2018 YEAR-END REPORT Pelee Island Bird Observatory



Sachi Schott, Sumiko Onishi, and Suzanne Friemann



General Information

Pelee Island Bird Observatory (PIBO)

Address: 585 South Shore Road, Pelee Island, Ontario, Canada NOR 1M0

Phone: 519-724-2829
Email: info@pibo.ca
Website: www.pibo.ca

Facebook: PeleeIslandBirdObservatory

Twitter: PeleeIslandBird Instagram: @peleebird

The Pelee Island Bird Observatory was established in 2003 and incorporated as a non-profit charitable organization in 2006. PIBO's mandate includes a commitment to long-term avian migration monitoring research on Pelee Island; long-term studies of Pelee Island's breeding bird communities, including national and provincial Species at Risk; serving as an educational centre for the public, school groups and the local community; and promoting the importance of Pelee Island's unique natural heritage.

PIBO Board – Graeme Gibson the Elder (Chair); Matthew Gibson; Margaret Atwood; Wayne Grady; Donna Hayes; Penny Kavanagh; John Gruetzner

Advisors to the Board - Philip Slayton

Executive Director – Suzanne Friemann

Field Supervisor and Bander-in-Charge – Sumiko Onishi

Education Coordinator – Sarah Keating

Assistant Field Biologist – Sachi Schott

Founder - Graeme Gibson the Younger

Founding Patrons – Margaret Atwood and Mysterious Starling Inc.

Cover photo: Turkey Vultures on the South Shore, Pelee Island, by Sachi Schott

Suggested citation: Schott, Sachi, Sumiko Onishi and Suzanne Friemann. 2018. Pelee Island Bird Observatory – 2018 Year-end Report. An unpublished report by the Pelee Island Bird Observatory for Ontario Parks/Ontario Ministry of Natural Resources. 67 pp.

Executive Summary

Long-term commitment and a rigorous, systematic approach to data collection are two of the essential components of an effective monitoring program. For that reason, we are proud that 2018 was the sixteenth year of standardized migration monitoring for the Pelee Island Bird Observatory (PIBO) since its founding in 2003. Staff and volunteers recorded 190 different species of birds migrating through or breeding on Pelee Island from the beginning of April to mid-November. In total, 2712 individual birds were banded of 79 different species during the spring and fall migrations, and including birds that were recaptured or released without being banded, almost three thousand birds were handled by PIBO's field staff.

The 2018 spring season was particularly active, and was enlivened by the large number of Red-winged Blackbirds that were captured as well as by the banding of a Prothonotary Warbler. This yellow and blue songbird is a Species at Risk in Ontario and PIBO has actively sought to encourage its breeding activities on Pelee Island, in partnership with Dean Ware and others. This year, a male Prothonotary Warbler occupied at least one of the nesting boxes that PIBO monitors at Fish Point Provincial Nature Reserve (Ontario Parks - Ministry of Natural Resources), but it did not succeed in attracting a mate and no breeding took place. PIBO staff and volunteers also spent time actively searching for breeding Yellow-breasted Chats (another Species at Risk) on the island over the summer, and while one was heard in the Stone Road Alvar Nature Reserve (Ontario Nature), no breeding activity was observed for this species.

During the fall season, PIBO recorded an irruption of Red-breasted Nuthatches, large numbers of which travelled farther south than usual this year in consequence of an insufficient spruce crop farther north. Several firsts were also achieved, including the first Eastern Bluebird ever banded by PIBO, and record-breaking late observations for American Redstarts, Black-and-white Warblers, and Yellow-billed Cuckoos.

Throughout the year, PIBO engaged in various social and educational events. Due to inclement weather only one public owling night could be conducted this year, but it was a good year for Northern Saw-whet Owl banding and three foreign encounters from locations in Ontario and the United States were recorded. PIBO's online video conferences with schools in southern Ontario continued in 2018, and through them PIBO's education coordinator and assistant field biologist were able to demonstrate bird banding and answer questions from many classes of various grade levels. And of course PIBO's bird banding station at Fish Point continued to welcome visitors during both the spring and fall migration seasons.

The work accomplished this year was made possible thanks to the critical help of many organizations and individuals (please see <u>Acknowledgements</u>, p. 67). Their support continues to allow PIBO to pursue a multitude of programs that benefit North American Neotropical migrants, national and provincial Species at Risk, and many Carolinian nesting birds with limited breeding ranges in Canada.

Table of Contents

	General Information	2
	Executive Summary	3
	Tables and Figures	6
	Introduction	7
Se	ction One – Research	8
	Songbird migration monitoring	8
	Spring migration summary	10
	Fall migration summary	14
	2018 migration monitoring summary	22
	Notable band encounters	27
	Unusual birds	28
	Species at Risk	31
	Northern Saw-Whet Owl banding	32
	Breeding Bird Census	33
	Marsh Monitoring Program (Birds)	37
	Marsh Monitoring Program (Amphibians)	38
	Prothonotary Warbler nest box monitoring	39
	Monarch butterfly counts	42
	Dragonfly counts	44
	Christmas Bird Count	45
	Data requests	47
	eBird checklists	48
Se	ction Two – Education and Outreach	49
	Introduction	49
	On-line video sessions	50
	Education programs on Pelee Island	52
	PIBO picnic	53
	Spring Song Bird Race	53
	Public owling nights	56
Se	ction Three – Other News	57
	Toronto fundraiser	57
	Windsor fundraiser	57

Green Drinks	58
Update to on-line fundraising initiatives	
Field house maintenance	
Great Canadian Birdathon	59
Media Mentions	63
Heritage Centre Exhibit	64
Bird Rescues	65
2018 staff and volunteers	66
Acknowledgements	67



Nesting Tree Swallow at Fish Point. Photo by Hannah Mittlestaedt.

Tables and Figures

Table 1 – 2018 Migration Monitoring p. 9
Table 2 – Migration Monitoring (spring) p. 13
Table 3 – Migration Monitoring (fall) p. 21
Table 4 – Combined spring and fall migration monitoring in 2018 p. 22
Table 5 – Birds captured at Fish Point in 2018 p. 23
Table 6 – List of species and forms recorded at Fish Point in 2018 pp. 24-25
Table 7 – Top ten species captured at Fish Point in 2018 p. 26
Table 8 – Species at Risk p. 31
Table 9 – Northern Saw-whet Owl banding p. 32
Table 10 – Breeding Bird Census p. 33
Table 11 – Middle Point Woods BBC p. 34
Table 12 – Lighthouse Point BBC p. 35
Table 13 – Brown's Road Field BBC p. 36
Table 14 – Marsh Monitoring Program (birds) p. 38
Table 15 – Marsh Monitoring Program (amphibians) p. 38
Table 16 – Prothonotary Warbler nest boxes at Fish Point p. 40
Table 17 – Monarch butterfly counts at Fish Point in 2018 p. 43
Table 18 – Dragonfly counts at Fish Point in 2018 p. 43
Table 19 – 2017 Christmas Bird Count p. 45
Table 20 – Species and forms seen during the 2017 Christmas Bird Count p. 45
Table 21 – 2018 Christmas Bird Count p. 46
Table 22 – Species and forms seen during the 2018 Christmas Bird Count p. 45
Table 23 – On-line video sessions p. 51
Table 24 – List of species and forms seen during the 2018 Spring Song Bird Race pp. 54-55
Table 25 – Species and forms recorded by Sumiko Onishi during the 2018 Baillie Birdathon pp. 61-62
igure 1 – Google Map showing the banding and encounter locations of the Northern Saw-whet Owl
encountered by PIBO on October 24 th , 2018 p. 27
igure 2 – Google Map showing the banding and encounter locations of the Northern Saw-whet Owl
encountered by PIBO on November 8 th , 2018 p. 27
igure 3 – Nets used for Northern Saw-whet Owl banding in 2018 p. 32
Figure 4. NCC Preeding Dird Consus plats at Proper's Boad and Middle Boint Woods
igure 4 – NCC Breeding Bird Census plots at Brown's Road and Middle Point Woods p. 36
igure 5 – Ontario Parks Breeding Bird Census Plot – Lighthouse Point p. 37
θ
igure 6 - Prothonotary Warbler nest boxes at Fish Point p. 41
The same of the same of the salditional arist acts act on at the DICO at the same of the salditional arist acts acts and the DICO at the same of the salditional arist acts acts and the DICO at the salditional arist acts acts and the salditional arist acts acts acts and the salditional arist acts acts acts acts acts acts acts ac
Figure 7 - Placement and numbering of the additional mist-nets set up at the PIBO cottage on Stone
Road for online school video sessions in 2018p. 51

Introduction

This report is presented in three sections: 1) Research, 2) Education and Outreach, and 3) Additional News.

Section One presents the results of the 2018 research season including details about PIBO's spring and fall migration monitoring program, summer breeding bird surveys, monarch butterfly counts, and other projects. The results of each project are summarized in tables presented throughout the section and further tables and figures are used to illustrate noteworthy results and observations, including the details of the three foreign encounters PIBO captured in 2018 (all of them Northern Saw-whet Owls). This section also includes a summarized version of the spring and fall bi-monthly migration updates that are posted on PIBO's website.

Section Two is a report on some of PIBO's education and community outreach programs in 2018. Details include information about visitors to the Fish Point banding station, PIBO's public owling nights, online video sessions with schools, and the annual PIBO picnic. For information about in-class presentations at local mainland schools and PIBO's other educational activities, please see PIBO's 2018 Education Program Summary Report by education coordinator Sarah Keating.

Section Three highlights other developments at PIBO in 2018, including media mentions, field supervisor Sumiko Onishi's experience participating in the Great Canadian Birdathon for the third year, and plans for a temporary exhibit that will expand on the current PIBO exhibit at the Pelee Island Heritage Centre.



A newly-banded Swainson's Thrush is released at the Fish Point banding station. Photo by Hannah Mittelstaedt.

Section One – Research

Songbird migration monitoring

Situated in the western half of Lake Erie, Ontario, Pelee Island is the most southerly inhabited landmass in Canada (Lat.-Long: 41° 45′ 00″ N - 82° 41′ 00″ W) and the largest island in the Pelee Island Archipelago. It lies between Leamington, Ontario on the north shore of Lake Erie (approx. 26 km away) and Sandusky, Ohio on the south shore (36 km).

Ecologically, Pelee Island is comprised of a limestone base that supports a variety of different habitats including temperate deciduous woodlands; freshwater marsh; costal dune systems; and abandoned or fallow farmland. The island is also home to large areas of alvar-savannah, a vegetation community of global significance, and contains a number of provincially and nationally rare and endangered plants. It is located at the junction of two pathways used by migratory species (the Atlantic and Mississippi flyways), and is a convenient location from which to monitor bird species as they migrate through the Western Lake Erie Basin. On the island, both Fish Point and Lighthouse Point have been designated Important Bird Areas (IBAs) by the Canadian partners of Birdlife International: the Canadian Nature Federation (CNF) and Bird Studies Canada (BSC). Not only is Pelee Island an important stop-over site for migrating birds, but it also hosts significant bird communities that breed on the island in the summer.¹

Migration monitoring is a standardized program which generates a 'snapshot' of bird activity in a given area through the counting and capture of migrant birds. Repeated daily and annually, it has been proven to be an effective way to identify and study the long-term population changes of North American songbirds. Accurate knowledge of population status is vital to species conservation, and since many songbirds summer and winter in remote and inaccessible areas it is important to survey these species during the migration season when they are easier to observe. In Canada, migration studies are overseen by the Canadian Migration Monitoring Network (CMMN). The CMMN is made up of more than twenty-five permanent sites established across the country that generate daily migration counts for a wide range of species. Monitoring stations like PIBO are committed to collecting standardized data that contributes to the collective understanding of the changes taking place in populations of migratory birds; to documenting migration at the station itself; and to other bird-related studies.



Second-year male American Redstart. Photo by Hannah Mittelstaedt.

¹ Information about the geography, geology, and ornithological importance of Pelee Island is from 'Migration Monitoring Pilot Study Pelee Island – 2002 business plan (Draft)' by Graeme Gibson, January 2002.

PIBO's migration monitoring work takes place within the Fish Point Provincial Nature Reserve (Ontario Parks – Ministry of Natural Resources). Located at the southern tip of Pelee Island, Fish Point is a natural concentration point for migrant songbirds. It is approximately 110 hectares, and the main part of the point is a sand spit covered with woodland. The official count area and census route for PIBO extends from the tip of the point to approximately two hundred meters north of the nature reserve parking lot. The census route is approximately 2.2 kilometers in length and covers a broad range of habitats, including mature southern deciduous forest, wetland, and open beach. The mist-netting portion of PIBO's operations is conducted in an area north of the parking lot that is accessible by a footpath leading in from the road. Ten mist-nets have been established within the forest there, in an area that is often flooded in the spring. The daily field procedures (which are constant effort, taking place seven days a week during the spring and fall migration seasons) include:

- 1) Six hours of visual field observations by staff and volunteers within the 'count' area at Fish Point, beginning one half-hour before sunrise;
- 2) Six hours of standardised mist-netting, beginning one half-hour before sunrise; and
- 3) A 90-minute walking census of the official census route at Fish Point, beginning one hour after sunrise.

Both the visual observations of birds in the field (collected on census and in the netting area) and the data collected from mist-netting operations are entered into a daily log sheet, along with additional field observations. Based on these totals, Daily Totals (DTs) are derived for each bird species recorded at Fish Point in a given day. This information is then entered into the computer in the format specified by the Canadian Migration Monitoring Network (CMMN). Copies of the Daily Log and DT data are submitted to Bird Studies Canada (BSC) for analysis in conjunction with the CMMN, and bird banding records are delivered to the Bird Banding Office, Canadian Wildlife Service, Ottawa. By closely following a highly standardized protocol each day in the migration season, PIBO's field staff can build an accurate picture of Pelee Island's bird population from day to day, season to season, and year to year.²

* * *

PIBO's spring and fall migration coverage at Fish Point Provincial Nature Reserve (Ontario Parks – Ontario Ministry of Natural Resources) ran from April 1st to June 10th and August 1st to November 10th, 2018 for a total of 173 coverage days. 10 participants helped to record 190 species at Fish Point during PIBO's standard count period. 2943 birds of 81 species were handled over 4005.78 net-hours, for an average catch rate of 0.74 birds/net-hour.

Table 1 - 2018 Migration Monitoring					
Observers	Sumiko Onis	Sumiko Onishi, Patrick Kramer, Sachi Schott, Connor Hawey, Heather			
	McBrien, Ha	nna Mittelstaedt, Maya	Mittelstaedt, Rob Tymstra,		
	Graeme C. G	Sibson			
# of Coverage Days	173 (Apr 1 to	o Jun 10, Aug 1 to Nov 1	0)		
Birds captured*	2944 Species captured* 82				
Net hours	4005.78 Birds/net hour 0.74				
*combines banding, retrap and capture data					

 2 'Migration Monitoring Study Protocol & Field Manual Version 1.1' by the Pelee Island Bird Observatory, December 2008.

Spring migration summary

The following description of the spring migration season is derived from the migration summaries available on the PIBO website (www.pibo.ca); from the daily narrative written by field staff as part of the Daily Log; and from Facebook posts written by PIBO's field supervisor Sumiko Onishi.

* * *

PIBO's 2018 migration monitoring programs officially opened on April 1st with the first census of the year. It was a chilly morning, and the Tree Swallows perched on the phragmites looked like feather balls, fluffed up to insulate themselves against the cold. Fox Pond hosted large numbers of ducks, including Buffleheads, Gadwalls, American Widgeons, Mallards, Scaup sp., Wood Ducks, Ring-necked Ducks, Green- and Blue-winged Teal, and American Coots. Eastern Phoebes and early spring sparrows such as Dark-eyed Juncos and American Tree Sparrows were counted in high numbers. Flocks of blackbirds, mostly Red-winged Blackbirds with some Common Grackles, already roamed the island in abundance. Kinglets were present as well, most of them Golden-crowned. April 5th brought with it a dusting of snow, and two Great Egrets and Great Blue Herons at Fox Pond.

