

# THUNDER CAPE BIRD OBSERVATORY

## 2019 PROGRAM REPORT

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Canadian Migration  
Monitoring Network



Réseau canadien  
de surveillance  
des migrations



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# INTRODUCTION

## THUNDER CAPE BIRD OBSERVATORY

Thunder Cape Bird Observatory (TCBO) is a joint project of the [Thunder Bay Field Naturalists](#) and [Birds Canada](#) working in partnership with Ontario Ministry of Natural Resources and Forestry - Wildlife Assessment Program (OMNRF-WAP), Sleeping Giant Provincial Park, and the Canadian Coast Guard. Core funding for the migration monitoring at Thunder Cape is provided by OMNRF-WAP, to contribute to its assessment of bird population trends in Ontario. TCBO is also associated with the [Ontario Bird Banding Association](#), and is a member of the [Canadian Migration Monitoring Network](#) which is a network of more than 30 bird observatories that conduct research, education and monitor bird population trends across Canada.

TCBO is strategically located at the southern tip of the Sibley Peninsula on the north shore of Lake Superior on the fringe of the boreal forest. This 35-km long forested peninsula is flanked by the highest cliffs in Ontario and is a natural migrant trap, particularly for waterfowl, raptors, and passerines in the fall.

## THUNDER BAY FIELD NATURALISTS

The Thunder Bay Field Naturalists club is a non-profit organization dedicated to the study of natural history, the wise use of natural resources, the preservation of natural areas, and the understanding and protection of nature.

## BIRDS CANADA

Birds Canada is the country's leading science-based bird conservation organization. Birds Canada's mission is to conserve the wild birds of Canada through sound science, on-the-ground actions, innovative partnerships, public engagement, and science-based advocacy.

Birds Canada is a national charity built on the contributions of thousands of supporters and citizen scientists. Using data from our volunteer monitoring programs and targeted research, our scientists identify significant population changes and direct conservation planning. We are a strong partner in BirdLife International, the world's largest conservation alliance for nature and people, active in more than 120 countries and territories.

## ACKNOWLEDGEMENTS

TCBO graciously acknowledges the support of the Ontario Ministry of Natural Resources and Forestry, Thunder Bay Field Naturalists, Lake Superior National Marine Conservation Area, Environment and Climate Change Canada, and Birds Canada. Administration, oversight, project guidance, data management and analysis are provided by Birds Canada. A very special thank you to the staff of Sleeping Giant Provincial Park for logistical support, and to Al Harris and the Bird Committee of Thunder Bay Field Naturalists for assisting with boating, volunteer transportation, and website management. Lastly, a very special thank you to all the volunteers that made this work possible and to Kate Prince, the autumn assistant coordinator.



Environment  
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Canada

## MIGRATION MONITORING PROGRAM

TCBO has been collecting standardized data on bird migration at the tip of the Sibley Peninsula since 1992. TCBO was founded to conduct *migration monitoring* of migratory birds from the forests of Northwestern Ontario which migrate along the Sibley Peninsula on their way south in the fall and north in the spring.

Each spring and fall, staff and volunteers perform daily banding and observations at TCBO. The migration count data assembled at TCBO are used to derive daily estimated totals for each species recorded throughout the year. Ultimately, estimated total data are used to generate [population trends](#) for nearly 200 species. Migration monitoring is a particularly valuable method as it enables the monitoring of species that breed in northern Canada, or other inaccessible areas, which can be difficult to assess with more conventional monitoring methods such as the North American Breeding Bird Survey. There are now about 30 migration monitoring stations (bird observatories) across Canada which form the [Canadian Migration Monitoring Network](#).

In 2019, TCBO banded 3,361 birds, which is below the long-term average of 7,200 birds. Additionally, 630 recaptures of previously banded birds were processed. Some of the most notable banding highlights included:

- **Northern Waterthrush** – highest banding total ever;
- **Red-breasted Nuthatch** and **Rusty Blackbird** - second highest banding totals ever;
- **Northern Mockingbird** first one banded in nine years;
- **Brown Thrasher** - first one banded in seven years; and
- **Wood Thrush** – Fifth ever banded.

In addition to banded and recaptured birds, TCBO counted approximately 60,000 birds during 11,928 person-hours of migration monitoring.

## SPRING MIGRATION MONITORING

TCBO's 28<sup>th</sup> spring migration monitoring season ran from April 29 to June 5 (38 days). The seven volunteers who helped run operations during the spring season came from Canada and New Zealand. Staff and volunteers logged 3,504 person-hours collecting migration data on 140 species and forms. Summary statistics of seasonal effort are summarized in Table 1. In total, 1,516 birds of 77 species and forms were banded (Table 2 and Appendix 1). TCBO had 38 station-days of coverage, yielding 1,020 net-hours and 2,484 trap-hours with a catch rate of 15 birds/100 hours. TCBO welcomed 29 visitors during the spring season.

