

# Pelee Island Bird Observatory 2010 Year-end Report



**Graeme C. Gibson,  
Claire Sanders & Simón Valdez  
Pelee Island Bird Observatory  
585 South Shore Road  
Pelee Island, Ontario  
N0R 1M0**



*Funding support provided by the Ministry of  
Natural Resources.*

**Funding Support from the: USFWS NEOTROPICAL MIGRATORY  
BIRD CONSERVATION ACT PROGRAM**

**JANUARY 2011**

**Pelee Island Bird Observatory – 2010 Year-end Report**

**Pelee Island Bird Observatory (PIBO)**

Address: 585 South Shore Road, Pelee Island, Ontario, Canada N0R 1M0

Phone: 519-724-2829

Email: [claire.sanders@pibo.ca](mailto:claire.sanders@pibo.ca) – Executive Director

[graeme.gibson@pibo.ca](mailto:graeme.gibson@pibo.ca) – Managing Director

Website: [www.pibo.ca](http://www.pibo.ca)

The Pelee Island Bird Observatory (PIBO) was established in 2003 and incorporated as a non-profit charitable organization in 2006. PIBO's mandate includes a commitment to long-term migration monitoring research on Pelee Island; long-term studies of Pelee's breeding bird communities, including endangered, threatened and species of concern; 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), Ramsay Cook (Treasurer), Elizabeth Agnew, Wayne Grady, Paul Vasey.

Advisory Board – Margaret Atwood, Ian Davidson, Matthew Mann Gibson, Dr. David Hussell, Penny Kavanagh, Philip Slayton, Dr. Bridget Stutchbury.



*Long-eared Owl*

Suggested citation: Gibson, Graeme C., Claire Sanders and Simón Valdez. 2010. **Pelee Island Bird Observatory – 2010 Year-end Report**. An unpublished report by the Pelee Island Bird Observatory for Ontario Parks/Ontario Ministry of Natural Resources. 42 pp., including appendices.

## EXECUTIVE SUMMARY

It was a productive year of growth and development at the Pelee Island Bird Observatory in 2010 and much was accomplished over a busy twelve months thanks to the ongoing support of many generous organizations and individuals. Two full-time staff, a committed Board of Directors, and eleven enthusiastic interns and volunteers combined their efforts to advance PIBO's conservation agenda with a diverse range of research and education activities designed to benefit birds and their habitats. The organization collected a wealth of valuable information in 2010 about the resident birdlife on Pelee, including five national and provincial Species at Risk that breed on the island, as well as important data on population trends of migratory songbirds that traverse the island chain each spring and fall. The results of PIBO's research efforts are being actively shared with numerous government and non-government organizations including the Ontario Ministry of Natural Resources, Parks Canada, the Nature Conservancy of Canada, Ontario Nature, the Essex Region Conservation Authority, and many others.

Highlights this year include PIBO's inaugural island pig roast in May that helped raise awareness of the importance of Pelee Island for more than three-hundred species of resident and migratory birds; our hugely successful educational curriculum, including in-class presentations to thousands of school kids in Essex County; the successful hiring this Fall of a seasonal Species At Risk Coordinator; our public owling nights, and more than 1800 hours of fieldwork compiled by staff and volunteers from April to November. As a result of these and many other accomplishments, the observatory made substantial gains this year in all areas of its mandate.

A variety of research studies were completed ranging from constant-effort songbird migration monitoring and intensive breeding bird surveys to amphibian and monarch butterfly counts. PIBO's eighth consecutive year of Spring and Fall migration studies at Fish Point Provincial Nature Reserve ran from April 2<sup>nd</sup> – June 10<sup>th</sup> and August 1<sup>st</sup> – November 15<sup>th</sup>. In all, 193 species were recorded at the Point during PIBO's official count period and 3498 birds of eighty-five species were banded. It was also PIBO's most active summer research season to date. In all, five staff and volunteers conducted eighty morning breeding bird surveys this summer from late-May to early-July and collected detailed data on the diversity and abundance of more than seventy breeding species on Pelee, including five national and provincial Species at Risk. Additional studies completed in 2010 included our annual marsh bird and amphibian surveys, Northern Saw-whet Owl monitoring, and Monarch butterfly migration counts.

PIBO's education and outreach programs flourished in 2010 with an array of activities that helped to get our conservation message out to tens of thousands of people of all ages. Foremost was the launch of a busy schedule of in-class presentations at secondary schools that brought some of the wonders of birdlife in Essex County home to more than 600 local teens. Our in-house programs received a big boost as well with the help of a number of island B&B's that encouraged more than 270 of their guests to visit the field station at Fish Point. As a result of these and many other successful projects in 2010 the bird observatory reached its widest audience to date, and made significant inroads both at home and further afield.

Much of the work accomplished this year was made possible thanks to the critical help of many organizations and individuals including the United States Neotropical Migratory Bird Conservation Act Program, the Ontario Trillium Foundation, the Ontario Ministry of Natural Resources Species at Risk Stewardship Fund, and many other generous supporters both large and small. This has provided a solid base for PIBO to pursue a multitude of programs that benefit North American neotropical migrants, Canadian boreal forest species, national and provincial Species at Risk, and many Carolinian nesting birds with limited breeding ranges in Canada.

**TABLE OF CONTENTS**

<b>Executive Summary</b>	iii
<b>Table of Contents</b>	iv
<b>Maps and Tables</b>	v
<b>Introduction</b>	1
<b><u>Section One – Research</u></b>	2
<b>Migration Monitoring</b>	<b>2</b>
Spring Migration	3
Fall Migration	9
Northern Saw-whet Owl Monitoring	19
<b>Breeding Birds</b>	20
Breeding Bird Census (BBC)	20
Marsh Bird Monitoring Program (MBMP)	22
<b>Additional Studies</b>	22
Species at Risk	22
Monarch Butterflies	23
Amphibians	24
Breeding Bird Research at Point Pelee National Park	24
Migration Monitoring and Species at Risk	25
Chimney Swifts	26
<b>2010 Fieldwork Effort</b>	26
<b><u>Section Two – Education &amp; Outreach</u></b>	27
Classroom Presentations	27
In-house Presentations	28
2010 Environmental Science High-school Specialist Major Launch	29
Outreach	30
<b><u>Section Three – Additional Developments</u></b>	31
The Bird House	31
Balzac's Coffee	31
Twitter	31
<b>Acknowledgements</b>	32

**MAPS & TABLES**

Map 1 – Pelee Island, Essex County, Ontario  
1

Table 1 – Spring banding totals  
8

Table 2 – Spring coverage effort  
8

Table 3 – Fall banding totals  
18

Table 4 – Fall coverage effort  
19

Table 5 – Combined Spring and Fall coverage effort  
19

Table 6 – Habitat descriptions for ten Breeding Bird Census plots  
22

Table 7 – Monarch Butterfly counts for the period 2004 - 2009  
23

Table 8 – Species at Risk recorded as migrants on Pelee Island from 2003 - 2010  
25

Table 9 – 2010 PIBO fieldwork effort  
26

Table 10 – In-class visits and number of students  
28

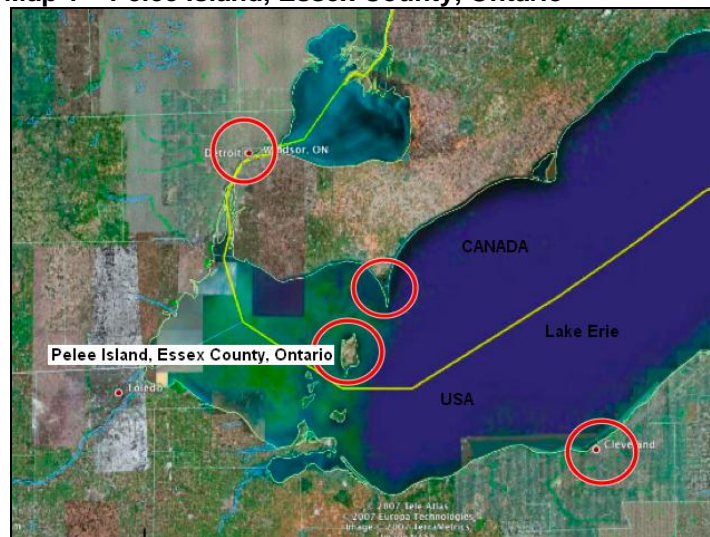
Table 11 – Teacher evaluations  
29

## INTRODUCTION

It was a busy twelve months at the Pelee Island Bird Observatory in 2010 and many significant goals were achieved thanks to the critical support of numerous organizations and individuals. PIBO initiated a range of new research and education projects that, along with our ongoing programs, successfully advanced the observatory's conservation mandate. PIBO's organizational structure grew in leaps-and-bounds in 2010 as well, and the observatory continued to develop important new contacts in the conservation community.

This year's report includes a summary of PIBO's research, education, and community outreach programs along with a number of other developments at the observatory in 2010. Section One presents the results of the 2010 research season including PIBO's ongoing songbird migration and Northern Saw-whet Owl monitoring work, breeding bird surveys, and a number of additional studies. Section Two provides an update and description of PIBO's education and community outreach activities in 2010. In all, PIBO hosted almost six hundred visitors on the island in 2010 with the help of a diverse range of activities including bird banding demonstrations, bird walks, training workshops, owling nights, and PowerPoint presentations. Additionally, PIBO's Species at Risk Coordinator visited more than twenty-five classrooms during the Fall as part of a hugely successful campaign to raise awareness about Species at Risk in Essex County. The observatory also reached tens of thousands of island visitors with its conservation message thanks to an informative PIBO display at the Pelee Island Winery pavilion, and more than 10,000 people visited PIBO's website.

**Map 1 – Pelee Island, Essex County, Ontario**



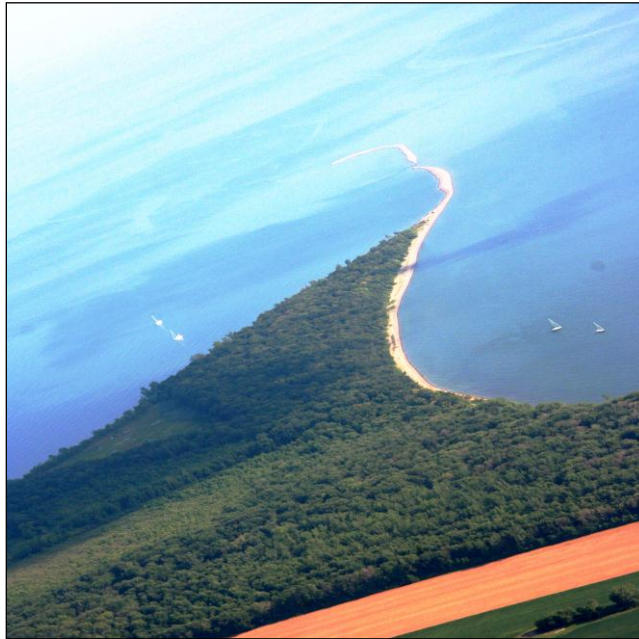
The organization continued to strengthen ties with the community as well, and PIBO staff and volunteers participated in all kinds of events this year and the observatory engaged more islanders in its programs than any previous year on record. Highlights included PIBO's involvement in Pelee Island's annual 'Green' Bird Race, the Canada Day parade and PeleeFest celebrations, our successful mulled wine and owling nights, many potluck dinners, and a host of other activities too numerous to mention.

The final section of the report summarizes a number of other exciting developments at the observatory in 2010 as well as a brief account of plans for 2011, including the production of an educational video and an in-class teleconferencing pilot-project.

## SECTION 1 – RESEARCH

### Migration Monitoring

Migration monitoring research is an effective method for tracking changes in bird populations through the counting and capture of migrants. The data collected at migration stations is used to detect population trends of small landbirds that migrate to and from their breeding and wintering grounds each year. Many songbirds summer in remote northern regions and winter in equally isolated areas, which makes it difficult to survey these species using other monitoring methods. The Canadian Migration Monitoring Network (CMMN) oversees migration studies in Canada. The network is made up of more than twenty-five permanent sites established across the country that, like PIBO, generate daily migration counts for a wide range of species. Monitoring stations are committed to collecting standardized data that contributes to our collective understanding of the changes taking place in populations of migratory birds, as well as to document migration at the station itself, and many other bird-related studies.



*Fish Point*

PIBO's 8<sup>th</sup> year of Spring and Fall migration monitoring coverage at Fish Point Provincial Nature Reserve (Ontario Parks) ran from April 2<sup>nd</sup> – June 10<sup>th</sup> and August 1<sup>st</sup> – November 15<sup>th</sup>, 2010, for a total of 177 days of coverage. It was a busy and productive time at the Point and, as always, there were lots of surprises and new experiences for the eleven participants who contributed 1488 hours to the migration study. A total of 193 species was recorded at Fish Point during PIBO's standard count period and 3498 birds of eighty-five species were banded in 5706 net hours, for an average catch-rate of 0.61 birds/net-hour. The coverage effort this year was on par with PIBO's long-term average.

A number of rare and unusual species were documented on the island this year by PIBO staff and volunteers including **Red Phalarope** (PIBO), **Harlequin Duck** (originally found by Rob Tymstra), **Western Wood-Pewee**, if accepted by the Ontario Bird Records Committee (originally found by Ken Burrell), **Townsend's Solitaire** (PIBO), **Blue Grosbeak** (originally found by Richard Pope), **Lark Sparrow** (originally found by Ken Burrell), and **Le Conte's Sparrow** (PIBO), among others.

The following Spring and Fall migration summaries include excerpts from PIBO's migration updates on our website and from written narratives found in PIBO's 2010 daily log book.

