

New species added to the Checklist of the Birds of Ontario: 1983-2016

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Introduction

Perhaps the most regular annual feature of *Ontario Birds*, over its 33 years of production, has been the report of the Ontario Bird Records Committee (OBRC). These reports have been carefully prepared by the 13 different Secretaries who served OBRC throughout this time period. As relatively young birders, we can remember poring over these reports to bring ourselves up-to-speed on the patterns of vagrancy in Ontario. The annual reports remain a great source of information, containing interesting records, including first records for the province.

In this paper, we have conducted an analysis of the species that have been added to the Checklist of the Birds of Ontario since 1983 (i.e., over the life of *Ontario Birds*) for which the details establishing each addition were published in OBRC annual reports. We investigated the timing of these records and the trends in the geographic and taxonomic origin of these species to give the reader a better appreciation of the amazing list of birds which have been recorded in Ontario.

Ontario's third Sulphur-bellied Flycatcher, Thunder Cape, Thunder Bay on 30 September 2010.

Photo: Sachiko L. Schott.



Methods

We assembled the list of species added to the OBRC approved Checklist of the Birds of Ontario (hereafter called the Ontario checklist) based on the year in which the records were published in the annual reports from the OBRC for simplicity. This included some species which were observed prior to 1983. We did not include species resulting solely from taxonomic splits (Spotted Towhee [*Pipilo maculatus*] and Cackling Goose [*Branta hutchinsii*]) because they were not actually new to the province. We also excluded birds that could not be identified to the species level, (i.e., Tropical/Couch's Kingbird [*Tyrannus melancholicus/couchii*] and Sooty/Short-tailed Shearwater [*Puffinus griseus/tenuirostris*]).

Using eBird (2016), we assigned each species a geographic area of likely origin based on its known range. We then grouped species based on similar geographic area of origin for the purpose of discussing each source area separately. We included species in more than one geographic area of origin in cases where that species' range encompassed multiple areas. Definitions for the geographic areas of origin used are presented in Table 1 and the full list of species is presented in Table 2. We also analyzed the species' Order using the American Ornithologists' Union ([AOU] 1998) check-list of North American Birds up to the fifty-sixth supplement (Chesser *et al.* 2015).

Table 1: Geographic areas of origin and definitions for inclusion

Area	Definition
Southwest	Southwestern North America including southern California, Arizona, New Mexico and Mexico
Atlantic	Atlantic Ocean: north of the equator (seabirds)
Midwest	Midwestern North America covering the southern prairie provinces, the area east of the Rockies, west of the Mississippi River and north of Texas and New Mexico
Northwest	Northwestern North America, including the states and provinces north of and including northern California which border the Pacific Ocean.
Southeast	Southeastern North America, including the states east of Texas and south of Kentucky and West Virginia, and the Caribbean
Asia	The continent of Asia
Europe and Greenland	The continent of Europe, including Greenland
Central America	Central America (not including Mexico)
South America	The continent of South America

Table 2: New species added to the Ontario checklist with date of first observation, OBRC report publication year and possible geographic area(s).

