



Maritimes SwiftWatch

VOLUME 8 — 2017-2018 Season

In This Issue

Predation of Swifts at Roost Sites 2

Bird-Friendly Sign Project 2

Roost Spotlight: Woodstock, NB 3

Chimney Temperature Study 4

Swifts by the numbers – 2017 5

Project Supporters 8

Mark your calendar!
The 2018 roost count dates are:

May 17 (optional)

May 23

May 27

May 31

June 4

Additional counts before, between and after the above dates are encouraged!

Led by Bird Studies Canada (BSC), Maritimes SwiftWatch is a volunteer-based monitoring and stewardship program designed to bring together biologists, citizen scientists, landowners and communities as stewards for Chimney Swifts and their habitat.

In 2017 **88** volunteers spent **1,023** hours scanning the skies for swifts, conducting **187** roost watches, confirming nesting activity at many previously known nest sites, and identifying **25** new nest sites plus one new roost (see Roost Spotlight, p. 3). Maritimes SwiftWatch staff and partners contacted landowners hosting swifts on their properties to provide information about Chimney Swift biology and stewardship. Aside from one particularly wet and cold count on June 1, swift numbers were similar to the average for the past several years at most roosts. More detailed information about Maritimes SwiftWatch roost count results and the National Roost Monitoring results can be found on pages 5-7.

We traveled far and wide this year, staging our ever-popular Swift Night Out events in Hampton, NB; McGowan Lake, NS; Plaster Rock, NB; and Riverside-Albert, NB; and our summer staff conducted nest searches in Alma, NB and Wolfville, NS. As well, our partners at MTRI led public “Swift Walk” workshops to identify additional nests in the Nova Scotia communities of Annapolis Royal, Lunenburg, Shelburne and Liverpool.

As always, a sincere **thank you** is due to the volunteers, partners, and supporters whose contributions make SwiftWatch possible!

-Ally Manthorne and Amy-Lee Kouwenberg, Maritimes SwiftWatch Coordinators



Photographer Jason Headley perfectly captured this Chimney Swift returning to its nesting chimney with a crop full of insects for hungry nestlings in Bridgetown, NS.

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Predation of Swifts at Roost Sites by Merlins and Racoons

Communal roosting in birds is thought to have three primary benefits: i) reduction in thermoregulation demands; ii) decrease in predation risk; and iii) increase in foraging efficiency (Beauchamp, 1999). Chimney Swifts are afforded this “safety in numbers” at communal roost chimneys across NS and NB, and the flurry of activity when hundreds of swifts return to roost each night also attracts crowds of curious onlookers.



Merlin (*Falco columbarius*). Photo: US Fish and Wildlife Service.

However, people are not the only ones drawn to the commotion. Merlins (*Falco columbarius*) have been observed during National Roost Monitoring counts at several

roosts. In 2017, volunteers monitoring roost chimneys in NB and NS reported 13 separate interactions between Chimney Swifts returning to their roost chimney and Merlins in search of prey. In two cases, a Merlin successfully pursued and captured a swift. In another case, the swifts flocked up to drive the would-be predator away. While it can be difficult to observe swift predation, Merlins are important members of the urban bird community and should be left in peace.

On another note, we were surprised to hear from Shalan Joudry and Greg Turner, who described a racoon hunting for swifts on the rooftop of the Bear River, NS roost site. The racoon was resting just inside the chimney when Shalan and Greg arrived, and lunged at swifts as they attempted to enter the flue before climbing further down into the chimney. To thwart future predation events by racoons, this chimney will have metal flashing installed around its base, which prevents animals from climbing upwards. Thanks to Shalan and Greg for observing and reporting this rare event!

Guy Beauchamp; The evolution of communal roosting in birds: origin and secondary losses, *Behavioral Ecology*, Volume 10, Issue 6, 1 November 1999, Pages 675–687, <https://doi.org/10.1093/beheco/10.6.675>

“Swift-Friendly” and “Swallow-Friendly” Signs: coming to a street near you!

