

2016 Year-end Report

Pelee Island Bird Observatory



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Pelee Island Bird Observatory

2016

General Information

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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

General Manager – Suzanne Friemann

Field Supervisor and Bander-in-Charge – Sumiko Onishi

Education Coordinator – Sarah Keating

Assistant Field Biologist – Sachi Schott

Founder – G. Gibson the Younger

Founding Patrons – Margaret Atwood and Mysterious Starling Inc.

Cover photo: Turkey Vultures at Fish Point Provincial Nature Reserve by Sachi Schott

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Executive Summary

The Pelee Island Bird Observatory completed a variety of research, education and outreach programs in 2016. Research studies completed by PIBO included the standardized documentation of migratory birds at Fish Point Provincial Nature Reserve; breeding bird surveys on properties under the stewardship of the Ministry of Natural Resources and the Nature Conservancy of Canada; Northern Saw-whet Owl population sampling; Species at Risk monitoring; and monarch butterfly migration counts.

As part of PIBO's commitment to the Canadian Migration Monitoring Network (CMMN), five participants conducted 179 mornings of daily migration monitoring and constant-effort bird banding from April to November. 193 species were documented as part of PIBO's official surveys at Fish Point during the spring and fall, and 2,584 birds of 80 species were captured. 2016 was the fourteenth year of migration monitoring at Fish Point, and it was made memorable by news from the Canadian Bird Banding Office about several band encounters, including the first time that a bird banded by PIBO has been recaptured outside of North America.

In between the spring and fall migration seasons, two staff conducted breeding bird surveys at Fish Point Provincial Nature Reserve and on Nature Conservancy of Canada (NCC) property along East-West Road. The study sites were visited ten times over the season and at each visit PIBO staff members spent three to four hours searching for nests and documenting bird activity. 128 breeding territories and 28 species were mapped during the surveys. Additional activities included searching for and monitoring some of the many species at risk known to nest on the island, including Prothonotary Warblers and Yellow-breasted Chats; marsh bird surveys; and a Piping Plover census.

PIBO's education programs reached an unprecedented number of students this year thanks to the outstanding efforts of Sarah Keating, PIBO's education coordinator in 2016. Closer to home, staff hosted visitors at the PIBO field house on Stone Road during the annual PIBO spring picnic and during three public owling nights in the fall, when PIBO invited islanders and cottagers over for an evening of light refreshments and Northern Saw-whet owl banding. The human participants enjoyed both events but very few owls put in an appearance at the owling nights due to the unseasonably warm weather.

Online, PIBO's conservation message reached audiences around the world through the bi-monthly migration updates, the PIBO website, PIBO's Facebook page and Twitter feed, and the Auspice newsletter.

The work accomplished this year was made possible thanks to the critical help of many organizations and individuals (please see Acknowledgements section). 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	1
Executive Summary.....	2
Tables	5
Introduction	6
Section One – Research	7
Songbird migration monitoring.....	7
Spring migration summary.....	8
Fall migration summary	11
2016 migration monitoring summary	14
Notable band encounters	19
Unusual birds	20
Northern Saw-whet Owl Banding	20
Breeding Bird Census	21
Marsh Monitoring Program	25
Species at Risk.....	26
2016 International Piping Plover Census	28
Monarch butterfly counts	28
American White Pelicans	30
Data requests.....	31
Section Two – Education and Outreach.....	32
Introduction	32
In-class programming.....	32
On-line video conferences	34
Education programs on Pelee Island	35
PIBO picnic	35
Public Owling Nights	36
PIBO in the press.....	36
Section Three – Other News	37
Banding station rebuild.....	37
Windsor fundraiser	38
Great Canadian Birdathon	39
Great Canadian Shoreline Cleanup	43

Christmas Bird Count 43

Staff news..... 43

Acknowledgements..... 44

Tables

Table 1 – Migration Monitoring (Spring)	p. 10
Table 2 – Migration Monitoring (Fall)	p. 13
Table 3 – Combined Spring and Fall Migration Monitoring in 2016	p. 15
Table 4 – Species and forms recorded at Fish Point by PIBO staff in 2016	pp. 16-17
Table 5 – Birds captured at Fish Point in 2016	p. 18
Table 6 – Northern Saw-whet Owl banding	p. 20
Table 7 – East-west (formerly Red Cedar North) BBC06	p. 23
Table 8 – Fish Point BBC08	p. 24
Table 9 – Marsh Monitoring Program	p. 25
Table 10 – Species at Risk	p. 27
Table 11 – International Piping Plover Census	p. 28
Table 12 – Monarch butterfly counts at Fish Point in 2016	p. 29
Table 13 – PIBO activity sets for in-class presentations	p. 33
Table 14 – Birds recorded by Sumiko Onishi during the Great Canadian Birdathon May 11 th – May 12 th	pp.41-42

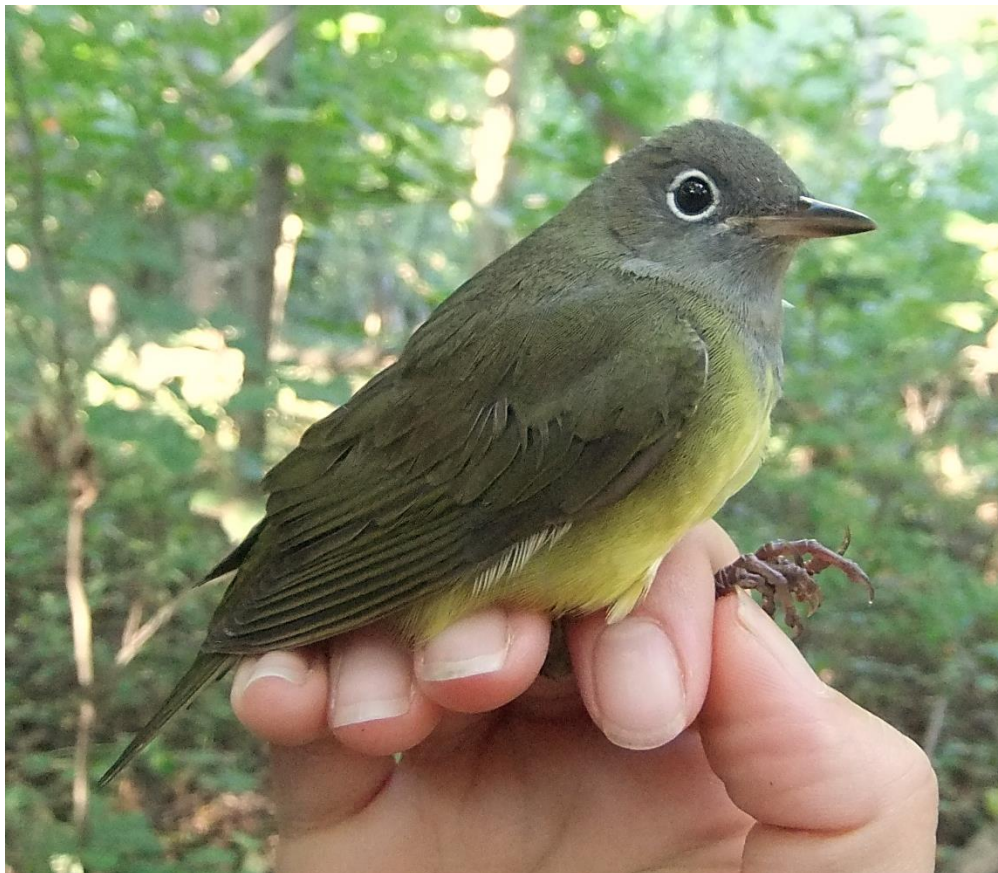
Introduction

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

Section One presents the results of the 2016 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 graphs are used to illustrate noteworthy results and observations. This section also includes an edited version of the spring and fall bi-monthly migration updates that are posted on PIBO's website.

Section Two is a report of PIBO's education and community outreach programs in 2016. Details include information about in-class presentations at local mainland schools, online video conferences, visitors to the Fish Point banding station, PIBO's public owling nights and the annual PIBO picnic.

Section Three highlights other developments at PIBO in 2016, including fundraising efforts and the building of a new banding station at Fish Point.



Connecticut Warbler. Photo by Sachi Schott.

Section One – Research

Songbird migration monitoring

Migration monitoring is a standardized program of sampling migrants by capture or observation. Repeated daily and annually, it has the capacity to contribute scientific data that can further the understanding of bird migration ecology and detect changes in the population trends of migrating 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 difficult to survey these species outside of the migration season. Pelee Island is located at the junction of two pathways used by migratory species (the Atlantic and Mississippi flyways) and so the Pelee Island Bird Observatory is ideally located to monitor bird species that migrate through the Western Lake Erie Basin.



Juvenile Bald Eagle. Photo by Sumiko Onishi.

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.

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 15th, 2016, for a total of 179 coverage days. Six participants helped to record 193 species at Fish Point during PIBO's standard count period. 2,585 birds of 85 species were banded over 4,131.22 net-hours, for an average catch rate of 0.6255 birds/net-hour.

Spring migration summary



April at Fish Point. Photo by Sumiko Onishi.

PIBO's 14th migration research season began on April 1st under cloudy skies accompanied by strong southwest winds. 34 species were recorded on the first census of the year, including many waterfowl (Pied-billed Grebes, American Coots, Northern Shovelers, Blue-winged Teals, Ring-necked Ducks, and Hooded Mergansers among them), small groups of Golden-crowned Kinglets and Brown Creepers, and a couple of White-breasted Nuthatches. A cold snap on the 3rd caused the number of songbirds present to decline, but the 4th was active. 41 species were noted on census, including 10 Eastern Phoebe and 250 Tree Swallows.