### Spring Migration

PIBO's 8<sup>th</sup> spring migration monitoring coverage season got underway at Fish Point on April 2<sup>nd</sup> and ran until June 10<sup>th</sup>, for a total of seventy consecutive days of field coverage. In all, 166 species were recorded in the official count area and 708 birds were banded of sixty-seven species in 1923 net-hours, for an average catch-rate of 0.37 birds/net hour. Diversity at the field station peaked on May 12<sup>th</sup> when 78 species were recorded during PIBO's official count period, compared to a season-low daily total of 20 on June 6<sup>th</sup>.



*Brown Thrasher*

The following unusual species were observed by PIBO staff and volunteers this Spring (including birds documented outside of PIBO's official count area): Harlequin Duck (April 25<sup>th</sup>), Willet (May 3<sup>rd</sup>), Acadian Flycatcher (May 19<sup>th</sup>), Western Wood-Pewee (May 18<sup>th</sup>), Townsend's Solitaire (May 21<sup>st</sup>), Worm-eating Warbler (banded on May 3<sup>rd</sup>), Louisiana Waterthrush (May 12<sup>th</sup>), Blue Grosbeak (May 6<sup>th</sup> – 10<sup>th</sup>), Summer Tanager (May 17<sup>th</sup>), and Lark Sparrow (May 19<sup>th</sup>).

It was a fairly typical spring compared to previous years both in terms of PIBO's coverage effort as well as migration activity at Fish Point. The total species recorded during our official coverage period (166) was slightly lower than previous springs. The average catch-rate (0.37 birds/net-hour) was also somewhat below our 5-year average of 0.40, but on par with the last three years. As usual, long-distance neotropical migrants dominated the banding totals, as well as members of the warbler family. In all, 357 warblers of twenty-five species and forms were captured this spring, or almost exactly fifty percent of all the birds banded.

Five staff and volunteers logged 514.5 field hours at Fish Point from April 2<sup>nd</sup> to June 10<sup>th</sup>.

### April 2<sup>nd</sup> – 10<sup>th</sup>

PIBO's 2010 migration monitoring season got underway at Fish Point Provincial Nature Reserve on April 2<sup>nd</sup> under clear blue skies and with light winds from the south. It was quickly evident on start-up that spring migration was well underway in southern Ontario due to mild weather throughout the region in the last few weeks of March, and lots of birds were noted on the island from April 2<sup>nd</sup> – 10<sup>th</sup>.

A mix of early-spring migrants were encountered such as Common Loon, Horned Grebe, Common and Red-breasted Mergansers, along with good numbers of newer arrivals including

## Pelee Island Bird Observatory – 2010 Year-end Report

Eastern Phoebe, Tree Swallow, Purple Martin, Yellow-bellied Sapsucker, Ruby-crowned Kinglet and Yellow-rumped Warbler.

There was some hawk migration noted on the 5<sup>th</sup> and 6<sup>th</sup>, with small numbers of Northern Harrier and American Kestrel observed, along with more than 140 Turkey Vultures, including a creamy-white 'leucistic' bird with extremely worn plumage.



*Blue-headed Vireo*

Songbird migration was steady throughout the summary period, with ones-and-twos of the species mentioned above recorded almost daily, along with a variety of other April migrants including Hermit Thrush, Golden-crowned Kinglet, Eastern Bluebird, Pine Warbler, Eastern Meadowlark, and eight sparrow species, among others. In all, PIBO staff and volunteers documented seventy-three species on the island up to April 10<sup>th</sup>.

### April 11<sup>th</sup> – 19<sup>th</sup>

A nice variety of new species arrived at Fish Point from April 10<sup>th</sup> – 19<sup>th</sup> and migrants filtered through the area on a daily basis despite generally cool temperatures and some steady northeast winds and rain. There were eighteen Spring 'firsts' noted including Virginia Rail, Barn Swallow, Blue-gray Gnatcatcher, House Wren, and our first 'official' Pine Warbler, along with a noticeable increase of other species such as Tree Swallow, Ruby-crowned Kinglet and Hermit Thrush.

East and northeast winds from the 11<sup>th</sup> – 15<sup>th</sup> produced some rain and cooler temperatures, although it was quite active on April 12<sup>th</sup>, when 46 species were documented during the official count period. Sightings included Common Loon, 225 Red-breasted Mergansers, both kinglet species, a couple of Brown Thrashers, and six sparrow *spp.* It was wet and very windy on the 13<sup>th</sup>, but conditions improved the next day – 35 species were recorded, including a Pied-billed Grebe.

The wind shifted to the southwest on April 15<sup>th</sup>, but not much activity was noted until the 17<sup>th</sup> and 18<sup>th</sup>, when good numbers of swallows appeared, including 176 Tree Swallows feeding over the lake, along with moderate numbers of American Robins and Northern Flickers. The final day of the summary period was cool and windy from the northwest and birds were few-and-far between with the exception of some Eastern Phoebes, a handful of Yellow-rumped Warblers, a group of Song and Swamp Sparrows, and a small variety of others.

### April 20<sup>th</sup> – 30<sup>th</sup>

It was cool and rainy during most of the summary period with lots of east and northeast winds, precipitation on many days, and dawn temperatures ranging from 2° – 13° C. But migration

## Pelee Island Bird Observatory – 2010 Year-end Report

continued apace and it was very active on the final day of the month, with 57 species and sixteen Spring 'firsts' recorded during our standard coverage period.

Thirty-five new arrivals were noted in the last third of April including Sora, Greater and Lesser Yellowlegs, Merlin, Red-headed Woodpecker, Least Flycatcher, Bank and Cliff Swallow, Blue-winged, Yellow and Blackburnian Warbler, and Northern Waterthrush, among others.

While activity on the lake tapered off towards the end of April, there were lots of birds observed from the tip on the 23<sup>rd</sup> including 600 Double-crested Cormorants, 340 Bonaparte's Gulls and 160 Red-breasted Mergansers. Rain and northeast winds prevailed from the 24<sup>th</sup> – 28<sup>th</sup>, but it was active on April 27<sup>th</sup> despite the inclement weather. Forty-nine species were documented during the count period including 5 warbler *spp.*, lots of Hermit Thrushes, and good numbers of Ruby-crowned Kinglets and Blue-gray Gnatcatchers.



*White-throated Sparrow*

After seven days of east and northeast winds (and 18 of the last 20 days without any south winds), PIBO staff awoke to a southwesterly breeze on April 29<sup>th</sup>, which resulted in a very busy morning on the 30<sup>th</sup>. Fifty-seven species were tallied including good numbers of blue jays and swallows, Gray Catbirds, Scarlet Tanagers, Rose-breasted Grosbeaks, Indigo Buntings and Bobolinks, among others. A banded Hooded Warbler was one of eight warbler species recorded on the day.

### **May 1<sup>st</sup> – 10<sup>th</sup>**

It was another memorable Spring Song Festival on Pelee Island last weekend and hundreds of bird and book enthusiasts were here to revel in the enduring enchantment of Spring migration. The community was graced with the presence of guest speaker Brian Brett – who read from his award winning book *Trauma Farm* – and his partner Sharon, as well as guest birders Robert and Birgit Bateman, along with a surprise visit from Stuart McLean and Vinyl Café producer Jess Milton.

It was an active time for birds from May 1<sup>st</sup> – 10<sup>th</sup> with lots of new arrivals and many interesting sightings. Thirty-five spring 'firsts' were recorded during PIBO's official count period including a variety of familiar species such as Black-bellied Plover and Wood Thrush (1<sup>st</sup>), Eastern Kingbird, Red-eyed Vireo and Ovenbird (2<sup>nd</sup>), Black-billed Cuckoo and Northern Mockingbird (3<sup>rd</sup>), Northern Parula, American Redstart and Cape May Warbler (4<sup>th</sup> & 5<sup>th</sup>), Eastern Wood-Pewee and Lincoln's Sparrow (6<sup>th</sup>), Sanderling and Dunlin (7<sup>th</sup>), and Great-crested Flycatcher and Orange-crowned Warbler on May 9<sup>th</sup> & 10<sup>th</sup>.

Five days of south and southwest winds and mild temperatures from May 1<sup>st</sup> – 5<sup>th</sup> produced a steady stream of migrants despite some rainy days on the 2<sup>nd</sup> and 3<sup>rd</sup>, including the season's first

## Pelee Island Bird Observatory – 2010 Year-end Report

White-eyed Vireo and Hooded Warbler on May 2<sup>nd</sup>, a pair of Willets, a Worm-eating Warbler (banded), another Hooded Warbler (banded) on the 3<sup>rd</sup>, and a Golden-winged Warbler recorded on the census on May 10<sup>th</sup>. Species diversity picked up noticeably on May 6<sup>th</sup> when 63 species were tallied during the count period including thirteen warbler *spp.*, along with increased numbers of Wood and Swainson's Thrushes. More rain and some north winds on the 7<sup>th</sup> were followed by gale-force winds the next day, which made for a somewhat quieter day, although a station-high 400 swallow *spp.* were observed on census on May 8<sup>th</sup> feeding out of the wind on Fox Pond and on the east side of the point. The majority of birds were Tree and Barn Swallows, although all five swallow species were recorded.



*Golden-winged Warbler*

Activity picked up again on the 9<sup>th</sup> when sixty-six species were documented during the standard count period including 19 warbler species. Nashville, Yellow, and Yellow-rumped Warblers were numerous along with smaller numbers of Tennessee, Chestnut-sided, and Black-and-white Warblers, among others. Flycatchers and vireos were also more active along with a nice variety of other May migrants including Veery, Blue-gray Gnatcatcher, Rose-breasted Grosbeak, and Indigo Bunting.

A number of unusual species were noted on the island by a small but determined group of visiting birders including a female **Blue Grosbeak** discovered at Sheridan Point on May 8<sup>th</sup>, a Dickcissel recorded flying south off the tip (8<sup>th</sup>), an adult Laughing Gull, also at the tip (9<sup>th</sup>), a Kentucky Warbler at Middle Point Woods, along with at least three Summer Tanagers.

### May 11<sup>th</sup> – 20<sup>th</sup>

It was a busy and exciting time for birds during the summary period and lots of Spring migrants stopped over on Pelee from May 11<sup>th</sup> – 20<sup>th</sup> en route to their summering grounds. Diversity at the station peaked on May 12<sup>th</sup> when 78 species were recorded in PIBO's standard 'count' area during six hours of morning coverage, including nineteen warbler species. Warblers were also abundant on May 16<sup>th</sup>, with twenty-two species noted on the day.

Although rain affected the mist-netting operation, a total of 308 birds were captured from the 11<sup>th</sup> – 20<sup>th</sup> including good numbers of Ovenbirds (29 banded), Magnolia Warblers (24), Common Yellowthroats (18), and Northern Waterthrushes (18), along with a nice variety of flycatchers, vireos and thrushes, among others. Diversity at the nets peaked on May 16<sup>th</sup> when 45 birds of twenty-six species were banded, including fourteen warbler *spp.*

## Pelee Island Bird Observatory – 2010 Year-end Report

While there were no dramatic fall-outs, a steady pulse of migrant songbirds moved through the area on a daily basis along with increased numbers of shorebirds and other non-passerines, and staff and volunteers kept busy both on the census and in the mist-netting area. Waterfowl species were few and far between, but good numbers of terns were tallied on May 14<sup>th</sup> when 350+ Common Terns were recorded at the Tip, along with a station-high 44 Caspian Terns on the 18<sup>th</sup>.

A number of unusual species were observed during the summary period by PIBO staff and volunteers including a singing **Western Wood-Pewee** on May 18<sup>th</sup> and a **Lark Sparrow** noted the following day. Both birds were discovered at Fish Point by Ken Burrell from the University of Waterloo. The pewee is possibly just the third record for the province and a first for Southern Ontario. Other noteworthy species included a Louisiana Waterthrush on the 12<sup>th</sup>, a Golden-winged Warbler banded on the 13<sup>th</sup>, Yellow-throated Vireo (15<sup>th</sup>), Summer Tanager (17<sup>th</sup>), a Cerulean Warbler and a banded **Acadian Flycatcher** (20<sup>th</sup>).

PIBO's 2010 Birdathon fundraiser took place on May 14<sup>th</sup> and thanks to Ken Burrell – our honorary Birdathon leader – a total of 123 species was recorded on the island during a 24-hour period. Highlights from the day included Wilson's Phalarope, White-rumped Sandpiper, Olive-sided Flycatcher and Kentucky and Hooded Warbler, along with a nice variety of other May migrants. The results were particularly impressive given the relatively low number of waterfowl and shorebirds that frequent the island in mid-May. PIBO wishes to thank everyone for all their support and encouragement, along with a special thanks to Ken.

### May 21<sup>st</sup> – 31<sup>st</sup>

Migrants continued to move through the area in good numbers at the start of the summary period but then things tapered off considerably by May 26<sup>th</sup> and it remained generally quiet to the 31<sup>st</sup>, apart from some shorebird and flycatcher activity.

The summary period started off on an interesting note with a **Townsend's Solitaire** observed flying over the tip at Fish Point on May 21<sup>st</sup>, and then seen again at the reserve parking lot. This sighting is a PIBO 'first' for Fish Point and represents a very late Spring record.

Diversity on the point peaked during the ten-day period on May 23<sup>rd</sup> & 24<sup>th</sup> when 64 species were recorded during the morning count periods including two Whimbrels at the tip (23<sup>rd</sup>), a Least Bittern at Peregrine Pond (23<sup>rd</sup>), and a male Connecticut Warbler banded on the 24<sup>th</sup>. A nice variety of other species were captured from the 21<sup>st</sup>-31<sup>st</sup> including steady numbers of 'Traill's', Least, and Yellow-bellied Flycatchers, Swainson's and Gray-cheeked Thrushes, along with ones-and-twos of Canada, Wilson's, and Mourning Warbler.

