

End-of-Season Report for Nature London Chimney Swift Monitoring Program, 2021

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1.0 Executive Summary

The Chimney Swift was designated a Threatened species in Ontario and Canada in 2009. In 2018 the status was reaffirmed federally by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). On April 30, 2021, a statement released by COSSARO (Committee on the Status of Species at Risk in Ontario) indicated the species met criteria for Endangered in Ontario but the status of Threatened would remain the official designation for the province.

In 2003, members of Nature London began monitoring local chimneys for use by swifts. For many years monitoring continued with varying degrees of intensity. In 2019, new data-collecting protocols and an online data-entry system were implemented for the spring-to-fall monitoring program. Although the Nature London Chimney Swift Initiative operates independently, all data are later shared with Ontario SwiftWatch for inclusion in the provincial database.

In 2021, Tuesday-evening monitoring, conducted in compliance with COVID-19 guidelines, commenced on June 15 at 13 targeted chimneys (later expanded to 18 chimneys). Monitoring continued for 16 weeks, until September 28, by which time almost all swifts had departed for the season. Once again, the monitoring schedule was capably organized and overseen by Sandy Symmes, who sent out weekly emails to keep participants updated. During the season, numerous additional visits were made to the 18 chimneys, as well as to many other known London swift chimneys.

1.1 Selected Highlights of the 2021 Nature London Swift Monitoring Program

- First swifts of the year were seen Apr 27 (eBird), along the Thames River corridor (early date for 2020 was Apr 29).
- During fall migration, the combined tally for the 13 monitored chimneys peaked at 856 on Aug 24.
 - In 2020, the peak was 1166 on Sep 1; in 2019, peak was 899 on Aug 21; in 2018, peak was 1802 on Aug 29.
- Of the 13 chimneys monitored weekly from Jun 15 to late Sep, 7 held a roost of at least 20 swifts on at least 1 night.
 - Jun 15–Jul 27 (7 weeks): roost on all 7 dates (Smith Fruit, Hunt's, Huron); 6 (Phoenix); 5 (King's), 1 (Labatt's).
 - Aug 3–Aug 31 (5 weeks): roost on all 5 dates (Labatt's, Smith Fruit, Hunt's); 4 (Huron); 2 (King's), 1 (South).
 - Sep 7–Sep 28 (4 weeks): roost on 2 dates (Labatt's); 1 date (Smith Fruit, Hunt's).
- Three additional roosts were occupied in Aug and/or Sep: Kingsway Academy, 388 Dundas and ICORR.
- Largest single-night count at one roost: Jun 15–Jul 30 = 163 at Phoenix (Jun 15); Aug/Sep = 609 at Labatt's (Sep 7).
- Last night a London chimney was occupied was Sep 28 (2, ICORR); vs Sep 27, 2020; Oct 2, 2019; Oct 9, 2018.
- Kingsway Academy was identified as optimal release site for hand-reared young swifts; two release events took place:
 - Sep 3, 3 swifts from Destined To Fly, Harrowsmith, ON; and Sep 8, 8 swifts from Le Nichoir, Hudson, QC.
- Regular Tuesday-evening monitoring (16 weeks) at 13 chimneys produced 199 online data submissions.
 - Poor nest success at 13 chimneys; 2 may have fledged some young.
- An additional 176 monitoring reports were submitted based on 58 supplementary visits to 13 chimneys, 82 visits to 5 extra chimneys, and 36 visits to 34 other chimneys, for a total of 375 data submissions from 52 different chimneys.
- Three new-to-us swift chimneys found.
- Monitoring ran from May 11 to Oct 1.
- In 2021, 45 volunteers helped monitor London's swifts (core group = 39).

Thank you to everyone who contributed to the success of the 2021 London swift-monitoring program. Special thanks to Sandy Symmes who organized the Tuesday-evening monitoring at 13 (eventually 18) chimneys and sent out weekly reports, and to each of the 45 volunteers who participated in formal monitoring or contributed data independently. We also express appreciation to Nature London for financial and other support.



A low-flying Chimney Swift at Toronto's lakeshore in May, 2020. Note the spiked tail feathers used for bracing against chimney walls. (photo by Glenn Berry)

2.0 Introduction: The Second Year of the COVID-19 Pandemic

In the winter of 2021, vaccinations were being administered to increasing numbers of eligible Ontarians. We were hopeful that the most restrictive phases of the pandemic would soon be past and that a full program of swift monitoring could operate from early May until late September. In early March, approval was sought from the Nature London Board to begin organizing such a program. At the Nature London Board meeting of March 9 (via Zoom), the following motion was passed unanimously: *That the Chimney Swift monitoring program be implemented in 2021 subject to compliance with coronavirus safety protocols in line with Middlesex-London Health Unit guidelines.* Sandy Symmes immediately began contacting 2020 monitors and creating a tentative schedule for spring and early summer 2021.

By early April, rapidly increasing COVID-19 case counts resulted in a provincial lockdown. Our spring swift monitoring plans were put on hold. On June 2, with the local and provincial COVID situation steadily improving, the government lifted the stay-at-home order, and Nature London's Board approved the start-up of monitoring. On June 4, monitors received the 2021 Nature London Weekly Evening Swift Monitoring package. On June 15, monitoring formally commenced.

Although new participants were not actively recruited in 2021 and some monitors from 2020 retired, those who returned very capably stepped up to fill monitoring slots throughout the season. In addition, two new monitors, Glenn and Susan Berry, became very active team members (thanks to Sandy for hosting a Zoom orientation session for them). Trish Gaudry became a valuable auxiliary monitor, operating mainly in north London.

The 2021 London swift-monitoring program was underpinned by a detailed COVID-19 protocol, which all participants were required to follow (see Appendix A, page 33). By mid-June, many monitors had already received their first dose of vaccine. Most, if not all, had obtained their second shot by mid-July. Vaccinations, plus careful adherence to guidelines, ensured that everyone had a safe and healthy monitoring experience in 2021.

An unexpected development in early August was the discovery of a new active roost chimney at Kingsway Academy (370 Huron). This was soon added to the monitoring roster. A week later, an occupied roost was identified at 388 Dundas (old tax office); it too was eventually included. Then, as the season was winding down, on September 11, a third new roost was located at ICORR (700 Richmond). Kudos to Sandy for arranging coverage of these extra roosts, as well as two nearby chimneys that held few swifts but could be monitored at the same time.

Despite the limitations and challenges of a pandemic, 2021 was a highly successful year for swift monitoring in London. We were able to begin a month earlier than in 2020 and gather much more data. A dedicated crew of experienced or quick-to-learn volunteers, all familiar with COVID guidelines, plus an amazing monitoring coordinator enabled monitoring at the 13 core chimneys in the program (later 18) to run smoothly during 16 weeks of Tuesday evenings. A few days after each weekly count, participants received a report of the latest results.

Data are retained in our London files and have also been transferred via spreadsheet to Ontario SwiftWatch for deposit in the provincial swift database. It is hoped that London data will be used by researchers to contribute to a better understanding of swifts in Ontario, including population trends, nesting activity and patterns of chimney use. Our biggest hope is that our data will play a role in improving conservation outcomes for these charismatic little birds.

2.1 Goals for 2021 London Swift Monitoring

- Conduct simultaneous weekly counts of swifts overnighting in 13 targeted chimneys, June 15 to end of season.
- To the extent possible within the protocol, document nesting and other activity at these and other London chimneys.
- Make data available for local use and for contribution to the provincial database for swifts.
- Keep volunteers engaged through regular communications.
- Create safe and enjoyable experiences for volunteer monitors.

2.2 Terminology

- **Roost:** A communal gathering (about 10 to 1000) of mostly non-breeding Chimney Swifts that spend the night (occasionally the day) together inside a single chimney.
- **Spring Roosts** (late Apr to Jun 14), approximately coinciding with season of spring migration (large roosts).
- **Summer Roosts** (Jun 15 to Jul 31), approximately coinciding with core of nesting season (smaller roosts).
- **Fall Roosts** (Aug 1 to early Oct), approximately coinciding with fall migration (largest roosts).
- **Nest Chimneys:** During the nesting season, only one pair or family unit occupies a chimney at a time. A communal roost sometimes occupies a chimney at night at the same time an active nest is present. Nesting birds tend to be quiet and secretive when approaching their home chimney and may enter and exit several times in the early part of a monitoring session. The birds that make up a roost tend to enter later, often circling and twittering first.



A swirling flock of swifts prepares to enter the Labatt's chimney to roost for the night, September 9, 2021.

3.0 2021 Weekly Evening Monitoring Protocol at 13 Chimneys

Monitoring guidelines and support documents relating to Nature London's 2021 weekly Tuesday-evening swift monitoring program were emailed to participants on June 4.

The same 13 chimneys were monitored as in 2018, 2019 and 2020, though, in 2020, monitoring did not begin until mid-July and, in 2021, until mid-June. Later in the 2021 season, following the discovery of three additional active roosts, five chimneys were added. In all four years, monitoring continued until at least late September. All 18 chimneys are located in older, well-established parts of the city. The sites are listed in **Table 1** and shown on the map in **Figure 1**. For some of these chimneys, partial sets of monitoring data go back more than 15 years, e.g., South Collegiate 2004, King's 2004, Labatt's 2005, Smith Fruit 2004, Phoenix 1996 and 2003, and Ryerson 2005.

Volunteers made visual counts while seated in a lawn chair or a car, usually with the chimney silhouetted against the northwest sky and away from security and other lights. Monitoring commenced at least 30 minutes before sunset (earlier in inclement weather) and continued until 30 minutes after sunset. Participants were also encouraged to begin earlier than 30 minutes before sunset to improve their chances of observing activities indicative of nesting, such as nest-building behaviour, partner exchanges during incubation, and food deliveries to nestlings.

The 2021 field form was the same as was used in 2020. Times and numbers of all entries and exits were noted, with estimates recorded when many swifts entered in a short period of time. Tips were provided on selecting an optimal viewing location, how to determine number of swifts inside for the night, and on other aspects of monitoring.

Monitors were encouraged to report any predators, swift behaviours of interest, number of nighthawks detected, and maximum number of swifts seen in the air at once (especially if no roosting flock materialized).

Precautions relating to COVID-19 and other safety issues were outlined. Where feasible, two-member monitoring teams were made up of people from the same household. Compared to previous years, greater care was taken in identifying recommended locations from which to view. Perhaps due in part to such precautions, people experiencing homelessness were generally less visible to monitors in 2021 and fewer problems were reported.

Monitors were rotated to different locations each night, so they could become familiar with different chimneys in the roster. Data were submitted ASAP after each count via the Nature London online portal (same as in 2020).

Each week monitors received an email that included three documents: 1) a table of numbers and observations at the 13 (or more)

Table 1. The 18 London chimneys where weekly monitoring was carried out in 2021. At the first 13 chimneys, monitoring began on June 15; at the last five, monitoring began in August or September. Letter references refer to map in Figure 1.

| Map Ref | Monitoring Sites in 2021 | |
|---------|--|---|
| | Name | Location |
| A | South Collegiate Institute | 371 Tecumseh Ave |
| B | King's College (Wemple) | 266 Epworth Ave |
| C | Labatt's Garage/Warehouse | 183 Simcoe St (viewed from Grey St) |
| D | Smith Fruit | 22 Maitland St |
| E | Phoenix Building | 300 Wellington St |
| F | Ryerson Public School | 940 Waterloo St |
| G | First-St. Andrew's Church - SE Chimney | 350 Queens Ave |
| | - NE Chimney | 350 Queens Ave |
| | - N Chimney | 350 Queens Ave |
| | - S Chimney | 350 Queens Ave |
| H | Elborn College | 1201 Western Rd |
| I | Hunt/Flanagan Building (Nova Craft Canoe) | 471 Nightingale Ave (formerly 551 Nightingale) |
| J | Huron University College O'Neil/Ridley Hall | 1349 Western Rd |
| K | Kingsway Academy - North Chimney | 370 Huron St |
| | - South Chimney | 370 Huron St |
| L | - Old Office building | 388 Dundas St |
| | - Old House/apartments | 423 Colborne St |
| M | ICORR Properties | 700 Richmond St |

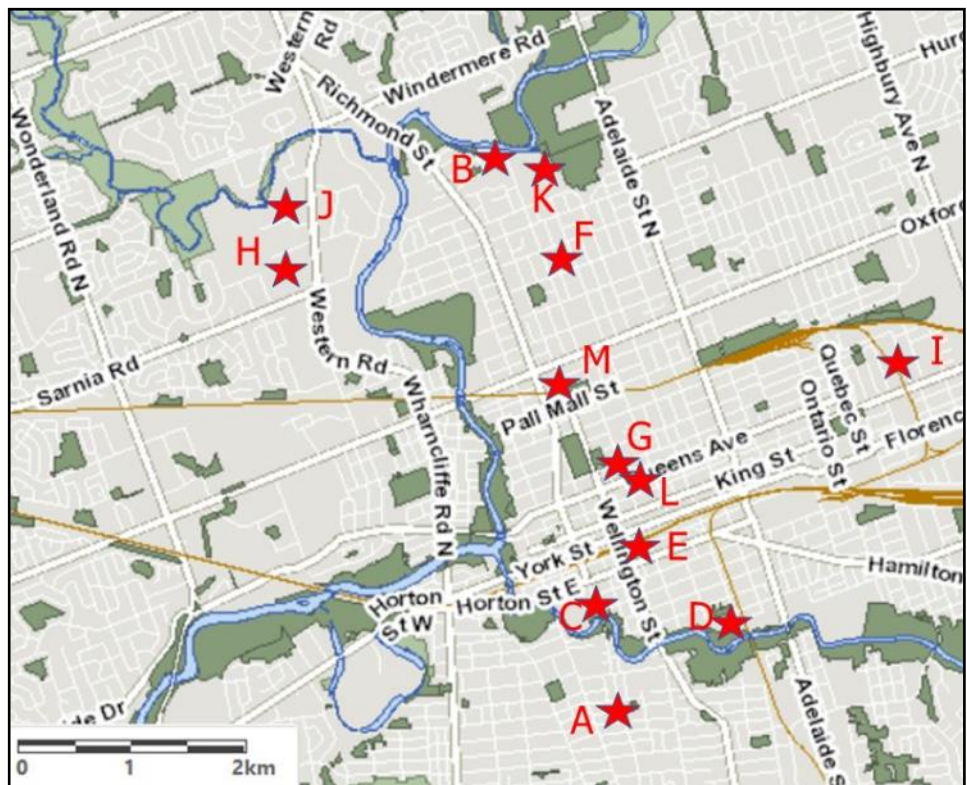


Figure 1. Locations of 18 chimneys where monitoring was regularly carried out in 2021. See Table 1.

chimneys during the most recent Tuesday count, 2) a written report summarizing and discussing these results, and 3) a table showing assignments for the next count as well as tallies for all counts to date.

In 2021, the London swift program did not participate in the National Roost Monitoring Program (NRMP), as the province was under lockdown for the majority of NRMP dates (May 22, 26 and 30, June 3 and 7). Also known as the spring blitz, NRMP is an initiative of the Canadian Wildlife Service (a division of the federal department of Environment and Climate Change Canada).

Although there was no organized monitoring in London on NRMP dates, several monitors did informal counts on some NRMP dates. In all, 13 such counts were carried out (one or two counts at each of eight different chimneys, out of 65 potential NRMP chimney/dates usually carried out in London).

We have very limited knowledge as to the extent other towns and cities in Ontario carried out swift monitoring during the COVID years of 2020 and 2021. We suspect, however, that it was likely much reduced. Because our London swift monitoring program operates independently of other programs in the province, we were able to go ahead with our own monitoring plans, while maintaining compliance with provincial and local guidelines relating to COVID-19.

4.0 Monitoring Spring Migration

When the first swifts of the 2021 season returned to London, the provincial lockdown was in effect and few monitors were venturing far from home. Earliest records for Middlesex County were reported on eBird on April 27 at three locations along the Thames River corridor – Komoka Park (1), North Gibbons Park (1), and Fanshawe Lake (1). On the morning of May 1, eBird carried a report of 50 swifts at Cavendish Park, an indication that early migrating swifts were continuing to forage/travel along the Thames River.

In 2021, migration had just ended by the time organized monitoring in London began on June 15. Prior to that, and especially after the lockdown was lifted on June 2, several monitors made occasional informal visits to the 13 targeted chimneys on their own. Such hit-and-miss data provided valuable glimpses into swift use of local chimneys during the spring migration period.

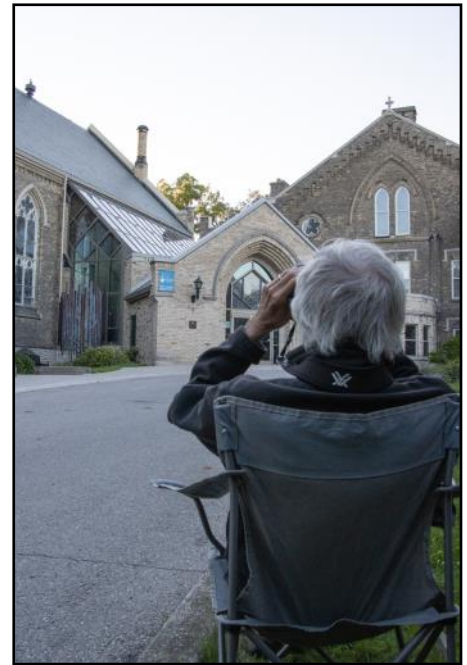
The date of the earliest monitoring visits was May 11 when the temperature was approx. 7 °C. In past years, during chilly evenings in early spring, we've noticed that swifts often retire early for the night if the temperature is below about 11–13 °C. On May 11, one swift was observed entering each of Smith Fruit and South Collegiate. Given the temperature, more may have already been inside.