The winds eased up on April 5th but temperatures remained below freezing. A large group of 380 Bonaparte's Gulls was recorded on census along with the first Yellow-bellied Sapsucker and Hermit Thrush of the year. Hundreds of Red-winged Blackbirds, Common Grackles and Brown-headed Cowbirds were noted in the count area, including some males who were establishing summer territories. Thousands of Tree Swallows were recorded on the island on April 8th, including 90 who were recorded as part of the morning census.

New arrivals appeared almost daily from April 11th to 13th as they were given a push by the south winds, but activity tapered off when the winds shifted to the north-east. Small groups of Blue and Green Teal, Gadwall, Ruddy Ducks and Northern Shovelers remained active throughout the week.

PIBO's bird banding program began on April 15th. 17 birds of seven species were captured, most of them Golden-crowned Kinglets. Two singing Pine Warblers in the netting area and an early Baltimore Oriole on the 16th were new for the season. More species were observed and banded over the next few days despite the northeast winds – a mix of kinglets, Hermit Thrushes, Winter Wrens and White-throated Sparrows, along with the first Merlin and the first Sharp-shinned Hawk of the year.

By the end of April the transition into the breeding season was well underway. The last Golden-crowned Kinglets were recorded on April 23rd and sightings of Slate-coloured Juncos became fewer. Winter Wrens

were replaced by House Wrens, and resident birds like the American Robins and Black-capped Chickadees began building their nests. Winds remained from the north-east, preventing any strong push of migrants from coming through, but new species trickled in regardless. A storm front overnight on April 24th resulted in some of the busiest days in the netting area, bringing in the first Black-throated Green Warblers, Western Palm Warblers, Nashville Warblers, Great Crested Flycatcher and Red-headed Woodpecker. The migration of Yellow-rumped Warblers reached a peak on the 27th, with 96 being counted on census and in the netting area.

All six of the swallow species that regularly breed in Ontario had been seen at Fish Point by the end of April. Bank, Cliff and Rough-winged Swallows were present in small numbers, but over twenty Barn Swallows were seen each day, and Purple Martins were busy investigating the Purple Martin houses all over the island.

May began quietly, without any large-scale movements of migrants, as the winds remained predominantly out of the north and east. New species were recorded almost every day, but not in appreciable numbers. Activity at the nets was very sparse. An average of ten birds were banded per day including the first ever spring capture of a Sharp-shinned Hawk, which are more usually seen on the island during fall migration. But, despite the sustained northeast winds, the first big wave of migrants arrived on May 11th. Perhaps the drive to breed finally overrode the desire to wait for wind conditions to improve. 139 birds were banded, including 117 individuals of 19 warbler species. Nashville Warblers were the most abundant, followed by Chestnut-sided and Magnolia Warblers. Two adult male Golden-winged Warblers in breeding plumage were also captured. Cape May, Blackburnian and Bay-breasted Warblers and American Redstarts were all new for the season.



Worm-eating Warbler. Photo by Sumiko Onishi.

A high volume of birds was captured over the next several days, two thirds of them wood warblers. Tennessee Warblers eventually overtook Nashville Warblers as the most numerous species. The most unusual bird captured was a Worm-eating Warbler, a ground nester that breeds in south-eastern Ohio and Pennsylvania and only rarely makes it across the lake into Ontario. A Prothonotary Warbler was seen and heard on the 16th but did not remain in the area, and no further breeding activity was observed for that species.

The spring migration was winding down by the last weeks of May. End-of-season migrants like vireos and flycatchers were more in evidence than the wood warblers, and most warblers encountered were residents. Some Yellow Warblers were recaptured five or six times on their way to and from their nests at Fish Point. Eastern Wood-Pewee, Great Crested Flycatcher, Olive-sided Flycatcher and Eastern Kingbird were all recorded between May 21st and 30th, and a single Acadian Flycatcher was heard singing on the 29th. A family of three young Eastern Screech Owls took to hanging around the nets, napping in the tangles of grape vines and startling banders on their way to open nets first thing in the morning.

May 31st was the final day of mist-netting. Only six individuals were banded, but an adult male Summer Tanager provided some excitement on census. The daily census continued through the first ten days of June, with species totals of between 25 and 35 on most days, depending on the weather. Nearly all the birds recorded were local breeders. A few late migrants, such as an Ovenbird on June 1st and 2nd, and an Acadian Flycatcher on the 2nd, were also seen.

Even as these last few migratory birds were moving through, fledglings began to appear from early nesters like the American Robins and Canada Geese. Families of Wood Ducks were seen on Fox Pond on June 6th and 7th, adding to the growing list of confirmed breeders. With the presence of these young-of-the-year to spur them on, PIBO staff wrapped up the spring migration monitoring program on June 10th and prepared to move on to the breeding bird censuses.

Table 1 - Migration Monitoring (Spring)			
Observers	Sumiko Onishi, Garth Casbourn, Graeme C. Gibson		
# of Coverage Days	72		
Birds captured*	847	Species captured*	66
Net hours	1532.83	Birds/net hour	0.553
Notes	First Sharp-shinned Hawk banded by PIBO in the spring		
*combines banding, retrap and capture data			

The spring this year was rather unusual, with winter weather continuing until late in the season. Many species appeared later than usual, and with May came pouring rain that created difficult conditions on census and in the netting area. The trail at Fish Point was blocked at times by trees that had fallen due to the rough weather, and more trees fell in and around the netting area. The insects were also late in arriving: significant numbers of mosquitoes were not present in the netting area until late May, which may have had an impact on the numbers of aerial insectivores in the area.

735 birds of 62 species were banded at Fish Point in the spring of 2016. Including recaptured birds and birds that were captured and released without being banded, 847 birds of 66 species made their way into PIBO's mist-nets over 49 days of banding. The overall catch rate was 0.553 birds/net hour with a total of 1532.83 net hours thanks to the combined efforts of Sumiko Onishi, Garth Casbourn, Rob Tymstra and Graeme C. Gibson.



Suzanne Friemann, Garth Casbourn, Sumiko Onishi and Graeme C. Gibson. Photo by Jeff Hasulo.

Fall migration summary

PIBO's fall migration coverage began at Fish Point Provincial Nature Reserve on August 1st. Shorebirds and a few early long distance passerine migrants like swallows, vireos and flycatchers were recorded at the station from the 1st to the 20th along with a few early warbler species. South winds on August 4th and 12th seemed to stimulate the Purple Martins, Barn Swallows and Tree Swallows, as large flights of them were seen heading south off the tip of Fish Point.

Netting operations began on August 16th. The first significant pulse of autumn migrants reached Pelee Island on August 26th and included a number of new arrivals such as Bay-breasted Warbler, Golden-winged Warbler, and an early Yellow-rumped Warbler. 61 species from a wide range of families were recorded on August 30th, from American White Pelicans and Soras to Eastern Screech Owls and Rose-breasted Grosbeaks, plus one Connecticut Warbler.

September kicked off with a busy few days of banding as north-eastern winds helped to push migrants south. 120 birds were banded on the 1st, and 92 on September 2nd, the majority of which were Swainson's Thrushes, Veerys, Magnolia Warblers and American Redstarts. From there the number of birds banded declined as the winds shifted back to the south. Banding remained slow until September 9th, when north winds early in the morning brought large numbers of thrushes into the netting area. They could be heard swooping in to land in the dogwood trees even before the sun had risen, and by the end of the morning 100 birds had been banded, most of them Swainson's Thrushes. The following day brought rain, and from then on bird activity became more consistent, with banding totals of between 30 and 50 birds. Mixed flocks of Blackpoll Warblers, Black-throated Green Warblers, Wilson's Warblers and other warbler species passed through the netting area and were often seen on census around Fox Pond.

The beginning of September also marked the beginning of raptor migration. A Red-tailed Hawk flew by on September 2nd, and the first Northern Harrier was seen on census on the 3rd. From September 12th onwards unbanded Sharp-shinned Hawks were captured every day as they passed through the island. September 4th brought the first Merlin of the season and an American Kestrel who was observed watching the songbirds bathing at the edge of Fox Pond. The presence of so many birds of prey had an inhibiting effect on the thrushes and warblers, who kept a low profile to avoid becoming a morning snack. Blackpoll Warblers and Swainson's Thrushes continued to predominate, with occasional sightings and captures of Veerys, Black-Throated Blue Warblers, and Magnolia Warblers. Bird activity slowed considerably until only 12 birds were banded on the 20th, all of them thrushes.

North winds arrived on September 24th and the banding station was kept busy all morning, with 117 birds banded of 20 different species. Most of the birds captured were warblers, including 27 Magnolia Warblers, 12 American Redstarts and 9 Black-and-white Warblers. The first Blue-headed Vireo, Brown Creeper and Golden-crowned Kinglet of the season were banded as well. The influx of warblers didn't last long. By the next day the wind had shifted to the east and once again Swainson's Thrushes and Grey-cheeked Thrushes dominated the daily totals.

October began with overcast skies and rainy weather. Scattered showers made it difficult for the nets to be opened for the whole 6-hour banding period and very few birds were captured. Some species were still moving through, especially diurnal migrants: large flocks of Blue Jays, mixed flocks of blackbird species and groups of American Robins were seen streaming by overhead. Only a single bird (a Winter Wren) was captured on October 7th but during census the tip was crowded with Double-crested Cormorants, American White Pelicans, assorted gull species, nineteen Turkey Vultures, and two large female Peregrine Falcons, whose presence created an uproar among the flocks of Blue Jays and American Crows.



Peregrine Falcon at Fish Point. Photo by Sachi Schott.

