

The Blue Bill

Quarterly Journal of the Kingston Field Naturalists



Volume 70, No. 1

March 2023

2022/2023 Executive

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The Blue Bill is the quarterly journal (published March, June, September and December) of the **Kingston Field Naturalists**, P.O. Box 831, Kingston ON, K7L 4X6, Canada.

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Cover photo: The Acadian Flycatcher is a typically cryptic example of the Empidonax group of flycatchers. Clues to look for include size, deep olive-green colouration, long bill, and in particular the long tips of its primary feathers, which extend well past the secondaries. Song remains the best clue to identifying them. (Anthony Kaduck)

ISSN 0382-5655



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1 Kingston and Area Christmas Bird Counts

by Kathy Webb

Table 1: Overall statistics for the Kingston area 2022 Christmas Bird Counts

	ONKG	ONNA	ONWE	ONPE	ONAI	ONDE	ONGQ	ONFR	ONMS
	18-Dec	27-Dec	14-Dec	17-Dec	02-Jan	14-Dec	21-Dec	17-Dec	03-Jan
Species	84	74	50	65	55	49	51	45	45
Birds	35719	10851	5459	6449	6034	3188	7521	2603	2467
Participants: field + feeder	62 + 99	18 + 8	16 + 16	24 + 1	40 + 11	14 + 0	19 + 5	29 + 17	16 + 0
Low °C	-7	-11	-5	0	1.5	-10	-5	-2	-11
High °C	2	-1	-2	2	4	-3	2	1	5
Wind, km/h	2-20	0-15	-	0-10	0-10	9	10-40	7-15	0-35
Snow depth, cm	2-15	5-45	10-15	0-10	0-5	3	8-15	0-15	0-20
Rain/Snow	Very light snow am	None	None	Light snow am/pm	None	None	None	None	None
Sun/Cloud	Cloudy	Cloudy	Clear	Cloudy	Cloudy	Partly Cloudy	Cloudy	Cloudy	Cloudy

Note: ONKG= Kingston, ONNA= Napanee, ONWE= Westport, ONPE= Prince Edward Point, ONAI= Amherst Island, ONDE= Delta, ONGQ= Gananoque, ONFR= Frontenac, ONMS= Moscow

The 123rd Audubon Christmas Bird Count (CBC) was successfully completed in this region. All CBCs take place within a fixed 24km diameter circle, each on a single day between December 14 and January 5 (<https://www.birdscanada.org/bird-science/christmas-bird-count/>). The Kingston count typically falls on the first Sunday within that time frame: the recent count took place on Sunday, December 18, 2021 and the next count will take place on Sunday, December 17, 2023. Kingston's first CBC was held in 1948 and has taken place every year since, except 2007 when it was cancelled due to bad weather. Other CBCs later established within the KFN birding area include: Napanee (1962), Westport (1964), Moscow (1964, not run 1994-2015), Thousand Islands (1974), Prince Edward Point (1977), Amherst Island (1990), Delta (2000), Gananoque (2014) and Frontenac (2015). Thank you to the compilers of this year's local counts: Kathy Webb, Kingston (ONKG); Kurt Hennige, Napanee (ONNA) and Gananoque (ONGQ); Wendy Briggs-Jude, Westport (ONWE); Jeff Brady, Moscow (ONMS); Josh Van Wieren, Thousand Islands (ONTI); Dale Smith, Prince Edward Point (ONPE); Janet Scott and Bonnie Livingstone, Amherst Island (ONAI); Jim Thompson, Delta (ONDE); and Carolyn Bonta and Michael Johnson, Fron-

tenac (ONFR). The continued efforts of everyone involved in the local counts are greatly appreciated.

Field surveys start with some early morning owling and often continue through until dusk, while feeder watchers spend variable amounts of time watching their yards/feeders during the day. This year, a total of 241 birders in the field and 158 feeder-watchers took part in the nine counts summarized within the KFN birding area. They contributed a cumulative total of 835 hours of birding, drove over 3000 km and walked over 300 km to tally 80 252 birds and 108 species. Note that the results of the Thousand Islands count were not available as of March 1 at the publication deadline.

Table 1 shows some statistics for nine out of the ten counts held within our area. Participation was highest for the Kingston, Amherst Island and Frontenac circles. Close to one hundred backyard feeder watchers took part in the Kingston CBC again this year—we have had record numbers of feeder watchers in Ontario for several years now! Temperatures were at or below zero for most of the counts with a general lack of precipitation except for the day of light snow experienced in the Prince Edward Point count. Snow depths in the area averaged less than 15cm, the large or moving bodies

of water were open or only partly frozen, while shallow and inland bodies of water were mostly frozen.

Table 2 provides species counts and averages over the last 20 years. On average across counts, the number of species seen this year was quite similar to the average over the previous 20 years. Although the number of species seen in some counts was well below average (Kingston, Gananoque), an encouraging sign was that several other counts fared much better than in past years (Napaneer, Westport, Delta, Moscow). The number of species and the total number of birds seen in the large Kingston count was well below the 20 year averages of 96 and 47 621, respectively (Figure 2).

Table 3 contains a breakdown of species for each count as taken from the Audubon website (<https://netapp.audubon.org/cbcobservation/>). The abbreviation 'CW' indicates a species seen during 'count week,' consisting of the three days before and after the actual count day. An interesting statistic not included in the table is the combined total number of species across all counts within the KFN birding area. This year, 108 species with an additional five count week species were seen. This illustrates the great diversity of species that can be found during the winter in this area.

There were two exceptional count day highlights: a Yellow-throated Warbler found by Gerard Phillips in the Delta count (only seen once before during a CBC in the KFN birding area)(Figure 1) and a Baltimore Oriole found by Ken Edwards and Graeme Smith in the Kingston count (previously only seen three times during a CBC in the KFN birding area). Other notable count day observations included: Snow Goose (Napaneer), Wood Duck (Westport, Delta), Green-winged Teal (Kingston, Amherst Island), Black Scoter (Kingston), Barrow's Goldeneye (Gananoque), Red-necked Grebe (Napaneer), Double-crested Cormorant (Kingston, Prince Edward Point), Great Blue Heron (Westport), Turkey Vulture (Gananoque), Northern Goshawk (Amherst Island), Glaucous Gull (Napaneer), Northern Saw-whet Owl (Kingston), Yellow-bellied Sapsucker (Napaneer, Prince Edward Point, Gananoque), Peregrine Falcon (Kingston, Napaneer, Delta), Northern Shrike (Kingston, Moscow), Tufted Titmouse (Kingston, Westport, Gananoque), Winter Wren (Kingston, Delta), Carolina Wren (Kingston, Napaneer, Frontenac, Moscow), Hermit Thrush (Prince Edward Point, Moscow), Brown Thrasher (Kingston, Napaneer, Westport), Northern Mockingbird (Kingston), White-crowned Sparrow (Gananoque, Napaneer), Savannah

Sparrow (Napaneer), Rusty Blackbird (Prince Edward Point, Delta). Count week highlights included: Red-throated Loon (Napaneer), Snow Goose (Gananoque), Bonaparte's Gull (Gananoque), Little Gull (Gananoque), Swamp Sparrow (Kingston).



Figure 1: The Yellow-throated Warbler found in the Delta count. (Gerard Phillips)

Several of the CBCs added new species to their cumulative species lists this year. Frontenac added four new species: Carolina Wren, Eastern Bluebird, Bohemian Waxwing and Common Grackle. Napaneer added two species: Carolina Wren and Brown Thrasher. Gananoque added two new species: Yellow-bellied Sapsucker and Barrow's Goldeneye. Moscow added a Carolina Wren and Delta added a Yellow-throated Warbler. The northward movement of the Carolina Wren with climate change is evident from its recent appearance in most of the local counts. Napaneer also boasted the best feeder birds of this year's count season: a Peregrine Falcon and a Great Horned Owl were reported at the same feeder in Sandhurst!

Continuing high counts common to a few CBCs were found for Mute Swans (Figure 3), American Crows, Common Ravens, Red-bellied Woodpeckers, Blue Jays, Northern Cardinals, White-breasted Nuthatches and Dark-eyed Juncos. A summary of the "invasion" of the Mute Swan in Ontario is presented on the [Government of Canada website](#). The large number of backyard feeder watchers in the Kingston count also resulted in especially good numbers for the bird species that visit feeders. Low numbers were found for many waterfowl.

Amherst and Wolfe Islands are well known for their owl and hawk populations. Snowy Owls were seen in low numbers this year, with all being reported on either Amherst Island (2) or Wolfe Island (8). There were no

Short-eared Owls or Long-eared Owls seen during the count this year and only a single Northern Saw-whet Owl was heard on Wolfe Island. Likewise, all of the Rough-legged Hawk sightings came from the islands except for two in the Napanee count.

Tyler Hoar's "Winter Finch Forecast" predicted that this was going to be a flight (irruption) year for some species of winter finches. However, few or none of these irruptive finch species (Purple Finch, Evening and Pine Grosbeaks, Pine Siskins, crossbills and redpolls) were seen in our area this year. The grosbeaks that were counted

were more evident in the more northern parts of our area. However, Red-breasted Nuthatches and Blue Jays whose movements are often linked to those of the boreal finches continued in high numbers this year.

Further information regarding count dates and locations can be found on the Bird Studies Canada website (<http://www.birdscanada.org/volunteer/cbc/>).

To view or download current or historical results from any location, please visit the Audubon website (<http://netapp.audubon.org/cbcobservation/>).

Table 2: The number of species found since 2002, with the average over the previous 20 years

Year	ONKG	ONNA	ONWE	ONTI	ONPE	ONAI	ONDE	ONGQ	ONFR	ONMS
2002	109	47	50	51	59	60	40	-	-	-
2003	103	*	51	61	82	53	38	-	-	-
2004	104	*	58	57	71	36	43	-	-	-
2005	103	*	50	60	76	64	38	-	-	-
2006	104	52	56	64	71	54	48	-	-	-
2007	*	34	51	60	65	54	40	-	-	-
2008	106	36	57	55	63	57	42	-	-	-
2009	101	33	60	50	55	56	42	-	-	-
2010	102	37	59	63	55	57	40	-	-	-
2011	106	51	59	54	69	69	38	-	-	-
2012	108	47	58	55	70	61	44	-	-	-
2013	96	39	51	55	63	54	41	-	-	-
2014	104	42	66	55	74	74	41	56	-	-
2015	84	44	66	59	61	51	46	63	37	-
2016	96	39	59	64	64	50	44	74	37	36
2017	82	55	60	63	80	53	41	51	49	40
2018	86	52	53	63	69	63	36	55	49	*
2019	69	42	59	56	51	54	38	53	38	37
2020	79	44	65	66	63	63	47	66	55	36
2021	89	48	66	60	57	57	43	63	50	37
2022	84	50	74	na	65	55	49	51	45	45
20-yr avg	96	44	58	59	66	57	42	60	45	37

Note: * = count not held; na = not available

Table 3: KFN Area Christmas Bird Counts 2022

	ONKG	ONNA	ONWE	ONPE	ONAI	ONDE	ONGQ	ONFR	ONMS	TOTAL
Snow Goose		2					CW			2
Canada Goose	15153	1868	716	878	1847	289	2193	357	196	23497
Mute Swan	565	30		170	136	6	631			1538
Trumpeter Swan	17		114			89		2		222
Tundra Swan	589	6		92	29	2	36			754
swan sp.	6			1	6					13
Wood Duck			1			2				3
Gadwall	151	2					2			155
American Wigeon	55			1						56
American Black Duck	480	9		1	48	2	30			570
Mallard	2047	221	8	171	334	149	189	38	17	3174
Northern Pintail	12				1					13
Green-winged Teal	8				1					9
Redhead	10	1								11
Ring-necked Duck	142	CW	2							144
Greater Scaup	909	7			219					1135
Lesser Scaup	CW	8		54	32					94
Greater/Lesser Scaup	208	150			400					758
White-winged Scoter				71	28					99
Black Scoter	2									2
Long-tailed Duck	422	48		980	48					1498
Bufflehead	154	50	7	229	126		39	3		608
Common Goldeneye	633	186	47	302	462	6	85			1721
Barrow's Goldeneye							2			2
Hooded Merganser	78	5	20	15	12	44	12	74		260
Common Merganser	491	182	2041	182	79	595	76	39		3685
Red-breasted Merganser	2248	20		192	238		457	11		3166
merganser sp.	28				22					50
duck sp.	637				5			4	10	656
Ruffed Grouse	CW	1	4	2		1	4	4		16
Wild Turkey	211	75	210		18	83	20	52	61	730
Red-throated Loon		CW								CW
Common Loon	2	3	1	5	1	2				14
Horned Grebe	1			7	10					18
Red-necked Grebe		1								1
Double-crested Cormorant	4			9						13
Great Blue Heron			1							1

Table 3: (continued)

	ONKG	ONNA	ONWE	ONPE	ONAI	ONDE	ONGQ	ONFR	ONMS	TOTAL
Turkey Vulture							1			1
Northern Harrier	13	1		1	16	1				32
Northern Goshawk					1					1
Sharp-shinned Hawk	3	2		5						10
Cooper's Hawk	6	6	2	6			CW	3		23
Northern Goshawk		1								1
accipiter sp.		2								2
Bald Eagle	23	3	6	15	11	10	22	8	5	103
Red-tailed Hawk	12	32	2	17	15	9	20	7	10	124
Rough-legged Hawk	3	2			30					35
hawk sp.	4					1				5
buteo sp.					1					1
American Coot	14	4								18
Bonaparte's Gull							CW			CW
Little Gull							CW			CW
Ring-billed Gull	511	60	11	269	25	28	14	10	2	930
Herring Gull	309	430	4	131	65	15	137	51	6	1148
Iceland Gull	CW									CW
Glaucous Gull		1								1
Great Black-backed Gull	8	12		1	1		1	2		25
gull sp.	21	2		4	37			5	2	71
Rock Pigeon	1430	549	303	63	41	245	458	44	115	3248
Mourning Dove	576	793	101	143	116	164	222	184	115	2414
Eastern Screech Owl	4									4
Great Horned Owl	2	3		1	1					7
Snowy Owl	8				2					10
Barred Owl	4	2	1	CW	1	1	1	8	1	19
Northern Saw-whet Owl	1									1
Belted Kingfisher	2		1	1	1	2		1		8
Red-bellied Woodpecker	19	8	9	20	9	7	22	16	4	114
Yellow-bellied Sapsucker		4		1			1			6
Downy Woodpecker	137	45	29	14	19	35	57	33	29	398
Hairy Woodpecker	36	15	33	9	6	9	31	27	18	184
Downy/Hairy Woodpecker								2		2
Northern Flicker	6	2	1	4	2					15
Pileated Woodpecker	15	4	4	2	1	6	3	6	6	47
woodpecker sp.	1									1