In total, 34 monitoring visits were made to the 13 chimneys prior to June 15. See **Table 2**. As indicated in the table, the extent of information available for each chimney varies, ranging from one to six visits. Data are very limited as to when individual communal roosts were first occupied for the night and how long they remained occupied during spring migration. Roosts were present for some period of time at South, King's, Smith Fruit, Phoenix, Hunt's and Huron.

The largest roost reported was of 217 swifts at Phoenix on May 26. There may have been no roost at Labatt's this spring, unless one had formed early and petered out before the first monitoring visits were made in late May and early June. An eBird report of 15 swifts overhead near Labatt's about 30 minutes before sunset on May 19 offers a tantalizing hint at the possibility of a spring roost there.

By the time migration was over, small numbers of swifts (likely birds intending to nest) had settled into or were prospecting at Labatt's, Ryerson, the four FSA chimneys, and Elborn.

The six chimneys used as spring roosts may also have hosted prospecting or nesting swifts, beginning before migration wound down. Unfortunately, the limited data available are not always easy to interpret and make it difficult to be sure of what was taking place regarding nesting in the early part of the season.



Monitoring at First-St. Andrew's church.

Table 2. Results of informal/unofficial spring monitoring, May 11 to June 13, 2021.

| Location | Dates and Numbers |
|-----------------------|--|
| South Collegiate | May 11=1 (very cold); May 18=34, May 26=14, May 30=10, Jun 1=9, Jun 13=13. |
| King's Wemple | May 20=46, May 21=63, May 29=64, Jun 1=47, Jun 12=22. |
| Labatt's | May 27=0 (very cold & windy), May 28=0 (very cold & windy), Jun 5=4. |
| Smith Fruit | May 11=1 (very cold), Jun 8=38. |
| Phoenix | May 26=217, Jun 7=151. |
| Ryerson | May 16=2, May 31=2. |
| First-St. Andrew's-SE | Jun 3=2. |
| First-St. Andrew's-NE | Jun 3=2, Jun 7=6. |
| First-St. Andrew's-N | Jun 3=5, Jun 7=3, Jun 9=1 (daytime). |
| First-St. Andrew's-S | Jun 3=3, Jun 7 = 2. |
| Elborn | May 20=3, Jun 7=5. |
| Hunt's | Jun 3=73, Jun 10=62. |
| Huron | Jun 4=36 (2 visits, same day). |

5.0 Nesting Activity at the 13 Targeted Chimneys

While spring swift migration in London has generally finished by about June 10, most swifts that intend to raise a family probably begin nesting activity in the latter half of May, though some will start earlier and some later.

The best way to identify chimney occupancy for nesting purposes is to watch the chimney for an hour or two in the daytime. If swifts are observed inconspicuously entering and/or exiting, a nesting effort is likely underway though, very early in the season, such activity may indicate swifts that are still prospecting for a nest chimney.

The usual Nature London swift monitoring protocol involves watching a chimney for an hour, beginning 30 minutes before official sunset. While the time interval and time of day are not ideal for confirming nesting, sometimes, especially during the early part of a watch, a pattern of entries and exits may indicate there is nesting-related activity happening inside. Volunteers who participate in evening monitoring are asked to report times and numbers of swifts entering and exiting chimneys, especially when these events are distinct from (usually earlier than) the activities of swifts in a big roosting flock. Such information can be useful in establishing whether a pair of swifts is nesting in the chimney at the same time that other birds are roosting communally.

Even if it can be confirmed that swifts are nesting in a chimney, there is no guarantee the nesting effort will be successful. Nests can fail at any point right up to the time of expected fledging. Later sections (beginning on page 12) examine in more detail the information collected by monitors that might help interpret to what extent any of the 13 chimneys may have hosted a nesting attempt in 2021. This information is briefly summarized in **Table 3**.

Of the 13 chimneys, most seemed to have at least minimal evidence of early season prospecting or possible nesting activity. At a number of sites, a nesting attempt appears to have been initiated. Subsequently, very low and inconsistent rates of nest-tending and food-delivery activity were observed and eventually much of this faded away. In only two of the 13 chimneys (First-St. Andrew's SE and S) does it seem possible or likely that a nest might have been successful in fledging any young. Longer evening monitoring sessions (starting earlier), supplemented by daytime visits, would have been helpful in providing a clearer picture.

Because Chimney Swifts are a species in decline, the number of young that are successfully fledged each year is important. Regardless of other factors that might be contributing to population decline, for all intents and purposes, if a population is to increase or stabilize, the birth rate must exceed the death rate.

Table 3. Summary of possible nesting activity at 13 monitored chimneys, May to August, 2021.

| Chimney | Comments |
|--------------------------------|---|
| South Collegiate | There may have been some nest-site prospecting in mid-May, but there is no evidence of any serious nesting activity. If anything was happening along this line, it may have been partially masked by the existence of a roost. |
| King's College – Wemple | A pair of swifts may have been around early in the season but there is scant evidence of nesting. Again, the presence of roosting birds can make it difficult to pick out nest-related behaviours. |
| Labatt's Garage/Warehouse | A pair seemed to be in place on June 5. If a nest was established, it likely failed by mid-July. During most of the nesting season, no communal roost was present to confuse observations. |
| Smith Fruit | Some nest-tending activity seemed to be ongoing but, with no daytime observations and a roost in place throughout the season, the situation was difficult to interpret, and it is doubtful there was a successful outcome. |
| Phoenix Building | Although a pair may have been present in late May, there is nothing to suggest any serious nesting attempt was initiated in 2021. |
| Ryerson Public School | A pair of swifts occupied the chimney at night through the whole season, but, from the frequency of entries and exits reported by monitors, it did not appear that any nesting efforts got very far. |
| First-St. Andrew's, SE chimney | Observations of swift activity at the chimney suggest there is a good possibility that some young fledged from a nest inside. |
| First-St. Andrew's, NE chimney | A nesting attempt appeared to remain active until at least July 13, but the chimney was abandoned after July 20, too early for the attempt to have been successful. |
| First-St. Andrew's, N chimney | There was a nesting attempt, but it probably petered out at some point. Interpretation is made difficult by the presence of a few extra swifts many nights through the nesting season. |
| First-St. Andrew's, S chimney | Through much of the nesting season, the chimney often hosted a few additional swifts over and above the usual pair and a helper. There are good indications to suggest some young may have fledged. |
| Elborn College | A pair was likely present, at least initially, but the presence of extra swifts made it difficult to distinguish nesting activity. Behaviours suggestive of nesting were observed inconsistently, and a successful nest is highly unlikely. |
| Hunt/Flanagan Building | It is always a challenge to detect nesting activity at this very high chimney, but it appears no nesting attempt was made in 2021. |
| Huron College | Despite some possible early season prospecting, it is unlikely there was any real nesting effort here, certainly not a successful one. |

5.1 Why Swift Nests Might Fail

Swifts in Canada are thought to generally have a fairly low rate of nesting success (a figure of approximately 50% has been cited from Manitoba). All of the 13 chimneys in **Table 3** (page 5) are on record as having hosted nesting attempts in the past (though not necessarily every year, and some chimneys tend to host nests more often than others).

It is worth considering a number of factors that may help explain why swift nests fail entirely or fledge fewer than the full number of eggs laid. This may shed some light on the London situation in 2021, in which not more than two of 13 regularly monitored chimneys are likely to have fledged any young.

- Nesting is an activity that places very high energy demands on swift parents. Early in the season, this is especially true for females, which must muster the resources to produce a clutch of four or five eggs. If individual swifts have had a rough winter or migration passage, they may “realize” they are not physically fit enough to successfully pull off an arduous nesting operation that requires about 10 weeks of intensive effort. Instead, they may opt to occupy a chimney, but just “play house” for a spell. Or they might choose to assist another pair in rearing their young (i.e., become a helper bird). Or they may decide to join a communal night-time roost that consists mainly of non-breeders.
- Swifts that do attempt to nest may discover part-way through the season that they have run out of steam. They simply don’t have the energy to complete the job and, somewhere along the line, will cut their losses and abandon the effort. In general, the most energy-demanding stage of nesting comes after eggs have hatched and enormous quantities of insects must be caught and delivered to hungry nestlings during a four-week period.
- In early/mid-May of 2021, a stretch of very cold weather set in after many swifts had returned for the season. This was followed by another very cold interval towards the end of the month. Such weather presumably decimated the supply of insects in the air for a number of days during and immediately after each cold snap. It may have caused some swifts to delay or possibly forego nesting activity and instead concentrate on finding enough food to sustain themselves.
- During May, June and into July 2021, many people were commenting on the unusually low numbers of mosquitoes they were encountering at many places in and around London. If mosquitoes can be taken as an indicator of general abundance of insects in the air, then the spring and early summer of 2021 may have been a time of considerable food scarcity for local swifts. This would affect the fitness of parents and their ability to collect enough food to sustain themselves as well as a family of growing nestlings.
- Several heavy rains in late June and the first half of July had the potential to detach swift nests from chimney walls; if a nest was lost in this way, the parents might not necessarily abandon the chimney immediately. In some cases, swifts might make a second nesting attempt.
- Heavy rain can also wash insects from the sky and depress the food supply for a period of time.
- Stretches of very hot and humid weather can be stressful for adult swifts and result in reduced foraging activity during the hottest part of the day. London experienced many very hot and humid days in July and August.
- Because swifts are very discreet about their comings and goings at active nest chimneys (e.g., little or no circling or vocalizations when arriving or departing), it is not always possible to detect all entries and exits, especially at chimneys that may not be tall but whose tops are well above ground level. This is particularly true of exits, which often barely clear the chimney rim, after which the departing swift flies directly away. There is no guarantee that on-the-ground visual monitoring always detects the full complement of swift comings and goings at an active nest chimney. On the other hand, in past years, monitors have usually successfully spotted greater numbers of entries and exits at appropriate times than has been the case in 2021.

One or more of the above-mentioned factors may have negatively affected the nesting efforts (or our ability to detect them) of swift pairs at the 13 chimneys that were monitored weekly. A more accurate picture of swift nesting activity could have been obtained by implementing a more intensive protocol to document swift comings and goings. This might have been achieved by beginning monitoring a full hour before sunset, and/or by monitoring during a dedicated hour or two in the daytime throughout the nesting season.



Swifts forage in small groups, which can be heard twittering overhead during the day. Being opportunistic feeders, swifts forage where they find concentrations of airborne insects, whether above habitats that produced the insects or in parts of the air column to which insects flew or were drawn by air currents.

6.0 Monitoring for Occupancy, including Possible Nesting or Roosting Activity at 39 Additional Chimneys

In 2020, Nature London began systematically visiting known swift chimneys in London, many of which had not been checked for several years. Of more than 180 chimneys in the inventory, 60 had been lost to capping or demolition by the spring of 2020. Of the remaining 120, regular monitoring was carried out at 13, and an additional 48 chimneys were checked that year to determine occupancy.

In 2021 the effort to revisit known swift chimneys continued, hampered to some extent by pandemic, safety, and other concerns. Issues such as homelessness and high crime and violence rates can make it risky to spend an hour or more lingering in certain sectors of the city at dusk. In some cases, it has become challenging to monitor chimneys due to growth of screening foliage. In others, access has been blocked or sight lines restricted due to construction or change of ownership. Nevertheless, a number of additional chimneys were visited in 2021, and some that had been checked in 2020 were revisited.

Of the 39 additional chimneys (besides the 13) visited in 2021, three are new to the Nature London swift chimney inventory. These were all found by citizens who passed information on to us (in fact, the person who identified two new chimneys even began monitoring them on her own!). Later in the summer, five of the 39 chimneys were added to the regular evening monitoring roster. Because the five received augmented monitoring, information on these chimneys, especially regarding nesting activity, is summarized in **Table 4**. For more information on these chimneys, see also later sections, beginning on page 22.

Table 4. Summary of possible nesting activity at 5 chimneys monitored mid-June to September, 2021. The last three were monitored only in August and/or September.

| Chimney | Comments |
|---|---|
| 370 Huron Street Kingsway Academy N Chimney | A nest seemed to be actively tended until at least mid-July. After that, visits were too far apart and development of a roost confused the tracking of nesting activity, but a successful outcome seems unlikely. |
| 370 Huron Street Kingsway Academy S Chimney | A pair was resident on June 19 and continued to use the chimney until early September. Very limited evidence of possible nest-tending was observed, and it is unlikely any nest was successful. |
| 388 Dundas Street | When this chimney was discovered on August 14, it was past the time of most nesting activity and no indicator behaviours were detected. A roost of 116 swifts was in residence on that date. |
| 423 Colborne Street | This chimney was first discovered on August 14, when classic food delivery behaviour was observed. At least one youngster is thought to have fledged from this shaft, probably around August 21/22. |
| 700 Richmond Street ICORR | This chimney was first visited on September 11, a date far past when nesting activity is expected. A roost was present at the time. |

Besides the five chimneys presented in **Table 4**, 34 more were checked for swift presence (some were visited more than once). In one case, a member of the community reported a day-time entry (June 17) into a new-to-our-list chimney that had been checked in previous years but at which no swift activity had then been detected.

The remaining 33 chimneys were already on Nature London's master list of London chimneys known to have been occupied by swifts at some time in the past (though not necessarily every year). None of the 34 chimneys is part of the regular monitoring program.

Though there are undoubtedly many London chimneys that harbour swifts but are unknown to us, little effort was expended in 2021 to seek out possible new swift chimneys. A few such chimneys were investigated, all late in the season when we were searching for possible additional roost chimneys. None of these held swifts when visited and so have not been added to the inventory of known swift chimneys. Nor are they included in the tally of 39 chimneys.

Much of the information considered below comes from single, evening-monitoring visits (usually 1 to 1.5 hours in duration) to individual chimneys. Most visits were made between June 17 and August 4 (prime nesting period), but one site was visited on May 21. Two other chimneys were checked later in August; both have a history of sometimes hosting a fall roost, but neither held a roost when visited in 2021.

In many cases, little more could be gleaned from the visits than whether the chimney was being occupied by swifts on that particular night. The following summary considers the 34 chimneys that were mostly visited just once, though one was visited three times (the 18 that received regular monitoring are excluded from this discussion).

At 24 of the 34 chimneys, swift entries and/or exits were observed, usually involving one or two birds (on one occasion three). It is thought that most, if not all, of these chimneys were accommodating swifts involved in a nesting effort. Even if only one swift was seen entering the chimney, it is possible a partner was already inside sitting on eggs or otherwise tending a nest. Occasionally, food delivery behaviour was observed.

At 10 chimneys, no swift activity was detected. In all but one instance, "empty" chimneys were checked after mid-July. It has been suggested there may be a tendency towards an increased rate of nest failure about that time, which coincides with approximately the mid-point of the nestling period. In the last two weeks before youngsters fledge, parents face a very high demand for food deliveries.

Here are some possible reasons why swifts might not have been detected at the 10 chimneys.

- At one chimney, the reason was obvious; soon after the watch commenced, a raccoon emerged from the chimney. From its perch, it spent the next 50 minutes grooming itself and watching the nightlife on the streets and patios of Wortley Village below, before clambering down the outside of the chimney and heading off for a night of foraging.

- Occupancy of other chimneys by raccoons, squirrels and other wildlife, even if not visible to monitors, would still deter swifts from using a chimney. It is not known how long after a species such as a raccoon has stopped occupying a chimney, swifts would refrain from using the shaft (weeks? months? years?).
- Swifts might not have been present if they had attempted a nest in that chimney earlier in the season, but it had failed, and they had already moved on.
- It could also be that a nest had been successful, and the family had left the chimney before it was visited. In 2021, however, this is less likely, as it is thought there was a tendency for nesting to be running late this year.
- One or both members of a pair at an active nest chimney went undetected because they were very fast and sneaky with their entries and exits and the characteristics of the chimney and available viewing location were not optimal to facilitate detection (though experienced monitors are usually very good at picking up such activity, even at a challenging location).
- One or both members of a pair might have evaded detection during a one-hour monitoring period if they had gone to bed very early or very late or had “taken the night off” and tucked in at some other chimney (perhaps a neighbour’s or a communal roost). On a number of occasions this summer, at regularly monitored chimneys, we noticed the absence of any entries or exits during the monitoring visit, but a return to normal levels of activity the following week. In past years such behaviour was very rare.
- Perhaps no swifts at all had returned to a particular chimney in 2021.
- A chimney might have been permanently abandoned by swifts over multiple years.



Urban raccoons sometimes occupy chimneys that have been used by swifts, but the extent to which they deter swifts from using otherwise-suitable chimneys is unknown.

