

10-YEAR ANNIVERSARY

# ONTARIO SWIFTWATCH REPORT

2019

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**Canada**

# INTRODUCTION

Through SwiftWatch, Birds Canada, its partners, and hundreds of volunteers are working to help Chimney Swift recovery in Ontario and across the country. The program's primary objectives are to fill key knowledge gaps by identifying and monitoring priority roost and nest sites, and taking further conservation efforts to address threats to swifts, specifically the loss and disturbance of these sites. Objectives are met by engaging communities, volunteers, and chimney owners in monitoring and stewardship; collaborating with partnering organizations; and addressing other high priority research questions.

If Ontarians are engaged and supported in Chimney Swift monitoring and stewardship, then swifts and their habitat will be safeguarded across the province, because individuals/groups will have the resources to be champions for swifts in their own communities.

— SwiftWatch Theory of Change

This report summarizes the work completed by dedicated SwiftWatch volunteers and community groups in 2019. Since it is SwiftWatch's 10th anniversary this report also gives a brief overview of what's been accomplished since its initiation in 2010. Birds Canada thanks the hundreds of Citizen Scientists, community groups, partners, and supporters whose contributions have helped advance conservation for swifts. The Government of Canada, Government of Ontario, TD Friends of the Environment Foundation, and the Ontario Trillium Foundation supported Ontario SwiftWatch in 2019.



# 2019 SEASON REVIEW

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## Highlights

- Over 150 Citizen Scientists from 38 communities monitored 156 swift chimneys:
  - 58 chimneys had 3 or fewer swifts (probable nests)
  - 68 chimneys had between 4 and 1800 swifts (roosts and possible nests)
  - 30 chimneys had no swifts (but did in a previous year)
- 1077 observations, including nest and roost monitoring results, were submitted to Ontario SwiftWatch.
- 3 new communities participated in SwiftWatch (Ancaster, Elmira, Waterloo).
- 19 new active nest and/or roost chimneys were identified.
- Top 5 largest roosts in Ontario reported through SwiftWatch were in:
  - Toronto, Moss Park Armory; high count = 1800 on May 22
  - Rolphton, Canadian Nuclear Laboratories; high count = 1328 swifts on June 3
  - Pembroke, Pembroke Memorial Center; high count = 1116 on June 3
  - Bancroft, Old MTO Building; high count = 950 on June 3
  - Chalk River, Canadian Nuclear Laboratories; high count = 618 on May 26.
- Increased landowner awareness of Chimney Swifts and their needs; 34 sites protected through landowner stewardship initiatives to date.



# MONITORING METHODS

In 2019, Ontario SwiftWatch volunteers conducted four types of surveys. For more details on survey methods, please see the full protocol [here](#).

1. **Spring Roost Monitoring** surveys were conducted at active roosts in Ontario, as well as in Manitoba, Québec, and the Maritimes, on May 22, May 26, May 30, and June 3 as part of annual efforts to track the Canadian Chimney Swift population. To capture earlier migrants in Ontario, additional surveys were conducted on May 16 at some roosts. Volunteers reported the total number of swifts seen entering each surveyed roost each night.

2. **Presence/Absence** surveys were conducted by identifying potential nest or roost chimneys and then later monitoring the chimneys during appropriate swift activity periods to determine if they were being used by swifts.

3. **Continued Monitoring** surveys were conducted by volunteers at active nest and/or roost chimneys weekly or bi-weekly throughout the season (May to September). Volunteers reported on the number of swifts that entered the chimney on each visit.

4. **Casual Observations** of Chimney Swifts were submitted by Citizen Scientists across Ontario and helped to identify new nest and roost sites, as well as new areas with swift populations.



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# MONITORING RESULTS

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## Spring Roost Monitoring

A total of **112** chimneys were monitored on at least one Spring Roost Monitoring night (Table 1). The maximum number of swifts counted on a single night was **7982** on May 22. The maximum number of swifts counted at a single chimney on a single night was **1800** in Toronto on May 22.

Long-term monitoring at roost sites helps our understanding of local and regional population changes. Monitoring as many roosts as possible during the same time period each year will help determine whether specific events or factors might be influencing swift numbers (e.g., drought, cold spring, or conservation actions). Roost monitoring is crucial for identifying chimneys regularly used by high numbers of swifts during migration for stewardship and protection. It is also helpful for tracking the success of these stewardship and protection efforts, and for identifying new threats as they arise.