On April 13th, the morning census returned a total of fifty species. As well as the usual early songbirds like kinglets and Brown Creepers, there were more sparrow species. Song Sparrows and White-throated Sparrows began to make an appearance, and Chipping Sparrows, Savannah Sparrows, and Eastern Towhee were all seen for the first time.

The weather took a turn for the worse on April 14th. Strong winds and waves lasted for seven days, flooding the beaches and paths along Fish Point and creating treacherous conditions for PIBO staff as they struggled through the daily census, sometimes in water up to their waists. The powerful waves and high water left the point transformed: where there was once a long sand spit, there remained only a small beach. As cold and stormy as it was even the small songbirds appeared comfortable, and large numbers of kinglets, Dark-eyed Juncos, Brown Creepers, Winter Wrens and American Tree Sparrows were counted, along with some Myrtle Warblers and the first Pine Warblers of the season. Horned Grebes were very numerous, diving and feeding amid the crashing waves.



Strong winds and heavy rains in mid-April flooded the census trail and created difficult conditions for field staff. Photos by Sumiko Onishi.

As conditions grew calmer and warmer, the number of songbirds seen began to drop as they took advantage of the break in the weather to continue their migration north. Far fewer kinglets were observed on the first day of fair weather than had been counted previously, and by the second and third days after the storm there were very few kinglets, Dark-eyed Juncos or American Tree Sparrows around. As the season continued to progress the variety of species seen on the census began to shift from waterfowl to more land bird species.

One effect of the storm was to delay the opening of the banding station – it wasn't until April 18th that the weather was clement enough for the mist-nets to be put up and the trails cleared. PIBO's first day of banding was on April 20th, by which time the weather had finally broken. Brown Creepers, Goldencrowned Kinglets, and Hermit Thrushes were all banded on the first day and continued to be banded in the days to come. Golden-crowned and Ruby-crowned Kinglets together made up the most frequently banded species.

Pelee Island's first American White Pelicans of the season turned up on April 24th on the sandbar out past the tip of Fish Point. As April came to an end, there continued to be more firsts for the season: Chimney Swifts on April 25th, and one Horned Lark on April 27th. Rusty Blackbirds were seen consistently in the netting area and American Goldfinches were heard flying overhead. The first Sharp-shinned Hawk of the season was banded on April 27th, and was an unusual capture as this was only the second time one of these small raptors has been banded by PIBO in the spring (the first was in 2016). In the late afternoon of April 28th approximately two hundred Barn Swallows flew in and perched on the hydro lines around the PIBO cottage on Stone Road. They stayed for a while, and left before dark.

The month of May began with seven new species for the season, including Nashville, Yellow, Palm, Black-throated Green, and Black-and-white Warblers, and Baltimore Orioles. Twelve new species showed up on May 2nd, including Wood Thrushes, Chestnut-sided Warblers, and Ovenbirds. The warblers kept on coming for the next few days, bringing in impressive numbers of Myrtle Warblers and one Blue-winged Warbler, but after that there was a lull, with fewer species seen in general and lower numbers of most of the species that were still around. Red-winged Blackbirds remained a constant, and were unaffected by the high winds. The first Ruby-throated Hummingbirds for the season arrived on May 4th. A Solitary Sandpiper was seen frequently along the trail to the banding station – this species is most often seen on the beaches around Fish Point, but apparently conditions were wet enough that it was happy feeding in the woods instead. Flycatcher species began showing up in higher numbers on May 6th, including Eastern Kingbirds, Eastern Wood-pewees, and Least Flycatchers. Solitary Sandpipers and Black-bellied Plovers were recorded on census.

The bird activity picked up again beginning on May 7th, when 62 species were seen in total, including 11 warbler species. The banding area remained busy through to May 10th, with a few new species observed for the season, but on May 11th things slowed down dramatically. Even the Red-winged Blackbirds were more quiet than usual, possibly heralding the twenty-four hours of wet, rainy weather that followed. Unluckily, this spate of bad weather coincided with almost the entire Botham Cup Bird Race. Fortunately for the nine teams who entered, the sun came out for the last few hours of the race, and the inclement weather didn't seem to slow the birds down at all – in total, 153 species were seen by the competitors in the 24 hours allotted to the race, a very impressive result. For more on the Bird Race and the 2018 Spring Song Weekend, please see Section Two: Spring Song Bird Race (pp. 53-55).

The rain continued into the next week, preventing nets from being opened at the banding station and adding to the usual seasonal flooding around the netting area. Regardless, there was still a good

showing of warbler species around. On May 9th a calm southeast breeze brought in more migrants for a total of 65 species observed and 16 species banded, including fifteen warbler species. Among them were Magnolia, Yellow, Chestnut-sided, and Bay-breasted Warblers. Many Black-throated Green and Blackburnian Warblers were observed as well. The first Wilson's Warbler of the season was seen on May 14th.

On May 15th, field supervisor Sumiko Onishi began her Great Canadian Birdathon for 2018. For more on her results, please see Section Three: Great Canadian Birdathon (pp. 59-62).



Blackburnian Warbler. Photo by Sumiko Onishi

The numbers of species observed and banded around Fish Point continued to be high towards the end of May. In all, 145 birds were banded from May 19th to 21st, including a Connecticut Warbler: a substantial total for so late in the season. Flycatchers continued to be abundant, including Eastern Wood-pewees, Olive-sided Flycatchers and some Empidonax species. A Whip-poor-will was observed calling in the netting area on May 24th.

The number and variety of warblers and other migrants dropped on May 25th, when only ten birds were banded. There were however many Yellow- and Black-billed Cuckoos around, as well as Red-eyed Vireos and other bird species that nest on Pelee Island. A large flock of Black-bellied Plovers was observed on May 26th, along with quite a few Cedar Waxwings and a flock of blackbirds.

By May 28th the weather was growing hot and still, and the daily census was growing quieter as the number of migrants passing through the island slowed to a trickle. The last day of banding for the spring 2018 season was on May 31st, when only two birds were banded: a Yellow Warbler and a Red-winged Blackbird, both of them species that nest on Pelee Island. The daily census continued into June, when fledgling American Robins and young Common Grackles were already beginning to be seen. Most of the birds observed were resident breeding birds such as Yellow- and Black-billed Cuckoos, Indigo Buntings, and House Wrens. A family of Wood Ducks in Fox Pond already had ten young by June 3rd. The number of species seen in total varied between twenty-eight and forty each day, with greater numbers of American White Pelicans being seen out on the sandbar at the end of Fish Point and flying along the lake.

The final census of the 2018 spring season took place on June 10th. Only twenty-four species were observed, and the weather was cool, rainy, and windy. Large flocks of both Red-winged Blackbirds and Double-crested Cormorants were seen.

//

In total, PIBO's spring migration coverage at Fish Point Provincial Nature Reserve (Ontario Parks – Ontario Ministry of Natural Resources) ran from April 1st to June 10th, 2018 for a total of 71 coverage days. 8 participants helped to record 164 species at Fish Point during PIBO's standard count period. 932 birds of 68 species were handled over 1275.13 net-hours, for an average catch rate of 0.73 birds/net-hour.

Table 2 - Migration Monitoring (Spring)						
Observers	Sumiko Onish	hi, Patrick Kramer, Conn	or Hawey, Heather McBrien,			
	Hanna Mittel	lstaedt, Maya Mittelstae	edt, Graeme C. Gibson			
# of Coverage Days	71 (Apr 1 to J	lun 10)				
Birds captured*	932 Species captured* 68					
Net hours	1275.13	Birds/net hour	0.73			
Notes	Sharp-shinne	d Hawk banded; Acadia	n Flycatcher banded;			
	Prothonotary Warbler banded					
*combines banding, retrap and capture data						



Sharp-shinned Hawk. Photo by Sumiko Onishi.

Fall migration summary

The following description of the fall migration season was derived from the migration summaries available on the PIBO website (www.pibo.ca).

* * *

PIBO's 2018 fall migration monitoring programs began on August 1st, and already there were signs that migration was underway for the birds and insects of Pelee Island. Swallows and other aerial insectivores were some of the first species to be seen winging their way south, with many Purple Martins, Barn Swallows, and Chimney Swifts, along with a few Cliff Swallows and Bank Swallows, consistently seen flying off the tip of Fish Point from August 1st to 15th. Shorebirds had begun their migration as well: Sanderlings, Semipalmated Plovers, and Semipalmated, Least, and Spotted Sandpipers were all seen along the west beach of Fish Point at various times during the first two weeks of migration monitoring. Four Killdeer were observed feeding together on the tip on August 11th, and were the first to be officially observed by PIBO for the season.

With the breeding season mostly over, Pelee Island's adult birds and young-of-the-year began to wander farther from their summer territories as they fed in preparation for the long migration south. Indigo Buntings relaxed their territorial vigilance and began to be seen in places other than the singing perches they had used throughout the late spring and summer, and families of Northern Cardinals, Carolina Wrens and House Wrens were seen in the shrubbery up and down Fish Point.

The second half of August began with windy, rainy weather to the delight of the gulls, who were the only ones out flying or swimming on the morning of August 16th. Even the Double-crested Cormorants preferred to stay huddled together on the sandbar at the end of tip of Fish Point, and within the woods Downy Woodpeckers, Northern Cardinals and House Wrens fluffed their feathers and preened as they tried to stay warm and dry. Bird activity continued to be slow until August 18th, when north winds brought in migrants including a large number of Eastern Kingbirds, who stayed to hawk for insects over Fox Pond and the West Beach. Flycatcher species generally were common, including Least Flycatchers, Yellow-bellied Flycatchers, and Eastern Wood-pewees. Barn Swallows were also numerous as they gathered in flocks to make sallies across the lake.

The wind shifted to the south on August 20th but didn't slow down the Common Grackles, Red-winged Blackbirds, Yellow Warblers and swallow species that streamed over the tip of Fish Point on their way south. On August 21st the heavens opened and torrential rains poured forth halfway through the morning, forcing PIBO's census taker to take shelter under the trees. The thunderstorm didn't discourage the hundreds of Purple Martins that filled the sky and blanketed the trees along the beach. By the next day, they were almost all gone – only one Purple Martin was recorded on census August 22nd.

As PIBO began the daily routine of mist-netting, more warbler species began to show up on the list of species seen each day. Canada Warblers were some of the first to be captured, along with American Redstarts, Magnolia Warblers, Black-and-white Warblers, and Ovenbirds. Very few birds were captured each day – the highest single day's banding total was fifteen birds, and as the temperature and humidity climbed the banding totals dwindled down to between two and five birds a day. Mixed flocks of warblers, Red-eyed Vireos and Baltimore Orioles were seen frequently on census and near the banding station, but they preferred to forage high up in the trees. PIBO staff had to crane their necks and strain

their eyes to the utmost to catch glimpses of the season's first Tennessee, Myrtle, Golden-winged, Baybreasted and Chestnut-sided Warblers, among others.

By August 29th temperatures were hot enough that it felt like the middle of summer and the hard rain that fell in the early afternoon came as a relief. The results of the cooler temperatures and north-west winds were immediate: there were noticeably more birds chipping and calling in the dark of the predawn on August 30th as the PIBO staff walked in to start their day's work. Six hours later, they had observed a total of 67 species – an increase of twenty species over the day before. The warblers descended from the remote treetops to forage closer to eye-level, making it easy to spot the first Cape May and Black-throated Blue Warblers of the season. The banding station continued to be busy on August 31st, though the surrounding woods were quieter than the day before. On census, a Prairie Warbler was seen at Fish Point in a group of other warblers. This species is uncommon in Ontario, and this was an unusual and exciting official sighting for PIBO.

The diversity of bird species remained high at the beginning of September, with between 50 to 60 species observed each day. The banding station settled into a routine, with Veerys and Swainson's Thrushes seen and captured in ones and twos throughout the morning, while mixed flocks of warblers drifted through the netting area only occasionally. Magnolia Warblers were common, along with American Redstarts and Chestnut-sided Warblers. Hundreds of warblers were seen on Fish Point on September 2nd, but were flying too high and too fast for many of them to be identified. A few Blackthroated Green, Nashville, and Blackburnian Warblers were spotted, among others.



Black-throated Green Warbler. Photo by Sumiko Onishi.

The heat wave continued and by September 4th bird activity was slowing down, though the diversity of species seen remained consistent. The temperature dropped on September 6th by less than five degrees Celsius, but the difference felt considerable. At the same time the wind switched to the north-east, which seemed promising, but the total number of species observed remained about the same as it had been before. The only obvious difference lay in the huge hordes of biting stableflies that now covered Fish Point - and PIBO's census-taker.

September 7th began deceptively slowly, with the usual Veerys and Swainson's Thrushes banded, but in the late morning several large mixed flocks of warblers came flying through the netting area and kept the banding station very busy. By the time nets closed at 12:30 p.m., 86 birds had been banded of 17 different species. Most of them were Swainson's Thrushes and Magnolia Warblers, but good numbers of Ovenbirds and Yellow-breasted Flycatchers were caught as well, along with the first Grey-cheeked Thrush of the season and the first Purple Finch of the year. Rob Tymstra helped out by doing the daily census, and was rewarded for enduring the stableflies with the sight of a Hudsonian Godwit out on the tip of Fish Point – a rare visitor to Pelee Island.

On September 8th the northerly wind continued, but with gusts of up to 20 knots mist-nets could be opened for only a few hours before it was judged that the wind was too strong to capture birds safely. Conditions on September 9th were similar, and no banding was carried out. Nevertheless, it was an active day for birds, with many species of warblers seen including Ovenbirds, Black-throated Blue Warblers, and Bay-breasted Warblers. It was apparent that the strong winds had obliged them to put a halt to their migration – and the birds weren't the only ones who found Pelee Island a convenient place to wait out the inclement weather. Spectacular numbers of monarch butterflies were seen as well – for more information on this phenomenon, please see <u>Section One: Monarch butterfly counts (pp. 42-43)</u>.

In the wake of the strong winds and rain PIBO enjoyed its busiest day of banding so far this season, with 93 birds banded of 14 species on September 11th. Most of them were Swainson's Thrushes, but more Grey-cheeked Thrushes were banded as well. Evidently they were part of the latest wave of migrants to reach the island, which also included the season's first Western Palm and Pine Warblers. PIBO staff were not the only ones interested in capturing the songbirds that fluttered and fed among the rain-soaked leaves and branches: birds of prey were noticeably more active and numerous than they had been previously. Sharp-shinned Hawks were seen; two young Merlins returned repeatedly to a favourite perch above the banding station; and an incautious young Cooper's Hawk came dashing through the netting area and struck one of PIBO's mist-nets. It flew out again almost immediately, but not before ripping a large hole in the net that had to be repaired before banding could continue.

The north-easterly winds continued for the next two days, but bird activity remained subdued. The temperature began to climb again on September 15th, and so did the numbers of Sharp-shinned Hawks. Thirty-five were seen on census, and one was captured at the banding station. This had a predictably depressing effect on the songbirds in the area, and only three species of warbler were recorded: Magnolia, Black-and-white, and Blackpoll Warbler. Outside the point, large numbers of American Kestrels were seen perched on the powerlines above Stewart Road.

The number and variety of warblers seen varied from day to day, and hit a temporary low on September 25th. The morning was quiet and very overcast, with only three warbler species seen: one Wilson's Warbler, a Western Palm Warbler, and a single Black and White Warbler. The weather improved on September 26th, but the strong wind gusts and the presence of several Sharp-shinned Hawks and a Cooper's Hawk kept the smaller birds low in the trees. Once the unsettled weather was past, there was a definite increase in the diversity of bird species seen around Fish Point, though they were still not numerous. Warbler species including Magnolia, Black-throated Green, Blackpoll, Bay-breasted and Myrtle Warblers were seen off and on from September 27th onwards, and Ovenbirds were banded occasionally.