The birds became more active on October 8th as the temperature dropped. Large flocks of Golden- and Ruby-crowned Kinglets were seen moving through the trees with some Brown Creepers mixed in with them. Groups of White-throated Sparrows could be heard chipping to one another as they foraged amongst the leaf litter in the netting area, and the first White-crowned Sparrows of the season were seen on October 9th. While most of the warblers had flown south by the second half of October, a few individuals lingered on. An Ovenbird and a Black-throated Blue Warbler were banded on October 14th, and a Chestnut-sided Warbler was banded on the 15th. The first American Tree Sparrow of the season was sighted on October 20th, and a single Snow Bunting was seen on census on the 23rd. In the netting area, a Yellow-billed Cuckoo was unexpectedly observed and banded on October 18th. Generally the cuckoos have left the island by the first week in October, and prior to this the latest that a Yellow-billed Cuckoo had been banded by PIBO was August 29th, in 2013.

Out on the lake, things remained quiet. Even as late as October 22nd there was not a lot of waterfowl activity aside from a few Scaups spp. and the first Bufflehead of the season, which was spotted on the 23rd. It wasn't until almost the very end of the month that the waterfowl migration began to pick up. 39 Horned Grebes were seen on October 28th and over 200 Red-breasted Mergansers were counted on the 30th, while the first Hooded Mergansers of the season were seen on the 31st.

October 25th began with a surprise for PIBO's field staff – the capture of a juvenile Red-shouldered Hawk, the first one to ever be banded at the station. Fortunately PIBO keeps a variety of sizes of bird bands on hand for just such an occasion, and the Red-shouldered Hawk itself was very cooperative during the banding process.

Bird banding at Fish Point continued until November 4th, with a few Golden-crowned Kinglets, Hermit Thrushes and Winter Wrens captured. The census continued until November 15th and racked up large numbers of migrating blackbirds and waterfowl. Common Grackles, Brown-headed Cowbirds, Red-winged Blackbirds and European Starlings were all seen in enormous flocks of many thousands of birds, and their squeaking, honking, chattering calls formed a distinctive aural backdrop to the morning census. One Tree Swallow was seen flying over Fox Pond on November 9th, scooping up the last midges and mosquitoes of the year.

The last census for 2016 took place on November 15th. Out on the lake, groups of Red-breasted Mergansers, Horned Grebes and Buffleheads bobbed up and down on the gentle swell created by the southwest winds. A few Golden-crowned Kinglets, one Ruby-crowned Kinglet, and the usual flocks of European Starlings and Red-winged Blackbirds were seen, along with some American Robins and Myrtle Warblers feeding at Fox Pond. It was a calm, sunny morning, and a beautiful end to another successful fall season.

Table 2 - Migration Monitoring Fall			
Observers	Sumiko Onishi, Sachi Schott, Graeme C. Gibson, Rob Tymstra, Suzanne Friemann		
# of Coverage Days	107		
Birds captured*	1737	Species captured*	67
Net hours	2598.39	Birds/net hour	0.668
Notes	First Red-shouldered Hawk banded by PIBO		
*combines banding, retrap and capture data			

The unusually mild weather this fall caused some differences in the migration season compared to previous years. Migrating waterfowl took longer to appear on the lake, and birds like the Yellow-billed Cuckoo lingered on Pelee Island until much later than usual. Also notable was the fact that September was the busiest month of the fall season for bird banding, with several days where over a hundred birds were banded. PIBO generally bands the highest numbers of birds in October, but this year that month was marked by consistent southerly winds that probably prevented many birds from migrating when they usually would have. Nevertheless, while most birds appeared to take longer than usual to start heading south, the migration season itself did not seem any more drawn-out than usual. By the time the nets closed on November 4th and the census ended on November 15th Fish Point was mostly quiet, with only a few late migrants and resident birds seen out on the lake and around Fox Pond.

1,671 birds of 64 species were banded at Fish Point in the fall of 2016. Including recaptured birds and birds that were captured and released without being banded, 1,737 birds of 67 species made their way into PIBO's mist-nets over 107 days of banding. The overall catch rate was 0.668 birds/net hour with a total of 2598.39 net hours thanks to the combined efforts of Sumiko Onishi, Sachi Schott, Rob Tymstra, Suzanne Friemann and Graeme C. Gibson.

Special thanks goes to Rob Tymstra for driving PIBO staff to and from Fish Point when their usual means of transportation was required elsewhere.

2016 migration monitoring summary

PIBO's migration coverage at Fish Point Provincial Nature Reserve in 2016 was excellent. Net hours and the number of coverage days compare favourably with previous years, which is important for the standardization of PIBO's data. While contrary winds often retarded bird migration, such lulls were almost invariably followed by a good push of migrants once the weather improved, leading to a noticeably increase in the diversity and abundance of the birds seen and captured at Fish Point. Overall though, songbirds came through the island in a trickle, not a flood. Species diversity was good but abundance was poor, with only one or two individuals of most species being seen on a given day. The unseasonable weather caused migrants to be slow coming and going: in the spring, low temperatures and wet weather retarded migration, and in the fall very dry conditions and continued warm weather did the same.

PIBO received news of several interesting band encounters from the Bird Banding Office in 2016, including the first record of a bird banded by PIBO being recaptured outside of North America. For details and further information, please see Section One – 'Notable band encounters'.

As they did last year, coverage totals in 2016 fell below the long-term average at the station. Fewer birds were banded and the catch rate was lower than in 2015, although diversity (measured as the number of species recorded in the netting area and on census) was close to what it has been for the past two years.

PIBO banded one new species in 2016 – a Red-shouldered Hawk.

Table 3 - Combined Spring and Fall Migration Monitoring in 2016								
Description	2016	2015	2014	2013	2012	2011	2010	2009
Spring coverage	Apr 1 - Jun 10	Apr 2 - Jun 9	Apr 1 - Jun 10	Apr 1 - Jun 6	Apr 4 - Jun 10	Apr 4 - Jun 8	Apr 2 - Jun 10	Apr 1 - Jun 10
Fall coverage	Aug 1 - Nov 15	Aug 1 - Nov 15	Aug 1 - Nov 15	Aug 1 - Nov 15	Aug 1 - Nov 15	Aug 1 - Nov 15	Aug 1 - Nov 15	Aug 1 - Nov 15
Coverage days	179	176	178	173	174	173	177	178
Spring netting period	Apr 15 - Jun 2	Apr 20 - Jun 3	Apr 18 - Jun 2	Apr 13 - Jun 15	Apr 13 - Jun 15	Apr 12 - May 31	Apr 2 - May 28	Apr 2 - May 24
Fall netting period	Aug 17 - Nov 4	Aug 15 - Nov 8	Aug 10 - Nov 8	Aug 15 - Nov 8	Aug 13 - Nov 8	Aug 11 - Nov 15	Aug 4 - Nov 10	Aug 5 - Nov 11
Netting days	125	129	146	142	123	119	139	134
Birds banded*	2584	2493	2461	2519	3772	2404	3498	3296
Net hours	4131	3652	4497	4209	4300	3356	4280	4643
Bird/net hour	0.62	0.68	0.59	0.60	0.88	0.72	0.82	0.71
Species banded	77	76	70	82	81	78	85	88
Recaptures	95	63	106	104	130	103	126	136
Species recaptured	19	13	17	19	25	24	23	28
Species recorded	193	194	197	200	201	203	193	198
*includes birds banded, recaptured, and captured and released without being banded								

The necessity of travelling to the mainland to pick up supplies and run errands caused PIBO to miss one day of migration monitoring in the spring and three days of banding in the fall (April 5th and August 21st to 23rd). Rob Tymstra was hired to conduct the census on these days. PIBO's lack of a station vehicle after the break-down of the previous field vehicle in the spring also created complications, in one case obliging a PIBO staff member to bicycle to Fish Point early in the morning to conduct the census. No census was carried out on November 14th as the car PIBO habitually used was needed for a trip to the mainland, and it was late enough in the season that the census was not considered necessary.

PIBO's mist netting program was occasionally obstructed by equipment failures at various times during the year. Net 6 was not set up until April 19th, missing four days of banding, because of a downed tree in the netting area. In the fall Net 3 was found to be so worn as to be unusable. Fortunately one of PIBO's old nets could be repaired and was pressed into service on September 10th. New nets were ordered but the shipment was not received until the end of the fall season – instead, they will be much appreciated next spring. There are at least two other nets that will require replacing within the next year or two.

The netting area at Fish Point has become increasingly obstructed over recent years by downed trees. Aside from the one that partially destroyed PIBO's banding station several years ago, seven other trees have fallen across the net lanes that are used by PIBO staff as they check the station's mist nets each morning. As Fish Point Provincial Nature Reserve is under the jurisdiction of Ontario Parks, PIBO cannot remove these trees themselves or hire a professional to do the work. Ontario Parks has been contacted regarding this necessary piece of station maintenance, but had not yet responded at the time when this report was being written.

