), *Norfolk* (Emma R. Buck, found by
Peter C. Denyer; 2018-072).
 - one, first basic, 15 December, Turkey Point, *Norfolk* (Barbara N. Charlton,
also found by J. Brett Fried, Nicole Richardson, Erika K. Hentsch, Janice J.
Chard; 2018-138) – photos on file.

The December record becomes the first winter record for Ontario.

Scissor-tailed Flycatcher *Tyrannus forficatus* (80)

- 2018** – one, basic, 27 June, Lake A, *Thunder Bay* (Kenneth G.D. Burrell,
Mike V.A. Burrell, also found by Nathan G. Miller; 2018-125)
– photos on file.
- one, basic, 16-19 July, Rosspoint, *Thunder Bay* (H. Gordon Smith,
also found by N. Joan Smith; 2018-124) – photos on file.
 - one, basic, 20 October, Barry's Bay, *Renfrew* (Giovanni P. Campanelli,
also found by Ann G. Campanelli; 2018-123) – photos on file.



Figure 18. Loggerhead Shrike at Thunder Bay, *Thunder Bay* on 3 May 2018. Photo: Brian D. Ratcliff

Loggerhead Shrike *Lanius ludovicianus* Central and Lowlands only (14)

2018 – one, basic, 1-3 May, Thunder Bay, *Thunder Bay* (James R.D. Barber, Brian D. Ratcliff, William F. Greaves, found by Zachary Oleksak; 2018-096) – photos on file.

Bell's Vireo *Vireo bellii* (21)

- 2018** – one, first basic, 10 May, Lighthouse Point Provincial Park, *Essex* (Nathan G. Miller; 2018-055) – photos on file.
- one, basic male, 10 May, Port Weller, *Niagara* (Joshua D. Vandermeulen, Judy A. Robins; 2018-056) – photos on file.
 - one, basic male, 11 June, Kenora, *Kenora* (Christopher J.S. Martin; 2018-081) – audio on file.

The *Kenora* record is the first summer record since the OBRC was established and also the most northerly. It was documented with an excellent audio recording of a singing individual.

Black-billed Magpie *Pica hudsonia* South only (7)

2018 – one, basic, 16-23 May, Point Pelee National Park, *Essex* (Jean Iron, Isabel J. Apkarian, Kyle J. Horner, Garth V. Riley, found by unknown finder; 2018-010) – photos on file.

The Committee has always struggled with how to deal with reports of this species in southern Ontario. There is no doubt on the identification but the possibility of captive origin always exists. However, the Committee felt the timing favoured a wild bird and no evidence suggested otherwise. In fact, this is now the fourth spring record from Point Pelee considered by the Committee.

Fish Crow *Corvus ossifragus* Central and Lowlands only after 2015 (43)

2018 – four (two basic, two juvenal), 20 April-15 September, Mississauga, *Peel* (Luc S. Fazio, Gordon Watts; 2018-041) – photos on file.

This record, described more fully in this issue of *Ontario Birds* (Fazio 2019), documents the first confirmed nesting of the species for the province. This completes the amazing story of Fish Crow in southern Ontario, at least the part that will be told in annual OBRC reports. In a decade, this species has gone from a vagrant averaging one or two records per year to a regular and now breeding component of Ontario avifauna.

Cave Swallow *Petrochelidon fulva* South pre 2010 and post 2015 only (72)

2017 – one, basic, 28 October, Point Pelee National Park, *Essex* (Tim R. Arthur, also found by Jeremy M. Bensette; 2018-067).

Carolina Wren *Thryothorus ludovicianus* Central and Lowlands only (9)

2017 – one, basic, 13 October-24 November, Englehart, *Timiskaming* (Serge M. Gendron, found by Mark W. Milton; 2018-016) – photos on file.

2018 – one, basic male, 27 August-7 October, South Porcupine, *Cochrane* (Roxane D. Filion, Pierre A. Noel; 2018-015) – photos on file.

Blue-gray Gnatcatcher *Polioptila caerulea* Central and Lowlands only (21)

2018 – one, first alternate female, 2 May, Thunder Bay, *Thunder Bay* (James R.D. Barber; 2018-013) – photos on file.

Northern Wheatear *Polioptila caerulea* (38)

2018 – one, first basic, 13 October, Mountjoy, *Cochrane* (Roxane D. Filion, also found by Melanie M. Palik, Gary T. Dowe; 2018-100) – photos on file.

This record fits perfectly into the pattern that has emerged for this species in the province; 29 of the 38 records occur in the period from 1 September to 19 October.

Mountain Bluebird *Sialia currucoides* (47)

2018 – one, basic, 18 February, Campbell Maxwell Front, *Frontenac* (Jennifer Greer; 2018-098) – photo on file.

– one, basic female, 23 April, Dorion, *Thunder Bay* (Norma J. Maurice, Glenn C. Stronks, William F. Greaves, also found by Nicholas G. Escott; 2018-097) – photos on file.



Figure 19. Northern Wheatear at Mountjoy, Cochrane on 13 October 2018. *Photo: Roxane D. Filion*



Figure 20. Bullock's Oriole at Red Lake, Kenora on 20 May 2018. *Photo: Merle Nisly*

Sprague's Pipit *Anthus spragueii* (5)

1980 – two, basic male, “early” July–“late” July, Rainy River, *Rainy River* (Robert H. Curry, found by John Lamey; 2018-050).

Grasshopper Sparrow *Ammodramus savannarum* **Central and Lowlands only** (8)

2017 – one, definitive basic, 26 May, Thunder Cape Bird Observatory, *Thunder Bay* (Rinchen N. Boardman, also found by Eliza Montgomery, Marc Joubert, Jasmin Dawson, Bryan Mayhew, Emmelie Paquette; 2018-083)
– photo on file.

Lark Bunting *Calamospiza melanocorys* (35)

2018 – one, alternate male, 17 May, Halfmoon Point, *Prince Edward* (Tina Sawicki; 2018-089) – photos on file.

Henslow's Sparrow *Centronyx henslowii* (48)

2017 – one, basic, 29 October, Union, *Elgin* (George Prieksaitis, also found by Robert Ward; 2018-043).

Yellow-headed Blackbird *Xanthocephalus xanthocephalus* **Lowlands only** (6)

2018 – one, definitive basic male, 28 April, Moosonee, *Cochrane* (Donald T. Cheechoo, Christina J. Nielsen; 2018-003) – photo, video on file.
– one, basic female, 17-25 May, Moosonee, *Cochrane* (Nancy McCauley-Littlejohn; 2018-004) – photo, video on file.
– one, definitive basic male, 24-25 May, Moosonee, *Cochrane* (Nancy McCauley-Littlejohn; 2018-005) – video on file.

Orchard Oriole *Icterus spurius* **Central and Lowlands only** (16)

2017 – one, definitive basic male, 21 May, Thunder Cape Bird Observatory, *Thunder Bay* (Rinchen N. Boardman, also found by J. Dawson, B. Mayhew, E. Montgomery, E. Paquette, M. Joubert; 2018-102) – photo on file.
– one, definitive basic male, 28 May, Thunder Cape Bird Observatory, *Thunder Bay* (Rinchen N. Boardman, also found by J. Dawson, B. Mayhew, E. Montgomery, E. Paquette, M. Joubert; 2018-103) – photo on file.
2018 – one, definitive basic male, 7-13 May, Sistonens Corners, *Thunder Bay* (Jeff N. Robinson, found by Kristen M. Melo; 2018-101) – photos on file.

Bullock's Oriole *Icterus bullockii* (8)

2018 – one, first basic female, 20-21 May, Red Lake, *Kenora* (Merle Nisly, Rita Nisly; 2018-065) – photos on file.

Baltimore Oriole *Icterus galbula* **Lowlands only** (1)

2018 – one, definitive alternate male, 28 May, Moosonee, *Cochrane* (William M. Solomon; 2018-053) – photos on file.

Virginia's Warbler *Oreothlypis virginiae* (6)

2018 – one, second basic female, 1 June, Long Point (Tip), *Norfolk* (Kyle Cameron, Isabel J. Apkarian, also found by Emily Emprage, William Von Herff, Dan Akin, Reta Meng; 2018-130) – photos on file.