As October opened, the weather seemed reluctant to accept the onset of fall. Temperatures were around 20 to 23 degrees Celsius, and even some north winds on the night of October 2nd weren't enough to convince birds to migrate. Diversity remained high, with fifty-four species being observed on October 1st, but activity in the netting area was slow. Very often the only birds seen or heard were the ubiquitous flocks of Blue Jays and blackbird species. Shorebirds were some of the only migrants on the move: the first Black-bellied Plover of the season was seen on October 2nd, and two Sanderlings along with a Least Sandpiper were out on the beach on October 3rd, keeping company with a Whimbrel. Almost the only sign of the lateness of the season lay in the increased number of Hermit Thrushes being banded; elsewhere late summer still seemed to linger, especially in the Chimney Swifts and swallow species that were seen flying high above the canopy on October 3rd.

The temperature began to drop on the afternoon of October 4th, as the winds began to shift to the north. The morning of October 5th was distinctly chilly, with a temperature of 13 degrees Celsius – a drop of ten degrees from the morning before. This circumstance heralded good conditions for bird migration and thus for bird banding, and sure enough, from the moment the mist-nets were open White-throated Sparrows and Hermit Thrushes positively threw themselves into them. Even though nets had to be closed an hour earlier than usual due to rain, the station still banded 143 birds. Most were Hermit Thrushes, Swainson's Thrushes, Golden-crowned Kinglets, Ruby-crowned Kinglets and White-throated Sparrows, all common fall migrants. There were also large numbers of Brown Creepers and Winter Wrens around, and an increased number of Myrtle Warblers. This was also the first day where significant numbers of sparrows were observed: nine sparrow species in total, including the season's first Savannah, Eastern White-crowned, and Song Sparrows, and Eastern Towhee and Dark-eyed Junco. And on the very first net run of the morning, the first Northern Saw-whet Owl of the fall was captured: an exciting moment, but also an upsetting one for the owl, who dropped its breakfast (a large deer mouse) and was disinclined to continue eating it, no matter how appetizingly PIBO staff members arranged it on a nearby branch.



Golden-crowned Kinglet. Photo by Sumiko Onishi.

In view of the migration activity of the day before PIBO staff were eager to get to work the next morning, but the weather did not cooperate. The highs and lows of temperature led to unsettled weather and October 6th was marred by unpredictable bouts of torrential rain, interspersed with sunny skies that pushed the temperature back up to almost 20 degrees Celsius. The mist-nets were open for only a short time and it was difficult to see or hear birds through all the water dripping off the leaves, but in the afternoon when the skies had cleared many Golden-crowned and Ruby-crowned Kinglets, Myrtle and Western Palm Warblers, White-throated and Eastern White-crowned Sparrows, Dark-eyed Juncos, Yellow-shafted Flickers and Eastern Phoebes were seen along the road that runs through the Stone Road Alvar.

After the wet weather had passed, the temperature climbed once again. Large flocks of migrating American Robins began to be seen, with a group of twenty observed on census October 10th. Winter Wrens remained common, frequently darting across the net lanes. Every tree in the netting area seemed to have a Brown Creeper or a Red-breasted Nuthatches climbing it, and groups of White-throated Sparrows were frequently seen and captured. Raptor migration continued, with a Northern Harrier, Cooper's Hawk, Peregrine Falcon and Merlins seen on October 10th, and a Red-tailed Hawk on October 13th. The wind rose and temperatures began to drop on October 11th, bringing more typical fall migrants. The first Rusty Blackbird of the season was seen on census October 12th, and the first Horned Grebe on October 13th. Overall though, waterfowl migration had yet to begin in earnest.

As the end of October approached, and with it the beginning of the end of songbird migration, the number of warbler species observed at Fish Point declined steadily. Myrtle Warblers were seen the most consistently out of all the warbler species that remain, along with Western Palm Warblers, which were more often seen around the PIBO cottage on Stone Road rather than at Fish Point. The Blackpoll and Bay-breasted Warblers that were so common previously were almost all gone: only two Blackpoll Warblers were seen October 21st. Instead, Ruby-crowned and Golden-crowned Kinglets became a mainstay at Fish Point and in the mist-nets. October 28th to 30th was an especially busy time for kinglets. In each case, the bulk of the birds banded that day were captured in just one or two hours, as the mist-nets scooped up a whole flock of Golden-crowned Kinglets. Swainson's Thrushes were banded on October 18th and 29th, and seen on October 25th, but aside from those occurrences every one of the *Catharus* thrushes recorded by PIBO in the second half of October was a Hermit Thrush.

On October 21st, PIBO's field supervisor Sumiko Onishi sighted an unusual sparrow while conducting the daily census. Its bright orange facial markings and large eye stood out, and allowed her to identify it as an *Ammodramus* species – either Nelson's Sharp-tailed or Le Conte's Sparrow. Unfortunately she did not have a chance to look for the distinctive head stripe that would have distinguished between the two species before it vanished into the dried grasses. She returned in the afternoon to look for the bird again, but it was gone. Aside from this rare sighting, the sparrows that were seen around Fish Point were of the usual sort: White-throated, Song, and Savannah Sparrows, and Slate-coloured Juncos. A couple of Fox Sparrows put in an appearance around the banding station on October 24th and 25th, and a Field Sparrow was banded on October 26th. The first American Tree Sparrow of the season was sighted on October 30th, the same day that an American Restart was banded – probably the first occasion where these two species have been recorded by PIBO on the same day, as American Tree Sparrows are a late migrant that habitually arrives on Pelee Island only after the American Redstarts have all flown away to warmer grounds farther south.

The total number of species observed by PIBO each day grew as more waterfowl were seen on census. Fox Pond was especially popular with the duck species that began to appear on migration, and Wood

Ducks, Ruddy Ducks, Hooded Mergansers, and even a Bufflehead were seen enjoying its calm and protected waters. A group of Horned Grebes were seen out on the lake on October 22nd, which was also when the first Common Loon of the season was spotted flying over the netting area. A group of Gadwall at Fox Pond on October 28th presented an unusual appearance as they transitioned from their breeding to non-breeding plumages, and the first Scaup species and American Widgeon of the fall were observed on October 29th.

During the time period of October 20th to 29th, PIBO's banding station was enlivened by the recapture of an unusual number of previously banded birds. They were all individuals that had been originally banded by PIBO, most of them just one or two days previously. On October 25th, a Ruby-crowned Kinglet, a Redbreasted Nuthatch, and a Hermit Thrush were recaptured, all of whom had been banded on October 24th. Similarly, on October 26th a Hermit Thrush, and two Golden-crowned Kinglets were recaptured after being banded on October 25th. Several banded Ruby-crowned and Golden-crowned Kinglets were observed around the banding station on both mornings as well. There was no banding on October 27th due to inclement weather, but on October 28th and 29th more kinglets, Red-breasted Nuthatches and one Nashville Warbler were recaptured, all of them from October 24th or later. It is unusual for the migrant birds that PIBO bands to remain in the area: most move on very quickly, and are not recaptured again. Perhaps these birds were being held back by unfavourable weather, or the anticipation of it, as the following few days were overcast with strong winds, turning to rain on October 27th and 28th.

More rain on both November 1st and 2nd prevented the nets from being opened, though the daily census recorded plenty of birds. The west beach at Fish Point hosted many different species of sparrows, including Slate-coloured Juncos and White-throated, Chipping, Field and Song Sparrows, and several Common Terns were seen on November 1st, sculling unconcernedly into the strong east wind and plunging into the waves to strike at unwary fish. On November 6th, thousands of Common Grackles and Rusty Blackbirds filled the bare branches of the trees around Fox Pond before lifting up out of the trees and coalescing into a tight flock to protect themselves from five Northern Harriers that hove suddenly into view. Over a hundred American Goldfinches were seen as well, looking like milkweed pods as they clung to the dried stalks of wildflowers.

November 3rd dawned dark and overcast, but the skies eventually cleared. The mist-nets were opened and scooped up 72 birds, a very good total for so late in the year. Most of the birds banded were Golden-crowned Kinglets, Ruby-crowned Kinglets, White-throated Sparrows, and American Goldfinches; a few Hermit Thrushes and two Blue-headed Vireos were banded as well, and the season's first Golden Eagle was observed flying over the netting area. More Golden-crowned Kinglets were banded on November 4th, but the gusting winds made it impossible to keep the nets open for long. A female Rosebreasted Grosbeak was seen on census near the tip of Fox Pond, whisper-singing.

The strong south winds continued over the next few days, and bird migration slowed accordingly. 32 out of the 39 birds banded on November 5th were Golden-crowned Kinglets, and seven of the birds captured were birds that had been banded by PIBO a day or two before. On November 6th, the blustery conditions meant that nets could only be opened for an hour and a half in total. The wind came gusting out of the southwest and kicked up the waves on the west side of Fish Point so much that the west beach was almost gone by the time PIBO's field supervisor came out to do the daily census. The few bits of beach that remained were still enough for three Sanderlings, which ran back and forth foraging as the water lapped at their feet. The wind spoiled the banding on November 7th as well, though the grey sky did clear briefly first thing in the morning, allowing in some welcome sunshine. Canada Geese, Mallards and Gadwalls all took refuge in the comparatively sheltered Fox Pond, with American Goldfinches and

European Starlings in the trees above, though their idyll was interrupted once again by a hunting Northern Harrier. No sparrows were observed on the west beach, which was buffeted by the wind, but White-throated Sparrows and Slate-coloured Juncos were seen in the netting area.

With the diversity of species observed declining day by day, and the weather forecast threatening more wind and rain in the future, it was decided that November 8th would be the last day of banding. Only a smattering of kinglets, a Winter Wren, and a Hermit Thrush were banded early in the morning, seeming to justify the decision to shut down the banding station for the season – but then, just as PIBO's field staff were preparing to close nets, the Eastern Bluebirds and American Goldfinches that had been flying overhead were seen in the trees, coming closer... and closer... close enough to end up in one of the mistnets. The last net run of 2018 captured a handful of American Goldfinches, a Myrtle Warbler, and the first-ever Eastern Bluebird banded by PIBO, a handsome adult male. It was a thrilling end to the fall season of bird banding on Pelee Island.



The first Eastern Bluebird ever banded by PIBO. Photo by Sumiko Onishi.

As the migration monitoring season ended slightly earlier in 2018 than in years past, by the time PIBO ceased the daily census the large numbers of waterfowl that are usually a feature of the November bird life were only just beginning to appear around Pelee Island. Handfuls of Red-breasted Mergansers and Horned Grebes were recorded each day, but the only large flocks of waterfowl seen were in the far distance, and could not be identified. November 8th was the first time that a large flock of Scaup turned up, and a large raft of hundreds of Buffleheads and Red-breasted Mergansers were seen on the south shore of the island during the drive back to the PIBO field cottage. The first Common Goldeneye of the season were seen on November 9th.

Snow was falling on November 10th and the temperature dipped below zero degrees Celsius for the first time this fall. The wind was strong, gusting up to 33 knots, and it was difficult to see or hear birds. Only twenty-four species were recorded in total, including a group of American Tree Sparrows on the west beach, but a flock of forty-six Tundra Swans were seen winging their way over Pelee Island during the drive home from the last census of 2018.

//

In total, PIBO's fall migration coverage at Fish Point Provincial Nature Reserve (Ontario Parks – Ontario Ministry of Natural Resources) ran from August 1st to November 10th, 2018, for a total of 102 coverage days. Five participants helped to record 171 species at Fish Point during PIBO's standard count period. 2011 birds of 68 species were handled over 2730.65 net-hours, for an average catch rate of 0.74 birds/net-hour.

Table 3 - Migration Monitoring (Fall)					
Observers	Sumiko Onish	ni, Sachi Schott, Rob Tyn	nstra, Patrick Kramer, Graeme C.		
	Gibson				
# of Coverage Days	102 (Aug 1 to Nov 10)				
Birds captured*	2011 Species captured* 68				
Net hours	2730.65	Birds/net hour	0.74		
Notes	Prairie Warbl	er observed; Hudsoniar	Godwit observed; irruption of		
	Red-breasted Nuthatches; <i>Ammodramus</i> species observed; Eastern				
	Bluebird banded				
*combines banding, recapture, and capture data					



Hudsonian Godwit. Photo by Rob Tymstra.

2018 migration monitoring summary

2018 was an active year for PIBO's migration monitoring program. While the banding totals did not reach the highs experienced last year, they were not expected to: 2017 was an unusual year, and PIBO banded an exceptionally high number of Golden-crowned Kinglets in particular. Banding totals for almost all species were lower in 2018 and fell closer in line with the totals from 2014 to 2016. The spring and fall netting periods were comparable to those of previous years, though the fall coverage ended five days earlier than usual. The total number of coverage days still fell within the normal range.

Table 4 - Combined spring and fall migration monitoring in 2018								
Description	2018	2017	2016	2015	2014	2013	2012	2011
Spring	Apr 1 –	Apr 1 –	Apr 1 -	Apr 2 –	Apr 1 –	Apr 1 –	Apr 4 –	Apr 4 –
coverage	Jun 10	Jun 11	Jun 10	Jun 9	Jun 10	Jun 6	Jun 10	Jun 8
Fall coverage	Aug 1 –	Aug 1 –	Aug 1 –	Aug 1 –	Aug 1 –	Aug 1 –	Aug 1 –	Aug 1 –
	Nov 10	Nov 15	Nov 15	Nov 15	Nov 15	Nov 15	Nov 15	Nov 15
Coverage	173	179	179	176	178	173	174	173
days								
Spring netting	Apr 20	Apr 21 –	Apr 15	Apr 20	Apr 18	Apr 13 –	Apr 13	Apr 12
period	– May	May 31	– Jun 2	– Jun 3	– Jun 2	Jun 15	– Jun 15	– May
	31							31
Fall netting	Aug 17	Aug 17	Aug 17	Aug 15	Aug 10	Aug 15 –	Aug 13	Aug 11
period	– Nov 8	– Nov	– Nov 4	– Nov 8	– Nov 8	Nov 8	– Nov 8	– Nov
		10						15
Netting days	126	127	125	129	146	142	123	119
Birds	2943	3367	2584	2493	2461	2519	3772	2404
captured*								
Net hours	4006	3727	4131	3652	4497	4209	4300	3356
Bird/net hour	0.74	0.90	0.62	0.68	0.59	0.60	0.88	0.72
Species	79	80	77	76	70	82	81	78
banded								
Recaptures	123	101	95	63	106	104	130	103
Species	21	27	19	13	17	19	25	24
recaptured								
Species	190	185	193	194	197	200	201	203
recorded								
*combines banding, recapture, and capture data								