Better information on the true status of the 10 chimneys that were unoccupied when checked could be obtained through additional monitoring visits, preferably earlier in the season than mid-July and including some during the day.

7.0 Weekly Tuesday-evening Monitoring at 13 Chimneys

For several years, weekly May-to-September evening monitoring at the same 13 chimneys has been Nature London’s signature monitoring activity. The primary focus has been the tracking of numbers of swifts spending nights at communal roosts. Since a roost chimney often also hosts a breeding pair, nesting activity is also monitored to the extent possible within the limitations of the protocol. The growing data set associated with this sampling of 13 chimneys allows trends in numbers to be noted and comparisons made from year to year and season to season. Caution is advised, however, in placing too much confidence in the numbers, particularly when used to indicate population trends. Visual counts are not precise, especially for large flocks entering in a compressed time period. But, for practical purposes, we assume the number of counts that are over-estimates are balanced by the number that are under-estimates, though there is no actual evidence for this. Also, weather may affect counts and migration patterns; and, to an unknown and likely varying extent, significant numbers of swifts may occupy London roost chimneys other than the 13.

In selecting the 13 chimneys, 10 were chosen because they had a history of serving as communal roosts. Three others, all at First-St. Andrew’s, were included because they could be monitored at the same time as the FSA-N chimney, a sometime roost. When the “13-chimneys” monitoring program was being established, other London chimneys were on our radar as known roost chimneys, but roosting at these had not been observed as recently or as regularly as at chimneys that became part of the cohort of 13. See page 11 for more on the topic of extra roosts in London.

In 2020, due to COVID restrictions, the London monitoring program did not start until mid-July. In 2021, it commenced in mid-June, permitting an extra five weeks of data to be collected – 16 weeks in all vs 11 weeks in 2020. Unfortunately, the delayed start both years means a paucity of data during spring migration. This reduces the possibility of making meaningful comparisons for spring numbers over the past four years. On the positive side, in 2021, some monitors quietly visited chimneys on an informal basis before official monitoring got underway. Their data provide peeks into the nature of spring migration this year.

Formally organized monitoring at the 13 chimneys took place on Tuesday evenings from June 15 to September 28. Finding 22 willing volunteers (2 people at each of 9 chimneys plus 1 person at each of 4 FSA chimneys) to slot into the roster every week and ensuring each one has all the info and tools needed to find chimneys and to collect data is an enormous task. A huge vote of thanks goes to Sandy Symmes, who carried out this essential work with unfailing grace and dedication. A special tip of the hat is offered to Sandy for the September 7 count, when 10 regular monitors were away on holiday at the same time, yet she still managed to arrange coverage for every chimney.

Table 5 presents data collected at the 13 chimneys on official count dates, representing 199 monitoring visits in all. Additional data for these chimneys were obtained prior to June 15 and on dates other than Tuesdays throughout the monitoring season. All data of both sorts have been retained in electronic files in London and have also been shared with the provincial swift database maintained by Ontario SwiftWatch.

For a discussion of possible nesting activity in the 13 chimneys, see individual chimney accounts beginning on page 12 and summaries in **Table 3** (page 5). Despite limitations in the protocol, it was concluded there was a very low rate of nesting success in the 13 chimneys in 2021.

This section examines data for the 13 chimneys primarily through the lens of communal roosts. Though it should be interpreted with caution (see earlier comment), the combined tally of all swifts counted each week provides some indication of changes in numbers of swifts present in London throughout the season.

See the right-hand column in **Table 5**. The mid-June total reflects the very tail end of spring migration (likely somewhat protracted in 2021, due to stretches of very cold weather in May). In late June and early July, numbers dropped off somewhat as the last migrants left town or dispersed to local chimneys to nest. In mid-July the number made an upward jump, perhaps reflecting an influx into roost chimneys of swifts whose nests had failed (it is unlikely many, if any, young would have fledged this soon in the season in 2021). Thereafter the tally remained relatively stable for four weeks.

In the second week of August, the combined tally jumped again, rising to a peak of 856 on August 24, when three chimneys held more than 100 swifts each. Over the next few weeks, numbers declined (but one upward blip), and swifts increasingly became concentrated in just one chimney – Labatt’s. The last night the combined tally yielded a significant number – 350 – was September 14. On September 21, the total number of swifts in all 13 chimneys was just 2.

It has been proposed that, in years when swifts have poor nesting success, numbers of fall migrants are lower (few kids to swell the population), and that birds tend to head south early (no need to wait for kids to perfect flying skills). Swifts counted at London roosts in August and September include an unknown, but likely substantial, number of migrants coming from farther north. If nesting success were poor in a representative sample of 13 London chimneys in 2021, as appears to have been the case (see page 5), nesting success may also have been poor for swifts nesting elsewhere in Ontario and passing through London on their way south.

Table 5. Numbers of swifts spending the night in 13 monitored chimneys during 16 Tuesday-evening counts, June 15 to September 28, 2021.

| LOCATION, NUMBER OF SWIFTS 2021 | | | | | | | | | | | | | | |
|---------------------------------|-----------------|-----------------|------------------|-------------|---------|---------|--------|--------|----------------|----------------|--------|-----------------|-------|-------|
| Date (2021) | South Coll | King's | Labatt | Smith Fruit | Phoenix | Ryerson | FSA SE | FSA NE | FSA N | FSA S | Elborn | Hunt's | Huron | Total |
| 15-Jun | 13 | 23 | 5 | 24 | 163 | 2 | 2 | 1 | 1 | 2 | 5 | 64 | 37 | 342 |
| 22-Jun | 11 ¹ | 17 | 3 | 34 | 141 | 1 | 0 | 3 | 7 ¹ | 2 ¹ | 2 | 78 | 50 | 349 |
| 29-Jun | 12 | 30 | 2 | 27 | 115 | 2 | 1 | 2 | 4 | 4 | 3 | 85 | 34 | 321 |
| 6-Jul | 6 | 2 | 1 | 29 | 138 | 0 | 2 | 0 | 2 | 3 | 4 | 49 | 65 | 301 |
| 13-Jul | 13 | 38 | 0 | 101 | 118 | 2 | 1 | 1 | 4 | 1 | 2 | 51 | 82 | 414 |
| 20-Jul | 16 | 27 ² | 8 | 127 | 87 | 2 | 1 | 2 | 4 | 7 | 7 | 53 | 74 | 415 |
| 27-Jul | 14 | 56 | 33 | 105 | 3 | 2 | 0 | 0 | 5 | 7 | 2 | 84 | 87 | 398 |
| 3-Aug | 20 | 40 | 77 | 105 | 0 | 0 | 2 | 0 | 1 | 6 | 4 | 38 | 117 | 410 |
| 10-Aug | 9 | 36 | 153 | 118 | 0 | 0 | 1 | 0 | 1 | 9 | 8 | 53 ³ | 124 | 512 |
| 17-Aug | 2 | 4 | 330 | 110 | 0 | 2 | 5 | 0 | 5 | 0 | 5 | 67 | 118 | 648 |
| 24-Aug | 1 | 1 | 356 | 310 | 0 | 1 | 0 | 0 | 1 | 0 | 7 | 115 | 64 | 856 |
| 31-Aug | 0 | 0 | 307 | 31 | 0 | 2 | 0 | 0 | 0 | 0 | 10 | 206 | 1 | 557 |
| 7-Sep | 0 | 0 | 609 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 89 | 0 | 730 |
| 14-Sep | 0 | 0 | 350 ⁴ | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 6 | 4 | 0 | 366 |
| 21-Sep | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 28-Sep | - | - | 0 | 0 | - | 0 | - | - | - | - | 0 | 0 | - | 0 |

Notes: Actual monitoring dates 1. June 23; 2. July 21; 3. August 11; 4. September 15.

Figure 2 presents four years (2018–2021) of combined weekly counts for the 13 chimneys from mid-June to the end of the season (2018 and 2020 data are unavailable before mid-July). From mid-June to late July (prime nesting time), the combined tally of swifts overnighting in the 13 chimneys mostly falls within the range of 250 to 425 birds per night. The vast majority of these birds are assumed to be non-nesters, as the 13 chimneys do not host more than one nest each. The exact make-up of communally roosting birds during the nesting season is not known. Here are some possibilities:

- Some may be one-year-olds that are delaying breeding for another year.
- Some may be adults that feel insufficiently fit to take on the high demands of nesting this year.
- Some may be part of a pool of helpers that moves back and forth to assist with nest-rearing duties at active nests.
- Some may be adults that have abandoned their home chimney after their nesting attempt has failed.
- Some swifts involved with an active nest may spend an unknown number of nights in a communal roost (e.g., there is some thought that a member of a pair will sometimes stay overnight in a communal roost instead of in the chimney where its nest is).

Figure 2 shows that, prior to mid-July, numbers of communally roosting swifts tended to be slightly higher in 2021 than in 2019, the only other year for which data are available for this period. For 2021, **Table 5** (page 9) shows that, during this time, there was some variation in numbers from week to week at individual chimneys. This raises the possibility that swifts may have been moving around among roosts.

Fall migration data in **Figure 2** show two patterns. In 2018 and 2020, numbers peaked high and late. In 2019 and 2021, they peaked earlier and lower. For 2021, this fits with the observation of poor nesting success at monitored chimneys and with the theory that, when fledging rate is poor, numbers at migratory roosts peak early and low.

During all four years, numbers dropped off drastically about the third week of September, but the 2021 combined tally fell sooner and to lower levels than happened in the other three years. Of the 13 chimneys, the last known date of occupancy in 2021 was Sep 21 (2 swifts at Hunt’s). This is notably earlier than previous years: 2020 (Sep 27, 2 at Labatt’s), 2019 (Oct 2, 2 at Phoenix) and 2018 (Oct 9, 2 at Phoenix).



Swifts using London roosts in late summer include some with uneven wing edges (moulting birds) (lower bird) and others with smooth wing edges (young of the year or adults that have completed moult).

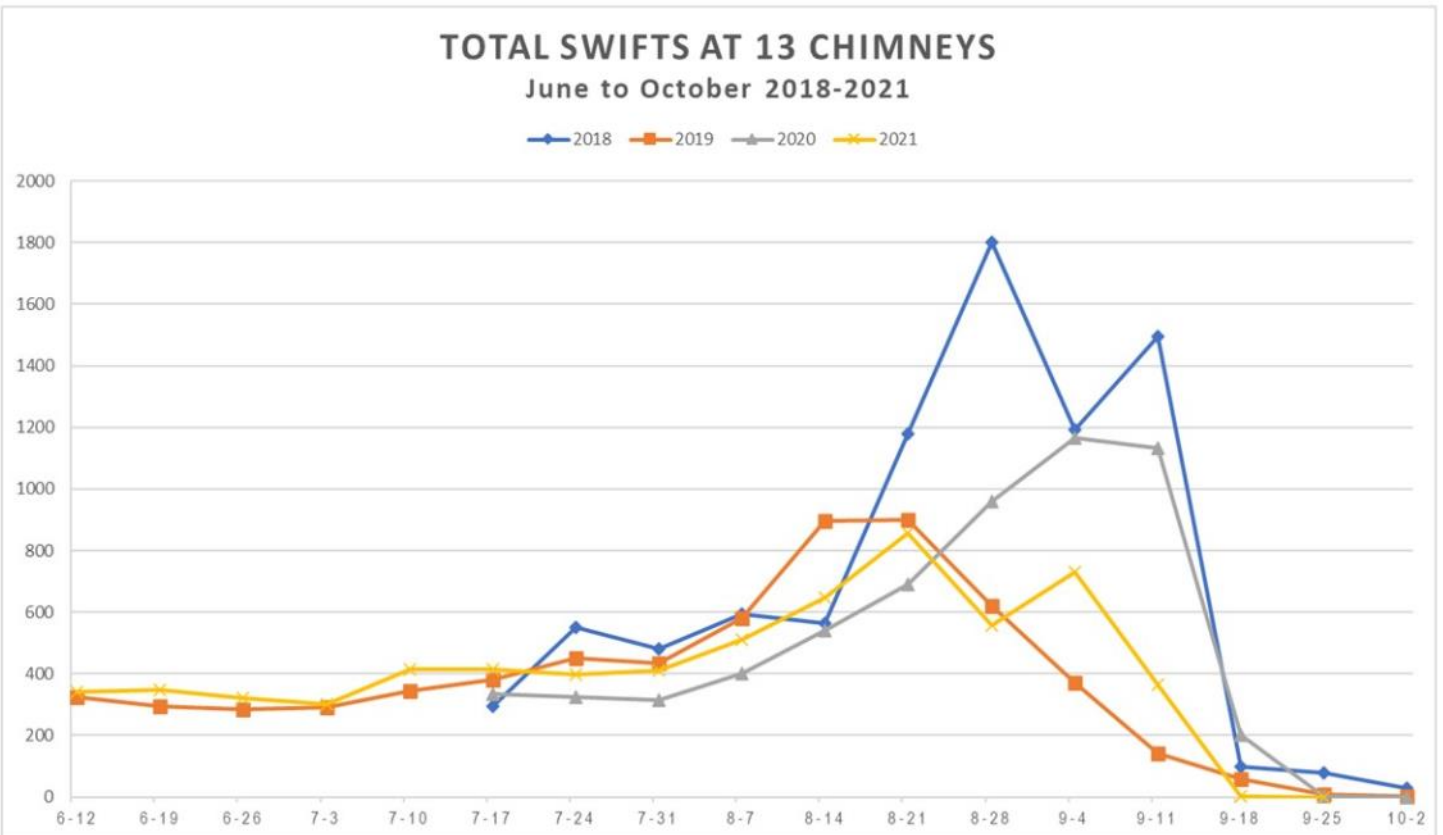


Figure 2. Combined tallies for 13 chimneys during weekly monitoring mid-June to early October, 2018–2021.

Table 6 shows presence or absence of a roost by season for 10 of the 13 chimneys over four years (2018–2021). Data for three chimneys are excluded, as FSA-SE, FSA-NE and FSA-S have no history of hosting roosts of any significance. Seasons have been arbitrarily defined as follows: spring migration (May 1 to Jun 14), summer (breeding season) (Jun 15 to Jul 31), and fall migration (Aug 1 to Oct). The table includes data only for roosts holding 20 or more swifts on at least one night within the season. Short duration roosts of one or two nights are indicated by a footnote. When a roost was present in a particular season, it was often occupied for considerably less than the full complement of count dates within that season. A roost holding large numbers of swifts in one season often spilled over into the next season, during which numbers waned but remained high enough for a few weeks for the next season to merit designation as a roost. Similarly, numbers often started increasing near the end of one season, leading to a roost in the next season.

In **Table 6**, an indication of no roost present means the maximum number tallied on any evening count in that season was fewer than 20 swifts. Swifts were almost always present at least once in the season, but in smaller numbers.

Data for spring 2020 are not available, except for South Collegiate, and data for spring 2021 rely on fewer counts than in other years. Sufficient data were available to assess roost presence during 12 seasons for South Collegiate, 10 seasons for Huron, and 11 seasons for the remaining eight chimneys.

Although **Table 6** offers a rough representation of roost occupancy, it shows that swifts frequently change roost preferences from season to season and year to year. Some roosts are occupied less frequently, for shorter stretches of time, and by smaller numbers of swifts. A perusal of **Table 6** and the data behind it reveal some interesting nuggets:

- Hunt’s was the only chimney to host a roost in all 11 seasons (or at least a portion of each of these seasons); roosts at Hunt’s tended to be medium in size (i.e., 50 to 250).
- South, King’s and Phoenix accommodated roosts in 10 of 11 seasons and Huron in 9 out of 10; roosts at these chimneys were usually medium in size.
- Smith Fruit was occupied by a roost in 8 seasons. It regularly held large roosts (greater than 250 swifts).
- Labatt’s, which tallied the largest roosts in terms of numbers accommodated, hosted a roost in 7 of 11 seasons; these roosts tended to be occupied for long stretches within a season.
- FSA-N harboured a roost only twice, both times on the small side of medium and of relatively short duration.
- Elborn once held a smallish, medium-sized roost, and Ryerson hosted a small roost once. More than a decade ago, roosts at Ryerson sometimes accommodated many hundreds of swifts.

Most years a few extra chimneys that have served as roosts in some previous years are visited once or twice (usually in August or September) to determine whether they are hosting roosts. Whitehall Apts (1265 Richmond), Dorchester Apts (1231 Richmond), Centennial Apts (520 Wellington) and 388 Dundas are the most frequently visited. Less frequently checked are ICORR (700 Richmond), Woodfield Commons (390 Princess), St Martin – St Francis Church (130 Duchess), 95 Ridout St Apts, Ridout Towers Apts (100 Ridout St) and McCulloch’s (1140 Dundas).

In 2021, reconnaissance visits were made to Whitehall Apts, Dorchester Apts, Centennial Apts, 388 Dundas and ICORR. Only at the last two were roosts discovered, but it is entirely possible roosts may have been present in additional chimneys, both those that were checked in 2021 and those that were not.

Without checks at regular intervals through the three seasons, it can be easy to miss identifying an active roost, even when occupied by large numbers of swifts. The tendency of many roosts to be inactive some years or some seasons makes detection challenging.

