

## **2018 Swallow Roost Monitoring – Summary of observations/fieldwork**

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This report presents the field monitoring data collected from the 2018 roost-monitoring season. We acknowledge the financial support from the Ontario Trillium Foundation, the dedicated fieldwork from our valued partners in the three catchments of Southern Ontario, and support from Nature Canada staff. We hope that this report provides a basic understanding of the roosts that were monitored in 2018, and highlights the necessity for the continued long-term study to demystify the phenomenon of post-breeding swallow roosts.

Most of Ontario's six swallow species gather in large roosts after breeding and prior to their long migrations to wintering areas in the south. Research has shown that some species (like Bank Swallow) appear to start using roosts during their breeding season. These roosts can contain hundreds to hundreds of thousands of birds and are often large enough to be detected on weather radar. These roosts are ephemeral, forming over the breeding season, starting in mid- to late-July, reaching maximum numbers in mid-August, and disbanding by early September. Roosts are still a mystery in terms of their function, composition, magnitude and dynamics, but the sheer concentration of birds (including species-at-risk like Barn and Bank Swallow) in such a small, compact area indicates both a significance and a vulnerability that deserves conservationists' attention.

After a busy pre-monitoring and planning season (which included several presentations, workshops and webinars across Ontario), Nature Canada staff (Ted Cheskey & Brodie Badcock-Parks) and local project partners conducted field work at seven locations (see Figure 1) along Lake Ontario and Lake Erie throughout the month of August, in an attempt to gain a better understanding of these swallow roosts. Three of the seven survey sites (Point Pelee, Long Point and Port Maitland) had evidence of swallow roosts.

## OTF Roost Monitoring Sites



**Figure 1:** A map of the seven sites (also showing municipal boundaries) along Lake Ontario and Lake Erie surveyed by Nature Canada during the 2018 roost-monitoring season

### Highlights

Overall, this season was very successful in terms of both networking as well as results. We were able to substantiate prior roost monitoring efforts by returning to previously-documented roost sites (like Point Pelee), and we also were able to assess and survey new sites, including Long Point, Howe Island and Wolfe Island.

This season we also met with officials at Point Pelee National Park and Rondeau Provincial Park to discuss future collaborative efforts to learn more about the roosts located on or near these parks.

- Close collaboration with local naturalist groups and project partners, including:
  - Ontario Purple Martin Association
  - Holiday Beach Migration Observatory
  - Essex County Field Naturalists Club
  - Sydenham Field Naturalists
  - Long Point Bird Observatory
  - Haldimand Bird Observatory
  - Ruthven Park National Historic Site
  - Prince Edward Point Bird Observatory
  - Kingston Field Naturalists
  - National Farmers Union – Ontario
  - ALUS Lambton