Table 3: (continued)

	ONKG	ONNA	ONWE	ONPE	ONAI	ONDE	ONGQ	ONFR	ONMS	TOTAL
American Kestrel	9	5	1	1	1				5	22
Merlin	3	1		1					1	6
Peregrine Falcon	2	1				1				4
Northern Shrike	2								3	5
Blue Jay	337	414	176	225	147	188	225	182	176	2070
American Crow	609	247	47	172	103	38	152	90	102	1560
Common Raven	34	31	47	33	35	37	57	27	36	337
crow/raven								4		4
Horned Lark	54	41					39			134
Black-capped Chickadee	1322	345	335	226	208	305	326	287	302	3656
Tufted Titmouse	2		1				2			5
Red-breasted Nuthatch	42	2	12	3	3	10	8	6	1	87
White-breasted Nuthatch	339	98	76	25	41	53	80	74	77	863
nuthatch sp.								2		2
Brown Creeper	8	1	2				1		1	13
Winter Wren	4					3				7
Carolina Wren	2	1						1	1	5
Golden-crowned Kinglet	15	4		1		1	1			22
Eastern Bluebird	4	18	8	23		12	9	10		84
Hermit Thrush	CW			1					1	2
American Robin	105	29	1	382	5	59	20	56	7	664
thrush sp.								1		1
Brown Thrasher	1	1	1							3
Northern Mockingbird	1									1
European Starling	1693	2773	571	526	683	300	788	454	484	8272
Bohemian Waxwing		114	37					8		159
Cedar Waxwing		81		369		4			130	584
Lapland Longspur	54		40						1	95
Snow Bunting	723	240		23			176		6	1168
Yellow-throated Warbler						1				1
Yellow-rumped Warbler				14						14
American Tree Sparrow	191	231	27	14	54	63	179	50	64	873
Dark-eyed Junco	552	704	97	163	27	121	322	141	211	2338
White-crowned Sparrow		1					1			2
White-throated Sparrow	7	6		2					1	16
Savannah Sparrow		2								2
Song Sparrow	13	12		1	1		1			28

Table 3: (continued)

	ONKG	ONNA	ONWE	ONPE	ONAI	ONDE	ONGQ	ONFR	ONMS	TOTAL
Swamp Sparrow	CW									CW
sparrow sp.	9									9
Northern Cardinal	208	92	35	17	25	50	69	30	20	546
Red-winged Blackbird	13	10		8		5		1	1	38
Rusty Blackbird				3		1				4
Common Grackle	1			17	1			1	1	21
Brown-headed Cowbird				1		1	6			8
Baltimore Oriole	1									1
Pine Grosbeak		1	12			CW		7	2	22
House Finch	355	124		52	38		23	27	22	641
Purple Finch	8			3					2	13
Common Redpoll	2		2	5				2	8	19
Pine Siskin	8								16	24
American Goldfinch	427	189	144	60	64	60	231	83	168	1426
Evening Grosbeak			76			11		50	10	147
House Sparrow	128	174	32		95	61	39	13	10	552
bird sp.								5		5
Total species	84	74	50	65	55	49	51	45	45	108
Count week species	5	2	0	1	0	1	4	0	0	5
Total individuals including 'sp'	35719	10851	5459	6440	6034	3188	7521	2603	2467	80282

Note: sp. = species

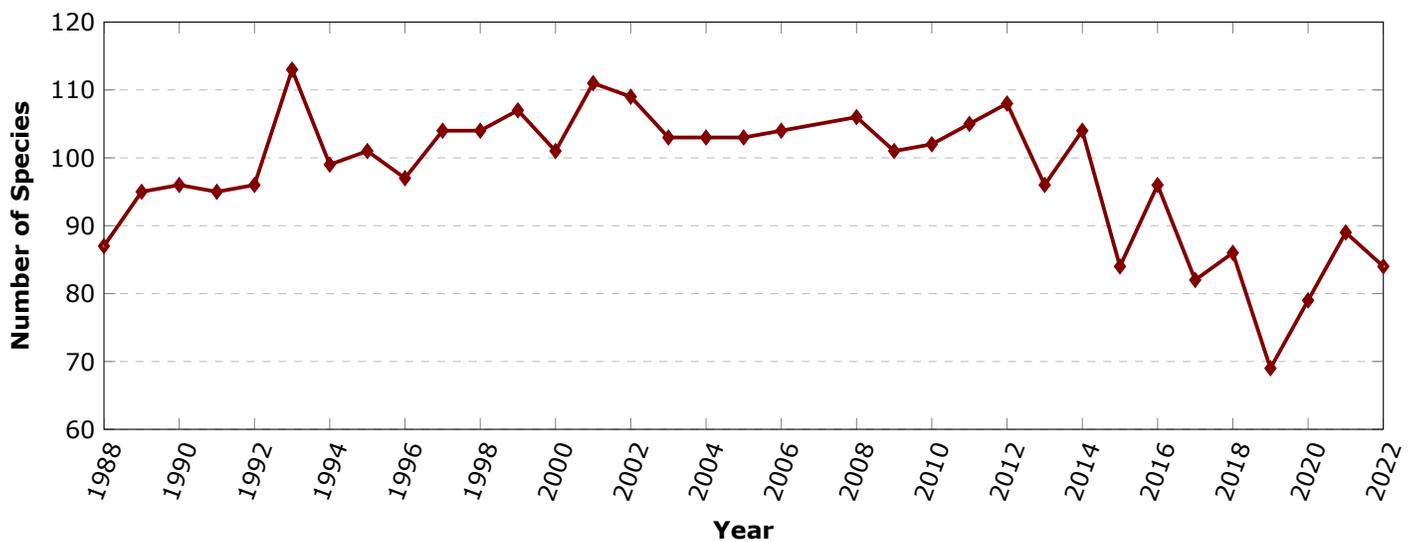


Figure 2: The number of bird species seen in the Kingston CBC since 1988.

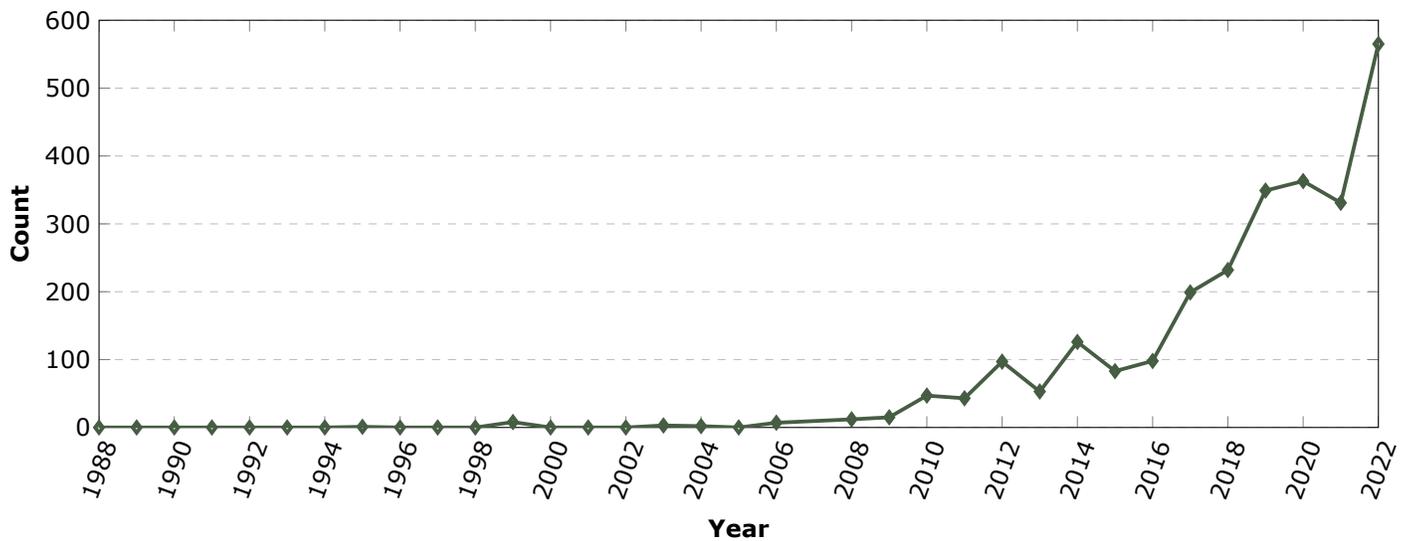


Figure 3: A steep upward trend in Mute Swan numbers over the past decade is seen in the Kingston CBC data.

2 Kingston Region Birds—Autumn 2022 (August 1 to November 30)

by Anthony Kaduck and Mark Read

The KFN reporting area is centred on the datum point in MacDonald Park, Kingston and extends for a radial distance of 50 km. An interactive map showing the KFN circle is available on the website. If errors are noted or significant observations omitted, please contact me and I will update accordingly. We also encourage you to submit **all** sightings, so that a better understanding of our region’s birdlife can be achieved. Members already using eBird can very easily share their sightings with the username ‘Kingston FN’. Alternatively, please email or phone me directly with your sightings (kaduckintransit at gmail.com / 613-331-1391).

In total, **254 species of bird** were recorded in our region during the reporting period, seven more than last year’s total. 593 observers submitted 5670 checklists over the period, equating to 73454 sightings. In total 756952 birds were recorded, though a portion of this number reflects the same birds being seen on subsequent days.

All observations were obtained from <https://ebird.org/canada/home>. A huge thank you goes out to every observer, without whom our understanding of bird distribution would be far more limited.

Here are the highlights of autumn 2022:

Snow Goose: Four reports over the period including three single birds and a flock of 55 over Sherwin Bay, Jefferson County (RiB, RaL).

Greater White-fronted Goose: A lone bird was seen on the Napanee River on 5 and 7 November (KeM, VPM).

Brant: Eleven sightings were reported between 8 and 31 October. Most were of single birds, with a high count of 1360 passing over Tibbett’s Point, Jefferson County, on the 27th (StK).

Cackling Goose: 23 Records were submitted, with the first record on 8 October (KeM) and a high count of seven at Button Bay on 12 November (MDR).

Trumpeter Swan: Another good year for this species, with 177 records and a high count of 47 from Opinicon Road on 18 November (RaR).

Tundra Swan: The first arrivals were spotted at In-vista Pond on 8 October (MaK). The high count for the period was 250, seen in Jefferson County on 26 November (JoP).

Blue-Winged Teal: 108 Records were submitted, with the first arrivals at Amherstview Sewage Lagoons on 2 October (BMDL).

Canvasback: A total of ten birds were seen between 9 October and 12 November, with a high count of four on 6 November at Button Bay (MDR).

Redhead: The high count was 8000 at Button Bay on 12 November (MDR). Last Autumn's high count was also 8000 and also from Wolfe Island.

Ring-necked Duck: This year's high count was a very respectable 880 at the Little Cataraqui Creek CA (PJH).

Black Scoter: A good year for this elusive migrant, with 14 records totalling 52 birds. The first sighting was on 21 October at Prince Edward Point NWA (LJM, JET) and the last was at Cataraqui Bay on 16 November (EDB).

Ruddy Duck: A high count of 18 came from Cataraqui Bay on 2 November (EOB).

Pied-billed Grebe: 30 were counted at Belle Park on 24 October (GJP).

Horned Grebe: The first sighting was at Prince Edward Point NWA on 24 August. The season high was 21 off Long Point Road on 22 November (both records PBJ).

Red-Necked Grebe: The first arrival was noted on 19 August off Long Point Road (PBJ). The last one seen during the period was on 25 November off Amherst Island (TrB).

Yellow-billed Cuckoo: Eleven birds were sighted over the period, with the last on 26 October at Belle Park (NLB).

Black-billed Cuckoo: The last outgoing migrant was spotted on the Blue Mountain Trail on 12 September (JET).

Sora: Two Soras were reported during the period, all at Perch River WMA in Jefferson County.

Sandhill Crane: 237 birds were reported between 9 August and 28 November, with a high count of 55 on the Gananoque Waterfront Trail on 28 November (JET).

American Golden-Plover: Eight autumn reports this year, with a high count of three on Snake Island on 20 September (CAH, PJH).

Upland Sandpiper: Just four records of this early migrant, all between 2 and 4 August.

Whimbrel: A single bird was seen on Amherst Island

on 2 August (BMDL).

Hudsonian Godwit: It was a good season for these godwits, with 20 records including a trio of birds that loafed around in Button Bay on 5 and 6 November. The last sighting was of a single at that location on 9 November (WTD and KAW).

Ruddy Turnstone: 27 birds were seen between 28 August and 24 October, with a high of eight on Snake Island on 7 September (CAH and NAK).

Red Knot: A single bird was observed on Salmon Island on 24 September (GaH).

Stilt Sandpiper: Birders recorded 19 appearances of this species, with single birds on the Canadian side and a high count of six at Perch River WMA in Jefferson County on 25 August (JSB).

Baird's Sandpiper: A good year for these long-distance migrants, with 35 sightings between 13 August and 23 October, including a high count of five on Salmon Island on 15 August (PJH).

White-Rumped Sandpiper: The other long-winged sandpiper passed through in good numbers between 13 August and 29 October. The high count was 29 on Salmon Island on 3 October (DaC and CAH).

Buff-Breasted Sandpiper: This scarce migrant is only seen in the area every couple of years, but one happy observer had excellent views of a bird on Salmon Island on 12 and 13 September (PJH).

Short-billed Dowitcher: These birds passed through in good numbers. The high count on the Canadian side was six at the Invista Property on 25 August (CAH).

Long-billed Dowitcher: Only two records this autumn, both from Sherwin Bay in Jefferson County (BiP, BrM).

American Woodcock: The last sighting was a single bird on Bur Brook Road on 15 November (PRM).

Red-necked Phalarope: There were two sightings this autumn—single birds at the Amherstview Sewage Lagoons on 10 September (ChI), and on Salmon Island on 15 September (CAH).

Black-legged Kittiwake: Two birds were sighted and photographed over Tibbett's Point, Jefferson County, on 28 October (StK).

Little Gull: Single birds were seen on several occasions, including a very early migrant at Prince Edward Point on 14 August (PBJ). The last sighting was on 12 November in Jefferson County (JSB).

Lesser Black-backed Gull: There were five sightings of individual birds between 25 September and 18 November, with the first on Amherst Island (KJH), and the last near Bath (ChE).

Black Tern: Two sightings at Perch River WMA on 7 August.

Red-throated Loon: Nine sightings were reported from 5 October onwards. The last was on 29 November at Collins Bay Pier (EDB).

Neotropic Cormorant: The long-staying bird on Cataraqui Bay continued until 14 September, by that time having been seen by most of Ontario's birders.

Least Bittern: The last sighting of the season was a single bird at Amherstview Sewage Lagoons on 22 August (MJP).