Table 6. Presence/absence of a roost of ≥ 20 swifts by season at 10 London chimneys, 2018–2021.

| Year | 2018 | | | 2019 | | | 2020 | | | 2021 | | | Seasons Occupied |
|--|----------------|-----|----------------|------|-----|----------------|------|-----|----------------|----------------|----------------|----------------|------------------|
| | Spr | Sum | Fall | Spr | Sum | Fall | Spr | Sum | Fall | Spr | Sum | Fall | |
| Location | | | | | | | | | | | | | |
| South | Y | Y | Y ¹ | Y | Y | Y | Y | Y | Y ¹ | Y ¹ | N | Y ¹ | 11 |
| King’s | Y | Y | Y | Y | Y | Y ¹ | - | N | N | Y | Y | Y | 9 |
| Labatt’s | Y ¹ | N | Y | Y | Y | N | - | N | Y | N | Y ¹ | Y | 7 |
| Smith Fruit | N | N | Y | Y | Y | Y | - | N | Y | Y ¹ | Y | Y | 8 |
| Phoenix | Y | Y | Y | Y | Y | Y | - | Y | Y ¹ | Y | Y | N | 10 |
| Ryerson | N | N | Y ¹ | N | N | N | - | N | N | N | N | N | 1 |
| FSA-N | Y | N | N | N | N | N | - | N | Y | N | N | N | 2 |
| Elborn | N | N | Y | N | N | N | - | N | N | N | N | N | 1 |
| Hunt’s | Y | Y | Y | Y | Y | Y | - | Y | Y | Y | Y | Y | 11 |
| Huron | - | Y | Y | Y | N | Y | - | Y | Y | Y ¹ | Y | Y | 9 |
| Number of Active Roosts in Season | 6 | 5 | 9 | 7 | 6 | 6 | 1 | 5 | 7 | 6 | 6 | 6 | |

Notes: Y = Roost present; N = Roost absent. 1. Roost occupied for only 1 or 2 nights within the season.

The King-sway roost discovered in 2021 is a case in point. Unbeknownst to us, this chimney has likely harboured a roost in past years. Other London chimneys likely also harbour roosts at various times.

To locate and document additional active roosts would require the deployment of a far larger pool of monitors making more visits on more evenings to more chimneys in more seasons. This would create a significant increase in the administrative load.

8.0 Summaries of Swift Activity at Each of the 13 Chimneys in 2021

For the 13 monitored chimneys, this section considers numbers of swifts spending nights in chimneys and also examines any available details related to possible nesting activities. On a half dozen occasions from late June through July, we failed to detect swift activity at a chimney during a monitoring session. Yet the following week swifts would be present again, often exhibiting behaviours indicative of nesting. This occurred at four different chimneys. Such a phenomenon has only rarely been observed in previous years.

Data obtained during Tuesday-evening counts are presented in **Table 5** (page 9). Additional data collected on other dates are incorporated into the chimney-by-chimney accounts below.

8.1 South Collegiate, 371 Tecumseh Ave

Refer to **Table 5** (page 9). The first monitoring watch of the year was made on the very chilly night of May 11 (6 °C), when 1 swift entered the chimney. Five visits from May 18 to June 13 produced counts that ranged from 9 to 34, indicating the presence of a small roost during spring migration. This roost continued to be active through eight visits from June 15 to August 3, with counts of from 11 to 20, dipping once to 6 birds (July 6). After August 10, numbers fell sharply to 2 on August 17 and 0 on August 31. Thereafter the chimney was empty. **Figure 3** shows the peak number at South in 2021 (34) was the lowest peak recorded in the six years from 2016 to 2021.

At times, especially as the summer progressed, more swifts would be seen at once in the sky than entered for the night. The most extreme example of this behaviour occurred on September 14 and involved 35 swifts circling in the area. All departed shortly after sunset and no swifts entered the chimney that night. Where they went is unknown, but very possibly their destination was Labatt's, as it is in the same part of the city and hosted 350 swifts that evening.

In addition to 15 regular monitoring visits in 2021, six supplementary visits were made: May 11=1, May 18=34, May 26=14, May 30=10, Jun 1=9, and Jun 13=13, for a total of 21 visits.

On May 18, swifts may have been prospecting the chimney as a possible nest site and, after mid-July, there were sometimes entries during the early part of a watch. Yet, week after week, patterns of entries and exits that might indicate a nest were never observed. In past years at this location, there has usually been little evidence of nesting attempts of any duration. The presence of an active roost from May until early August made it difficult to determine to what extent nesting activity, if any, might be taking place. Yet, on August 3, a bird with poor flying technique was seen exiting the chimney. In the absence of any recent indications of nest tending, it may be that this bird was from another nest chimney but practising its entry/exit skills at South.

On May 30 and June 22, a crow landed and briefly remained on the rim of the chimney. Its presence apparently did not cause any disruption to the swifts. On June 13, a Merlin was heard in the area and on June 29, swifts were observed harassing a Merlin. On September 21, a Sharp-shinned Hawk flew by (swifts had abandoned the chimney a month earlier).

Two nighthawks and a bat were observed on August 24.



The South Collegiate chimney viewed from the front (north side of the building).

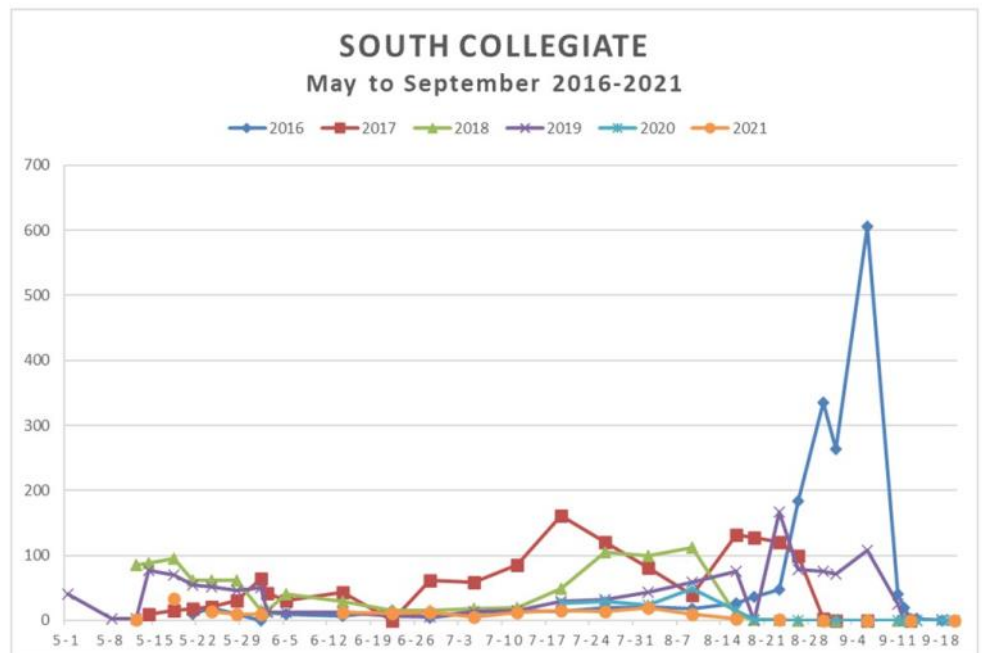


Figure 3. Numbers of swifts roosting in the South Collegiate chimney, early May to September, 2016 to 2021.

8.2 King's University College, Wemple Building, 266 Epworth Ave

Data for King's are included in **Table 5** (page 9). **Figure 4** shows results from 2016 to 2021. In 2021, counts were generally low, with no significant spikes in any season (though spring monitoring did not begin as early as in some other years).

When first visited on May 20, 2021, 46 swifts spent the night in the chimney. Numbers peaked at 64 on May 29. From then until August 10, counts mostly fluctuated between 17 and 56 though, on July 6, just 2 swifts were tallied. The number dropped to 4 on August 17, and the chimney was empty on August 31 and thereafter. This follows the pattern of the past six years in which the chimney is empty during the month of September. Counts in 2021 were consistent with 2018, 2019 and 2020 in keeping well below 100 throughout the whole season.

In 2021, from August 24 on, after the King's chimney had been abandoned for the season, monitors regularly reported seeing swifts in the area (up to 20), though only one or none entered the chimney. These birds were likely overnighting in the chimney of nearby Kingsway Academy. The last report was of 7 swifts around King's on September 21, by which time Kingsway had been empty for a week, so these swifts must have found lodgings elsewhere.

In addition to 15 regular monitoring visits in 2021, seven supplementary visits were made: May 20=46, May 21=63, May 29=64, Jun 1=47, Jun 12=22, Jun 30=23, and Aug 2=34, for a total of 22 visits.

During monitoring sessions, early entries were very occasionally reported, sometimes by two swifts together and sometimes exits were observed. This suggests there may have been a pair present, but there were no ongoing indications that nesting occurred. This is typical of other years at this site – little or no sign of a serious nesting attempt. A roost was present from May until mid-August, making it challenging to be sure.

In 2021, nighthawks were reported only twice – once during the tail end of spring migration (1 bird on June 12) and once during fall migration (4 birds on August 24). This is a significant difference from 2020, when 32 nighthawks were observed by monitors at King's, on five dates from August 11 to September 15 (including 22 on September 8).

Barn Swallows again nested under the awnings around the Wemple Building, generally foraging at lower heights than swifts. Swallows (maximum of 6 at once) were reported from late May to August 10.

The viewing location for the King's chimney is close to the wooded corridor along the North Thames River, an excellent spot for hearing and seeing many kinds of wildlife. In 2021, species observed included Red-tailed Hawk, Canada Goose, Northern Flicker, Red-bellied Woodpecker, Red-winged Blackbird, Great Blue Heron, Baltimore Oriole, Gray Catbird, Yellow Warbler, Great Crested Flycatcher and Osprey. From May through August, monitors commented on the abundance of mosquitoes and other insects. Fireflies (June 30), a groundhog (August 2), and fireworks (June 30) were also reported.



The chimney of the Wemple Building at King's College, showing the general area from which most monitoring was carried out. Barn Swallows nest under awnings over some of the windows.

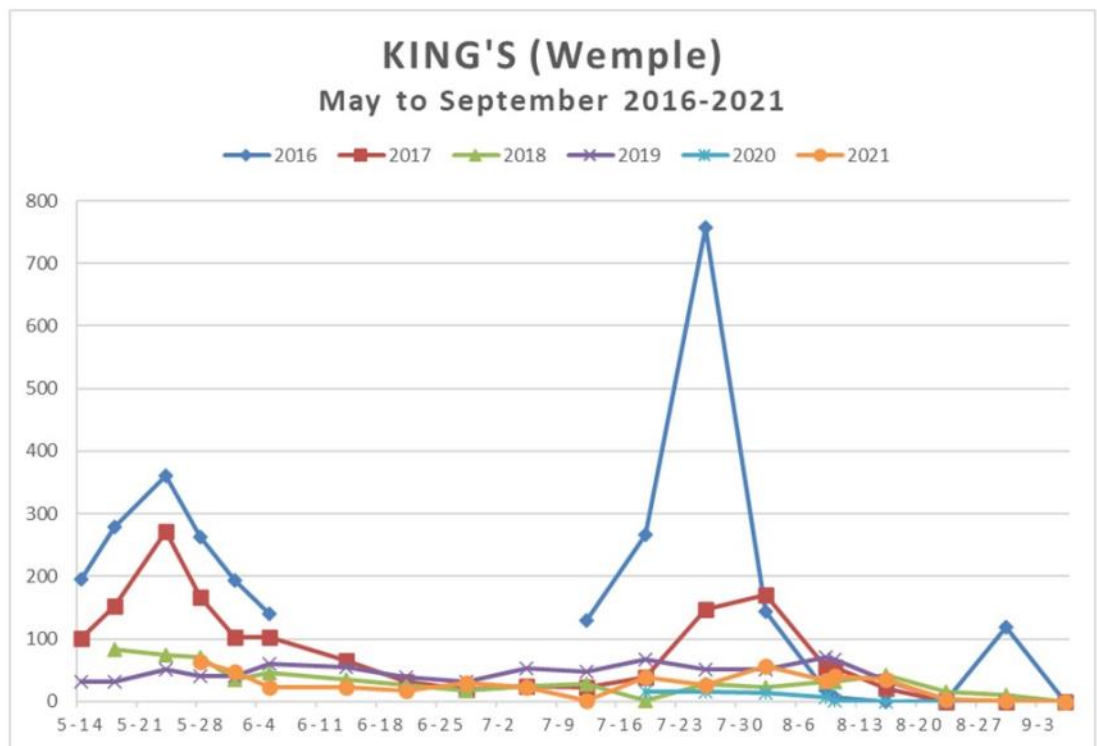


Figure 4. Numbers of swifts roosting in the King's College Wemple Building chimney, May to September, 2016 to 2021.

8.3 Labatt's Garage/Warehouse, 183 Simcoe St (across from 195 Grey St)

See Table 5 (page 9). Figure 5 presents data during the past six years for the Labatt's chimney in August and September. The chimney was not used during fall migration in 2016 and 2019. Of the four years that the chimney hosted fall roosts, the peak count was lowest in 2021.

The first 2021 visit was made on May 27, when no swifts were seen entering, possibly due to very cold and windy conditions. Four swifts spent the night on June 5 and 5 on June 15. In the next four weeks, counts declined from 3 to 0, though 6 to 9 swifts were seen overhead during those watches. On July 20, 8 swifts dropped in. After that, numbers rose steadily to peak at 609 on September 7, then fell to 331 on September 16 and 0 on September 21. Many between-Tuesdays visits were made in September to track the changes. The tally of 609 was the highest single-night count at any London chimney in 2021.

During peak migration weeks, monitors sometimes reported batches of swifts showing up early in the watch, repeatedly circling and dipping over the chimney, as if to check out the accommodation, then flying off, usually towards the river, about 50 m away, behind houses and a narrow, wooded buffer. Presumably these swifts returned later. As dusk fell, swifts often arrived in waves, with most members of one group entering before the next convoy appeared, swirled and dipped, and eventually headed in for the night. Often, swifts came from the direction of the river; they may have been foraging above the waterway or following it as a migration corridor. Other arriving swifts dropped down directly from high overhead. Perhaps swifts that have already overwintered in a roost chimney and become familiar with it may spend less time circling and peering down before entering.

An interesting observation of swift use of the Labatt's chimney was made about 1 pm on August 20, a warm sunny day. When driving by, I noticed a stream of swifts emerging from the chimney, just clearing the rim, then quickly flying away from the area. I counted 25. Over the next few minutes, a few stragglers flew out, bringing the total to 30 swifts. As the departing stream was already underway when I arrived, it is impossible to know the full number of swifts that had been inside (indeed, maybe some still were). Evening counts a few days before and after August 20 were in the range of 330 to 350 birds, so significant numbers of swifts were using the Labatt's chimney at night around that time.

Daytime occupation of chimneys by roosting swifts is a poorly known phenomenon, though it has occasionally been observed in London before, including once at Labatt's in the early evening. See page 26 for another 2021 example. It is possible that migrating swifts, if quality foraging opportunities are plentiful, use roost chimneys as daytime resting places between bouts of feeding. Swifts also occupy roosts in the daytime during inclement weather.

In addition to 16 regular monitoring visits in 2021, 11 supplementary visits were made: May 27=0, May 28=0, Jun 5=4, Aug 20=30 exited at 1 pm, Sep 4=353, Sep 9=414, Sep 10=554, Sep 10=519, Sep 16=331, Sep 19=3, and Sep 25=0, for a total of 27 visits.



The Labatt's chimney viewed from the north.

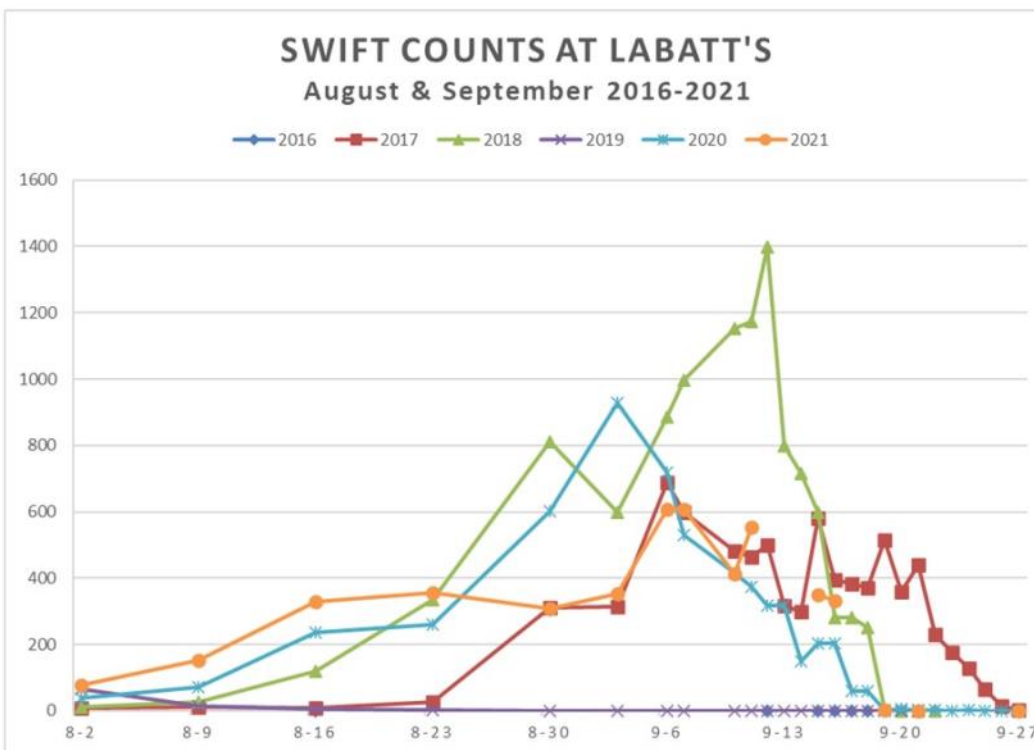


Figure 5. Numbers of swifts roosting in the Labatt's chimney, August and September, 2016 to 2021.