**Point Pelee**

**Survey location:** parked at corner of Mersea Rd E and Mersea Rd 19 (41.986918, -82.515333)

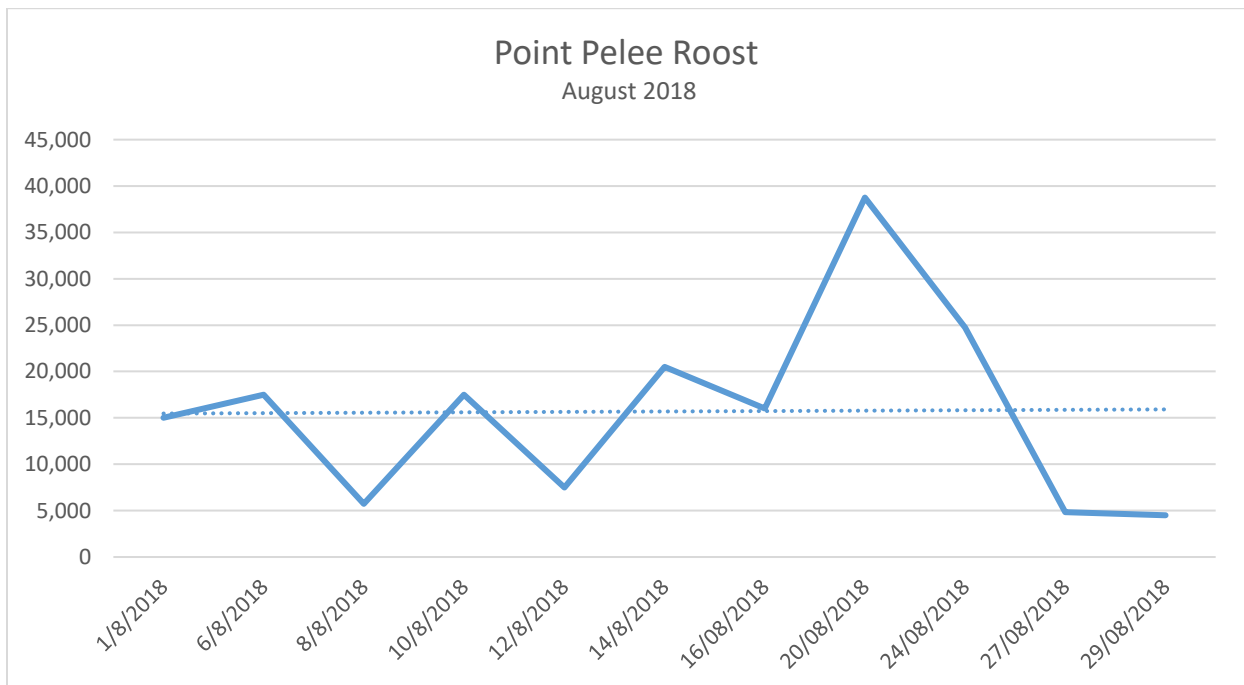
- Monitoring was done along the dikes

**Survey dates:** 1<sup>st</sup> – 29<sup>th</sup> August 2018

**Number of visits:** 11

**Roost Monitors:** John Balga, Rob Buchanan, Ron Delcourt, Al Hamill, Brianna Jackson, Teri Kaskie, Patrick Kramer, Paul Pratt, Brodie Badcock-Parks, Ted Cheskey

**Summary Graph:**



## Long Point Bird Observatory

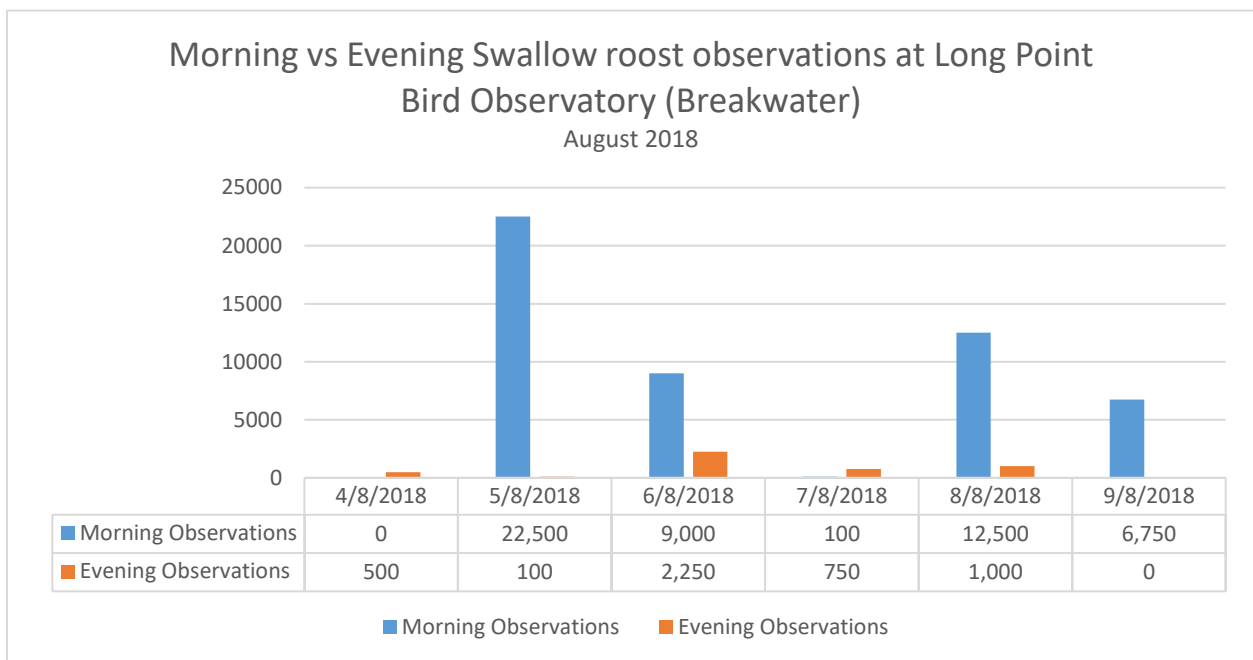
**Survey location:** from the Breakwater station of Long Point Bird Observatory (42.561185, -80.2844928)