Table 5 - Birds captured at Fish Point in 2018					
Species	Captured*	Species	Captured*		
Sharp-shinned Hawk	14	Nashville Warbler	19		
Cooper's Hawk	0	Yellow Warbler	126		
Red-shouldered Hawk	0	Chestnut-sided Warbler	13		
Yellow-billed Cuckoo	0	Magnolia Warbler	157		
Black-billed Cuckoo	1	Cape May Warbler	1		
Northern Saw-whet Owl	1	Black-throated Blue Warbler	42		
Eastern Screech-owl	1	Blackburnian Warbler	8		
Ruby-throated Hummingbird	23	Yellow-rumped Warbler	25		
Red-bellied Woodpecker	0	Black-throated Green Warbler	5		
Downy Woodpecker	38	Western Palm Warbler	6		
Yellow-shafted Flicker	4	Bay-breasted Warbler	15		
Eastern Wood–pewee	6	Blackpoll Warbler	14		
Yellow-bellied Flycatcher	47	Black-and-white Warbler	34		
Acadian Flycatcher	1	American Redstart	112		
'Traill's' Flycatcher	8	Ovenbird	87		
Least Flycatcher	13	Northern Waterthrush	25		
Empidonax sp.	1	Connecticut Warbler	2		
Eastern Phoebe	5	Mourning Warbler	7		
Red-eyed Vireo	43	Prothonotary Warbler	1		
Warbling Vireo	1	Common Yellowthroat	29		
Philadelphia Vireo	0	Wilson's Warbler	4		
White-eyed Vireo	1	Canada Warbler	23		
Blue-headed Vireo	22	Scarlet Tanager	1		
Blue Jay	23	Northern Cardinal	21		
Black-capped Chickadee	26	Rose-breasted Grosbeak	2		
Red-breasted Nuthatch	34	Indigo Bunting	5		
Brown Creeper	80	Eastern Towhee	1		
Carolina Wren	6	Field Sparrow	1		
House Wren	27	White-throated Sparrow	128		
Winter Wren	44	Eastern White-crowned Sparrow	2		
Marsh Wren	1	Fox Sparrow	2		
Golden-crowned Kinglet	342	Song Sparrow	2		
Ruby-crowned Kinglet	184	Lincoln's Sparrow	6		
Eastern Bluebird	1	Swamp Sparrow	20		
American Robin	13	Slate-colored Junco	6		
Wood Thrush	13	Brown-headed Cowbird	2		
Veery	126	Red-winged Blackbird	105		
Swainson's Thrush	386	Rusty Blackbird	2		
Gray-cheeked Thrush	91	Common Grackle	19		
Hermit Thrush	158	Baltimore Oriole	12		
Gray Catbird	30	Purple Finch	2		
Brown Thrasher	1	American Goldfinch	21		
Northern Parula	2				
Orange-crowned Warbler	4	Total Captured	2944		
Tennessee Warbler	4	Species & forms	82		
Blue-winged Warbler	2	Net hrs.	4005.78		
Golden-winged Warbler	0	Birds/net-hour	0.74		
*includes standard banding, rec					

TABLE 6 - LIST OF SPECIES AND FORMS RECORDED AT FISH POINT IN 2018

Common Loon **Hudsonian Godwit** Horned Grebe **Ruddy Turnstone**

Pied-billed Grebe Sanderling

American White Pelican Semipalmated Sandpiper **Double-crested Cormorant** Least Sandpiper Great Blue Heron American Woodcock **Great Egret** Bonaparte's Gull Ring-billed Gull Green Heron

Black-crowned Night-heron Herring Gull

Tundra Swan Great Black-backed Gull **Turkey Vulture** Lesser Black-backed Gull

Canada Goose Caspian Tern Wood Duck Common Tern Mallard Forester's Tern Gadwall Mourning Dove American Widgeon Yellow-billed Cuckoo Northern Shoveler Black-billed Cuckoo Blue-winged Teal Great Horned Owl American Green-winged Teal Northern Saw-whet Owl

Ring-necked Duck Eastern Screech Owl **Greater Scaup** Whip-poor-will Lesser Scaup Common Nighthawk Long-tailed Duck **Chimney Swift**

Bufflehead Ruby-throated Hummingbird

Common Goldeneye **Belted Kingfisher**

Hooded Merganser Red-headed Woodpecker Common Merganser Red-bellied Woodpecker Downy Woodpecker **Red-breasted Merganser Ruddy Duck** Yellow-bellied Sapsucker Osprey Yellow-shafted Flicker **Bald Eagle** Olive-sided Flycatcher Golden Eagle Eastern Wood-Pewee Northern Harrier Acadian Flycatcher Sharp-shinned Hawk Yellow-bellied Flycatcher Cooper's Hawk Willow Flycatcher

Red-shouldered Hawk Alder Flycatcher "Traill's" Flycatcher **Broad-winged Hawk** Red-tailed Hawk Least Flycatcher American Kestrel Eastern Phoebe

Great Crested Flycatcher Merlin

Peregrine Falcon Eastern Kingbird Wild Turkey Red-eyed Vireo American Coot Warbling Vireo Sora Philadelphia Vireo White-eyed Vireo

Black-bellied Plover Semipalmated Plover Blue-headed Vireo

Killdeer Blue Jay **Greater Yellowlegs American Crow** Solitary Sandpiper Horned Lark

Spotted Sandpiper Purple Martin

Whimbrel Northern Rough-winged Swallow Bank Swallow Tree Swallow Cliff Swallow Barn Swallow

Black-capped Chickadee Red-breasted Nuthatch White-breasted Nuthatch

Brown Creeper Carolina Wren House Wren Winter Wren Marsh Wren

Golden-crowned Kinglet Ruby-crowned Kinglet Blue-gray Gnatcatcher Eastern Bluebird American Robin Wood Thrush

Veery

Swainson's Thrush Gray-cheeked Thrush Hermit Thrush Gray Catbird Brown Thrasher European Starling American Pipit Cedar Waxwing

Northern Parula Orange-crowned Warbler Tennessee Warbler Blue-winged Warbler Golden-winged Warbler Nashville Warbler Yellow Warbler

Chestnut-sided Warbler Magnolia Warbler Cape May Warbler

Black-throated Blue Warbler Blackburnian Warbler Yellow-rumped Warbler Black-throated Green Warbler

Prairie Warbler

Western Palm Warbler

Pine Warbler

Bay-breasted Warbler

Blackpoll Warbler Prothonotary Warbler Black-and-white Warbler American Redstart

Ovenbird

Northern Waterthrush Connecticut Warbler Mourning Warbler Common Yellowthroat Wilson's Warbler Canada Warbler Hooded Warbler Scarlet Tanager Northern Cardinal Rose-breasted Grosbeak

Indigo Bunting Eastern Towhee

American Tree Sparrow

Field Sparrow
Chipping Sparrow
Ammodramus spp.
Savannah Sparrow
White-throated Sparrow
White-crowned Sparrow

Fox Sparrow Song Sparrow Lincoln's Sparrow Swamp Sparrow Dark-eyed Junco Snow Bunting Bobolink

Brown-headed Cowbird Red-winged Blackbird Rusty Blackbird Common Grackle Baltimore Oriole Orchard Oriole Purple Finch House Finch Pine Siskin

American Goldfinch House Sparrow

Total: 190 species and forms

The Swainson's Thrush reclaimed its top spot as the most numerous species banded in 2018, displacing the Golden-crowned Kinglet. Veerys and Red-winged Blackbirds were more numerous than they had been last year, and both made it onto the list of the ten most common species at the banding station. Neither Ovenbirds nor Black-throated Blue Warblers were captured as frequently as they had been in 2017; overall, the banding totals for all warbler species showed a decline from last year.

Table 7 – Top ten species captured* at Fish Point in 2018				
Species	Captured	Birds/net-hour	2017 ranking	
Swainson's Thrush	385	0.096	2	
Golden-crowned Kinglet	332	0.083	1	
Ruby-crowned Kinglet	177	0.044	5	
Magnolia Warbler	155	0.039	4	
Hermit Thrush	154	0.038	7	
White-throated Sparrow	126	0.031	6	
Veery	120	0.030	13	
American Redstart	111	0.028	3	
Red-winged Blackbird	95	0.024	15	
Gray-cheeked Thrush	88	0.022	9	
Ovenbird	87 (11 th)	0.022	8	
Black-throated Blue Warbler	42 (15 th)	0.010	10	
*includes standard banding, recapture, and capture data				



From left to right: volunteer Maya Mittelstaedt, summer student Connor Hawey, and field supervisor Sumiko Onishi at PIBO's Fish Point banding station. Photo by Hannah Mittelstaedt.

Notable band encounters

A 'band encounter' occurs when a bird that has been banded at a banding station like PIBO's is recaptured by another bander. PIBO recorded three foreign encounters in 2018. All were Northern Sawwhet Owls captured during non-standard banding in the fall: for more information on PIBO's Saw-whet Owl banding activities, please see <u>Section One: Northern Saw-whet Owl banding (p. 32)</u> and <u>Section Two: Public owling nights (p. 56)</u>.

Northern Saw-whet Owl - Missouri, USA

On the night of October 24th, PIBO encountered a female Northern Saw-whet Owl that was originally banded near Colfax, Harrison County, Missouri USA on November 3rd, 2016. This owl was a second-year bird when she was first captured, making her three years old in 2018. She was measured, weighed and released to continue her migration, probably to Missouri to spend the winter.



Figure 1 – Google Map showing the banding location (blue marker) and encounter location (yellow marker) of the Northern Saw-whet Owl encountered by PIBO on October 24th, 2018.

Northern Saw-whet Owl – Fergus, Ontario

During PIBO's public owling night on November 3rd, a second foreign encounter was captured. It was a female Northern Saw-whet Owl, originally banded on October 15th, 2018 by long-time bird bander David Lamble near Fergus, Ontario. As a hatch-year bird, she was on her very first migration south.

Northern Saw-whet Owl - Picton, Ontario

On the night of November 8th, PIBO encountered a female Northern Saw-whet Owl that was originally banded on October 19th, 2016 by the Prince Edward Point Bird Observatory near Picton, Ontario as a hatch-year bird.



Figure 2 – Google Map showing the banding location (blue marker) and encounter location (yellow marker) of the Northern Saw-whet Owl encountered by PIBO on November 8^{th} , 2018.

Unusual birds

During the uncommonly warm weather experienced on Pelee Island this fall, the members of PIBO's field staff became curious about the perceived late sightings of certain bird species during PIBO's standard migration monitoring activities. As it turned out, many of the observations that seemed to be unusually late, were not actually unusual at all. Nevertheless, there were three species that set PIBO records for remaining on Pelee Island for longer than in previous years: Yellow-billed Cuckoo, American Redstart, and Black-and-white Warbler.

The following section takes a closer look at the arrival and departure dates for a small number of bird species. All of the information is taken from PIBO's migration monitoring data, and is derived from observations made at the banding station and on the daily census. This is only a very cursory examination of departure dates, and does not have any kind of rigorous statistical backing: it is presented for interest's sake only.

Yellow-billed Cuckoos were first recorded by PIBO on May 22nd in 2018, which was rather late for them – they have previously been first recorded from May 6th onwards. They were last recorded on October 25th, which is the latest one has ever been observed by PIBO. The previous latest date was October 18th, in 2016. Cuckoos are rather secretive birds, more often heard than seen, and heard only occasionally once the summer breeding season is over, so it may be that they are more common on the island in the late fall than PIBO's records would suggest: but as they are usually last seen between August 28th to October 8th, this does seem to be an unusually late departure date for this species.

American Redstarts left Pelee Island early this spring and arrived late in the fall, but not uncommonly so. The last one was recorded by PIBO on November 3rd, which is a late record. This species has only been observed on the island in November once before, in 2009 (November 2nd). In general, they are not seen later than October 6th to October 20th.



Adult male American Redstart being released at the banding station. Photo by Hannah Mittelstaedt.

Black-and-white Warblers were the third species to set a late record in 2018. The last one was observed by PIBO on November 4th: previously, the latest one had ever been recorded was October 26th. However, this record is marred by the fact that the Black-and-white Warbler in question was seen several days in a row and appeared to be in poor health. It seems likely that if this had been a healthy individual in good condition it would have left Pelee Island earlier than was actually the case. This species is usually last seen between September 28th and October 18th.

At the time, September 28th seemed late in the year to still be seeing **Northern Waterthrushes**, but it turns out it isn't out of the ordinary: the last dates on which they have been observed over the past sixteen years range from September 20th to October 20th. They did arrive unusually late at the beginning of the fall: the first one wasn't recorded until August 24th, whereas in previous years they have been seen as early as August 1st and have always been present by August 14th.

Ovenbirds arrived and departed at the expected time this spring. Their fall arrival date was normal as well, but they left rather late in the fall. The last one was recorded on October 25th, which is later than the normal range (from October 4th to October 18th) but not the latest that they have ever been observed by PIBO (November 14th in 2006 and November 3rd in 2012).

Yellow-bellied Flycatchers were still being seen and banded up until October 18th this year, which is one of their later departure dates but isn't unprecedented. Last sightings occurred on October 18th or 19th in 2014, 2009 and 2008, and the normal range is September 17th to October 19th.

The spring arrival dates for **Red-eyed Vireos** have been remarkably punctual in recent years, occurring from between May 8th to May 10th in the years from 2014 to the present. They were last observed on October 27th, which is a late date but not the latest, which was November 14th in 2006.

2018 was the first time since 2011 than **Indigo Buntings** have been recorded by PIBO in the month of October. In previous years, they have left as early as August 15th (in 2015). As a species that breeds on Pelee Island, they are always present at the very end of the spring migration monitoring season and the very beginning of the fall. Their spring arrival dates have been very consistent, most often between May 6th and May 10th (they were first observed on May 8th this year).

Ruby-throated Hummingbirds were first observed by PIBO on May 1st in 2018, which is close to the earliest date that they have ever been recorded (April 30th in 2004). They were last seen on September 29th, which falls towards the later end of their departure range (September 2nd to October 8th).

Flocks of **Tree Swallows** were being recorded both on census and overhead in the banding area as late as October 23rd, which seemed unusual to observers, but turns out not to be unusual at all; they have been observed as late as November 15th, and in 2017 they were still present up until November 8th. As PIBO's migration monitoring activities generally end on November 15th, it is possible that Tree Swallows may occasionally remain at Fish Point for even longer than PIBO's field staff do. It appears that this pugnacious aerial insectivore is better at tolerating cold weather and strong winds than we had assumed!

Only a single **Red-breasted Nuthatch** was recorded this spring, which isn't unusual; in 2012 and 2003 no Red-breasted Nuthatches were observed during the spring migration monitoring season at all. However the number of Red-breasted Nuthatches that were recorded this fall and the frequency with which they were seen, *was* unusual. 2018 saw an irruption of Red-breasted Nuthatches, caused by a failed black

spruce crop farther north³. As they searched for food, great numbers of nuthatches moved farther south than their habitual range. 2018 set the record for the most number of days on which Red-breasted Nuthatches were seen (they were recorded on 71 out of the 102 days in the fall migration monitoring season) and the greatest number of Red-breasted Nuthatches recorded (with an estimated total of 537 individuals). Similar though less extreme irruptions were recorded by PIBO in 2016, 2012, 2007, 2005 and 2004.

* * *

Each year of migration monitoring has its own surprises and variations, and it is only by placing such observations in the larger context provided by long-term research efforts that meaningful conclusions can be made. Nevertheless, it is still interesting to compare and contrast this year's migrations with those of PIBO's previous fifteen years of standardized migration monitoring.



Male Ruby-throated Hummingbird. Photo by Sumiko Onishi.

³ Jean Iron, 'Winter Finch Forecast 2018-2019' (http://jeaniron.ca/2018/wff18.htm, accessed January 6th, 2019).

Species at Risk

The following section contains observations made by PIBO in 2018 of birds that are classified as endangered, threatened, or of special concern in Ontario.

Prothonotary Warbler (Endangered)

A Prothonotary Warbler (probably second-year; sex unknown) was banded by PIBO on May 16th. A male Prothonotary Warbler was observed around the nest boxes at Fish Point on May 28th, and was seen and heard frequently thereafter, though it did not breed successfully. For information on PIBO's work monitoring the Prothonotary Warbler nest boxes at Fish Point, please see <u>Section One:</u> <u>Prothonotary Warbler nest box monitoring (pp. 39-41)</u>. Another male Prothonotary Warbler was heard on the East West Road once, on May 27th.

Yellow-breasted Chat (Endangered)

The first confirmed Yellow-breasted Chat of the season was heard on the morning of June 8th in the Stone Road Alvar. PIBO staff continued to search for Chats around the Stone Road Alvar, using a tape player to broadcast their call, but the bird was not seen or heard again.

Acadian Flycatcher (Endangered)

A possible Acadian Flycatcher was banded by PIBO on May 24th (measurements: wing 66 mm, tail 57 mm, sixth primary not emarginated; mouth lining very pale, leg grey). An Acadian Flycatcher was observed during the Breeding Bird Census (BBC) at Middle Point Woods (Nature Conservancy of Canada), but is not presumed to have established a territory there. For more information on PIBO's Breeding Bird Censuses in 2018, please see Section One: Breeding Bird Census (pp. 33-37).