This is just the third record since 2000 and only the sixth record overall for Ontario.

Black-throated Gray Warbler *Setophaga nigrescens* (23)

2018 – one, first basic male, 3-13 November, Burlington, *Halton* (Richard D. Poort, Dominik Halas, Dan J. MacNeal, Quinten F.R. Wieggersma, found by Brete Griffin, Heather Blakelock; 2018-009) – photos on file.

Hermit Warbler *Setophaga occidentalis* (8)

2018 – one, first basic, 14 November, Huntsville, *Muskoka* (Brenda J. Laking; 2018-088) – photos on file.

This represents the first record since one on 13 May 2003 (Crins 2004) and only the second fall record, the first of which was on 10 September 1978 (Wormington and Curry 1990).

Summer Tanager *Piranga rubra* **Central and Lowlands only** (28)

2018 – one, first basic male, 9-12 May, Hallebourg, *Cochrane* (Marc Johnson; 2018-131) – photo on file.

– one, basic female, 13 May, Rosspport, *Thunder Bay* (H. Gordon Smith, also found by N. Joan Smith; 2018-133) – photos on file.

– one, definitive basic male, 11-15 September, Thunder Bay, *Thunder Bay* (Troy Balec, William F. Greaves; 2018-132) – photo on file.



Figure 21. Virginia's Warbler at Long Point (Tip), *Norfolk* on 1 June 2018. *Photo: Isabel J. Apkarian*



Figure 22. Lazuli Bunting at Rossport, *Thunder Bay* on 27 May 2018. *Photo: H. Gordon Smith*

Western Tanager *Piranga ludoviciana* (51)

- 2018 – one, first alternate male, 4-7 May, Port Hope, *Northumberland* (Richard W.F. Pope, Margaret J.C. Bain, David I. Pryor, John B. Schmelefske, Michael J. Ferguson, Charmaine M. Anderson, found by Bill Cassells; 2018-153) – photos on file.
- one, alternate male, 22-23 May, Jelly, *Thunder Bay* (Kelley Sutton; 2018-154) – photos on file.
 - one, definitive alternate male, 27 May, Long Point (Tip), *Norfolk* (Isabel J. Apkarian, also found by William Von Herff, Mark A. Conboy, Dan Akin, Anita Morales, Samreen Munim; 2018-152) – photo on file.
 - one, first basic, 28 October-2 November, Rattray Marsh, *Peel* (Reuven D. Martin, Dominik Halas, Iain D.M. Fleming, Mourad Jabra, also found by Samreen Munim; 2018-077) – photos on file.

Black-headed Grosbeak *Pheucticus melanocephalus* (6)

- 2018 – one, first basic male, 19 June, Ailsa Craig, *Middlesex* (Peter A. Read, found by Ed Preszcator, Judy Preszcator; 2018-052) – photo on file.

Only the sixth record for the province, this is also the first record for the month of June.

Blue Grosbeak *Passerina caerulea* (109)

- 2018 – one, definitive basic male, 30 April-2 May, Thunder Bay, *Thunder Bay* (Brian D. Ratcliff, Glenn C. Stronks, James R.D. Barber, found by Betsy J. Henderson; 2018-012) – photos on file.
- one, definitive basic male, 10-12 May, Wanup, *Sudbury* (Daniela Stuewer; 2018-141) – photo on file.



Figure 23. Eurasian Tree Sparrow at Schreiber, *Thunder Bay* on 22 May 2018. Photo: Candace R. Campbell

- one, definitive basic female, 17 May, Point Pelee National Park, *Essex* (Henrique J. Pacheco, also found by Deborah J. A. Pacheco, James D.J. Carrey; 2018-020) – photos on file.
- one, 15 May, Point Pelee National Park, *Essex* (Brandon R. Holden; 2018-134) – photos on file.

Lazuli Bunting *Passerina amoena* (12)

2018 – one, first alternate male, 27-28 May, Rosspport, *Thunder Bay* (H. Gordon Smith, also found by N. Joan Smith; 2018-090) – photos on file.
 The Smiths of Rosspport can easily lay claim to owning the Lazuli Bunting capital of Ontario; they had another bird there 29-30 May 2014 (Burrell and Charlton 2015)!

Painted Bunting *Passerina ciris* (47)

2018 – one, definitive basic male, 1-5 May, Tobermory, *Bruce* (Michael T. Butler, Kiah R. Jasper, found by Amanda Andino; 2018-106) – photos on file.

- one, definitive basic male, 9-11 May, Porcupine, *Cochrane* (Roxane D. Filion, found by Andrew H. Warren; 2018-105) – photo on file.
- one, basic female, 2 June, Erieau, *Chatham-Kent* (Eva G. Visscher; 2018-104) – photos on file.

Dickcissel *Spiza americana* **Central and Lowlands only** (34)

2018 – one, definitive alternate male, 21-29 June, Rainy River, *Rainy River* (Kenneth G.D. Burrell, Michael S. Dawber, also found by Nathan G. Miller; 2018-069) – photos on file.

Eurasian Tree Sparrow *Passer montanus* (19)

- 2018** – one, definitive basic, 9-12 May, Point Pelee National Park, *Essex* (Nathan F. Hood, Ethan C. Gosnell, Sarah E. Lamond, Jacques M. Bouvier, also found by Isabel J. Apkarian; 2018-037) – photos on file.
- one, definitive basic, 10 May, Ignace, *Kenora* (David J. Penney, also found by Catherine A. Penney; 2018-035) – photos on file.
 - one, definitive basic, 14-15 May, Presqu'île Point, *Northumberland* (Margaret J.C. Bain, Daniel Murphy, found by Frederick M. Helleiner; 2018-038) – photos on file.
 - one, definitive basic, 22 May, Schreiber, *Thunder Bay* (Candace R. Campbell; 2018-040) – photos on file.
 - one, definitive basic, 23-28 May, Long Point (Tip), *Norfolk* (William von Herff, Kyle Cameron; 2018-036) – photo on file.
 - one, definitive basic, 10 September, Rosspoint, *Thunder Bay* (H. Gordon Smith, also found by N. Joan Smith; 2018-039) – photo on file.

The species has shown a remarkable increase in the province during the last several years with 15 of the 19 records coming since 2014.

With Say's Phoebe, Scissor-tailed Flycatcher, Summer Tanager, Lazuli Bunting and Eurasian Tree Sparrow, it seems hard to imagine that anyone had a better list of rarities in their small town than the Smiths of Rosspoint in 2018!

Not Accepted Records: Insufficient Evidence

The documentation received for the following reports was generally found not to be detailed enough to eliminate similar species unequivocally or simply lacking enough detail to properly describe the individual. In many cases, OBRC members felt that the species being described was likely correctly identified by the observer but the report received for voting was simply too limited for acceptance, based on the established purposes of the OBRC. These circumstances sometimes arise from unavoidable situations such as poor viewing conditions or brevity of observation.

- 1992** – Eurasian Wigeon, one, 7-31 May, Wawa, *Algoma* (2018-032).
- 2004** – Townsend's Warbler (*Setophaga townsendi*), one, 15-18 December, Owen Sound, *Grey* (2018-071) – sketch on file.
- 2010** – Western Tanager, one, male, 15 August, Consecon, *Prince Edward* (2018-075).
- 2012** – Barnacle Goose, one, basic, 19 April, Scugog Point, *Durham* (2018-008).
- 2017** – “Eastern” Willet (*Tringa semipalmata semipalmata*), one, alternate, 13 May, Toronto (Tommy Thompson Park), *Toronto* (2018-139) – photos on file.

There was a compelling argument put forward for this bird, but the Committee felt that without audio recordings or genetic data to support it, confidently identifying an out of range subspecies was not possible.

- Arctic Tern, one, definitive alternate, 17 May, Cooper Marsh Conservation Area, *Stormont, Dundas and Glengarry* (2018-061) – photos on file.