Common Name	Scientific Name	First observed	Year	Geographic origin
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	24 Nov 1962	1983	Southwest
Fish Crow	<i>Corvus ossifragus</i>	15 May 1978	1983	Southeast
California Gull	<i>Larus californicus</i>	14 May 1981	1983	Midwest
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	03 Jan 1982	1983	Northwest
Common Poorwill	<i>Phalaenoptilus nuttallii</i>	04 June 1982	1983	Southwest/Midwest
Lesser Goldfinch	<i>Spinus psaltria</i>	10 Aug 1982	1983	Southwest/Northwest
Sooty Tern	<i>Onychoprion fuscatus</i>	14 Aug 1955	1984	Southeast
Royal Tern	<i>Thalasseus maximus</i>	22 Aug 1974	1984	Southeast
Eurasian Blackbird	<i>Turdus merula</i>	12 April 1981	1984	Europe
Ross's Gull	<i>Rhodostethia rosea</i>	14 May 1983	1984	Other
Carolina Chickadee	<i>Poecile carolinensis</i>	18 May 1983	1984	Southeast
Siberian Rubythroat	<i>Luscinia calliope</i>	26 Dec 1983	1984	Asia
Swainson's Warbler	<i>Limnothlypis swainsonii</i>	22 May 1975	1985	Southeast
Lesser Sand Plover	<i>Charadrius mongolus</i>	04 May 1984	1985	Asia
Crested Caracara	<i>Caracara cheriway</i>	18 July 1892	1986	Southwest
Eurasian Jackdaw	<i>Corvus monedula</i>	13 April 1985	1986	Europe
Atlantic Puffin	<i>Fratercula arctica</i>	15 Dec 1985	1986	Atlantic
Long-billed Curlew	<i>Numenius americanus</i>	15 Oct 1959	1987	Midwest
Sulphur-bellied Flycatcher	<i>Miyodynastes luteiventris</i>	28 Sept 1986	1987	Southwest/Central America
Western Wood-Pewee	<i>Contopus sordidulus</i>	18 June 1984	1988	Northwest
Snowy Plover	<i>Charadrius nivosus</i>	04 May 1987	1988	Southwest/Midwest/ Southeast
Hermit Warbler	<i>Setophaga occidentalis</i>	10 Sept 1978	1989	Northwest
Brambling	<i>Fringilla montifringilla</i>	12 Nov 1980	1989	Asia/Europe
Great-tailed Grackle	<i>Quiscalus mexicanus</i>	07 Oct 1987	1989	Southwest
Magnificent Frigatebird	<i>Fregata magnificens</i>	28 Sept 1988	1990	Southeast/Central America
Cave Swallow	<i>Petrochelidon fulva</i>	21 April 1989	1990	Southwest
Broad-billed Hummingbird	<i>Cyanthus latirostris</i>	16 Oct 1989	1990	Southwest
Black Rail	<i>Laterallus jamaicensis</i>	14 June 1987	1991	Southeast
Ferruginous Hawk	<i>Buteo regalis</i>	17 March 1990	1991	Midwest
Black-chinned Hummingbird	<i>Archilochus alexandri</i>	25 May 1990	1991	Southwest
Wilson's Plover	<i>Charadrius wilsonia</i>	26 May 1990	1991	Southwest/Southeast
Cassin's Finch	<i>Haemorhous cassinii</i>	13 Aug 1990	1991	Southwest/Northwest
Black-capped Vireo	<i>Vireo atricapilla</i>	27 April 1991	1992	Southwest
White-winged Tern	<i>Chlidonias leucopterus</i>	08 May 1991	1992	Asia/Europe
Green Violetear	<i>Colibri thalassinus</i>	30 June 1991	1992	Central America
Painted Bunting	<i>Passerina ciris</i>	21 May 1978	1993	Southeast
Slaty-backed Gull	<i>Larus schistisagus</i>	24 Nov 1991	1993	Asia
Pyrrhuloxia	<i>Cardinalis sinuatus</i>	23 Dec 2004	2012	Southwest