# Table 1: Results of 2019 Spring Roost Monitoring for Ontario

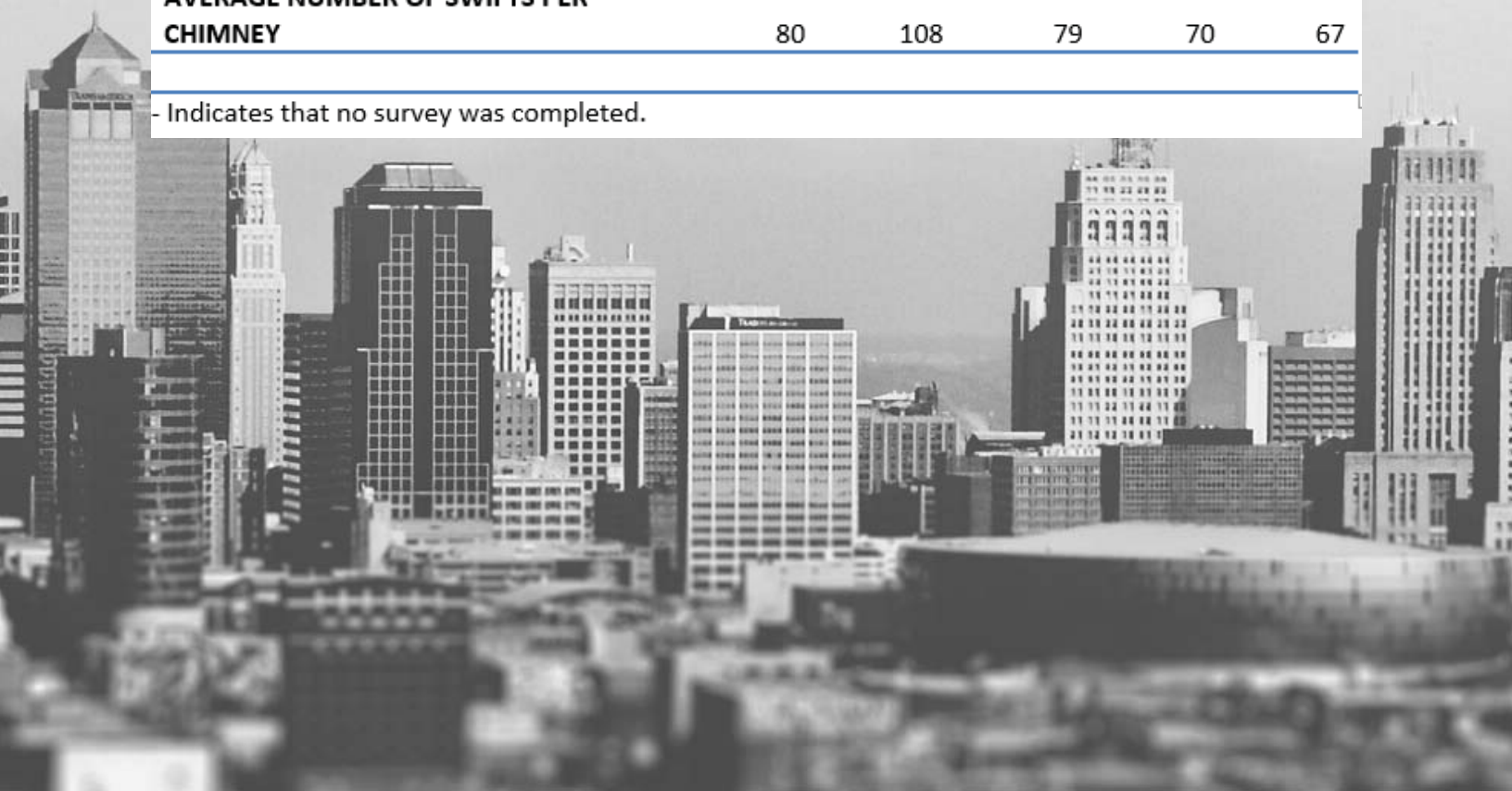
Chimney Site	Number of Chimney Swifts Entering Chimney				
	16 May	22 May	26 May	30 May	03 Jun
Acton, Willow St N	-	-	-	-	63
Aurora, Wells St	47	99	70	52	61
Bancroft, Monck St	-	900	200	300	950
Barrie, Bradford St	-	1	-	-	-
Barrie, Burton Ave	0	0	2	1	2
Barrie, Collier St	-	-	-	-	0
Barrie, Collier St 2	2	1	4	4	3
Barrie, Dunlop St E	1	2	1	2	1
Barrie, Dunlop St E	69	111	82	50	124
Barrie, Dunlop St W	0	0	0	5	0
Barrie, Mulcaster St	2	1	2	3	0
Brighton, Dundas St	-	46	18	52	96
Cambridge, Beverly St	-	-	10	20	-
Cambridge, Montrose St	87	110	111	110	112
Campbellville, Main St 2	-	-	-	-	5
Campbellville, Main St S	-	2	-	-	2
Chalk River, CNL stack	-	536	618	358	610
Delhi, Main St	-	2	-	2	-
Fort Erie, Central Ave	0	2	0	0	2
Fort Erie, Central Ave, Church	0	0	0	1	0
Fort Erie, Courtwright St	1	4	4	1	4
Fort Erie, Courtwright St 2	-	4	2	2	2
Fort Erie, Dufferin St	-	1	1	2	3
Fort Erie, Jarvis St	-	1	2	0	1
Fort Erie, Lewis St,	-	2	1	-	1
Fort Erie, Niagara Pkwy	-	3	13	5	10
Georgetown, Guelph St	-	-	-	-	2
Georgetown, Main St S	-	1	2	-	0
Hamilton, Queen St S	-	336	258	294	301
Ingersoll, Thames St S	-	41	-	38	44
Ingersoll, William St	-	4	2	-	0
Kingsville, Division St S (South Chimney)	189	282	151	78	35
Kingsville, Division St S (North Chimney)	5	6	5	5	9
Kitchener, Weber St W	-	-	-	1	-
Kitchener, Weber St W 2	0	2	-	-	-
Leamington, Oak St W	-	114	93	74	-
Leamington, Marlborough St W	-	2	-	-	-
London, Dundas (North Chimney)	-	-	-	-	0
London, Dundas St (Small Slim)	0	2	0	0	0
London, Dundas St	-	-	-	-	0