Like Chimney Swifts, swallows return faithfully each spring to swoop and glide over city skylines and farm fields alike, often nesting and feeding in and around our barns and sheds. Most of our swallow populations are declining, and although researchers don't fully understand why, habitat loss and human persecution (for example, knocking down nests) are among the suspected causes, along with increased exposure to pesticides, more severe weather events, and declining insect prey availability.

As swifts and swallows continue to disappear from our landscape, it is important to recognize and thank the people who are taking action to provide safe nesting and feeding areas for them. At the same time, demonstrating to our neighbours and friends that people and birds can share space (and even benefit from each others' presence) encourages more people to give swallows a place to nest and feed in their yards.

In 2017, Bird Studies Canada created “Swift-Friendly” and “Swallow-Friendly” signs for landowners who have



Roost Spotlight: Woodstock, NB

Although Chimney Swifts have been observed in the skies over Woodstock for many years, ultimately it was a bit of luck that led Nathan Staples down the street where he discovered a large roost of swifts this past year.

Nathan was out at dusk on June 2, 2017 and spotted about two dozen Chimney Swifts flying overhead. The swifts kept going towards the former Woodstock Middle School, a vacant building on Green Street, so Nathan headed that way and parked there. All of a sudden about 200 swifts appeared and started circling around in the air before dropping down into the chimney!

By counting swifts roosting at the school throughout June and July, Nathan and other birders were able to confirm that swifts were roosting regularly in the chimney. As a vacant building, future of this roost is currently unknown, but we now have data to share with decision-makers that demonstrate this building's importance for Chimney Swifts and will provide guidance to help the site's owners/managers avoid disturbing swifts while they roost in the chimney.

Thank-you Nathan and Carleton County birders!

demonstrated a commitment to swift and swallow stewardship. On such properties, landowners are ensuring that Chimney Swifts have a safe place to nest and roost by avoiding fires and chimney maintenance between May and September, keeping fireplace dampers closed, and turning off the furnace when swifts are present.

Swallow-friendly landowners are keeping barn doors open, maintaining a source of mud for nest-building, and leaving old nests in place for swallows to re-use.

If you host swifts or swallows on your own property and want to create or enhance nesting and foraging habitat for these species, please get in touch with Bird Studies Canada to learn more and request your **free** "Swift-Friendly" or "Swallow-Friendly" sign.

The signs measure 8.5" by 11" and are made of a durable laminated aluminum that can be drilled through to attach to a wall or a post. We simply ask that our Stewards place their sign in a publicly visible place (for example, near your mailbox or driveway, or entrance to barn), and continue to maintain safe, healthy nesting and foraging habitat for swifts and swallows.