Table 4 - Species and forms recorded at Fish Point by PIBO staff in 2016

Common Loon	Killdeer	"Traill's" Flycatcher
Pied-billed Grebe	Greater Yellowlegs	Least Flycatcher
Horned Grebe	Lesser Yellowlegs	Eastern Phoebe
American White Pelican	Solitary Sandpiper	Great Crested Flycatcher*
Double-crested Cormorant	Spotted Sandpiper	Eastern Kingbird
Great Blue Heron	Willet	Red-eyed Vireo*
Great Egret	Hudsonian Godwit	Warbling Vireo
Cattle Egret	Ruddy Turnstone	Philadelphia Vireo
Green Heron	Sanderling	Yellow-throated Vireo
Turkey Vulture	Dunlin	Blue-headed Vireo
Canada Goose*	Baird's Sandpiper	Blue Jay*
Wood Duck*	Semipalmated Sandpiper	American Crow*
Mallard*	Least Sandpiper	Horned Lark
Gadwall	Dowitcher spp.	Purple Martin*
American Widgeon	American Woodcock	N. Rough-winged Swallow
Northern Shoveler	Wilson's Snipe	Bank Swallow
Blue-winged Teal	Bonaparte's Gull	Tree Swallow*
Am. Green-winged Teal	Ring-billed Gull	Cliff Swallow
Redhead	Herring Gull	Barn Swallow*
Lesser Scaup	Great Black-backed Gull	Black-capped Chickadee*
Scaup spp.	Caspian Tern	Red-breasted Nuthatch
Ring-necked Duck	Common Tern	White-breasted Nuthatch
Bufflehead	Forster's Tern	Brown Creeper*
Common Goldeneye	Mourning Dove*	Carolina Wren
Hooded Merganser	Rock Dove	House Wren*
Red-breasted Merganser	Yellow-billed Cuckoo*	Winter Wren
Ruddy Duck	Black-billed Cuckoo	Marsh Wren
Osprey	Great Horned Owl	Golden-crowned Kinglet
Golden Eagle	Eastern Screech-owl*	Ruby-crowned Kinglet
Bald Eagle	Whip-poor-will	Blue-gray Gnatcatcher*
Northern Harrier	Common Nighthawk	Eastern Bluebird
Sharp-shinned Hawk	Chimney Swift	American Robin*
Cooper's Hawk	Ruby-throated	Wood Thrush
Red-shouldered Hawk	Hummingbird*	Veery
Broad-winged Hawk	Belted Kingfisher	Swainson's Thrush
Red-tailed Hawk	Red-headed Woodpecker*	Gray-cheeked Thrush
American Kestrel	Red-bellied Woodpecker*	Hermit Thrush
Merlin	Downy Woodpecker*	Gray Catbird
Peregrine Falcon	Yellow-bellied Sapsucker	Northern Mockingbird
Ring-necked Pheasant	Yellow-shafted Flicker	Brown Thrasher
Wild Turkey*	Olive-sided Flycatcher	European Starling*
Sora	Eastern Wood-pewee*	American Pipit
American Coot	Yellow-bellied Flycatcher	Cedar Waxwing
Black-bellied Plover	Acadian Flycatcher*	Northern Parula
Semipalmated Plover	Alder Flycatcher	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
Western Palm Warbler
Pine Warbler
Bay-breasted Warbler
Blackpoll Warbler
Black-and-white Warbler
American Redstart
Ovenbird
Northern Waterthrush
Connecticut Warbler

Mourning Warbler
Prothonotary Warbler
Worm-eating Warbler
Common Yellowthroat
Wilson's Warbler
Canada Warbler
Hooded Warbler
Yellow-breasted Chat
Summer Tanager
Scarlet Tanager
Northern Cardinal*
Rose-breasted Grosbeak
Indigo Bunting*
Eastern Towhee
American Tree Sparrow
Field Sparrow
Chipping Sparrow
Savannah Sparrow
White-throated Sparrow
White-crowned Sparrow
Fox Sparrow
Song Sparrow

Lincoln's Sparrow
Swamp Sparrow
Dark-eyed Junco
Snow Bunting
Eastern Meadowlark
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 - 193 species & forms

**evidence that species bred
on Pelee Island in 2016*

Table 5 - Birds captured at Fish Point in 2016

Species	Captured*	Species	Captured*
Sharp-shinned Hawk	25	Nashville Warbler	96
Cooper's Hawk	1	Yellow Warbler	71
Red-shouldered Hawk	1	Chestnut-sided Warbler	34
Yellow-billed Cuckoo	1	Magnolia Warbler	213
Black-billed Cuckoo	1	Cape May Warbler	3
Eastern Screech-owl	1	Black-throated Blue Warbler	52
Ruby-throated Hummingbird	7	Blackburnian Warbler	14
Red-bellied Woodpecker	1	Yellow-rumped Warbler	57
Downy Woodpecker	23	Black-throated Green Warbler	8
Yellow-shafted Flicker	3	Western Palm Warbler	11
Eastern Wood-pewee	3	Bay-breasted Warbler	17
Yellow-bellied Flycatcher	20	Blackpoll Warbler	26
Acadian Flycatcher	1	Black-and-white Warbler	46
'Traill's' Flycatcher	5	American Redstart	128
Least Flycatcher	7	Ovenbird	85
Eastern Phoebe	1	Northern Waterthrush	23
Red-eyed Vireo	27	Connecticut Warbler	1
Warbling Vireo	1	Mourning Warbler	8
Philadelphia Vireo	8	Worm-eating Warbler	1
Blue-headed Vireo	16	Common Yellowthroat	20
Blue Jay	27	Wilson's Warbler	6
Black-capped Chickadee	21	Canada Warbler	18
Red-breasted Nuthatch	10	Hooded Warbler	3
Brown Creeper	22	Scarlet Tanager	
Carolina Wren	1	Northern Cardinal	8
House Wren	8	Rose-breasted Grosbeak	4
Winter Wren	19	Indigo Bunting	6
Golden-crowned Kinglet	106	Field Sparrow	1
Ruby-crowned Kinglet	60	White-throated Sparrow	76
Blue-gray Gnatcatcher	1	Fox Sparrow	2
American Robin	16	Song Sparrow	4
Wood Thrush	6	Lincoln's Sparrow	
Veery	88	Swamp Sparrow	8
Swainson's Thrush	400	Slate-coloured Junco	7
Gray-cheeked Thrush	162	Brown-headed Cowbird	5
Hermit Thrush	206	Red-winged Blackbird	104
Gray Catbird	17	Rusty Blackbird	1
Brown Thrasher	2	Common Grackle	11
Cedar Waxwing	1	Baltimore Oriole	16
Northern Parula	9	American Goldfinch	1
Orange-crowned Warbler	1		
Tennessee Warbler	48	Total captured	2584
Blue-winged Warbler	2	Species & forms	84
Golden-winged Warbler	4	Net hrs.	4131.22
		Birds/net-hour	0.6255
*includes birds banded, recaptured, and captured and released without being banded			

Notable band encounters

While PIBO and the other members of the CMMN band birds principally as a method of measuring population abundance, it is always exciting to hear about birds banded on Pelee Island that have been encountered or recovered elsewhere. PIBO was contacted by the Canadian Bird Banding Office several times in 2016 regarding birds that were banded on Pelee Island and recaptured by other banding stations.

In mid-August PIBO received word that a Swainson's Thrush banded at Fish Point last September was relocated this July in Alaska. In all likelihood this bird migrated south from Ontario last fall, overwintered perhaps in Argentina, and then flew to Alaska this spring. In this scenario the 30 g thrush travelled approximately 18,000 km in just under ten months. There is one similar record in the Canadian Atlas of Bird Banding for the period 1921 – 1995, wherein an individual banded at Prince Edward Point, Ontario, in October 1977, turned up in College, Alaska, almost exactly one year later. Sadly, that individual was recovered when it was killed by a domestic cat. Hopefully PIBO's Swainson's Thrush will avoid a similar fate and will return to make the same journey next year.

Pelee Island is a very popular stop-over spot for *Catharus* thrushes (a family comprising Swainson's, Grey-cheeked and Hermit Thrushes, as well as Veerys), and PIBO bands large numbers of them every year. It is not surprising, then, that PIBO's first record of a bird banded on Pelee Island encountered outside of North America involved a *Catharus* thrush. A hatch-year Veery banded by Sumiko Onishi on September 3rd was recaptured in Costa Rica on October 13th by Costa Rica Bird Observatories. The bird had travelled approximately 3,400 km, including crossing the Gulf of Mexico. Veerys winter in central and southern Brazil, so the bird still had some distance to travel before reaching its wintering grounds. PIBO would like to thank Pablo Elizondo and Costa Rica Bird Observatories for sharing the news of this encounter with us.



Cooper's Hawk. Photo by Sachi Schott.

On September 27th, PIBO staff captured a banded adult male Cooper's Hawk. This large accipiter is very rarely captured in the songbird nets PIBO uses in its banding operations, and its origins were a matter of much speculation. When its banding information had been retrieved by the banding office, it revealed that the Cooper's Hawk had been banded on September 23rd, 2013, by PIBO's own Graeme C. Gibson! The hawk was a second-year bird in 2013, which means that it is now four years old. The oldest Canadian-banded Cooper's Hawk was 9 years old when it was recaptured, but the age record is held by a bird that is over 20 years old. There are several Cooper's Hawks who overwinter on Pelee Island, and this may be one of them.

Unusual birds

PIBO did not record any new species as part of its migration monitoring programs in 2016. Observations of note included:

- A Worm-eating Warbler banded on May 18th
- A Summer Tanager seen on census on May 31st
- A Hudsonian Godwit seen on census on September 2nd.

While it was not observed as part of PIBO's standardized migration monitoring, a Cattle Egret was seen by Sumiko Onishi walking along the West Shore Road on November 13th. Several of these birds were sighted on the Ontario mainland this fall, but this was the only one to make its way onto Pelee Island.

Northern Saw-whet Owl Banding

For PIBO's 2016 owl banding, four owl nets were set up on the PIBO property at Stone Road. This is the third year that the nets have been set up in this location instead of across the road on Nature Conservancy of Canada property, and the twenty-eight Northern Saw-whet Owls banded in 2016 testify to its efficacy. A standardized protocol was not followed and nets were opened at the discretion of PIBO staff. The unseasonably warm temperatures and lack of north winds delayed owl migration this fall, and no Northern Saw-whet Owls were captured until November 4th. Nevertheless, once they did arrive they did so in decent numbers, with eleven and ten Northern Saw-whets captured on the 4th and 6th, respectively. The Eastern Screech Owl that was banded on PIBO's first public owling night this fall was recaptured once more, and on two different evenings Northern Saw-Whet Owls were captured bearing bands with unfamiliar numbers. Their origins will not be known until all the banding stations finish submitting their data to the Canadian Bird Banding Office for the year.

Banding was not continued past November 11th owing to the necessity of vacating the PIBO cottage.