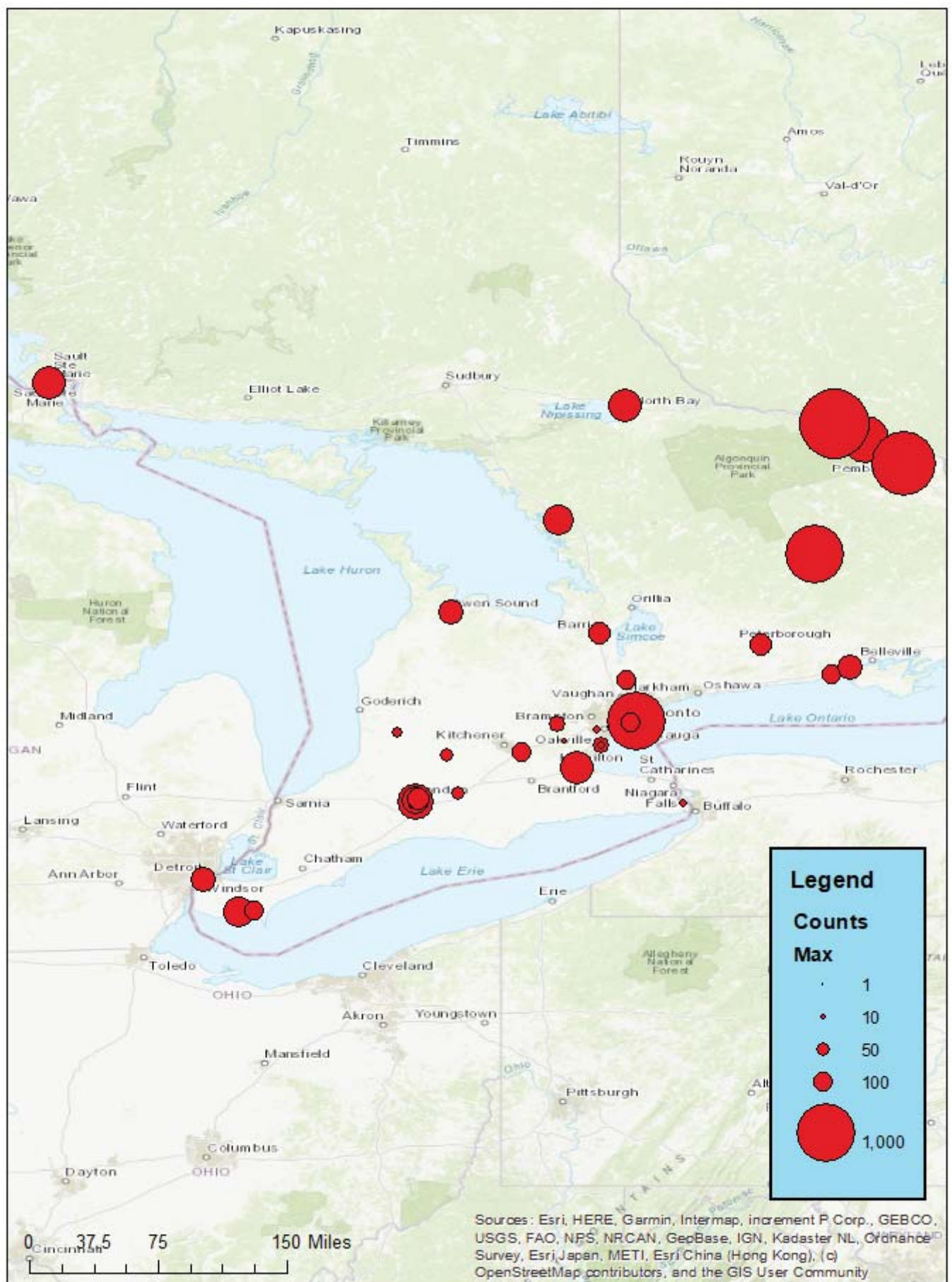
Chimney Site	Number of Chimney Swifts Entering Chimney				
	16 May	22 May	26 May	30 May	03 Jun
London, Dundas St 2	-	-	-	-	0
London, Epworth Ave	31	51	44	40	60
London, Maitland St	22	8	4	104	78
London, Marshall St	-	-	-	-	0
London, Nightingale Ave	105	95	84	105	134
London, Queens Ave (N chimney)	0	9	5	2	5
London, Queens Ave (S chimney)	3	6	3	2	4
London, Queens Ave (NE chimney)	2	2	2	1	12
London, Queens Ave (SE chimney)	2	0	2	2	3
London, Waterloo St	2	2	2	5	2
London, Simcoe St	370	37	102	124	136
London, Tecumseh Ave	77	54	46	50	47
London, Wellington St	2	193	139	66	44
London, Western Rd	111	139	83	62	49
London, Western Rd 2	8	7	7	4	5
Mississauga, Church St	-	6	-	-	3
Mississauga, Lakeshore Rd E	-	3	3	3	3
Mississauga, Tomken Rd (N Chimney)	0	0	1	-	1
Mississauga, Tomken Rd (S Chimney)	0	2	5	-	0
Mississauga, Queen St S	-	3	12	20	-
Mississauga, Timothy St	0	-	-	-	-
Mississauga, Hurontario St	-	-	-	0	-
Mississauga, Tomken Rd	0	-	0	-	-
Mississauga, Truscott Dr	2	-	-	3	-
North Bay, College Dr	-	310	124	76	391
Oakville, McCraney St	12	-	-	13	15
Oakville, Reynolds St (NE Chimney)	-	-	21	-	9
Oakville, Reynolds St (NW Chimney)	0	0	77	0	86
Oakville, Reynolds St (SE Chimney)	-	-	8	-	21
Oakville, Reynolds St (SW Chimney)	-	-	12	-	6
Ottawa, Fourth Ave	-	2	2	2	0
Owen Sound, Third Ave	-	157	147	-	-
Parry Sound, Church St	257	278	97	131	-
Parry Sound, Gibson St	-	0	3	2	-
Parry Sound, James St	-	3	4	3	-
Parry Sound, Seguin St	-	0	0	-	-
Pembroke, Church St (E Chimney)	-	4	-	-	-
Pembroke, Pembroke St W	166	606	206	451	1116
Peterborough, George St N	-	84	71	95	151
Picton, King St	-	-	2	-	-
Picton, King St (W Chimney)	-	-	4	2	1
Picton, Conc. Rd 7	-	2	-	2	1
Picton, Main St	-	2	2	3	2



Chimney Site	Number of Chimney Swifts Entering Chimney				
	16 May	22 May	26 May	30 May	03 Jun
Picton, Main St 2	-	-	3	3	2
Picton, Union St	-	-	2	3	2
Rolphon, CNL stack (NPD)	252	1024	747	734	4
Sault Ste. Marie, Queen St E	320	10	0	0	0
Seaforth, Goderich W	6	-	33	-	-
Stratford, Ontario St	-	50	6	28	26
Toronto, Bloor St W	46	54	43	97	86
Toronto, Cowan Ave	-	-	2	-	-
Toronto, Elm Grove Ave	0	-	-	-	-
Toronto, Evelyn Crescent (NW Chimney)	-	3	2	2	2
Toronto, Humbert St	-	-	4	-	-
Toronto, Joyce Pkwy	-	-	1	2	0
Toronto, Niagara St	-	-	-	-	0
Toronto, Niagara St 2	-	-	-	-	2
Toronto, Queen St W	-	-	-	0	-
Toronto, Queen St	1014	1800	1275	856	33
Toronto, Sherwood Ave	-	-	15	-	-
Toronto, Tyndall Ave	-	100	-	-	-
Trenton, Elgin St	-	62	70	-	186
Waterloo, Regina St N	-	0	-	-	-
Warton, Berford St N (S Chimney)	-	1	2	-	-
Windsor, McEwan Ave	188	-	-	2	2
Windsor, Richmond St	188	196	82	196	88
<b>TOTAL NUMBER OF SWIFTS</b>	<b>3589</b>	<b>7982</b>	<b>5278</b>	<b>4756</b>	<b>5261</b>
<b>TOTAL NUMBER OF CHIMNEYS</b>	<b>45</b>	<b>74</b>	<b>67</b>	<b>68</b>	<b>78</b>
<b>AVERAGE NUMBER OF SWIFTS PER CHIMNEY</b>	<b>80</b>	<b>108</b>	<b>79</b>	<b>70</b>	<b>67</b>

- Indicates that no survey was completed.





High counts of Chimney Swifts entering chimneys surveyed during spring monitoring in Ontario between 16 May and 3 June, 2019. Circle size is proportionate to number of swifts counted.



# NEW SITES

Nineteen Chimney Swift sites were newly added to our habitat inventory in 2019, many of which were identified in Toronto. Newly identified sites that support high numbers of swifts during migration will be monitored and stewardship needs assessed in 2020.