Least Bittern (Threatened)

Least Bitterns were heard several times during the Marsh Monitoring Surveys in Lake Henry (Lighthouse Point Provincial Nature Reserve – Ontario Parks, Ministry of Natural Resources) in May and July. For more information, please see <u>Section One: Marsh Monitoring Program (Birds) (pp. 37-38)</u>.

Bald Eagle (Special Concern)

Bald Eagles were recorded on many of the daily censuses during spring and fall migration. As in previous years, PIBO received reports of Bald Eagles nesting on the island.

American White Pelican (Threatened)

American White Pelicans continue to be observed on many of the daily censuses, especially in the fall. They are presumed to have nested in Lake Erie again this year.

Table 8 - Spe	Table 8 - Species at Risk						
Observers Sumiko Onishi, Patrick Kramer, Connor Hawey & Graeme C. Hours* 3							
	Gibson						
Notes Prothonotary Warbler used nest boxes at Fish Point; Least Bitterns heard in Lake Henry							
*refers to tim	*refers to time spent searching for SAR only – does not include Marsh Monitoring Program, daily census,						
or migration	or migration monitoring						

In mammal-related news, PIBO's science officer Patrick Kramer observed a pair of Gray Fox kits while on census at Fish Point on May 27th, 2018. The Gray Fox is a threatened species in Ontario and Pelee Island is one of the few places in the province where it can still be found.

Northern Saw-Whet Owl banding

Various confluences of warm temperatures, rain, and high winds prevented PIBO from doing as much owl banding in 2018 as in previous years. Nets were opened for five nights in total, including only one public owling night, but with good results. 28 Northern Saw-whet Owls were banded and four were recaptured, three of which were foreign encounters. For information on PIBO's public owling nights, please see Section Two: Public owling nights (p. 56).

PIBO's first attempt at owl banding took place on October 24th, when the weather looked particularly favourable. The owls did not agree: only one was captured, but as it turned out to be a foreign encounter, it was well worth the effort. The owling nets were not opened again until the third pubic owling night on November 3rd, which turned out to be the best night for owl banding all season. By the time the nets were closed at 12:35 a.m., thirteen Northern Saw-whet Owls had been banded and one was recaptured. An Eastern Screech Owl was also banded.

The owling nets were opened again on November 8th. With temperatures of around 4 degrees Celsius and northeast winds, it seemed likely that there would be owls around, and indeed, between 5:50 p.m. and 12:15 a.m. eight Northern Saw-whet Owls were banded and two were recaptured. One of the recaptured owls had been banded by PIBO on November 8th and the other was a foreign encounter.

Nets were opened again on November 11th. Conditions were windy, and only three out of the five owling nets could be opened, but those three nets still succeeded in capturing seven Northern Saw-whet Owls. Activity was steady until 9:30 p.m. when the owls stopped showing up, and nets were closed one hour later. The last owling night took place on November 19th, and netted two Northern Saw-whet Owls and one Eastern Screech Owl.

Table 9 - Northern Saw-whet Owl banding					
Observers	Sumiko Onis	Sumiko Onishi, Sachi Schott			
# of coverage days	5 (Oct 24, No	ov 3, 8, 11, & 19)			
NSWO banded	30 EASO banded 2				
NSWO retraps	4 EASO retraps 0				
Net hours	80.2 hrs Birds/net hour 0.51				
Notes	Two Great Horned Owls heard calling Oct 24; one Great Horned Owl				
	heard calling	Nov 3 & 8. Northern Sa	w-whet Owls heard Nov 3 & 8		

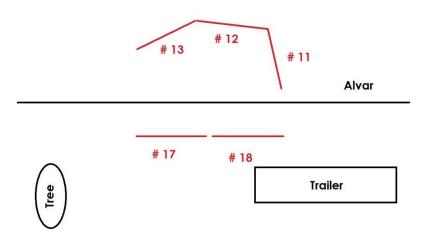


Figure 3 – Nets used for Northern Saw-whet Owl banding at the PIBO cottage on Stone Road in 2018.

Breeding Bird Census

The Breeding Bird Census (BBC) is a habitat-based survey that uses spot-mapping methodology to estimate population densities for each bird species present in a given study plot. The locations of all singing males and pairs present in the plot on different days during the breeding season are mapped and combined to identify individual territories: the number of territories can then be extrapolated into the number of breeding pairs on a plot in each year. A minimum of eight visits, spaced throughout the breeding season, are required to accurately map the territories of all species. When a study plot is first established, information on the vegetative structure of the community is collected. These habitat descriptions make it possible for the BBC to be used to determine the species richness of particular habitats, and to identify the habitat requirements of individual species. By surveying the same plots repeatedly over a number of years, researchers can measure changes in the diversity, distribution and abundance of breeding birds⁴.

There are ten BBC plots on Pelee Island covering a range of habitats. Two or three plots are surveyed each year, and it takes four or five years to complete surveys on all ten plots. The first round of surveys was completed in 2010. The second round of surveys began in 2014 and was completed this year, in 2018.

Methods

PIBO was able to complete BBC surveys at three plots in 2018. Surveys were completed at the Middle Point Woods (Nature Conservancy of Canada), Lighthouse Point (Ontario Parks – Ministry of Natural Resources) and Brown's Road Field (Nature Conservancy of Canada) plots. Each plot was visited eight to ten times from May 27th to July 2nd for between 1.5 to 4 hours. Eight of the visits took place in the morning, beginning one half-hour before sunrise, and two took place in the evening. In total 69.5 hours were devoted to BBCs this year and 266.5 territories were documented belonging to 31 species. All bird activity was noted and data for each species was transferred onto individual maps to allow for the definition of territorial boundaries.

Table 10 - Bree	Table 10 - Breeding Bird Census					
Observers	Sumiko Onishi, Patrick Kramer & Connor Hawey					
Plots surveyed	Middle Point Woods (NCC), Lighthouse Point (OP-MNR), Brown's Road Field (NCC)					
Dates	May 27 to June 2 Hours 69.5					
# Territories	266.5	# Species	31			
Notes	Second round of BBC surveys completed in 2018 (begun 2014); first round took					
	place from 2010-2013					

Results

The BBC results are provided below as the total number of territories for each species present in each plot during the year. These results are also standardized as the number of territories per 40 hectares. A list of species considered to be 'visitors' is provided separately from the list of breeding species. The results from the first survey are included, as a point of comparison. Overall, the diversity and abundance of the breeding birds observed at each study plot has remained fairly consistent over the eight or nine years since they were first surveyed.

⁴ Gibson, Graeme C., Breeding Bird Surveys on Pelee Island: 2009-2011. Pelee Island Bird Observatory. An unpublished report for the USFW Neotropical Migratory Bird Conservation Act Program. 72 pp. (including appendices). 2011.

Table 11 - MIDDLE POINT WOODS

BBC04

Landowner: Nature Conservancy of Canada **Location:** Ontario, Essex County, Pelee Island

Continuity: Last surveyed in 2010

Habitat description: Lowland Forest

Size: 8.75 hectares

Year: 2018

Hours: 28 hours; 10 visits

Temperature: 18, 21, 20, 22, 17, 20, 31, 17, 22, 21 degrees Celsius

Dates: 2018 May 27, 28 & 30, June 1, 5, 12, 17, 21, 24 & 26

	Territories	
Species	2018	2010
Red-winged Blackbird	33	25
American Robin	21	15
Yellow Warbler	15	10.5
House Wren	12	11
Northern Cardinal	9	6
Eastern Wood Pewee	9	3
Tree Swallow	7	
Downy Woodpecker	6	7
Indigo Bunting	5.5	3.5
Carolina Wren	4	
Yellow-billed Cuckoo	3	
Red-bellied Woodpecker	3	2
Yellow-shafted Flicker	3	
Black-capped Chickadee	3	3
Brown-headed Cowbird	3	7
Baltimore Oriole	3	4
Common Grackle	3	5
European Starling	3	1
Cedar Waxwing	3	
Mourning Dove	2	
Blue Jay	2	2
Scarlet Tanager	2	
Wood Duck	2	
Red-tailed Hawk	1	1
Great-crested Flycatcher	1	2
Eastern Kingbird	1	
Warbling Vireo		3
	2018	2010
Territories:	159.5	111
Per 40 hectares:	728	507
Species:	26	18

Other species observed: Cooper's Hawk, Wild Turkey, American Woodcock, Black-billed Cuckoo, Common Nighthawk, Ruby-throated Hummingbird, Acadian Flycatcher, American Crow, White-breasted Nuthatch, Blue-gray Gnatcatcher, Gray Catbird, Wood Thrush, Brown Thrasher, Eastern Towhee

Table 12 - LIGHTHOUSE POINT

BBC07

Landowner: Ontario Parks/OMNR

Location: Ontario, Essex County, Pelee Island

Continuity: Last surveyed in 2009

Habitat description: Alvar Savannah/Shrub Thicket: hackberry with hop tree, blue ash,

hawthorn, and white mulberry, half-open savannah; canopy 46%, 6-10m high

Size: 9.5 hectares

Year: 2018 Hours: 23.5 hours; 8 visits

Dates: 2018 June 1, 3, 8, 12, 14, 20 & 26; July 2

Dates: 2010 Julie 1, 3, 3, 12, 11, 20 G	Territories	
Species	2018	2009
Red-winged Blackbird	25	33
Yellow Warbler	14	23
Northern Cardinal	11	5
Indigo Bunting	8	7.5
American Robin	7	7
Brown-headed Cowbird	5	6
American Goldfinch	4	5
Yellow-billed Cuckoo	4	1
Red-eyed Vireo	3.5	
Gray Catbird	3	1
Mourning Dove	3	2
Baltimore Oriole	2	3
Great Crested Flycatcher	2	2
Northern Flicker	2	1
Blue Jay	2	
Black-capped Chickadee	2	
Cedar Waxwing	2	
Common Grackle	1	5
Eastern Wood-pewee	1	1
Tree Swallow		1
Black-billed Cuckoo		4
Brown Thrasher		3
Downy Woodpecker		3
House Wren		2.5
Eastern Kingbird		1.5
	2018	2009
Territories:	101.5	117.5
Per 40 hectares:	428	495
Species:	19	21

Other species observed: Wild Turkey, Black-billed Cuckoo, Red-bellied Woodpecker, Downy Woodpecker, Eastern Kingbird, Wood Thrush, Common Yellowthroat

Table 13 - BROWN'S ROAD FIELD Landowner: Nature Conservancy of Canada

Location: Ontario, Essex County, Pelee Island **Continuity:** Last surveyed in 2010

Habitat description: Agricultural field; active soybean field, canopy 0%, 0m high

Size: 11 hectares
Year: 2018

Hours: 18 hours; 8 visits

Temperature: 23, 17, 13, 19, 20, 23, 22, 21 degrees Celsius

Dates: 2018 June 1, 3, 6*, 8, 12*, 14, 20 & 24

* a farm tractor was working at the study plot on June 6th, and on the field across from the plot on June 12th

BBC03

	Territories	
Species	2018	2010
Horned Lark	2	3
Killdeer	3.5	2
Red-winged Blackbird		1.5
Grasshopper Sparrow		1
	2018	2010
Territories:	5.5	7.5
Per 40 hectares:	20	27
Species:	2	4

Other species observed: Great Egret, Pied-billed Grebe, Canada Goose, Mallard, Bald Eagle, Wild Turkey, Mourning Dove, Eastern Kingbird, American Robin, Eastern Bluebird, European Starling, Red-winged Blackbird, Brown-headed Cowbird, Spotted Sandpiper, Common Grackle, Chipping Sparrow



Figure 4 – NCC Breeding Bird Census plots at Brown's Road and Middle Point Woods



Figure 5 – Ontario Parks Breeding Bird Census Plot – Lighthouse Point

Marsh Monitoring Program (Birds)

The Great Lakes Marsh Monitoring Program (MMP) is a long-term monitoring program coordinated by Bird Studies Canada to collect information about the presence and abundance of bird and amphibian species in marshes and wetlands throughout the Great Lakes basin. The data collected by the MMP is used to inform and guide conservation, restoration and management programs related to marshes. On Pelee Island, the MMP surveys take place in Lake Henry, at Lighthouse Point Provincial Nature Reserve (Ontario Parks – Ministry of Natural Resources). Much of the site is overgrown with *Phragmites spp.*, with some cattail marsh and other semi-aquatic plant life.

Methods

Marsh bird routes are surveyed three times a year between May 20 and July 10, with each survey beginning four hours before sunset and being completed before dark. The survey dates are determined in part by the weather – there must be good visibility, warm temperatures of at least 16 degrees Celsius, no precipitation and little to no wind, and the surveys must take place at least ten days apart.

PIBO's marsh bird route consists of six stations, each of which is surveyed for fifteen minutes. The first five minutes are a passive (silent) observation period; the second five minutes are a call playback period, during which recordings of focal marsh bird species are played to elicit a response from any birds that are nearby; and the last five minutes are a second passive observation period. During the fifteen-minute observation period, the surveyor records all the focal marsh bird species and secondary species that are seen or heard inside and outside of the station area.

In 2018, marsh bird surveys took place on May 24th, June 12th, and July 2th. A canoe was used to reach the six survey stations in Lake Henry, and call-back tapes were used to determine the presence and absence of marsh bird species of interest.

Results

Least Bitterns were heard at five of the survey stations on May 24th, representing at least four individual birds. Two of them were heard at station H, and were present again during the survey on July 2nd. A Pied-billed Grebe was heard on June 12th.

Aside from these focal species, the surveys recorded many of the usual marsh inhabitants, including many Red-winged Blackbirds, some Green Herons, Great Blue Herons, and Mallards. Tree Swallows and Purple Martins were frequently seen flying overhead, and a young Great Horned Owl was heard calling during some of the surveys.

Table 14 - Marsh Monitoring Program (birds)					
Observers	Sumiko Onishi, Connor Hawey & Graeme C. Ho	ours	8.5		
	Gibson				
# of Surveys	3 (May 24, June 12 & July 2)				
Notes	Least Bitterns heard on May 24 and July 2; Pied-bill	ed Gre	be heard		
	on June 12				

Marsh Monitoring Program (Amphibians)

The MMP protocol also calls for three amphibian surveys to take place between April and July. As Pelee Island has a very limited and predictable number of frog species, PIBO usually only conducts the last two of those surveys, but this year all of the survey stations were visited three times. Three of the survey stations on Pelee Island are located around Lake Henry in the Lighthouse Point Provincial Nature Reserve (Ontario Parks – Ministry of Natural Resources) at the north end of the island, and one is located at Fox Pond in the Fish Point Provincial Nature Reserve (Ontario Parks – Ministry of Natural Resources). The surveys begin one half-hour after sunset and last for three minutes, during which the surveyor records all the frogs that are heard within a 100-m radius of the station point.

Results

No calls at all were heard during the first visit on April 26th, confirming that the first survey date is too early for amphibians to be active on Pelee Island. Only American Toads were heard on May 20th, and Bullfrogs and Green Frogs were recorded on July 14th. Few individuals of each species were heard. Overall, the survey stations were somewhat quieter than in previous years.

Table 15 - Marsh Monitoring Program (amphibians)				
Observers Patrick Kramer & Connor Hawey Hours 6				
# of Surveys	3 (April 26, May 20 & July 14)			
Notes American Toads, Bullfrogs and Green Frogs recorded				

Prothonotary Warbler nest box monitoring

Early in its history, PIBO in partnership with Dean Ware installed a number of nest boxes to the west of the netting area at Fish Point Provincial Nature Reserve (Ontario Parks – Ministry of Natural Resources) for the purpose of encouraging breeding activity on the part of Prothonotary Warblers, which are a Species at Risk (Endangered) in Ontario. This striking warbler prefers to nest in wet, marshy areas, and as the woodland at Fish Point is habitually flooded in the spring and summer and has large areas of standing water, the habitat was considered ideal. One or more Prothonotary Warblers are habitually observed on Pelee Island each spring, but they do not always breed on the island.