Common Name	Scientific Name	First observed	Year	Geographic origin
Hooded Oriole	<i>Icterus cucullatus</i>	19 May 1992	1993	Southwest
Black-throated Sparrow	<i>Amphispiza bilineata</i>	02 Oct 1992	1993	Southwest
Inca Dove	<i>Columbina inca</i>	07 Oct 1992	1993	Southwest
Violet-green Swallow	<i>Tachycineta thalassina</i>	28 Oct 1992	1993	Southwest/Northwest
Garganey	<i>Anas querquedula</i>	18 April 1993	1994	Asia/Europe
Dusky Flycatcher	<i>Empidonax oberholseri</i>	12 Sept 1993	1994	Northwest
Variagated Flycatcher	<i>Empidonomus varius</i>	07 Oct 1993	1994	South America
Long-billed Murrelet	<i>Brachyramphus perdix</i>	11 Oct 1993	1994	Asia
Black-bellied Whistling-Duck	<i>Dendrocygna autumnalis</i>	17 June 1993	1995	Southwest
Eurasian Tree Sparrow	<i>Passer montanus</i>	16 Feb 1994	1995	Midwest
Prairie Falcon	<i>Falco mexicanus</i>	19 April 1995	1996	Southwest/Midwest
Varied Bunting	<i>Passerina versicolor</i>	07 May 1995	1996	Southwest
White-faced Ibis	<i>Plegadis chihi</i>	20 July 1995	1996	Southwest
Black-tailed Godwit	<i>Limosa limosa</i>	10 Sept 1995	1996	Europe
Bullock's Oriole	<i>Icterus bullockii</i>	13 Nov 1977	1997	Southwest/Midwest
Bicknell's Thrush	<i>Catharus bicknelli</i>	19 Sept 1979	1997	Other
Baird's Sparrow	<i>Ammodramus bairdii</i>	02 July 1996	1998	Midwest
Plumbeous Vireo	<i>Vireo plumbeus</i>	03 June 1997	1998	Southwest
Great Shearwater	<i>Puffinus gravis</i>	20 Aug 1997	1998	Atlantic
Eurasian Collared-Dove	<i>Streptopelia decaocto</i>	25 July 1993	1999	Southeast
Heermann's Gull	<i>Larus heermanni</i>	14 Nov 1999	2000	Southwest
Manx Shearwater	<i>Puffinus puffinus</i>	26 Aug 2001	2002	Atlantic
White-collared Swift	<i>Streptoprocne zonaris</i>	10 June 2002	2003	Central America
Tropical Kingbird	<i>Tyrannus melancholicus</i>	26 Oct 2002	2003	Southwest/Central America/ South America
Brewer's Sparrow	<i>Spizella breweri</i>	27 May 2003	2004	Northwest
Neotropic Cormorant	<i>Phalacrocorax brasilianus</i>	03 May 2005	2006	Southeast/Central America
McCown's Longspur	<i>Rhynchophanes mccownii</i>	21 June 2005	2006	Midwest
Black Swift	<i>Cypseloides niger</i>	21 May 2006	2008	Northwest
Barnacle Goose	<i>Branta leucopsis</i>	20 Nov 2005	2009	Europe
Mottled Duck	<i>Anas fulvigula</i>	01 May 2008	2009	Southeast
Roseate Spoonbill	<i>Platalea ajaja</i>	13 June 2009	2010	Southeast
Black-tailed Gull	<i>Larus crassirostris</i>	28 Sept 2009	2010	Asia
Yellow-nosed Albatross	<i>Thalassarche chlororhynchos</i>	04 July 2010	2011	Other
Anna's Hummingbird	<i>Calypte anna</i>	25 Oct 2010	2011	Southwest/Northwest
Thick-billed Kingbird	<i>Tyrannus crassirostris</i>	28 Aug 2012	2013	Southwest/Central America
Brown Booby	<i>Sula leucogaster</i>	07 Oct 2013	2014	Southeast
Elegant Tern	<i>Sterna elegans</i>	21 Nov 2013	2014	Southwest
Kelp Gull	<i>Larus dominicanus</i>	07 Sept 2012	2016	South America
Little Egret	<i>Egretta garzetta</i>	02 June 2015	2016	Europe
Eurasian Dotterel	<i>Charadrius morinellus</i>	03 Oct 2015	2016	Asia
Pink-footed Goose	<i>Anser brachyrhynchus</i>	30 Oct 2015	2016	Europe

Results and Discussion

With the exclusions outlined above, 79 species were added to the Ontario checklist by publication in OBRC annual reports in *Ontario Birds*. The actual years when the “new” species were observed ranged from 1892 to 2015. Seventeen species were first observed from 1892 to 1982 while 62 species were observed from 1983 to 2015 (Table 2). One would expect it to be harder to add new species over time, and while this trend over the long term is evident (Figure 1), it is still remarkable that the pace of species additions in recent years is not much lower than it was in the 1980s. The 62 species added in recent years averages out to 1.9 new species per year. The 2015 OBRC report (Burrell and Charlton 2016) is noteworthy in that it is the first year with more than two additions since 1998).