- 2018** – Chuck-will's-widow, one, basic male, 4 May, Oakville, *Halton* (2018-001)– photos on file.
- Western Sandpiper, one, 20 May, Mitchell, *Perth* (2018-073).
 - Western Sandpiper, one, juvinal, 24 October, Blenheim, *Chatham-Kent* (2018-074) – photos on file.
 - Barn Owl, one, 15 May, Kingston, *Frontenac* (2018-121).
 - Say's Phoebe, one, basic, 28 May, Grand Bend, *Lambton* (2018-045) – photos on file.
 - Bewick's Wren (*Thryomanes bewickii*), one, basic, 6 August, Batteaux, *Simcoe* (2018-057).
 - Bicknell's Thrush (*Catharus bicknellii*), one, basic, 1 May, Puce, *Essex* (2018-058) – photos on file.
 - Hermit Warbler, one, 18 October, Long Point Provincial Park, *Norfolk* (2018-044) – photos on file.
- This bird was as well-documented as could have been asked for, given the circumstances (photographed as it flew over). The Committee did not feel that a hybrid Townsend's x Hermit Warbler could be eliminated.
- Western Tanager, one, 14 May, Stoney Creek, *Hamilton* (2018-076).
 - Blue Grosbeak, one, male, 14 May, Riverside, *Middlesex* (2018-064).

Corrections/Updates to Previous OBRC Reports

2017 report (*Ontario Birds* 36:58-88)

Under Tufted Duck add Kiah R. Jasper to the list of contributors.

Under Willow Ptarmigan add Henry T. Nguyen to the list of contributors.

Under Yellow-crowned Night-Heron (Clarke, *Durham*) change “4-8 June” to “3-9 June”.

Under Western Tanager (Sudbury, *Greater Sudbury*) change “23 April” to “23-24 April”.

Under Blue Grosbeak, change “Robert K. Yukich” to “Robert J. Yukich”.

Under Eurasian Tree Sparrow (Wawa, *Algoma*) change “16 October-6 April” to “16 October-21 April” and change “173 days” to “188 days”.

2015 report (*Ontario Birds* 34: 50-81)

Under Black-billed Magpie change “fall 2013-29 March 2018 (at least)” to “fall 2013-23 March 2019 (at least)”.

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Mike V.A. Burrell

88 Douro Eighth Line
Douro-Dummer, Ontario K9J 6Y1
E-mail: mike.burrell.on@gmail.com

Barbara N. Charlton
1156 5th Concession Road West
RR 2 Waterdown, Ontario L8B 1L8

Kenneth G.D. Burrell
190 Strange Street
Kitchener, Ontario N2G 1R6

Joshua D. Vandermeulen
4890 St. Clair Avenue
Niagara Falls, Ontario L2E 3T6

Amanda C. Guercio
193 Glenholme Avenue
Toronto, Ontario M6E 3C5

Blake A. Mann
171 Margaret Avenue
Wallaceburg, Ontario N8A 2A3

Donald A. Sutherland
1237 Weller Street
Peterborough, Ontario K9K 1H6

Paul D. Pratt
21298 Harbour Road
RR 1 Wheatley, Ontario N0P 2P0

William G. Lamond
238 George Street
Brantford, Ontario N3R 1W7

How do recent changes in Lake Erie affect birds? Part three: type-E botulism

Doug Tozer and Gregor Beck

THE HEALTH OF LAKE ERIE reached a low point in the 1960s and 1970s, and then improved greatly by the 1980s (Makarewicz and Bertram 1991). Now, Lake Erie is suffering from harmful algal blooms, botulism, invasive species, climate change and other issues. Why is this? What has brought about so many new issues? What does it all mean for birds? This review article is the last of a series of three articles in *Ontario Birds*. The articles provide an overview of some of the current environmental and ecological issues for Lake Erie, with emphasis on the implications for the numerous bird species that depend on the lake for nesting and migration. There are dozens of worthy issues to profile. We chose to begin, in part one, with invasive *Phragmites* (Tozer and Beck 2018); in part two, we tackled invasive Zebra Mussels and Quagga Mussels (*Dreissena polymorpha* and *D. rostriformis bugensis*, respectively; Tozer and Beck 2019); and here, in part three, we take on the impacts of type-E botulism. In addition to a review of each issue, the articles present new analysis of relevant citizen science data and suggest

actions that we, as birders, can take to help alleviate the issues.

Botulism is a disease that infects humans as well as wildlife (Critchley 1991). It is caused by neurotoxins produced by the bacterium *Clostridium botulinum* (Desta *et al.* 2016). There are several types or strains of *C. botulinum* (types A through H), each surviving best under different conditions (Hannett *et al.* 2011). Botulism rarely infects humans because thorough cooking, good hygiene and other routine measures prevent the acquisition of the toxins (Shapiro *et al.* 1998). A few of the strains infect wild birds: type-C causes die-offs of waterfowl throughout the world, particularly in western North America (Wobeser *et al.* 1987) and type-E causes die-offs in the Great Lakes (Wijesinghe *et al.* 2015). *C. botulinum* is a native species that occurs in soils and sediments throughout the Great Lakes (Graikoski *et al.* 1968). It survives for long periods, sometimes for many decades, as harmless dormant spores, but once favourable growing conditions are encountered it starts growing and produces botulinum neurotoxin



Figure 1. Tens of thousands of individuals belonging to dozens of different waterbird species, such as this Common Loon, sometimes die during late summer and autumn on Lake Erie and the other Great Lakes due to outbreaks of type-E botulism. *Photo: Bird Studies Canada*

(Long and Trauscher 2006). The neurotoxin is one of the most potent toxins known (Singh 2000) and although many aspects of the disease have been well-studied for nearly two centuries (Cherignton 2004), the function that the toxin serves for the bacteria, if there is one, remains unclear (Simpson 1986). Alternatively, the toxin may be a by-product of a complicated evolutionary history involving lateral transfer of toxin-producing genes to the bacteria, perhaps from a virus, with no obvious subsequent benefit

to the bacteria (Poulain and Popoff 2019). As such, survival is just as high and distribution in the environment is just as extensive in toxic and non-toxic forms of certain strains of *C. botulinum* (Poulain and Popoff 2019). Therefore, the current type-E botulism issue for waterbirds (i.e., any aquatic bird species) in Lake Erie and the rest of the Great Lakes might ultimately be attributable to a mere chance event deep in *C. botulinum's* evolutionary history!

The problem for waterbirds, or any other vertebrate such as fish, is that botulinum toxin interferes with transmission of nerve impulses intended to stimulate peripheral or voluntary muscles (Desta *et al.* 2016). Through a series of different steps, the toxin prevents the neurotransmitter acetylcholine from traveling out from nerve endings, effectively killing nerve impulses so they never reach intended muscles (Gundersen 1980). The result is flaccid paralysis, and waterbirds with even very small doses of the toxin are unable to keep their eyes open, raise their wings, move their feet, or hold up their heads, hence the common name “limberneck disease” (Cher-ington 2004). In the end, infected waterbirds typically die a slow death due to starvation, drowning, depredation, or other complications (Figure 1).

The occurrence and magnitude of waterbird mortalities due to type-E botulism is highly variable over space and time (Lafrancois *et al.* 2011). Die-offs of waterbirds were first recorded in the Great Lakes in the early 1960s, continued sporadically during the 1970s and 1980s and were absent during most of the 1990s (Brand *et al.* 1983, 1988; Cabrera 2014). Die-offs of waterbirds due to type-E botulism have occurred annually in Lake Huron since 1998, Lake Erie since 1999 and Lake Ontario since 2002 (Cabrera 2014). The die-offs involve a variety of different species including loons, grebes, herons, cormorants, ducks, coots, shorebirds, eagles, gulls, terns and crows (Carpentier 2000, Canadian Cooperative Wildlife Health Centre 2008, Chipault *et al.* 2015). In some years, only a small number of birds are

found dead, whereas in 2002, one of the worst years on record, over 20,000 individuals washed up dead on beaches and shorelines throughout the Great Lakes (Cabrera 2014). The number of dead individuals recorded is, of course, only an unknown fraction of the total number killed, given that carcasses sink before they wash up on shore or carcasses wash up in locations where they go unrecorded. Recent research using radio transmitters implanted in floating Common Loon carcasses released throughout Lake Michigan aimed to uncover how wind, waves and water currents influence the trajectory of floating carcasses, which will help identify botulism hotspots and may help better understand how many carcasses go undetected (Kenow *et al.* 2016).