An Acadian Flycatcher (the second banded this spring) was captured on May 23<sup>rd</sup> and two singing males were recorded on the 26<sup>th</sup>. A female Hooded Warbler (banded) and a singing male Hooded were noted on the 24<sup>th</sup> and a Louisiana Waterthrush was found on census on the 25<sup>th</sup>.

The weather warmed up (20° C at dawn on the 28<sup>th</sup>) and migration activity decreased towards the end of the month, with just 32 species tallied on May 29<sup>th</sup>, along with similar results on the 30<sup>th</sup> and 31<sup>st</sup>. Despite these conditions, a few migrant species continued to filter through the area in moderate numbers including Black-bellied Plover and Ruddy Turnstone, a variety of flycatchers, both cuckoo species, and a steady stream of Cedar Waxwings, among others.

Pelee Island Bird Observatory – 2010 Year-end Report

**Table 1 – Spring banding totals**

Species	Total	Species	Total
Red-winged Blackbird	73	Ruby-throated Hummingbird	5
Magnolia Warbler	46	American Goldfinch	4
Ovenbird	44	Brown-headed Cowbird	3
Nashville Warbler	39	Blue-winged Warbler	3
Yellow Warbler	29	Cape May Warbler	3
Canada Warbler	29	Hooded Warbler	3
Gray Catbird	27	Swamp Sparrow	3
Common Yellowthroat	27	"Western" Palm Warbler	3
Northern Waterthrush	27	Baltimore Oriole	2
Swainson's Thrush	26	Blackburnian Warbler	2
Ruby-crowned Kinglet	26	Brown Thrasher	2
Hermit Thrush	24	Downy Woodpecker	3
White-throated Sparrow	19	Eastern White-crowned Sparrow	2
"Myrtle" Warbler	16	Golden-crowned Kinglet	2
Chestnut-sided Warbler	16	Golden-winged Warbler	2
Black-and-white Warbler	15	Red-bellied Woodpecker	2
Wood Thrush	15	White-eyed Vireo	2
Mourning Warbler	14	"Yellow-shafted" Flicker	2
American Redstart	13	Acadian Flycatcher	1
Veery	13	Black-capped Chickadee	1
American Robin	12	Blue-gray Gnatcatcher	1
House Wren	11	Blue-headed Vireo	1
Gray-cheeked Thrush	10	Blue Jay	1
Lincoln's Sparrow	9	Brown Creeper	1
Common Grackle	9	Connecticut Warbler	1
Northern Cardinal	8	Orange-crowned Warbler	1
Indigo Bunting	7	Philadelphia Vireo	1
Wilson's Warbler	7	Rose-breasted Grosbeak	1
Yellow-bellied Flycatcher	7	Red-eyed Vireo	1
Least Flycatcher	6	Song Sparrow	1
Tennessee Warbler	6	Tree Swallow	1
Black-throated Blue Warbler	5	Worm-eating Warbler	1
Black-throated Green Warbler	5	Winter Wren	1
"Traill's" Flycatcher	5	<b>Individuals</b>	<b>708</b>
		<b>Species and forms</b>	<b>67</b>
		<b>Net hours</b>	<b>1923</b>
		<b>Birds/net hour</b>	<b>0.37</b>

**Table 2 – Spring coverage effort**

Description	2010	2009	2008	2007	2006	2005
Coverage period	Apr 2 - Jun 10	Apr 1-Jun10	Apr 3-Jun14	Apr 1–Jun 15	Apr 2–Jun 8	Apr 5–Jun 6
Coverage days	70	71	73	76	67	61
Netting period	Apr 4 - May 28	Apr 2-May 24	Apr 5-Jun 10	Apr 2–Jun 1	Apr 15–Jun 7	Apr 6–Jun 5
Netting days	47	44	55	48	35	55
Birds banded	708	825	794	637	1033	1151
Net hours	1923	2187	2569	1831	1796	2223
Bird per net hour	0.37	0.39	0.31	0.35	0.61	0.52

**Pelee Island Bird Observatory – 2010 Year-end Report**

Species banded	67	68	69	67	62	72
Recaptures	65	77	95	66	68	147
Species recaptured	11	18	9	10	17	23
Species recorded	166	170	175	177	181	171

**Fall Migration**

**August 1<sup>st</sup> – 10<sup>th</sup>**

After a productive summer of research and a brief break in July, PIBO staff and volunteers launched the autumn migration coverage season on August 1<sup>st</sup>. The first ten days of the month were hot and dry, with dawn temperatures reaching 27° C, and with little rain save for some brief thundershowers on the 3<sup>rd</sup>. In keeping with the time of year, migration activity was generally light and most of the birds recorded were local breeders and young of the year.



*Northern Waterthrush*

Nevertheless, a small variety of new arrivals were noted throughout the summary period and sixty-eight species were documented in PIBO's official 'count' area from August 1<sup>st</sup> – 10<sup>th</sup>. Swallows were actively heading south on August 8<sup>th</sup>, with 150 birds observed leaving from the tip of Fish Point for Middle, Kelley's, and the Bass Islands, along with smaller numbers of Cedar Waxwings, orioles, and goldfinches. Barn Swallows were dominant followed by Bank, Northern Rough-wings, and a few Purple Martins.

Shorebirds were not much in evidence, with only a few Sanderlings and a Black-bellied Plover tallied over ten days, but there were lots of gulls and terns at the tip most mornings, including 1200 gulls (mostly ring-billed and herring) and 220 Common Terns on August 6<sup>th</sup>.

While there were some additional species observed on the morning census, most of the songbird activity was in the netting area, with small numbers of the following migrants documented throughout the summary period: Least and Yellow-bellied Flycatcher, Red-breasted Nuthatch, Swainson's Thrush, American Redstart, Blackburnian, Black-and-white, and Canada Warbler.

In addition to the above, an Eastern Red Bat was captured in the nets on August 6<sup>th</sup>, which is just the second PIBO record for this migratory species. In all, just three bats have been netted during eight years and almost 30,000 net hours of operation on Pelee Island – 2 Eastern Red and one Silver-haired Bat.

**August 11<sup>th</sup> – 20<sup>th</sup>**

Although a nice variety of migrants moved through the area in small numbers during the summary period, a hot and humid mid-month made for a fairly quiet time at Fish Point from August 11th - 20th. But despite the balmy conditions, there was some active diurnal migration on a number of mornings, with a steady stream of kingbirds, swallows, waxwings, bobolinks, red-wings, and orioles, observed flying south from the tip. Interestingly, these movements occurred only on days with south and southwest winds. But with dawn temperatures as high as 25° C, along with predominately east and southwest winds, songbird activity was generally light in mid-August compared to previous years, which was likely due to the warm weather.



*American Redstart*

Seventeen Fall 'firsts' were recorded from August 11th - 20th including Ruddy Turnstone (Aug 14th), Peregrine Falcon (Aug 12th), Magnolia Warbler (Aug 16th), Ovenbird (Aug 19th), Mourning Warbler (Aug 11th), and Cape May Warbler (Aug 20th), among others. The highlight of the week was a Prothonotary Warbler noted on census on August 13th.

Ones-and-twos of a variety of species were banded earlier in the summary period, including Least and Yellow-bellied Flycatcher, Red-eyed Vireo, Northern Waterthrush, and Canada Warbler, but activity picked-up on the 17th and continued until the 20th. American Redstarts were abundant, with 14 individuals banded on the 20th, followed by smaller numbers of Black-and-white, Tennessee, Chestnut-sided and Magnolia Warbler. In all, eleven warbler species were captured during the ten-day period.

While the Common Terns noted in the last migration summary (August 1st - 10th) were absent this week, cormorant and gull totals increased considerably after the 15th, with 3600 Double-crested Cormorants and 1200 gulls of four species recorded on August 17th. Shorebirds were more in evidence as well, with a group of 8 Sanderlings, a few turnstones, and the season's first Semipalmated Plover noted on August 18th.

**August 21st - 31st**

It was a quiet start to the summary period but a busy and productive time mid-week, with lots of migrants moving through the area from August 23rd - 27th. Hot, humid weather and southerly winds returned to Southern Ontario on the 28th, however, and activity gradually tapered off during the final days of August.

Although the netting area was inactive from August 21st - 24th, migrants continued to arrive in small but steady numbers including Fall 'firsts' for Baird's Sandpiper, Philadelphia Vireo, Veery, Northern Parula and Black-throated Green Warbler. A female Golden-winged Warbler was

## Pelee Island Bird Observatory – 2010 Year-end Report

banded on the 23rd. This activity was somewhat surprising given the weather - the average dawn temperature at the Point from August 1st - 26th was 23° C, with no sub 20 readings recorded.

By the same token, it wasn't a surprise when the thermometer finally dipped below twenty on August 26th that the station experienced its first significant 'fallout' of the season. In all, sixty-one species were recorded during the official count period on the 26th and 109 birds of twenty-three species were captured during sixty net-hours of operation (1.8 birds/net-hour). Magnolia Warblers were numerous, with 41 individuals tallied (23 banded), followed by good numbers of American Redstarts, Red-eyed Vireos, Veerys and Swainson's Thrushes. Fourteen warbler species were observed on the day along with increased numbers of Least, Traill's and Yellow-bellied Flycatchers, and a nice variety of other Neotropical migrants.



*American Redstart*

Although the 27th wasn't quite as busy - 51 species were recorded with 74 birds banded of eighteen species - an unprecedented count of 180 Cliff Swallows were recorded departing from the tip during the census in steady waves of ten to twenty birds. This hour-long tally probably represents only a fraction of the birds on the move that day. It remained active on August 28th - sixty-one species were noted - but the winds shifted back to the south the next day and migration activity slowly-but-surely ground to a near halt.

Despite the balmy conditions it was fairly active this August compared to previous years. In all, 108 species were recorded in the 'count' area from the 1st - 31st (including 22 warbler species) and 487 birds of thirty-nine species were banded in 1047 net-hours, for an average catch-rate of 0.47 birds/net-hour.

### **September 1<sup>st</sup> – 10<sup>th</sup>**

It was a generally quiet start to September as warm weather continued to dominate in the region, but a strong cold front moved through on the evening of the 4<sup>th</sup> which produced a lot of migrants on September 5<sup>th</sup>, and this activity continued off-and-on throughout the remainder of the summary period.

While Double-crested Cormorants and a variety of gull species have remained active at the tip, including 14,000 cormorants counted on September 4<sup>th</sup>, it's been a very quiet time for shorebirds this Fall, with just small numbers of Black-bellied Plovers, Sanderlings, and a few 'peeps' noted in August and early-September. Hawks have been quite scarce as well, with only ones-and-twos of a small variety of birds encountered, although the raptor migration is just starting to get underway.

## Pelee Island Bird Observatory – 2010 Year-end Report

Strong southwest winds and plus-20° C morning temperatures from the 1<sup>st</sup> – 4<sup>th</sup> made for a fairly quiet time for songbirds and there was little to report save for small numbers of thrushes and warblers and a few migrant flycatchers and vireos. Just forty-five birds were captured in 165 net-hours (0.27 birds/net-hour) over four days, and an average of only thirty-two species was recorded on the census.

As is often the case, however, a large backlog of birds appeared once the temperature dropped on the evening of the 4<sup>th</sup>, and PIBO staff and volunteers were kept busy both on the census and in the netting area. In all, 130 birds of twenty-five species were captured (2.17 birds/net-hour) on September 5<sup>th</sup> and a season-high 63 species was recorded during the official count period. Blackpoll Warblers and American Redstarts were numerous, with 42 and 28 individuals banded, respectively, along with a nice variety of other birds in moderate numbers. A total of nineteen warbler species was tallied on the day (including fifteen species banded), and five season 'firsts' were noted – Solitary Sandpiper, Marsh Wren, Blue-winged Warbler, 'Western' Palm Warbler, and Lincoln's Sparrow.



*Cape May Warbler*

The temperature crept back up again and not much activity was recorded on the 6<sup>th</sup> and 7<sup>th</sup>, but another wave of birds appeared on September 8<sup>th</sup> when 60 birds were captured, including 25 American Redstarts. It remained active during the next two days, with 93 birds banded on the 9<sup>th</sup> and 109 on the final day of the summary period, along with 64 species recorded in the official count area on the 10<sup>th</sup>. Swainson's Thrushes were documented in good numbers, with 35 birds banded over two days, along with a nice variety of warblers, vireos (including 4 Philadelphias), and small numbers of flycatchers.

In all, 492 birds were banded from September 1<sup>st</sup> -10<sup>th</sup> in 507 net-hours for an average catch rate of 0.97 birds/net-hour. The top five species encountered in the nets were American Redstart (90 banded), Blackpoll Warbler (83), Swainson's Thrush (61), Magnolia Warbler (42) and Ovenbird (31).

### **September 11th - 20th**

It was an active mid-month at Fish Point and lots of neotropical migrants passed through the area on the way south to their wintering grounds in Central and South America. At the same time, a nice variety of new arrivals - temperate migrants that winter north of the tropics - started to appear in good numbers towards the close of the summary period, so it was a good mix of birds at the halfway point in PIBO's monitoring season.

At least 2000 Ringed-billed and Herring Gulls were active all week at the tip along with up to 50 Great Black-backs. Double-crested Cormorants remained numerous, with an estimated 7400 birds recorded in one hour on September 16th. Shorebirds were hard to find on the census and only a few Black-bellied Plovers and Sanderlings were tallied, as well as a couple of lingering

## Pelee Island Bird Observatory – 2010 Year-end Report

Spotted Sandpipers. Hawk migration was more in evidence after the 14th and small groups of Sharp-shins were noted each day on the census along with a station-high 10 Bald Eagles loafing at the tip on the 14th, 5 Merlins on the 19th, and up to 6 Northern Harriers recorded almost daily.