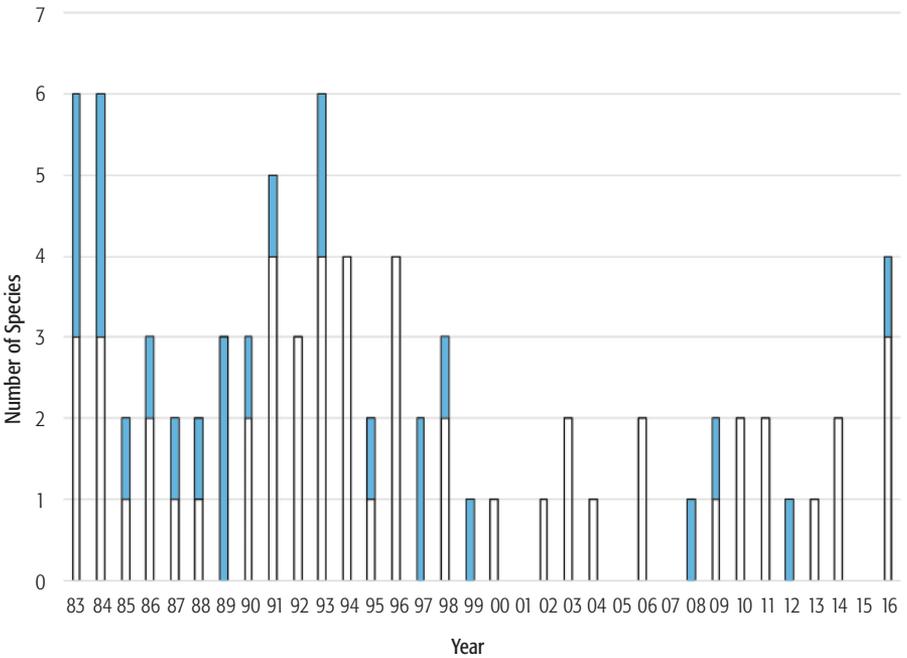


Figure 1: Number of new species added to the Ontario checklist per year based on the publication year of the OBRC report that included the records. The open portion of each column represents the number of new species that were seen in the previous year (e.g., seen in 2005 and published in 2006). The shaded portion of each column represents the number of new species that were seen prior to the previous year (e.g., seen in 2002 but published in 2005).

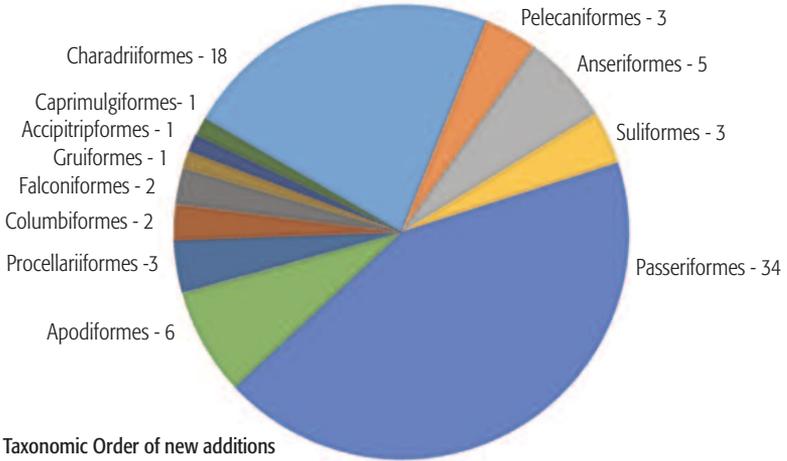


Figure 2: Taxonomic Order of new additions to the Ontario checklist, 1983-2016. The number shown is the number of species in the corresponding Order.

From a taxonomic perspective, the vast majority of new species have been members of either the Passeriformes [songbirds] (43%) or Charadriiformes [gulls, terns and shorebirds] (23%); the remaining one third of the species are fairly evenly split among ten other Orders (Figure 2).