Cattle Egret: 17 sightings were reported from different areas of what was probably a single wandering bird. It was last seen on MacAlpine Road on 13 November (JeN).

Black Vulture: A single specimen was seen at Prince Edward Point Bird Observatory on 14 October (JeD).

Golden Eagle: Several birds were sighted, mostly by hawk watchers at Prince Edward Point NWA. The high count was four on 4 November (TeS).

Northern Goshawk: Four sightings were reported, the last of which was at Prince Edward Point NWA on 8 November (PBJ).

Snowy Owl: The first of the season was spotted on Wolfe Island on 22 November (SEB and RoV).

Long-eared Owl: One was netted and banded at Prince Edward Point Bird Observatory on 4 October.

Short-eared Owl: A few were present on Amherst Island, with a high count of four on 22 November (JaN).

Northern Saw-Whet Owl: The Prince Edward Point Bird Observatory conducted their usual autumn effort to band this species. The high count was 25 birds on 10 October (SSP).

Red-headed Woodpecker: A few birds were observed in widely scattered areas, with the last passing through Point Traverse Woods on 12 October (PBJ).

Gyrfalcon: One was seen on 26 October on Wolfe Island (TeS).

Olive-sided Flycatcher: There were 21 autumn records, all of single birds. The last was on Hill Island in the Thousand Islands National Park on 6 September (StL).

Loggerhead Shrike: Birds were seen at the release site on the Napanee Alvar until 21 August.

Northern Shrike: The first of the winter was observed near Bedford Mills on 30 October (LIN).

Fish Crow: The downtown Kingston resident pair continued until at least 3 November (PRM).

Tufted Titmouse: Scattered pairs and singles were observed on both sides of the border.

Northern Mockingbird: Four birds were sighted, two on each side of the border. The last one seen was near Isle of Man Road on 15 November (RSL).

Bohemian Waxwing: As predicted by the Winter Finch Forecast, 2022-23 is an irruption winter for this species due to poor mountain-ash berry crops in the eastern boreal forest. Seven flocks were spotted during the autumn period with a high count of 32 birds along Opinicon Road on 26 November (ChI).

Evening Grosbeak: This species is also on the move in search of better food sources. There were 160 sightings during the period with a high count of 75 birds at Prince Edward Point NWA on 8 November (PBJ).

Pine Grosbeak: A few Pine Grosbeaks have wandered south so far, with a high count of 12 at Marble Rock Road on 29 November (BON).

Common Redpoll: There have been a few reports of small flocks in scattered areas.

Red Crossbill: Four records, with a high count of three birds at Prince Edward Point NWA on 8 November (PBJ).

White-winged Crossbill: Two records from Prince Edward Point NWA, with a high count of three birds on 6 November (PBJ).

Lapland Longspur: Four records so far, with all but

one from Wolfe Island.

Grasshopper Sparrow: A few birds were observed in various locations, with the last being seen on 30 September along Sand Hill Road (WTD and KAW).

Clay-colored Sparrow: The lone sighting of the period came from the Russell Road wetland complex on 5 October (TeS).

Nelson's Sparrow: One bird was spotted on 1 October at Martin Edwards Reserve (VPM).

Louisiana Waterthrush: The Canoe Lake birds continued until at least 8 August (VPM).

Mourning Warbler: Single birds were seen at the Amherstview Sewage Lagoons (15 August, KJH), and at Lemoine Point CA (9 September, JaB).

Dickcissel: A single bird was spotted at Belle Park on 22 November (GJP); the bird remained until at least the 23rd.

Other species observed during the reporting period: Canada Goose, Mute Swan, Wood Duck, Northern Shoveler, Gadwall, American Wigeon, Mallard, American Black Duck, Northern Pintail, Green-winged Teal, Greater Scaup, Lesser Scaup, Surf Scoter, White-winged Scoter, Long-tailed Duck, Bufflehead, Common Goldeneye, Hooded Merganser, Common Merganser, Red-breasted Merganser, Wild Turkey, Ruffed Grouse, Ring-necked Pheasant, Rock Pigeon, Mourning Dove, Common Nighthawk, Eastern Whip-poor-will, Chimney Swift, Ruby-throated Hummingbird, Virginia Rail, Common Gallinule, American Coot, Black-bellied Plover, Semipalmated Plover, Killdeer, Sanderling, Dunlin, Least Sandpiper, Pectoral Sandpiper, Semipalmated Sandpiper, Wilson's Snipe, Wilson's Phalarope, Spotted Sandpiper, Solitary Sandpiper, Greater Yellowlegs, Lesser Yellowlegs, Bonaparte's Gull, Ring-billed Gull, Herring Gull, Great Black-backed Gull, Caspian Tern, Common Tern, Double-crested Cormorant, American Bittern, Great Blue Heron, Great Egret, Green Heron, Black-crowned Night-Heron, Turkey Vulture, Osprey, Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk, Bald Eagle, Red-shouldered Hawk, Broad-winged Hawk, Red-tailed Hawk, Rough-legged Hawk, Eastern Screech-Owl, Great Horned Owl, Barred Owl, Belted Kingfisher, Yellow-bellied Sapsucker, Red-bellied Woodpecker, Downy Woodpecker, Hairy Woodpecker, Pileated Woodpecker, Northern Flicker, American Kestrel, Merlin, Peregrine Falcon, Eastern Wood-

Pewee, Yellow-bellied Flycatcher, Alder Flycatcher, Willow Flycatcher, Least Flycatcher, Eastern Phoebe, Great Crested Flycatcher, Eastern Kingbird, Yellow-throated Vireo, Blue-headed Vireo, Warbling Vireo, Red-eyed Vireo, Blue Jay, American Crow, Common Raven, Black-capped Chickadee, Horned Lark, Northern Rough-winged Swallow, Purple Martin, Tree Swallow, Bank Swallow, Barn Swallow, Cliff Swallow, Red-breasted Nuthatch, White-breasted Nuthatch, Brown Creeper, Blue-grey Gnatcatcher, House Wren, Winter Wren, Marsh Wren, Carolina Wren, European Starling, Grey Catbird, Brown Thrasher, Eastern Bluebird, Veery, Grey-cheeked Thrush, Swainson's Thrush, Hermit Thrush, Wood Thrush, American Robin, Cedar Waxwing, House Sparrow, American Pipit, House Finch, Purple Finch, Pine Siskin, American Goldfinch, Snow Bunting, Chipping Sparrow, Field Sparrow, American Tree Sparrow, Fox Sparrow, Dark-eyed Junco, White-crowned Sparrow, White-throated Sparrow, Vesper Sparrow, Savannah Sparrow, Song Sparrow, Swamp Sparrow, Eastern Towhee, Bobolink, Eastern Meadowlark, Orchard Oriole, Baltimore Oriole, Red-winged Blackbird, Brown-headed Cowbird, Rusty Blackbird, Common Grackle, Ovenbird, Northern Waterthrush, Gold-winged Warbler, Black-and-white Warbler, Tennessee Warbler, Orange-crowned Warbler, Nashville Warbler, Common Yellowthroat, American Redstart, Cape May Warbler, Northern Parula, Magnolia Warbler, Bay-breasted Warbler, Blackburnian Warbler, Yellow Warbler, Chestnut-sided Warbler, Blackpoll Warbler, Black-throated Blue Warbler, Palm Warbler, Pine Warbler, Yellow-rumped Warbler, Black-throated Green Warbler, Canada Warbler, Wilson's Warbler, Scarlet Tanager, Northern Cardinal, Rose-breasted Grosbeak, Indigo Bunting.

Observers: Erwin D. Batalla (EDB), Trish Boag (TrB), Jeff S. Bolsinger (JSB), Jan Bradley (JaB), Sheryl-Elaine Brazeau (SEB), Richard Brouse (RiB), Daphne Christie (DaC), Jess Daze (JeD), William T. Depew (WTD), Bruce M. Di Labio (BMDL), Eastern Ontario Birding (EOB), Chris Ellingwood (ChE), Phil J. Harvey (PJH), Kurt J. Hennige (KJH), Gary Hillaby (GaH), Christine Hough (CAH), Chantal Imbeault (ChI), Paul B. Jones (PBJ), N. Anthony Kaduck (NAK), Steve Kelling (StK), Marlene Kraml (MaK), Steven Langdon (StL), Rachel Lewis (RaL), Richard S. Lott (RSL), V. Paul Mackenzie (VPM), Lana Marion (LJM), Paul R. Martin (PRM), Keith Matthieu (KeM), Brian Miller (BrM), Jake Nafziger (JaN), Jenny Newton (JeN), North Leeds Birders (NLB), Linda J. Nuttall (LJN), Barbara O'Neill (BON), Mark J. Patry (MJP), Gerard J. Phillips (GJP), Samuelle Simard-Provencal

(SSP), Jon Pup (JoP), Bill Purcell (BiP), Mark D. Read (MDR), Raleigh Robertson (RaR), Ted Stewart (TeS),

James E. Thompson (JET), Ronald Vandebek (RoV), Kathy Webb (KAW).

3 Mid-winter Waterfowl Inventory (2023): Kingston Region

by Mark Read

The Mid-Winter Waterfowl Inventory (MWWI) is carried out throughout North America. In Canada, a coordinated ground survey of Lake Ontario typically takes place on the first Sunday during the period 6-12 January, meaning that it fell on 8 January in 2023. These data get added to the other lower Great Lakes to form the Ontario contribution to the Mississippi Flyway totals. These numbers are then used in waterfowl management decisions on a continent-wide basis (habitat restoration, research direction, bag limits etc.).

An impressive 32 observers (16 on Amherst alone) surveyed the Kingston region, all the way from Ivy Lea to Prince Edward Point and the Bay of Quinte, as well as north along the Rideau Canal towards Westport. In total, these observers logged nearly 44 hours of effort. The weather on the day was pretty reasonable to say the least, with temperatures around about freezing, with a light southerly wind and a mix of sunshine and cloud. Visibility was generally good but heat haze/shimmer made it awkward looking south into Lake Ontario. Most of the inland waterways were frozen, as was the north shore of Wolfe Island and the Bay of Quinte. Lake Ontario itself and the St. Lawrence remained open. Participants were Cheryl Anderson, Deb & William Barrett, Erwin Batalla, Anders Bennick, Richard Brault, Dianne Croteau, Sharon David, Stephanie Davison, Bill Depew, Ken Edwards, Sharen English, Ida Gavlas, Beverley Harris, Chris Heffernan, Kurt Hennige, Bill & Jacqui Jeffers, Anthony Kaduck, Stephen & Alison Kendall, Bonnie Livingstone, Diane Pearce, Nancy Pearson, Mark Read, Martin Roncetti, Janet Scott, Sabina Sormova, Kathy Webb, Peter Waycik, and Elena Zanetti. Sincere thanks go to all participants.

Table 4 shows results of the ground survey for the Kingston area. In total, 26 503 individuals were counted of 29 species (compared to 26 632 individuals of 21 species last year). Due to the mild weather preceding the count, diversity was up, though total numbers remained about constant. Expected dabblers such as the long-staying Green-winged Teal at Belle Park and Wood Duck at Picton were missed on the day, though diversity was bolstered by late grebes, loons and cor-

morants. The invasive Mute Swan continues to expand its range with strong numbers (1242) recorded in the area. Control measures introduced elsewhere on Lake Ontario have shown positive results but we are yet to see similar measures at the east end of the lake. Trumpeter Swans are still doing well, but numbers were down a little, probably due to the amount of open water still remaining. Twenty-five Bald Eagles were again reported – numbers typically fluctuate in unison with ice cover, with more ice concentrating waterfowl and therefore eagles.

These results were then submitted to the Lake Ontario compiler (Glenn Coady) who then returned the overall data found in Table 5. Areas surveyed along Lake Ontario from east to west were Kingston, Quinte, Presqu'île, Port Hope, Durham, Toronto, Hamilton and Niagara.

As noted by Glenn:

It is a tribute to the dedication of all of you and those who came before you, that we have now done a thorough coverage of the entire Canadian shoreline of Lake Ontario for the 34th consecutive year, and a complete coverage of the Toronto Area's seven legacy routes for 77 consecutive years. An amazing data series for certain. Thank you all once again for your valued participation. Our coverage by over 100 counters providing over 200 party-hours of field work rivals our very best years.

These data are combined with counts along the whole Mississippi Flyway and inform decision making on hunting bag limits, extent of hunting seasons, land acquisition priorities, pollution control efforts, and a large suite of other conservation-oriented issues for waterfowl. It is a citizen science pursuit with immediate, practical and tangible benefits for the waterfowl we all enjoy.

There are many highlights of this year's

count:

After recording all-time high counts of 38 species in each of the last two inventories, the Toronto Area routes bested that total with a new record tally of 39 species. For the entire lake, the species total was 41, second only to the record of 42 species found two years ago on the 75th count.

A definite theme of this year was the ubiquitous Horned Grebe, which was found on every route and sector except for two, and a record high count of 43 was set.

The counters in Niagara sector had one of their best counts ever. They beat their own previous high for White-winged Scoters by over ten thousand individuals! This year’s lake-wide count of White-winged Scoters nearly rivals the totals we saw during the zebra mussel invasion of Lake Ontario.

In the Hamilton sector, a Great Cormorant was recorded for only the third time on the count. The Hamilton tally of 223 Northern Shoveler ensured a record high count for that species would be set.

In the Toronto area routes, a tipping point has now perhaps been reached for the swan species. For the first time ever on the count, Toronto recorded more Trumpeter Swans than Mute Swans. A reliable wintering male

Barrow’s Goldeneye in Whitby proved to be the only one on the count.

Four of the five sectors east of the Toronto Area recorded Common Loons. Might we one day find a Yellow-billed Loon to add to the all-time species list for the count?

The shift of Mute Swan numbers to the east end of the lake becomes ever more prominent, with the three eastern-most sectors now accounting for more than 80% of the Mute Swans recorded.

The Kingston sector came through with the only Greater White-fronted Goose found on count day. Perhaps someday soon I hope we might add Pink-footed Goose to the count’s all-time species list.

Finally, we set a record high count for Bald Eagles. It seems we are on a trajectory to see well over 100 Bald Eagles wintering on the shores of Lake Ontario someday soon.

Next year’s ground survey is scheduled to take place on **Sunday 7 January**. If someone would like to take over the coordination of this survey, please contact the me at the following address. In the meantime, please reach out to me at markdread at gmail.com if interested in taking part. In particular, we are still looking for someone to take over the Quinte/Belleville route.

Table 4: Ground survey results for the Kingston area.