Catharus thrushes dominated on the passerine front and lots of birds were banded, with 368 individuals of four species (Veery, Swainson's, Gray-cheeked and Hermit) captured from the 11th - 20th, including 78 and 52 Swainson's and 20 and 25 Gray-cheeks banded on the 14th and 15th, respectively. This activity continued right through to the 20th when 48 thrush spp. were captured, including the first banded Hermit Thrush of the Fall. September 19th was a curious day - 62 thrushes were banded that morning along with only two other birds - a Blackpoll Warbler and Ovenbird.



*Gray-cheeked Thrush*

It was also active for a variety of other songbirds and quite a few new arrivals were noted including Yellow-throated Vireo, Ruby-crowned Kinglet and Scarlet Tanager (14th), Hooded Warbler (15th), Brown Creeper and Purple Finch (18th), and the first American Pipits and Golden-crowned Kinglets on the 19th and 20th. A range of other birds appeared in the nets in good numbers, with thirty-six species captured including Magnolia Warbler (49 banded over ten days), American Redstart (35), Black-throated Blue Warbler (31), Ovenbird (22) and Red-eyed Vireo (16), among others.

In all, 133 species have been recorded at Fish Point this Fall during PIBO's official count period and 1583 birds have been banded in 2042 net-hours, for an average catch-rate of .78 birds/net-hour. In keeping with the rapid turnover of migrants at the Point, only eighteen individuals have been recaptured again this autumn at least one day from the time of their initial banding, including a mere one percent of the thrushes (four recaptures of 368 birds).

### **September 21<sup>st</sup> – 30<sup>th</sup>**

Migration activity at Fish Point was up-and-down during the final ten days of September as a result of some rainy weather and yet more unseasonably warm temperatures and south winds from the 21<sup>st</sup> – 25<sup>th</sup>. But despite the less than ideal conditions, a nice variety of birds continued to move through the area in significant numbers and PIBO staff and volunteers were kept busy throughout most of the summary period.

Rain, dawn temperatures of 20° C, and southerly winds, made for a quiet time at the start of the week, although September 23<sup>rd</sup> was active, with 51 species recorded in the official count area including nine warbler species, increased numbers of Cedar Waxwings and American Pipits, and more than 60 White-throated Sparrows. The first banded Scarlet Tanager of the fall was captured on the day along with the first Northern Juncos of the season.

## Pelee Island Bird Observatory – 2010 Year-end Report

The dawn temperature was 25° C the next morning and, not surprisingly, just 27 species were noted in the count area, although a couple of Peregrine Falcons at the tip made for an enjoyable sight on the census. September 25<sup>th</sup> was equally inactive, but the winds shifted to the north that evening and the mercury dropped to 13° C overnight, and it was a busy morning on the 26<sup>th</sup>, with 63 species recorded on the day along with 77 birds banded of twenty-three species. Fifteen warbler species were tallied (nine species banded) including the first Orange-crowned Warblers of the Fall, and there were lots of flickers, kinglets, thrushes, and sparrows observed and banded.



*Scarlet Tanager*

More precipitation on September 27<sup>th</sup> and 28<sup>th</sup> affected our daily field coverage, although there were quite a few birds recorded on the census on the 27<sup>th</sup> including 71 Blue Jays, 50 Ruby-crowned Kinglets, and eight warbler species. A singing Whip-poor-will was noted in the netting area just before sun-up on the 27<sup>th</sup>, which was a first for the Fall.

The tide turned once again and the final two days of the summary period were quite active, with fifty species recorded during the standard count period on September 29<sup>th</sup> and 30<sup>th</sup> and with just over one hundred birds banded over the two day period. Golden-crowned Kinglets were numerous on the 29<sup>th</sup>, with 129 birds counted, along with 48 Ruby-crowns, 20 Brown Creepers, 17 Winter Wrens, and a nice variety of other mid to late-Fall migrants. Warblers continued to appear in small numbers as well including ten species noted on the 29<sup>th</sup>. The first Red-headed Woodpecker of the autumn was recorded on September 30<sup>th</sup>.

### **October 1<sup>st</sup> – 10<sup>th</sup>**

Migrants continued to move through the area in good numbers from October 1<sup>st</sup> – 10<sup>th</sup> and there was a nice mix of September stragglers – fourteen warbler species were noted – along with more typical October migrants including both kinglet species, Brown Creepers, lots of Hermit Thrushes, and a nice variety of sparrows. Although the station banding totals were lower this week compared to previous years (partially due to three days of rain), there were lots of birds observed in the netting area and on the census, and PIBO staff and volunteers kept busy throughout most of the summary period.

The month started off on an active note with 53 species tallied on October 1<sup>st</sup> along with 61 birds banded of seventeen species. White-throated Sparrows were abundant – 130 birds were recorded during the ‘count’ period – as well as Golden-crowned Kinglets (67), Blue Jays (64), Eastern White-crowned Sparrow (48), and Hermit Thrushes (28), among others. Lots of rain on the 2<sup>nd</sup> and 3<sup>rd</sup> made for a generally quiet time apart from good numbers of diurnal migrants observed on census on the 3<sup>rd</sup>, including 265 Blue Jays.

## Pelee Island Bird Observatory – 2010 Year-end Report

An additional 345 jays were counted on October 4<sup>th</sup> along with the first Horned Grebes of the Fall, and it was active on the 5<sup>th</sup> as well, with 116 Golden-crowned and 61 Ruby-crowned Kinglets noted on the day, as well as eight warbler species. A Red Phalarope recorded on census (which was mistakenly posted on our Twitter account as a Red-necked Phalarope) was an official first-record for the station and only the second phalarope documented on the island since at least 2003. In all, 51 species were recorded in the 'count' area on October 5<sup>th</sup> and 77 birds of twenty species were banded in sixty net-hours (1.28 birds/net-hour).

It was fairly active on the 6<sup>th</sup> and 7<sup>th</sup>, with 200 kinglets recorded on the former day, followed by the first Northern Saw-whet Owl of the fall banded on the 7<sup>th</sup>, although predawn temperatures of 13° C made for a somewhat quieter time until the 9<sup>th</sup>. The final two days of the summary period were noticeably busier, however, both in the netting area and on the census, with 42 Yellow-rumped Warblers tallied on the 9<sup>th</sup> along with 26 Hermit Thrushes (17 banded), a Northern Parula, 6 sparrow species, and another three banded Northern Saw-whets.

### October 11<sup>th</sup> – 20<sup>th</sup>

Although lots of migrants were recorded at Fish Point from October 11<sup>th</sup> – 20<sup>th</sup>, it's been a generally quiet month to date compared to previous Octobers, which contrasts with a busy couple of months at the station this August and September. But despite the reduced number of some late-Fall migrants, particularly the kinglets, it was a productive ten days and a nice variety of birds were noted throughout the summary period.



*Red-breasted Nuthatch*

There was some active diurnal migration on October 11<sup>th</sup> including 58 Blue Jays and 47 American Robins recorded on the census along with moderate numbers of Yellow-rumped Warblers, hundreds of blackbird *spp.*, and 15 Sanderlings. Northeast winds and cooler temperatures on the 12<sup>th</sup> produced another busy morning, with 43 species tallied during the 'count' period including 77 Golden-crowned Kinglets, smaller numbers of Ruby-crowns, Winter Wrens, Red-breasted Nuthatches, and six sparrow species. Golden-crowns were numerous the next day, with 169 birds counted, along with the first Fox Sparrows of the autumn.

Cormorants were still around in large numbers on October 14<sup>th</sup>, with 900 noted on the census, along with up to 1200 gulls (mostly Ringed-billed), but very few other waterbirds, which was the case during most of the summary period. It was moderately active on the 15<sup>th</sup>, with 33 Yellow-rumped Warblers tallied throughout the morning, along with a few lingering Blackpolls and Common Yellowthroats. Cool, clear weather and northwest winds on October 16<sup>th</sup> made for a busy morning and lots of Yellow-rumps, Hermit Thrushes, and kinglets were banded and observed along with a nice variety of other species including Orange-crowned Warbler, Blue-headed Vireo, a somewhat late Red-eyed Vireo, White-breasted Nuthatch, and Purple Finch, among others.

## Pelee Island Bird Observatory – 2010 Year-end Report

It was fairly active on the 17<sup>th</sup> and 18<sup>th</sup>, with forty-six species documented on the latter day including a female Peregrine Falcon at the tip, lots of kinglets and creepers, 33 Hermit Thrushes (15 banded), 45 White-throat Sparrows, and six other sparrow *spp.* While Hermit Thrushes and Yellow-rumped Warblers continued to move through the area on the final two days of the summary period, it was somewhat less active on the 19<sup>th</sup> and 20<sup>th</sup>, with 37 species noted on October 19<sup>th</sup>, including the first Eastern Bluebirds of the Fall.

### October 21<sup>st</sup> – 31<sup>st</sup>

It was an interesting and somewhat unusual eleven days at Fish Point from October 21<sup>st</sup> – 31<sup>st</sup> and, as so often the case with migratory birds, it was largely due to the weather. Powerful gale force winds from the southwest persisted throughout the early part of the summary period and migration practically ground to a halt, with just twenty-one species recorded on October 25<sup>th</sup> and 26<sup>th</sup>, for instance. And with the exception of Red-breasted Merganser and Rough-legged Hawk, no Fall 'firsts' were recorded at the station from the 21<sup>st</sup> – 28<sup>th</sup>. As suggested in last week's summary, this month has proven to be one of the least active Octobers at Fish Point to date, and some of the final totals for the month appear to confirm this.

At the same time, however, and once conditions finally improved, PIBO staff and volunteers were treated to some very active mornings towards the end of the month, including one of the busiest 'sparrow' days at the station since operations began in 2003. The winds finally shifted back to the north on the 28<sup>th</sup> and this prompted a large influx of birds the next morning, with 53 species recorded during the official count period along with 62 birds banded of fifteen species. A variety of species were noted in significant numbers including 12 Common Loons, 85 American Crows, 56 Golden-crowned Kinglets, 70 White-throated Sparrows, a mix of more than 2000 Red-wings and Common Grackles, and hundreds of Rusty Blackbirds. Other noteworthy sightings on the day included the first Tundra Swans and Snow Buntings of the Fall.



*Swamp Sparrow*

The wind shifted back to the south on October 30<sup>th</sup> and songbird numbers trailed off again, but then the temperature dropped, the winds returned to the north, and these conditions produced a major fallout on the final day of the month. In all, 52 species were recorded on October 1<sup>st</sup> (88 birds of sixteen species were banded) including more than 700 American Crows observed flying off the point during the census, large numbers of Hermit Thrushes (39 counted), a somewhat late Nashville Warbler, and ones-and-twos of a nice variety of other October migrants. An unprecedented diversity and abundance of sparrows was noted on the day as well, with the following ten species recorded at Fish Point during a 30-minute walk up the west beach: American Tree, Field, Vesper, Savanna, White-throated, Eastern White-crowned, Fox, Song, Swamp, and Northern Junco. An additional two species were noted later in the day including a few Chipping Sparrows and a surprisingly high-profile Le Conte's Sparrow discovered just up the road from the PIBO cottage.

**November 1st - 15<sup>th</sup>**

PIBO's 2010 Fall migration monitoring season wrapped up on November 15th after 107 consecutive days of field coverage at Fish Point starting on August 1st. It was successful and satisfying year thanks, as always, to the commitment of a devoted group of interns and volunteers, the generous financial assistance of many individuals and organizations, and the ongoing support of Ontario Parks - Ontario Ministry of Natural Resources.



*American Tree Sparrow*

Migrants moved through the area in good numbers from November 1st - 15th and the PIBO crew was kept busy counting lots of songbirds passing overhead on the census, a large number and diverse range of sparrows, and a nice build up of waterfowl on the lake. The weather was generally mild for early-November, with an average dawn temperature of 5° C, and with no sub-zero readings from the 1st - 15th. This may have been partially due to the steady southerly winds encountered during the summary period - south winds (S, SE, and SW) were recorded on nine of fifteen mornings.

Despite these conditions it was active from November 1st - 4th, with 42 species tallied on the 1st including eight sparrow spp. Forty-four species were noted on the 2nd including mixed flocks of more than 5000 red-wings, grackles, cowbirds, and Rusty Blackbirds, and the first 'official' Greater Scaups and Buffleheads of the Fall. Diversity for the period peaked on November 3rd when 48 species were documented during PIBO's official count period including similar numbers of blackbirds, 17 Horned Grebes, and small groups of Eastern Bluebirds, American Pipits and Cedar Waxwings observed flying south on the census. At least 4 Long-eared Owls were discovered in the netting area first thing on the 3rd as well, which is an unusual sight for Pelee - just one previous Long-eared Owl has been recorded by PIBO on the island since 2003.

Migration activity tapered off on November 5th and there wasn't much to report during the next few days, but cooler temperatures on the 8th produced a large volume of birds including 49 Tundra Swans and over 800 other waterfowl of five species. Greater Scaup were numerous along with smaller numbers of Red-breasted Mergansers, Canada Geese, and Buffleheads. Similar activity was noted from November 9th - 11th, including a season-high 61 Horned Grebes recorded on census on the 11th. Dense fog set in on the morning of the 12th and just twenty-two species were noted on the census, and these conditions continued right on through to the final day of the migration season.