What happened starting in the late 1990s and early 2000s to cause annual die-offs of waterbirds in Lake Erie and most of the other Great Lakes? The quick answer is: we don't really know. Evidence is building to suggest that recurring type-E botulism is the result of multiple, complicated, interacting pathways of infection involving nutrient runoff, invasive species, algal blooms, climate change and perhaps additional factors yet to be discovered. The basics go like this: *C. botulinum* spores become activated and produce toxin when they encounter warm water with abundant nutrients and no oxygen (Espelund and Klaveness 2014). We know from long-term monitoring that water temperature (Mason *et al.* 2016), extent of deoxygenated water or hypoxia (Zhou *et al.* 2013) and soluble reactive phosphorus (Daloğlu *et al.* 2012) have all increased in recent decades

Great Lakes. The result: increasingly good conditions for production of botulism neurotoxin.

Now add a dash of invasive species and a pinch of algae. *C. botulinum* spores become very active and produce large amounts of neurotoxin within hot, oxygen-depleted, nutrient-rich mats of rotting algae of the genus *Cladophora* (mostly *C. glomerata*, hereafter “*Cladophora*”), which piles up in shallow water and along shorelines in late summer (Byappanahalli and Whitman 2009, Chun *et al.* 2013, 2015). Submerged aquatic vegetation dominated by *Cladophora* has increased in extent in all of the Great Lakes in recent decades as shown by remote sensing satellite data (Brooks *et al.* 2015). The increase in *Cladophora* is in part due to increases in water clarity and associated light penetration brought about by the super-efficient filter feeding of non-native invasive Zebra Mussels and Quagga Mussels, which remove light-blocking phytoplankton and other particles from the water column (Auer *et al.* 2010). The increase in *Cladophora* is also due to increases in hard substrate for *Cladophora* to attach to in the form of the mussels’ shells, since *Cladophora* only grows on hard surfaces and not on soft mud or sand (Higgins *et al.* 2008). The mussels also concentrate nutrients for *Cladophora* by filtering nutrients out of the water column and eliminating them in their feces (Hecky *et al.* 2004, Dayton *et al.* 2014). The enhancement of algal growth by the mussels is made even stronger by recent increases in nutrient runoff into Lake Erie and the other Great Lakes due to increases in surface application of fertilizer on agricultural fields during the non-growing

season, which is more likely to wash downstream into the lakes during increasingly frequent storms, themselves a consequence of climate change (Smith *et al.* 2015). Indeed, the overall enhancing effect of the mussels on algal growth has been shown convincingly through experimental manipulation using pre-constructed “colonies” of live and dead mussels either with or without artificial addition of nutrients (Francoeur *et al.* 2017). In short, bring in non-native invasive mussels, clear the water column, increase the light, increase the nutrients, bring on the *Cladophora* and produce lots of botulism neurotoxin in dead mats of algae at the end of the summer. As further evidence of these relationships, multiple studies show correlations at various scales between type-E botulism outbreaks in waterbirds and warm water, low water (shallow water tends to be warmer) and *Cladophora* (Wijesinghe *et al.* 2015, Princé *et al.* 2017).

How do botulism bacteria or its neurotoxin get from rotting mats of algae or other sources into waterbirds? One way is through invertebrates such as fly maggots (Diptera larva) that pick up the bacteria or toxin while feeding on or within rotting carcasses or algae washed up along the lakeshore. Notably, invertebrates such as aquatic insects and mussels are unaffected by the neurotoxin (Pérez-Fuentetaja *et al.* 2011). Shorebirds feed on the tainted invertebrates (Figure 2) and gulls and other scavengers feed on the infected carcasses, and in turn can become infected. These pathways are likely the most common in the summer and early fall (Canadian Cooperative Wildlife Health Centre 2008). The presence of botulism bacteria

Figure 2. Some waterbirds, such as this Spotted Sandpiper, become infected with type-E botulism bacteria or its toxin while feeding on or within tainted algae washed up along lakeshores.

Photo: Leslie Abram

or its toxin is also found at high levels in the tissues of living and dead Zebra Mussels and Quagga Mussels, as well as in various other aquatic invertebrates, such as larval midges (Chironomidae) and worms (Oligochaeta) (Pérez-Fuentetaja *et al.* 2006, 2011). The chironomids, oligochetes and other non-mussel invertebrates likely acquire the bacteria or its toxin through direct ingestion or while eating detritus or sediment, particularly near rotting algae, whereas the mussels likely acquire the toxin by filtering it out of the water column or filtering out smaller invertebrates that have already acquired it (Getchell and Bowser 2006, Pérez-Fuentetaja *et al.* 2006). Certain waterfowl, such as the Long-tailed Duck (*Clangula hyemalis*), Common Goldeneye (*Bucephala clangula*) and Bufflehead (*B. albeola*) feed on the tainted mussels and the toxin-laden aquatic invertebrates (Schummer *et al.* 2008a,b). Fish feed on the infected mussels and other infected invertebrates and due to biomagnification acquire high concentrations of the bacteria or toxin (Bott *et al.* 1966). The tainted fish are in turn fed on by a variety of different waterbirds (Essian *et al.* 2016). In an ironic final twist, another non-native invasive species, the Round Goby (*Neogobius melanostomus*),



specializes in feeding on non-native invasive mussels and is itself especially common in the stomachs of botulism-killed waterbirds, particularly cormorants and loons (Hebert *et al.* 2014, Essian *et al.* 2016, King *et al.* 2017). Furthermore, botulism-infected fish that are partially paralyzed are attractive, easy pickings for fish-eating waterbirds (Yule *et al.* 2006). The pathways leading up through aquatic invertebrates, mussels and fish to waterbirds are likely the most common in autumn (Canadian Cooperative Wildlife Health Centre 2008). There are probably other sources and production pathways of botulism yet to be discovered or better described, such as water currents that bring spores up from the sediment so they are available to enter



the food chain and additional complicating factors involving competition between *C. botulinum* and other microorganisms that keep botulism bacteria at low numbers (Pérez-Fuentetaja *et al.* 2006). The bottom line is that recurring outbreaks of type-E botulism on the Great Lakes over the past two decades appear to be the result of multiple, complicated, interacting ecological and environmental changes ultimately brought about by non-native invasive Zebra Mussels and Quagga Mussels, nutrient loading and climate change.

The botulism issue is complicated and potentially quite big, but is it actually negatively affecting waterbird populations? Long-term bird population monitoring programs are extremely important

for answering this type of timely but unforeseen question. As shown above, there are dozens of waterbird species that are potentially affected by type-E botulism on the Great Lakes. Based on observed mortalities, the majority of dead individuals are loons, mergansers, cormorants and gulls (Carpentier 2000, Canadian Cooperative Wildlife Health Centre 2008, Chipault *et al.* 2015). Populations of most of these more-commonly killed species have remained steady or increased over the past two decades in Ontario or the Great Lakes when type-E botulism has been most prevalent. For example, abundance of breeding Common Loons was stable in Ontario during the period (Smith *et al.* 2019); abundance increased for Common Merganser

Figure 3. Type-E botulism may be reducing the reproductive success of the Common Loon (an adult with two chicks is shown here).

Photo: Missy Mandel

(*Mergus merganser*) in southern Ontario and for Red-breasted Merganser (*Mergus serrator*) in northeastern North America (Canadian Wildlife Service Waterfowl Committee 2017); the number of breeding Double-crested Cormorants (*Phalacrocorax auritus*) increased and stabilized throughout the Great Lakes (Weseloh *et al.* 2002, Ridgway *et al.* 2006). Exceptions to that trend are the number of breeding gulls. Ring-billed Gulls (*Larus delawarensis*) and Herring Gulls (*L. argentatus*) declined slightly in the Great Lakes, although this is thought to be due to reduced food availability rather than botulism (Weseloh 2011). By contrast, the Great Black-backed Gull (*L. marinus*) is apparently especially susceptible to type-E botulism and as a result has been extirpated as a breeder from eastern Lake Ontario (Shutt *et al.* 2014) and may soon be eliminated as a breeder from throughout the Great Lakes (Weseloh 2011). Therefore, it seems that the widespread die-offs caused by type-E botulism are not creating long-term population-level impacts—in most cases. However, continued research and monitoring are needed to fully understand population-level impacts.