	StL	HI	WI	King	AI	Bath	CP	Bv	PN	Rid	Totals
Snow Goose	0	0	1	0	0	0	0	0	0	0	1
Greater White-fronted Goose	0	0	1	0	0	0	0	0	0	0	1
Cackling Goose	0	0	3	0	0	0	0	0	0	0	3
Canada Goose	402	1656	7685	650	1047	1425	900	0	575	182	14522
Mute Swan	70	219	453	54	62	45	202	0	120	17	1242
Trumpeter Swan	0	0	0	0	0	0	0	0	0	52	52
Tundra Swan	0	14	58	0	7	0	3	0	7	0	89
Swan sp.	0	21	0	0	0	6	0	0	0	0	27
Gadwall	0	0	2	105	0	2	0	0	0	0	109
American Wigeon	0	0	0	5	0	0	4	0	0	0	9
Mallard	116	155	151	956	86	264	87	0	76	20	1911
American Black Duck	4	64	21	2	6	3	2	0	0	0	102

Table 4: (continued)

	StL	HI	WI	King	AI	Bath	CP	Bv	PN	Rid	Totals
Canvasback	0	0	0	0	0	4	0	0	0	0	4
Redhead	0	0	40	277	0	100	0	0	0	0	417
Ring-necked Duck	0	0	0	180	0	6	0	0	0	0	186
Greater Scaup	0	0	215	138	12	120	26	0	0	0	511
Scaup sp.	0	0	0	0	13	0	0	0	0	0	13
Lesser Scaup	0	0	0	0	0	1	0	0	0	0	1
White-winged Scoter	0	0	0	0	17	1	2	0	0	0	20
Black Scoter	0	0	0	0	0	1	0	0	0	0	1
Long-tailed Duck	0	112	179	35	8	4	113	0	0	0	451
Bufflehead	37	11	62	47	26	17	80	0	0	0	280
Common Goldeneye	8	72	281	144	264	127	325	0	0	0	1221
Hooded Merganser	0	13	1	32	7	0	5	0	0	6	64
Common Merganser	87	3547	17	498	35	38	21	0	0	3	4246
Red-breasted Merganser	10	53	353	68	53	3	305	0	0	0	845
Duck sp.	0	0	0	40	8	0	75	0	0	0	123
Horned Grebe	0	0	0	0	0	1	2	0	0	0	3
Red-necked Grebe	0	0	0	0	0	1	0	0	0	0	1
American Coot	0	0	0	4	0	11	18	0	0	0	33
Common Loon	0	0	0	2	0	1	0	0	0	0	3
Double-crested Cormorant	0	0	0	0	1	0	9	0	0	2	12
Species = 25	8	11	17	17	14	21	17		4	7	26503
Bald Eagle	2i	3i, 1a	5a, 4i	1i, 1a	3x	4x	1x	0	0	0	25

Key: **StL** = 1000 Island Bridge west to Howe Island; **HI** = Howe Island; **WI** = Wolfe Island; **King** = Treasure Island to Collin’s Bay; **AI** = Amherst Island; **Bath** = Amherstview to Glenora Ferry; **CP** = NE and SE peninsulas of Prince Edward County from Glenora ferry to Cressy, Waupoos, Black Creek, South Bay and on to PEPT; **Bv** = Belleville north and south shores of Bay of Quinte east to Hwy 49 and west to (but not including) Trenton; **PN** = Bay of Quinte east of Hwy 49 bridge, including Picton, Napanee and Hay Bay; **Rid** = Kingston Mills north to Jones Falls, and including Bedford Mills. For Bald Eagles, ‘a’ indicates an adult, ‘i’ is an immature and ‘x’ is unknown/unrecorded.

Table 5: Results of ground surveys for Lake Ontario by region (east to west)

Species	Kingston	Quinte	Presqu’il	Port Hope	Durham	Toronto	Hamilton	Niagara	TOTAL
Red-throated Loon	0	0	0	0	0	1	1	6	8
Common Loon	3	2	0	1	1	1	0	0	8
Pied-billed Grebe	0	0	0	0	0	2	0	0	2
Horned Grebe	3	1	0	0	1	36	1	1	43
Red-necked Grebe	1	0	0	0	0	6	0	1	8

Table 5: (continued)

Species	Kingston	Quinte	Presqu'île	Port Hope	Durham	Toronto	Hamilton	Niagara	TOTAL
Great Cormorant	0	0	0	0	0	0	1	0	1
Double-crested Cormorant	12	0	0	0	0	5	4	34	55
Tundra Swan	89	0	0	0	0	3	0	0	92
Trumpeter Swan	52	6	0	0	31	255	18	0	362
Mute Swan	1242	507	295	2	112	252	65	16	2491
Greater White-fronted Goose	1	0	0	0	0	0	0	0	1
Snow Goose	1	0	0	0	0	1	0	0	2
Canada Goose	14522	1041	1438	3253	3882	8193	1439	278	34046
Cackling Goose	3	0	0	0	1	2	0	0	6
Wood Duck	0	0	0	0	0	7	1	0	8
Green-winged Teal	0	0	0	0	0	3	15	0	18
American Black Duck	102	28	63	20	51	293	85	22	664
Mallard	1911	728	50	644	997	8978	1369	348	15025
Northern Pintail	0	0	0	0	0	3	0	0	3
Northern Shoveler	0	0	0	0	0	68	223	0	291
Gadwall	109	0	1	0	43	704	76	0	933
American Wigeon	9	0	1	0	0	99	4	0	113
Canvasback	4	0	0	0	0	9	0	4	17
Redhead	417	1398	18	25	21	1829	18	73	3799
Ring-necked Duck	186	0	0	0	0	4	10	26	226
Greater Scaup	511	444	479	1101	1715	9347	555	800	14952
Lesser Scaup	1	0	1	5	1	73	12	2	95
Scaup sp.	13	40	4	0	0	0	0	0	57
King Eider	0	0	0	0	0	1	0	1	2
Harlequin Duck	0	0	0	0	1	4	0	1	6
Long-tailed Duck	451	1707	1128	528	1734	20657	7079	5440	38724
Black Scoter	1	0	0	0	0	11	46	0	58
Surf Scoter	0	0	0	0	3	4	199	6	212
White-winged Scoter	20	45	24	30	0	291	731	14980	16121
Common Goldeneye	1221	438	829	956	2055	8678	2015	747	16939
Barrow's Goldeneye	0	0	0	0	0	1	0	0	1
Bufflehead	280	7	37	50	370	1692	246	94	2776
Hooded Merganser	64	1	0	1	4	42	51	3	166
Common Merganser	4246	80	37	58	54	292	1767	51	6585
Red-breasted Merganser	845	112	76	569	3220	4711	731	914	11178

Table 5: (continued)

Species	Kingston	Quinte	Presqu'île	Port Hope	Durham	Toronto	Hamilton	Niagara	TOTAL
Ruddy Duck	0	0	0	5	0	8	80	5	98
American Coot	33	0	8	1	0	10	16	1	69
Swan sp.	27	0	0	0	0	0	0	0	27
C. Goldeneye x H. Merganser	0	0	0	0	0	1	0	0	1
Duck sp.	123	0	0	550	187	1	240	0	1101
Mallard X Black Duck	0	0	0	0	1	3	0	0	4
Total Birds	26503	6585	4489	7799	14485	66581	17098	23854	167394
Total Species	29	16	16	17	20	39	29	25	41
Participants	32	1	7	3	6	28	18	14	109
Party-hours	43.5	7	20	12	20.2	54.9	26	18	201.6
Bald Eagle	25	10	6	0	1	10	16	4	72

4 Articles

4.1 Encounters with Wildlife

by Shirley French



Figure 4: The ermine with its catch. (Carol Allmendinger)

When we overlap in our territory with other species there are bound to be encounters between us. Often the wildlife is looking for something to eat or a spot to shelter. They can be funny encounters or problematic. Often, we can learn something about the animal and find a compassionate solution to our predicament.

A friend was recently away for a month and when she came back to her cottage on the lake she found a very active ermine running around her living room. It had a winter coat that was white with the tell-tale black fur on the tip of the tail. The Long-tailed Weasel looks almost identical to but is larger than the Short-tailed Ermine, and true to its name, the ermine has a shorter tail (1/3 their body length). When the ermine came out with a mouse that it had caught Carol realized that it wasn't really a problem to have this little visitor.

In the Wildlife course that I gave on behalf of the KFN, we shared a number of interesting stories about wildlife encounters. For many reasons, Sandy Pines Wildlife Centre had come up during this course. Shirley Young, who was in the class and who has volunteered at the centre, told us about the snapping turtle that she helped transport back to its territory, once ready for release from SPWC. The snapper was in a box that was well taped since these turtles can be feisty when stuck in a box. Shirley put the box with the turtle in the back of her SUV for that part of the journey. It is essential to return a snapping turtle to its territory since they use the same overwintering sites year after year. When she discovered the turtle out of the box in the back of her

SUV the person taking the snapper to the release site hadn't arrived yet. By the time they had arrived the turtle had made its way to the front seat. Now in the passenger's seat, the snapper had to be wrestled back into a box. Shirley was pleased that the snapper hadn't shredded her seats on the way to the front (they have impressive claws for digging), and the turtle was successfully returned to the wild.



Figure 5: A snapping turtle, seen many times in its marshy territory, Cranberry Lake. The painted turtle seemed familiar to the snapper as it approached its face before swimming around and climbing onto its shell. (Shirley French)

Barbara and Rick Burns, also in the Wildlife class, have had many encounters over the years at their heritage cottage on an island in the Parry Sound area. "We have a floating dock to moor our boat. [One year] the muskrats decided to swim under the dock and build tunnels and a large nest in the Styrofoam floating devices. This made the dock tippy and left a lot of chewed pieces of Styrofoam on our shoreline. We had to call on the neighbours to help pull the dock out of the water and turn it over. We replaced the large Styrofoam floats; attached 1/2" galvanised wire to the underside; and refloated the dock. Now the dock is stable, and the muskrats have moved on."

From an aquatic mouse-like muskrat to the encounters with mice inside the cottage: "We carefully removed an ice-cube tray from our cottage kitchen cupboard because there were several cute field mice sitting in the little pockets, like students in a classroom, looking at us. We carried them out the door and set them down in the woods nearby. They were probably back in our cottage as fast as we were."

"One winter the beaver cut down and removed forty trees from our cottage property. Bails of chicken wire

and a lot of hard work put an end to that destruction. After all, we are surrounded by several hundred acres of forested crown land which they can use."

"Porcupines were eating the wall of our cottage and a painted cupboard that was on the porch to store beach equipment. We emptied the cupboard and laid it down nearby in the woods. The porcupines left our cottage alone and had a good time chewing the cupboard. When a nearby neighbour put out a salt lick, the porcupines left our property alone and dined over there."

Chicken wire certainly comes in handy. I use it often to protect some of the trees from porcupines on our lot in the wintertime. They like the bark of young trees (~<20 cm diameter), but they seem to avoid red cedar altogether), and if they can't get at suitable young trees, they will strip the bark and eat buds from the branches on a mature tree. On one occasion a young porcupine appeared to have chosen a flimsy branch which snapped and led to an early death for the young one. We buried it in a shallow spot but to no avail since it was dug up and scavenged. That was good to realize, food is usually hard to come by for a predator in winter.



Figure 6: Photo of the Wildlife class at the Seniors Centre this winter. Of those available for the photo (left to right); Paul Banfield, Mary-Alice Thompson, Jackie Bartnik, Brian Sykes, Jean Barkley, Rosemary Brosseau and in front, Barbara & Rick Burns. (Shirley French)

One last story to demonstrate how clever coyotes can be when they work together as a pack. Jean Barkley told the class about a group of coyotes that split up to get the attention of a farmer's dog. Once the dog chased one of the coyotes back to the woods the dog was attacked by the pack. The wounded dog was rescued from the coyotes by the farmer. Presumably the farmer had an implement to make himself appear larger or they approached the coyotes making loud sounds to communicate their aggressive intentions.

4.2 Seesaw Winters: Climate Change Elevating Winter Mortality in Our Amphibians and Reptiles

by Allen Tian

Recent winters have been marked by extremes: the cold snaps across the southern U.S. in 2021, 2022, and 2023 that caused billions of dollars in damages and a death toll in the hundreds; the atmospheric river event in California that flooded Sacramento and San Francisco this January; closer to home in Eastern Ontario, the temperature this winter has seesawed between extreme cold and spring-like temperatures in the double digits.

I feel that the impact of climate change has never been more apparent than during the past few winters. In the last 70 years, mean temperatures across Canada have increased by approximately 1.7°C in spring, 1.5°C in summer, 1.7°C in autumn, and a whopping 3.3°C in the winter [1]. This warming has not been evenly distributed, with mild periods punctuated by extreme cold snaps and precipitation events.

One likely major culprit in these winter extremes is disruptions in the polar vortex and jet stream. They tend to be stable when there is a large temperature difference between the polar region and the warmer mid-latitudes of southern Canada. When warming in the Arctic reduces this difference, the jet stream weakens and becomes wavy, causing the polar vortex to extend as far south as Texas. Simultaneously, warm air moves north and other areas experience very mild temperatures.

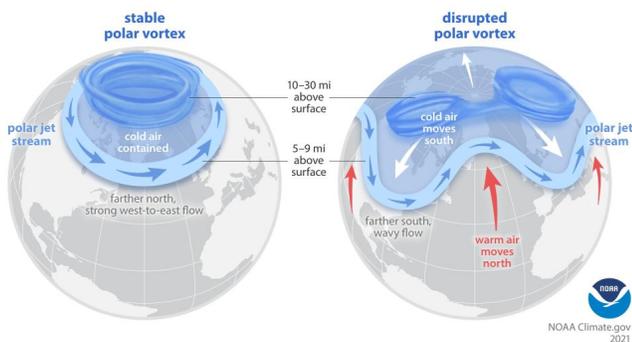


Figure 7: A visual of disruptions to the polar vortex. Image adapted from NOAA Climate, 2021.

Although these milder temperatures can reduce heating costs and extend the agricultural growing season for Ontarians, oscillations between extremes can have profound effects on wildlife, particularly cold-blooded reptiles and amphibians that can't adapt to short term changes as readily as mammals.

Herpetofauna in eastern Ontario survive the freezing conditions of winter through a variety of adaptations. Turtle species enter a hibernating state called brumation, typically at the bottom of ponds and lakes in large groups. While brumating, their resting heart rate can drop more than 100 times, sometimes to under 20 beats per hour. They obtain the small amount of oxygen they still require through gas exchange in highly vascularized areas, often the cloaca. Northern Map Turtles (*Graptemys geographica*) may respire dissolved oxygen through 'pumping' action in the throat (Dr. Grégoire, CBC Quirks & Quarks, Nov. 26, 2022). The timing of brumation depends on the location. Map Turtles in Lake Opinicon typically do so from late November to ice-off in April. During this time, they depend on ice cover to keep them safe from predators such as otters.