Pelee Island Bird Observatory – 2010 Year-end Report

Table 3 – Fall banding totals

Species	Total	Species	Total
Sharp-shinned Hawk	26	Cape May Warbler	8
American Woodcock	1	Black-throated Blue Warbler	96
Northern Saw-whet Owl	21	Blackburnian Warbler	7
Eastern Screech-Owl	2	"Myrtle" Warbler	152
Ruby-throated Hummingbird	2	Black-throated Green Warbler	5
Downy Woodpecker	24	"Western" Palm Warbler	1
"Yellow-shafted" Flicker	2	Bay-breasted Warbler	4
Eastern Wood-Pewee	6	Blackpoll Warbler	121
Yellow-bellied Flycatcher	25	Black-and-white Warbler	50
"Traill's" Flycatcher	9	American Redstart	199
Least Flycatcher	5	Ovenbird	87
Eastern Phoebe	1	Northern Waterthrush	30
Red-eyed Vireo	63	Mourning Warbler	12
Philadelphia Vireo	11	Common Yellowthroat	8
Blue-headed Vireo	9	Hooded Warbler	1
Blue Jay	10	Wilson's Warbler	22
Black-capped Chickadee	18	Canada Warbler	30
Red-breasted Nuthatch	6	Scarlet Tanager	1
Brown Creeper	27	Northern Cardinal	9
House Wren	14	Indigo Bunting	2
Winter Wren	21	Eastern Towhee	1
Golden-crowned Kinglet	227	American Tree Sparrow	4
Ruby-crowned Kinglet	90	White-throated Sparrow	51
American Robin	6	E. White-crowned Sparrow	4
Wood Thrush	4	Fox Sparrow	7
Veery	49	Song Sparrow	11
Swainson's Thrush	437	Lincoln's Sparrow	2
Gray-cheeked Thrush	136	Swamp Sparrow	3
Hermit Thrush	217	"Slate-colored" Junco	14
Gray Catbird	6	Brown-headed Cowbird	1
Cedar Waxwing	6	Red-winged Blackbird	2
Northern Parula	3	Rusty Blackbird	9
Orange-crowned Warbler	4	Common Grackle	44
Tennessee Warbler	19	Purple Finch	12
Golden-winged Warbler	1	American Goldfinch	9
Nashville Warbler	32	<b>Individuals</b>	<b>2788</b>
Yellow Warbler	4	<b>Species and forms</b>	<b>74</b>
Chestnut-sided Warbler	27	<b>Net hours</b>	<b>3783</b>
Magnolia Warbler	198	<b>Birds/net hour</b>	<b>0.74</b>

**Pelee Island Bird Observatory – 2010 Year-end Report**

**Table 4 – Fall coverage effort**

Description	2010	2009	2008	2007	2006	2005	2004
Coverage Period	Aug 1-Nov 15	Aug 1-Nov 15	Aug 1-Nov 15	Aug 1–Nov 15	Aug 7–Nov 15	Aug 4–Nov 14	Aug 6–Nov 9
Days	107	107	107	107	101	102	94
Netting Period	Aug 4-Nov 10	Aug 5-Nov 11	Aug 3-Nov 11	Aug 1–Nov 13	Aug 8–Nov 15	Aug 9–Nov 11	Aug 18–Nov 1
Netting Days	90	90	92	n/a	82	89	63
Birds Banded	2788	2471	2711	2035	3426	4325	2849
Net Hours	3783	4003	4199	4488	3246	4182	2191
Birds/Net Hour	0.74	0.62	0.65	0.45	1.05	1.03	1.3
Species Banded	74	72	69	74	74	82	78
Recaptures	61	59	56	60	77	112	54
Species Recaptured	18	15	18	18	17	25	15
Species Recorded	166	172	171	178	174	180	170

**Table 5 – Combined Spring and Fall coverage effort**

Description	2010	2009	2008	2007	2006	2005	2004
Coverage Period	Apr 2-Jun 10 Aug 1-Nov 15	Apr 1-Jun 10 Aug 1-Nov 15	Apr 3-Jun 14 Aug 1-Nov 15	Apr 1-Jun 15 Aug 1-Nov 15	Apr 2-Jun 8 Aug 7-Nov 15	Apr 5-Jun 6 Aug 2-Nov 14	Apr 13-May 31 Aug 6-Nov 10
Days	177	178	180	183	168	163	139
Netting Period	Apr 2-May 28 Aug 4-Nov 10	Apr 2-May 24 Aug 5-Nov 11	Apr 5-Jun 10 Aug 3-Nov 11	Apr 2-Jun 1 Aug 1-Nov 15	Apr 15-Jun 7 Aug 8-Nov 15	Apr 6-Jun 5 Aug 9-Nov 11	Apr 20-May 28 Aug 18-Nov 1
Netting Days	139	134	147	139	117	144	93
Birds Captured	3498	3296	3505	2672	4459	5490	3451
Species Captured	85	88	82	84	81	91	87
Net Hours	5706	6190	6767	6319	5042	6393	3269
Birds/Net Hour	0.61	0.53	0.52	0.41	0.88	0.85	1.06
Recaptures	126	136	151	126	145	259	97
Species Recaptured	23	28	25	23	24	35	22
Species Documented	193	198	194	205	201	199	193

**Northern Saw-whet Owl Migration Monitoring**

PIBO's saw-whet monitoring program ran this Fall on twenty-one of a possible forty-seven evenings from October 5<sup>th</sup> – November 20<sup>th</sup>. Four mist-nets were erected at the south end of Stone Road on property under the stewardship of the Essex Region Conservation Authority and operated approximately four hours each night for a total of 312 net-hours. Twenty Northern Saw-whet Owls and two Eastern Screech-Owls were captured during the study period, for an average catch-rate of 0.07 birds/net-hour. By comparison, 26 saw-whets and one screech-owl were captured in 2009 on thirty-two nights (608 net-hours) from October 1<sup>st</sup> to November 10<sup>th</sup>, for an average catch-rate of 0.04 birds/net-hour.

## **Breeding Birds**

### **Breeding Bird Census (BBC)**

2010 saw the completion of the first stage of PIBO's ambitious long-term Breeding Birds of Pelee Island (BBPI) project. The BBPI is a collaborative effort on the part of PIBO, the Nature Conservancy of Canada, Ontario Parks, Ontario Nature, the Essex Region Conservation Authority, and other interested parties, to document the current status of more than one-hundred species that nest or have been known to nest on Pelee, including more than ten Species at Risk.

Although a variety of additional survey methods help to round-out the BBPI project, the centerpiece of the study has been the set-up and surveying of ten permanent Breeding Bird Census (BBC) plots. A report of the results from the work this summer, which includes data from more than eighty morning field surveys (247 hours) by five staff and volunteers, will be completed this winter. In the meantime, the following summary provides an overview of some of the objectives and rationale for the BBPI project, and some additional information about the Breeding Bird Census.

Pelee Island is home to a significant and varied group of breeding birds that nest within the narrow confines of Southwestern Ontario's Carolinian Zone. The island provides critical nesting habitat for more than one hundred species. Fifteen Species At Risk have nested on Pelee including the endangered King Rail, Piping Plover and Acadian Flycatcher, and many at risk species currently occupy territories – Least Bittern, Bald Eagle, Prothonotary Warbler, and Yellow-breasted Chat. The island's small chat colony represents a large portion of this species eastern population.

In recognition of the island's unique breeding bird communities, PIBO launched an ambitious long-term nesting study in 2008 – the Breeding Birds of Pelee Island Project – following the study protocol of the Breeding Bird Census (BBC). To accomplish this goal the observatory sought permission from property owners to establish ten permanent BBC study plots at select locations on Pelee Island. The BBC – unlike the popular Breeding Bird Survey (BBS) – is a habitat-based monitoring scheme that provides detailed information about the distribution, abundance and diversity of breeding birds in relation to specific vegetation communities. PIBO established and surveyed ten plots in 2009/2010. Each site will be resurveyed – including follow-up vegetation monitoring – every two or three years, yearly results will be published in the *Journal of Field Ornithology*, and PIBO will complete a final report at the conclusion of each field season. A major publication – the *Breeding Birds of Pelee Island* – will be produced when a minimum of five years of data has been collected from each study site.

PIBO's decision to use the BBC methodology reflects the observatory's commitment to long-term, comprehensive monitoring of Pelee's significant breeding bird communities. While we will continue to conduct a wide range of additional nesting surveys, the BBC plots represent the organization's core breeding bird program. PIBO is responsible for the organization and long-term operation of the study, including equipment, staffing and accommodations, and for ensuring that the work is conducted at a high standard. The observatory is also responsible for the accurate and timely submission and reporting of all data associated with the study to landowners and other interested parties.

The following summary of the BBC methodology is taken from the USGS website:

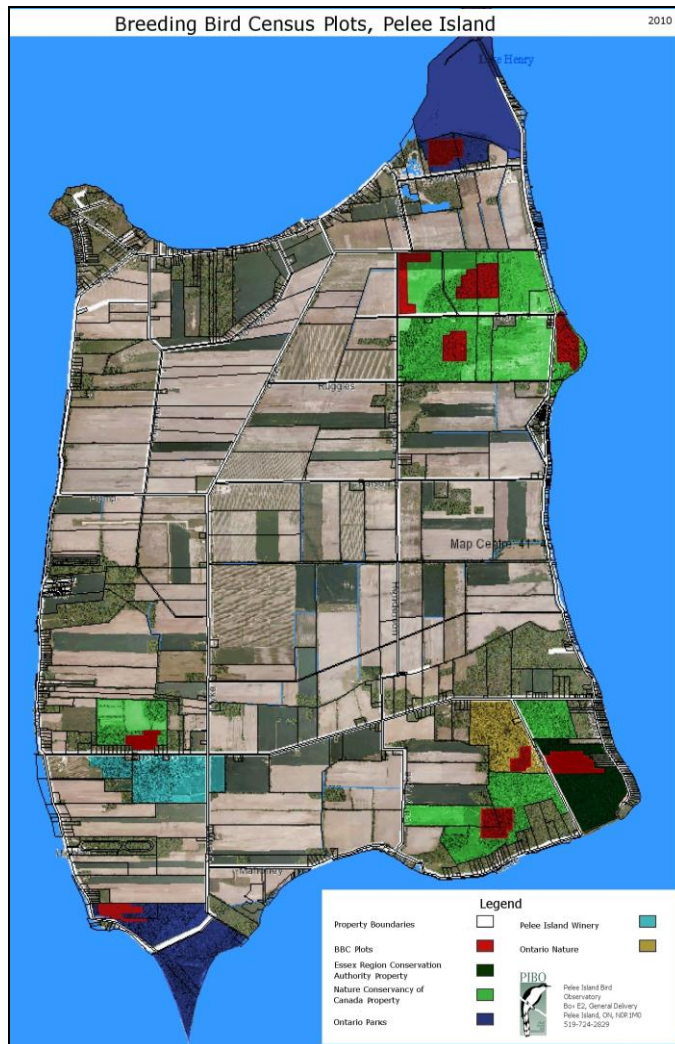
The location of each plot and the habitat studied within the plot are at the discretion of the project organizers, although they must meet certain requirements established by the program. Most plots are located at sites that are relatively free from disturbance such as parks, nature reserves, and wildlife refuges. The size and dimensions of the study plot are also at the discretion of the organizers. However, minimal plot sizes are recommended by

## Pelee Island Bird Observatory – 2010 Year-end Report

the BBC of 10 hectares in closed habitats and 40 hectares in open habitats, although some plots may be smaller than these recommendations.

At the initiation of each study plot, quantitative data are collected to describe the species composition and vegetative structure of the community. Standard methodologies are followed so the data are comparable between plots (James and Shugart 1970). Subsequent changes in the structure and composition of the vegetative community are frequently described in subjective narratives, although some plots will repeat the quantitative surveys at periodic intervals.

The BBC employs the spot-mapping methodology to estimate population densities for each avian species present in the study plots (Robbins 1970). This methodology maps the locations of all singing males and pairs present in the plot on different days during the breeding season. When these locations are combined for the entire season, each territory can be identified with considerable accuracy. A minimum of eight visits are normally required each breeding season to accurately map the territories of all species. These visits should be spaced throughout the season, including censuses during spring for species breeding early in the year.



**Table 6 – Habitat descriptions for ten Breeding Bird Census plots on Pelee Island**

<b>Location</b>	<b>Plant Community</b>
Fish Point	maple swamp: red and silver maple with occasional cottonwood, black ash, white elm, hackberry, pin oak, willow; canopy 91%, 20-25m high
Lighthouse Pt.	savannah alvar/shrub thicket: hackberry with hop tree, blue ash, hawthorn and white mulberry. Half-open savannah; canopy 46%, 6-10m high
Brown's Road N	alvar woodland: hackberry, white ash, blue ash, chinquapin oak, hawthorn, red oak, sugar maple; canopy 76%, 13-17m high
Brown's Road S	alvar savannah/ shrub thicket: hackberry, black walnut, chinquapin oak, white ash, red ash, red elm, hawthorn, red cedar, blue ash; canopy 53%, 8-12 m high
Stone Road 1	brushed alvar for restoration, only occasional tree saplings; shrubs: downy dogwood and sumac species, prairie and dog roses, riverbank grape, choke cherry; canopy 5%, 2-6m high
Stone Road 2	alvar savannah: hackberry, hawthorn, white ash, sugar maple, blue ash, black walnut, chinquapin oak, red elm; canopy 69%, 12-20m high
Stone Road 3	open alvar with scattered shrubs and occasional trees: downy dogwood, prickly ash, fragrant sumac, staghorn sumac, smooth rose, riverbank grape; canopy 4%, 4-11m high
Red Cedar N	alvar woodland: red cedar, chinquapin oak, ironwood, white ash, blue ash, shagbark hickory, hackberry; canopy 71%, 15-20m high
Brown's Road Field	soya bean field: actively farmed field; canopy 0%
Middle Point Woods	n/a

**Marsh Bird Monitoring**

The wetland complex at Lighthouse Point – Lake Henry – was surveyed this summer for the fourth consecutive year. While breeding bird diversity is generally low due to exotic *phragmites* and *carp spp.*, the site provides important nesting habitat for a variety of marsh birds including the 'threatened' Least Bittern. This long-term study – part of Bird Studies Canada's Marsh Bird Monitoring Program – generates valuable information about the changes taking place in the breeding bird communities of Ontario's wetlands.