The nest boxes are arranged roughly from the westernmost edge of PIBO's standard 'count' area at Fish Point to the western boundary of the nature reserve, following McCormick Road. Their distance from the road varies, but most are visible even in the summer when the vegetation is the thickest. Historically, these nest boxes have served as a breeding home not only for the occasional Prothonotary Warbler, but also for House Wrens and Tree Swallows.

When the original nest boxes began to deteriorate from age, eight new Prothonotary Warbler nest boxes were built and donated by John Krause. They were installed alongside the remaining original boxes in 2014. These nest boxes are significantly deeper than the original boxes, and after very few of them were used in their first year of installation, blocks of polystyrene foam were inserted into seven of them, decreasing the depth by four inches.

Last year Jody Allair, the national advisor in conservation outreach at Bird Studies Canada, visited the banding station and suggested that PIBO would benefit from using a different style of nest box, one made of a hollowed log that more closely replicates the type of natural cavity that Prothonotary Warblers would normally nest in. He donated five of these nest 'logs', and they were installed at Fish Point by Patrick Kramer and Conner Hawey in the spring of 2018, ahead of the summer breeding season.



Prothonotary Warbler. Photo by Sumiko Onishi.

Currently, then, PIBO is monitoring three different 'generations' of nest boxes at Fish Point: the original nest boxes made by Dean Ware; the newer, deeper nest boxes provided by John Krause; and the newest nest 'logs' donated by Jody Allair. While it can only benefit the Prothonotary Warblers to have a greater number and variety of nest boxes to choose from, this has led to some disorder when it comes to naming and labelling the boxes. In the interests of clarifying this situation, the GPS points marking the nest box locations have been renamed to place them in numerical order from the Fish Point netting area westwards. Owing to the close proximity of some of the boxes, the same GPS point sometimes refers to more than one nest box. The following table gives both the new GPS point and the old one, and a description of the boxes at each location, for reference purposes.

Tab	Table 16 – Prothonotary Warbler nest boxes at Fish Point					
	GPS point	Former designation	Description	Contents in 2018	Notes	
1	Nest Box 01	Nest Box A	Green (1st gen.)	Empty		
2	Nest Box 02	Nest Box B	Green (1st gen.)	Empty		
3	Nest Box 03	Nest Box C	Green (1st gen.)	Empty	Contained PROW	
					nest in 2017	
4	Nest Box 04	Nest Box 01	Green (1 st gen.)	PROW nest (moss); not used		
5	Nest Box 04	Nest Box 01	Nest 'log'	Possible HOWR nest		
				(sticks, lined with some		
				grass); not used		
6	Nest Box 05	Nest Box 02	New box (2 nd gen.)	HOWR nest; not used		
7	Nest Box 05	Nest Box 02	Old box (1st gen.)	Grass nest; not used		
8	Nest Box 06	Nest Box 3Log	Nest 'log'	Very little nest material;	Predator guard needs	
				dirt and insect remains;	to be refastened	
				dead nestling, species unk.		
9	Nest Box 07	Nest Box 03	New box (2 nd gen.)	Empty		
10	Nest Box 07	Nest Box 03	Old box (1 st gen.)	Empty	Contained PROW nest in 2014	
11	Nest Box 08	Nest Box 4Log	Nest 'log'	Used nest of sticks and		
				moss; possibly PROW?		
12	Nest Box 09	Nest Box 04	New box (2 nd gen.)	Empty	Does not contain	
					polystyrene 'inserts'	
13	Nest Box 10	Nest Box 05	New box (2 nd gen.)	Empty		
14	Nest Box 11	Nest Box 06	New box (2 nd gen.)	Grass nest; broken egg shells (white)	Possibly predated	
15	Nest Box 11	Nest Box 06	Old nest 'log'	Defunct	No roof	
16	Nest Box 12	Nest Box 5Log	Nest 'log'	Empty	Labelled '5'	
17	Nest Box 13	Nest Box 07	New box (2 nd gen.)	Empty		
18	Nest Box 13	Nest Box 07	PVC pipe nest box	Defunct	Cannot be opened	
19	Nest Box 14	Nest Box 08	New box (2 nd gen.)	Empty		
20	Nest Box 15	Nest Box 09	New box (2 nd gen.)	Grass nest; used		
21	21 Nest Box 16 Nest Box 10 Nest 'log' Empty					
AOL	AOU species codes: HOWR (House Wren), PROW (Prothonotary Warbler), TRES (Tree Swallow)					

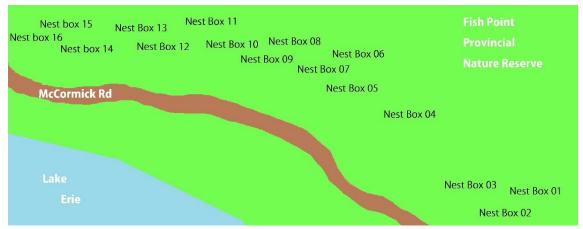


Figure 6 – Prothonotary Warbler nest boxes at Fish Point. Locations approximate.

In 2018 PIBO found definite evidence of Prothonotary Warbler breeding activity in one nest box (Nest Box 04, Table 16 line 4, p. 40). There were no signs that the nest had been used, and as no visual observations of female Prothonotary Warblers were recorded, it seems that this male did not succeed in attracting a mate. A second nest box (Nest Box 08, Table 16 line 11, p. 40) contained what may have been a partial Prothonotary Warbler nest, but again, this nest was not used in 2018. For more information on Prothonotary Warbler activity on Pelee Island in 2018, please see Section One: Species at Risk (p. 31).

As Nest Box 11 and Nest Box 13 (Table 16 lines 15 and 18, p. 40) are now for various reasons defunct, it is suggested that they be replaced with new nest boxes. PIBO has several extras of the nest boxes donated by John Krause, and these may be suitable replacements.

While the polystyrene inserts that were used to decrease the depths of the new, deeper nest boxes were successful in encouraging breeding bird activity (albeit not of Prothonotary Warblers), they are not an unalloyed good. Polystyrene foam was chosen as the material for the inserts because it is lightweight, easy to cut, available in a suitable thickness, and does not retain moisture or mold. However in the course of making their nests the nesting birds scratch up and shred a small amount of polystyrene, creating litter. To prevent this behaviour PIBO will make and install wooden 'floor boards' to place over top of the polystyrene to protect it from the birds, and vis versa.

All the nest boxes were cleaned out on November 12th, 2018. The contents of each box were recorded and removed.



Prothonotary Warbler. Photo by Sumiko Onishi.

Monarch butterfly counts

During the fall migration monitoring season, PIBO conducts standardized monarch butterfly migration counts as part of the 90-minute census performed each morning. The surveys occur along the 2.25 km path at Fish Point Provincial Nature Reserve (Ontario Parks – Ministry of Natural Resources).

Previously in 2017, monarch numbers had increased noticeably over recent years. 381 were observed in total, representing an over three-fold increase from the total of 101 monarchs seen in 2016. This was a heartening sign considering the monarch butterfly's status as an endangered species, and seemed to indicate that the conservation efforts being made on its behalf were perhaps beginning to bear fruit.

2018 saw a further, spectacular increase in the number of monarchs recorded by PIBO. Anecdotally, islanders and cottagers reported noticing more monarchs than before over the summer and this was borne out by PIBO's observations in August, when monarchs were seen more frequently and in greater numbers than they had been in 2017.

The bulk of PIBO's monarch sightings, though, occurred beginning on September 8th, when strong winds and driving rain brought both insect and bird migration to a stand-still. Over one thousand monarch butterflies formed densely-packed roosts in the trees at the tip of Fish Point and elsewhere on the island as they waited out the bad weather. The roosts remained on September 9th when the weather was still rough, but once the wind dropped overnight the monarchs lost no time in moving on. Hundreds of them were counted in the following days, but they were all actively migrating and did not form roosts. By September 12th, only 30 monarch butterflies were seen on census – a respectable number, but a far cry from the spectacle that had been enjoyed just a few days before. This is the first time in many years that large roosts of monarch butterflies have been seen on Pelee Island.

From there, monarch numbers dwindled. October saw far fewer monarch butterflies passing through Pelee Island than there were in 2017, and it seems that the large numbers seen in September represented the bulk of the butterfly population. The last census to turn up a monarch butterfly took place on October 25th. In total, PIBO recorded 2701 individual monarch butterflies in 2018.



September 2018 was the first time in many years that monarch butterfly roosts were observed on Pelee Island. Photo by Sumiko Onishi.

Table 17	Table 17 - Monarch butterfly counts at Fish Point in 201			Point in 2018
Date	August	September	October	November
1		12		
2	8	5	1	
3	2	4	10	
4		3		
5		1	2	
6	5	7		
7	2	14		
8		1000	10	
9	5	600*	1	
10	4	800	3	
11	12	400		Χ
12	15	30		Χ
13	14	27		Х
14		7	3	X
15	4	6		Х
16				Χ
17	2	1		Х
18	4	8	1	Χ
19	10	7		Χ
20	9	5		Χ
21	14	10		Х
22	1	4		Χ
23	45	7		Χ
24	23	1	1	Χ
25	7	2	1	Χ
26	7			Χ
27	3	70		Χ
28	3	15		Χ
29	4	9		Χ
30	4	3		Χ
31	3	Χ		Χ
Total	210	2458	33	0
Grand T	otal	2701		

90-minute walking survey conducted at Fish Point, Pelee Island, from Aug 1st to Nov 10th, 2018, beginning 1 hour after sunrise. X – survey not conducted.

^{* -} probably the same butterflies as the day before; not included in totals. Large roosts observed

Dragonfly counts

Other migratory insects found on Pelee Island include Common Green Darners and Saddlebag species of dragonflies, and the less numerous Blue Darners. As with the monarch butterflies, PIBO records the numbers of dragonflies seen during the daily census at Fish Point each fall.

Like the monarch butterflies, the dragonflies seemed more active this year. Saddlebags were seen from the beginning of the fall census on August 1st onwards, with Green Darners appearing towards the end of August. As in 2017, dragonfly activity dropped off precipitously by the end of the first week in October, and only a single individual was recorded in November.

Table 18 - Dragonfly counts at Fish Point in 2018				
Date	August	September	October	November
1	4	4	3	
2	4	6	8	
3		2	7	
4		20		
5	4	40		
6	3	2		1
7	15			
8		4	3	
9	7	5		
10	25	12		
11	4	12		Х
12	5	12		Χ
13	5	20		Χ
14		8		Х
15	4	5		Χ
16				Χ
17	2	2***		Χ
18	7	4		Χ
19	15	3		Χ
20	5	2*	1	Χ
21	3			Χ
22	1	7		X
23	65	45		Χ
24	50	35		X
25	20			Χ
26	30*	2		X
27	50	3		X
28	7	3		Χ
29	5	3		X
30	65**	3		X
31	8	X		X
Total	413	264	22	1
Grand				
Total	700			
00:	م منالانمم د		at Fich Daint	Dalaa Jalaad

90-minute walking survey conducted at Fish Point, Pelee Island, from Aug 1st to Nov 10th, 2018, beginning 1 hour after sunrise.

^{* -} Saddlebag ** - Green Darners begin to show up

^{*** -} Blue Darners

Christmas Bird Count

The 2017 Audubon Christmas Bird Count took place on December 17th. Seventeen participants recorded 61 species over the twenty-four hours of the count. PIBO staff were joined by overwintering Pelee Islanders, who enjoyed spending some time looking for birds on a cool and overcast day. Many thanks to Graeme C. Gibson, who tallied up and entered the data from the various groups.

Table 19 – 2017 Christmas Bird Count				
Date	Dec 17 th	Species recorded	61	
Participants	17	Groups	5	
Temperature	0 – 1.7 degrees Celsius	Wind	E becoming SE	
Visibility	32 km	Cloud	100%	
Precipitation	None	Ice cover	0 lake, 80% land	
Distance driven	69 km	Hrs. driving	10	
Distance walked	48 km	Hrs. walking	20	

Participants: Sumiko Onishi, Graeme C. Gibson & Patrick Kramer; Debbie & Frank Billard, Ron & Lynn Tiessen, Rob Tymstra, Paul Carter, Lori Clancy, Brian & Lisa Kipp, Matt & Alyssa Staples, Grant & Deb Crawford, Harvey Johnson

TABLE 20 - SPECIES AND FORMS SEEN DURING THE 2017 CHRISTMAS BIRD COUNT

Canada Goose Eastern Phoebe
Tundra Swan Northern Shrike
Mallard Blue Jay

Greater Scaup

Lesser Scaup

Horned Lark

Bufflehead

Black-capped Cl

Bufflehead Black-capped Chickadee
Common Goldeneye White-breasted Nuthatch
Common Merganser Brown Creeper

Red-breasted Merganser
Pied-billed Grebe
Winter Wren
Horned Grebe
Eastern Bluebird
Great Blue Heron
Bald Eagle
Northern Harrier
Carolina Wren
Winter Wren
Eastern Bluebird
American Robin
European Starling
Cedar Waxwing

Cooper's Hawk Yellow-rumped Warbler Red-tailed Hawk Western Palm Warbler Rough-legged Hawk Northern Cardinal Ring-necked Pheasant American Tree Sparrow

Wild Turkey

Bonaparte's Gull

Ring-billed Gull

Herring Gull

Great Black-backed Gull

White-throated Sparrow

Song Sparrow

Swamp Sparrow

Dark-eyed Junco

Snow Bunting

Mourning Dove Brown-headed Cowbird Eastern Screech-Owl Red-winged Blackbird

Snowy Owl Rusty Blackbird
Great Horned Owl Common Grackle
Red-bellied Woodpecker House Finch
Yellow-bellied Sapsucker American Goldfinch
Downy Woodpecker House Sparrow

Yellow-shafted Flicker Individuals: 5054 Species: 61

The 2018 Audubon Christmas Bird Count took place in the Lake Erie Islands on December 16th. No members of the PIBO staff were able to attend the count this year for personal reasons, and so this Christmas Bird Count relied entirely on volunteers from Pelee Island. PIBO is extremely grateful for their help and for the checklists they submitted. The species totals were compiled and submitted by PIBO's assistant field biologist Sachi Schott.

Table 21 – 2018 Christmas Bird Count				
Date	Dec 16 th	Species record	ed 24	
Participants	7	Groups	4	
Temperature	2 degrees Celsius	Wind	NNE becoming N	
Participants: Brian Kipp & Lisa Rollo; Debbie Billard, Fred Billard & Frank the nurse; Joy Nageleisen				
& Ian Sinclair				

TABLE 22 – SPECIES AND FORMS SEEN DURING THE 2018 CHRISTMAS BIRD COUNT

Double-crested Cormorant Blue Jay

Mallard Black-capped Chickadee Bufflehead **Red-breasted Nuthatch**

Common Goldeneye White-breasted Nuthatch Red-breasted Merganser Eastern Bluebird

Bald Eagle American Robin Cooper's Hawk Golden-crowned Kinglet Red-tailed Hawk **Ruby-crowned Kinglet** Northern Cardinal

Ring-necked Pheasant Wild Turkey American Tree Sparrow Mourning Dove House Finch

Red-bellied Woodpecker Individuals: 395 Species: 24 Downy Woodpecker



Fish Point. Photo by Sumiko Onishi.

Data requests



NatureCounts is a website managed by Bird Studies Canada to facilitate the collection, management, analysis and sharing of natural inventory and monitoring data, with a focus on birds and other vertebrates. PIBO contributes data from several of its programs to the NatureCounts database, including Canadian Migration Monitoring Network (CMMN) Daily Estimated Totals, the Christmas Bird Count and the Marsh Monitoring Program (MMP). All contributing members of NatureCounts retain authority over the use of their data, and can withhold data at any time from any party or application.