Table 2: Summary of 2019 Ontario  
SwiftWatch community monitoring

City/town	Number of new chimneys identified	Number of chimneys surveyed	Number of surveys completed
Acton	0	1	1
Almonte	0	0	0
Amherstburg	0	0	0
Ancaster	1	1	1
Aurora	0	2	17
Bancroft	0	1	12
Barrie	0	31	124
Brampton	0	0	0
Brantford	0	0	0
Brighton	0	1	4
Burlington	0	0	0
Cambridge	0	3	10
Campbellford	0	0	0
Campbellville	0	2	3
Chalk River	0	1	4
Delhi	0	1	2
Dundas	0	0	0
Elmira	0	1	1
Elmvale	0	1	2
Etobicoke	0	1	5
Fenwick	0	0	0
Fort Erie	0	8	58
Gananoque	0	0	0
Georgetown	0	2	4
Guelph	0	0	0
Hamilton	1	1	4
Huttonville	0	1	1
Ingersoll	0	2	7
Kingston	0	0	0
Kingsville	0	3	13
Kitchener	0	2	3
Langton	0	0	0
La Salle	1	0	0
Leamington	0	2	4
London	1	26	513
Meaford	0	0	0



City/town	Number of new chimneys identified	Number of chimneys surveyed	Number of surveys completed
Milton	0	0	0
Minesing	0	1	1
Mississauga	2	9	34
Newmarket	0	0	0
Niagara-on-the-Lake	0	0	0
North Bay	0	1	5
Oakville	0	5	19
Orillia	0	0	0
Ottawa	0	1	4
Oshawa	0	0	0
Owen Sound	0	1	3
Paris	0	0	0
Parry Sound	0	5	59
Pembroke	0	2	6
Perth	0	0	0
Peterborough	0	1	4
Picton	1	6	17
Port Rowan	0	0	0
Ridgeville	0	0	0
Rolphton	0	1	5
Sarnia	0	0	0
Sault Ste. Marie	0	1	5
Seaforth	0	1	6
Simcoe	0	0	0
South-west Oxford	0	0	0
St. Agatha	0	1	3
St. Catharines	0	0	0
Stratford	0	1	4
Thorold	0	0	0
Tillsonburg	0	0	0
Toronto	10	41	88
Trenton	0	1	5
Waterloo	1	1	1
Wellington	0	0	0
Warton	0	1	4
Windsor	1	3	9
Woodstock	1	2	2
York	0	0	0
<b>TOTAL</b>	<b>20</b>	<b>180</b>	<b>1077</b>

# MONITORING IMPLICATIONS

Ontario SwiftWatch has become the primary source of Chimney Swift habitat-use data in the province. The SwiftWatch database, built primarily by volunteers and community groups, will continue to be the go-to resource for biologists, planners, resource managers, students, and the general public interested in studying and conserving swifts and their habitat in Ontario.

In 2019, SwiftWatch data were used to:

- Contribute to the national initiative to track Chimney Swift numbers in Canada through targeted roost monitoring, which likely provides the best source of data for assessing swift population trends during the migration season.
- Help protect swift habitat at three chimneys scheduled for demolition.
- Prioritize habitat for targeted stewardship and conservation efforts, leading to increased education and awareness of swifts among the landowners hosting them.



# STEWARDSHIP

Stewardship and conservation of existing swift habitat is becoming increasingly important as traditional masonry chimneys are upgraded and demolished each year. It is expected that without conservation efforts, there may not be many, if any, swift-appropriate chimneys left in Canada in the next few decades.

In Ontario, many landowners were engaged in stewardship activities for swifts on their properties, and now at least 34 roost sites have active stewards. Stewardship activities included allowing swifts to nest or roost undisturbed or maintaining swift habitat during building renovations. For prime examples of how municipalities, developers, nature groups, and the Province can work together to preserve important roost habitat, check out these success story from [Guelph, Ontario](#) and [Seaforth, Ontario](#).

We thank these stewards for their conservation efforts, which will be key to maintaining swift populations in Ontario over the long term. Thank you to the SwiftWatch individuals and community groups that worked hard to establish relationships with landowners and keep swifts in the conversation when their habitat was at risk.

We also had a case of a tower built successfully for roosting Chimney Swifts in Canada! There was a school slated for demolition in Bridgetown, Nova Scotia in order to build a new athletics facility. However, the school chimney provided key swift habitat. Birds Canada, in particular Ally Manthorne in the Atlantic office, partners, and volunteers played a huge role in ensuring swifts were part of the conversation. Due to the condition of the chimney they were unable to retain the original structure and a Species at Risk permit was issued to destroy and replace habitat. The tower that was built though was the [first known successful roost tower built for swifts in Canada](#)- Which is absolutely awesome!

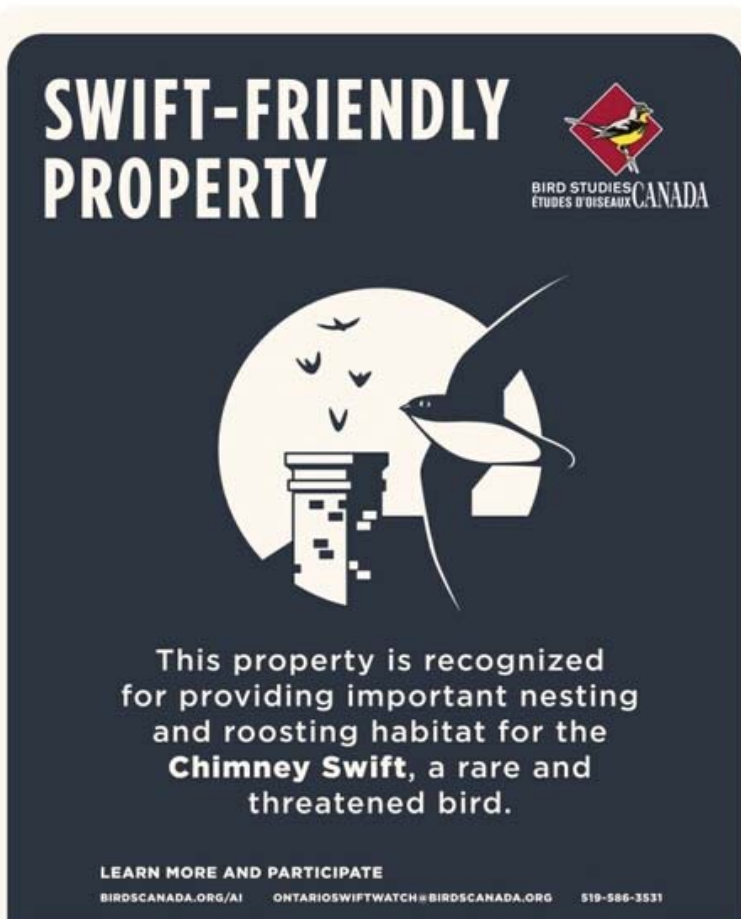


Ally Manthorne



# STEWARDSHIP RESOURCES

Birds Canada has steward recognition signs available to thank and acknowledge property owners for their integral role in the recovery of Chimney Swift populations in Ontario. Please contact [OntarioSwiftWatch@birdscanada.org](mailto:OntarioSwiftWatch@birdscanada.org) if you are a Chimney Swift landowner steward and would like a sign for display, or if you would like to nominate a landowner steward in your community. You can also check out our ***“Chimney Swifts Make Good Neighbours”*** handouts.