**Additional Studies**

**Species at Risk**

In addition to many other research objectives, the intensive breeding bird studies carried out this summer generated important data on the nesting status of multiple Species at Risk (SAR). These

**Pelee Island Bird Observatory – 2010 Year-end Report**

inventories will assist in guiding recovery strategies for at least five SAR on Pelee including Least Bittern, Bald Eagle, Chimney Swift, Prothonotary Warbler, and Yellow-breasted Chat.

PIBO conducted standardized surveys on eleven properties under the stewardship of Ontario Parks, the Nature Conservancy of Canada, Ontario Nature, and the Essex Region Conservation Authority – an area comprising approximately 750 hectares. A variety of monitoring methods were used to detect the presence or absence of SAR including the Breeding Bird Census survey, transect surveys using playback tapes, and the Marsh Bird Monitoring Program. In all, five staff and volunteers compiled more than 300 field-hours during the summer study period from May 25<sup>th</sup> to July 7<sup>th</sup> and generated a wealth of data on the presence/absence of numerous Species at Risk.

Several SAR were documented during the breeding season and possible, probable and confirmed breeding evidence was recorded for Least Bittern (probable), Bald Eagle (confirmed), Chimney Swift (confirmed), Prothonotary Warbler (confirmed), and Yellow-breasted Chat (possible).

**Monarch Butterflies**

Monarch Butterfly surveys were conducted at Fish Point from August to November during PIBO's 90-minute morning bird census. These standardized counts have been undertaken every fall since 2004. It was a very active migration this year and more Monarchs were recorded than the combined total for the period 2004 – 2009. In all, 2205 butterflies were counted this fall, including 1060 individuals on September 19<sup>th</sup>, compared to the station average of 336/year. PIBO's Monarch migration data has been submitted to the Ontario Ministry of Natural Resource's National Heritage Information Centre (NHIC).

The following table presents weekly and yearly totals from PIBO's daily monarch butterfly surveys for the period 2004 – 2009.

**Table 7 – Monarch butterfly counts for the period 2004 - 2009**

<b>Date</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>TOTAL</b>
Aug 1-7	0	0	1	19	5	3	28
Aug 8-14	3	0	13	60	6	8	90
Aug 15-21	1	58	13	26	11	7	116
Aug 22-28	5	47	30	54	12	72	220
Aug 29-Sep 04	3	36	232	137	5	35	448
Sep 05-11	26	27	163	74	8	6	304
Sep 12-18	0	59	31	159	7	21	277
Sep 19-25	11	82	247	11	16	15	382
Sep 26- Oct 02	1	18	1	10	8	26	64
Oct 03-Oct 09	15	0	4	6	2	4	31
Oct 10- Oct 16	3	10	2	2	11	4	32
Oct 17- Oct 23	0	2	1	2	0	0	5
Oct 24- Oct 31	15	0	0	1	0	0	16
Nov 01- Nov 07	1	0	0	0	0	0	1
Nov 08- Nov 15	0	0	0	0	0	1	1
<b>TOTAL</b>	<b>84</b>	<b>339</b>	<b>738</b>	<b>561</b>	<b>91</b>	<b>202</b>	<b>2015</b>

## Amphibians

Spring and summer amphibian surveys were conducted at Lighthouse Point and Fish Point during three visits to the sites in April, May and June. The data from these annual counts contributes valuable information to the nation-wide Amphibian Monitoring Program administered by Bird Studies Canada. While Pelee Island's wetlands have been reduced to a rather fragile state, a variety of amphibians were recorded this spring including Bullfrog, Green Frog, and American Toad.

## Breeding Bird Research at Point Pelee National Park

In addition to PIBO's busy summer schedule on the island, the observatory was also involved with an important research project at Point Pelee National Park on the mainland. Ten passerine mist-nets were erected at the Anders Field Complex at Point Pelee National Park, and operated on seven mornings from June 17<sup>th</sup> – 19<sup>th</sup> and July 27<sup>th</sup> – 30<sup>th</sup>, 2010. The primary goal of the netting effort was to examine the breeding bird ecology at Anders Fields, with a particular focus on the Eastern Yellow-breasted Chat, and to assist ongoing monitoring efforts and habitat restoration activities at this globally-rare Lake Erie Sand Spit Savanna site.

The study was initiated and funded by Parks Canada's Ecological Integrity Monitoring Program in an effort to learn more about the suitability of Anders Fields for nesting chats – a national Species of Concern – and to collect information about the overall breeding bird community. In addition to numerous other species of flora and fauna designated 'at risk', the savanna is home to some of the few nesting chats in eastern Canada, and this population has witnessed significant declines in recent years. No chats were banded and no breeding evidence was documented at Anders Fields in 2010.



*Anders Field Complex*

Although no chats were detected, a variety of other local breeding birds were netted in good numbers including two species of secondary interest – "Traill's" Flycatcher, presumably Willows, and White-eyed Vireo, and the fieldwork produced a valuable inventory of breeding bird diversity and abundance at the site. In all, 196 individuals of twenty-two species were captured during seven mornings of operation (46 hours) in 471 mist-net hours, for an average catch-rate of 0.42 birds/net-hour. Three banded birds were recaptured one day after they were banded.

PIBO staff set-up the nets at the Anders Fields site and supervised the banding effort during the seven-day study, and a final report detailing the methodology and results was delivered to Parks Canada at the conclusion of the study.

### Migration Monitoring and Species at Risk (SAR)

Using a format specified by the Ontario Ministry of Natural Resource's Natural Heritage Information Centre (NHIC) to report Species at Risk sightings, a database containing PIBO SAR records was built using eight years of data. The database includes records from PIBO's standardized migration counts as well as incidental sightings during the migration seasons. The information was submitted to the NHIC. The totals for each SAR species are shown in the following table.

**Table 8 – Species at Risk recorded on Pelee Island from 2003 - 2010**

<b>Common name</b>	<b>PIBO Records 2003 - 2010 (Banded)</b>	<b>Status</b>	
Passenger Pigeon	0	Extinct	
Greater Prairie-chicken	0	Extirpated	
Acadian Flycatcher	12 (1)	Endangered	
Barn Owl	0		
Eskimo Curlew	0		
Golden Eagle	3		
Henslow's Sparrow	0		
King Rail	1		
Kirtland's Warbler	0		
Loggerhead Shrike	0		
Northern Bobwhite	0		
Piping Plover	1		
Prothonotary Warbler	13 (1)		
Red Knot (rufa)	1		
Cerulean Warbler	2		
Chimney Swift	500		Threatened
Least Bittern	4		
Peregrine Falcon	72		
Whip-poor-will	8		
American White Pelican	0		
Black Tern	3	Special Concern	
Canada Warbler	650 (365)		
Bald Eagle	465		
Common Night Hawk	28		
Golden-winged Warbler	19 (11)		
Hooded Warbler	19 (9)		
Horned Grebe	1710		
Louisiana Waterthrush	6 (2)		
Olive-sided Flycatcher	27		
Red-headed Woodpecker	122		
Rusty Blackbird	4901 (15)		
Short-eared Owl	2		
Yellow Rail	0		
Yellow-breasted chat	19 (9)		

## Chimney Swift Monitoring

Due to the late approval of our Species at Risk funding, it was not possible to monitor Chimney Swift activity on the island during the summer of 2010. In August, however, the chimneys at the Pelee Island Heritage Centre (a suspected nesting location) were inspected and two nests were found, one in each of the two chimneys. An infertile egg was observed in one of the nests, which suggests the nest was used during summer 2010. PIBO will institute a long-term swift monitoring program in 2011 following the methodology recommended by Bird Studies Canada.

## 2010 Fieldwork Effort

The following staff, interns, and volunteers logged 1762 hours of fieldwork in 2010 during PIBO's 8-month research season:

**Table 9 – 2010 Fieldwork Effort**

<b>Participant</b>	<b>Spring Hours</b>	<b>Days</b>	<b>Summer Hours</b>	<b>Days</b>	<b>Fall Hours</b>	<b>Days</b>	<b>Total Hours</b>	<b>Total Days</b>
Sumiko Onishi	219	58	50	17	396	101	<b>665</b>	<b>176</b>
Graeme Gibson	197	59	83	18	280	82	<b>559</b>	<b>159</b>
Claire Sanders	87	40	27	12	114	52	<b>227</b>	<b>104</b>
Tracy Anderson					106	30	<b>106</b>	<b>30</b>
Erin Moffatt	4	2	70	28			<b>74</b>	<b>30</b>
Simon Valdez					37	16	<b>37</b>	<b>16</b>
Dean Ware			30	7			<b>29</b>	<b>7</b>
Katherine Robbins					19	4	<b>19</b>	<b>4</b>
Adam Pinch			17	6			<b>17</b>	<b>6</b>
Kerry McGuire	10	2			6	1	<b>16</b>	<b>3</b>
Kirk Stewart					6	1	<b>6</b>	<b>1</b>
Katherine St. James					4	1	<b>4</b>	<b>1</b>
Lucas Foerster					3	1	<b>3</b>	<b>1</b>
<b>Total</b>	<b>517</b>	<b>161</b>	<b>277</b>	<b>88</b>	<b>971</b>	<b>289</b>	<b>1762</b>	<b>538</b>

## SECTION 2 – EDUCATION & OUTREACH

PIBO's education and outreach programs received a huge boost this year thanks to the efforts of Simon Valdez, who was hired as PIBO's Species at Risk Coordinator for four months from August to November. The position was made possible thanks to support from the Ontario Ministry of Natural Resource's Species at Risk Stewardship Fund. In addition to many other activities, the SAR Coordinator produced a dynamic 45-minute presentation about Species at Risk that was viewed by more than 600 secondary-school students in Southern Ontario. The interactive program was tailored to the science curriculum of local high schools and featured a number of valuable feedback mechanisms including a quiz at the end of the presentation (Appendix 3), along with follow-up student and teacher evaluations. By all accounts the project was a great success, and Simon's hard work and enthusiasm has laid a solid base for PIBO to build on in the future.

The PIBO crew kept busy with a host of other educational activities as well including our Spring and Fall bird banding demonstrations, PIBO's quarterly newsletter – The Auspice – our weekly migration summaries, and our popular public owling nights. Other outreach efforts this year included an attractive kiosk about birds and bird conservation that was on display at the Pelee Island Winery pavilion from May to October and viewed by tens of thousands of visitors, PIBO's involvement in the annual SpringSong 'green' bird race, and our entry in Pelee Island's Canada Day parade!



### Classroom Presentations

As part of the environmental education component of the MNR Species at Risk internship, environmental education presentations were delivered to six Essex County high schools reaching over 600 students. The in-class presentations were targeted to science students between grades 9 to 12, and were focused on Species at Risk and the importance of stewardship in conserving and managing habitat, as well as the importance of Essex County for migratory birds. Table 10 shows the schools visited and the number of students in attendance.

**Table 10 – Schools and Students**

Date	School	Classes	Students	Location
31-Mar	Catholic Central H.S.	4	73	London
13-Oct	Cardinal Carter H. S.	4	83	Leamington
20-Oct	Kingsville District H. S.	1	15	Kingsville
26-Oct	Riverside H. S.	11	277	Windsor
27-Oct	St. Anne's H. S.	1	20	Windsor
28-Oct	Essex District H. S.	3	60	Essex
9-Nov	Harrow Rotary Club	1	24	Harrow
10-Nov	Harrow District H. S.	3	50	Harrow
<b>TOTAL</b>		<b>28</b>	<b>602</b>	

### In-house Presentations

In addition to the in-class visits, Pelee Island Bird Observatory delivered onsite programming to four classes (one from Harrow high school and three from Cardinal Carter High school.) The visits were a terrific hands-on complement to the in class visits and the students had the opportunity to appreciate bird banding and explore Pelee Island's important species at risk habitat first hand.



### Student Evaluations

As requested by the Ministry of Natural Resources, who funded the project, we attempted to evaluate our education program with a pilot evaluation program. A short written quiz was given to 41 Cardinal Carter High School students who visited the island in late October. These students had been a part of the in-class presentation two weeks prior. The students were given a ten question quiz in order to assess how much they remembered from the Species at Risk presentations, and to test their knowledge of the importance of Essex County both for Canadian

## Pelee Island Bird Observatory – 2010 Year-end Report

biodiversity and for migratory birds. Please see Appendix 3 for a copy of the assessment quiz. Given that the test took place two weeks after the in class presentation, we felt it would be a good indication of how much the information was retained by the students. Of the 41 students who took the test, 34 had 6 or more right answers, with a class average of 7.43.

We were pleased with the response and will continue to develop an evaluation program as our education programs continue to evolve.

### Teacher Evaluations

Nine teachers were given surveys and were asked to grade, on a scale of one to five (5 being the highest rating), different aspects of the in-class presentations. The average of each of the components evaluated by the teachers is presented in Table 11.