The above examples tell us whether abundance of infected waterbird species is negatively influenced by type-E botulism, but they do not tell us about potential negative effects on reproductive success, which could happen without concurrent changes in population size. For example, we could see stable or nearly stable populations at the same time as declining reproductive success if enough immigrants move in from outside to maintain the population. The Common Loon (Figure 3) seems to be especially vulnerable to type-E botulism given that it figures prominently in counts of botulism-killed carcasses that wash up on shore (Carpentier 2000, Canadian Cooperative Wildlife Health Centre 2008, Chipault



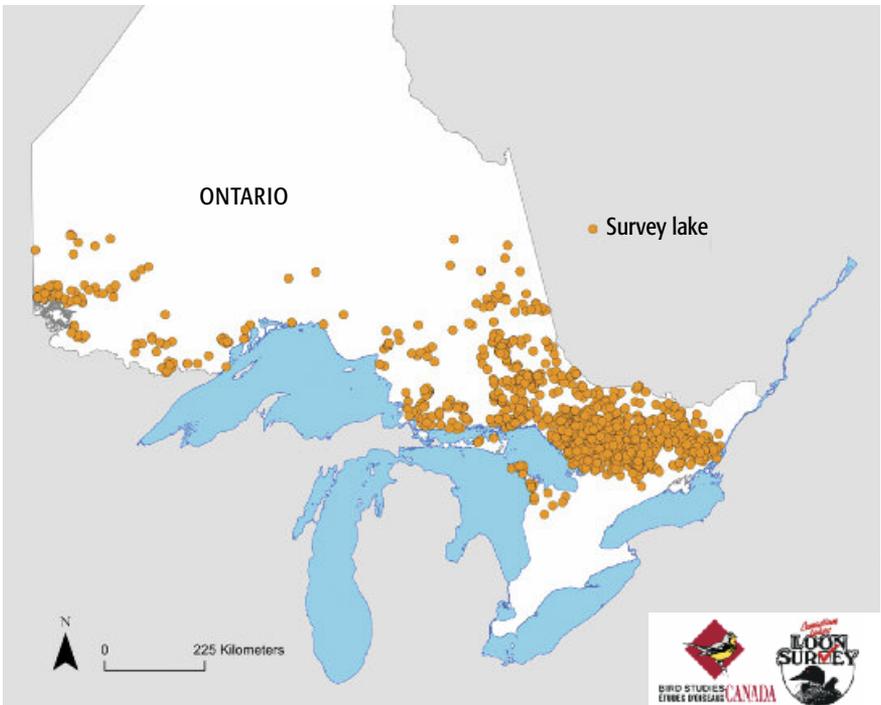
et al. 2015). As such, we used data from Bird Studies Canada's Canadian Lakes Loon Survey (Tozer *et al.* 2013b) to explore the possibility that reproductive success of this hard-hit species might be negatively affected by type-E botulism. Our line of reasoning was as follows: The Common Loon is a long-lived species (up to 20-30 years in the wild) and breeds throughout central and northern Ontario, well to the north of the lower Great Lakes where botulism outbreaks are most common (Evers 2007). Individuals typically spend the first few years of their lives on the ocean and at 3-4 years of age return to the breeding grounds for the first time to acquire a breeding territory (Piper *et al.* 2015). Based on studies of

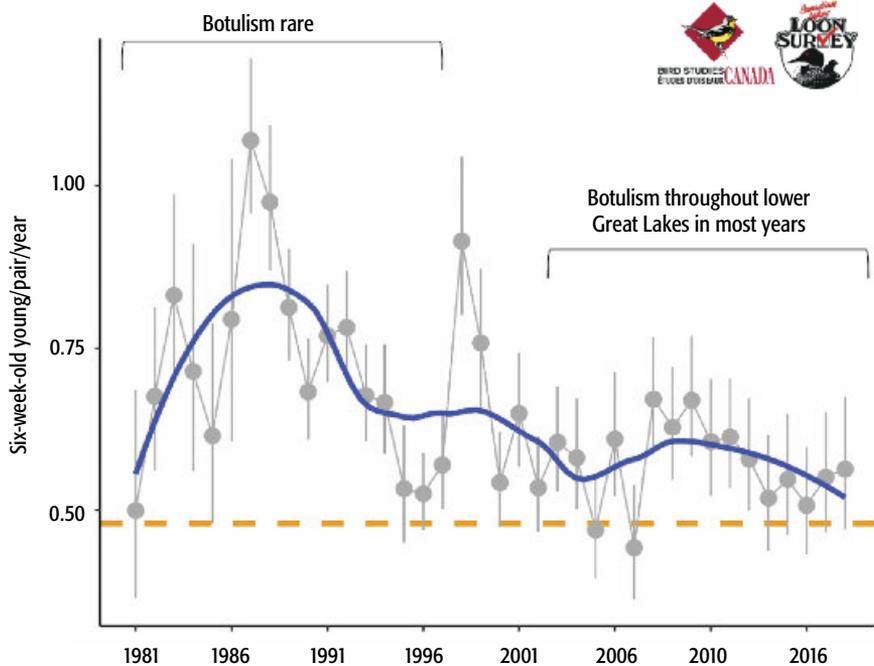
colour-marked Common Loons, we know that reproductive success is lower for male Common Loons breeding on a territory for the first time; apparently it takes up to two or more years for them to learn, by trial and error, where the best nest sites are located on a territory in order to maximize their reproductive success (Piper *et al.* 2008). Remarkably, nest sites in this species are chosen by males, regardless of previous nesting experience of females, for reasons that remain unclear (Piper *et al.* 2008). We also know from colour-marked individuals that the number of young produced per year for males but not females increases with increasing age up to 15-17 years old (Piper *et al.* 2017). If enough breeding

males die due to botulism on their southward migration through the lower Great Lakes each autumn, then as a result, we would expect a larger proportion of younger, inexperienced, first-time territorial males in the breeding population the following spring and thereafter, with an associated reduction in reproductive success over the years. Thus, if type-E botulism negatively affects the reproductive success of Common Loons, we would expect higher chick production, on average, before the onset of recurring type-E botulism outbreaks in the late 1990s and early 2000s and lower chick production after that time.

We explored these ideas using data from 11,623 Common Loon breeding attempts on 1,317 lakes spread across 38 years in Ontario (Figure 4). Following Tozer *et al.* (2013a), we modeled the number of six-week-old young per territorial pair per year from 1981 to 2018 while controlling statistically for lake size and longitude given that the number of young produced is known to increase with increasing lake size (Alvo 2009, Piper *et al.* 2012) and is higher in the west compared to the east (Tozer *et al.* 2013a). We also included a random effect for each lake because ~50% of the lakes surveyed each year, on average, had reproductive

Figure 4. Lakes with at least one year of data collected by participants in Bird Studies Canada's Canadian Lakes Loon Survey used to determine patterns in Common Loon reproductive success in Ontario between 1981 and 2018 ($n = 1,317$ lakes).





success data for > 1 pair of loons (Tozer *et al.* 2013a). We focused on six-week-old young because Common Loons of this age have attained nearly adult size and with it a much lower chance of being depredated, making them a reasonable indicator of the number of young actually fledged (Evers 2007). Even though acidity is a strong predictor of loon reproductive success (Alvo *et al.* 1988, Alvo 2009), we were unable to control for differences in pH due to lack of data. We found the number of young per pair per year was highly variable, with no clear difference in reproductive success before and after the onset of recurring type-E botulism in the late 1990s and early 2000s (Figure 5). Nonetheless, it is worth noting that years of extremely good chick production (i.e., at or above 0.75 young

Figure 5. Reproductive success of Common Loons in Ontario between 1981 and 2018. Shown are annual estimates (dots) and associated 95% confidence intervals (vertical gray lines). A loess line of best fit (curved blue line) is included to show overall trajectory. The orange horizontal dashed line denotes an estimate of the minimum number of young per pair per year (0.48) required to prevent population declines (Evers 2007). Years of extremely good chick production (i.e., at or above 0.75 young per pair per year) ceased to occur after 1999 when recurring type-E botulism spread throughout the lower Great Lakes.