Recognition signs available for landowner stewards supporting Chimney Swift nest or roost habitat. Signs are available in English or French.



# OUTREACH AND EDUCATION

Many public events and presentations were held – thank you to all organizers and attendees!

At least seven events were held to educate the public, enjoy the spectacle of swifts entering a chimney at dusk, and/or identify new roost sites, including:

- Parry Sound Swift Night Out (led by the Parry Sound Nature Club and Georgian Bay Biosphere Reserve);
- Toronto Swift Night Out (led by Birds Canada and the Friends of Allen Gardens- CBC Here and Now appearance);
- Kingsville Swift Night Out (led by Birds Canada and the Essex County Field Naturalists Club);
- Woodstock Swift Night Out (led by Birds Canada and the Woodstock Field Naturalists Club);
- Barrie Swift Night Out (led by Nature Barrie and Wild Birds Unlimited)
- Windsor Swift Night Out (led by Birds Canada and the Essex County Field Naturalists' Club);
- Acton Swift Night Out (led by the Halton-Peel Naturalists Club).

At least four presentations were given:

- Woodstock Citizen Science and Aerial Insectivore talk (talk by Birds Canada for Woodstock Field Naturalists Club);
- Swift monitoring meet and greet (led by Nature London and Swift Care Ontario);
- Mississauga Swift Watch Open House (led by the City of Mississauga and Birds Canada);
- London swift monitors end of season get together (led by Nature London, talk by Birds Canada).

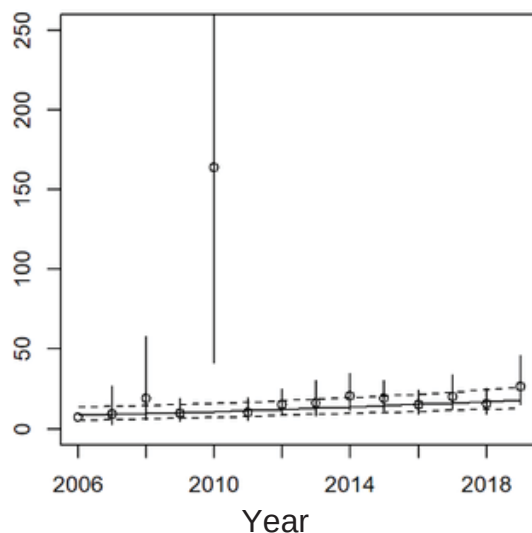


# ROOST MONITORING 2006-2019

Volunteer roost monitors have contributed hundreds of spring and fall roost monitoring observations over the years. We compiled roost count data collected in Ontario during formal Spring Roost Monitoring efforts and during other standard SwiftWatch roost surveys in the spring and fall between 2006 and 2019. We then used models to estimate population trends for the spring and fall, separately; models account for the fact that the number of chimneys surveyed each year changes and that the same chimneys are not always surveyed each year.

These trend estimates should be interpreted with caution and ongoing targeted monitoring at as many sites as possible each year is needed. Monitoring chimneys for swift abundance over longer periods (at least 14 years) will likely provide better monitoring data for assessing Chimney Swift population trends in the future.

Number of  
Chimney Swifts  
per roost



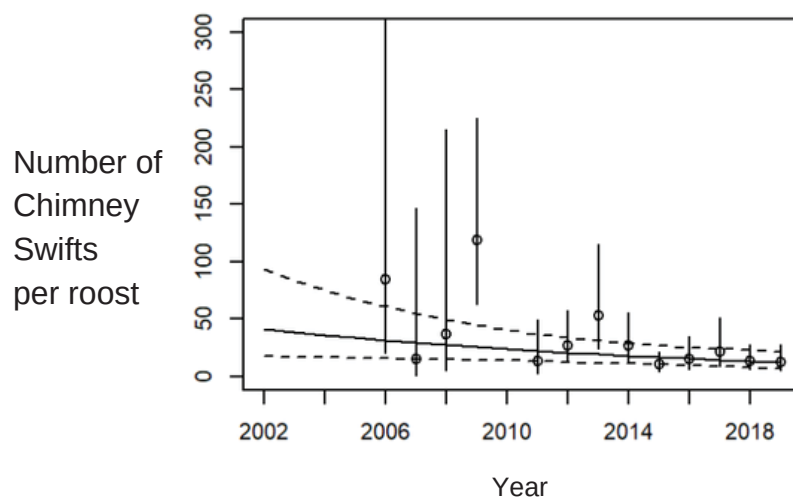
Spring trend for Chimney Swifts based on roost monitoring surveys in Ontario between 2006 and 2019 (solid black line). Dashed lines represent upper and lower 95% confidence intervals (i.e., precision of the estimate). Points and vertical error bars show average annual counts of swifts per roost chimney with 95% confidence intervals.

Results suggest that the number of Chimney Swifts counted at spring roosts has slightly increased/remained stable, with two outliers in 2008 and 2010 (i.e., the numbers of swifts counted those years were much higher relative to other years, but there was a large amount of uncertainty regarding those numbers).





On the other hand, the number of swifts counted during the fall has decreased during the same time period, though this trend is not statistically significant. It is unclear what factors are driving these patterns; perhaps spring roosts are increasing due to maintenance of or increases in the floater (i.e., non-breeding) population over this time period. Fall population declines, though not statistically significant, might indicate a reduction in breeding productivity, as fall counts include juvenile swifts fledged that season.



Fall trend for Chimney Swifts based on roost monitoring surveys in Ontario between 2006 and 2019 (solid black line). Dashed lines represent upper and lower 95% confidence intervals (i.e., precision of the estimate). Points and vertical error bars show average annual counts of swifts per roost chimney with 95% confidence intervals.

# NATIONAL ROOST MONITORING 2013-2019

The National Roost Monitoring data set looks at Chimney Swift population trends across Canada. This year marked the highest amount of Chimney Swifts counted since the initiation of this monitoring program in 2013 with 19,214 Chimney Swifts monitored on June 3. While this number is not representative of the entire Canadian population due to the fact that we do not know of every Chimney Swift roost in Canada, it is our best estimate of the Canadian population. Thank you, everyone, for contributing to this fantastic data set and thank you to Manitoba Chimney Swift Initiative, Environment and Climate Change Canada, and Canadian Wildlife Services for all of their efforts and for allowing Birds Canada to share this data.