**Table 11 – Evaluations**

Encouraged students to develop positive attitudes towards nature	4.22
Met curriculum objectives	4.88
Helped students gain a better understanding of how nature works	4.56
Material appropriate for age level	4.56
Professional demeanor of the presenter	4.33
Knowledge of the subject	4.56
Enthusiasm of the presenter	4.56

Additionally, teachers were asked to provide comments about the presentation and, overall, the reviews were very positive, including the following:

- I was impressed with how relevant the presentation was to our Grade 9 curriculum. Students were given a lot to think about and showed interest from the start. Thank you for coming over; your knowledge and experience were evident during the presentation.
- Great! Very effective!
- I am interested in bringing a group of students (a busload) to Pelee Island to spend a day experiencing the ecology and geology of the island. I want to pack as much as we can into that day.
- Great presentation. Correlation to the curriculum was exceptional.
- Well done! Awesome! Very interesting. Could attempt to cover a little less material so less rushed, and a video would improve the presentation as well.
- Good pictures and Power Point info. Wait for response after questions, if no response give a clue and then wait again. If you answer questions quickly for them they will catch on to that and let you do all the answers!, Although they may appear non-responsive, its likely because its all new info they are taking in. Thanks Simon!
- This presentation covered many of the Grade 9 ecology curriculum expectations, making it a valuable learning experience for the students. Simon was a dynamic, enthusiastic, presenter who involved the students in the presentation.

### 2010 Environmental Science High-School Specialist Major Launch

In September, the Pelee Island Bird Observatory attended the Specialist High Skills Major Launch at Kingsville High School, an event organized by the Greater Essex County District School Board. Close to 1000 students from local high schools attended and it was an opportunity for students to learn about careers in environmental science. PIBO is now also a part of the *Passport to Prosperity Employer Registry* – a program that provides experiential learning activities to assist

student transition to the workforce, or post-secondary education or training.



## Outreach

- The 2010 Spring Song weekend was the launch of the 1<sup>st</sup> Annual PIBO Community Pig Roast. Close to 100 people attended – including islanders, cottagers, and visiting birders - and it gave PIBO an opportunity to thank the local community for their support.
- We did several bird walks in May. Because of the lack of interest in previous years, we didn't put too much effort into advertising this year. However, we still had about 20 people for walks and it's something that we'll continue to promote more in future years through the Bird House Stewardship program.
- We had 3 really successful Owling nights in October. Close to 70 people joined us, including Islanders, cottagers, and tourists.
- Delivered outreach PowerPoint presentations to Ontario Trillium Foundation program tour, Harrow Rotary Club, and Tourism Windsor Essex Pelee Island
- 105 Spring drop-in visitors
- 274 Fall drop-in visitors
- Completed and distributed a spring, summer, and fall PIBO newsletter "The Auspice" to close to 300 people. A special Species at Risk edition of newsletter was distributed in November.
- Graeme's 10-day migration updates were distributed and put on website
- PIBO set-up a display at the Essex Region Conservation Authority's Enviro Expo in April and spent three days speaking to thousands of people.
- A PIBO permanent display was at the Pelee Island Winery Pavilion for the entire year
- Partnered with Windsor-based organization Computers for Kids to do an Island-wide electronic waste collection
- Attended a Rural Sustainability Conference in Camrose & gave presentation (70pp)



### **SECTION THREE – ADDITIONAL DEVELOPMENTS**

#### **The Bird House Rental Cottage**

Thanks to a generous gift from a long-time PIBO supporter, the observatory acquired a wonderful lakeside cottage in 2009 at the north end of the island. After considering a number of options, and in an effort to generate some revenue to cover the overhead costs of the property, PIBO decided to rent it out as a summer vacation get-away. In addition to seven-day and weekend rentals, PIBO also started a three-night “Stewardship Program” during the migration seasons. The program included accommodations, guided bird walks, entrance to the Pelee Island Heritage Centre, and a partial tax-receipt. Both the Stewardship weekends and the standard rentals proved to be a success, with a total of twenty bookings in 2010 including three long-term, fifteen short-term, and two ‘stewardship’ rentals.

#### **Balzac’s Coffee**

PIBO partnered with Balzac’s Coffee and Margaret Atwood on an exciting project this summer with the launch of “The Atwood Blend”, a Smithsonian Institute certified BIRD FRIENDLY© brew. One dollar of the proceeds from each pound sold has been graciously donated to the Pelee Island Bird Observatory. Shade-grown organic coffee plantations play a key role in the conservation of critical habitat for both migratory and resident birds in the tropics. Not only will the project bring long-term income to PIBO, it’s proven to be a terrific outreach tool in Toronto and other major urban centers.

For more information, or to purchase the Atwood Blend, please visit: [www.atwoodblend.com](http://www.atwoodblend.com).

#### **Twitter**

The Pelee Island Bird Observatory is now tweeting online about birds and bird migration! Follow us at: [@PeleeIslandBird](https://twitter.com/PeleeIslandBird)

## ACKNOWLEDGEMENTS

### Funding Partners

Balzac's Coffee Roasters  
The Baillie Birdathon Participants  
The Chandisherry Foundation  
D&M Publishers Inc.  
The Donner Canadian Foundation  
The George Cedric Metcalf Charitable Foundation  
The Henry White Kinnear Foundation  
House of Words  
The Fleck Family Foundation  
The K.M. Hunter Charitable Foundation  
Mysterious Starling Inc.  
Nature Conservancy  
Nature Conservancy of Canada  
Neotropical Migratory Bird Conservation Act  
OMNR Species at Risk Stewardship Fund  
OMNR Community Fisheries and Wildlife Involvement Program  
Ontario Trillium Foundation  
PIBO Friends and Supporters under \$1000  
Richard and Felicity Pope  
The Schad Foundation  
The Small Change Fund  
TD Friends of the Environment Foundation  
University of Toronto  
Margaret Atwood  
Graeme Gibson, the Elder  
Rosamond Ivey  
Rosemary Speirs  
Suzanne Ivey Cook  
Speedprint Inc.

### Project Partners

Bird Studies Canada - Canadian Migration Monitoring Network  
Essex Region Conservation Authority  
Explore Pelee  
Nature Conservancy of Canada  
Ontario Parks  
Pelee Island Heritage Centre  
Township of Pelee

**Pelee Island Bird Observatory – 2010 Year-end Report**

**APPENDIX 1 – Species recorded on Pelee Island from April to November, 2010**

**APPENDIX 2 – Birds banded at Fish Point from 2003 - 2010**

**APPENDIX 3 – Student evaluation quiz**

**APPENDIX 4 – Monarch Butterfly Information Sheet**

Pelee Island Bird Observatory – 2010 Year-end Report

Appendix 1 – Species recorded on Pelee Island from April – November 2010

Species	Spring	Fall	2010
Common Loon	S	F	SF
Horned Grebe	S	F	SF
Pied-billed Grebe	S		S
Double-crested Cormorant	S	F	SF
Least Bittern	S		S
Great Blue Heron	S	F	SF
Green Heron	S	F	SF
Great Egret	S	F	SF
Turkey Vulture	S	F	SF
Tundra Swan		F	F
Canada Goose	S	F	SF
Wood Duck	S	F	SF
American Black Duck		F	PI
American Wigeon		F	F
Blue-winged Teal	S	F	SF
Mallard	S	F	SF
Gadwall		F	F
Am. Green-winged Teal	S		S
Canvasback		F	PI
Redhead		F	PI
Greater Scaup		F	F
Lesser Scaup	S		S
<b>Harlequin Duck</b>	S		PI
Bufflehead	S	F	SF
Common Goldeneye	S		S
Hooded Merganser	S		S
Common Merganser	S		S
Red-breasted Merganser	S	F	SF
Ruddy Duck	S		S
Osprey		F	F
Bald Eagle	S	F	SF
Northern Harrier	S	F	SF
Sharp-shinned Hawk	S	F	SF
Cooper's Hawk		F	F
Broad-winged Hawk		F	PI
Red-tailed Hawk	S	F	SF
Rough-legged Hawk		F	F
American Kestrel	S	F	SF
Merlin	S	F	SF
Peregrine Falcon		F	F
Ring-necked Pheasant		F	F
Wild Turkey	S	F	SF
Virginia Rail	S		S
Sora	S	F	SF
American Coot	S		PI
Black-bellied Plover	S	F	SF
Semipalmated Plover		F	F
Killdeer	S	F	SF
Greater Yellowlegs	S	F	SF
Lesser Yellowlegs	S		S
Solitary Sandpiper	S	F	SF
Willet	S		S
Spotted Sandpiper	S	F	SF
Whimbrel	S		S
Ruddy Turnstone	S	F	SF
Sanderling	S	F	SF
Dunlin	S		S

Pelee Island Bird Observatory – 2010 Year-end Report

Baird's Sandpiper		F	F
Least Sandpiper		F	F
American Woodcock	S	F	SF
Common Snipe		F	F
<b>Red Phalarope</b>		F	F
Bonaparte's Gull	S	F	SF
Ring-billed Gull	S	F	SF
Herring Gull	S	F	SF
Great Black-backed Gull	S	F	SF
Caspian Tern	S	F	SF
Common Tern	S	F	SF
Mourning Dove	S	F	SF
Rock Dove		f	F
Yellow-billed Cuckoo	S	F	SF
Black-billed Cuckoo	S	F	SF
Long-eared Owl		F	F
Great Horned Owl	S	F	SF
Northern Saw-whet Owl		F	F
Eastern Screech-Owl		F	F
Whip-poor-will		F	F
Common Nighthawk		F	PI
Chimney Swift	S	F	SF
Ruby-throated Hummingbird	S	F	SF
Belted Kingfisher	S	F	SF
Red-headed Woodpecker	S	F	SF
Red-bellied Woodpecker	S	F	SF
Downy Woodpecker	S	F	SF
Yellow-bellied Sapsucker	S	F	SF
Yellow-shafted Flicker	S	F	SF
<b>Western Wood-Pewee</b>	S		PI
Eastern Wood-Pewee	S	F	SF
Yellow-bellied Flycatcher	S	F	SF
Willow Flycatcher	S		S
Alder Flycatcher	S		S
"Traill's" Flycatcher		F	F
Least Flycatcher	S	F	SF
Acadian Flycatcher	S		S
Eastern Phoebe	S	F	SF
Great Crested Flycatcher	S	F	SF
Eastern Kingbird	S	F	SF
Red-eyed Vireo	S	F	SF
Warbling Vireo	S	F	SF
Philadelphia Vireo	S	F	SF
White-eyed Vireo	S		S
Yellow-throated Vireo	S	F	SF
Blue-headed Vireo	S	F	SF
Blue Jay	S	F	SF
American Crow	S	F	SF
Horned Lark		F	F
Purple Martin	S	F	SF
N. Rough-winged Swallow	S	F	SF
Bank Swallow	S	F	SF
Tree Swallow	S	F	SF
Cliff Swallow	S	F	SF
Barn Swallow	S	F	SF
Black-capped Chickadee	S	F	SF
Red-breasted Nuthatch	S	F	SF
White-breasted Nuthatch	S	F	SF
Brown Creeper	S	F	SF
Carolina Wren	S	F	SF
House Wren	S	F	SF

Pelee Island Bird Observatory – 2010 Year-end Report

Winter Wren	S	F	SF
Marsh Wren		F	F
Golden-crowned Kinglet	S	F	SF
Ruby-crowned Kinglet	S	F	SF
Blue-gray Gnatcatcher	S	F	SF
Eastern Bluebird	S	F	SF
<b>Townsend's Solitaire</b>	S		S
American Robin	S	F	SF
Wood Thrush	S	F	SF
Veery	S	F	SF
Swainson's Thrush	S	F	SF
Gray-cheeked Thrush	S	F	SF
Hermit Thrush	S	F	SF
Gray Catbird	S	F	SF
Brown Thrasher	S	F	SF
Northern Mocking bird	S		S
European Starling	S	F	SF
American Pipit	S	F	SF
Cedar Waxwing	S	F	SF
Northern Parula	S	F	SF
Orange-crowned Warbler	S	F	SF
Tennessee Warbler	S	F	SF
Blue-winged Warbler	S	F	SF
Golden-winged Warbler	S	F	SF
Nashville Warbler	S	F	SF
Yellow Warbler	S	F	SF
Chestnut-sided Warbler	S	F	SF
Magnolia Warbler	S	F	SF
Cape May Warbler	S	F	SF
Black-throated Blue Warbler	S	F	SF
Cerulean Warbler	S		S
Blackburnian Warbler	S	F	SF
Yellow-rumped Warbler	S	F	SF
Black-thr. Green Warbler	S	F	SF
Western Palm Warbler	S	F	SF
Pine Warbler	S		S
Bay-breasted Warbler	S	F	SF
Blackpoll Warbler	S	F	SF
Black-and-white Warbler	S	F	SF
Prothonotary Warbler	S	F	SF
Worm-eating Warbler	S		S
American Redstart	S	F	SF
Ovenbird	S	F	SF
Northern Waterthrush	S	F	SF
Louisiana Waterthrush	S		S
Connecticut Warbler	S		S
Mourning Warbler	S	F	SF
Hooded Warbler	S	F	SF
Common Yellowthroat	S	F	SF
Wilson's Warbler	S	F	SF
Canada Warbler	S	F	SF
Yellow-breasted Chat		F	PI
Summer Tanager	S		S
Scarlet Tanager	S	F	SF
Northern Cardinal	S	F	SF
Rose-breasted Grosbeak	S	F	SF
<b>Blue Grosbeak</b>	S		PI
Indigo Bunting	S	F	SF
Eastern Towhee	S	F	SF
American Tree Sparrow		F	F
Field Sparrow	S	F	SF