**Table 1.** Effort summary statistics for spring migration monitoring.

<b>Person-hours</b>	3,504
<b>Total species and forms observed</b>	140
<b>Individuals banded</b>	1,516
<b>Species and forms banded</b>	77
<b>Total station-days of migration monitoring</b>	38
<b>Total net-hours</b>	1,020
<b>Total trap-hours</b>	2,484
<b>Overall catch rate</b>	15 birds/100 hours
<b>Visitors</b>	29

**Table 2.** Ten most abundant species banded during spring migration monitoring.

<b>Species</b>	<b>Number Banded</b>
Chipping Sparrow	193
Blue Jay	154
Slate-coloured Junco	119
White-throated Sparrow	78
Nashville Warbler	70
Red-breasted Nuthatch	66
Myrtle Warbler	60
American Redstart	60
Swainson's Thrush	50
Magnolia Warbler	47

**Volunteers:** Nicole Halliday, Kate Prince, Abi Quinnell, Tim Quinnell, Theodore Rajnault, and John Skemp.

**Highlights:**

**Cackling Goose** - Two were observed June 6.

**Tundra Swan** - Observed on numerous occasions between May 3 and June 5.

**American White Pelican** - Two were observed on June 4.

**Sandhill Crane** - Observed on numerous days from May 8-15.

**Whimbrel** - One was observed on May 25.

**Eastern Whip-poor-will** - One was heard on May 25.

**Wood Thrush** - One individual was heard singing May 24, was banded May 30, and was heard again May 31.

**Northern Mockingbird** – The first mockingbird to appear at TCBO in nine years was banded May 20.

**Brown Thrasher** – The first thrasher to appear at TCBO in seven years was banded May 26.

**Connecticut Warbler** - One was banded May 25, and another observed May 27.

**Pine Warbler** – Lone birds were observed May 14 and 22.

**Vesper Sparrow** - One was banded May 9 and was subsequently observed May 10-11.

**Lark Sparrow** - One was banded May 18 and observed May 19.

**Grasshopper Sparrow** - One was banded May 25.

**Le Conte's Sparrow** – One was banded May 23 and observed May 30.

**Evening Grosbeak** – One was observed May 3.

## **FALL MIGRATION MONITORING**

TCBO's 28<sup>th</sup> fall migration monitoring season ran from August 1 to October 25 (86 days). The twelve volunteers who helped run operations during the spring season came from Canada, France, New Zealand, the United Kingdom, and the United States. Staff and volunteers logged 8424 person-hours collecting migration data on 172 species and forms. Summary statistics of seasonal effort are summarized in Table 3. In total, 1845 birds of 74 species and forms were banded (Table 4 and Appendix 1). TCBO had 86 station-days of coverage, yielding 6590 net-hours and 3390 trap-hours with a catch rate of 18 birds/100 hours. TCBO welcomed 109 visitors during the fall season.

During the fall banding season TCBO conducts specialized monitoring of Common Nighthawk and Northern Saw-whet Owl.

**Common Nighthawk Monitoring:** Daily evening nighthawk counts were undertaken August 10 to September 10 (31 nights). Common Nighthawks were observed most nights during August, both migrating and foraging in small numbers. The largest flights

took place on August 20 and 21, counting 28 and 79 birds, respectively. Six nighthawks were banded.

**Northern Saw-whet Owl Monitoring:** Owl monitoring ran September 15 to October 21 (22 nights). A total of 148 Northern Saw-whet Owls were banded.

**Table 3.** Effort summary statistics for fall migration monitoring.

Person-hours	8,424
Total species and forms observed	172
Individuals banded	1,516
Species and forms banded	77
Total station-days of migration monitoring	38
Total net-hours	6,590
Total trap-hours	3,390
Overall catch rate	18 birds/100 hours
Visitors to Old Cut	109

**Table 4.** Ten most abundant species banded during spring migration monitoring.

Species	Number Banded
American Redstart	153
Northern Saw-whet Owl	148
Northern Waterthrush	106
Chipping Sparrow	106
Sharp-shinned Hawk	92
Nashville Warbler	90
Golden-crowned Kinglet	80
Savannah Sparrow	77
Myrtle Warbler	72
Western Palm Warbler	72

**Volunteers:** Sébastien Arriubergé, Shaina Frye, Cassandra Keller, Sheldon McGregor, Emily Mustafa, Michelle Ross, Himani Russell, Taylor Simpanen, Abi Quinnell, Tim Quinnell, and Catherine Werth.