**Survey dates:** 4 – 9 August 2018

**Number of visits:** 10

**Roost Monitors:** Brett Fried & Brodie Badcock-Parks

**Summary:**

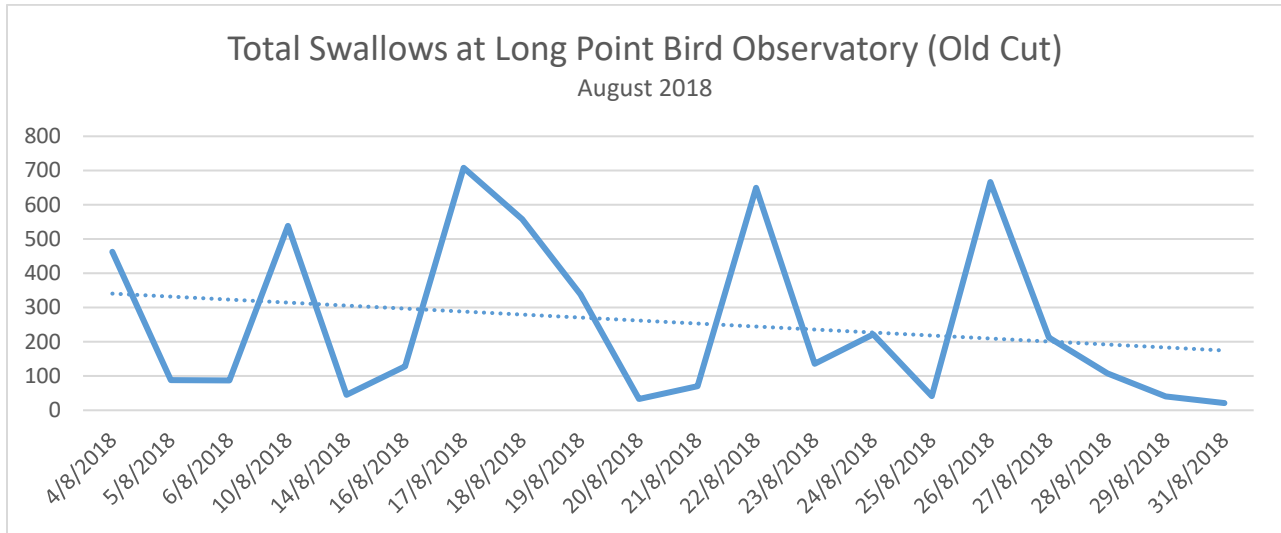


**Survey location:** 42.582500, -80.398499 (Old Cut)

**Survey dates:** 4 – 31 August 2018

**Number of visits:** 20

**Roost Monitors:** Kyle Cameron & Stuart Mackenzie

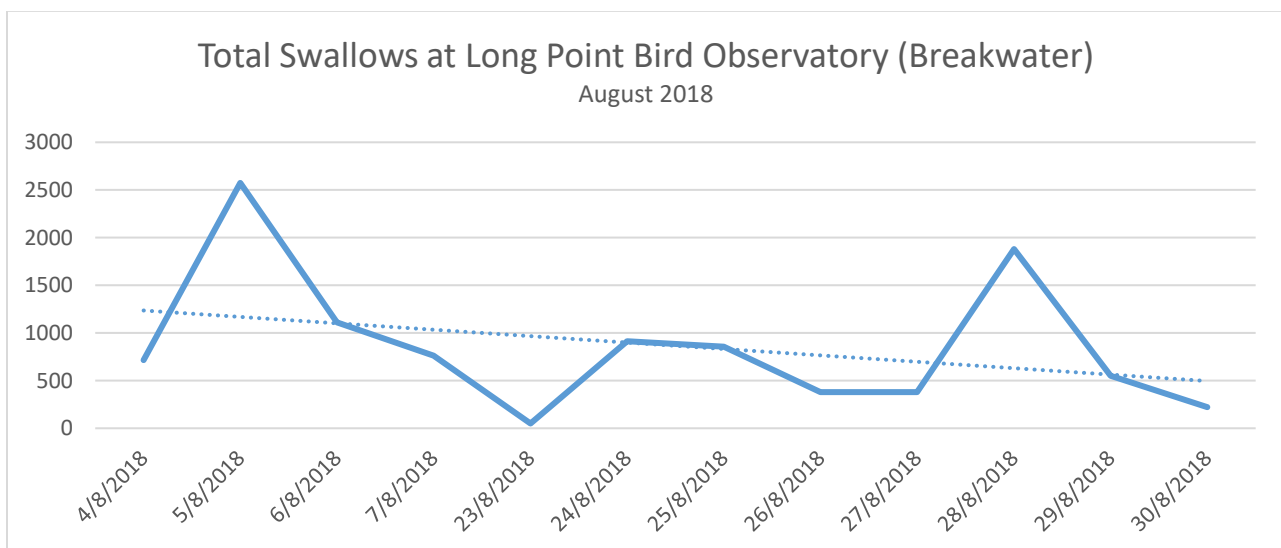


**Survey location:** 42.566502, - 80.307800 (Breakwater)

**Survey dates:** 4 – 30 August 2018

**Number of visits:** 12

**Roost Monitors:** Kyle Cameron & Stuart Mackenzie

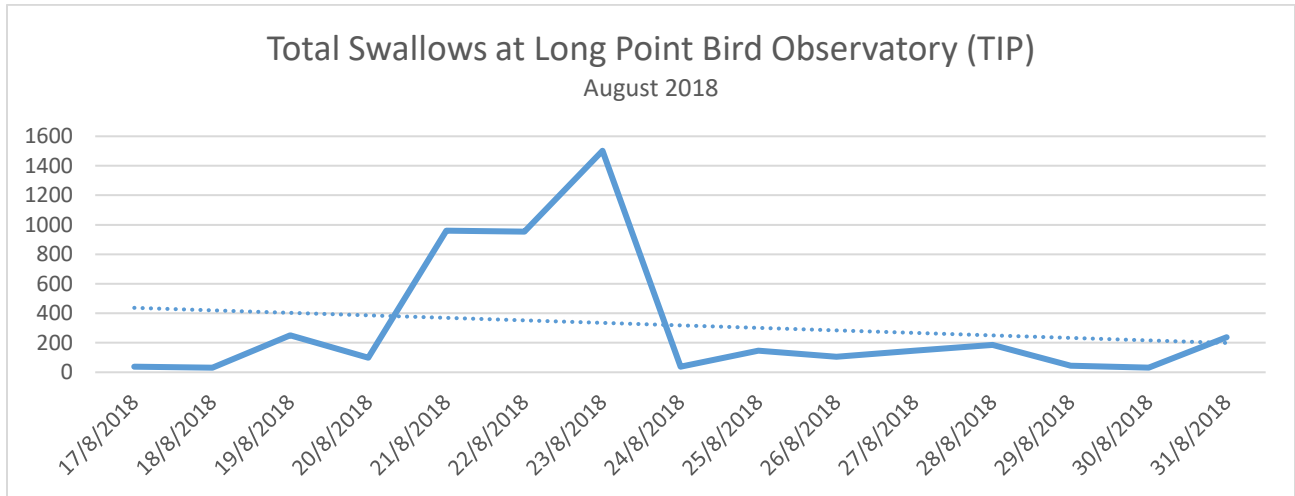