PIBO received eight requests for data from researchers and research groups via the NatureCounts website in 2018. Some of these requests were denied owing to incomplete applications or because the data collected by PIBO would not be relevant to the proposed project. The following are the research projects to which PIBO has agreed to contribute data (usually in the form of Daily Estimated Totals):

Animals on the move: Remotely based determination of key drivers influencing movements and habitat selection of highly mobile fauna throughout the NASA Arctic-Boreal Vulnerability Experiment (ABoVE) study domain – Ruth Oliver, Columbia University

[Project unknown] - Anbei Zhao, University of Pennsylvania

[Exploring future research applications] – Robert Lennox, Carleton University

Generating separate trends for each count type (e.g. census, banding, DETs); results to be reported to the CMMN – *Erica Dunn, CMMN*

Phenological trends in relative proportions and spring arrival of diurnal aerial insectivores in southern Ontario – *Pat Chow-Fraser, McMaster University*

eBird checklists

eBird (https://ebird.org) is a website that allows birders to enter checklists of birds they have seen and heard during a particular outing. The website provides many ways to explore and summarize data from individual users and from the eBird community as a whole, and is the world's largest biodiversity-related citizen science project, used by avian researchers and casual birders alike.

PIBO's science officer Patrick Kramer began submitting data from the daily census as a checklist to eBird on May 14th, 2018. Checklists were submitted throughout the spring migration and at the beginning of the fall, but the practise was discontinued after August 7th when Patrick left PIBO. While eBird can be a valuable tool for researchers the additional labour involved in entering the daily census in three different formats (on paper for the Daily Log; in Microsoft Excel for the Canadian Migration Monitoring Network (CMMN); and by computer to eBird) made it impractical given the reduced number of staff.

The checklists that were submitted can be viewed via the eBird 'hotspot' at Fish Point Provincial Nature Reserve (Ontario Parks – Ministry of Natural Resources): https://ebird.org/hotspot/L761132.



PIBO science officer Patrick Kramer on census at Fish Point. Photo by Hannah Mittelstaedt.

Section Two – Education and Outreach

Introduction

PIBO runs education programming both on Pelee Island and in Windsor-Essex County, Ontario. Owing to the organizational difficulties and possible liabilities involved in having students travel by boat to the island, the vast majority of PIBO's education activities take place on the mainland, where PIBO offers free in-class programming to schools. For more information on these activities, please see PIBO's 2018 Education Program Summary Report by Sarah Keating.

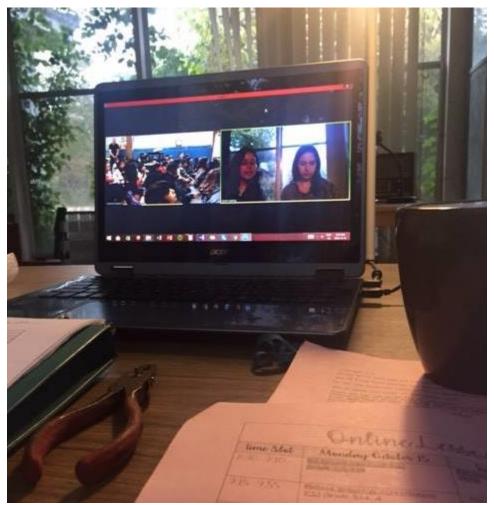
On Pelee Island, PIBO hosted a small number of school groups who braved the mud and the mosquitoes to visit the banding station at Fish Point Provincial Nature Reserve. PIBO also held its annual picnic during the Spring Song weekend and hosted one public owling night in the fall.



Summer student Conner Hawey shows a Yellow Warbler to visitors at PIBO's Fish Point banding station.

Photo by Hannah Mittelstaedt.

On-line video sessions



PIBO's view of the online school video sessions. Photo by Sarah Keating.

PIBO conducted its annual round of school video sessions from October 15 to 17th. During these sessions PIBO's assistant field biologist and education coordinator connect with school classes on the mainland through an online video conferencing platform. Mist-nets are set up around the PIBO cottage and students have the chance to watch birds being banded and ask questions about bird anatomy, migration, the environment, and conservation work.

PIBO reached 13 classes in 7 schools located in Windsor, London and Toronto in 2018. The students ranged from Junior and Senior kindergarten classes to Grade 8, and personal videos were recorded for classes that had previously been visited by PIBO's education coordinator, Sarah Keating. In spite of strong winds and some light rain on October 15th, 37 birds of 11 species were banded over the three mornings of video sessions. Students were able to see fall migrants such as Myrtle Warblers, Ruby-crowned and Golden-crowned Kinglets, and Western Palm Warblers, as well as common 'backyard birds' like Red-breasted Nuthatches, Blue Jays, and American Robins. Owing to the limits imposed by working at the PIBO cottage instead of in the netting area at Fish Point, fourteen additional birds of six species were captured and released unbanded.

Because it is difficult for students to visit PIBO's banding station on Pelee Island, these online video sessions are a valuable tool that allows the banding station to be brought to the students instead. They have been used by PIBO since 2012, and have been met with enthusiasm from teachers and students alike.

Table 23 - On-line video sessions				
Observers	Sarah Keating, Sachi Schott			
# of Coverage Days	3 (October 15, 16 & 17)			
Birds banded	31 Species banded 11			
Birds captured	14	Species captured	6	
Net hours	25.13	Birds/net hour	1.79	
Notes	Coverage was provided by five mist-nets set up around the PIBO			
	cottage on Stone Road			

Some small changes were made to the equipment set-up for the online school video sessions in 2018. Net #15 was not set up, and enough birds were captured in nets #11 to 14 that net #16 was frequently left closed. It was also particularly prone to becoming filled with leaves from the trees in front of the cottage, and it is recommended that it not be used in the future.

This year, the laptop and banding equipment were set up inside the sunroom in the PIBO cottage rather than outside, as has been the custom. This setting, while slightly less picturesque, has the advantage of being protected from the strong winds that frequently gust around the cottage and being sheltered in the case of sudden rainstorms. The lighting is also more easily controlled, for better picture quality.

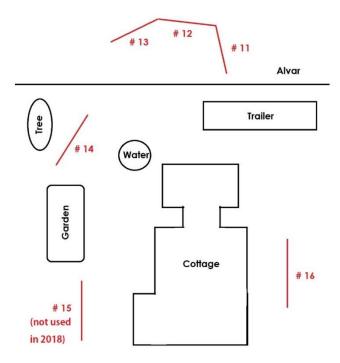


Figure 7 - Placement and numbering of the additional mist-nets set up at the PIBO cottage on Stone Road for online school video sessions in 2018.

On Sarah's recommendation, in 2018 PIBO switched to using the online video conferencing platform Zoom (www.zoom.us) instead of Skype. Zoom allows users to connect with more than one computer at a time, allowing PIBO to reach multiple classrooms in a single session and maximizing efficiency during the short time available for the online school video sessions. The basic Zoom platform is free to use and is simple to operate. A link is e-mailed to each of the participants, and clicking it connects them to the session at the agree-upon time. A few small technical glitches on the school end of the system meant that PIBO staff frequently could not see or hear the classes they were presenting to, but the Zoom chat box allowed them to answer questions and connect with students regardless. Overall, PIBO's experience with Zoom this year was extremely positive, and its potential will continue to be explored in future years.

Education programs on Pelee Island

As well as welcoming individual visitors to PIBO's banding station at Fish Point on Pelee Island, PIBO does its best to accommodate larger groups of visitors as well. Issues of logistics and liability make it difficult for school groups to visit the island, but a few intrepid groups make it over each school year. In 2018, twenty-seven students from Western Secondary School visited PIBO's banding station on May 23rd, and enjoyed seeing a Wood Thrush and an American Redstart up close.

In September, PIBO was contacted by a tour bus operator and former island resident who frequently runs tours on the island. Mo Hape requested that PIBO staff take a few minutes to speak to his tour group, so on September 14th nets were closed early and PIBO's field supervisor Sumiko Onishi and assistant field biologist Sachi Schott made their way out to the road and boarded the bus to describe their work and answer questions about birds, nest boxes and monarch butterflies before the bus moved off to its next stop.



Scarlet Tanager. Photo by Hannah Mittelstaedt.

PIBO picnic

PIBO hosted its annual picnic during the Spring Song weekend on May 13th, 2018. Many people attended in spite of the dreary weather. Food and refreshments were provided by PIBO's executive director Suzanne Friemann, field supervisor Sumiko Onishi, and Graeme C. Gibson. Approximately 35 people contributed \$580.20 in donations, and the event provided a welcome opportunity to greet new friends and catch up with old acquaintances from Spring Song weekends past.



Guests at PIBO's annual picnic braving the outdoors. Photo by Sumiko Onishi.

Spring Song Bird Race

Also taking place during the Spring Song weekend was the annual Bird Race. Beginning at noon on May 11th, nine teams spent twenty-four hours scouring Pelee Island for all the bird species they could find. The time period set for the Bird Race coincided almost exactly with twenty-four hours of rain, but the participants were not deterred – and neither were the birds! May 12th was a good day for bird activity, and in the end 153 species had been observed in total by the teams. The most species were seen by the Pelee Island Bird Brigade (112 species); but the Botham Cup was claimed by the Ptaradactyls, who eschewed motor vehicles and stuck to 'green' forms of transportation to rack up their total of 101 species in all. Many thanks to Graeme C. Gibson and PIBO's summer student Connor Hawey, who added up the totals and determined the winners.

TABLE 24 – LIST OF SPECIES AND FORMS SEEN DURING THE 2018 SPRING SONG BIRD RACE

Common LoonGreat Horned OwlHorned GrebeEastern Screech-owlEared GrebeCommon Nighthawk

Pied-billed Grebe Ruby-throated Hummingbird

American White Pelican Belted Kingfisher

Double-crested CormorantRed-headed WoodpeckerMute SwanRed-bellied WoodpeckerGreat Blue HeronDowny WoodpeckerGreat EgretYellow-shafted FlickerGreen HeronEastern Wood-PeweeTurkey VultureYellow-bellied Flycatcher

Canada GooseAlder FlycatcherWood DuckLeast FlycatcherMallardEastern Phoebe

Blue-winged Teal Great Crested Flycatcher

Lesser ScaupEastern KingbirdLong-tailed DuckRed-eyed VireoBuffleheadWarbling VireoCommon MerganserPhiladelphia VireoRed-breasted MerganserWhite-eyed VireoOspreyYellow-throated Vireo

Bald EagleBlue-headed VireoNorthern HarrierBlue JayCooper's HawkAmerican CrowRed-tailed HawkHorned Lark

Merlin Purple Martin

Wild Turkey

American Coot

Bank Swallow
Black-bellied Plover

American Golden Plover

Cliff Swallow
Semipalmated Plover

Barn Swallow

Killdeer Black-capped Chickadee
Greater Yellowlegs Red-breasted Nuthatch
Lesser Yellowlegs White-breasted Nuthatch

Willet Carolina Wren Solitary Sandpiper House Wren

Solitary Sandpiper House Wren
Spotted Sandpiper Winter Wren
Sanderling Golden-crowned Kinglet

DunlinRuby-crowned KingletLeast SandpiperBlue-gray GnatcatcherShort-billed DowitcherEastern BluebirdAmerican WoodcockAmerican RobinRing-billed GullWood Thrush

Herring Gull Veery

Glaucous Gull
Great Black-backed Gull
Common Tern
Brown Thrasher
Forester's Tern
Black Tern
American Pipit
Mourning Dove
Black-billed Cuckoo
Northern Parula

Northern Rough-winged Swallow

Orange-crowned Warbler Tennessee Warbler Nashville Warbler Yellow Warbler Chestnut-sided Warbler Magnolia Warbler Cape May Warbler Black-throated Blue Warbler Cerulean Warbler Blackburnian Warbler Yellow-throated Warbler Yellow-rumped Warbler Black-throated Green Warbler Western Palm Warbler Bay-breasted Warbler Blackpoll Warbler Black-and-white Warbler American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Common Yellowthroat Wilson's Warbler

Canada Warbler

Hooded Warbler

Scarlet Tanager Northern Cardinal

Rose-breasted Grosbeak **Indigo Bunting Eastern Towhee** American Tree Sparrow Field Sparrow **Chipping Sparrow** Clay-colored Sparrow Savannah Sparrow **Vesper Sparrow** White-throated Sparrow White-crowned Sparrow Song Sparrow Lincoln's Sparrow Eastern Meadowlark **Bobolink** Brown-headed Cowbird Red-winged Blackbird Common Grackle **Baltimore Oriole Orchard Oriole** Purple Finch House Finch American Goldfinch **House Sparrow**

Total: 153 species 9 teams



Participants gather outside the Heritage Center for the start of the 2018 Pelee Island Bird Race.

Photo by Sumiko Onishi.

Public owling nights

PIBO scheduled three public owling nights in 2018. These events are an opportunity for members of the public to drop by the PIBO field cottage on Stone Road to enjoy mulled wine, hot cider, and light refreshments while they wait for the opportunity to see PIBO's owl banding program in action. Owling nets are set up on the PIBO property and a tape with both the Northern Saw-whet Owl and Eastern Screech Owl calls is played to attract members of both species.

Unfortunately, the public owling nights on October 20th and October 27th both had to be cancelled due to high winds and rain. In the case of inclement weather PIBO will reschedule the event to the next night: but on October 21st Pelee Island was hit with a wide-spread power outage, making it impossible to play the call-back tape, and the rain continued on October 28th. Since the PIBO field cottage is not winterized and must be closed up in early November, November 3rd was therefore PIBO's last chance to host a public owling night in 2018.

Fortunately, the weather cooperated and the night was clear, calm, and cold, perfect conditions for Northern Saw-whet Owl migration. Eight visitors attended, all of them island residents, and both an Eastern Screech Owl and Northern Saw-whet Owl were captured. More Northern Saw-whet Owls could be heard calling around the cottage, and twelve more were banded and one was recaptured before nets were closed at 12:35 a.m. For more information on PIBO's additional Northern Saw-whet Owl banding, please see Section One: Northern Saw-whet Owl banding (p. 32); for more information on the recaptured owl, please see Section One: Notable band encounters (p. 27).

While there is no charge to attend PIBO's public owling nights, visitors are invited to leave a donation if they are so inclined. The money is used as PIBO's petty cash, allowing staff to pay for depositing bagged garbage at the dump and to meet other small daily expenses. PIBO's owling visitors contributed \$62 in 2018.



Eastern Screech Owl. Photo by Sumiko Onishi.

Section Three – Other News

Toronto fundraiser

PIBO's Toronto fundraising dinner was held on April 25th, 2018 at the Crows Theater, and raised \$86,362.97. Many thanks to the organizing team of: Margaret Atwood and Graeme Gibson the Elder (Honorary Chairs); Sandy Bourque (Creative Director); Salah Bachir and Kate Daniels (Co-Chairs); and Matthew Gibson, Krystyne Griffin, Donna Hayes, Nancy Lockhart, Charlie Patcher, Anna Porter, Ceta Ramkalawansingh, Susan Swan, Nalini Stewart, Yung Wu, and Katrina Wu (Board).



Toronto fundraising dinner (photos by George Pimentel): Honorary Chairs Margaret Atwood and Graeme Gibson the Elder (left); and John Alcorn, the singer for the evening (right).

Windsor fundraiser

PIBO's 7th annual Windsor fundraising dinner took place at the Beach Grove Golf and Country Club on May 9th, 2018. The guest of honour was Madeleine Thien, a Scotiabank Giller prize-winning author and professor of English at Brooklyn College, who was a wonderful speaker. The evening featured an introduction by Margaret Atwood; a talk by Madeleine Thien; and a live auction facilitated by Peter Hrastovec, all of it overseen by long-time PIBO M.C. Paul Vasey. Books were available for purchase from the University of Windsor bookstore, and were signed by Madeleine Thien and Margaret Atwood.