Table 6 - Northern Saw-whet Owl banding			
Observers	Sumiko Onishi, Sachi Schott		
# of coverage days	8		
NSWO banded	28	EASO banded	2
NSWO retraps	5	EASO retraps	1
Net hours	102	Birds/net hour	0.295
Notes	Foreign retraps captured Nov 7 th and 9 th ; origin unknown		

See also Section Two, 'Public Owling Nights'.

Breeding Bird Census

The Breeding Bird Census (BBC) is a habitat-based survey that collects data that is used to determine the number of males holding territories within a given study plot. By surveying the same plots repeatedly over a number of years, researchers can measure changes in the diversity, distribution and abundance of breeding birds¹. There are ten BBC plots on Pelee Island covering a range of habitats. The first round of surveys was completed in 2010, and PIBO began the second round of surveys in 2014.

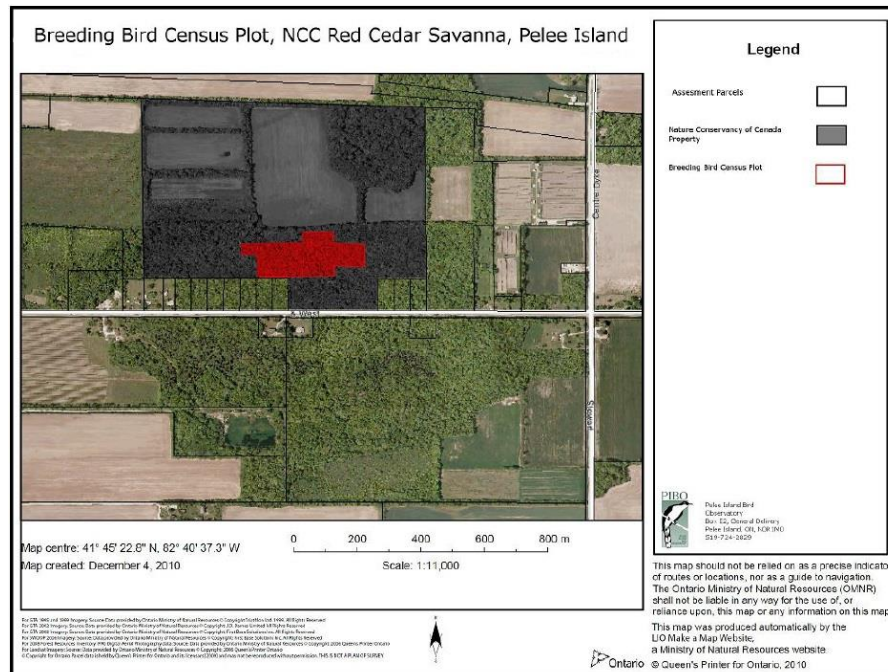
2016 saw surveys completed at the Fish Point (Fish Point Provincial Nature Reserve - Ontario Ministry of Natural Resources) and East-West (Richard and Beryl Ivey Conservation Area - Nature Conservancy of Canada) plots. Each plot was visited ten times from June 1st to June 27th for between 1.5 to 4 hours. Eight of the visits took place in the morning, beginning one half-hour before sunrise, and two took place in the evening. In total 59.75 hours were devoted to BBCs this year and 128 territories were documented belonging to 28 species. All bird activity was noted and data for each species was transferred onto individual maps to allow for the definition of territorial boundaries.



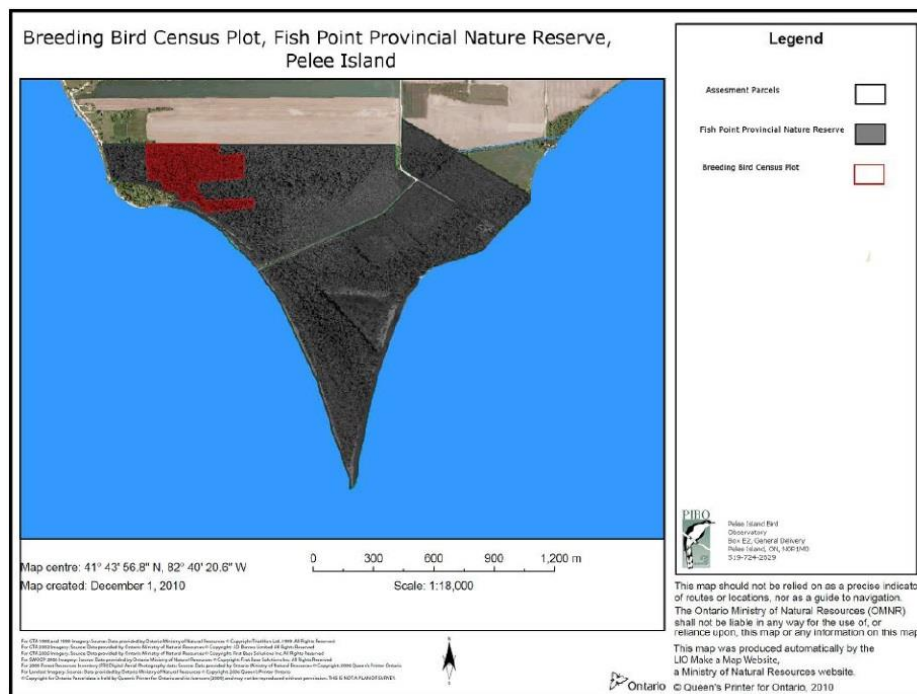
Ruby-throated Hummingbird. Photo by Garth Casbourn.

Overall, most species saw declines in the number of territories compared to the first survey in 2010. A Ruby-throated Hummingbird nest with two young was the first confirmed breeding record for this species on Pelee Island.

¹ 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.



Breeding Bird Census Plot at East-West Road (BBC06)



Breeding Bird Census Plot at Fish Point Provincial Nature Reserve (BBC08)

Table 7 - East-West (formerly Red Cedar North)		BBC06
Landowner: Nature Conservancy of Canada		
Location: Ontario, Essex County, Pelee Island		
Continuity: Last surveyed in 2010		
Habitat description: Alvar woodland: red cedar, chinquapin oak, ironwood, white ash, blue ash, shagbark hickory, hackberry; canopy 71% 15-20m high		
Size: 9.25 ha		
Year: 2016		
Hours: 30.25		
Dates: June 1 st , 3 rd , 6 th , 8 th , 9 th , 12 th , 14 th , 18 th , 21 st , 24 th , 27 th		
Territories		
Species	2016	(2010)
Mourning dove	3	
Yellow-billed Cuckoo	3.5	(3)
Downy Woodpecker	5.5	(8.5)
Eastern Wood-pewee	1.5	(2)
Great Crested Flycatcher	2	(2)
Red-eyed Vireo	5.5	(7.5)
Blue Jay	3	
Tree Swallow	1	
Black-capped Chickadee	2	(3)
Carolina Wren		(0.5)
House Wren	4	(13.5)
Blue-gray Gnatcatcher	1	
American Robin	3	(9)
Cedar Waxwing		(2)
Yellow Warbler	1	(1)
Scarlet Tanager		(1)
Northern Cardinal	3	(5)
Indigo Bunting	5	(7)
Brown-headed Cowbird	4	(9)
Red-winged Blackbird	1.5	(3)
Common Grackle	5	(8)
Baltimore Oriole	1.5	(1)
American Goldfinch	2	
Territories: 58		
Per 40 hectares: 250.81		
Species: 20		

Table 8 - Fish Point		BBC08
Landowner: Ministry of Natural Resources		
Location: Ontario, Essex County, Pelee Island		
Continuity: Last surveyed in 2010		
Habitat description: Maple swamp; red and silver maple with occasional cottonwood, black ash, white elm, hackberry, pin oak, willow; canopy 91% 20-25m high		
Size: 9.75 ha		
Year: 2016		
Hours: 29.5		
Dates: June 1 st , 3 rd , 6 th , 9 th , 12 th , 14 th , 18 th , 21 st , 24 th , 27 th		
Territories		
Species	2016	(2010)
Mallard	1	
Wild Turkey	2	
Yellow-billed Cuckoo	3	(4)
Black-billed Cuckoo		(1)
Ruby-throated Hummingbird	1	
Red-bellied Woodpecker	1.5	(1)
Downy Woodpecker	1	(10)
Yellow-shafted Flicker		(2)
Eastern Wood-Pewee	4	(7.5)
Acadian Flycatcher	1	
Great Crested Flycatcher	2	(3)
Red-eyed Vireo	3.5	(7)
Warbling Vireo		(0.5)
Blue Jay	1	(1)
American Crow	1	(1)
Tree Swallow	4.5	(6)
Black-capped Chickadee	2	(1)
Brown Creeper	1	
House Wren	14.5	(14)
American Robin	4.5	(10.5)
European Starling	1	(4)
Yellow Warbler	3.5	(0.5)
Prothonotary Warbler		(1)
Northern Cardinal	3	(4)
Indigo Bunting	2	(3)
Brown-headed Cowbird		(8)
Red-winged Blackbird	5.5	(7)
Common Grackle	6.5	(14)
Baltimore Oriole		(7)
Territories: 70		
Per 40 hectares: 287.18		
Species: 23		

Marsh Monitoring Program

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. Much of the site is overgrown with *phragmite spp.*, with some cattail marsh and other semi-aquatic plant life.



Lake Henry. Photo by Sumiko Onishi.

PIBO's participation in the MMP was limited in 2016 owing to the necessity of replacing the canoe used to reach the monitoring sites. The new canoe did not arrive until late summer, leaving time for only the second and third marsh surveys on June 13th and July 29th respectively. A total of 24 species were recorded during the two surveys. A Least Bittern was heard and observed during the second survey on June 13th, but was absent on the next visit.