Contact: marswifts@birdscanada.org (506) 364-5196

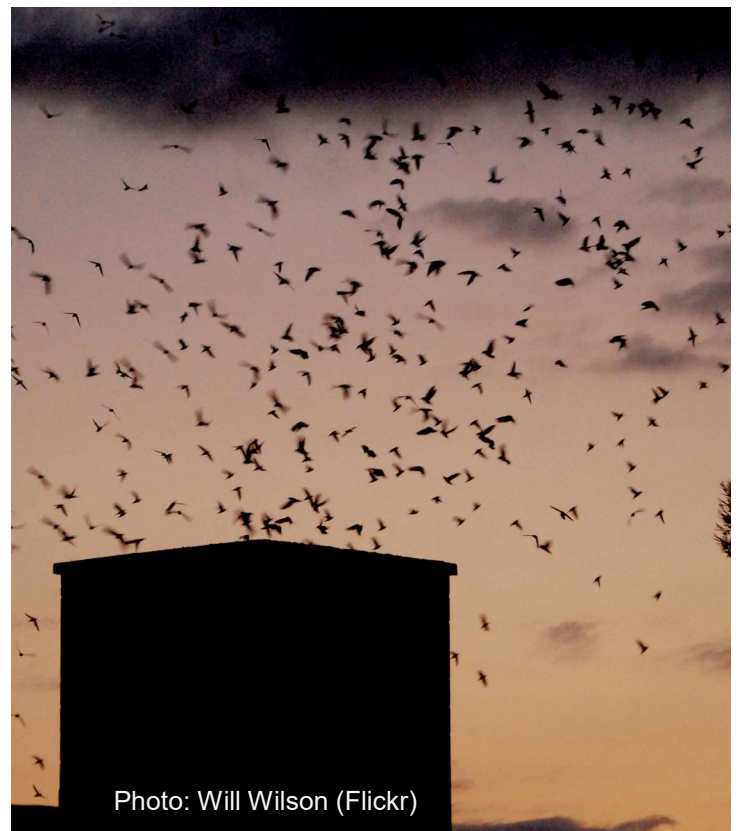


Photo: Will Wilson (Flickr)



Chimney Swift nest in Apahoqui, NB.
Photo: Courtney LeRoux

Some Like It Hot...But Not Chimney Swifts

In 2017, the University of New Brunswick and Bird Studies Canada joined forces to study the temperature characteristics of Chimney Swift nests. The premise: to find out if temperature makes any difference to how a chimney swift selects its nest site. This information is important because it helps understand which chimneys might be most important to protect as suitable habitat for breeding swifts; and it also may help inform how to restore or replace suitable chimneys.



Hobo® temperature data-logger

UNB student Courtney LeRoux used SwiftWatch data to identify a number of occupied nest sites in 11 chimneys in New Brunswick and Nova Scotia, and compared them to 8 unoccupied chimneys. She investigated the temperature profiles of the two groups of chimneys (occupied and unoccupied), by deploying a small “Hobo” temperature logger inside each chimney. Temperatures were recorded during the nesting season (June – September).

Courtney did a detailed analysis of temperature profiles

(minimum, maximum, mean, and deviation), with some interesting results. Temperatures in occupied chimneys ranged from 9-23 degrees Celcius; and in unoccupied chimneys, ranged from 11 to 35 degrees Celcius. Swifts were more likely to occupy chimneys that were cooler (both mean and maximum).

Interestingly, while swifts didn't seem to mind the cooler temperatures, there seemed to be an upper temperature threshold (~35°C) that restricts Chimney Swift occupancy of a chimney. These results can guide the refinement of the definition of critical habitat for Chimney Swifts and contribute to future designs for alternative habitat.

Did You Know?

In 2017, Daly Point Nature Reserve produced interpretive signage that will be installed at the Bathurst Chimney Swift roost site this spring. If you find yourself near Bathurst, be sure to make a trip to the site to read up on the history of this roost and the swift spectacle in person!

This roost regularly hosts between 100 and 700 swifts in May and June and the building itself is a Provincial Historic Site with a 130 year history.

Thank you Janet Doucet and Daly Point Nature Reserve!