Figure 8: Lake Opinicon, Queen's University Biological Station, taken in December 2022. (Allen Tian)

Snakes in Ontario are also typically hibernators. Species such as the Northern Water Snake (*Nerodia sipedon*) seek refuge underground, burrowing or seeking crevices together with other snakes. These hibernacula must be below the frost line, have sufficient insulation from leaf litter and snow, and often have a southerly aspect so that their inhabitants don't freeze in the winter.

In contrast, many frogs in Ontario are freeze tolerant. Species such as the Boreal Chorus Frog (*Pseudacris maculata*) produce cryoprotectant chemicals such as glucose, urea, and anti-freeze proteins that depress the freezing point of their bodily fluids, prevent ice for-

mation, and limit damage when the frog does freeze. Together with behavioural adaptations such as burrowing into the leaf litter, these physiological adaptations can allow frogs in Ontario to survive temperatures as low as -16°C and freeze solid without harm [2]. However, these accumulations of cryoprotectants can be seasonal, and frogs may not be as freeze tolerant during other seasons, leaving them vulnerable to late season cold snaps.



Figure 9: A Spring Peeper (*Pseudacris crucifer*) observed on January 5, 2023, in Northern Kawartha, Ontario. Image posted on iNaturalist by user colindjones.

Risk factors in wildlife mortality during the winter have not been well studied due to the difficulty of observing hibernating, often cryptic animals. Winter is commonly thought to be a time of low mortality rates in hibernating animals due to their reduced activity and exposure to predation, but the adaptations that allow them to survive low temperatures might also reduce their ability to respond to any sudden changes. These potential mortality events are called winterkill. Potential causes include sudden drops in water oxygenation level (which can be due to a sudden warming and dead plant matter subsequently rotting, unexpected ice cover from cold snaps, or late season algal blooms) and heavy rains seeping into dens and drowning snakes [3, 4]. Winterkill is not often readily apparent to the naked eye, as it's unlikely for humans to notice dead herpetofauna in their winter burrows, but studies have indicated that winterkill may be a significant source of population decline.

Even the unseasonably mild periods during winter can threaten our herpetofauna. Winter is typically a time of dormancy and reduction in pathogens. Cold temperatures can suppress or even kill many types of viruses, bacteria, and fungi, while reduced activity inhibits trans-

mission. This is usually a breather for the immune systems of herpetological wildlife from diseases such as Chytridiomycosis (a fungal infection in frogs), snake fungal disease (caused by *Ophidiomyces ophiodiicola*) and ranavirus which are leading causes of mortality [5, 6]. As winters get warmer, scientists have observed higher pathogen load. Fluctuating temperatures can also reduce the potency of immune systems in frogs, further increasing mortality from fungal infections [7].

Prolonged warm periods during winter can also harm reptiles and amphibians through melting snow cover and even ice cover on lakes. Snow cover is an important insulator of the leaf litter and topsoil, reducing the risk of freezing and mediating temperature fluctuations. Snow cover is also an important reservoir of moisture content, typically released slowly during the spring, a source of habitat, and a way for animals to hide from predators. Similarly, ice cover on lakes is vital for animals to avoid predation, particularly during times of dormancy and reduced activity. Ice cover reduces access to the water column and light for predators such as minks, fishers, and otters. When mild temperatures in the winter melt snow cover and lake ice, hibernating turtles are exposed to predation. A subsequent cold snap can expose plants, topsoil microbes, and hibernating snakes to lower temperatures than they can tolerate, and the lack of insulation can deepen the frost line below hibernacula.



Figure 10: Mating Wood Frogs. (Allen Tian)

Milder winters may also cause shifts in the phenology, or life history and seasonal clock of various herpetological species. As temperatures rise earlier in the season, the timing of emergence and breeding in species such as Wood Frogs (*Rana sylvatica*) change accordingly, in some cases moving earlier by an entire month [8, 9]. This can cause phenotypic mismatch (when traits are maladapted to the environment), and life stages may

not match resource availability. Furthermore, shifts in phenology can bring frog species into conflict and competition with other species using the same habitat or resources. If cold snaps occur after eggs are laid or when tadpoles hatch, they can be exposed to freezing temperatures, and increase mortality. Unlike adult frogs, eggs and tadpoles are rarely tolerant to freezing.

Amphibians and reptiles are some of the most threatened taxa in Canada. Of the 61 species of herpetofauna that inhabit our freshwater ecosystems, more

than a third are at risk, twice the rate of freshwater fish [10]. In addition to climate change, our frogs, turtles, and snakes face elevated mortality from habitat loss and fragmentation, particularly in critical shoreline areas and from road construction, roadkill, and competition and predation from invasive species. Although we cannot control many factors of species decline, extinction is not inevitable. With appropriate conservation measures such as shoreline protection, invasive species management, identification and protection of hibernacula, many species can recover [11].

4.3 A Tracking Primer

by William Depew

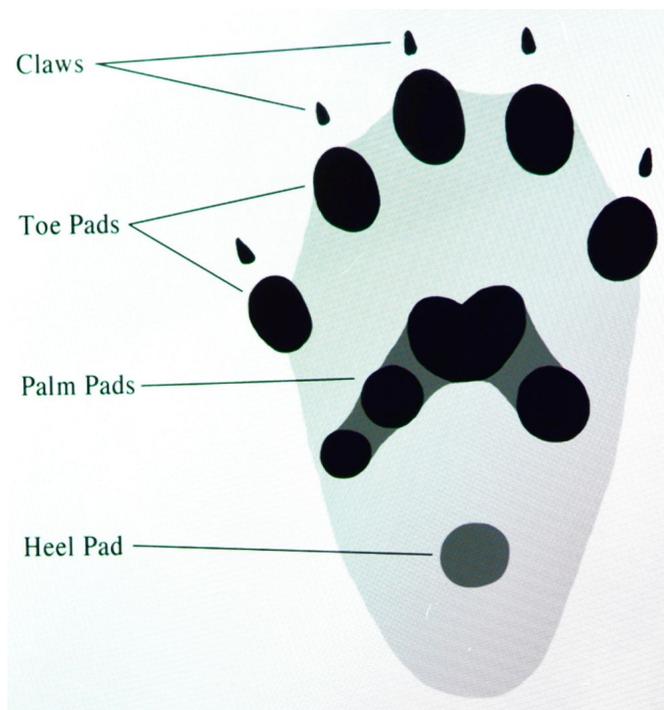


Figure 11: American Marten right foot. (iTrack Pro by Jonah Evans [12])

Take nothing but pictures, leave nothing but footprints.

Seeing a coyote in the wild is an uncommon event but happening upon coyote tracks is not. While the perfection of tracking skills is fraught with identification uncertainty and nuance, it is worth attempting to make sense of the information wild creatures leave in their wakes. The first step is to appreciate some basic features of animal tracks.

Mammalian Foot Anatomy

Mammalian feet have five toes (numbered one to five-

inner to outer) with claws, palm pads and one or more heel pads (Figure 11). Humans, bears, skunks and most rodents show this pattern called plantigrade posture. However, many mammals (canines and felines) show only four toes in the typical print (Figure 12) and the heel pad imprint is absent. This is digitgrade foot posture with weight primarily on the forefoot.



Figure 12: Domestic dog right foot. (iTrack Pro by Jonah Evans [12])

Variable amounts of hair/fur and the consistency of the track medium (snow-powdery or packed, mud, sand) all affect the degree to which these fundamental components are exposed in the track. Print symmetry also helps with identification. Some species show typical

print (toes and pads) asymmetry, e.g., one toe longer than the others (housecat forefoot). Front feet may be similar, bigger or smaller than hind feet.

In analyzing tracks, size matters (Figure 13). Rulers are essential to proper identification. Track depth should be taken into account. Measurements should be from the track floor (Figure 14).

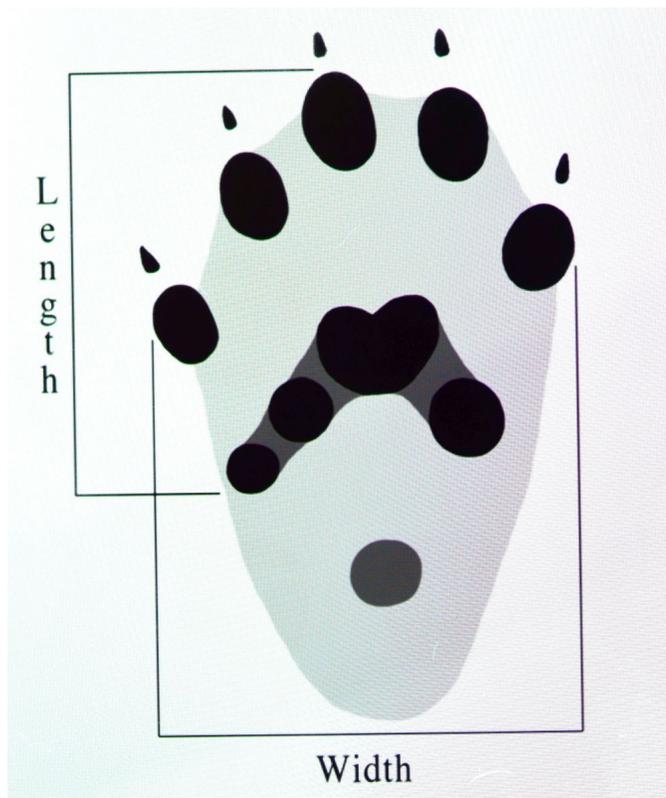


Figure 13: Track measurements. (iTrack Pro by Jonah Evans [12])

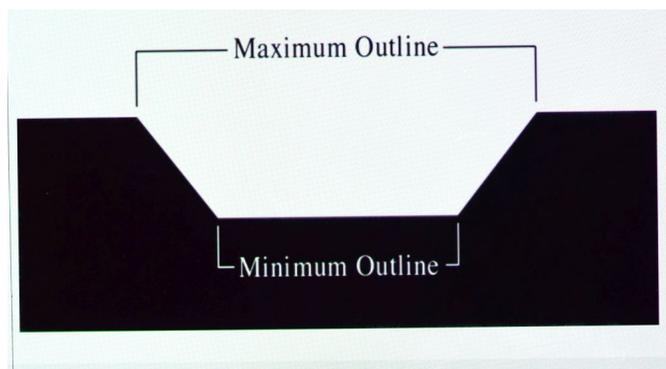


Figure 14: Track depth. Measure at the floor (minimum outline). (iTrack Pro by Jonah Evans [12])

The Problem of Gait

There are many different modes of locomotion (walk, trot, lope, gallop) among mammals (Figures 15 and 16), some helpful in narrowing down identification possibili-

ties others not so much. In any one species, gait patterns change with speed. In general as speed increases, the distance between individual tracks increases, the hind foot begins to fall further beyond the front and the trail width or straddle narrows.

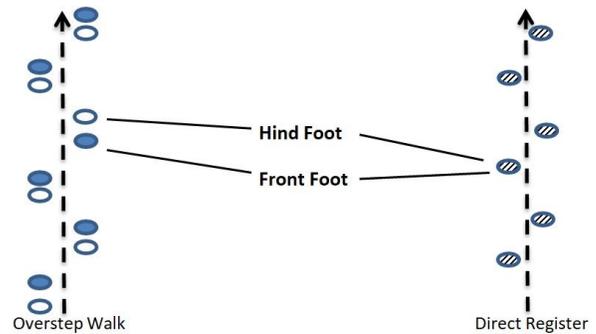


Figure 15: Typical walking gaits. In 'direct register' the hind foot falls on the back half of the front and the gait is usually faster. (iTrack Pro by Jonah Evans [12])

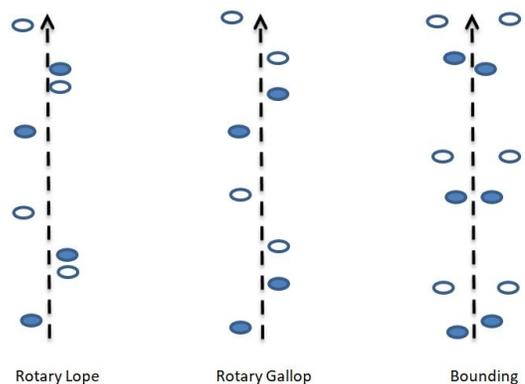


Figure 16: Lopes and gallops typical of canines. Bounds typical of rabbits, squirrels and weasels and most small rodents. Front tracks are filled with blue. (iTrack Pro by Jonah Evans [12])

A Beginners Approach to Identification

1. Count the toes. Cats, canines and rabbits all show only four toes on both front and hind feet. Most rodents show four toes on the front and five on the hind. Beware of the direct register which may make the track look odd and the toe numbers puzzling.
2. Look at the shape of the toes. Are they round or long and finger-like?
3. Are claws present? Felines show none. Note the

size and shape of the claw marks. Climbers have sharp short claws, diggers have large blunt claws.

4. Is the track symmetrical? Symmetry is determined by drawing an imaginary line down the middle of the individual print. If the right and left halves are mirror images the track is symmetric. Felines have asymmetric front feet with symmetric hind feet. Rabbit tracks are also asymmetric while canine tracks are generally symmetric.
5. What is the shape of the palm pad? Many rodents have palm pads with two or more distinct metacarpal components. Canines, felines and raccoons manifest a single palm pad as a result of component fusion. Fox prints show a characteristic bar imprint. Cats have a double lobe on the anterior edge of the pad.
6. Measure the track—front and hind if possible. A photo with a ruler in the field is ideal.
7. What is the gait?
8. Look for additional signs—scat, tail marks (mice, shrews, porcupine), webbing (otter, beaver), slide marks (otter), tunnels (voles)
9. Take the assembled clues to a reliable reference tool and see what fits best. Although there are several good track ID guides, I recommend the iTrack Pro app. This highly informative and meticulously illustrated resource was produced by Jonah Evans, M.Sc., a professional wildlife biologist, researcher and animal track expert. The app exists for both Apple and Android devices and once downloaded requires no Internet connection. It has beautiful track photos, detailed track descriptions including measurements and additional information about signs (scat, etc.) unique to each species. It is worth the expense (about 20 CAD) to anyone interested in mammalian track identification.

Some Examples

Coyote or Dog

Dog tracks show more splaying of the toes and the claws are larger and heavier (Figure 17). Both tracks are symmetric. Coyote gait is more often a fairly straight line while dogs seem to meander without purpose.