**Pelee Island Bird Observatory – 2010 Year-end Report**

Chipping Sparrow	S	F	SF
Savannah Sparrow	S	F	SF
<b>Le Conte's Sparrow</b>		F	PI
Vesper Sparrow		F	F
<b>Lark Sparrow</b>	S		S
White-throated Sparrow	S	F	SF
White-crowned Sparrow	S	F	SF
Fox Sparrow	S	F	SF
Song Sparrow	S	F	SF
Lincoln's Sparrow	S	F	SF
Swamp Sparrow	S	F	SF
Dark-eyed Junco	S	F	SF
Snow Bunting		F	F
Eastern Meadowlark	S	F	PI
Bobolink	S	F	SF
Brown-headed Cowbird	S	F	SF
Red-winged Blackbird	S	F	SF
Rusty Blackbird	S	F	SF
Common Grackle	S	F	SF
Baltimore Oriole	S	F	SF
Orchard Oriole	S	F	SF
Purple Finch	S	F	SF
House Finch	S	F	SF
Pine Siskin		F	PI
American Goldfinch	S	F	SF
House Sparrow	S	F	SF
<b>Total</b>	<b>167</b>	<b>166</b>	<b>192</b>

S - recorded at Fish Point during PIBO's official count period (April 2<sup>nd</sup> - June 10<sup>th</sup>)

F - recorded at Fish Point during PIBO's official count period (August 1<sup>st</sup> - November 15<sup>th</sup>)

PI - recorded on Pelee Island outside of PIBO's official count period

**Pelee Island Bird Observatory – 2010 Year-end Report**

**Appendix 2**

**Birds captured at Fish Point (2003 - 2010)**

<b>Species</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>	<b>2003</b>	<b>Total</b>
Sharp-shinned Hawk	26	12	14	16	7	11	8	12	106
American Woodcock	1								1
Mourning Dove		1							1
Yellow-billed Cuckoo			1		3		1	3	8
Black-billed Cuckoo			2			1	2	2	7
Northern Saw-whet Owl	21	5	48	44	7	12	1		138
Eastern Screech-Owl	2	1	1	2		1		1	8
Ruby-throated Hummingbird	7	9	7	7	11	15	4	1	61
Red-bellied Woodpecker	2	1		1					4
Downy Woodpecker	27	13	14	13	12	9	12	14	114
Yellow-bellied Sapsucker		3	1		2	2	1		9
"Yellow-shafted" Flicker	4	5	3	3	1	2	1	2	21
Eastern Wood-Pewee	6	2	6	1	4	3	3	7	32
Yellow-bellied Flycatcher	32	61	76	32	79	134	58	39	511
Acadian Flycatcher	1		1			1			3
"Traill's" Flycatcher	14	15	17	12	20	57	23	38	196
Least Flycatcher	11	13	12	30	36	73	18	51	244
Eastern Phoebe	1	13	6	2	4	5	3		34
Great Crested Flycatcher		2			1	4		1	8
Eastern Kingbird							2		2
Red-eyed Vireo	64	30	53	40	141	113	71	48	560
Warbling Vireo		1	1		11	6	3	4	26
Philadelphia Vireo	12	8	3	8	27	35	31	15	139
White-eyed Vireo	2	3			4	1	1	1	12
Blue-headed Vireo	10	20	16	14	26	36	28	17	167
Blue Jay	11	9	14	17	3	50	8	13	125
Tree Swallow	1	1							2
Black-capped Chickadee	19	8	14	15	8	29	16	21	130
Red-breasted Nuthatch	6	2	1	8		5	2	1	25
White-breasted Nuthatch								1	1
Brown Creeper	28	43	74	21	25	29	30	13	263
Carolina Wren		1	3	5	9	7	5	13	43
House Wren	25	23	24	17	28	46	16	22	201
Winter Wren	22	44	48	26	21	80	48	14	303
Marsh Wren		2					1	1	4
Golden-crowned Kinglet	229	244	312	168	218	766	312	151	2400
Ruby-crowned Kinglet	115	254	211	102	423	485	325	134	2049
Blue-gray Gnatcatcher	1						3	1	5
American Robin	18	21	34	6	9	6	11	6	111
Wood Thrush	19	11	21	27	24	18	18	12	150
Veery	62	49	66	74	128	83	67	79	608
Swainson's Thrush	463	272	315	314	389	542	314	312	2921
Gray-cheeked Thrush	146	156	152	110	91	222	100	56	1033
Hermit Thrush	241	176	166	154	228	269	143	141	1518
Gray Catbird	33	32	39	44	51	48	43	64	354
Brown Thrasher	2	2	1	1	1	3	2	2	14
Cedar Waxwing	6	4	5	2		1	2	2	22
European Starling			1						1
Northern Parula	3	1	7	2	6	1	2	2	24
Orange-crowned Warbler	5	6	1	5	7	4	17	10	55
Tennessee Warbler	25	5	24	14	39	23	16	85	231
Blue-winged Warbler	3	2	3	1	5	3	9	4	30
Golden-winged Warbler	3			1	3	1	1	1	9
"Brewster's" Warbler			2			1			3
Nashville Warbler	71	46	53	64	67	127	57	90	575

## Pelee Island Bird Observatory – 2010 Year-end Report

Yellow Warbler	34	31	59	50	41	88	45	70	<b>418</b>
Chestnut-sided Warbler	43	33	39	40	117	75	45	45	<b>437</b>
Magnolia Warbler	244	289	349	236	617	410	337	335	<b>2817</b>
Cape May Warbler	11	2	3	3	6	6	5	6	<b>42</b>
Black-throated Blue Warbler	101	93	100	38	84	67	104	60	<b>647</b>
Blackburnian Warbler	9	10	6	10	33	31	5	9	<b>113</b>
"Myrtle" Warbler	168	109	168	143	154	270	156	131	<b>1299</b>
Black-throated Green Warbler	10	8	10	10	21	7	14	10	<b>90</b>
"Western" Palm Warbler	4	5	6	4	1	5	14	2	<b>41</b>
Bay-breasted Warbler	4	7	4	6	25	19	10	6	<b>81</b>
Blackpoll Warbler	121	24	28	19	17	41	55	22	<b>327</b>
Worm-eating Warbler	1					1	1		<b>3</b>
Prothonotary Warbler						1			<b>1</b>
Black-and-white Warbler	65	44	57	49	146	71	38	39	<b>509</b>
American Redstart	212	109	161	84	273	162	141	159	<b>1301</b>
Ovenbird	131	111	95	77	119	107	82	73	<b>796</b>
Louisiana Waterthrush		1		1					<b>2</b>
Northern Waterthrush	57	41	38	26	27	38	35	43	<b>305</b>
Kentucky Warbler		1		1	2				<b>4</b>
Connecticut Warbler	1	1		2	4	3	2	3	<b>16</b>
Mourning Warbler	26	12	11	12	18	22	8	16	<b>125</b>
Common Yellowthroat	35	34	38	42	41	57	35	43	<b>325</b>
Hooded Warbler	4		2	2	1				<b>9</b>
Wilson's Warbler	29	24	19	30	46	32	33	28	<b>242</b>
Canada Warbler	59	36	50	38	54	60	24	44	<b>365</b>
Yellow-breasted Chat		1	1	1	1	1	3	1	<b>9</b>
Summer Tanager						1		1	<b>2</b>
Scarlet Tanager	1			2	2	3		3	<b>11</b>
Northern Cardinal	18	10	13	9	6	10	9	22	<b>97</b>
Rose-breasted Grosbeak	1	3		3	3	12	13	5	<b>40</b>
Indigo Bunting	9	6	6	9	8	19	4	20	<b>81</b>
Eastern Towhee	1	1		2	1	3	1	1	<b>10</b>
American Tree Sparrow	4		7	1	13	3			<b>28</b>
Field Sparrow			1	2		3	3		<b>9</b>
Chipping Sparrow				1		2	1	3	<b>7</b>
Grasshopper Sparrow				1					<b>1</b>
White-throated Sparrow	70	87	112	72	105	146	137	118	<b>847</b>
E. White-crowned Sparrow	6	3	5	8	9	7	6	6	<b>50</b>
Fox Sparrow	7	2	6	3	9	14	3	2	<b>46</b>
Song Sparrow	12	6	19	10	14	10	5	12	<b>88</b>
Lincoln's Sparrow	11	6	7	10	11	20	10	18	<b>93</b>
Swamp Sparrow	6	12	20	15	2	27	31	17	<b>157</b>
"Slate-colored" Junco	14	9	29	25	16	91	34	24	<b>242</b>
Brown-headed Cowbird	4	2	2		4	9	1	5	<b>27</b>
Red-winged Blackbird	75	103	100	45	35	75	60	34	<b>527</b>
Rusty Blackbird	9	6							<b>15</b>
Common Grackle	54	12	33	15	6	23	18	24	<b>185</b>
Baltimore Oriole	2	20	6	6	12	23	9	15	<b>93</b>
Orchard Oriole						1	1	5	<b>7</b>
Purple Finch	12	1	5	2		1	1	1	<b>23</b>
Pine Siskin					1				<b>1</b>
American Goldfinch	13	2	46	6	4	41	10	14	<b>136</b>
<b>Total Captured</b>	<b>3498</b>	<b>3250</b>	<b>3505</b>	<b>2672</b>	<b>4459</b>	<b>5490</b>	<b>3451</b>	<b>3291</b>	<b>29616</b>
<b>Species &amp; Forms</b>	<b>85</b>	<b>86</b>	<b>82</b>	<b>84</b>	<b>81</b>	<b>91</b>	<b>87</b>	<b>86</b>	<b>107</b>
<b>Net Hours</b>	<b>5706</b>	<b>6000</b>	<b>6767</b>	<b>6319</b>	<b>5042</b>	<b>6393</b>	<b>3269</b>	<b>4530</b>	<b>44026</b>
<b>Birds/Net Hour</b>	<b>0.61</b>	<b>0.54</b>	<b>0.52</b>	<b>0.41</b>	<b>0.88</b>	<b>0.85</b>	<b>1.06</b>	<b>0.73</b>	<b>0.67</b>

<sup>1</sup> includes birds captured but not banded

**Appendix 3 – Student Evaluation Quiz**

PIBO Migration and Species at Risk Quiz.

Part I. Multiple Choice

1.-What percentage of Canada's surface is Carolinian Forest? (Like Essex County)

- A) 25%      B) 80%      C) 1%      D)10%

2.-What Percentage of Canada's Species at Risk can be found in Essex County?

- A) 30%      B) 1%      C) 90%      D )50%

3.-According to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) what are the designations for Species at Risk in Canada?

- |             |                 |                               |
|-------------|-----------------|-------------------------------|
| A) Abundant | B) Extinct      | C) Rapidly Growing Population |
| Common      | Extirpated      | Slowly Growing Population     |
| Uncommon    | Endangered      | Stable Population             |
| Rare        | Threatened      | Slowly Decreasing             |
| Very Rare   | Special Concern | Rapidly Decreasing            |

4.-How does the loss of the bird breeding grounds in the boreal forest affect bird populations:

- A) Less birds are born each year      B) More birds Migrate each year  
C) More birds are born each year      D) It doesn't affect birds

5.-Birds are indicator species because:

- A) They are more sensitive to pollution than humans are.  
B) Their health reflects how healthy the environment they live in is  
C) Their populations grow and decrease according to the health of their environment  
D) They are not affected by habitat changes  
E) All of the above  
F) A, B and C are correct

Part II. True or False

1.-Bird Populations have decreased 50% over the last 40 years

- T      F

2.-Essex County is an important stop over site for birds across Canada because it's where two main migratory routes meet

- T      F

3.-Habitat destruction only affects birds in Canada

- T      F

4.-Essex County is an important stop over site for birds all across Canada

- T      F

**Pelee Island Bird Observatory – 2010 Year-end Report**

5.-Good habitat at Stop Over sites helps the birds during their migration

T            F

Bonus:

1. Name 3 things you can do to help birds

## Appendix 4 – Monarch Butterfly Information Sheet

### *Pelee Island Butterflies & Monarch Migration*

#### *What makes the butterflies of Pelee Island special?*

Butterflies evolved in concert with the environment, and particularly the plants they depend on for housing and food. As a result of Pelee Island's unique biodiversity – almost one-third of all vascular plants that occur in Ontario are found here – it's not surprising that the island supports a wide range of butterflies that, while a common sight on Pelee, are rare in the rest of Canada.

Southwestern Ontario's Carolinian forest region, along with Pelee Island's globally-imperiled Alvar ecosystem (a type of savanna found only on shallow soils formed over flat limestone beds), are just two of the reasons why Pelee provides such hospitable surroundings for a wide range of *Lepidoptera* including the Tawny Emperor, Acadian Hairstreak, Hackberry Butterfly, Sachem Skipper, and the Giant Swallowtail (below right).

In addition to the richness of the flora on Pelee, the island is situated at the confluence of two migratory routes – the Atlantic Flyway and the Mississippi Flyway – which funnels migratory butterflies as well as birds, the most popular being the Monarch Butterfly. Although the Monarch is by far the most numerous species encountered in the autumn, a variety of other species can be found as well, such as the Common Buckeye (above).

#### *When is the migration?*

The fall butterfly Migration season extends from mid-August until late-October, with the peak occurring between the first and third week of September. Migration is largely dependent on the weather and wind conditions, however, so even during the peak migration season the number of butterflies seen on any given day can range from zero to thousands.

#### *Where is best to see the migration?*

Although Pelee Island hosts thousands of Monarch butterflies in the Fall, the largest counts in the region can be observed at **Point Pelee National Park** on the Ontario mainland. For more information about Monarch migration at Point Pelee please visit:

<http://www.pc.gc.ca/eng/pn-np/on/pelee/natcul/natcul5.aspx>

#### *Why then go to Pelee Island?*

For the complete 'Pelee' experience we recommend that you visit both Point Pelee and Pelee Island. Although Monarchs migrate in higher densities at Point Pelee, the unique and globally-threatened **Alvar ecosystem** on the Island, along with a variety of other butterfly-friendly habitats, provides viewing opportunities for many rare species that are difficult to find elsewhere in Canada... Not to mention all the other exciting attractions Pelee Island has to offer!