Table 9 - Marsh Monitoring Program			
Observers	Sumiko Onishi, Garth Casbourn	Hours	12
# of Surveys	2 (June 13 th and July 29 th)		
Notes	Least Bittern heard and observed June 13th		

Species at Risk

Pelee Island is home to a variety of species at risk, from trees to salamanders to mammals. The following are notes on some of the birds observed by PIBO that are endangered, threatened, or of special concern.

Prothonotary Warbler (*Endangered*)

2016 marks the first time in six years that Prothonotary Warblers have not established territories at Fish Point Provincial Nature Reserve. There was no evidence of breeding activity and very few males were observed.

May 16th - male Prothonotary Warbler observed in the netting area at Fish Point: likely still on migration.

June 18th - Prothonotary Warbler recorded on the Breeding Bird Census at Fish Point. Probably not a breeding bird itself, considering the late date.



Yellow-breasted Chat on Nature Conservancy of Canada (NCC) property. Photo by Sumiko Onishi

Yellow-breasted Chat (*Endangered*)

PIBO staff spent time looking and listening for Yellow-breasted Chats at properties on Pelee Island where they have been observed in the past. Chats were observed at two of these sites.

June 2nd – a Yellow-breasted Chat heard singing at the Nature Conservancy of Canada (NCC) Shaughnessy Cohen property on Stone Road

June 6th and June 29th – a Yellow-breasted Chat heard singing at the NCC Finlay-Krestel property on East-west Road

No nests were found.

Acadian Flycatcher (*Endangered*)

May 29th – First Acadian Flycatcher of the season heard singing in the netting area at Fish Point.

May 31st - Acadian Flycatcher captured. Owing to the extreme difficulty of differentiating *Empidonax* flycatcher species in the hand it was released unbanded, whereupon it promptly gave away its identity by giving its distinctive ‘peet-zah!’ call once out of reach.

June 2nd – Acadian Flycatcher seen on census.

As well, one Acadian Flycatcher was observed at the East-West Breeding Bird Census plot, while another established a territory at the Fish Point Breeding Bird Census plot. For more information, please see Section One – ‘Breeding Bird Census’.

Least Bittern (*Threatened*)

A Least Bittern was heard and observed during the second marsh bird survey on June 13th, but was not present for the subsequent survey on July 29th. For more information see Section One – ‘Marsh Monitoring Program’.

Bald Eagle (*Special Concern*)

Bald Eagles continue to be a common sight on Pelee Island. Both adult and immature birds were seen frequently on census and occasionally over the netting area.

Whip-poor-will (*Threatened*)

September 2nd - one Whip-poor-will observed on census

Red-headed Woodpecker (*Special Concern*)

A family of Red-headed Woodpeckers nested at Fish Point this spring and successfully raised at least one fledgling. The whole family was frequently seen and heard in the netting area when banding operations resumed at the beginning of August.

American White Pelican (*Threatened*)

American White Pelicans were seen frequently on Pelee Island in 2016. For more information, see Section One – ‘American White Pelican’.

Table 10 - Species at Risk			
Observers	Sumiko Onishi, Garth Casbourn	Hours*	8.5
Notes	Breeding evidence for Bald Eagle, Red-headed Woodpecker, Barn Swallow		
*refers to time spent searching for SAR only – does not include Marsh Monitoring Program, daily census, or migration monitoring			

2016 International Piping Plover Census

The Piping Plover (*Charadrius melodus*) is a small, pale shorebird that is classified as an endangered species in Ontario. They are known to breed along the shores of the Great Lakes and pairs have nested at Fish Point in the past, although the species has been elusive in recent years². In order to gather data on Piping Plover population trends, ranges, and use of local habitat, an International Piping Plover Census is conducted every five years across North America during the breeding season. PIBO contributed to this research effort by conducting censuses at Fish Point Provincial Nature Reserve on June 4th, 10th, and 12th. Each census took between 0.5 and 1 hour. In addition PIBO staff spent additional time searching for plovers along the East beach.

No Piping Plovers were observed.

Table 11 - International Piping Plover Census			
Observers	Sumiko Onishi, Garth Casbourn	Hours*	4.5
Notes	No Piping Plovers were observed		
*census took place at Fish Point Provincial Nature Reserve			

Monarch butterfly counts

For the 14th consecutive fall season PIBO conducted standardized monarch butterfly migration counts as part of the 90-minute census performed each morning by PIBO staff. The surveys occur along a 2.25 km path at Fish Point Provincial Nature Reserve.

A total of 101 monarch butterflies were observed this fall. This is a dramatic decrease from both 2015's total of 269 and the 215 monarchs observed in 2014, and reflects the overall trend of decreasing monarch numbers on Pelee Island since 2010, when PIBO observed 2205 monarchs over the fall season. While this year's low numbers may be partly caused by delays in monarch migration caused by the cold, wet weather conditions this spring, it is well-known that monarch butterflies are facing severe long-term threats to their survival including illegal logging in the forests where they overwinter in Mexico, habitat fragmentation along their migration routes, and the destruction of the milkweed plants that their caterpillars rely on for food.

As a species of special concern in Ontario the monarch butterfly does not receive habitat protection, but such is the popularity of this beautiful insect that people are already at work to secure its future. In 2015 the town of Leamington, Ontario, in partnership with Parks Canada, began construction on a 5 km Monarch Trail that will see native grasses, wildflowers and milkweed planted along the town's walking trails to attract birds and butterflies³. As the wide-spread creation of such monarch-friendly habitats gets underway, we hope to see more monarch butterflies on Pelee Island in the years ahead.

² Gibson, Graeme C., Breeding Bird Surveys on Pelee Island. 2008. Pelee Island Bird Observatory. An unpublished report for the Ontario Ministry of Natural Resources. 56 pp (including appendices).

³ 'Leamington and Parks Canada Team Up to Continue Restoration of Monarch Habitat along the Leamington Monarch Trail'. Posted June 06, 2016. <http://www.leamington.ca/en/News/index.aspx?newsId=34fd5020-02d5-4e4b-be49-2e702b791018>

Table 12 - Monarch butterfly counts at Fish Point in 2016

Date	August	September	October	November
1	1	5	9	
2	2	4		
3	2	4	14	
4			12	1
5				
6				
7				
8			1	
9		4	1	
10				
11		1		
12		1		
13				
14				X
15		3		
16				X
17	2			X
18		4		X
19	1	1	3	X
20		2		X
21		4		X
22		1		X
23	4	1	1	X
24	2	4		X
25	3		1	X
26				X
27				X
28				X
29	1			X
30		1		X
31		x		X
Total	18	40	42	1
101				
90-minute walking survey conducted at Fish Point, Pelee Island, from Aug 1 st to Nov 15 th 2016, beginning 1 hour after sunrise. X – survey not conducted.				

American White Pelicans

Over the past several years PIBO has recorded an increasing number of American White Pelicans on Pelee Island. These observations have coincided with a recent range expansion by this species into Ontario's north over the last decade as its population has grown. Nesting attempts have been recorded in Lake Superior, Lake Nipigon, and James Bay, and now, in 2016, the first nesting attempt by American White Pelicans has been confirmed in Lake Erie.

The first American White Pelicans to be recorded by PIBO in 2016 were seen sitting on the tip of Fish Point during census on May 2nd. On May 26th two more white pelicans were seen, also sitting on the tip, and for the rest of the spring white pelicans were an almost daily occurrence, with as many as 13 being seen at one time. All were observed standing on the spit of sand that extends south from Fish Point, preening and resting amid the crowd of Double-Crested Cormorants and gull species.

On July 19th, Rob Tymstra made a post on the Ontbird's Rare Birds listserv announcing the discovery of several American White Pelican nests on Big Chicken Island, approximately 7 nautical miles west of Pelee Island. This is the first breeding record for white pelicans in Lake Erie. Many of the nests were empty but four had one egg each, and one nest had two eggs. 30 white pelicans were present on the island at the time, and 70 had been reported the previous weekend. A few days later David Moore counted 24 abandoned white pelican nests containing cold eggs on Middle Sister Island (approximately 20 nautical miles west of Pelee Island).

When PIBO's census resumed for the fall season, the white pelicans were still present. A group of six were occupying the tip of Fish Point on August 2nd, and from then on they were seen almost daily until October 20th. Their numbers began to increase in the second week of September and hit a peak of 190 on September 19th. Groups of over a hundred were also observed on September 21st and October 7th. From October 10th, their numbers declined. Single birds were occasionally sighted, and PIBO's last record for the year was of three white pelicans on the tip on October 17th.



American White Pelicans at Fish Point. Photo by Sumiko Onishi.

Up until the 1960s the American White Pelican was in decline owing to the disruption of their breeding sites by human activity. This trend began to reverse as increased conservation efforts began to take effect, and Breeding Bird Survey data show a strong increase in the abundance of this species since 1970. Viewing the data available on eBird (a 'citizen science' program that collects bird sightings from birders all over the world) it is possible to see how sightings of the birds in Ontario have grown from a mere handful in the years before 2009 to a near blanket of reports in and around the western shore of Lake Erie in 2016. PIBO has monitored this incursion for the past several years, from three birds sighted in 2013 to almost weekly records this year, and considering the trials this species has faced in the past it has been heartening to watch their colonization of Lake Erie in real-time. The American White Pelican was originally assessed as endangered species in Ontario, but was re-assessed as threatened in 2009. As a threatened species, they and their habitat (including nesting sites) are automatically protected from harm under the Endangered Species Act.