Data source: Bird Studies Canada's Canadian Lakes Loon Survey



Botulism-killed Common Loon.
Photo: Bird Studies Canada

per pair per year) ceased to occur after 1999 when recurring type-E botulism started to spread throughout the lower Great Lakes (Figure 5).

Whether this pattern is linked to botulism is unknown. Of course, there are many other factors that influence reproductive success of Common Loons, including acid precipitation, mercury pollution and climate change, any combination of which might also explain the pattern, but the influence of botulism is worth considering. On a happy note, the number of Common Loon chicks produced in most of the years since the early 2000s is apparently high enough to maintain a stable population given the average number of young per pair per year in most years is above 0.48 (Figure 5), which is the best available estimate of the minimum number required to prevent population declines (Evers 2007).

So what does it all mean? We have seen that type-E botulism in waterbirds in Lake Erie and the lower Great Lakes is due to multiple, complicated, interacting ecological and environmental changes ultimately brought about by non-native invasive species, nutrient loading, climate change and probably other factors. Therefore, we cannot stress enough to be extremely careful regarding these issues, especially taking steps to avoid introducing and spreading non-native invasive species (see summary at Ministry of Natural Resources and Forestry 2019), a concluding message we also arrived at in each of our first two articles in this three-part series (Tozer and Beck 2018, 2019). Anything we can do to reduce nutrient loading and climate change in the Great Lakes will also help mitigate the type-E botulism issue for waterbirds (see Environmental Commissioner of Ontario 2018 a,b). In particular, there are actions we can all take as individuals to help mitigate climate change (see Environmental Commissioner of Ontario 2019). In the end, perhaps the most important action we can collectively take as birders to help alleviate botulism and the many other issues currently affecting Lake Erie and the lower Great Lakes is to inform everyone that there is much more at stake than most people typically appreciate. All too often, the negative effects that these issues have on humans receive the most attention by the media and the general public, whereas the negative implications for waterbirds tend to go unnoticed or unaddressed. This is where we, as birders, can help in a big way to achieve a healthier balance.

Acknowledgements

In this review, we use information collected by hundreds of Bird Studies Canada's citizen scientists, an impressive number of whom are Ontario Field Ornithologists members (thank you!). Support to the authors while preparing this article has been provided by the John and Pat McCutcheon Charitable Foundation. We thank members of the Scientific Advisory Committee of Bird Studies Canada's Long Point Waterfowl and Wetlands Research Program for comments that improved the paper.

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Long Point Birders Cottage

331 Erie Blvd is steps away
from migration hotspots
Old Cut Bird Observatory
and Long Point Provincial Park

SPRING, SUMMER & FALL RENTALS

Contact Adam Timpf
adam.timpf@gmail.com

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Doug Tozer

Long Point Waterfowl and Wetlands
Research Program
Bird Studies Canada
P.O. Box 160
Port Rowan, Ontario N0E 1M0
E-mail: dtozer@birdscanada.org

Gregor Beck

Bird Studies Canada
P.O. Box 160
Port Rowan, Ontario N0E 1M0

First successful nesting of Fish Crow in Ontario and Canada

Lucio 'Luc' Fazio



Figure 1. Range map of the Fish Crow.

Map: allaboutbirds.org;
Cornell Lab of Ornithology

Introduction

The Fish Crow (*Corvus ossifragus*) is a common resident bird of the southeastern United States and its Gulf of Mexico and Atlantic coasts from Louisiana to New York (Figure 1). It is usually found near water but uses other habitats as well. It has been spreading north in North America into the range of the widespread and very common American Crow (*C. brachyrhynchus*) (Wells and McGowan 1991). In Ontario, there have been many observations of Fish Crow in recent years, starting with a small incursion in Fort Erie area in 2012 (Cranford 2013; see Ontbirds archived postings; L. Fazio, pers. obs.). Breeding pair behaviour has been noted by me and other observers (e.g., Oakville in 2012, Cranford 2013; C. Edgecombe in Ontbirds) and Port Weller in 2016 (J. Black, pers. comm.), however, no successful nest has been recorded in Ontario before this documented record. Since 2012, counts of the Fish Crow in Ontario have usually been low, but on 7 August 2017, Josh Vandermeulen wrote: "... at least 55 Fish Crows were part of the flock" of crows that he observed at Niagara Falls on 4 August 2017 (Vandermeulen 2017).

On 20 April 2018, near the Adamson Estate (Lat: 43.562744 N, Long: 79.567977 W) in Mississauga, Ontario, I found a pair of Fish Crows that were calling to and interacting with each other, suggestive to me of pre-courtship behaviour. The previous spring (2017), I had observed a Fish Crow in this area and thought nothing of it, but as I began to be intrigued with the potential for nesting in 2018, I decided to spend more time in this area. The purpose of this paper is to document the first successful nest of Fish Crow in Ontario and Canada.

Identification

The best way to identify the Fish Crow and to distinguish it from the American Crow is by voice: the Fish Crow gives a higher pitched “uh...uh” call (McGowan 2005 but see also McGowan 2001). However, if seen well, one can combine three or more morphological differences from the American Crow to come to a reasonable identification.

- a) When calling on or near the ground, Fish Crows tend to show a ruff feathering in lower neck (throat) area (Figure 2) and tend to look shorter necked and more hunched than American Crow (Figure 3). Fish Crows have a sharp shrike-like hook at the end of the upper mandible (Figure 2). American Crows do not have this.
- b) When the primary feathers are spread and seen well (Figures 4 and 5), the length of the ninth primary feather (P9) in the Fish Crow is the same size or longer than its fifth primary (P5). This makes the wings of the Fish Crow appear more pointed. In the American Crow, P9 is markedly shorter than P5.
- c) In a relaxed sitting posture, the tail of the American Crow extends quite a bit beyond the tips of the primaries whereas in Fish Crows, the tip of the folded primary reaches almost to the end of the tail (Fazio 2018).
- d) Wing beat rate tends to be faster in Fish Crows.

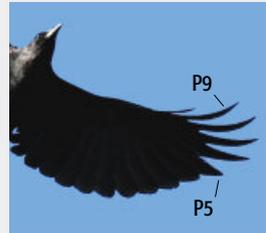


Figure 2. Female Fish Crow showing throat feathers.

Photo: Luc Fazio

Figure 3. Fish Crows have a more hunched neck, shorter legs and slender feet.

Figure 4. Fish Crows have more pointed wings than American Crows (P9 vs P5).

Left: Figure 5. Fish Crow carrying nesting materials. Note wing shape.

Photos: Gord Watts



Observations

The first successful fledging of two Fish Crows in Ontario and Canada took three nest building attempts. These occurred within 150 m of each other in the Adamson Estate area. These two pioneer Fish Crows succeeded in raising two chicks (Figure 6, 7 and 8) against many unfavourable conditions. Threatened by storms with near hurricane strength winds, attacked by other scavengers, bullied by birds at the higher level of the food chain, bothered by seemingly non-caring humans with their wedding parties and extremely noisy construction, they succeeded!

On 23 April 2018, after many courtship rituals, the pair of Fish Crows broke branches off deciduous trees (even though there were many broken branches on the ground) and started building nest #1 in a spruce tree at 45 Wenonah Drive in Mississauga. Over the next two days, while major residential construction took place nearby, the Fish Crow pair built a

Figure 6. Male and female at nest #3.