**Survey location:** 42.548901, - 80.051598 (TIP)

**Survey dates:** 17 - 31 August 2018

**Number of visits:** 15

**Roost Monitors:** Kyle Cameron & Stuart Mackenzie



### **Dunnville/Grand River**

#### **Site A:**

**Survey location:** from within Maitland Shores RV Trailer Park & Marina (659 Port Maitland Rd, Dunnville, ON, N1A 2W6)

**Survey dates:** 9 August, 2018

**Number of visits:** 1

**Roost Monitors:** Nancy Furber, Rick Ludkin & Brodie Badcock-Parks

#### **Site B:**

**Survey location:** from a dock at the Port Maitland Marina (459 Port Maitland Rd, Dunnville, ON, N1A 2W6)

**Survey dates:** 9-10 August, 2018

**Number of visits:** 4

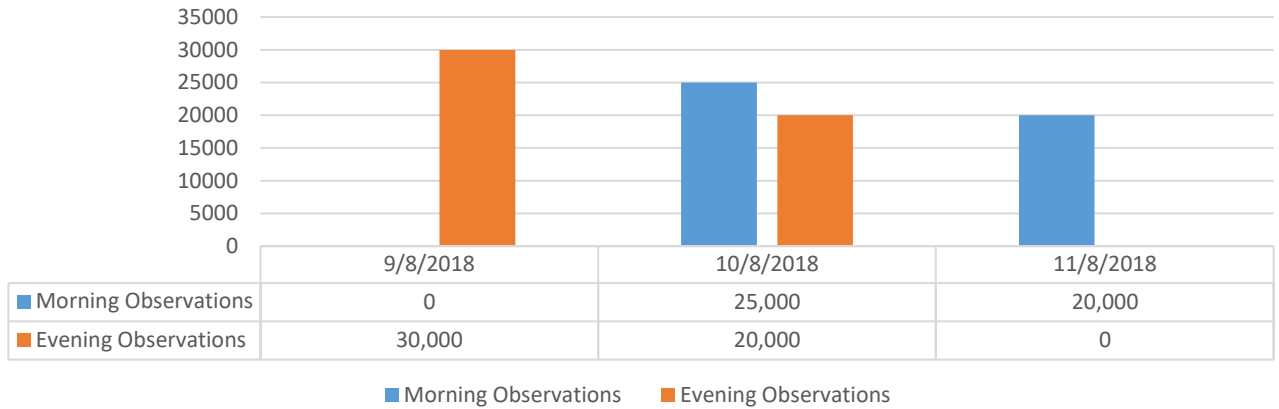
**Roost Monitors:** Nancy Furber, Rick Ludkin & Brodie Badcock-Parks

#### **Summary:**

| Visit #       | Date          | Time      | Total observed (estimated) | Notes   |
|---------------|---------------|-----------|----------------------------|---|
| 1<br>(Site A) | 9 August 2018 | 1940-2020 | 1000                       | <ul style="list-style-type: none"><li>• <b>Staging area on hydro lines</b></li><li>• Almost exclusively PUMA staging (total <math>n = 900</math>), but BARS and TRSW also present (foraging nearby)</li><li>• Every few minutes they would all come up from the lines and would swirl around and then return to staging</li></ul> |