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 CMMN Daily Estimated Totals, the Christmas Bird Count and its 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 ten requests for data from researchers and research groups via the NatureCounts website in 2016. 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):

COSEWIC Red-headed Woodpecker status report – McGill University (Barbara Frei)

Atlantic Flyway Shorebird Initiative – Partners of the Atlantic Flyways Shorebirds Initiative (Veronica Anadon)

Priority areas for survey and monitoring for Acadian Flycatcher for additional identification of critical habitat – Canadian Wildlife Service (Marie Archambault)

Investigating possibility of advancement in spring arrival timing among species that breed in Canada – Canadian Wildlife Service (Rich Russell)

Section Two – Education and Outreach

Introduction

PIBO's education programs come in three formats: 1) in-class programming, accompanied by pre- and post-visit materials; 2) online video sessions; and 3) visits by classes to Pelee Island and PIBO's banding station at Fish Point. Owing to the difficulties inherent in transporting students to and from the island and accommodating them once they are here, PIBO's focus in recent years has been on the in-class programming and online video sessions. These programs were given a significant boost this year by Sarah Keating, PIBO's Education Coordinator, thanks to whose tireless efforts PIBO reached unprecedented numbers of students in 2016. The results and accomplishments of PIBO's education program have been summarized by her in a report⁴, from which the following two chapters (Section Two – In-class programming and Online video sessions) are drawn. Overall, PIBO's education programs reached approximately 1800 students from 80 classes and 24 different schools across four school boards in 2016, an exponential increase over previous years.

In-class programming

PIBO's in-class programming was greatly expanded this year, with the creation of new lesson plans; the purchasing and creation of materials to accompany said lessons; and the designing of a post-visit booklet, made in-house by PIBO staff to confirm what students learned during the lesson.



PIBO's education programs in 2016. Photos by Suzanne Freimann.

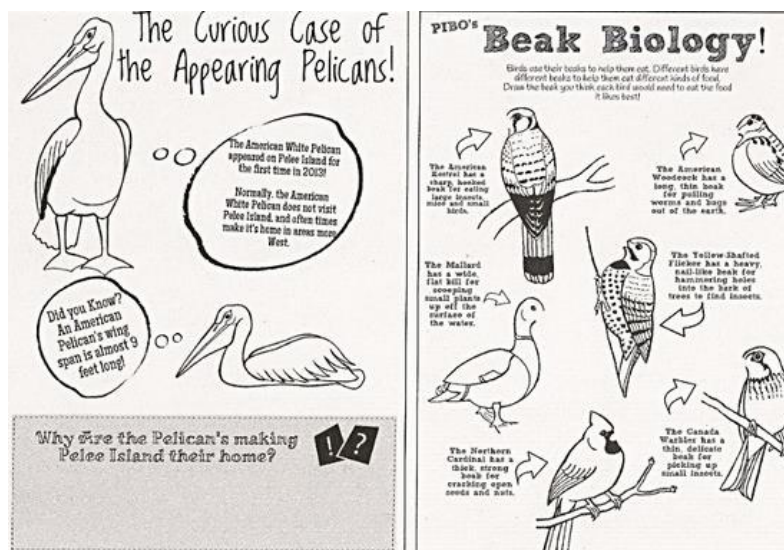
⁴ Keating, Sarah. 2016. 'Creating Avian Allies Inside, and Outside the Classroom: Pelee Island Bird Observatory's Education Program Summary Report 2016'. An unpublished report for the PIBO board.

While in previous years PIBO has used a presentation format for its in-class programming, this year the lessons were constructed in such a way as to engage students with hands-on activities instead. Pre-visit activities that could be introduced by the teacher ahead of time were created to accompany these hands-on activities. Each set of activities was designed with direct curriculum connections in mind, to help teachers plan their lessons around PIBO's visit.

Table 13 - PIBO activity sets for in-class presentations		
Grade	Lesson Type	Lesson Name
K-4	Pre-visit	Beginning with Beaks
	In-class	The Big Journey
5	Pre-visit	Saving Songbirds with Silhouettes
	In-class	Bird Study: Classroom Exploration
6	Pre-visit	Techno-Bird
	Pre-visit	Beak Adaptation and Scientific Sketch
	In-class	No Birds? No Way!
7	Pre-visit	Biotic or Abiotic? Informational PSA
	In-class	What's Trending?
9, 11	Pre-visit	Bird Anatomy 101
	In-class	Identify, Trackify, Ask 'Why?'

A variety of materials were purchased and created by the Education Coordinator this year to provide visual and tactile experiences for students in the primary grades, including picture books, Audubon plush birds, puzzles and bird pocket guides. Materials were also created for the high school and intermediate students, such as biodiversity cards, bird ID cards, laminated maps, and latitude and longitude brochures.

PIBO's Education Coordinator and Assistant Field Biologist also collaborated on a post-lesson work book that takes what students learned during the lesson and applies it in a variety of ways to confirm their knowledge.



Pages from PIBO's post-lesson work book. Text by Sarah Keating; illustrations by Sachi Schott.

The feedback that was received from teachers was uniformly positive and included some suggestions on how to improve the program, such as:

- Expanding the activities to a full hour
- Providing more tactile materials (feathers, mist nets, banding equipment, etc)
- Creating material for smaller group work.

Teachers especially appreciated that the lessons were hands-on and engaging, and used movement to enhance the learning experience. They also approved of the activities' strong connections to lesson curriculum expectations.

An Education Program Holiday card will be sent to teachers with suggestions for winter birding activities as a way to keep teachers and students engaged over the holiday months, and to ensure that they continue to think of PIBO's education programs as something to return to next year.

On-line video conferences

PIBO conducted 13 online video conferences with over 20 classes in 2016, reaching not only the Windsor School Board but also the Upper Grand District School Board and the Toronto District School Board.

The aim of the online video conferences is largely to demonstrate bird banding in real-time to students who cannot visit Pelee Island in person. Four mist-nets were set up near the PIBO cottage for this purpose, but unfortunately not a single bird was captured during the week that was set aside for the online video conferences. Instead various props were used to explain the purpose of banding birds and the methods used, including a replica wing; a taxidermy Yellow-billed Cuckoo; banding pliers; and bird bags, and the webcam was moved to show students the mist nets *in situ* and a view of Lake Erie. PIBO staff also answered questions that the teachers and students had composed ahead of time as part of their pre-visit activity. Much curiosity was expressed about the American White Pelicans that have recently expanded their range into Lake Erie in particular.

The online lessons have the advantage of making it possible to reach large numbers of students in one session, usually by assembling several classes in the school library in front of a single screen. As well, this year PIBO had the opportunity to present to a special education class for developmentally delayed students within the Upper Grand District School Board. Many of these students have mobility issues that make it difficult for them to move or walk, and the online format allowed PIBO to easily bring the outdoors to them. In the future, PIBO's online video conferences could be used as a way to provide inclusive programming to other students with similar mobility and transportation issues.

The number one request that PIBO received regarding future online conferences was for – birds! Unfortunately in this respect PIBO is at the mercy of the weather and vagaries of migration, but we will keep our fingers crossed, and will hopefully capture some birds during the online sessions next year.

Education programs on Pelee Island

PIBO's banding station at Fish Point was visited by two groups of students this spring: a group of 15 students from the Environmental Leadership Program associated with Catholic Central High School in London, led by Dan Van Lieshout; and 16 students from Windsor Riverside Secondary School. Both visits were a success, and the students had the opportunity to learn about PIBO's migration monitoring programs and to watch as PIBO staff banded a variety of songbirds. Sumiko Onishi and Garth Casbourn also took the time to visit the Environmental Leadership Program students at their campsite in the evening to answer questions and speak about how they each came to study birds.

As he has for several years now, Martin Parker led an OFO tour to Pelee Island that included a visit to the banding station.

PIBO picnic

PIBO held its 5th annual community picnic on May 8th, 2016, a date chosen to coincide with the Pelee Island Heritage Center's Spring Song weekend. The day was blessed with beautiful weather and the picnic was a great success. Over 70 friends, neighbours and visiting birders stopped by to enjoy barbequed sausages and quinoa salad. By the end of the afternoon they had generously donated a total of \$600 to PIBO's spring and fall migration work, making this one of the most successful PIBO community picnics in terms of the donations raised.



PIBO spring picnic. Photo by Suzanne Friemann.

Public Owling Nights

PIBO hosted three public owling nights in 2016 and entertained a total of 48 visitors with mulled wine, apple cider, light refreshments and the promise of seeing Ontario's smallest owl species, the Northern Saw-whet Owl. Unfortunately the unseasonably warm weather meant that the only owl to put in an appearance was an Eastern Screech Owl captured on October 22nd, but the attendees enjoyed the event regardless. PIBO's public owling nights have remained popular with islanders and cottagers alike over the years, and are appreciated as a means of bringing people together during the island's off-season.



PIBO Public Owling Night. Photo by Sumiko Onishi.

PIBO in the press

PIBO was featured in an article by Paul Nicholson that was published in the London Free Press on May 21st, 2016⁵. Both Sumiko Onishi and Garth Casbourn were interviewed for the article, which highlighted the many bird-watching opportunities available on Pelee Island.



⁵ www.lfpress.com/2016/05/21/birds-and-bird-science-are-pelee-island-highlights

Section Three – Other News

Banding station rebuild

After five years of withstanding snow, rain, mud, and falling trees, PIBO's old banding station at Fish Point has been replaced. Funds for a new banding station were raised this summer through Generosity by Indiegogo, an offshoot of Indiegogo that is geared towards fundraising for personal and social causes. The campaign was organized by Suzanne Friemann, PIBO's General Manager, and was a great success. \$1,190 USD was raised by 15 people in 9 days, surpassing the stated fundraising goal of \$1,000 USD. Updates about the campaign and, later, about the rebuilding itself were posted on the Generosity webpage and were shared on Facebook and Twitter.

Once the funds had been raised the rebuilding proceeded quickly. Alex, Karen and Masha Bustard and Jon and Hanne Hettinga generously stepped in and volunteered to build the new banding station. Work began in October and soon the platform was rebuilt, the walkway leading to the banding station was completed, and the new structure was in place, although *sans* mosquito screening to save it from unnecessary wear over the winter.