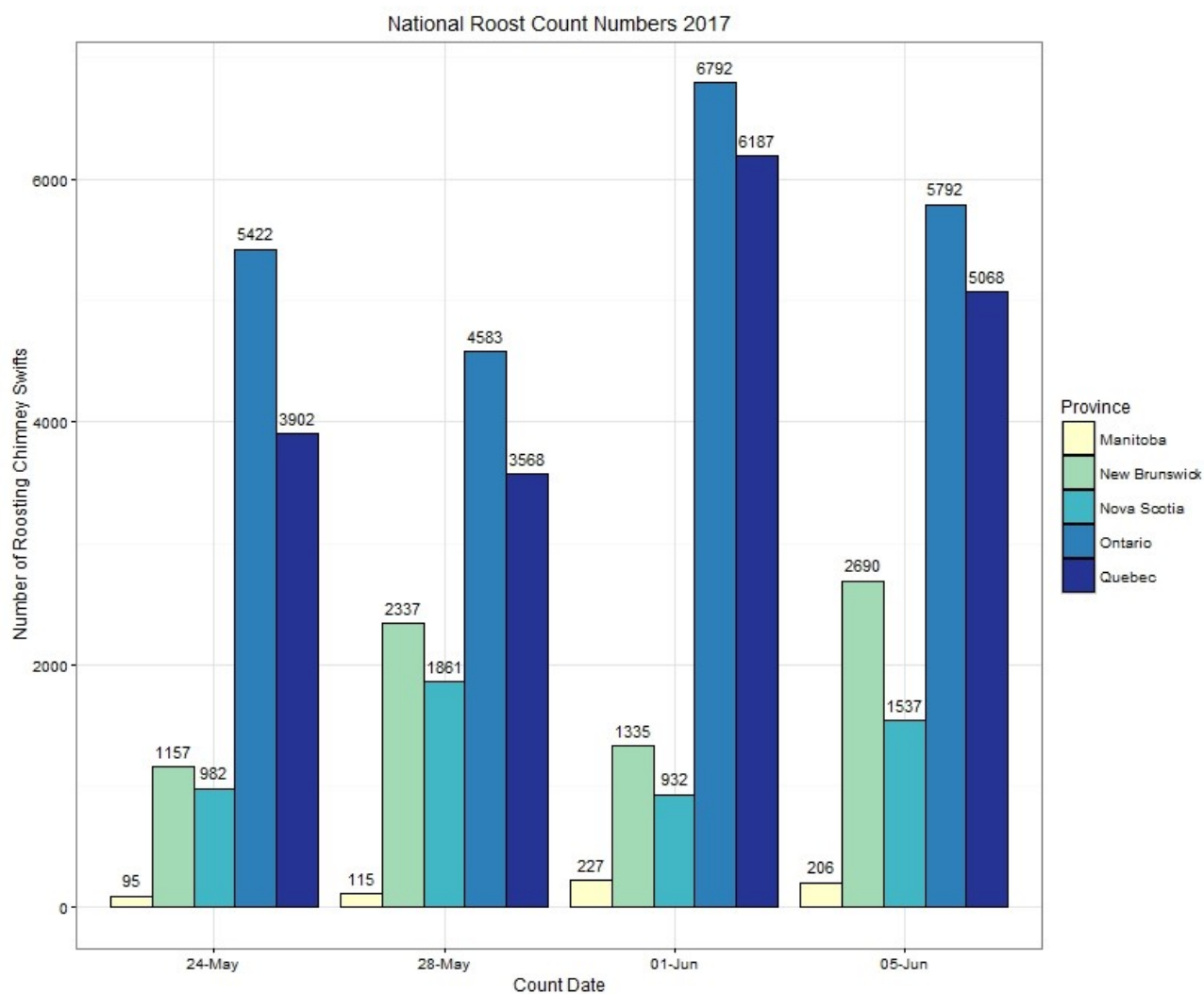
Interpretive Panel designed by Daly Point Nature Reserve.
Photo: Janet Doucet

Swifts By the Numbers –2017

Observers across Canada conduct counts on the same four nights, synchronizing counts to ensure that we are not double-counting swifts as they migrate through different regions. The number of surveyed roosts has nearly doubled, from 70 sites in 2013 to 135 sites in 2017, as volunteers identify and adopt previously unknown roost sites for monitoring.

In 2017, dedicated volunteers in Manitoba, Ontario, Quebec, New Brunswick and Nova Scotia surveyed 115 out of 135 known roost sites during the four National Roost Monitoring dates. The peak number of swifts counted in a single night was 15,473, which is the second-highest count after the 17,128 swifts counted across Canada in 2015. The total number of swifts counted on each 2017 count date in each province are displayed in the graph below. On a given roost count date, at least 46 of 59 roosts were monitored in Ontario, 44 of 47 in Quebec, 7 of 10 in New Brunswick, 6 of 10 in Nova Scotia, and 5 of 8 in Manitoba.

It will take a few more years of data collection to determine how well the National Roost Monitoring protocol is detecting population trends, but the monitoring data is helping to demonstrate the importance of individual roost sites to the owners and managers of these structures as well as the surrounding communities, and underscore the need for protection and long-term stewardship of roost sites across Canada, which serve as vital stopover points for migrating and non-breeding swifts.