Most Ontario birders are unlikely to be surprised that the monthly distribution pattern of first records of the 79 new species corresponds to the times of year that birders are most active (Figure 3). There were 33 new species added to the checklist during spring migration from April to June. New additions during fall migration overall are more spread out with 35 new species between August and November (the 5 new species in July could also pertain to fall migrants). The two best months during spring and fall migration were May (17 species) and October (13 species), respectively.

Possible Geographic Origin

Based on possible geographic areas of origin, new species have come from a variety of regions (Figure 4).

Southwest

Southwestern North America leads the way for possible origins of new additions to the Checklist of the Birds of Ontario, with 37% (29 species) of the species thought to have originated there. Most of the new species from this area have a well-developed pattern of vagrancy to north-eastern North America, and several have now occurred on multiple occasions in Ontario. Cave Swallow (*Petrochelidon fulva*), which was first observed in 1989 (Wormington and Curry 1990), subsequently had 62 additional records published in OBRC reports up to 2010, at which point it was removed from the southern Ontario review list; however, it is now back on the review list, due to few records since 2011 (Burrell and Charlton

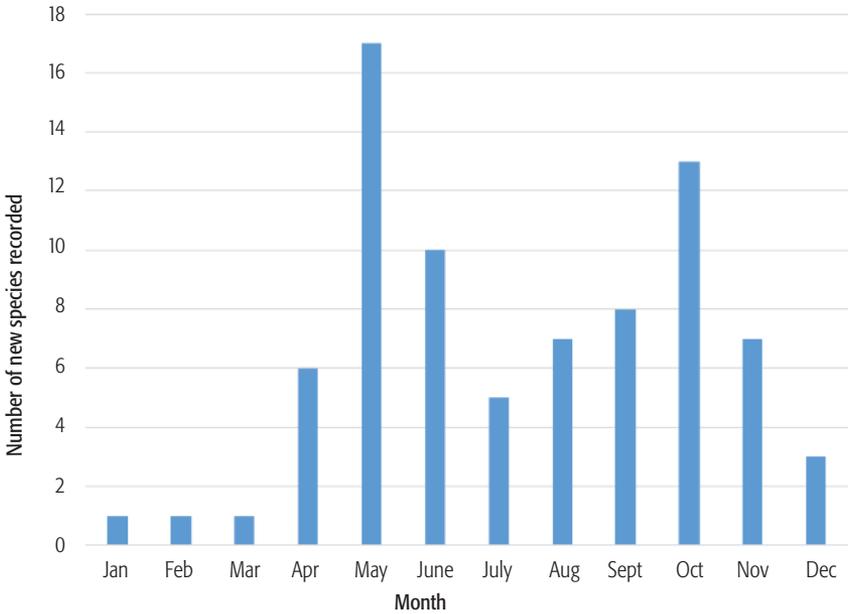


Figure 3: Month of first observation of new additions to the Ontario checklist, 1983-2016.

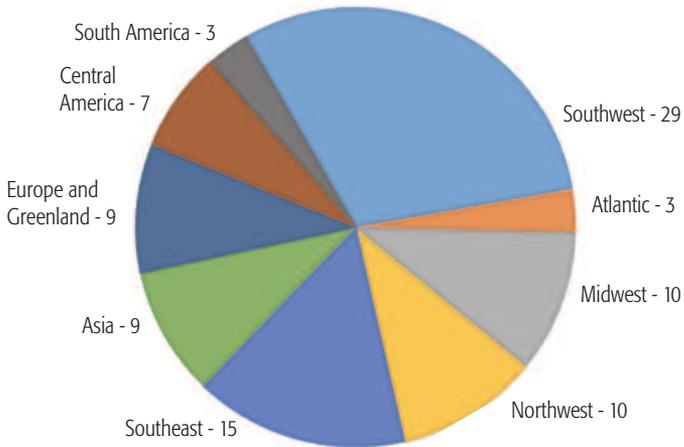


Figure 4: Possible geographic areas of origin of new additions to the Ontario checklist, 1983-2016. The number shown is the number of species possibly originating from this area. Note that the total number adds up to more than the number of new species because a species could be listed for more than one area.