### Highlights:

**Cackling Goose** - One was observed October 13.

**Gadwall** - One was observed August 9.



**Canvasback** - Nine were observed September 26.

**Harlequin Duck** - One was observed October 3.

**Hooded Merganser** - One was observed August 9.

**American White Pelican** - Many were observed in early August and others on September 4 and 10.

**Cooper's Hawk** - One was observed August 13, and another September 21.

**Golden Eagle** - One early migrant was observed September 19.

**Rough-legged Hawk** - One was observed October 24.

**Sandhill Crane** - One was observed October 4.

**Semipalmated Sandpiper** - One was observed August 21.

**Baird's Sandpiper** - One was observed August 21.

**Pectoral Sandpiper** - One was observed August 16.

**Wilson's Snipe** - One was observed September 20.

**American Woodcock** - One was observed on August 14.

**Bonaparte's Gull** - Three were observed August 12, and one on September 20.

**Long-eared Owl** - One was observed October 19.

**Barred Owl** - One was observed September 25.

**Eastern Whip-poor-will** – One was heard on August 1 and again on August 3.

**Chimney Swift** – Three different observations this fall: three were seen August 24, five August 28, and three August 29.

**Red-headed Woodpecker** - One was observed September 23-24.

**American Three-toed Woodpecker** - Individuals observed and banded October 4, 15, 17, and 25.

**Eastern Wood-Pewee** - One was observed August 6.

**Bank Swallow** - One was observed August 10.

**Le Conte's Sparrow** - Individuals were observed August 13 and 16. Two others were banded October 2 and 3.

**Dickcissel** - One was observed August 21.

**House Sparrow** - One was observed October 10-13.

## APPENDICES

### Appendix 1. TCBO 2019 Banding Totals.

Species	Spring	Fall	Total
American Goldfinch	5	1	6
American Pipit		9	9
American Redstart	60	153	213
American Robin	1	1	2
American Tree Sparrow	28	4	32
Baltimore Oriole	3		3
Bay-breasted Warbler	2	4	6
Black-and-White Warbler	41	57	98
Black-backed Woodpecker		9	9
Blackburnian Warbler	10	1	11
Black-capped Chickadee	6		6
Blackpoll Warbler	4	41	45
Black-throated Blue Warbler	10	12	22
Black-throated Green Warbler	6	7	13
Blue Jay	154	23	177
Blue-headed Vireo	6	17	23
Broad-winged Hawk		1	1
Brown Creeper	6	68	74
Brown Thrasher	1		1
Brown-headed Cowbird	2		2
Canada Warbler	23	36	59
Cape May Warbler	6	3	9
Cedar Waxwing		21	21
Chestnut-sided Warbler	4	3	7
Chipping Sparrow	193	106	299
Clay-coloured Sparrow	12	4	16
Common Grackle	14	2	16
Common Nighthawk		6	6
Common Yellowthroat	16	15	31
Connecticut Warbler	1		1
Downy Woodpecker		16	16
Eastern Bluebird	1		1
Eastern Phoebe	1	2	3
Eastern White-crowned Sparrow	7	1	8
European Starling	1		1

Species	Spring	Fall	Total
Gambel's White-crowned Sparrow	2	1	3
Golden-crowned Kinglet	5	80	85
Grasshopper Sparrow	1		1
Grey-cheeked Thrush	1	9	10
Hairy Woodpecker	3		3
Hermit Thrush	9	9	18
Horned Lark		2	2
Indigo Bunting	2		2
Lapland Longspur		3	3
Lark Sparrow	1		1
Le Conte's Sparrow	1	1	2
Least Flycatcher	9	6	15
Lesser Yellowlegs		1	1
Lincoln's Sparrow	22	14	36
MacGillivray's Warbler			0
Magnolia Warbler	47	40	87
Mourning Dove	4	2	6
Mourning Warbler	8	20	28
Myrtle Warbler	60	72	132
Nashville Warbler	70	90	160
Northern Mockingbird	1		1
Northern Parula	4	1	5
Northern Waterthrush	23	106	129
Northern Saw-whet Owl		148	148
Olive-sided Flycatcher	1	4	5
Orange-crowned Warbler	7	12	19
Ovenbird	18	22	40
Philadelphia Vireo	3	1	4
Pileated Woodpecker		4	4
Pine Siskin	18	5	23
Purple Finch	10	4	14
Red-breasted Nuthatch	66	11	77
Red-eyed Vireo	5	13	18
Red-winged Blackbird	3	6	9
Rose-breasted Grosbeak	30		30
Ruby-crowned Kinglet	16	27	43
Rusty Blackbird	25	1	26
Savannah Sparrow	27	77	104
Sharp-shinned Hawk	8	92	100

Species	Spring	Fall	Total
Slate-coloured Junco	119	5	124
Song Sparrow	34	51	85
Swainson's Thrush	50	62	112
Swamp Sparrow	24	14	38
Tennessee Warbler	3	19	22
Three-toed Woodpecker		4	4
Trail's Flycatcher	7	16	23
Veery	6		6
Vesper Sparrow	1		1
Western Palm Warbler	19	72	91
White-throated Sparrow	78	21	99
Wilson's Warbler	10	8	18
Winter Wren	3	9	12
Wood Thrush	1		1
Yellow Warbler	8	17	25
Yellow-bellied Flycatcher	12	31	43
Yellow-bellied Sapsucker		2	2
Yellow-shafted Flicker	9	9	18