## Results 2019 - Chimney Swift Roost Survey\*

	May 22		May 26		May 30		June 3	
	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts
Manitoba	13	7/9	198	7/9	164	9/9	170	9/9
Ontario	7916	37/51	5378	42/51	4694	36/51	6532	39/51
Quebec	4741	44/48	4804	45/48	6104	45/48	5845	45/48
New Brunswick	1193	8/10	928	6/10	2248	8/10	2434	8/10
Nova Scotia	1577	7/13	181	6/13	2595	9/13	4233	10/13
<b>Total</b>	15440	103/131	11489	106/131	15805	107/131	19214	111/131

## Results 2018 - Chimney Swift Roost Survey\*

	May 23		May 27		May 31		June 4	
	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts
Manitoba	156	13 / 14	160	10 / 14	179	9 / 14	215	10 / 14
Ontario	5260	46 / 59	4568	43 / 59	4225	45 / 59	5332	48 / 59
Quebec	5034	42 / 45	5184	43 / 45	3952	44 / 45	5948	42 / 45
New Brunswick	890	8 / 10	1268	7 / 10	1156	9 / 10	2668	8 / 10
Nova Scotia	1596	7 / 10	2304	6 / 10	979	8 / 10	2034	7 / 10
<b>Total</b>	12936	116 / 138	13484	109 / 138	10491	115 / 138	16197	115 / 138

## Results 2017 - Chimney Swift Roost Survey\*

	May 24		May 28		June 1		June 5	
	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts
Manitoba	100	6 / 9	115	7 / 9	234	8 / 9	213	8 / 9
Ontario	5422	48 / 59	4583	46 / 59	6792	49 / 59	5792	48 / 59
Quebec	3902	45 / 47	3568	45 / 47	6187	44 / 47	5068	45 / 47
New Brunswick	1157	7 / 10	2337	8 / 10	1335	7 / 10	2690	7 / 11
Nova Scotia	982	7 / 10	1861	6 / 10	932	8 / 10	1537	8 / 10
<b>Total</b>	11563	113 / 135	12464	112 / 135	15480	116 / 135	15300	116 / 136



### Results 2016 - Chimney Swift Roost Survey\*

	May 25		May 29		June 2		June 6	
	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts
Manitoba	218	4 / 7	188	4 / 7	220	7 / 7	152	5 / 7
Ontario	3441	34 / 45	3459	36 / 45	3116	34 / 45	4700	34 / 45
Quebec	3008	43 / 44	3675	41 / 44	3709	41 / 44	3027	38 / 44
New Brunswick	851	9 / 10	1205	8 / 10	1033	9 / 10	1398	8 / 10
Nova Scotia	734	9 / 10	1588	9 / 10	1781	9 / 10	1470	9 / 10
<b>Total</b>	<b>8252</b>	<b>99 / 116</b>	<b>10115</b>	<b>98 / 116</b>	<b>9859</b>	<b>100 / 116</b>	<b>10747</b>	<b>94 / 116</b>

### Results 2015 - Chimney Swift Roost Survey\*

	May 20		May 24		May 28		June 1	
	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts
Manitoba	89	7 / 8	143	7 / 8	111	7 / 8	213	7 / 8
Ontario	9565	46 / 57	4671	49 / 57	3900	49 / 57	6481	44 / 57
Quebec	4617	42 / 43	4868	41 / 43	3215	42 / 43	3687	42 / 43
New Brunswick	1193	8 / 10	2254	10 / 10	1231	9 / 10	1219	10 / 10
Nova Scotia	1664	9 / 10	1619	8 / 10	1200	8 / 10	451	7 / 10
<b>Total</b>	<b>17128</b>	<b>112 / 128</b>	<b>13555</b>	<b>115 / 128</b>	<b>9657</b>	<b>115 / 128</b>	<b>12051</b>	<b>110 / 128</b>

### Results 2014 - Chimney Swift Roost Survey\*

	May 21		May 25		May 29		June 2	
	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts
Manitoba	37	9 / 9	139	9 / 9	156	9 / 9	204	9 / 9
Ontario	7056	39 / 48	5542	40 / 48	5666	38 / 48	5697	37 / 48
Quebec	3020	35 / 40	3114	36 / 40	3605	38 / 40	2772	36 / 40
New Brunswick	255	6 / 10	983	8 / 10	860	8 / 10	831	10 / 12
Nova Scotia	344	9 / 10	728	6 / 10	1063	7 / 10	694	8 / 10
<b>Total</b>	<b>10712</b>	<b>98 / 117</b>	<b>10506</b>	<b>99 / 117</b>	<b>11350</b>	<b>100 / 117</b>	<b>10198</b>	<b>100 / 119</b>

### Results 2013 - Chimney Swift Roost Survey\*

	May 22		May 26		May 30		June 3	
	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts	Number of swifts	No. surveyed roosts / No. known roosts
Manitoba	71	9 / 9	107	9 / 9	124	5 / 9	86	8 / 9
Ontario	4983	20 / 31	4958	23 / 31	1627	23 / 31	5018	17 / 31
Quebec	4759	37 / 39	4543	37 / 39	2633	38 / 39	4514	36 / 39
New Brunswick	1493	6 / 9	2414	5 / 9	704	8 / 9	582	8 / 9
Nova Scotia	1145	6 / 8	666	6 / 8	653	8 / 9	584	6 / 9
<b>Total</b>	<b>12451</b>	<b>78 / 96</b>	<b>12688</b>	<b>80 / 96</b>	<b>5741</b>	<b>82 / 97</b>	<b>10784</b>	<b>75 / 97</b>

# 10 YEARS OF SWIFT STEWARDSHIP!

Ten years ago very little research had been done on Chimney Swifts, and as a result, Chimney Swift life history and habitat requirements were not well understood. Reasons for their population and range declines were also unknown. While we still have a ton to learn about this amazing species we have made tremendous progress towards its protection.