2016). White-faced Ibis (*Plegadis chihi*) (21 published records) and Ash-throated Flycatcher (*Myiarchus cinerascens*) (12 published records) both have also developed patterns of regularly occurring rarities in Ontario although not in such a striking fashion.

Despite many species from the Southwest being reasonably expected, there have been some really exceptional vagrant birds within this group. If you polled many Ontario birders, birds like Heermann's Gull (*Larus heermanni*), Elegant Tern (*Thalasseus elegans*), Black-capped Vireo (*Vireo atricapilla*) and Varied Bunting (*Passerina versicolor*) are unlikely to have been on their lists of potential species to be seen.

Southeast

Southeastern North America is the possible place of origin for 19% (15 species) of additions to the Ontario checklist. It might come as a surprise to some that there are more species from the Southwest than the Southeast, given the proximity of the latter, but this is likely because many vagrants from the southeast had been observed in Ontario prior to the inception of the OBRC and *Ontario Birds*. Several of the species on the southeastern list are species that are expanding their ranges northward or increasingly being detected as vagrants north of their core range; these include Fish Crow (*Corvus ossifragus*), Eurasian Collared-Dove (*Streptopelia decaocto*), Mottled Duck (*Anas fulvigula*) and Neotropical Cormorant (*Phalacrocorax brasilianus*). Interestingly, but perhaps not surprisingly, all of these species were recorded in 2015 (Burrell and Charlton 2016) and

many Ontario birders predict that Fish Crow and Eurasian Collared-Dove will breed soon, while Neotropical Cormorant may not be far behind.

While it is not surprising that many on this list have shown up in Ontario, the same cannot be said for Brown Booby (*Sula leucogaster*), although even this species seems to be occurring more frequently at inland sites (eBird 2016).

Midwest

Midwestern North America is the possible geographic source of 13% (10 species) of additions to the Ontario checklist. One species on this list really stands out — California Gull (*Larus californicus*). With 65 published records, it is hard to imagine that the first observation only came in 1981 (James 1983). This species does not seem to have increased in Ontario appreciably in the last few years; rather, Ontario birders have gotten better at finding it, particularly along the Niagara River corridor. The number of records of Eurasian Tree Sparrow (*Passer montanus*) has exploded in the province in the past two years, with seven of the total of 11 records; presumably these are from the St. Louis, Missouri, area where it was introduced in the nineteenth century and where it is now well-established (Barlow and Leckie 2000).

Each remaining species on the midwestern list, Common Poorwill (*Phalaenoptilus nuttallii*), Baird's Sparrow (*Ammodramus bairdii*) and McCown's Longspur (*Rhynchophanes mccownii*), has occurred just once and is not turning up regularly elsewhere in northeastern North America.

Northwest

Northwestern North America is the possible source for 13% (10 species) of additions to the Ontario checklist. Most of these species are still quite rare in Ontario with their rate of occurrence here having remained relatively stable throughout the study period. Many of the vagrants that show up regularly from the Northwest had already been added to the Ontario checklist prior to 1983, so we suspect the species that are the most recent additions listed in this paper are only the very rarest. The main exception to this status is the Golden-crowned Sparrow (*Zonotrichia atricapilla*), which was first observed in 1982 (James 1983) and has since been recorded 13 times. Some of the more exceptional species from this region include Dusky Flycatcher (*Empidonax oberholseri*), Brewer's Sparrow (*Spizella breweri*) and Cassin's Finch (*Haemorhous cassinii*). While any of those could occur again in Ontario, it would certainly be a big deal!

Asia

Asia is the possible source for 11% (9 species) of additions to the Ontario checklist. Asia may seem like a long way away, but seven of the nine species must have come from there. The eighth species, Brambling (*Fringilla montifringilla*), occurs in Europe, but also likely originated in Asia. Howell *et al.* (2014) illustrate the decreasing trend of this species from west to east in North America.