A pair of swifts seemed to be using the chimney by June 5. In subsequent weeks there were occasional observations suggestive of nesting and there is a slight possibility a nest may have been established. By mid-July, any such attempt had failed. With no roost present until late July, behaviours associated with nesting activity would be easy to pick out. Exactly who the 1 to 5 birds were who were occupying the chimney during June and early July is unknown. Some years there is a nest at Labatt's and other years not.

Only one nighthawk was reported at Labatt's this year – on September 19. Last year the total was 32, spread over five dates (August 21 to September 29, including 26 on August 26).

In addition to Blue Jay, American Crow, Canada Goose, Ring-billed Gull, Mourning Dove and other birds observed during watches, on July 6 a Virginia Opossum wandered by.

Because the only available viewing location is from the sidewalk or a parked car, monitors quite often had the opportunity to engage with interested neighbours or passers-by and share information about swifts. Sometimes people even stayed to help with counting.

8.4 Smith Fruit, 22 Maitland St

For data on Smith Fruit, see **Table 5** (page 9) and **Figure 6**. The first visit of 2021 was on May 11, when just one swift went into the chimney for the night. Given the very low temperature (8 °C), it is likely that most swifts that might have been around would already have taken shelter inside.

On the next visit, June 8, 38 swifts entered. From then on, until the chimney emptied for the season, the number never fell below 27. From mid-July until the highest count of the year on August 24 (310 swifts), on almost all nights, the tally was between 100 and 125 birds. The last night the chimney was occupied was September 7 (28 swifts). That evening, 7 minutes or more after the last swifts had entered for the night, 13 swifts left the chimney and did not return.

On September 14, 21, 25 and 28, no swifts entered the chimney but, on the first three of these nights, 2 or 3 swifts were seen flying in the area; on September 21, 2 birds dipped at the chimney.

Compared to recent years, counts tended to be similar or higher during June, while numbers were noticeably larger through July. The peak (August 24) was lower and earlier, and numbers dropped off sooner and more sharply than in any of the years from 2016 to 2020.

On August 31, a swift was observed chasing a larger bird (possibly a Merlin).

Some monitors commented on the very bad state of repair of the upper portion of the chimney, which seems to be deteriorating more every year.

In addition to 16 regular monitoring visits in 2021, 5 supplementary visits were made: May 11=1, Jun 8=38, Jul 14=72, Aug 1=115, and Sep 25=0, for a total of 21 visits.

Limited early season data are available but there were some early entries during June. In July there were often very early entries to the chimney and sometimes exits, but these generally did not offer a clear pattern that would give confidence a nest was being consistently tended week after week. Interpretation of observed behaviour was complicated by the presence of an overnight roost during June through August. If a nest were present, it was probably unsuccessful. This chimney has a history of hosting nests that sustain nestlings well after hatching.

One nighthawk was reported on August 31 and several more may have been around that evening as well.

The location close to the wooded river corridor made Smith Fruit a good place to observe other bird species, including Canada Goose, Great Egret, Great Blue Heron and Northern Cardinal. House Sparrows, however, were the most frequently mentioned bird. Especially in August and September, the cacophony of chirping they kept up from behind the screen of ivy was sometimes so loud monitors found it hard to hear the swifts.



Glenn Berry waiting for the swifts to arrive at Smith Fruit, July 14, 2021. (photo by Susan Berry)

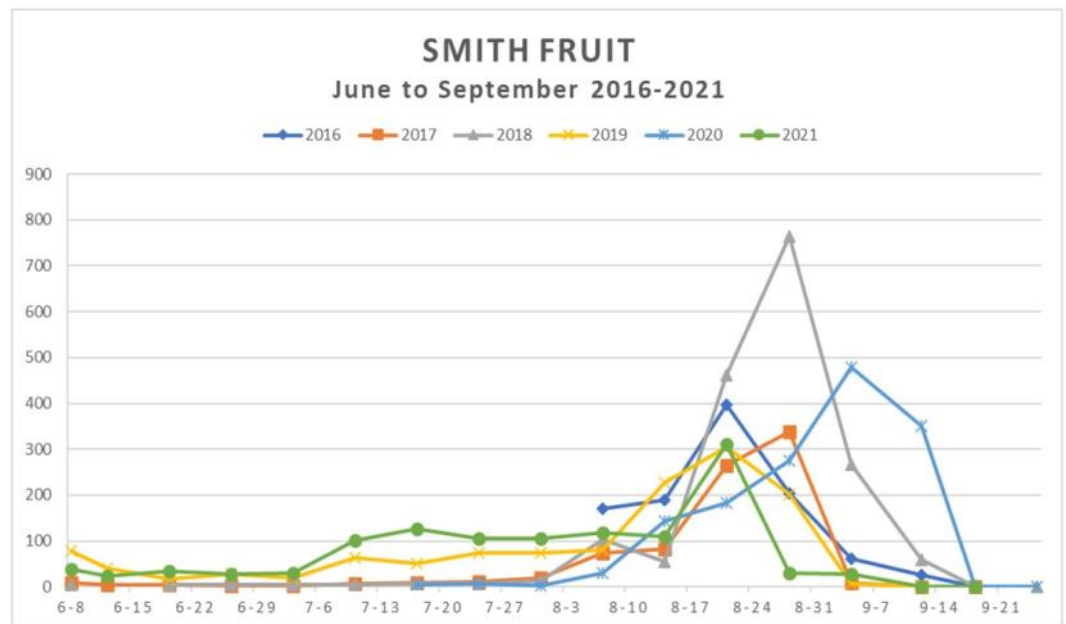


Figure 6. Numbers of swifts roosting in the Smith Fruit chimney, June to September, 2016 to 2021.

8.5 Phoenix Building, 300 Wellington St

See **Table 5** (page 9) and **Figure 7**. The first visit of the year, on May 26, tallied 217 swifts inside for the night. This was the highest known count at any roost in the city during spring migration. Between June 7 and July 13, numbers fluctuated from 114 to 163. On July 20, the count dropped to 87, and then to 3 on August 3. For the rest of the season, the chimney was empty.

As **Figure 7** illustrates, there can be a great deal of variation between seasons and among years in the patterns of roost occupancy at Phoenix. In 2021, it may have hosted its largest-ever spring roost. In 2018, 2020 and 2021, the roost was essentially empty during August. The last date of occupancy in 2021, however, was earlier by a few weeks than in the other two years and, only in 2018, after numbers had dipped very low, did the chimney become occupied with significant numbers of swifts in September.

In 2021, Phoenix was the first London roost chimney to become empty, doing so at least four weeks earlier than other roost sites. In contrast, in 2017, 2018 and 2019, Phoenix was the last occupied chimney in London. In 2021, after the chimney was empty, monitors sometimes observed swifts in the area (probably heading for Labatt's or Smith Fruit), the maximum number seen at once being 20 on August 10 and September 7.

Over the past several years, personal safety has been a concern for volunteers at Phoenix. Because of the pandemic, the parking lot at Enterprise Rent-A-Car at 288 Horton (northeast corner of Wellington) was empty during the 2021 swift season. A car parked at this location had an excellent view of the chimney silhouetted against the northwest sky and allowed monitors to be well away from the distractions of the former viewing area – the Tim Horton's parking lot, where people experiencing homelessness often congregated.

In addition to 14 regular monitoring visits in 2021, two supplementary visits were made: May 26=217 and Jun 7=151, for a total of 16 visits.

An early entry on May 26 (before the bulk of the roosting birds) appeared to be a pair. Multiple early entries and exits on June 7 and 22 seemed, however, to be related to the swifts occupying the roost, which remained active until late July. If there was a nesting attempt at Phoenix in 2021, it likely didn't last long. Some years there is a nest in this chimney, but not every year.

Other species commonly observed here were typical of the neighbourhood: House Sparrow, European Starling, Ring-billed Gull and Rock Pigeon. A bat was seen on August 24.



The view of the free-standing Phoenix chimney from a car parked in the Enterprise lot, looking northwest.

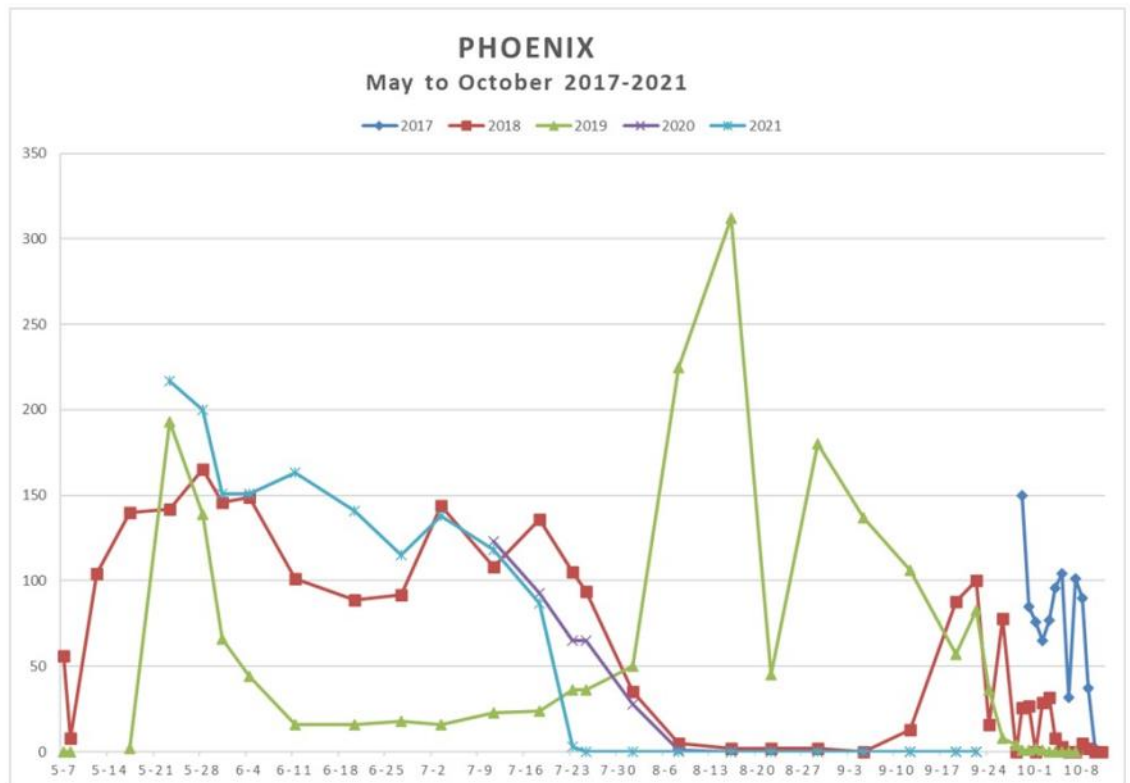


Figure 7. Numbers of swifts roosting in the Phoenix chimney, May to October, 2017 to 2021.

8.6 Old Hunt's Flour Mill / Flanagan's Warehouse, 471 (formerly 551) Nightingale Ave (Nova Craft Canoe)

Data are presented in **Table 5** (page 9) and **Figure 8**. The first 2021 visit was on June 3, when 73 swifts entered the chimney. Until August 17, numbers fluctuated between 38 and 85. On August 24, the count reached 114 and a week later hit 206, before dropping to 89 on September 7. The next two weeks the tally was 4, then 2. Hunt's was the last of the 13 chimneys to be occupied in the 2021 swift year (2 on September 21).

Compared to the previous three years (**Figure 8**), counts in 2021 tended to be lower through spring, summer and early fall. Then, an upward surge on August 31 produced the highest number (206) recorded in any of the three years. In 2021, Hunt's emptied out later than in the three previous years. As indicated in **Table 6**, in the past four years, Hunt's was the only one of the 13 monitored chimneys to hold a roost in at least a portion of each of the seasons of spring, summer and fall.

While monitoring at Hunt's on August 10, Brendon Samuels was approached by the manager of Nova Craft Canoe. He was invited to return another time and, from the vantage point of the roof top, photograph swifts entering the chimney. On August 26, Brendon and an assistant made the long climb to the top of the six-storey building and set up two cameras – an iPhone on the rim of the chimney and a camera on a tripod nearby. An estimated 200 swifts entered that night. iPhone footage filmed at eye level with the chimney top improved accuracy in distinguishing between swifts that entered the chimney and those that dropped down behind, something that has always been a challenge for counters watching the very high chimney at Hunt's. Here is a link to an 8-minute video clip from the iPhone on the rim: <https://www.youtube.com/watch?v=zM-mvmER4zM>. Be sure to check it out – this is as close as you'll ever get to a front row seat!

In addition to 16 regular monitoring visits, in 2021, 3 supplementary visits were made to the Hunt's chimney: Jun 3=73, Jun 10=62, and Aug 26=200, for a total of 19 visits.

The presence of a significant roost throughout the entire season made it difficult to assess nesting. Also, because the chimney is short and perched six storeys above ground, it is challenging to detect early inconspicuous entries and exits that might suggest nesting activity, though monitors have sometimes observed such activity in past years. It is unlikely a nesting attempt was made at this site in 2021. Some years there is a nesting attempt here, but not every year.

Other species seen included Great Blue Heron, Song Sparrow, Common Grackle, Northern Cardinal, Rock Pigeon, American Goldfinch, American Crow and House Sparrow. Mosquitoes can be bad at this location, July 27 being particularly notable.



The Hunt's chimney from the roof top, looking eastward, August 26, 2021. A camera and tripod are visible but the iPhone camera had not yet been set on the rim. (photo by Brendon Samuels)



The old Hunt's flour mill behind Nova Craft Canoe, August 26, 2021. The short, stubby chimney is on the edge of the roof. (photo by Brendon Samuels)

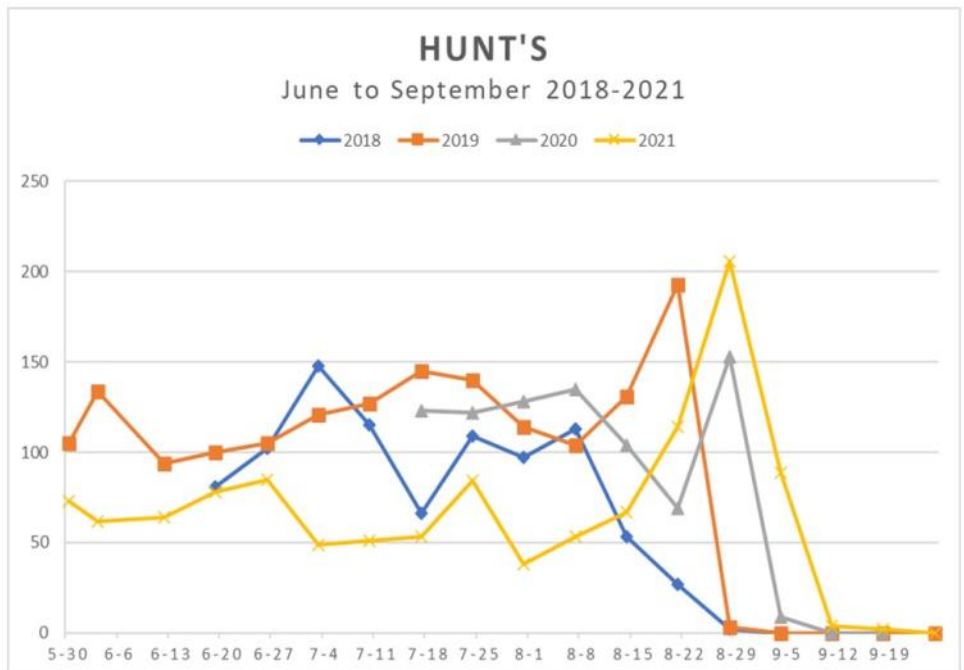


Figure 8. Numbers of swifts roosting in the Hunt's chimney, from the end of May to September, 2018 to 2021.

8.7 Huron College O’Neil/Ridley Hall, 1349 Western Rd

See **Table 5** (page 9) for results of 2021 counts and **Figure 9** for a comparison with past years. On June 4, the first visit of 2021, 37 swifts went down the chimney. Numbers held relatively steady during June. In July, they gradually increased to 87 on July 27. On the first three counts in August, the tally was above 100, peaking at 124 on August 10. After that came a quick slide to 64 on August 24, 1 on August 31, and 0 on September 7. Compared to 2018, 2019 and 2020, in 2021, numbers at Huron peaked earlier and with fewer swifts, and the chimney was abandoned earlier.