Tracking Swift Numbers in the Maritimes

In New Brunswick, 2017 swift numbers surpassed the previous high of 2,254 in 2015, while Nova Scotia counts were comparable to 2015 numbers. The National Roost Monitoring program results for each site monitored in 2017 are displayed in the table of the following page. Numbers were slightly higher than last year at some roost sites and slightly lower at others. Low counts on June 1 reflect region-wide cold, wet weather that kept swifts huddled inside their roosts on count night.

Of note, the average number of swifts per Maritimes roost chimney has steadily increased since surveys began in 2011. Likely this reflects an increase in discoveries of large roosting chimneys (which are relatively easy to find) rather than an actual population increase. As Maritimers become more aware of Chimney Swifts and the importance of finding and reporting roost sites, we hope to see increased reports of roost chimneys small and large, which may bring down the average number of swifts per chimney.

That said, in 2017, 20 known roost sites were monitored in Nova Scotia and New Brunswick with an average of 224 swifts per roost, which was nearly double the national average of 121 swifts per roost. Clearly, each of our roosts is very important and monitoring them each year contributes to the national understanding of chimney swift numbers.

Sometimes busy schedules prevent us from conducting counts on scheduled count dates. If you know in advance that you may miss a count, please let us know so we can help to arrange a 'backup' counter. On the other hand, if you have time to conduct extra watches before, between and after the four count dates (see front page for 2018 dates), feel free to do so! The more count data that exist for each site, the better we can manage risks and threats for this habitat.



A Chimney Swift nest collected from a chimney in Stanley, NB illustrates how tiny and intricate each nest really is. Photo: Ally Manthorne



Counting Swifts in the Maritimes — 2017 National Roost Monitoring Results

Province	Site	Building Type	18-May	24-May	28-May	01-Jun	05-Jun
NB	Bathurst	Former post office	100	400	715	730	242
NB	Edmundston	Church	n/a	n/a	n/a	106	74
NB	Fredericton	Commercial	9	186	422	413	1571
NB	Hampton	Former post office	64	36	88	58	167
NB	Island View	House (used as office)	n/a	n/a	n/a	n/a	n/a
NB	Paquetville	Church	0	0	3	3	4
NB	Plaster Rock	School	147	131	534	163	n/a
NB	Riverside-Albert	House	32	n/a	1	n/a	n/a
NB	Sainte-Anne-de-Madawaska	Church	n/a	115	137	123	234
NB	Sussex	Apartment	121	289	437	152	398
NS	Bear River	House	112	167	278	27	104
NS	Mabou	Church	9	27	27	18	0
NS	McGowan Lake	Former smithy	143	263	242	138	192
NS	Middleton	School	93	9	415	104	287
NS	New Glasgow	Former School (apartment building)	170	426	627	345	508
NS	Oxford	Freestanding chimney	0	0	3	0	0
NS	Truro	Former school (town library)	31	n/a	n/a	34	5
NS	Upper Falmouth	House	27	12	n/a	81	218
NS	Weymouth	Church	n/a	222	550	180	268
NS	Wolfville	Freestanding chimney	16	23	0	32	59
		TOTAL	1074	2306	4479	2707	4331

"n/a" means no count was conducted on this date



BIRD STUDIES
ÉTUDES D'OISEAUX CANADA

Maritimes SwiftWatch is a multi-partner project led by Bird Studies Canada together with:



Kespukwitk's SAR Program

Pictou Co. Naturalist Club



Maritimes SwiftWatch supporters:

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Environment and
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Graham and Susan Smith



**TD Friends of the
Environment Foundation**



Our project is funded in part by the New Brunswick Wildlife Trust Fund. This Wildlife Trust Fund obtains a portion of its revenue from the purchase of conservation plates by New Brunswick residents who are interested in conservation. Seven dollars (\$7) from each conservation plate purchase goes into that fund annually. These funds are awarded to projects such as ours by the Minister of Natural Resources following review and recommendation by an independent board of 17 volunteers. Revenue from license plates is critical in furthering conservation efforts in our province so please consider purchasing conservation plates with your next car purchase to enable the NB Wildlife Trust Fund to continue to provide financial support for worthy wildlife projects.



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