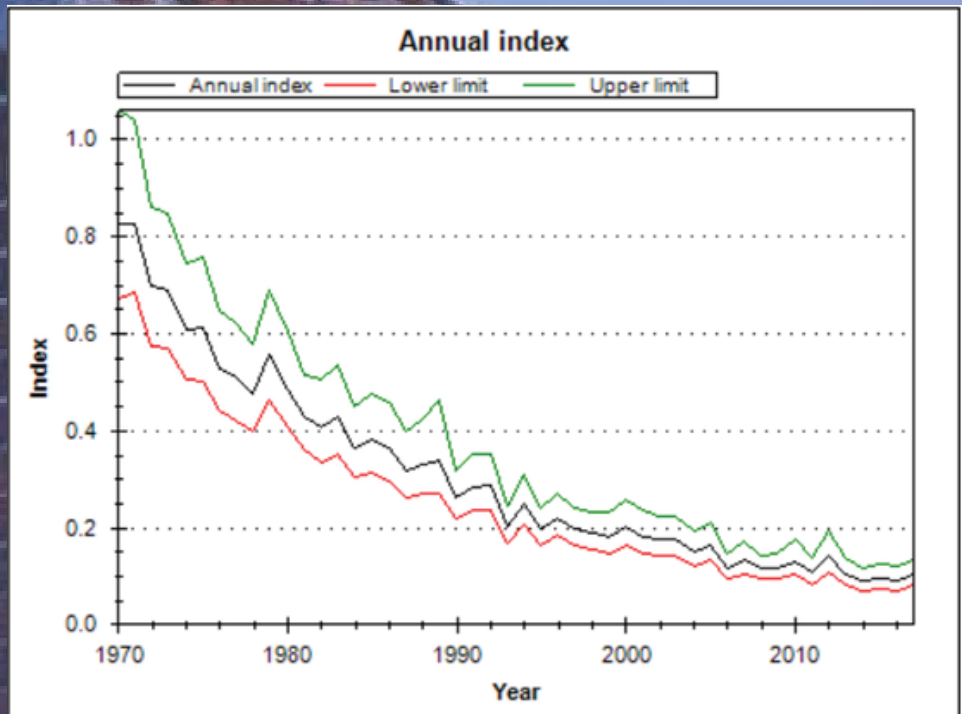
## Our Initiation

The Ontario SwiftWatch program was first initiated in the summer of 2009 when Bird Studies Canada (now Birds Canada) partnered with the McIlwriath Field Naturalists of London Chimney Swift monitoring program.

The first full season of the Ontario SwiftWatch program was in 2010, when 138 volunteers from 10 different communities across Ontario monitored 250 chimneys.

Ontario SwiftWatch had two goals:

1. To monitor Chimney Swift populations and habitat within Ontario; and
2. To determine the physical characteristics associated with swift nesting and roosting habitat.



Changes in Chimney Swift population from 1968-2019 based on the North American Breeding Bird Survey. More information on methods and results available here: <https://wildlife-species.canada.ca/breeding-bird-survey-results>.



# 2010

In response to interest from other naturalist groups in urban areas across Ontario, Birds Canada launched Ontario SwiftWatch in 2010. During this season Birds Canada staff partnered with the Ministry of Natural Resources to investigate why artificial nesting structures were not being used. They placed temperature sensitive data loggers in active chimneys, artificial towers, and open but inactive chimneys to determine if the internal microclimate differed among these structures. The collection of these data continued through the 2011 season. In 2010 Regional Coordinators were recruited to organize and communicate with other SwiftWatch volunteers in their town or city. The Regional Coordinators' jobs included: volunteer recruitment, training, assigning volunteers to locations, addressing volunteer questions and concerns, data collection, and liaising with Birds Canada. A survey protocol was also created this year.

# 2011

As a result of all of our efforts, in 2011 the Ontario SwiftWatch program received a conservation achievement award from the Niagara Peninsula Conservation Authority, and was featured as one of the “Top 5 Wildlife Success Stories” in the December 2011 issue of Canadian Geographic.

During the summer of 2011 Birds Canada spent a lot of time preparing for future studies including the chimney inventory and habitat assessment and the development of monitoring guidelines.



Ontario SwiftWatch Participant



George Peck

# 2012

In 2012 the focus of population monitoring was on presence/absence surveys as well as trying to determine how many swifts were using each active chimney. This type of monitoring required volunteers to watch occupied chimneys starting 30 minutes before sunset until 15 minutes after sunset and record how many swifts enter and/or exit the chimney. The National Roost Population Monitoring survey was also initiated in this year.

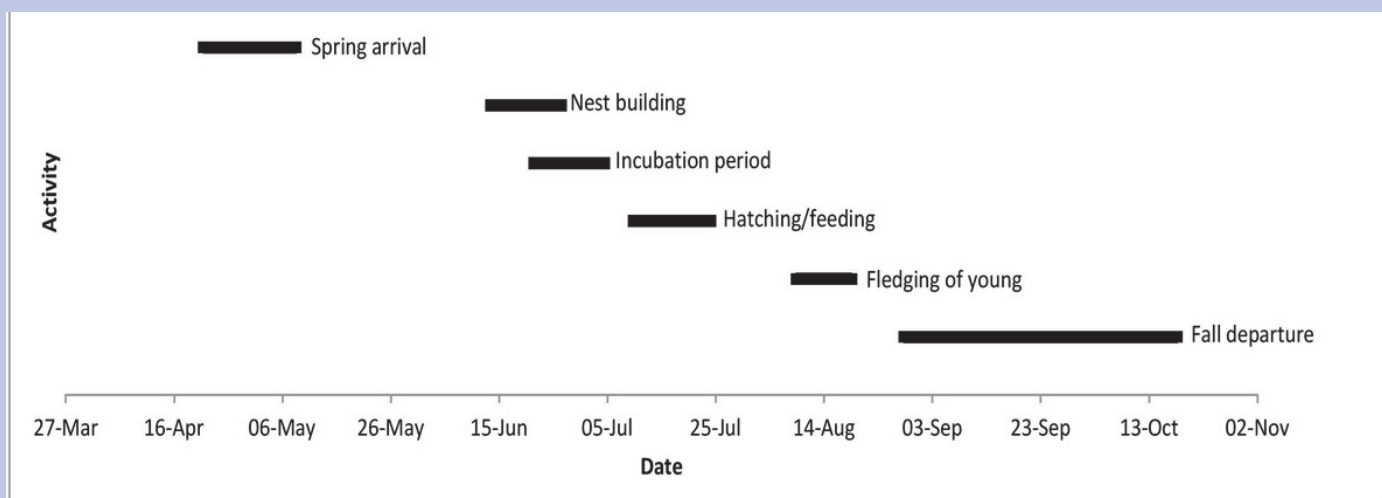
Using the chimney inventory and habitat assessments conducted by volunteers, 928 chimneys, either used or unused by Chimney Swifts, were described. These descriptions revealed that Chimney Swifts preferentially used chimneys with a greater length exposed above the roofline of the building and a greater inside area. The average chimney used by swifts extended 2.86 m above the roofline and had an internal area of 1.0079 m<sup>2</sup>. We also found that in urban areas there is more nesting habitat available than is being used by Chimney Swifts and it is likely that declines in Ontario's swift population are primarily driven by a process other than habitat loss, such as prey abundance and availability. However, suitable nesting habitat is a finite resource and will continue to decline over time as chimneys are capped, modified, or destroyed. Check out the published paper [here](#).





# 2013

The focus continued to be on presence/absence surveys in 2013 with a particular goal to identify new nesting and roosting sites. This is the year we started doing Swift Night Outs! From the presence/absence surveys we learned that the most common chimney types used by swifts in descending order were: commercial, school, apartment building, religious building, residential, industrial, and then other. We were also able to establish from volunteer data the nesting stages for Chimney Swifts in Southern Ontario (times for spring arrival, nest building, incubation period etc.).