Rebuilding the banding station. Photos by Alex Bustard and Sachi Schott.

We at PIBO have been greatly moved by this show of support from the community. Alex, Karen, Jon and Hanne have gone above and beyond to build a banding station that is even better and more securely constructed than the last one, all while dealing with difficult working conditions caused by the poor state of the trail into the netting area. Their enthusiasm and willingness to spend their weekends on this project means that the new banding station was completed much earlier than anyone at PIBO had thought would be possible. With any luck (and without any more falling trees), this structure will be providing a dry, mosquito-free shelter for PIBO field staff for many years to come.

The outstanding success of PIBO's first Generosity by Indiegogo campaign has also been promising. PIBO staff put considerable effort into keeping in touch with the public via the Auspice newsletter, the PIBO Facebook page (updated frequently during the field season by Sumiko Onishi) and the PIBO Twitter account (managed by Suzanne Friemann), as well as through PIBO's annual events, and it is encouraging to know that this public interest can be mobilized in support of specific projects, as opposed to soliciting general donations.

PIBO cottage renovations

After the success of the Generosity campaign to finance the rebuilding of the PIBO banding station, a second campaign was launched on December 5th to raise funds for replacing the floor at the PIBO cottage, which has long been in disrepair. For this campaign, various incentives are being offered to donors who contribute a certain amount: for example, donors can receive a package of five greeting cards featuring drawings by Sumiko Onishi in exchange for a \$25 donation. There are twelve donation levels in total, ranging from \$20 to \$400. The numbers of incentives offered at each donation level are limited, and are available on a first-come, first-served basis. The incentives were donated to PIBO by board members, PIBO employees, and local artists.

Windsor fundraiser



Guest author Terry Fallis at the Windsor fundraiser. Photo by Michelle Bondy.

The 5th annual PIBO Windsor fundraiser was held on May 4th, 2016 at the Beach Grove Golf and Country Club. Margaret Atwood was on hand to introduce guest author Terry Fallis, whose books have won CBC's Canada Reads and the Leacock Medal, among other awards and accolades. His latest novel, 'Poles Apart', is published by McClelland & Stewart. After the dinner, both Terry and Margaret signed copies of their books and chatted with guests. The dinner was entirely sold out, with 150 people attending, and approximately \$10,000 was raised for PIBO's migration monitoring and education programs.

PIBO would like to thank Paul Vasey and his hard-working group of volunteers for making this another successful fundraiser. Thanks also to Cooper's Hawk Vineyards, TD Bank, Cesar's Windsor, University of Windsor and St. Clair College for sponsoring the event.

Great Canadian Birdathon

This year, for the first time, PIBO's Sumiko Onishi participated in the Great Canadian Birdathon (formerly the Baillie Birdathon) to raise funds for Bird Studies Canada. Sumiko spent twenty-four hours from May 11th to May 12th looking and listening for birds on Pelee Island. By the end of her birdathon she had recorded 106 species while also putting a full morning's work at the banding station on one of PIBO's busiest days of the year!

From Sumiko's post on the PIBO Facebook page:

"Many thanks to all my supporters! I am writing to share my first birdathon experience with you. First of all, I recorded 106 species in 24-hours on May 11th/12th. It was a satisfactory result, but I missed some birds that I know were around. Oh well, I know this often happens from doing PIBO's daily census. It had been very quiet around the netting area in the days leading up to my birdathon – only five or six warbler species were observed – and the wind had been steady from the north for a while. It was under these conditions I went to work on the 11th.

I wasn't expecting such a sudden increase in bird activity! As soon as I stepped on the trail I noticed there were lots of birds hopping around and singing everywhere. Like islanders often experience in their backyards, Fish Point was filled with birds. From the beginning I was thinking I should start my birdathon on a busy morning. The bustle of bird activity that day encouraged me to make a quick decision. Later in the morning, however, I realized it might not have been the best decision. It was too busy to do my birdathon, supervise the banding operation, and socialize with good friends who visited only once a year.

On my morning walk there was a bright Scarlet Tanager and a Rose-breasted Grosbeak on the same tree branch, and a slender Northern Mockingbird hopping ahead of me, not so far from the west beach. It was a good day for birds, but chaotic for me. After I recorded as many species as possible on my walk I went to the netting area to open nets. Soon we started to catch lots of birds. On almost every net-round the nets were filled with different warblers – 16 warbler species were banded. Three experienced banders had to move around in the heavy, muddy, water to keep checking nets, extracting birds, and banding them. There was no chance to take a break, have a sip of tea, eat a snack, and observe birds around the station! It was almost two o'clock in the afternoon when we finished banding (with lots of birds on the last net-round), wrapped up the nets, and left the station. We captured 138 birds in three hours. Focusing on the banding operation, my ear caught only a couple of species to add to my list.

After six hours at Fish Point I was able to record a good number of species. But I needed to check different habitats to see different families like shore birds, larks and sparrows, and other non-forest birds. Since the Eastern Screech Owl, which I had seen for the last two days, left the tree where he used to sit in the morning, I wanted to go out for the evening too. It was a tough part of the birdathon – I saw many birds in the afternoon, but I'd already seen most of them during the morning. Should I spend time looking for one species or move on to try and find a different one? The afternoon went quickly driving around the north end of the island. After the tension of trying to see as many species as possible – something I've never experienced before while looking at birds – on the way back home I found a group of shorebirds resting peacefully in a wet field. Among the other shorebirds there were some Dowitchers, which I'd never seen before. It was a highlight of my birdathon.

I will say it was a wonderful day for bird watching, but not for doing both the birdathon and banding. The one hundred-and-six species I recorded was just a fraction of the birds around that day. I imagine the night sky over the island, crowded with them. Happy birding everyone!!”



Barn Swallow. Photo by Sumiko Onishi.

Table 1 - Birds recorded by Sumiko Onishi during the Great Canadian Birdathon May 11th – May 12th

Horned Grebe	Warbling Vireo
Double-crested Cormorant	Blue-headed Vireo
Great Blue Heron	Blue Jay
Great Egret	American Crow
Turkey Vulture	Purple Martin
Canada Goose	Bank Swallow
Wood Duck	Tree Swallow
Mallard	Barn Swallow
Blue-winged Teal	Black-capped Chickadee
Red-breasted Merganser	Red-breasted Nuthatch
Bald Eagle	Carolina Wren
Red-tailed Hawk	House Wren
American Kestrel	Marsh Wren
Ring-necked Pheasant	Ruby-crowned Kinglet
Wild Turkey	Blue-gray Gnatcatcher
Sora	American Robin
American Coot	Wood Thrush
Black-bellied Plover	Veery
Killdeer	Swainson's Thrush
Unidentified Yellowlegs	Grey Catbird
Solitary Sandpiper	Brown Thrasher
Spotted Sandpiper	Northern Mockingbird
Sanderling	European Starling
Dunlin	Cedar Waxwing
Dowitcher spp.	Northern Parula
American Woodcock	Tennessee Warbler
Bonaparte's Gull	Blue-winged Warbler
Ring-billed Gull	Golden-winged Warbler
Herring Gull	Nashville Warbler
Great Black-backed Gull	Yellow Warbler
Common Tern	Chestnut-sided Warbler
Mourning Dove	Magnolia Warbler
Black-billed Cuckoo	Cape May Warbler
Common Nighthawk	Black-throated Blue Warbler
Chimney Swift	Blackburnian Warbler
Belted Kingfisher	Yellow-rumped Warbler
Red-bellied Woodpecker	Black-throated Green Warbler
Downy Woodpecker	Western Palm Warbler
Yellow-shafted Flicker	Blackpoll Warbler
Yellow-bellied Flycatcher	Black-and-white Warbler
"Traill's" Flycatcher	American Redstart
Least Flycatcher	Ovenbird
Eastern Phoebe	Common Yellowthroat
Great Crested Flycatcher	Canada Warbler
Eastern Kingbird	Scarlet Tanager
Red-eyed Vireo	Northern Cardinal

Rose-breasted Grosbeak
Indigo Bunting
Eastern Towhee
Field Sparrow
White-throated Sparrow
White-crowned Sparrow
Song Sparrow

Swamp Sparrow
Brown-headed Cowbird
Red-winged Blackbird
Common Grackle
Baltimore Oriole
American Goldfinch
House Sparrow



Blue- Winged Warbler. Photo by Sumiko Onishi.

Great Canadian Shoreline Cleanup

The Great Canadian Shoreline Cleanup⁶ is a joint initiative by the World Wildlife Fund and the Vancouver Aquarium wherein businesses, community groups, schools and concerned citizens work together to remove litter, especially plastic debris, from the shorelines and waterways in their area. It is one of the largest direct action conservation programs, and is a significant contributor to the International Coastal Cleanup in Canada.

The Great Canadian Shoreline Cleanup on Pelee Island took place on April 30th, 2016. PIBO's Sumiko Onishi and Garth Casbourn participated by picking up litter along the beach on the south shore of the island, at the foot of Stone Road.

Christmas Bird Count

The Pelee Island Christmas Bird Count will take place on December 18th, 2016.

Staff news

In January 2016, Operations Manager Graeme C. Gibson made the decision to retire from the Pelee Island Bird Observatory after 14 years with PIBO and over two decades of doing ornithological field work. As PIBO's founder and longest-running staff member, Graeme has had an indelible impact on the development of the banding station, the implementation of its research programs, and, perhaps most importantly, the highly positive relationship that PIBO enjoys with the community at large on Pelee Island. Although Graeme has retired as Operations Manager he generously assisted with the migration monitoring program this spring and fall, and his vast knowledge of the bird life on Pelee Island and PIBO's records continues to be invaluable.

Sumiko Onishi currently heads PIBO's research team as Field Supervisor and Bander-in-Charge.

⁶ shorelinecleanup.ca

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