In addition to 15 regular monitoring visits in 2021, 2 supplementary visits were made: both on Jun 4=37, for a total of 17 visits.

Though a communal roost was present on the first visit, there was some suggestion that swifts may have been prospecting the chimney for nesting purposes. During June and July, despite some isolated early entries and occasional exits, it does not appear that a nesting attempt was made. This chimney does not seem to host a nesting attempt most years.

Of the 13 monitored chimneys, Huron College is usually the most reliable site at which to see or hear nighthawks during the nesting season (approximately mid-June through July). In past years nighthawks have regularly foraged in the vicinity. The 2021 nighthawk results at Huron were Jun 4=1, Jun 22=2, Aug 10=1, and Aug 24=2, for a total of 6 nighthawks on 4 dates. Since the Western campus is one of the few areas in the city where nighthawks have nested in recent years, it is noteworthy there was just one observation of nighthawks at Huron during the core of the 2021 nighthawk nesting season (Jun 22=2).

Several pairs of Barn Swallows nest and forage around O’Neil/Ridley Hall; they were mentioned in monitors’ reports from June 22 to August 17.

Being adjacent to the broad swath of woodland bordering Medway Creek, Huron is a good place to observe wildlife. Examples reported by monitors include 10 Killdeer (in the parking lot, Jun 29), Canada Geese (30 or more wandering the grounds or flying overhead, Jul and Aug), a Bald Eagle (Aug 24), and 3 young raccoons emerging from a nearby chimney (Jun 22). Also observed were groundhogs, grey treefrogs calling (Jun 29), dragonflies, chipmunks, Chipping Sparrows and grackles.

From time to time, monitors at Huron had opportunities to speak about swifts to students or campus police passing by.



A Barn Swallow sails past the Huron chimney, August 10, 2021. (photo by Glenn Berry)

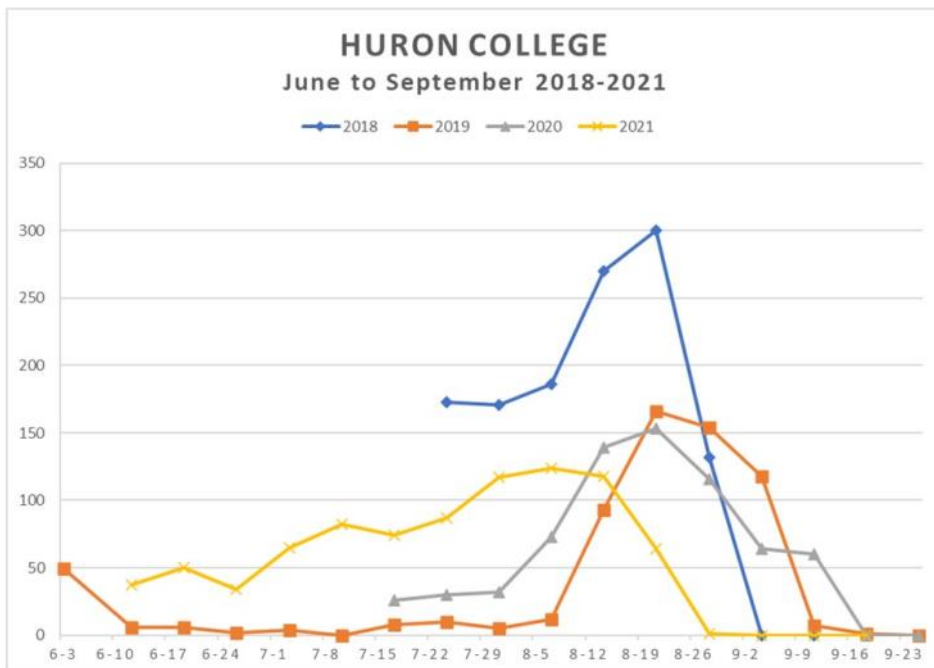
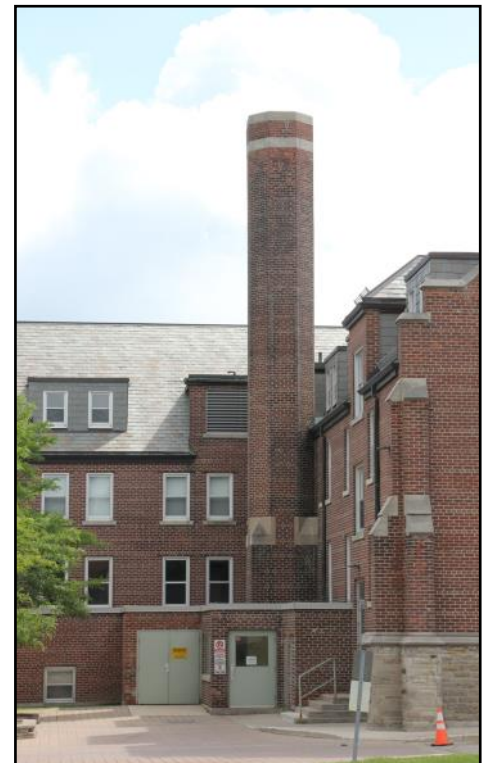


Figure 9. Numbers of swifts roosting in the chimney of O’Neil/Ridley Hall at Huron College, June to September, 2018 to 2021.



The big octagonal chimney at Huron College is a campus landmark.

8.8 Ryerson Public School, 940 Waterloo St

See **Table 5** (page 9) for Tuesday-evening results. From the first visit on May 16, the chimney usually hosted 2 swifts nightly right through the spring migration and breeding seasons, with four exceptions: Jun 22=1, Jul 6=0, and Aug 3=0. In the second half of August, 1 or 2 swifts stayed overnight. The chimney was empty on September 7 but had 6 swifts on September 14, the last night it was occupied. Although few swifts spent the night in the chimney, throughout the summer up to half a dozen swifts would sometimes be foraging in the area, raising the possibility that swifts might also be occupying other chimneys in the general neighbourhood.

On August 10, a flock of 30 swifts was circling above the chimney, though none went in. Roaming flocks of this sort are quite typical at this time of year and were noted in other parts of the city. Around the end of the breeding season, but before fall migration gets underway in earnest, swifts may be using this window to socialize with other swifts, check out possible roost chimneys, and scout chimneys as potential nesting sites for the following year.

Although there seemed to be a pair present through most of the season, numbers at Ryerson were by far the lowest in recent years, with only one tiny upward blip (September 14=6). By comparison, other recent years reported mini-roosts that lasted at least a few weeks: 2020=peak of 15 on Jul 28, 2019=peak of 15 on Aug 21, 2018=peak of 21 on Aug 29, and 2017=peak of 62 on Sep 1. Many years ago, Ryerson hosted very large roosts, e.g., 650 on Sep 20, 2005; 528 on Sep 20, 2006; 319 on Sep 2, 2008, and 188 on Aug 22, 2009.

Evidence of nesting activity is scant, though a pair of swifts was resident by May 16. In early June and later, swifts could be regularly seen foraging in the area during the day. Through June and July one or two swifts usually entered the chimney for the night, but sometimes they were absent. Occasional snatches of behaviour were observed that suggested the possibility of a nest inside, but these were not consistent. In the absence of daytime monitoring, there is no evidence to confirm a nesting attempt or to shed light on how long it might have lasted. Swifts continued to be present overnight until late August and once in September. In past years there has always been a nesting pair resident at Ryerson.

In February of 2021, I learned from a neighbour that the Ryerson chimney was sheathed in plastic and workmen were busy inside. I contacted school board officials and found that no alterations were being made to the interior or to the opening of the chimney that would deter future use by swifts. Masons were re-pinning the bricks on the exterior of the chimney. While work was in progress, the stack was shrouded in scaffolding and plastic sheathing. I advised those in charge of the work that a Threatened species used the chimney for nesting and of the necessity of having the work completed prior to the return of the swifts, expected as early as late April. I was assured that all work would be finished before the swifts came back.

Unfortunately, that was not the case. The top portion of the sheathing was removed by late April, but the rest remained, and work on the outside of the chimney actively continued during the daytime until well after the swifts had returned. It is assumed that noise and vibrations would be associated with the masonry work and other activity. The plastic sheathing was reported by neighbours to be quite noisy when it was windy. Undeterred by the disturbance or the strange appearance of their chimney, the swifts took up residence on schedule. What is not known is what effect the ongoing work may have had on the swifts' nesting efforts. Though a pair of swifts spent nights in the chimney throughout the season, they did not have a successful nest.

For a number of weeks during the summer, the Ryerson parking lot was torn up and monitors viewed the chimney from the east side of the school.

In addition to 16 regular monitoring visits in 2021, 7 supplementary visits were made: May 16=2, May 31=2, Jun 28=2, Jul 2=2, Jul 28=2, Aug 4=3, and Sep 25=0, for a total of 23 visits.

Nighthawks were recorded on Jun 28=1 and Aug 24=2.

Other species of interest reported included Carolina Wren, Baltimore Oriole, Great Blue Herons, mosquitoes and a skunk.

Monitors were sometimes joined by curious neighbours, especially Trish Gaudry, who carried out a number of monitoring sessions on her own. The school caretaker also took great interest in the doings of the resident swifts.



Left: Ryerson School on February 20, 2021, with its chimney sheathed in scaffolding covered in plastic sheeting. Right: the chimney on April 27, 2021, showing the exposed chimney top.

8.9 Elborn College, 1201 Western Rd

See **Table 5** (page 9) for results of Tuesday-night counts at Elborn. Swifts were using the chimney on every visit from May 20 (3 birds) until September 14 (6 birds). Akin to the situation in the previous two years, throughout the season, the chimney usually held more swifts than a basic pair and a helper, but never quite enough to constitute a serious roost. The peak count was 10 swifts on August 31. High counts for the two most recent years were remarkably similar: 2020=11 (Aug 25), and 2019=12 (Jul 10). But, in 2018, from mid-May to early September, on nine count nights the chimney held between 10 and 20 swifts, and, in late August and early September, the tally was 24 on two nights and 59 on one night (Aug 29).

The chimney at Huron College, 600 m to the north, hosted a roost from spring through to the third week of August, and may have been serving as the major overnight accommodation for swifts in this part of the city. Interestingly, though numbers were small (Sep 7=4, Sep 14=6), Elborn held swifts for two weeks after Huron had become empty.

In addition to 16 regular monitoring visits in 2021, two supplementary visits were made: May 20=3 and Jun 7=5, for a total of 18 monitoring visits.

Of five swifts that spent the night inside on June 7, two that entered together may have been a pair. Possible nest-building behaviour was observed on July 6. Although small numbers of swifts occupied the chimney until September 14, there were no real indications of a serious nesting attempt. In other years, this chimney always had a handful of swifts present during the nesting season, but evidence for success of any nesting attempt was usually scant.

The only nighthawk reported was on August 11 (1 bird).

In past years, a pair of Barn Swallows has usually nested over the doorway in the alcove along the east side of the building, but this year no swallows were reported.

An interesting mix of other wildlife usually shows up at Elborn each year. Here are some highlights noted in 2021: Jun 15=skunk and groundhog; Jun 22=Merlin being harassed by a smaller bird; Jul 6=Killdeer, Red-tailed Hawk, Song Sparrow, and chipmunk; Sep 14=resident flock of Canada Geese wandering around the parking lot; Sep 21=deer eating acorns under the Bur Oak.



Elborn College.

8.10 First-St. Andrew's United Church, 350 Queens Ave

See **Table 5** (page 9) for the Tuesday-evening data from the four chimneys monitored at FSA. As happened in 2020, due to COVID concerns, there were few events taking place at the church, and the parking lot was usually empty. This made it easier for monitors watching the FSA-N and FSA-S chimneys to station themselves in precisely the right spot in the parking lot for optimal viewing of these two chimneys. If only one monitor was available to cover both chimneys on a particular night, for safety reasons, that person watched from the area of the driveway in front of the church. Reduced traffic using the driveway in 2021 also meant fewer distractions for monitors watching FSA-SE and FSA-NE from that general area (south of the church's administration wing).

Although some people experiencing homelessness camped overnight around the grounds of FSA in 2021, their presence was not as frequent as in 2020, and monitors reported no problems.

In 2021, nesting activity was observed at all four chimneys. Attendance at chimneys was generally poor, and only at FSA-SE and FSA-S is there a possibility of any fledged young. See sections below for additional details.

On the morning of June 16, a swift was seen flying through fine dead branch tips in a large tree just north of the church. It was apparently attempting to break off a twig for use in nest-building. The swift flew off to the north. Either it was unsuccessful in obtaining the twig, or it was carrying it to another active nest chimney in the neighbourhood. Because the swift did not return to any of the four monitored FSA chimneys, it is impossible to know if it may have been associated with a nesting attempt in any one of these.

Because these four swift chimneys, as well as a fifth on the northwest corner of the sanctuary, were located in relatively close proximity, during monitoring sessions there were often a number of swifts chasing, chattering and foraging over the area. Maximum numbers seen overhead at once were Jul 6=11, Jul 13=8, Jul 20=12, Jul 27=6, Aug 3=20, Aug 10=30, Aug 17=5, Aug 24=12, Aug 31=20, Sep 7=5, Sep 17 and 21=0. In August and September many of the swifts seen flying above the church may have been birds that ultimately spent the night at the roost at 388 Dundas, one block to the south, which was active at the time.

The four chimneys were abandoned for the season on different dates, spread over five weeks: FSA-SE was last occupied on Aug 17, FSA-NE on Jul 20, FSA-N on Aug 24, and FSA-S on Aug 10.

No nighthawks were reported from FSA in 2021. One bat was seen on July 6.

As has been usual at FSA in past summers, American Kestrels fly around the area, regularly perching on the spire and rooftop and sometimes disappearing into an alcove on the steeple. The 2021 observations are as follows: Jul 13=1, Jul 20=1, Aug 3=1, and Aug 10=2 (possibly 3).

In 2020, a Merlin regularly hunted around FSA in late summer when swifts were trying to enter the FSA-N chimney to roost for the night. The Merlin may well have caused the sudden early abandonment of this roost last year. In 2021 no FSA chimney hosted a roost during fall migration. On one occasion (September 7), about 25 minutes before sunset, a screaming Merlin flew low over the church. Also on September 7, a Peregrine Falcon perched for a spell on a neighbouring building. These raptors would have been of no threat to the FSA swifts, because the last date of swift occupancy for any of the four chimneys had been August 24.

Other wildlife observations of interest included 5 skunks (Jul 13), a groundhog (Aug 3) and a bat (Jul 6).

FSA-SE: Two swifts spent the night inside on June 3 and 15. Thereafter there was a relative scarcity of observations of behaviours such as incubation exchanges or feeding of nestlings. During evening monitoring, presence of swifts in the chimney was inconsistent from week to week, and no entries or exits were observed at all during watches on June 22 and July 27. A low level of attendance at a nest reduces the likelihood of successfully fledging young.

Yet, during intermittent mid-afternoon observations on July 15, on two separate occasions, about an hour apart, a swift emerged from the chimney, an indication of nesting activity. Feeding behaviour was seen during evening watches on July 20, August 3 and possibly August 10. Although no more than 1 or 2 swifts had spent the night in this chimney in previous weeks, there was a sudden increase on August 17, when 5 swifts did so. This raises the possibility that these were recent fledglings from this chimney. If so, this would be a relatively late nesting. It is also possible the extra swifts originated from another chimney, perhaps FSA-S, which was not occupied that night but had been the previous week. August 17 was the last night FSA-SE had any swifts stay overnight. FSA-SE traditionally hosts a nest each year.

In addition to 15 regular monitoring visits in 2021, two supplementary visits were made: Jun 3=2 and Jul 15=2 daytime exits, for a total of 17 monitoring visits.

In 2020, this chimney was abandoned shortly after it was buzzed by a recreational drone on July 4.

FSA-NE: On June 3, 2 swifts spent the night in this chimney. On June 7, 6 swifts were inside, suggesting that some swifts were either still migrating or else moving around among local chimneys. In the next six weeks, 1, 2 or 3 swifts overnighted, though no swifts went inside on July 6. On June 22, two entering together may have been involved in nest building. On June 29 and July 13, monitoring observations showed a nest was being tended. July 20 was the last night the chimney was occupied, when two swifts entered independently. Although it appears there was a nesting attempt, it could not have been successful, as the timing and inconsistency of earlier nest-related behaviours would not support a fledging this early in the season.

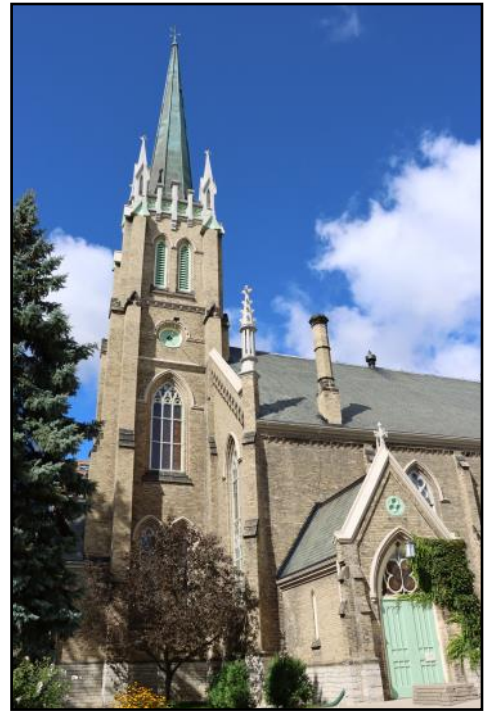
In addition to 15 regular monitoring visits in 2021, two supplementary visits were made: Jun 3=2 and Jun 6=7, for a total of 17 monitoring visits.