The list of Asian vagrants to Ontario is impressive and includes some truly remarkable species such as Siberian Rubythroat (*Luscinia calliope*), Lesser Sandplover (*Charadrius mongolus*), Long-billed

Murrelet (*Brachyramphus perdix*) and Eurasian Dotterel (*Charadrius morinellus*). In fact, Ontario is among the few places in North America to record any of these species.

Of the Asian species, only Garganey (*Anas querquedula*), Slaty-backed Gull (*Larus schistisagus*) and Brambling have occurred in Ontario more than once. White-winged Tern (*Zenaidra asiatica*) has been observed twice, though it is probable that both of these records involved a single bird returning in back-to-back years (Bain 1993).

Europe and Greenland

Like Asia, Europe and Greenland is the possible source of 11% (9 species) of additions to the Ontario checklist. Two of these species, Barnacle Goose (*Branta leucopsis*) and Pink-footed Goose (*Anser brachyrhynchus*), are increasingly showing up throughout eastern North America (Sherony 2008). The Eurasian Blackbird (*Turdus merula*) is perhaps the least likely of those on this list to ever show up in Ontario again; in fact, Howell *et al.* (2014) only list two other records for North America.

Central America

Nine percent (7 species) of the new additions have their possible origin in Central America. These amazing rarities include Green Violetear (*Colibri thalassinus*), White-collared Swift (*Streptoprocne zonaris*), Tropical Kingbird and Thick-billed Kingbird (*Tyrannus crassirostris*).

Most of these have occurred in Ontario only once and are not likely to occur again, at least for quite some time. Of course, everyone said the same thing

about the province's first Sulphur-bellied Flycatcher (*Myiodynastes luteiventris*) (also presumably from Central America), but we now have three records!

South America

We listed 4% (3 species) of new additions as having their possible origins in South America. These include Tropical Kingbird and Variegated Flycatcher (*Empidonax varius*); both species have shown up in the fall and may be the result of "overshooting" in spring migration (fall in our hemisphere). The Variegated Flycatcher is one of the rarest species to ever show up in the province, being just one of four records listed for all of North America (Howell *et al.* 2014). The third species in this list is Kelp Gull (*Larus dominicanus*), which has been observed in the province in 2012 and 2013 (Burrell and Charlton 2016); however, both records could pertain to the same individual, given the age of the individual and dates seen.

Atlantic Ocean

There are three species (4%) of seabirds which have been added to the Ontario checklist. These include Atlantic Puffin (*Fratercula arctica*) (3 records), Manx Shearwater (*Puffinus puffinus*) (2 records) and Great Shearwater (*Puffinus gravis*) (1 record). Interestingly, two of the puffin records are speculated to have involved birds from James Bay heading overland and recent records of other Atlantic Ocean seabirds from southern James Bay suggests this is a possible source for other species.

Misfits

There were two species that did not fit well into any of the above categories. The first is Ross's Gull (*Rhodostethia rosea*), which was first recorded in 1983 at Moosonee, and published in the 1983 OBRC report (James 1984). This species was nearly mythical when *Ontario Birds* began but has since been discovered to nest in at least several scattered locations in the Arctic and in northwestern Asia; it has been recorded eleven times in Ontario. The second species is Yellow-nosed Albatross (*Thalassarche chlororhynchos*), a seabird of the southern Atlantic Ocean and one of the most unbelievable birds to ever be found in the province, given the species' population, range and pelagic nature (Martin and DiLabio 2011).

Summary

The list of species added to the Ontario checklist over the life of the OBRC and *Ontario Birds* is large and very impressive and includes species originating from a wide geographical area. New additions to the list over the past 33 years have been most likely to originate from the southwestern portion of North America (37%), be members of the order Passeriformes (43%), and occur in May or October. This paper reveals a few of the interesting patterns to be seen from exploring this list and could be used as a starting point for guessing at what the next 33 years of *Ontario Birds* might bring us.

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