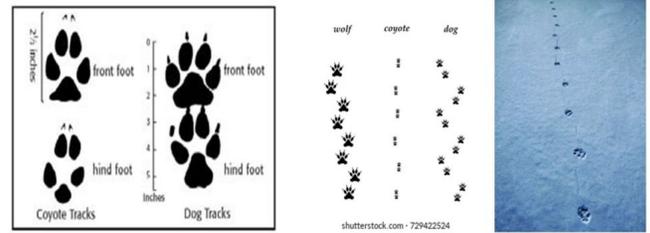


Figure 17: Compare dog and coyote tracks. Tracks in snow show straight line with direct register gait. (Cartoons from Peterson Field Guide [13]. Photo in snow by Bill Depew)

Porcupine

Porcupines show four toes on the front and five on the hind foot (Figure 18). Toe registers are often absent, leaving only very long claw marks. Palm pads have a rough texture giving the impression of the pebbled surface of a basketball. Both front and hind tracks are asymmetric. Gait often shows tail swipes.

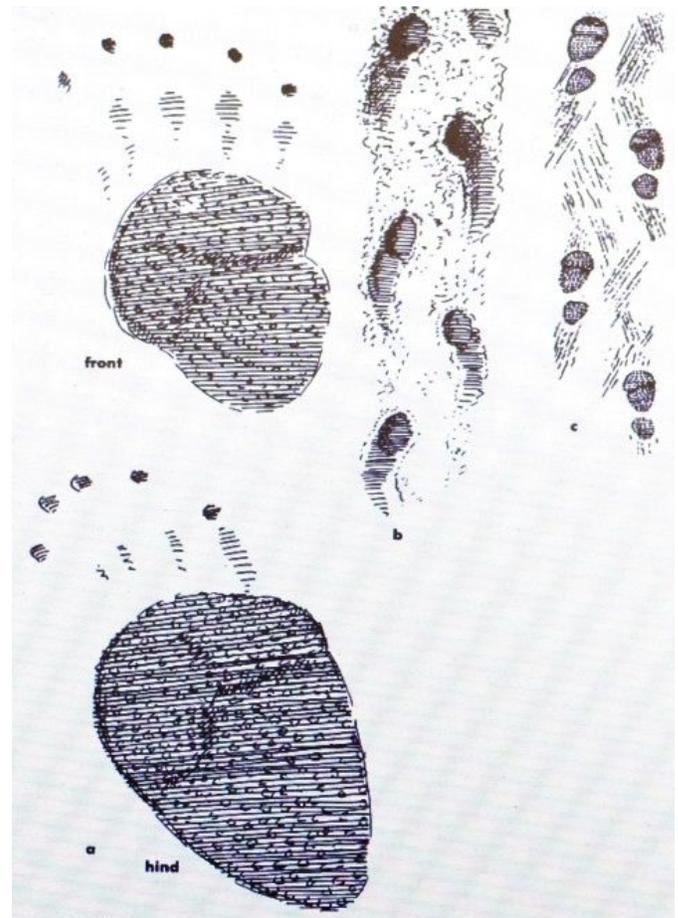


Figure 18: Porcupine track. Gait is usually 'direct register' (left track) or 'overstep' (right track). (Peterson Field Guide [13])

Fisher

Both front and hind feet have five rounded toes with

small sharp claws (Figure 19). Occasionally, the front shows only four toes and may be confused with a house cat. There are four separate palm pads. The central pad is heart-shaped. Gait is usually a lope but fishers may also bound. Fishers may slide in snow like an otter.



Figure 19: Fisher tracks. Fishers often show a bounding gait. Front and hind are asymmetric but may appear symmetric if one toe doesn't register. (Drawings from Peterson Field Guide [13] and photo from D. Scallen, 2016 [15].)

Raccoon

Both feet have five long toes with small sharp claws (Figure 20). The front track is assymmetric, the hind less so. The palm pad on the hind track is larger than the C-shaped front pad. Raccoons exhibit a characteristic 2x pattern gait where each hind track lands beside the opposite front.



Figure 20: Raccoon tracks. The 2x gait is very helpful in identification. (Peterson Field Guide [13])

5 KFN Outings

5.1 K&P Trail Ramble (South Side of Harrowsmith), December 6, 2022

by Shirley French

We had overcast skies and rain at first but not for long. Temperatures were a balmy 4 °C to 6 °C. The K&P trail has a new surface along this section and it is suitable for bikes, walkers, and wheelchairs. Kathy Webb and Bill Depew were recording the bird observations to eBird. Bill pointed out a red-tailed hawk (adult) and later, a juvenile. Statistics from Kathy sharing through eBird

Eastern Gray Squirrel

Usually found in bounding gait pattern. There are four long toes on the front and five on the hind tracks (Figure 21). The short fifth toe on the front does not register well. The hind track is larger than the front.



Figure 21: Gray Squirrel tracks. The usual gait is bounding with the hind tracks in front. (Peterson Field Guide [13]; photo by William Depew)

Deer/White-footed Mouse

Tracks register four round toes on the front and five on the hind tracks (Figure 22). The front track shows the outer toes pointing outwards and is symmetrical. The hind track is asymmetric with toes 2, 3 and 4 pointing forward in line with each other and the outer toes, 1 and 5, pointing outwards. The gait is typically bounding.

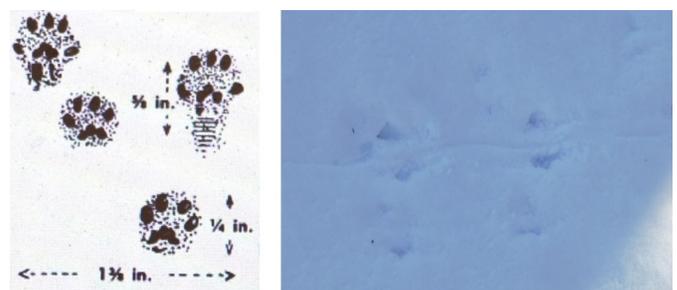


Figure 22: White-footed Mouse tracks. Typical bounding gait also shows tail drag in deep fluffy snow. (Peterson Field Guide [13]; photo by William Depew)

were: ten people on the ramble, 15 bird species were recorded, and the distance travelled was 4.19 km in two hours. That amounts to a speed of about two kilometres per hour, so faster than a snail but probably slower than a porcupine.

Before I mention some of the less well-liked plants encountered on this walk, I will mention some of

my favourites, most notably Virgin's Bower Clematis (*Clematis virginiana*). At this time of year, the feathery styles of the female flower persist on the vines in a cluster of seeds with their "feathery tails" sticking out. The dogwood shrubs add colour, especially red, to the landscape, and the Thimbleweed (*Anemone cylindrica*) have cottony white thimbles that accompany their small brown seeds. Both the clematis and thimbleweed are in the buttercup family (Ranunculaceae). Several tree species were also noted: white oak, maple (one still had its brownish leaves attached), ash and several Rock Elms (*Ulmus thomasii*).



Figure 23: Poison Ivy berries. (Shirley French)

Among the less well-liked plants was Wild Parsnip, and it was rather abundant. Some even had green foliage close to the ground (first year growth plants). They seemed to be the only herbaceous plants showing signs of chlorophyll in their leaves. Most plants have stopped producing chlorophyll by this time of year. Wild Parsnip,

being an invasive foreign plant, likely has some outstanding growth habits. Dead stems of this plant were 1 m to 1.5 m tall and numerous. Some still bore a few seeds. Apparently, the roots are edible, but the sap produced in an actively growing plant can cause severe burns or blisters on the skin in the presence of sunlight. The Wild Parsnip has yellow-green flowers earlier in the season and is in the umbel family (carrots, parsley, Queen Anne's Lace, are also members). Wild Parsnip and Giant Hogweed are both invasive species in the umbel family that you will want to be able to recognize. They both can cause severe dermatitis. Visit invadingspecies.com for more information on Ontario's Invading Species Awareness Program.



Figure 24: Little Nest Polypore. (Shirley French)

While we are on the topic of dermatitis, I should mention the crop of Poison Ivy berries that we also came across (see photo of one clump). According to Dr. David Adams, a dermatologist at Penn State Hershey (sciencedaily.com/releases/2015), three-quarters of the population will have an adverse reaction to the urushiol oil that it produces. The other one-quarter of the population will be spared. Unfortunately, people who are susceptible can still be exposed in the winter. Adams mentioned that people may inadvertently burn plant material containing Poison Ivy or may handle stems or leaves that contain the oil.

Lastly, several small fungi were fruiting at this time of the year. Janet Elliott pointed out several species or groups. One was the Club-like Tuning Fork jelly fungus (*Calocera cornea*; *cornea* meaning horn-like) which was all of about 15 mm in height with orange pigmentation in its fruiting bodies. The other one was a Little Nest

Polypore; I think you would say that you have seen it before. It has bright white cups (but can have brown rings as well) that were 0.5 cm to 3 cm across. These fruiting bodies pop out of deciduous branches that are decaying.

5.2 Parrott's Bay Ramble, January 3, 2023

by Walter Dick

Ten KFN members met Tuesday morning, January 3 at a picnic stop beside Bath Road to walk trails on the east side of the Parrott's Bay Conservation Area. The sky was overcast and the temperature 2 °C.

Our walk began with a look at the bay and the waterfowl swimming there. We crossed the road to access the trail head. The initial portion climbed and crossed a tumbling side stream; then followed the east side of the bay through a mature mixed forest. We looked at and tasted some Garlic Mustard (*Alliaria petiolata*) beside the trail—easy to spot because of its bright green leaves. There were other green-leafed plants as well. We noticed mosses, ferns and fungal growths. We examined the Spinulose Wood Fern fruit dots and Turkey Tail fungus. Some trees showed damage from wind with limbs and trunks broken some distance above ground. There were also trees recently cut by beavers. We looked around and found a beaver lodge on the west side of the waterway. We spotted nests of varied construction.

We made a loop by returning on a trail that followed the conservation area boundary. The variety of trees was interesting. We spotted a Chinquapin Oak (also known as Chinkapin Oak and Yellow Chestnut Oak). This species is rare in Ontario and reported only in Southwestern and Eastern Ontario just east of Kingston to the Thousand Islands. Perhaps this is a new location. There were other interesting tree and shrub growths as well, including a beautiful burl. Burls are filled with small knots from dormant buds and are caused by injury

(insect, viral or fungal) and are often prized for wood-working. Our bird count was six Canada Geese, four Gadwalls, six Mallards, eight Common Goldeneyes, one American Crow, eight Black-capped Chickadees.



Figure 25: Chinquapin Oak leaves. (Walter Dick)

5.3 Amherst Island Field Trip, January 7, 2023

by Gary Hillaby

The weather looked very gloomy in the early morning but eventually we had some sunny breaks. The temperature was just below freezing at the start of our outing

and when we finished, it was just above the freezing mark. Winds were gentle and the lake was relatively calm; a good day to see many species on Amherst Is-

land. We had twenty-four KFN members, so our convoy was not short. We had multiple meeting-up locations but the final assembly was on the island.

The plan was to circumnavigate the island stopping at the Owl Woods entrance and the two KFN reserve properties to educate our members. We were seeing species, but individual numbers were low. None of the obvious wintering birds—like Snow Buntings and Horned Larks—showed themselves. The owls, both Snowy and Short-eared, were having a quiet day. The highlight of the day for me was when three Bald Eagles visited our group on the southern side of the island. Our species total grew to twenty-nine species, so we were grateful to see that.

Eventually we finished our tour and returned to the ferry dock. On this day, the ferry line-up was short, and it was not difficult to get off the island. By the time we re-

turned to Kingston it was a beautiful day. It was great to see so many new members participating. The Kingston Field Naturalists are fortunate to have Amherst Island so accessible and so close.



Figure 26: Bald Eagle in flight. (Pallav Garg)

5.4 Bird Collection Update and Teen Event, January 14, 2023

by Anne Robertson

On 14 January, 2023, three Teens met with Shirley French and Anne at the Seniors Centre for an indoor workshop. The aim was to learn some bird identification and inventory the KFN bird collection.

The KFN holds a permit originally from the CWS and the RCMP and most recently from Environment and Climate Change Canada, to hold dead birds for educational purposes. The collection has been growing since 1988 with the help of Queens Biosciences for freeze drying and some taxidermy on larger species, and with the financial support of the KFN more recently for taxidermy of larger specimens.

The aim of the collection is for educational purposes and anyone may borrow from the collection (contact Anne). In 2022, after a lull during the pandemic, six people borrowed specimens, some several times in the year. The number of borrowers is gradually increasing again. Bird specimens are lent out to schools, youth groups, seniors, wood carvers, Prince Edward Point Bird Observatory, the City of Kingston, bird courses, shows and displays.

We started this workshop by identifying and labelling each recently acquired, and yet to be preserved bird, with a bird code on a tag for each species. A bird code

is a four letter identifier for each species. For example, AMRO denotes American Robin. Next, we bagged and labelled specimens that were freeze dried last year. These labels have scientific and common names as well as family and order of each specimen. We are grateful to Shirley who printed the labels for us. Each bagged and labelled bird was then placed in one of 12 boxes of similar species. After a short break we started on the inventory.

Each box has a list of species contained and the number of each species was recorded. Adding all the species we found we have 146 species and over 500 birds. A list of birds held follows.

Any found dead species not already represented in the collection would be appreciated. If you find a dead bird in good condition please lay it on its back on paper towel or preferably an old rag, and with bill pointing up and feet pointing down roll it tightly, and place it in a plastic bag in a freezer. Please notify Anne in due course—and definitely by year end—for inventorying in January of each year.

This resource has proved valuable in the community. The help of the Teens in maintaining it is much appreciated.

Species in KFN Bird Collection**Blackbirds & Crows**

Blue Jay
 European Starling
 Red-winged Blackbird
 Eastern Meadowlark
 American Crow
 Common Raven
 Common Grackle
 Rusty Blackbird
 Brown-headed Cowbird
 Baltimore Oriole

Finches et al.