**Nesting stages of Chimney Swifts in Southern Ontario**

# 2014

In 2014, we started a new study to further our understanding of the habitat requirements for Chimney Swifts. To determine if average temperature and temperature fluctuations throughout the season play a role in the suitability of nesting sites, data loggers were installed in two chimneys in four communities (Port Rowan, Port Burwell, Guelph, and Kingston), one chimney known to house Chimney Swifts, and another chimney nearby that is open and fits the nesting requirements for swifts, but has not been used by the birds in the past (another data logger was placed in a chimney in Barrie but a matching chimney was not found). Since the sample size of this study was small due to technical difficulties with data loggers, we expanded the study in 2017-2018.

# 2015

BSC's "Swifts and Swallows" web page was updated and launched in 2015. It includes relevant information about each species including biology, threats and protection, and how a private landowner can help maintain, improve, or create habitat. The SwiftWatch data entry portal was also created in this year, and has resulted in increased data quality and consistency which allows us to better track changes in swift numbers.

# 2016

In 2016, the number of volunteers and chimneys being monitored continued to increase. We learned that the probability of detecting swifts at a nest chimney is highest during low cloud cover, and that detection increased moderately over the course of the nesting period (June-July). Check out the published paper [here](#). These results provide recommendations on survey timing and protocol in order to reduce the chance of false absence (i.e., when a chimney is inaccurately deemed unoccupied when it is actually occupied), and thus, hopefully reduce the risk of habitat destruction.

# 2017

The first known use of an “artificial tower” (i.e., a standalone tower built for Chimney Swifts) by a breeding swift pair in Ontario was documented in 2017. Additionally, we expanded a project to determine the optimal chimney temperatures that support nesting Chimney Swifts. Although Chimney Swifts readily take to “artificial” towers in some areas, like Texas, there has been limited uptake in Canada which we suspected may be related to inadequate thermal properties. We deployed temperature loggers at 6 sites this year (2 historically occupied nest chimneys, 2 historically unoccupied chimneys, and 2 artificial towers) and continued the study in the following year.



Liz Purves



Liz Purves

Hobo Pendant Data Logger used to measure ambient internal temperature of chimneys used and unused by Chimney Swifts (left); City of Mississauga helping install a data logger in the Timothy Street Park Chimney Swift Tower (right).

# 2018

In 2018, we continued to investigate Chimney Swift nesting habitat requirements to guide future habitat creation efforts. We continued putting out temperature loggers and found that unoccupied structures had both significantly lower minimum temperatures and significantly more variance in temperature than occupied structures. However, the maximum temperature did not differ significantly between occupied and unoccupied structures. These results suggest that the thermal properties of structures, particularly minimum temperature and temperature variance, might influence whether they are occupied by Chimney Swifts during the breeding season. These results indicate that thermal properties should be taken into consideration when designing new nest habitat.

# UPCOMING 2020 SEASON

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In 2020, we will continue to monitor known nest and roost sites as well as identify new swift sites. We will be recruiting more volunteers to monitor roosts in new and currently active SwiftWatch communities over all count nights in the spring. Lastly, we will work one-on-one with stewards and landowners at known chimneys of high conservation importance (e.g., roost sites housing high numbers of swifts during spring migration) to encourage and facilitate the conservation of those sites.

Here are some ways to get involved in 2020:

- Join our [SwiftWatch email list](#) to receive the most up-to-date information and volunteer opportunities, and events.
- Report all of your swift sightings (whether they are part of an “official” swift survey or not) using the [online data portal](#).
- Participate in spring roost monitoring. Sign up to watch a roost chimney on May 20, May 24, May 28, and June 1 by contacting Megan Hiebert, SwiftWatch Coordinator.
- Help determine if previously known swift sites are still active. Contact Megan or your Regional Coordinator for a list of chimneys that need checking in your area.
- Help find new roost and nest sites. Watch for swifts overhead at dusk and report sightings. If you suspect swifts are nesting or roosting somewhere nearby, scout out swift-suitable chimneys in the day and come back around sunset to watch for entering swifts. If you aren’t sure where to survey, contact Megan or your Regional Coordinator for priority areas.
- Keep an eye out for natural roost and nest sites (old hollow trees with a 50-cm or larger diameter at breast height) as well as swifts nesting in barns.
- Help protect swifts on your property. If you have swifts nesting or roosting in your chimney or barn, check out our [resources on being a good swift host](#) and please let us know about your efforts.
- Host, or help host, a “Swift Night Out” in your community.

Stay tuned for more information on the 2020 season coming this spring!

For more information on participating in Ontario SwiftWatch, please contact Megan Hiebert, Ontario SwiftWatch Coordinator, Birds Canada at 519-586-3531 ext. 123 or email [OntarioSwiftWatch@birdscanada.org](mailto:OntarioSwiftWatch@birdscanada.org).



# ACKNOWLEDGEMENTS

A big THANK-YOU goes out to each and every SwiftWatch volunteer across Ontario who participated in 2019. You have grown too numerous to mention individually, but we recognize your strong commitment and interest in Chimney Swifts and their habitat. This is what continues to make Ontario SwiftWatch a success.

A sincere thank-you also goes to all 2019 regional coordinators and key local contacts for your tireless efforts to recruit and organize volunteers and steward Chimney Swifts in your community. Without your dedication, we would not be able to collect the calibre and quantity of data on swifts and their habitat across Ontario that we have.

Ontario SwiftWatch would not be possible without the network of partner groups across the province. Thank you to the members of the Bert Miller Nature Club (Fort Erie), Canadian Nuclear Laboratories, City of Mississauga, Essex County Field Naturalists' Club, Georgian Bay Biosphere Reserve, Halton/North Peel Naturalist Club, Nature Aurora, Nature Barrie, Nature London, Nipissing Naturalists Club (North Bay), Parry Sound Nature Club, Prince Edward County Field Naturalists, and Sault Naturalists and Algoma SwiftWatch (Sault Ste. Marie).

Thank you to our national partners at the Canadian Wildlife Service of Environment and Climate Change Canada (Québec Region), Manitoba Chimney Swift Initiative, and Maritimes SwiftWatch for your continued collaboration on Chimney Swift monitoring and conservation in Canada.

Thank you to our friends at Swift Care Ontario for the tireless work you do to rehabilitate and release Chimney Swifts in need.

Birds Canada is the country's national charity for bird research, Citizen Science, education, and conservation. In 2019, Ontario SwiftWatch was supported by the Government of Canada, the Government of Ontario, the TD Friends of the Environment Foundation, Ontario Trillium Foundation and caring citizens like you.