Figure 7. First nestling Fish Crow. Photos: Luc Fazio

Figure 8. Fledgling being fed by parent. Photo: Gord Watts

nest and the female, identified by her higher voice one note “uh..” (McGowan 2001), sat in it for long periods of time and was fed there by the male. They were dive-bombed by most of the local territorial passerines and had two very violent territorial disputes with American Crows and a Common Raven (*C. corax*), yet they persevered. After a particularly nasty storm blew off some of the nest material on 26 April, I saw them building another nest nearby, nest #2, at 118 Cumberland Drive in Mississauga. Here they were under heavy daily attacks from a pair of Cooper’s Hawks (*Accipiter cooperii*) that was nesting in the Adamson Estate. In one of these attacks, the male Fish Crow lost some secondary feathers, which subsequently made him easier to identify along with his gargled “Uh...Uh...Uhr” calls. With all this disturbance, nest #2 only lasted a few days. On 1 May 2018, the two Fish Crows started to bring sticks for a third nest building attempt, nest #3, on the tallest White Pine (*Pinus strobus*) in the Adamson Estate.

Nest #3 proved to be a success. For the next three weeks they fended off more attacks by Cooper's Hawks and Common Ravens, and were harassed by Red-winged Blackbirds (*Agelaius phoeniceus*), (Figure 9) Baltimore Orioles (*Icterus galbula*), Common Grackles (*Quiscalus quiscula*) and Blue Jays (*Cyanocitta cristata*). Near hurricane force winds with heavy rain storms and non-caring or seemingly unaware humans with their wedding festivities or noisy trail construction under the White Pine tree with the incubating nest, failed to deter the Fish Crows.

Mississauga City Hall was called to try to postpone the month-long construction of the trail and they said that they would look into it, but construction continued without detrimental effect on the success of the Fish Crow nest. By 23 May 2018, the female was definitely incubating. She would sit on the eggs for periods up to two hours before taking brief breaks. The male Fish Crow would bring her food scavenged from various sources including nestlings of local passerines (Red-winged Blackbird, Common Grackles, Baltimore Orioles, House Sparrows (*Passer domesticus*) and Mourning Dove (*Zenaida macroura*) eggs. On 28 May, I observed the female picking up an egg from the nest. It was a corvid egg, light green-blue with some dark markings. She placed it down before sliding back low into the nest. This was confirmation of a nest with at least one egg.

There was continuous incubating, feeding of the female by the male in the nest, fights with Cooper's Hawk and Common Raven day after day during the nesting period. Fish Crow chicks are altricial (naked and helpless) when they hatch; it takes many days after the 18-19 days egg incubation period before the newly hatched chicks start moving about. The nestling period can be 32-40 days (McGowan 2001; Cornell Lab of Ornithology 2019). On 20 June 2018 at 06:10, with both parents at the nest, I saw a chick poking its head out of the nest (Figure 7). Two days later, on 22 June, I briefly saw two young crows sticking their heads out of the nest.



Figure 9. Red-winged Blackbird attacks Fish Crow.

Photo: Gord Watts



Figure 10. Second Fish Crow chick. Photo: Luc Fazio



Figure 11. Female and fledged chick. Photo: Luc Fazio

Figure 12. Adult male scavenging at the Adamson Estate.

Figure 13. Fish Crow attacking Bald Eagle. Photos: Gord Watts

I was away from 24 June until 11 July. On July 12, I witnessed the parents feeding both chicks by the side of the nest. On 13 July, the larger chick came out of the nest and ‘flew’ to a branch about 2 m away; it had fledged! Unfortunately, the second chick was not as far along in the development (Figure 10). Later in the evening, a Common Raven came by the nest and the parents tried to fight it off from the nest area. Friday July 13th was the last time that I saw chick 2! Two days later, on 15 July, I watched the larger chick 1 fly to another tree. The female followed it and regurgitated food on a branch for the chick to eat. For the next two weeks, the chick stayed close to the female who would always feed it (Figure 11) and appeared to teach it skills such as branch breaking behaviour. A week passed and the male Fish Crow (Figure 12) was less visible. The female and chick had momentous fights defending themselves. A first year Bald Eagle (*Haliaeetus leucocephalus*) made the mistake of alighting on the fledgling’s favourite feeding branch, where the female regurgitated food at least once a day. Both female and the fledgling Fish Crow vehemently attacked the Bald Eagle and eventually drove it from the territory (Figure 13). They also successfully attacked and scared off Common Ravens, passing Great Blue Herons (*Ardea herodias*), Osprey (*Pandion haliaetus*) and Cooper’s Hawks. On 8 August, Gordon Watts and I found what we assumed were the juvenile Fish Crow and the female. They were sitting on top of a post in the marina at Lakefront Promenade feeding on a chicken-like corpse that had hawk-like talons. Had they taken revenge on one of the Cooper’s Hawks? Gordon and I continued our observations over the next two months and had our last observations of the female (based on higher voice and single “uh” call) and the juvenile Fish Crow on 5 October 2018. Videos are available (Fazio 2018).

Discussion

For most avian species, range expansion and colonization into new areas is a complex and intricate long term story. Even though most of the Fish Crow nest attempts close to the Canadian border were not successful in the 1980s and 1990s, there was a successful colony of Fish Crows

established at Cayuga Lake near Ithaca, New York (Wells and McGowan 1991). The colony was deemed to have been the result of a “leapfrogging range expansion pattern” as opposed to a pattern of following an oceanic or river route to new areas. This successful Ontario nest is presumed to be a rivers/lakes expansion route.

In Canada (Ontario and Quebec), there have been many extralimital vagrant records of Fish Crows but never a verifiable successful nest (James 1984; Burrell and Charlton 2015, 2016; eBird 2019). In August 2017, Josh Vandermeulen wrote on his blog that he had a pair of “recently fledged young at my house in Niagara Falls” but he continued “this sighting alone doesn’t confirm an Ontario



nesting, as in theory the young birds could have been born across the river in New York” (Vandermeulen 2017). With these observations in Mississauga at Adamson Estate in 2018, we can now say with certainty that Fish Crows have successfully bred in Ontario and Canada (Burrell *et al.* 2019). Will they be back? I believe they were the vanguard of an ever-increasing invasion of Fish Crows from the south. Soon, perhaps not too far into the future, Fish Crows will be nesting in most counties on or near the shores of Lake Ontario and other lakes in the region. Let us be mindful of nesting Fish Crow presence and their pioneering adventures in Ontario and Canada (Figure 14).

First fledged Fish Crow stretches its wing.

Photo: Gord Watts

Acknowledgements

While leading Bird Hikes for The Riverwood Conservancy in Mississauga, I mentioned the possibility of Fish Crows nesting near the southeast Mississauga lakefront and enlisted the help of Gordon Watts who is a budding novice at birding/photography and lives close to the shoreline in Mississauga. Most of the events I report occurred and most of the pictures were taken in the company of Gordon Watts. I would like to thank him for his youthful enthusiasm and photographic ability while helping to keep an eye/ear on the

the Fish Crows. Thank you to Glenn Coody for sharing his observations and for his encouragement in writing this story of the pioneering population of Fish Crows. Thank you also to Garth Riley and my son, Dr. Xavier Fazio, for the many useful insights in writing this article. Thanks to all the new and old timer birders, listers, photographers, curious neighbours, etc., who came out to see and talk about this unique nesting event. Finally, many thanks to the school, Blyth Academy, on the historical Adamson Estate in Mississauga, Ontario, whose staff were very patient and welcoming to all birders/photographers who came to see the nesting Fish Crows very close to their school building. Additional information on the daily routine of the nesting and other events is available from the author (Fazio 2019).

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Other Reference Material

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- Ontbirds**, an email server to publicize rare and unusual avian occurrences in Ontario

Lucio 'Luc' Fazio
2347 Nikanna Road
Mississauga, Ontario L5C 2W8
E-mail: lukefazio@rogers.com

In Memoriam: James D. Rising

Nancy J. Flood



Jim Rising in 2015.
Photo: Steven Rowe

JAMES DAVID RISING—Jim to everyone—died in Toronto on 13 March 2018, as a result of complications following surgery. He packed more birding, ornithological research and writing, teaching, and mentoring into his 75 years of life than most of us can hope to do and will be missed greatly by many, many friends and students, as well as his family.