FSA-N: From the initial visit on June 3 (5 swifts inside) until the last night of occupancy on August 24 (1 inside), swifts used the chimney every monitoring night. Three swifts overnighted on June 7. Two daytime entries were observed – one on June 9 and the other on June 24, indicating a nesting effort was ongoing on those dates. On the June 24 visit, 2 swifts approached the chimney together; one entered and one peeled off, a behaviour pattern typical of nest building.

One or two swifts plus sometimes a few others entered the chimney for the night until late August. Along the way, there was scant evidence during evening visits of a nest being tended or of food deliveries (one exit on July 20). At some point it would appear the nesting effort petered out. The level of attendance at the chimney does not support a conclusion that any young could have been fledged, despite a jump to 5 birds present on August 17.

Through the season, the number of birds inside for the night was frequently larger than would be normally expected at a nest-only chimney: Jun 22=7; Jun 29, Jul 13 and 20=4; Jul 27 and Aug 17=5. Who the extra birds were is a mystery, but their presence makes it hard to assess nesting activity. More daytime visits would have been helpful. This chimney traditionally hosts a nest or at least an attempt.

In addition to 15 regular monitoring visits in 2021, 5 supplementary visits were made: Jun 3=5, Jun 7=3, Jun 9=1 daytime entry, Jun 16=daytime twig gathering in area, and Jun 24=1 daytime entry, for a total of 20 monitoring visits.



The slim round chimney with the black top (on the lower edge of the roof to the right of the steeple) is known as FSA-SE. It may have fledged some young in 2021.

FSA-S: The earliest visits of the season, on June 3 and 7, recorded 3 and 2 swifts, respectively, inside for the night. A pair also spent the night on June 15 and 23. In the next couple of weeks, 3 or 4 swifts overnighted, but only one did on July 13. On three monitoring evenings, beginning on July 20 and continuing to August 3, six or seven swifts spent the night in this chimney. During most evening watches from late June to early August, there were exits as well as entries, in a confusing pattern that may suggest 1 or 2 helper birds were among the extra “boarders” using the chimney. Two daytime entries were noted: July 15=1 entry (resembled nest-building behaviour) and another on the morning of August 7. On this occasion a bird (possibly a fledgling) beating its wings hard and fast was circling the area of the chimney.

On August 10 the number inside for the night jumped to 9. It is quite possible the increase included some recently fledged birds. The presence of extra swifts all along, less than conclusive observations of nest tending in previous weeks, and the fact that newly flying swift youngsters sometimes spend nights in other than their home chimney makes it difficult to interpret, but it is quite possible some young fledged from this nest. This chimney usually hosts a nest.

In addition to 15 regular monitoring visits in 2021, 4 supplementary visits were made: Jun 3=3, Jun 7=2, Jul 15=1 daytime entry, and Aug 7=1 daytime entry, for a total of 19 monitoring visits.

9.0 Five Additional Chimneys that were Regularly Monitored (Mainly in August and/or September)

In August and September of 2021, three additional chimneys that were hosting active roosts came to our attention. Two were previously known as roosts but had been checked only occasionally in recent years, at which times they had not shown indications of hosting a communal roost. For two of the roost chimneys (Kingsway North and 388 Dundas), a nearby chimney was also being used by swifts and was close enough that it could easily be monitored at the same time. Thanks to Sandy Symmes, who arranged the extra monitoring effort that allowed swift numbers at these five chimneys to be tracked in the later part of the season. Monitoring results are presented in **Tables 7, 8 and 9**, and are discussed below.

9.1 Kingsway Academy, 370 Huron St

Kingsway Academy (formerly Aquinas House, St. Peter’s Seminary) is operated by King’s University College. The two large chimneys on the rear (east side) of the academy are not visible from the front. The building is at the north end of a laneway located opposite the north end of Colborne St, and tucked in behind Merry-mount Family Support and Crisis Centre.

For the past couple of years, Trish Gaudry, a neighbour who frequently enjoys walks in this area, had been suspecting swifts might be occupying the two big chimneys at Kingsway. In June 2021, after noticing swifts swirling around the building during both daytime and evening walks, Trish decided to check things out. On June 19, she carried out a swift monitoring session and found 2 swifts in each chimney for the night. She immediately reported her findings to Nature London. Needless to say, we were delighted, as this building had never been on our radar for swift chimneys. For the rest of the summer, Trish paid regular monitoring visits to Kingsway, documenting the activity at the two nest chimneys. On August 9, she discovered the north chimney was hosting a roost. Soon after, both chimneys were added to the list of chimneys monitored by Nature London on Tuesday nights. See **Table 7** and details below.

Kingsway is three and a half stories high and set in lovely park-like grounds, surrounded by expansive lawns and scattered mature trees. Just behind the building, the wooded bluff drops abruptly down to a small stream and wetland, which form the western portion of Huron Street Woods. The area drains northward a short distance to the North Thames River. Swifts often forage over this natural corridor.

The newly discovered roost at Kingsway-N turned out to be a godsend in early September, when two out-of-town wildlife rehabilitation facilities advised us of their plans to come to London to release young swifts they had raised. An ideal release site is near a chimney that had at least 75–100 swifts in it the night before and is located in a relatively natural setting, well away from traffic. As the days crept by, our usual best London release sites – King’s, South, Smith Fruit and Huron – emptied out one by one. Fortunately, Kingsway still harboured swifts and fit the bill perfectly. Read the whole story on pages 28 and 29.

At the first of September, piping/scaffolding was installed on the roof of the building while upgrades were being carried out. The work took place in the daytime and did not involve the chimneys. The swifts seemed to take no notice of the noise or the presence of humans on the roof.



The rear (east side) of Kingsway Academy, south chimney on left, north chimney on right.

On July 1, about 8:30 pm, swifts foraging around Kingsway scattered at the sound of fireworks in the distance.

Common Nighthawks were observed on 6 evenings: Aug 10=2, Aug 13=1, Aug 17=1, Aug 31=2, Sep 2=1, and Sep 3=2, for a total of 9 nighthawks. This is the largest number of nighthawks and of reporting dates of any of the chimneys monitored in London in 2021.

Being so close to natural habitat makes Kingsway an ideal location to observe other species of wildlife. During monitoring visits, Northern Flicker, Red-bellied Woodpecker and Bald Eagle were among birds reported. A couple of Red-tailed Hawks that nested in the area were often around, as were their nemesis, Blue Jays. On Aug 10, thousands of Common Grackles passed overhead. Mammals seen included raccoons (Jun 20=2) and bats (1 each on Aug 10, 20 and 24). By mid-July, mosquitoes were abundant and continued to be so until late August. Large dragonflies were seen, and choruses of cicadas, crickets and toads were heard.

On several occasions monitors had the opportunity to share information about swifts with passers-by, including campus police. All seemed interested in the little birds in the chimney.

Kingsway-N: See **Table 7** and **Figure 10**. Monitoring began on June 19, when a number of entries and exits were observed, and 2 swifts spent the night in the chimney. Most evenings from then until late July, 2 swifts (but sometimes, 1, 3 or 5) went inside for the night. Courtship behaviour was observed and there were usually some entries and exits, indicating a nest was being tended. Swifts were also visible around the building in the daytime.

On July 27, just 2 swifts entered for the night and there was no evidence of feeding visits. On August 9, 43 swifts went in. Meanwhile, at the roost at nearby King’s College Wemple Building, numbers were tapering off just as they were increasing at Kingsway. From August 13 to September 8, more than 100 swifts went into the Kingsway-N chimney on each count night. Highest tally was 218 on August 20. Abandonment of the chimney for the season was fairly swift; the number dropped from 159 on September 8 to 0 on the next visit – September 14, though 12 swifts were in the area that evening.

As soon as the chimney became active as a roost site, it was no longer possible to distinguish any entries or exits that might indicate nesting activity was continuing. The pair seemed to be present on July 27, but the last evidence of a nest being tended occurred in mid-July. Though gaps between monitoring visits were too lengthy to be sure, it seems likely the nesting effort was unsuccessful.

Monitoring was carried out on 24 visits from June 19 to September 28.

Kingsway-S: Count results are presented in **Table 7**. A pair was present on June 19. From then until July 1, three or four swifts spent the night in the chimney. In July, August and early September, the usual number of swifts in for the night was one or two, suggesting a pair continued to be resident. The chimney was last occupied on September 8.

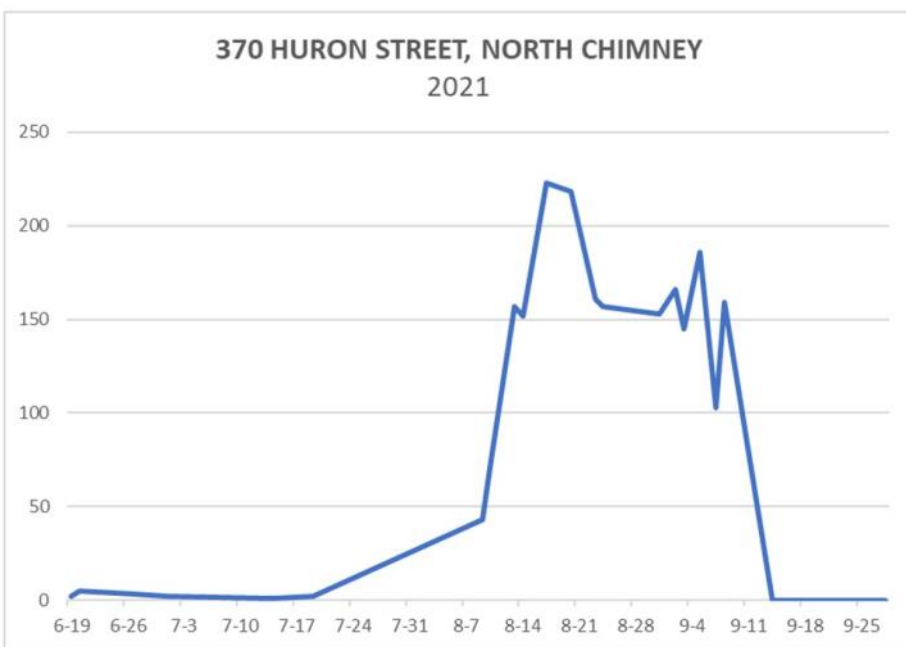


Figure 10. Numbers of swifts roosting in the chimney at Kingsway-North, 370 Huron St, June to September, 2021.

During monitoring visits until early August, only rarely were any exits from the chimney observed. If a nest were present, few food deliveries were being made. A number of entries and exits on August 10 might have been recently fledged swifts practising chimney-diving skills, but only one swift ended up inside for the night. There is no real evidence to indicate a successful nesting venture. Unfortunately, visits in July and early August were not frequent enough to be sure of the outcome of any nesting effort.

Monitoring was carried out on 24 visits from June 19 to September 28.

Table 7. Results of counts at Kingsway North and South chimneys, June to September, 2021.

| Date | North | South |
|--------|-------|-------|
| 19-Jun | 2 | 2 |
| 20-Jun | 5 | 4 |
| 27-Jun | 3 | 4 |
| 01-Jul | 2 | 3 |
| 14-Jul | 1 | 1 |
| 19-Jul | 2 | 2 |
| 27-Jul | 2 | 2 |
| 09-Aug | 43 | 0 |
| 10-Aug | 71 | 1 |
| 13-Aug | 157 | 2 |
| 14-Aug | 152 | 1 |
| 17-Aug | 223 | 2 |
| 20-Aug | 218 | 1 |
| 23-Aug | 161 | 2 |
| 24-Aug | 157 | 1 |
| 31-Aug | 153 | 1 |
| 02-Sep | 166 | 1 |
| 03-Sep | 145 | 1 |
| 05-Sep | 186 | 0 |
| 07-Sep | 103 | 1 |
| 08-Sep | 159 | 1 |
| 14-Sep | 0 | 0 |
| 21-Sep | 0 | 0 |
| 28-Sep | 0 | 0 |

9.2 388 Dundas St (former tax office)

The large three-storey building that once housed the tax office is located on the north side of Dundas St, just west of Colborne. For the past few decades, it has mostly been empty. Its squat square chimney is placed well back from Dundas and is most easily seen from Colborne St, where a parking lot just north of the Fred Astaire Dance Studio allows a clear view.

This chimney was first identified as being used by swifts when one entered on September 25, 2006. In 2007 the chimney was occupied by a substantial roost through August and September, peaking at a count of 448 on September 2. In 2009, numbers peaked at 573 on August 30. In subsequent years the chimney was monitored less consistently but did not host a roost every year, though sometimes there appeared to be nesting activity. In recent years we have tried to do spot checks at least once a year, usually in early August to see if a roost might be developing. It has been many years since a roost has been detected, likely because there was no roost in that particular year, or because our visits didn't happen to take place on dates when a communal roost was present.

During a spot check on August 14, 2021, 116 swifts were counted heading into the chimney for the night and regular visits began. See **Table 8** and **Figure 11**. Numbers peaked at 203 on August 24. The chimney was last occupied on September 21 when 33 swifts entered, after which 11 swifts flew out, leaving 22 inside for the night. It is not known where the departing birds spent the night, but the ICORR building is a possible destination. Of the 10 chimneys monitored that evening, only two others held swifts – 2 at Hunt's and 67 at ICORR.

On August 24 an American Kestrel landed briefly on the corner of a nearby building. On September 1, 5 minutes after sunset, a fast-moving Merlin flew through the flock of swifts swirling above the chimney. This disruption caused the swifts to scatter briefly but they began returning within a few minutes. The Merlin did not appear to have captured a swift and did not linger in the area.

Monitoring was carried out on nine evenings from August 14 to September 28.

Monitors at this site sometimes had the opportunity to chat with passers-by or patrons of the dance studio and explain about swifts.



Chimneys used by swifts at 388 Dundas (left) and 423 Colborne (right).



Close-up view of chimney at 388 Dundas.

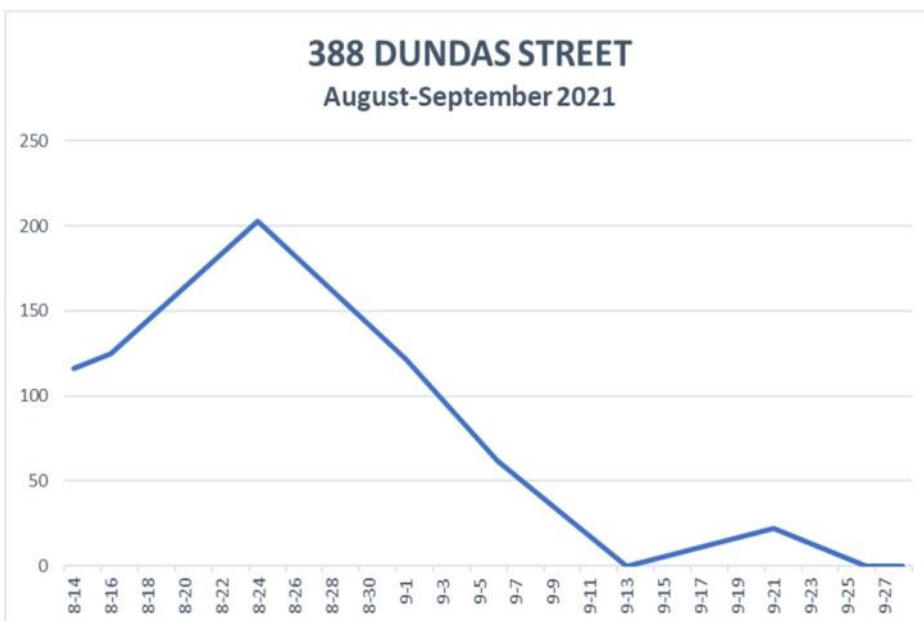


Figure 11. Numbers of swifts roosting in the chimney at 388 Dundas, August and September, 2021.

Table 8. Results of counts at 388 Dundas and 423 Colborne in August and September, 2021.

| | 388 Dundas | 423 Colborne |
|--------|------------|--------------|
| 14-Aug | 116 | 2 |
| 16-Aug | 125 | 2 |
| 24-Aug | 203 | 5 |
| 01-Sep | 122 | 1 |
| 06-Sep | 62 | 3 |
| 13-Sep | 0 | 2 |
| 21-Sep | 22 | 0 |
| 26-Sep | 0 | 0 |
| 28-Sep | 0 | 0 |

9.3 423 Colborne St

This heritage home is located on the west side of Colborne St, just north of the parking lot behind the Fred Astaire Dance Studio. The building now houses a number of apartments. On the third storey, near the southeast corner, a double-shafted chimney emerges from the edge of the Mansard roof. The shaft's exterior dimensions are just 2 bricks by 2 bricks, and it is topped by a tapering chimney pot. This creates an unusually narrow chimney entrance, in the size range often considered too small to be acceptable for swifts, though swifts may not know that. It is known that swifts will sometimes enter a chimney or other shaft via a small opening and passageway, providing it widens out farther down. In this case, just above roof level, the two shafts of the chimney join, presumably to become one wider space below.