Northern Cardinal
 Pine siskin
 Common Redpoll
 Pine Grosbeak
 Indigo Bunting
 White-winged Crossbill
 Purple Finch
 American Goldfinch
 Rose-breasted Grosbeak
 Common Red Crossbill
 House Finch

Flycatchers & Swallows

Eastern Phoebe
 Eastern Kingbird
 Red-eyed Vireo
 Great-crested Flycatcher
 Willow Flycatcher
 Flycatcher sp.
 Eastern Wood Pewee
 Barn Swallow
 Tree Swallow
 Chimney Swift
 NRW Swallow
 Cliff Swallow
 Purple Martin

Ground Birds

Ruffed Grouse
 Spruce Grouse
 Mourning Dove
 Rock Pigeon
 Northern Bobwhite

Miscellaneous

Yellow-billed Cuckoo
 Black-billed Cuckoo
 Ruby-throated Hummingbird
 Belted Kingfisher
 American Pipit
 Cedar Waxwing
 Scarlet Tanager
 Golden-crowned Kinglet
 Ruby-crowned Kinglet
 Black-capped Chickadee
 Marsh Wren
 House Wren
 White-breasted Nuthatch
 Red-breasted Nuthatch
 Brown Creeper

Owls

Northern Saw-whet Owl
 Barred Owl
 Eastern Screech Owl
 Snowy Owl
 Long-eared Owl
 Common Nighthawk
 Great Grey Owl
 Short-eared Owl
 Boreal Owl
 Great Horned Owl

Raptors

Cooper's hawk
 Rough-legged Hawk
 Sharp-shinned Hawk
 Red-tailed Hawk
 Merlin
 American Kestrel
 Osprey

Shorebirds & Waterfowl

Common Loon
 Canada Goose
 Tricoloured Heron
 American Woodcock
 Wilson's Snipe
 Least Bittern
 Red-necked Grebe
 Mallard

Red-breasted Merganser
 Ring-necked Duck
 Great Black-backed Gull
 Ring-billed Gull
 Common Gallinule
 Sora
 Killdeer
 Least Sandpiper
 Ring-necked Duck

Sparrows

House Sparrow
 White-throated Sparrow
 American Tree Sparrow
 Dark-eyed Junco
 Snow Bunting
 Song Sparrow
 Eastern Towhee
 Chipping Sparrow
 White-crowned Sparrow
 Fox Sparrow
 Swamp Sparrow
 Lincoln's Sparrow
 Savannah Sparrow

Thrushes

Grey Catbird
 Hermit Thrush
 Brown Thrasher
 Swainson's Thrush
 Blue-headed Vireo
 Veery
 Red-eyed Vireo
 Common Wood Thrush
 Eastern Bluebird
 Northern Shrike
 American Robin
 Pine Siskin
 Wood Thrush
 Northern Waterthrush

Warblers

Black and White Warbler
 Ovenbird
 Canada Warbler
 Blackpoll Warbler
 Blackburnian Warbler

Yellow Warbler
 Mourning Warbler
 American Redstart
 Black-throated Green Warbler
 Common Yellowthroat
 Bay-breasted Warbler
 Wilson's Warbler
 Chestnut-sided Warbler

Tennessee Warbler
 Yellow-rumped Warbler
 Black-throated Blue Warbler
 Nashville Warbler
 Magnolia Warbler
 Northern Waterthrush

Woodpeckers
 Yellow-bellied Sapsucker
 Northern Flicker
 Hairy Woodpecker
 Downy Woodpecker
 Pileated Woodpecker
 Red-headed Woodpecker

5.5 Ramble to K&P Trail East of Sydenham Road, January 17, 2023

by Anne Robertson



Figure 27: Yellow Warbler nest found low in the shrubbery. (Phil Harvey)

Eleven KFN rambles met on Sydenham Road at the K&P crossing for a leisurely two hour, four kilometre walk on the K&P trail to the east with a couple of detours.

First we noticed five Mallards in the swollen creek by the trail. Along the K&P Trail, we talked about goldenrod galls discussing the life history of the Goldenrod Gall Fly (*Eurosta solidaginis*) and the food value to humans and Downy Woodpeckers. We soon took a side trail to the north which took us close to Hwy 401 and back to the K&P Trail further east. Along this detour we first came across an area where Cottontails had been browsing. Soon we spotted a big patch of Beechdrops under the American Beech trees both of which we admired. The Beechdrops is parasitic on the roots of the beech trees; it has no green leaves; instead it takes its nourishment from the beech tree roots. Back on the K&P we continued east to the bridge where the Cataraqui Creek flows from the Cataraqui Conservation Area on its way to Lake Ontario.

Returning west, we noted a number of bird nests. We talked about the parasitism of the Yellow Warbler nest

by the Brown-headed Cowbird. A wild clematis, Virgin's Bower (*Clematis virginiana*), was scrambling over the shrubs by the trail by twisting its leaf stalks around the supporting leafless shrubs. The distinctive fruit is known as Old Man's Beard. We used a lens to examine the lovely seed heads with their hairy styles which aid in dispersal. Several other species' seed heads were checked out to see the different hooks and hairs that aid the dispersal of their seeds.

A detour to the south of the trail led us to some open habitat where amongst other things, a Northern Cardinal showed itself spectacularly in a small leafless tree. We found ourselves on the east side of the Cataraqui Cemetery and then returned to the K&P Trail.

Few birds were encountered but species included Mallard, Mourning Dove, Herring Gull, Blue Jay, American Crow, Black-capped Chickadee and Northern Cardinal. Thanks to Phil for keeping this record and submitting it to eBird for us.

Most participants followed the ramble with a visit to Tim Hortons to warm up and where social time was enjoyed.



Figure 28: Virgin's Bower seed head. (Phil Harvey)

5.6 Ramble to the Kingston Inner Harbour, February 7, 2023

by Helen Pyne



Figure 29: Map Turtles in Inner Harbour in summer. (Herb Helmstaedt)

Nineteen KFN members met on February 7 at the corner of Orchard and River Street. This happens to be adjacent to the tannery property where we saw a magnificent White Oak tree. Many residents leave poetry along the fence line. A map was circulated outlining the boundaries.

It was very windy as we listened to Mary Farrar (President of the Friends of the Inner Harbour) talk to us at the site about the proposed development plans and the concerns arising. She spoke very well, firstly about the developer and his track record with other local projects, and about the environmental concerns. 1800 trees could be clear cut. The proposal to remove 400 000 tons of contaminated soil is being contested. A big concern raised by a Queen's professor is that after clear cutting, the development won't proceed because, after all this time, contamination has been absorbed into the bedrock which cannot be removed. Mary asked each of us to write in support of No Clearcuts Kingston, asking the federal government to reassess the risks of this development to the land and the Cataraqui River—to prevent the negative impact on the whole environment and ecosystem. These submissions will be presented at the Ontario Land Tribunal hearing. It was mentioned that a submission was already made on behalf of the KFN.

The shoreline of the tannery site is a significant turtle habitat. I've seen many turtles in the past—while canoeing along the shoreline of the inner harbour—basking on the low fallen tree limbs that jut out over the water.

Later, as we walked south along the K&P Trail to Doug

Fluhrer Park and back, we talked more about various turtle species. Anne showed us a shell of a Northern Map turtle explaining how it is different from the Common Snapping Turtle shell. Some turtles swim up to Kingston Mills and back which is known because some turtles were tagged to record their movements along the river and shore. Turtles often go quite a distance and attempts to redirect them fail. Some people shared stories of this in different areas. The trail was quite icy in spots. Distance covered was approximately two kilometres.

Some turtle species prefer to lay their eggs in gravel as opposed to sand. We also learned about turtle nesting boxes, and if you create one yourself, you may want to make sure that there is an exit gate because occasionally, sparrows get trapped in these nest boxes, but luckily it doesn't happen often. Shirley also shared information about turtle breathing in winter. They oxygenate through the skin under water. Sometimes turtles can be seen floating with just their heads bobbing at the surface. It really was quite fun hearing all kinds of information about turtles.

The group learned an easy way to narrow down which tree species have an opposite branching pattern using the acronym, "MAD-Horse." It stands for opposite branching on **M**aple, **A**sh, **D**ogwood, and **H**orse Chestnut.



Figure 30: American Black Duck. (Phil Harvey)

Thankfully during the second half of our ramble, the wind died down considerably making it more pleasant. A flock of 43 Mallards, and three American Black Ducks

landed in a small area of open water near the shore. Other bird species recorded by Kathy Webb were three Tundra Swans, 26 Feral Pigeons, 11 Mourning Doves,

two gulls, two Blue Jays, 15 American Crows, ten Black-capped Chickadees, and one House Sparrow.

5.7 Teen Wood Duck Box Cleaning and Inventory, February 11, 2023

by Ben and Pamela Prowse

Four Kingston Teen Naturalists visited the Kingston Field Naturalists Helen Quilliam Sanctuary. We went as a group of seven with a mix of teen field naturalists and adult field naturalists all on snowshoes. We visited four Wood Duck nest boxes and not a single one was used by a Wood Duck! The boxes were all cleaned out, checked and refilled with clean wood chips.

We found one that was emptied of wood chips last year but not refilled so was unused in 2022 and three that had been used by Grackles. We ate lunch in the sun and had a good view of a Northern Goshawk flying overhead. As we headed back along the creek, we saw White-tailed Deer tracks. It was fun; thank you Anne for organizing this for us!



Figure 31: Wood Duck box maintenance and data recording. (Kathy Webb)

5.8 Family Day on Wolfe Island, February 20, 2023

by Erwin Batalla



Figure 32: Snowy Owl on a fence post. (Tracy Wondrasek)

A group of 22 eager naturalists gathered at the ferry ter-

minal at 8:30 a.m. Some carpooling had already taken place at the Barrack Lot and nine cars boarded the 9:00 a.m. ferry to Wolfe Island. Erwin and Gaye were in the lead car followed by Louise, Richard, Dianne, Jackie and Karen, David and Dawna, Trina, Nicole, Tracy, John and Victoria, Joe and Eve, Gord and Jean, Catharine and Ian, Amber and her partner.

On the island, we moved quickly towards the north-south main thoroughfare, Hwy 95. We drove south to the intersection with Reed's Bay Road. The walkie-talkie crackled with excitement as a Snowy Owl was spotted on a fence pole on Reed's Bay Road. We stayed far away, and everybody was able to look at this immature female, a large bird with a lot of dark markings. Later, we noticed some green marking on its breast indicating that this was the same bird which had been seen in Kingston, near the Wabaan Bridge, a month earlier.

We continued along Reed's Bay Road, turned north onto Fourth Line, and turned onto Baseline Road to head east. An immature Bald Eagle was flying away from

us, but he turned and hovered over the road for a moment. This allowed a good look at his plumage, and some pictures were taken. At the intersection with Fifth Line, a second Snowy Owl was spotted. It was also an immature bird.

We made our way to Third Line. Going north, we stopped at a jog in the road. Thanks to the scouting report from Gaye and Gary, we could see three Snowy

Owls from that location. We had two immature birds and an adult bird. The totally white adult owl was on the ground near a rocky mound close to the road. All the group was able to see it. From that spot, the group moved towards the ferry terminal.

We returned to Kingston on the noon ferry. Many Long-tailed Ducks were seen during the crossing. It was a beautiful day with several owl sightings.

5.9 Ramble to K&P Trail West of Sydenham Road, February 21, 2023

by Janis Grant



Figure 33: Frozen moment. (Grant LeDrew)

This Ramble was supposed to take place on the Rideau Trail north from Bath Road at Queen Mary Road. Imagine Anne's surprise when she discovered on Monday, February 20 that this trail was closed. She made a quick recovery, however, and notified all 16 KFN members who had registered that the venue had changed to the K&P Trail west from Sydenham Road. To our knowledge, nobody missed us by going to the original site.

The day was partly sunny and just below freezing, which was perfect for February. Kathy Webb kept an eBird list aided by other keen birders including Phil Harvey, Bill Depew and Jane Revell. Nine species were seen during the two hours including four American Tree Sparrows and a newly arrived (three weeks early) Red-winged Blackbird!

The trail was reasonably ice-free but most of us took precautions against falling by using cleats and/or hiking poles. This part of the K&P Trail passes through particularly interesting habitat including woodland, marsh and open water (now frozen). As we walked along,

Anne pointed out a Cottonwood Tree which can withstand strong wind due to the structure of its leaves, a Manitoba Maple recognized by its compound leaves with opposite buds and winged seeds, reed grass (a big grass family member), and cattails. Cattail plants are estimated to each have a quarter million seeds. Of the seeds that sprout, each can produce as many as a hundred offspring. Unfortunately, native cattails are competing with invasive *Phragmites*, which is choking them out in many Ontario wetlands. *Phragmites* may currently be out of control but Anne pointed out our success in controlling invasive Purple Loosestrife using an introduced beetle that eats it specifically. Perhaps we can find an organism that specifically enjoys eating *Phragmites*?



Figure 34: Seed head of Wild Parsnip showing flat round seeds. (Phil Harvey)

There were plenty of signs of mammals about. Beaver had built an extensive dam across the stream, creating a large pond. Many trees were felled to build the dam and beaver lodge. Muskrat houses built of reeds were found in the pond. There were tracks of White-tailed

Deer everywhere. Cottontail Rabbits had chewed the tender bark of new shrubs just above the snow line and had left their droppings as evidence of their presence.

Although there weren't many insects, we examined tunnels eaten in wood by bark beetles and looked at a tiny green caterpillar destined to become a butterfly or moth, with three pairs of true and four pairs of false legs.

Phil Harvey, who has birded this part of the trail exten-

sively, talked of the many species of wetland birds that occur here including Green Heron, Least Bittern, Common Gallinule, Virginia Rail, Swamp Sparrow and Marsh Wren.

Despite its proximity to Highway 401 and the human population of Kingston, this is a lovely spot to lose yourself in nature. All of us felt refreshed, exercised (we walked 4.5 km) and a little better informed about the wild things around us.

5.10 Algonquin Park Field Trip 24-25 February, 2023

by Anthony Kaduck



Figure 35: Canada Jay. Thankfully I took my own advice and ensured there was enough depth of field to get the tail feathers in focus. (Anthony Kaduck)

A winter trip to Algonquin Provincial Park is a good opportunity to build a birder's year list with some winter finches and other desired species. Several members signed up for this annual trip but OHIP had other ideas and two had to drop out because long-delayed procedures or appointments had now become available. So the crew that braved one of the coldest weekends of the year was small: me, my wife Lynn Kerr, and new KFN member Danielle Goodvin.

An early morning trip to the Visitor Centre feeders yielded good views of a flock of 14 Evening Grosbeaks, as well as a lone Common Redpoll and most of the usual

suspects: chickadees, goldfinches and both types of nuthatch, as well as Hairy and Downy Woodpeckers. In a normal year we might have expected Pine Siskins and Purple Finches too, but both species moved south last year due to poor food crops in the boreal forest and they have not yet returned in any numbers. The most notable absentees were Blue Jays. Normally there will be up to 20 hanging around the feeders but we did not see or hear a single one.



Figure 36: Did I hear that seeds were being given out? (Anthony Kaduck)

Our next stop was the Spruce Bog Boardwalk. A guided walk with the park naturalists was scheduled so we decided—perhaps unwisely—to join in. This involved standing around in the parking lot at -25°C for about 15 minutes as we waited for stragglers. When we finally started, we only walked for two or three minutes before the very keen naturalists stopped to give us an overview of the spruce bog ecosystem. Interesting stuff, but it involved another ten minutes of standing around in the wind and core temperatures were starting to drop.

Eventually we trudged off down the trail, meeting a few chickadees and Red-breasted Nuthatches but seeing no sign of the scarce but hoped-for Spruce Grouse, Black-backed Woodpecker, or Boreal Chickadee.