Born in Kansas City in 1942, Jim was a keen birder from an early age. A member of the American Ornithologist's Union (AOU, now AOS) at 14, he was active with the Burroughs Bird Club in Kansas City, participating in the city's Christmas Bird Count in the 1950s and

1960s. He also joined the Kansas, Cooper and Wilson Ornithological Societies in his teens, which surely presaged a career in ornithology.

Jim completed a B.A. in Zoology at the University of Kansas (KU) in 1964. While there, he began working with Richard Johnston at the KU Natural History Museum. Johnston eventually agreed to be Jim's Ph.D. supervisor—as long as he promised to go elsewhere for a post-doc. Kansas was the perfect place for his doctoral project, however, which was on the hybridization of Bullock's and Baltimore Orioles in the Great Plains—a subject he continued to study for many



Jim on a Central American field course. Spencer Barrett, Jim and Mark Engstrom on a field course. *Photo: Chris Darling*

years. In fact, because of the extent of his knowledge of these species, he was the driving force behind the restoration of the two as separate species in 1995 (after they had been lumped into a single taxon, the Northern Oriole, in 1983). Graduating from KU in 1968, Jim went on to do a post-doc with Jack Hudson at Cornell, where he studied the ecological physiology of chickadees, as well as Baltimore and Bullock's Orioles. This increased his skill set, as well as his ability to look at things from a variety of perspectives.

In 1969, Jim accepted a position in the Department of Zoology (now the Department of Ecology and Evolutionary

Biology—EEB) at the University of Toronto (UT). Since he was also appointed as a research associate at the Royal Ontario Museum (ROM), it was his dream job. For the next 40 years, he taught a variety of undergraduate courses, mentored many graduate students, did research and made good use of—as well as contributing to—the bird collection of the ROM. His contributions to UT go far beyond this, however. From 1992 to 2006, he served as Associate Chair, Undergraduate Studies for the Department of Zoology, a role he found very fulfilling. Another vital contribution was the development of new field courses; although today they may have a different focus, they are now an established part of the EEB curriculum. He taught Field Ornithology at the St. Andrews Marine Station in New Brunswick and on Sapelo Island, Georgia, and Arctic Ecology at the Churchill Northern Studies Centre. With colleagues, he also taught Invertebrate Biology at St. Andrews and Tropical Biology in various locations. When he retired in 2009, a scholarship designed specifically to support students taking field courses was established in his name (<http://www.eeb.utoronto.ca/Assets/EEB+2013+Digital+Assets/James+D.+Rising+Scholarship.pdf?method=1>). Jim was appointed Professor Emeritus at this time and although he was beset by a number of medical issues in his later years, he was still active in the Ramsay Wright building (the home of EEB) until the summer of 2017.

Jim also made substantial contributions to the ornithological profession. He was elected to the council of the Cooper Ornithological Society, which has now

been joined with the American Ornithologists Union, to form the American Ornithological Society (AOS). From 1998 to 2017, he served on the North American Classification committee (formerly the AOU checklist committee). He was vice president and then president of the Wilson Ornithological Society from 2003 to 2008. He was a member of the Ontario Field Ornithologists (OFO) and Bird Studies Canada, as well as supporting a number of conservation organizations. In 2004, in recognition of his “outstanding contributions to the scientific study of birds in Ontario,” the OFO granted him its Distinguished Ornithologist Award (Falls 2004).

Jim loved teaching and he loved doing field research; stories about his adventures — or perhaps misadventures — in the field are myriad. They often included encounters with bears, venomous snakes, scorpions or unpassable roads. He supplemented dwindling food supplies with savannah sparrow breasts on at least one collecting trip into the wilds and once picked up a bagful of “fresh” specimens—birds that had met an untimely end while gritting at the side of the road and being in a rush, added them to his luggage. They would have been a great addition to the ROM collection had that suitcase not been lost for several days...

As a result of this field work, Jim did indeed make many contributions to the scientific study of birds—publishing over 70 papers in the scientific literature, as well as a variety of technical reports and chapters in scholarly texts. Perhaps more importantly, however, he was able to talk to everyone about birds and any other

type of science. He gave lots of presentations at scientific conferences but was also willing and able to talk to bird clubs, take Boy Scouts on field trips, be the ‘neighborhood scientist’ (open to all types of questions) and take amateurs—including students—out birdwatching. He did workshops on the identification of sparrows for American Birding Association and his last three books (co-authored with David Beadle) were addressed to birders as much as scientific professionals: identification guides to some tough groups, especially the sparrows. In addition, Trudy Rising, his wife of 52 years (who was a graduate student with him at KU), enlisted his assistance in writing many chapters in high school texts. A teacher, writer and Science Publisher, Trudy is skilled at finding people who can translate complex ideas for a high school audience. Trudy and Jim even co-wrote a book entitled, *Canadian Songbirds and their Ways*.

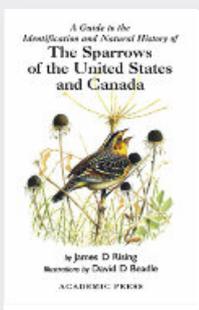
Jim was able to do this because he wasregarious, friendly and indefatigably cheerful. David Beadle writes of feeling some trepidation at meeting Jim for the first time, since to that point he did not have an established reputation as a bird illustrator. Beadle noted that his fears were unfounded, since Jim “turned out to be the nicest guy one could ever meet.” I would second that assessment. As well as everything else, Jim taught me about patience, honesty and maintaining a reasonable work life balance (although I have heard that he sometimes combined his other passion—baseball—with measuring specimens at a card table at home). Trudy attests to his willingness as a young parent of two boys to drive to early

IT WAS WITH SOME TREPIDATION that I first met Jim. Many years ago I had mentioned to Alvaro Jaramillo, a student of his at the time, that I wanted to illustrate a book on North American sparrows, but needed to find a sparrow expert to write the text. "I know just the person!" he said and quickly steered me in the direction of Jim. As it turned out I needn't have worried. We met at a local pub for lunch and Jim turned out to be the nicest guy one could ever meet. At this stage I had no real reputation as a bird illustrator – this was to be my first book – but Jim was willing to take a chance with me. Plans were immediately put into place to work on a definitive guide covering all of the sparrows occurring north of Mexico. Our book was published about three years later and was well received. In fact, it still sells reasonably well today. Our collaboration didn't end there. We produced two more books together—photographic guides to sparrows and finches—and led several sparrow workshops for the American Birding Association to North Dakota and Colorado. Fun times.

Jim was always a pleasure to work with. His immense knowledge combined with his easy-going personality and great sense of humor made for a productive and fun working relationship. I learnt much from him and was

lucky to benefit from the doors he opened for me over the years.

David Beadle
Toronto



morning hockey practice, to do the Boy Scout thing, etc. Shortly after my arrival in Toronto, somewhat homesick, Jim and Trudy took me for a "nature walk" with their two sons—something they clearly did regularly. It was wonderful and set the stage for a strong working relationship and a long friendship. Trudy, David (Heather) and John (Darla) and Jim's three grandsons, Nigel, Justus and Fintan, were adored.

Jim was my graduate supervisor, co-author, teacher and friend. I was his teaching assistant, field assistant (skinning many a Savannah Sparrow in the evenings on collecting trips), bird dog (watching carefully as he dropped a bird with a shotgun and running to find where it had fallen) and friend. I, along with many others, will miss him enormously.

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Nancy J. Flood

Department of Biological Sciences
Thompson Rivers University
805 TRU Way
Kamloops, British Columbia V2C 0C8
E-mail: nflood@tru.ca

ONTARIO BIRDS

Editors:

Chip Weseloh, 1391 Mount Pleasant Road,
Toronto, Ontario M4N 2T7

Ken Abraham, 434 Manorhill Avenue,
Peterborough, Ontario K9J 6H8

Chris Risley, 510 Gilmour Street,
Peterborough, Ontario K9H 2J9

Ornithological Consultants: Glenn Coady,
Michel Gosselin, Ross James and Mark Peck

Cover Art: Barry Kent MacKay

Advertising: advertising@ofo.ca

Design/Production: Judie Shore

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chip.weseloh@canada.ca
kenabra@sympatico.ca
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Printing: DTP Inc., Concord, Ontario



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