In total, approximately 120 guests attended the dinner, contributing \$15,580.75 through ticket sales and the silent auction. The event was not sold out, but attendance was close to what it has been in previous years. All proceeds from this event will go towards supporting PIBO's migration monitoring research and education programs.

Green Drinks



August 2018 saw the launch of PIBO's Green Drinks events, hosted by PIBO's executive director, Suzanne Friemann. Held once a month at Chapter Two Brewery in Windsor on the last Wednesday of each month, these informal meetings are a chance to make Windsorites aware of PIBO, and they provide an opportunity for local environmentalists to get together in a casual setting to network, meet new people, and talk about local issues.



Attendees at one of PIBO's Green Drinks events. Photo provided by Suzanne Friemann.

Update to on-line fundraising initiatives

In 2017, PIBO ran two on-line fundraising campaigns through Generosity by Indiegogo. The first, 'Monarchs for Moms' raised money to plant milkweed and native wildflowers on PIBO's McCormick Road Property on Pelee Island. The second, 'The Grass is Too Green Over the Septic Tank', successfully raised \$10,000 to partially cover the cost of purchasing and installing a new septic system at the PIBO field house.

Unfortunately, neither of these projects could proceed in 2018. PIBO's science officer position has been vacant since August and so there have not been any field staff available to proceed with creating monarch butterfly habitat; and the septic system has been put on hiatus due to the cost. PIBO hopes to have progress to report on both of these projects in 2019.

Field house maintenance

In October, PIBO's education coordinator Sarah Keating and assistant field biologist Sachi Schott applied bird-safe decals to some of the windows on the PIBO field house. The decals were left over from PIBO's education program, which installed them at a number of schools on the mainland to make windows more visible to birds in order to prevent bird collisions. For more details on this program, please see PIBO's 2018 Education Program Summary Report by Sarah Keating.

Great Canadian Birdathon

2018 was the third year in which PIBO's field supervisor Sumiko Onishi participated in the Great Canadian Birdathon (formerly the Baillie Birdathon). Over 7,000 people across Canada participate in the birdathon each year, either by sponsoring a birder or by agreeing to devote one day in May exclusively to birding. The money raised goes to Bird Studies Canada (BSC), Canada's leading science-based bird conservation organization.

Sumiko spent twenty-four hours from May 15th to May 16th, 2018 looking and listening for birds on Pelee Island. The following is taken from her post about her birdathon experience on the PIBO Facebook page:

"After a very busy weekend, on May 13th my friend suggested the next day was an ideal time to do my birdathon based on the radar showing a big movement of migratory birds. I looked at the weather forecast and the timing of precipitation and decided to start at 5:30 a.m. on May 15th.

The first bird I heard was a Song Sparrow which was nesting in our backyard. I started recording bird species along Stone Road, on which I have done breeding bird surveys for many years. It was very fun to hear the chorus of birds and the slow crescendo around the alvar where numerous Swainson's and Gray-cheeked Thrushes were in the morning. From 6 to 10 a.m. I was at the banding station and kept busy banding with my co-worker. We had to open and close the nets due to on and off rain which didn't give us much time to focus on observation, although we noticed there were lots of different species singing. We decided to close the nets around 10 a.m. and I kept counting birds at Fish Point. At the west beach there was a Northern Mockingbird dancing (shrugging his shoulders!), but not many waterfowl except lots of Red-breasted Mergansers. Next, I went to check the north side. A White-eyed Vireo along the road to the lighthouse point trail was nice to see. Unfortunately I didn't see many raptors except Cooper's Hawk calling at red cedar trail - Bald Eagle and Red-tailed Hawks were not observed on the day.

After I recorded 90 species it became more challenge to get additional species in the late afternoon. I took my bicycle along Stone road and the East-west road again. On the way I had a chance to chat with a couple of people who were curious about what I was doing. They cheered me up! Before sunset I went to the field on Henderson to count shorebirds. There were yellowlegs, plovers, Least Sandpipers, and Dunlins. It was very nice to see the shorebirds fluttering and quickly turning in in the air.



Brown Thrasher. Photo by Sumiko Onishi.

Toward the end of daytime birding I heard my friend saw a Harris's Sparrow. So, I visited him and had a chance to see the big sparrow for the first time in my life! Although it wasn't quite as exciting as I expected. Maybe because I was already told which species was there compared to identifying species one by one on my own. Anyway, it was very nice to add one totally new species for me on my count. After sunset I took my bicycle to Stone Road twice and heard a couple of Eastern Screech Owls, but not Great Horned Owl. Next morning at 4:30 a.m I took my bicycle one more time and went along Stone Road to East West Road in pitch dark. On the way back home when the sky became slightly light — birds were slowly waking up and starting to sing — there were two Great Horned Owls calling! This was the end of my birdathon!!

I would like to say a big thanks to Graeme who came out to share my birding, my co-workers Patrick and Connor who lent me a scope and came out to see some shorebirds, some islanders and visitors who stopped by and cheered me up, my friend Rob who gave me good advice to choose the day and showed me a new species, and Paul Jones who kindly sponsored my birdathon and donated a hundred dollars prior to the day with the expectation that I would record at least 100 species. I recorded a total of 116 species!!"

TABLE 25 – SPECIES AND FORMS RECORDED BY SUMIKO ONISHI DURING THE 2018 BAILLIE BIRDATHON

Common Loon American Crow
Horned Grebe Horned Lark
Pied-billed Grebe Purple Martin
Double-crested Cormorant Tree Swallow
Great Blue Heron Barn Swallow

Great Egret Black-capped Chickadee
Green Heron White-breasted Nuthatch

Turkey Vulture Carolina Wren Mute Swan House Wren

Canada Goose Golden-crowned Kinglet
Wood Duck Ruby-crowned Kinglet
Mallard Blue-gray Gnatcatcher
Red-breasted Merganser Eastern Bluebird
Osprey American Robin
Cooper's Hawk Wood Thrush

Ring-necked Pheasant Veery

Wild Turkey Swainson's Thrush Black-bellied Plover Gray-cheeked Thrush

Killdeer Gray Catbird

Lesser Yellowlegs

Solitary Sandpiper

Willet

Ruddy Turnstone

Dunlin

Northern Mockingbird

Brown Thrasher

European Starling

Cedar Waxwing

Northern Parula

Dunlin Northern Parula
Least Sandpiper Tennessee Warbler
American Woodcock Yellow Warbler

Ring-billed Gull Chestnut-sided Warbler
Herring Gull Magnolia Warbler
Great Black-backed Gull Cape May Warbler

Common TernBlack-throated Blue WarblerForester's TernBlackburnian WarblerMourning DoveYellow-rumped WarblerYellow-billed CuckooBlack-throated Green Warbler

Great Horned Owl Western Palm Warbler
Eastern Screech-owl Bay-breasted Warbler
Chimney Swift Blackpoll Warbler
Ruby-throated Hummingbird Black-and-white Warbler

Red-bellied Woodpecker American Redstart

Downy Woodpecker Ovenbird

Yellow-shafted Flicker

Eastern Wood-Pewee

Yellow-bellied Flycatcher

Least Flycatcher

Eastern Phoebe

Great Crested Flycatcher

Eastern Kingbird

Northern Waterthrush

Mourning Warbler

Common Yellowthroat

Wilson's Warbler

Canada Warbler

Scarlet Tanager

Northern Cardinal

Red-eyed Vireo
Rose-breasted Grosbeak
Warbling Vireo
Indigo Bunting
Philadelphia Vireo
Field Sparrow
White-eyed Vireo
Chipping Sparrow
Blue Jay
Savannah Sparrow

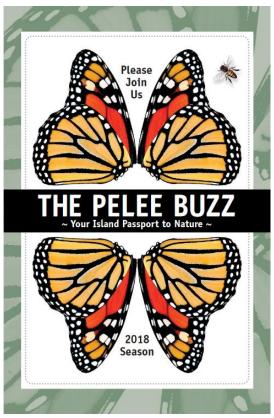
Harris's Sparrow White-throated Sparrow White-crowned Sparrow Song Sparrow Lincoln's Sparrow Swamp Sparrow Bobolink Brown-headed Cowbird Red-winged Blackbird Common Grackle Baltimore Oriole House Finch American Goldfinch House Sparrow



Yellow-rumped Warbler. Photo by Sumiko Onishi.

Media Mentions

In 2018, the Nature on Pelee Group, a group of islanders interested in promoting Pelee Island's natural history, put together a pamphlet highlighting nature programs and events taking place on Pelee Island. 'The Pelee Buzz: Your Island Passport to Nature – 2018 Season' included information on PIBO's migration monitoring programs and public owling nights, including dates and times, and helped direct more visitors to the PIBO banding station at Fish Point.



'The Pelee Buzz' provided publicity for and raised awareness of PIBO's migration monitoring programs.

The Music and Migration concert, a collaboration between the Windsor Symphony Orchestra and PIBO's education coordinator Sarah Keating to raise awareness of PIBO's research and education programs, was covered by local news organisations in Windsor:

http://eyesonwindsor.com/entertainment-news/wso-entertained-bird-enthusiasts-for-pelee-island-bird-observatory-awareness/

https://windsorstar.com/news/local-news/pelee-island-bird-observatory-windsor-symphony-orchestra-put-on-concert-for-the-birds

And PIBO's 2018 Windsor fundraising dinner was promoted in a profile piece about Margaret Atwood:

https://windsorstar.com/news/local-news/atwoods-insane-life-thanks-to-new-tv-shows-still-includes-pelee-island

Heritage Centre Exhibit

In 2018, PIBO's exhibit in the Pelee Island Heritage Centre received an upgrade in the form of four new second-hand display cases. Sourced by Jon Hettinga, the display cases originally belonged to a jewellery store and have clear glass, locks, and fluorescent lights. It is hoped that these cases will provide greater protection and a more attractive setting for the study skins and taxidermy mounts on display. Currently the lights are not hooked up, but plans are afoot to purchase the extension cord and power bar that are needed and they should be operational in 2019.

Having four display cases gives PIBO room to expand the Heritage Centre display. Two of the cases currently contain items from PIBO's permanent exhibit, and two are being reserved for a temporary exhibit which being put together by PIBO's assistant field biologist Sachi Schott. This new exhibit will be ready to be installed in 2019, and will be changed each year in April ahead of the annual Spring Song weekend. Having new material and information, including colouring sheets and other hand-outs, will help to draw visitors into the Heritage Centre and encourage interest in PIBO's field work. The 2019 temporary exhibit will be on band encounters and recoveries, and will draw on data from PIBO's migration monitoring activities to explain how bird banding and band recoveries help researchers answer questions about bird migration and longevity.



New display cases sourced by John Hettinga will provide more space and a more professional layout for the PIBO exhibit at the Pelee Island Heritage Centre. Photo by Sachi Schott.

As the PIBO exhibit is located in a back room of the Heritage Centre, it is important that visitors be made aware of its presence so that they can find it easily. To that end, PIBO's assistant field biologist Sachi Schott has painted a sign that will be hung over the doorway to the exhibit. At the time of writing it had not yet been installed, but it will be put in place before the Heritage Centre opens again in 2019.

Bird Rescues

While PIBO's mandate is the conservation and study of birds, people occasionally reach out seeking aid for a bird in distress. PIBO staff do not have the formal training or resources for wildlife rehabilitation work, but in such cases do their best to see that the bird gets the help it needs.

On May 18th, PIBO was visited by Jon and Hanne Hettinga, two much-valued PIBO supporters who were part of the team that built PIBO's new banding station in 2016 and 2017. They had seen a Great-horned Owl on the ground next to the Fish Point trail, and were worried that it was in distress. PIBO's field supervisor Sumiko Onishi accompanied them back to the owl and found it lying on a boggy patch of ground. It did not offer any resistance when she wrapped it in a towel and picked it up, and it remained quiet and docile while she brought it back to the PIBO cottage. In view of this unusual behaviour, it was decided that the owl should be taken to the Wings Wildlife Rehabilitation Centre in Amherstberg, an organization that PIBO has sent injured birds to before. Through the Pelee Island Quarry Farmer's Market, PIBO made contact with Patricia Simone and Anna Morle, who generously volunteered to take the bird to the mainland with them. They saw it safely delivered to the rehabilitation centre later that day.



Great Horned Owl. Photo by Patricia Simone.

Sadly, in spite of the best efforts of the staff at Wings, the owl did not survive overnight. It was a young bird and the rehab staff speculate that may have starved through its lack of hunting experience. PIBO extends its sincere thanks to everyone involved – Jon and Hanne Hettinga, Patricia Simone, Anna Morle, and the staff at the Wings Wildlife Rehabilitation Centre. While the outcome was not what anyone had hoped for, we are extremely grateful for all of their help and hard work on behalf of this beautiful bird.

2018 staff and volunteers

PIBO's core staff members remained the same in 2018, and were joined by some new faces and old friends in the spring season.



Education coordinator Sarah Keating (left) and executive director Suzanne Friemann (right) at the Chapter Two Brewery in Windsor, where PIBO hosted its Green Drinks events in 2018.

Suzanne Friemann continues as Executive Director.

Sumiko Onishi once again headed the field team as PIBO's Field Supervisor and Bander-in-Charge.

Sachi Schott assisted with field operations as the Assistant Field Biologist.

Sarah Keating returned as PIBO's indefatigable Education Coordinator.

Patrick Kramer resumed his position as PIBO's Science Officer in the spring of 2018, but left in August. At the time of writing, the Science Officer position remains unfilled.

Connor Hawey joined PIBO in the spring and summer as 2018's summer student. A keen and enthusiastic birder, he assisted with PIBO's migration monitoring activities, the breeding bird censuses, and the Marsh Monitoring Programs.

Several volunteers joined in to help out at PIBO's banding station in the spring of 2018. **Heather McBrien** is a former volunteer who we were very happy to see return. **Hanna and Maya Mittelstaedt** are sisters whose family visits Pelee Island and PIBO each year. This was their first time volunteering, and we hope to see them back again in future years. Hanna is a talented photographer, and some of her photographs grace this report.

Acknowledgements

The Pelee Island Bird Observatory would like to thank Ontario Parks for their continued permission to use Fish Point Provincial Nature Reserve as our study site. We would also like to thank our major supporters:

Aaron Weir

Anna Porter

Owen Deutsch Trust
Allan Slaight

Palimpset Press
Balzac's Coffee Ltd

Pat Marshall

Bank of Montreal

Bird Studies Canada

Patrick Allen Martin

Catherine Prowse Paul Maranger
Chandisherry Foundation Penguin Random House

Cindy Termorshuizen

Cineplex Entertainment Inc.

Penny Kavanaugh

Peter and Denise Hrastovec

Colleen Peddie Phamous Characters Inc.

Conrad Black Philip Dyke

Ponna Haves

Donna Hayes Philip Slayton Eleanor Cook Phyllis McCrae

Graeme Gibson, Elder R.O. White Consultants Inc.
Halight Ltd Renee Trombley

Jacob Verey Richard Woodruff

Jacob Yerex Richard Woodruff
Janet Graybiel Rod Bell

John FairleyRosamond IveyJohn GruetznerSandy BourqueJonathan RodzikScotia BankKeri LevinskySheila Gregory

Labatt Brewing Co Ltd.

Lush Cosmetics

Sumiko Onishi

Lynn Baker TD Friends of the Environment Foundation

Margaret Atwood
The Anthropogene Project Ltd

Margaret Atwood The Anthropocene Project Ltd

Martin Kuhn University of Windsor Matthew Gibson Wayne Grady

Michael de Pencier Weir Foulds LLP
Mr. and Mrs. Delaney

We would also like to thank Madeleine Thien for being the guest of honour at PIBO's Windsor fundraising dinner and at the Pelee Island Heritage Center's Spring Song dinner and Jody Allair of Bird Studies Canada for donating the Prothonotary Warbler nest boxes.

A sincere thank you as well to our many individual donors, especially those who attended the Windsor and Toronto dinners, friends, supporters, partners, and PIBO's hard-working volunteers.