After a snack and a much-needed warm-up at the visitor centre we headed off down the Opeongo Road looking for Canada Jays. The resident birds were a fair distance down the road past the winter gate but eventually we spotted a lone bird high up in a tree. Canada Jays are very inquisitive birds, so it was not long before they filtered in to check us out. This was a life bird for both Lynn and Danielle, and what better way to appreciate these elegant jays than admiring them as they land on your hand looking for food items. For the record, raisins, dried cranberries, and peanuts are the desired foods, and you can feel good about providing these as the birds mainly cache the food so they can feed their nestlings in a few weeks.

On the way back we stopped at the winter gate to listen

for any unusual bird sounds. Nothing popped up but we had good views of an American Marten peeking over the snowbank.

By now it was late afternoon and Danielle had to head back. We had booked a room in Whitney for the evening so we went back to the boardwalk chasing a rumoured Boreal Chickadee. These birds have become very scarce in Algonquin Park due to rising temperatures but this year there have been a few around. After another bit of standing around in the cold we got brief but good views of one bird that was hanging around with its Black-capped cousins. We expected that might be the last good bird sighting of the weekend, but instead a very early Osprey as we drove home through Lennox & Addington took that prize. Thanks to my brave companions for an enjoyable weekend of winter birding!



Figure 37: Danielle and new friend. (Anthony Kaduck)

5.11 Ramble to Landon Bay, March 7, 2023

by Carla Baetz

Six KFN rambblers met to car pool at the base sports complex prior to heading off along Highway 2 to Landon Bay Centre which is now part of the Thousand Islands National Park. It was a chilly start to the day with the wind howling and below freezing temperatures—a cool one for the beginning of March! At the gate, we met up with three more members, and all were well-equipped with warm clothing and very necessary snowshoes. After reviewing the map of the park, we headed towards the creek along the Garden Trail. The fern garden was possibly hidden by the snow cover, but soon, the goldenrod tips that reached above the snow line revealed small round galls caused by the larva of the Goldenrod Gall Fly.



Figure 38: This picture emphasizes the elliptical goldenrod gall caused by a moth caterpillar. (Carla Baetz)



Figure 39: What appeared to be a withered leaf ended up to be the large cocoon of a Polyphemus Moth. It took a sharp eye to find this beauty as most of the group snowshoed past oblivious to this hidden treasure. (Carla Baetz)

Fruit bodies of the Sensitive Fern were evident. The leaves of the Sensitive Fern die off quickly with the first frost, but the fruiting bodies remain for several years. Here they were sticking up above the snow.

A single Tamarack stood proudly along the trail. This tree is a conifer that sheds its needles, and will reveal pink flowering buds along with bunches of new needles in the spring. We wondered if this area is a wetland as it appeared to be growing naturally beside a Speckled Alder (also a wet area lover) which showed male and female catkins as well as last year's cone-like fruits.

As we crossed Halstead Creek, we noticed the footprints of what we first thought was a mink or weasel, and examining the prints through binoculars suggested they were the muddy prints of a porcupine, but in the end,

6 Book Reviews

6.1 Reference Guides for Gulls

by Anthony Kaduck

For most birders, the standard field guides to North American birds—Sibley, Peterson, National Geographic, Stokes et al.—are all that is necessary to allow identification of most bird species. The exceptions are some notably pesky ID challenges, namely shorebirds, eclipse plumaged ducks, and gulls that have not reached full adult plumage. For those birds I lean to more specialized reference books.

it was decided they were raccoon prints with long-toed back feet and short-toed front feet.



Figure 40: Muddy tracks by the creek. (Carla Baetz)

On the way back to the gate, we headed up to the lonely Pitch Pine. The cones may only open following exposure to a forest fire (or at maturity or at irregular intervals) thus allowing release of seeds over long periods of time. Anne eventually found the tree recognized, amongst other features, by its “three needles in a bunch.” Some of the group ventured on up the hill but turned back before reaching the lookout due to a lack of time.

Finally, the group snowshoed back to the starting point where we removed our snowshoes. We crossed the highway and enjoyed an early social lunch while looking over the St. Lawrence River. A few ventured briefly down the short trail to the point there. In about two hours we had snowshoed 3 km.

Bird list: Herring Gull, other unidentified gulls, Pileated Woodpecker, American Crow, Black-capped Chickadees, White-breasted Nuthatch.

As one of a minority of birders afflicted with larophilia (the love of gulls), I decided to expand my library with some good gull books. Klaus Malling Olsen's *Gulls of the World* [16] was the first, and I later added the Peterson guide, *Gulls of the Americas* [17]. This review will cover the strengths and weaknesses of these books, and end with a recommendation of which one you might want to obtain.

Description

The Olsen book is exactly what it says on the tin: a photographic guide to all the world's gull species. The gulls are listed in taxonomic order with several pages devoted to each species. An introductory section of one to four pages gives the basic information on that species: a general description of the bird, notes on identification of the various plumages, a brief note on moulting, information on geographic variation and hybridization, and a range map. This is followed by up to eight pages of excellent photographs showing all of the variations.

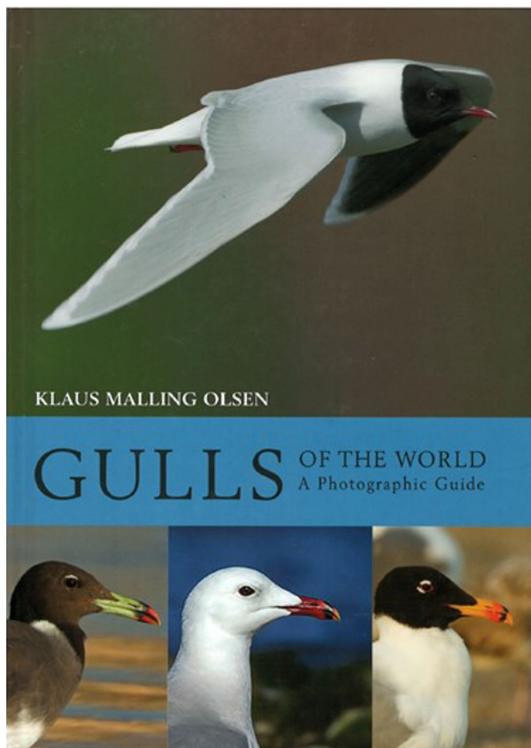


Figure 41: *Gulls of the World* cover. (Source: scan of original)

The Howell and Dunn work is a lot more detail-oriented, as can be seen from the fact that it uses 50% more pages to cover only the subset of gulls that can be seen in North America. The book is laid out like an old-style field guide, with a large section of photographic plates at the front, followed by extended species accounts that include sections on identification, taxonomy, status and distribution, range maps, and field identification notes covering habitat and behaviour, molt process, and known hybrids. The identification section goes into considerable (some might say excruciating) detail: the primary flight feathers are often described individually.

Pros and Cons

Gulls of the World is a well-thought-out volume that is aimed at the general user. The information and images provided are enough to allow a birder to study and learn the plumage stages of gulls. I appreciate that it uses the more standard layout with the species accounts grouped with the photographs so there is less flipping back and forth. While it includes gull species that will never be seen in North America, if you do get the chance to visit a remote area such as the Galapagos Islands you will find the endemic gull species there well covered so you won't be needing yet another bird book.

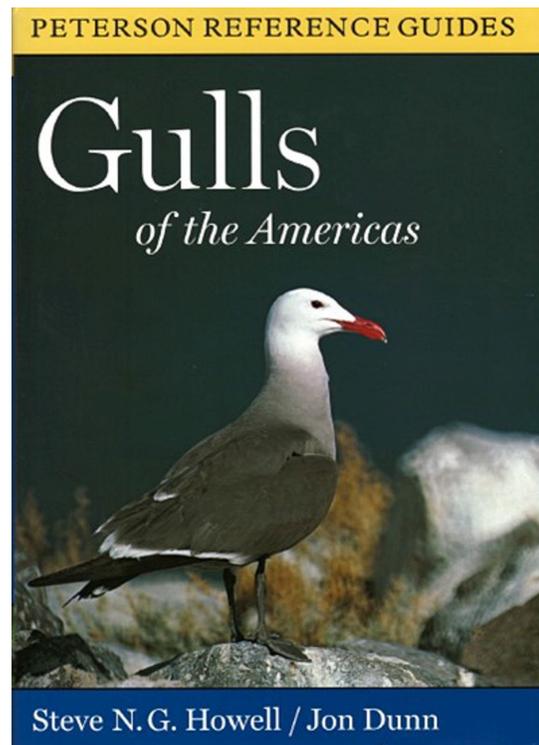


Figure 42: *Gulls of the Americas* cover. (Source: scan of original)

There is no doubt that *Gulls of the Americas* includes a lot more information. Whether that information is excessive or not depends on the use you intend to make of it. A researcher studying gulls might reach for this book first, and I suspect that it would be the reference preferred by ringers or banders. I do sometimes refer to this book, but every time I do, I struggle to find what I am looking for. Bizarrely, the book does not include an index. And to make matters worse, the list of species at the front does not give page numbers. So if you are wondering about the fine features of California Gulls you will find them only by flipping through the pages until you happen upon the species account, and then flipping through the plates in the same manner. I am puzzled

as to how this book got through the publication process without someone noticing this flaw that makes it almost unusable.

Both books are currently available on Amazon, or even better order them at your local bookstore.

Recommendation

No surprises here. If you want to start expanding your reference library with a gull book I have no hesitation in recommending, Klaus Malling Olsen's *Gulls of the World*.

References

- [1] Zhang, X. et al. (2019). Changes in Temperature and Precipitation Across Canada; Chapter 4 in Bush, E. and Lemmen, D.S. (Eds.) *Canada's Changing Climate Report*. Government of Canada, Ottawa, Ontario, 112-193.
- [2] Costanzo, J. P., et al. (2014). Seasonality of freeze tolerance in a subarctic population of the wood frog, *Rana sylvatica*. *International Journal of Zoology* 2014:750153.
- [3] Shine, R., et al. (2004). Patterns of mortality in a cold-climate population of garter snakes (*Thamnophis sirtalis parietalis*). *Biological Conservation* 120(2):201-210.
- [4] Hatch, K. A., et al. (2022). Winterkill in lotic systems may be an important driver of amphibian population declines. *Ichthyology & Herpetology* 110(3):575-584.
- [5] O'Hanlon, S. J., et al. (2018). Recent Asian origin of chytrid fungi causing global amphibian declines. *Science* 360(6389):621-627.
- [6] Sonn, J. M., et al. (2019). Effects of latitudinal, seasonal, and daily temperature variations on chytrid fungal infections in a North American frog. *Ecosphere* 10(11):e02892.
- [7] Raffel, T. R., et al. (2015). Temperature variability and moisture synergistically interact to exacerbate an epizootic disease. *Proceedings of the Royal Society B: Biological Sciences* 282(1801):20142039.
- [8] Klaus, S. P., et al. (2013). Changes in breeding phenology of eastern Ontario frogs over four decades. *Ecology and Evolution* 3(4):835-845.
- [9] Bison, M., et al. (2021). Earlier snowmelt advances breeding phenology of the common frog (*Rana temporaria*) but increases the risk of frost exposure and wetland drying. *Frontiers in Ecology and Evolution* 9:645585.
- [10] Desforges, J. E., et al. (2021). The alarming state of freshwater biodiversity in Canada. *Canadian Journal of Fisheries and Aquatic Sciences* 79:352-365.
- [11] Knapp, R. A., et al. (2016). Large-scale recovery of an endangered amphibian despite ongoing exposure to multiple stressors. *PNAS* 113(42):11889-11894.
- [12] Evans, Jonah. (2020). iTrack Wildlife Pro. Version 1.7.0 (Mobile app), Naturetracking.com.
- [13] Murie, Olaus J. (1974). *Peterson Field Guide to Animal Tracks*, 2nd Ed., Houghton Mifflin.
- [14] Seton, Ernest Thompson. (1958). *Animal Tracks and Hunter Signs*. Doubleday and Co. Inc.
- [15] Scallen, D. (2016). Tracking 101. In *The Hills*. Available at: <https://www.inthehills.ca/2016/11/tracking-101/> (Accessed: February 2023).
- [16] Olsen, Klaus Malling. (2018). *Gulls of the World: A Photographic Guide*. Princeton University Press: Princeton. 368 pages.
- [17] Howell, Steve N.G. and Dunn, J. (2007). *Gulls of the Americas*. Houghton-Mifflin: New York. 516 pages.

Kingston Field Naturalists

Objectives

The Kingston Field Naturalists (KFN) is an active, local club of over 500 members interested in a wide variety of natural history. The objectives of the club are:

- to acquire, record and disseminate knowledge of natural history;
- to stimulate public interest in nature and in the protection and preservation of wildlife and natural habitats; and
- to acquire, receive and hold lands for the purpose of preserving their natural flora and fauna, and to encourage and assist other organizations and individuals to do likewise.

Nature Reserves

The KFN owns properties that are designated as nature reserves.

Helen Quilliam Sanctuary at Otter Lake

A 217 hectare (536 acre) property of mixed forest located in the Canadian Shield in the Township of South Frontenac accessible to members through a trail system.

Martin Edwards Nature Reserve

A 100 hectare (247 acre) property of fields and marshland located on the southeast shore of Amherst Island accessible to members through a single trail along the south shore.

Sylvester-Gallagher Nature Reserve

An 80 acre (32.4 hectare) parcel of forest and grassland, adjacent to the Martin Edwards Nature Reserve not currently accessible.

Conservation and Education

The KFN actively supports conservation efforts. Issues such as park creation, wildlife and habitat protection, and environmental welfare are of on-going concern. The club also makes natural history resources and knowledge available to the community through education programs which include field courses, talks, awards and a loan library.

Be a Contributor!

This edition of the Blue Bill could have contained your article, photo, nature sketch, report, puzzle, quiz, conundrum, cartoon, or other contribution (if it did, many thanks)!

Submission Guidelines:

Submit the **text of your article** in Word, Open Document Format (.odt), or Plain Text.

If your article includes a **table**, send it as a separate document in Excel, Open Document Format (.ods), or CSV even if it is contained in your text document.

Send images as separate files (e.g. png, jpg, gif) even if they are included in your text document. Please "attach" them to the email.

Crop images to show the subject and ensure they are a **minimum of 1000 px** wide for a column width photo and 2000 px wide for a page width photo.

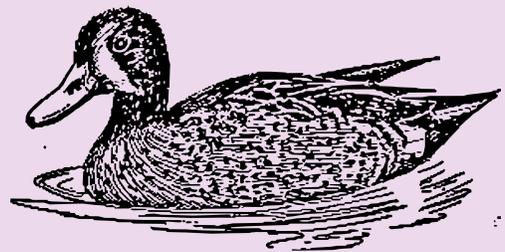
Include a **caption and credit or attribution** for each image.

Verify common and scientific names with an up-to-date curated resource such as iNaturalist.ca.

Send submissions to the editor:

editor@thebluebill.ca

by the first of the month of publication (i.e., March 1, June 1, September 1, or December 1).





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