## Morning vs Evening Swallow roost observations at Port Maitland (Site B)

August 2018



## Amherst Island

### Site A:

**Survey location:** Beach Wetland, Third Concession Stand, Loyalist Township (44.120667, -76.71894445)

**Survey date:** 5 August 2018

**Number of visits:** 1

**Roost Monitors:** Kurt Hennige

### Site B:

**Survey location:** Eves Marsh, South Shore Road, Loyalist Township (44.136078, -76.683261)

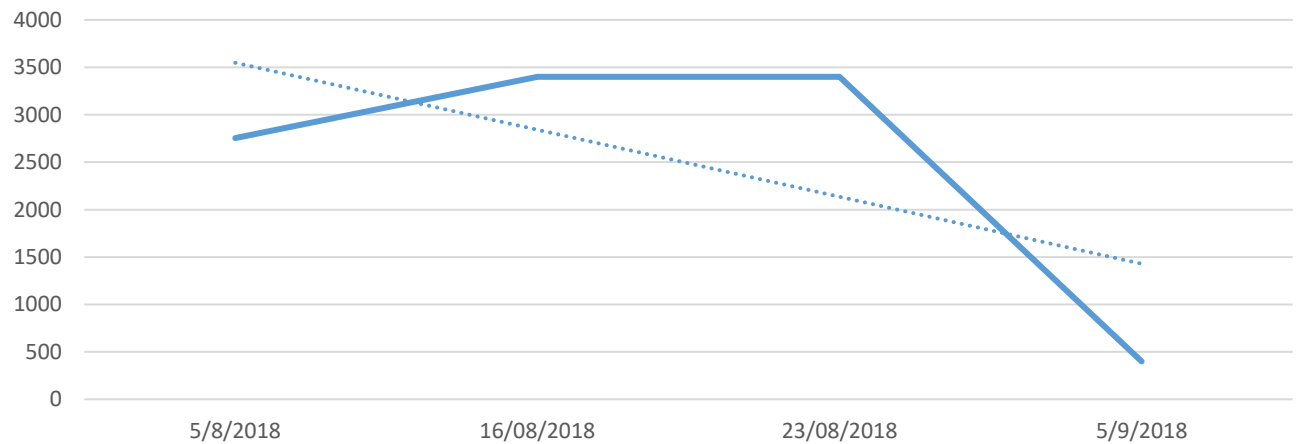
**Survey dates:** 16 August - 5 September 2018

**Number of visits:** 3

**Roost Monitors:** Kurt Hennige

## Total Swallows observed at Amherst Island

August 2018



## **Prince Edward County**

**Survey location:** 43°50'47.58"N, 77° 7'44.53"W

**Survey dates:** August 9, 2018

**Number of visits:** 1

**Roost Monitors:** Cheryl Anderson, Peter Fuller & Ted Cheskey

### **Summary:**

*No evidence of roost present*

## **Howe Island**

**Survey location:** Staging area observed along N Shore Rd towards Lower Side Rd (44.277523, -76.303300). Other survey location at mouth of Johnson's Bay (44.269711, -76.288989)

**Survey dates:** 19 – 20 August, 2018

**Number of visits:** 2

**Roost Monitor:** Brodie Badcock-Parks

### **Summary:**

*No significant evidence of roost present. 50 – 100 barn swallows observed staging on power lines, however, this was indicative of lots of habitat present (barns) rather than the presence of a post-breeding roost on the island.*

## **Wolfe Island**

**Survey location:** Observed on a boat throughout the Bayfield Bay, close to Bayfield Island (44.202806, -76.357210)

**Survey dates:** 20 - 21 August, 2018

**Number of visits:** 2

**Roost Monitors:** Dr. Barrie Gilbert, Kurt Hennige, Mark Read & Brodie Badcock-Parks

### **Summary:**

*No evidence of roost present.*



## **Comments:**

We are pleased with the results from roost-monitoring season in the summer of 2018 and grateful to all the monitors for their time and effort. We are optimistic that we will be able to build upon the results from 2018 and further our understanding of swallow roosts so that we can conserve and protect them more effectively.

Roosts are still a phenomenon with many aspects that remain a mystery. For this reason, we are also continuing our collaboration with Dr. Fraser from the University of Manitoba to deploy MOTUS tags on Purple Martins, to understand how this species uses roosts once individuals leave their nesting colonies. There is always a delay from deployment of devices to when results can be analyzed and shared. We are confident that what we learn from this work will contribute to conservation.

Through continued monitoring of roosts, including better estimates of numbers of individual species and more frequent observations, we are confident that we will acquire new insights about these post-breeding gatherings of Ontario's swallows, which can help in our mission to provide protection for swallows and their roost sites.

For the coming season, we will be identifying ten roost sites for monitoring based on weather radar analysis. This is a valuable technique as it helps locate new potential roost sites that may have gone unnoticed, hence requiring field verification, while confirming the size and scale of already recognized sites. We are also working on methods to identify and measure changes in roosts over time using GIS analytical tools, which we hope to share with you soon.

To help our local partners locate roost sites, we have developed a guide along with an instructional YouTube video that provides details on how to use weather radar technology to track swallow roosts.

We will be contacting local partners this spring to organize the monitoring efforts for the summer (starting late July and extending through August) of 2019.

For more information on monitoring swallow roosts, contact [info@naturecanada.ca](mailto:info@naturecanada.ca) or call 1-800-267-4088.