On August 2, 2011, when monitors in the adjacent parking lot were observing the chimney at 388 Dundas, a swarm of swifts was circling above the chimney pot and 2 birds entered for the night. Over the years, the 423 Colborne chimney has been used a number of times for nesting purposes, but it is not occupied every year. On August 16, 2015, it hosted a roost of 24 swifts. Things must have been cozy inside!

On August 14, 2021, when 388 Dundas was being checked, 423 Colborne was found to be occupied too, and regular visits were commenced. It was last occupied on September 13 (2 birds). See **Table 8** for results.

During visits on August 14 and 16, the pattern of entries and exits indicated young swifts were being fed inside the chimney. On August 24, 5 swifts entered for the night, an increase from the usual 2 swifts of previous visits. Four were skilled flyers. One, clearly a youngster with poorly developed flying skills (likely the smallest nestling of the brood), made about a dozen clumsy attempts before successfully negotiating entry. Over and over again, it circled tightly around the chimney and tried to drop in, each time instead hitting the far edge of the rim of the pot and briefly sliding down the outside. I cheered when it finally disappeared into the hole.

It is very likely that at least one youngster fledged from this chimney, and, based on the skill level demonstrated, probably not more than a couple of days earlier. An approximate date of August 21/22 represents an unusually late date for fledging. This may suggest a delayed start to nesting (perhaps due to adverse weather conditions early in the season) or a second nesting attempt after the failure of a first nest. In this year when it seemed that relatively few London swift nests were successful, this is definitely a good news story. From one to three swifts continued to occupy the chimney until September 13.

Monitoring was carried out on nine evenings from August 14 to September 28.



Close up of chimney used by swifts at 423 Colborne. Swifts entered the shaft through the "pot" on top of the chimney shaft on the right.

9.4 ICORR (formerly Selby Shoes), 700 Richmond St

Swifts were first discovered to be using the ICORR chimney on July 14, 2007, when 3 swifts entered. On August 20, 2009, a roost of 51 swifts spent the night inside. Over the years since then, the chimney has been checked intermittently, but never more than a few birds have been found to be resident, likely indicating occupancy for nesting purposes.

In late August and early September of 2021, Marguerite Annen began reporting flocks of swifts chattering and foraging high overhead in the early evenings. The activity seemed to be centred within a few blocks of Richmond St and the CPR tracks, sometimes to the east, but



Above: the ICORR chimney from Richmond St (looking northeast). Right: the chimney from the interior of the Richmond / Pall Mall block, the general area from which monitoring was carried out (looking northwest).



Table 9. Results of counts at ICORR, September, 2021.

| Date | Count |
|--------|-------|
| 11-Sep | 150 |
| 12-Sep | 111 |
| 15-Sep | 105 |
| 17-Sep | 136 |
| 18-Sep | 70 |
| 20-Sep | 19 |
| 21-Sep | 67 |
| 23-Sep | 13 |
| 24-Sep | 94 |
| 25-Sep | 100 |
| 26-Sep | 71 |
| 27-Sep | 67 |
| 27-Sep | 67 |
| 28-Sep | 2 |
| 29-Sep | 0 |
| 01-Oct | 0 |

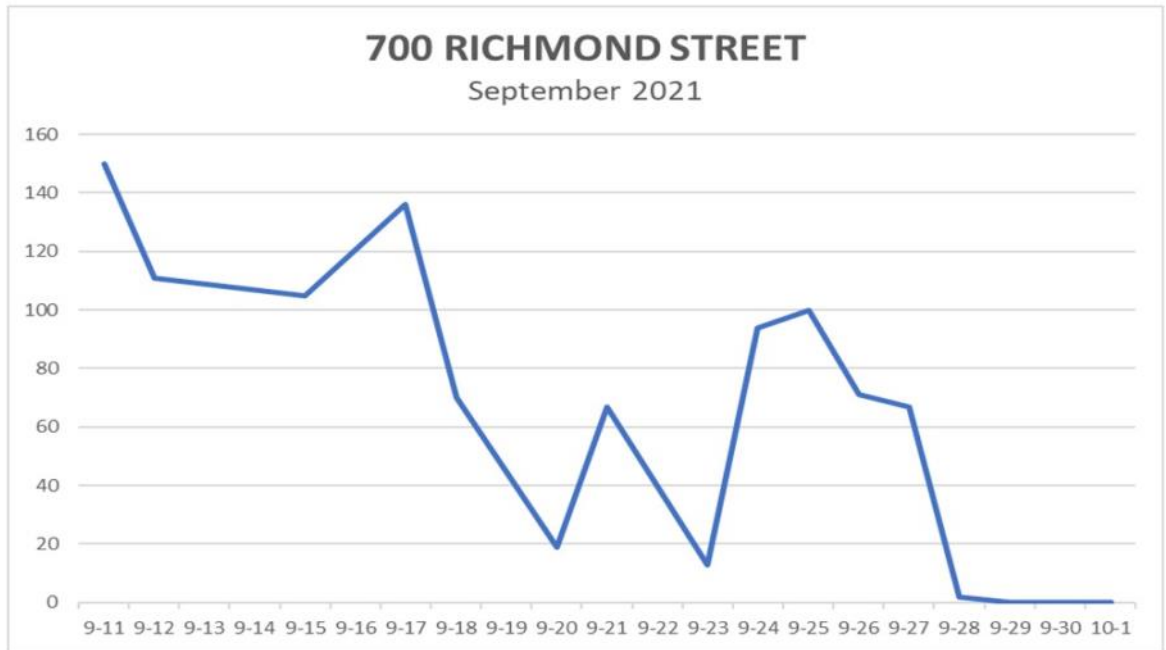


Figure 12. Numbers of swifts roosting in the ICORR chimney in September, 2021.

often north or west. After several unsuccessful attempts to follow the birds to their overnight roost, on September 11, the swifts were observed entering the chimney of the ICORR building.

Marguerite, as well as Debbie Lefebvre, who also lives in the neighbourhood, later recalled hearing early evening swift twitterings from this general area in the past few years. The ICORR roost may have been active prior to 2021.

The ICORR chimney is relatively short, but the building itself is fairly high (five stories) and has roof-top infrastructure that blocks the view of the chimney from certain directions. This means that volunteers must be some distance away to see the chimney. Most monitoring was done from the interior of the Richmond / Pall Mall block, in the vicinity of the Chamber of Commerce Building or the sidewalk near the backdoor entrance to Oscar Taylor’s Pub (Park Hotel, 242 Pall Mall St).

In 2021, 16 monitoring visits were made to ICORR from September 11 to October 1. See **Table 9** and **Figure 12** for results. There may be plausible explanations for some of the sharp ups and downs in count tallies. The dip in numbers to 19 swifts on September 20 may be due to waves of migrants passing through the city; that date may have fallen between waves. On the wet, cold (11 °C) evening of September 23, all swifts were inside prior to sunset; if others had entered before the watch started, this might account for the low tally of 13 birds.

Not surprisingly, the high count – 150 swifts – was obtained the first night, as by then most London roosts were empty or rapidly dwindling (e.g., on September 14, ICORR held 105 swifts, while Labatt’s hosted 350 and four other chimneys each held 6 or fewer). In 2021 ICORR was the last known London chimney to harbour swifts (September 28=2), a week later than any other roost.

Information on the daytime use of chimneys for roosting purposes is exceedingly scant so, when such reports come in, they are much appreciated. Marguerite Annen happened to be looking out her window about 1 pm on September 25 when she saw about 100 swifts circling, somewhat lower than she was used to seeing swifts forage. Recognizing that it is unusual to see so many swifts together at that time of day, she paid close attention. Before long, the flock entered the ICORR chimney. At the time, it was raining steadily and the temperature was coolish (14 °C). It is presumed the swifts were taking shelter from the inclement weather. For another example of daytime roosting (this time in nice weather), see page 14.

While monitoring at ICORR, volunteers themselves were usually being watched by some 25 Rock Pigeons enjoying a bird’s-eye view from perches atop the Chamber of Commerce Building (except when put to flight by a Red-tailed Hawk). Two nighthawks were observed on September 15. On September 12, a skunk strolled by.

On several occasions, monitors had opportunities to share information about swifts with passers-by.



Monitoring the ICORR chimney from near the back entrance to Oscar Taylor’s Pub.

10.0 In Pursuit of Accuracy in Counting Swifts

Ever since we began organized counting of swifts at London roosts back in the fall of 2003, we have recognized the challenge of trying to come up with numbers that are as accurate as possible. Since all our work is done by visual observation from ground level, the difficulty of the task on any given day depends on multiple factors. Height of the chimney above the ground and above the rooftop, width of the chimney, presence of security and other lights, and availability of clear sight lines that allow the chimney to be silhouetted against the northwest sky all are important. Weather can make a difference, as can light levels and numbers of swifts.

Another significant variable during any watch is swift behaviour. Nesting birds might evade detection by choosing to depart by barely clearing the back rim of the chimney and flying directly away. The later that swifts retire after the sun has set, the harder they are to see. The biggest challenge, however, presents itself when large numbers enter in a compressed time period, especially if they have formed a swirling, dipping flock and many birds are either dropping down behind the chimney or deciding to abort an entry at the last possible moment.

In such circumstances, there are a number of tactics for coming up with the most accurate tally possible – counting by 5s or 10s or 25s, averaging independent counts, jotting down numbers when there is a lull in the action, and so on. We all do our very best. Some days some of us probably count a little high and other days a little low, but since we have no way of knowing the actual number, we assume everything averages out in the end. Regardless, our results, when combined with data from other parts of Ontario, make an important contribution to the knowledge of swift numbers and help experts calculate population trends. Sincere thanks to every monitor.

At some point, each of you has probably had the thought that somehow, someday, there must be a better, more accurate way to count, perhaps involving a camera. Some of us have even tried making a video recording of swifts entering a chimney, then playing it back in slow motion to try to count that way. Because swifts move so very fast, that usually results in very blurry overlapping black bodies that are totally uncountable. Fortunately, some of our London monitors have started to think outside the box and experiment with new approaches to address the problem.

As described on page 17, Brendon Samuels tried shooting video at eye level with the chimney top. This makes it easier to distinguish between swifts that enter and those that drop behind.

Another swift monitor, Glenn Berry, is a skilled photographer who knows his way around the world of technology. Through the summer he worked on perfecting some innovative approaches to counting swifts. He found that shooting video at double the normal speed, combined with a fast shutter speed, was helpful. These recordings of swifts descending into chimneys can be played back later in slow motion, such that each frame is in focus and individual birds can be distinguished and counted. Using this method, Glenn and his wife, Susan, have been able to determine very precise counts. He shot this 42-second video on September 27 at ICORR: <https://youtu.be/WwnOwtoDeiM>. After analyzing the footage, he determined an actual count of 67 swifts in for the night. Check it out and see what your best estimate/count is. (Confession: my on-the-ground count that evening was 57.)

Swift counting via sophisticated video approaches is unlikely to become commonplace any time soon. Such monitoring requires expensive equipment, a skilled operator and considerable time to review the footage later. Most of us will continue to do our very best at counting/estimating from the ground using our eyes (and sometimes binoculars). But, we are very proud to know that fellow monitors here in London are leading the way in advancing the science of accurately counting swifts entering roost chimneys.

Left: this series of frames from a video shows a single swift making body and wing adjustments and using its tail to brake and control its descent into the Labatt's chimney. (photo sequence by Glenn Berry)



Above: A single screen shot taken during the heat of the action at ICORR on September 27. In order to count the entries, the footage was reviewed frame by frame. At the time, it was so dark (11 minutes after sunset) a slow shutter speed and a high ISO were used. (photo by Glenn Berry)

11.0 Facilitating the Release of Hand-reared Chimney Swifts

Sometimes a swift nest becomes detached from the chimney wall and falls to the bottom (e.g., in a fireplace). If survivors are discovered and it proves impossible to reinstall the nest in the shaft, young swifts may end up in a wildlife rehabilitation centre. Swift babies are notoriously challenging to raise well in such a setting. To thrive, they require a specialized diet and very frequent feedings, usually by only one or two people, as the birds tend to bond (but not imprint) on caregivers. In the wild, young swifts usually leave their home chimney when they are about four weeks old but continue to be under some degree of parental tutelage for a number of days afterwards.

Some wildlife rehab facilities have developed specialized skills in providing superior care for swifts, following rigorous protocols to optimize the likelihood of survival after release. Swift youngsters must meet a long list of readiness requirements. Some of the criteria relate to developmental stages, while others involve flight skills, including ability to gain height, negotiate turns and dive into the opening of a surrogate chimney. By the time they are deemed ready to graduate to life in the wild, such rehabbed young swifts are usually about six weeks old. If they came from a late nest located relatively far north in the species' range, by then most local wild swifts may have already left on migration.

The best-practices protocol specifies that youngsters be released into a flock of wild swifts, but rehab centres often do not have knowledge of local swift roosts and, when they do, these may be empty by the time late-maturing young swifts are ready to go. For many years, the Nature London swift monitoring program has been assisting with releases by rehab centres committed to giving young swifts the very best possible chance of making it in the wild.

In late August, 2021, we were contacted by two wildlife rehab centres – one in eastern Ontario and one in southern Quebec. Both hoped to bring young swifts to London for release. Actual dates would depend on how quickly their young charges reached readiness, availability of a window of fine weather, and whether Nature London could supply a roost chimney that was in a natural setting (away from traffic and other hazards) and had held a suitable number of swifts (at least 75 to 100) the night before.

As August waned, we started keeping much closer track of swift numbers at local roosts. Numbers fell off at Huron and Smith Fruit, two ideal release sites that have been used in past years. Only Labatt's, Hunt's, 388 Dundas and Kingsway still held enough swifts. Of these, only Kingsway had the natural surroundings preferred for a safe release. With only one location remaining in the "suitable" pool, we held our breath and wondered how long the Kingsway swifts would stay. Knowing there are no guarantees, we contacted the rehabbers and urged them to come as soon as the readiness of their birds would allow. Over the next number of days, a flurry of emails flew back and forth.

Connie Black of Destined to Fly in Harrowsmith had three swifts very close to being ready. With a stretch of wet weather looming, she decided to give them an extra couple of days, then make a run for it and get to London without further delay. Her swift youngsters were released at Kingsway on the early evening of September 3, and made a fine

showing on their first wild flight, circling above the lawns and parking lot. As always happens in such cases, wild swifts that were high overhead in the general area spotted the youngsters and came down to greet them. Soon many swifts were swirling around together at low altitude. Gradually the group moved upward to do some more foraging before it was time to head downward and enter the Kingsway chimney for the night. The count that evening was 145.



The release of 3 swifts from Destined to Fly, Harrowsmith, ON, Sep 3, 2021, at Kingsway Academy, London ON.

- 1 Connie Black unzipping the travelling case.
- 2 Taking off in a blur of wings.
- 3 Airborne!
- 4 Part of the flock entering the north chimney at Kingsway to roost for the night.



Sue Wylie of Le Nichoir in Hudson, Quebec had a couple of swifts that were simply not ready. She opted to wait until the weather improved. She and her assistant drove from Quebec on September 8. Her first task was to release 4 Cliff Swallows and 1 Barn Swallow. We helped her choose a location on the lawn of King's College somewhat east of the parking lot near where we monitor swifts. When their soft-sided travelling cage was unzipped, each swallow took off like a shot and never looked back.

Next on the list of Sue's travellers was a Common Nighthawk. We helped Sue select a secluded woodland location behind St. Peter's Seminary where the well-camouflaged bird was gently placed on a log. It soon flew to the ground nearby, where it would wait until dusk before beginning its evening foraging. Like swifts, nighthawks dine on insects caught on the wing, only nighthawks ply the skies on the night shift while swifts hunt by day.

The action next moved to Kingsway and a wait until early evening when the first wild swifts began to appear as tiny specks high overhead. The eight swift youngsters watched and waited restlessly in their travelling cage. When their doorway to freedom was opened, it didn't take them long to realize their opportunity was finally here. They all flew strongly, exploring the new world of open space above the lawns and trees and buildings. Once again, the welcome wagon of wild swifts soon descended, enveloping the newcomers. Then all gradually drifted off upward until it was time to retire to the chimney in the gathering dusk. The count of swifts entering the chimney that night was 159. The next time the Kingsway chimney was monitored, six days later on September 14, it was empty. Phew!

In 2021, Nature London was very pleased to be able to assist swift rehabbers in giving 11 hand-reared youngsters the very best possible chance for a successful reintegration into the wild. We hope the mentorship of the wild birds continued as they all travelled southward to South America for the winter. Since swifts in London seem to have had a relatively poor year for raising young to fledging, it is all the more significant that we were able to give a helping hand to these young orphans.

Thanks so much to all monitors. Your cumulative efforts over the summer allowed us to know exactly where the best location for a release should be.

Acting in the best interests of their young charges, both swift rehabbers decided to keep the releases quiet affairs by minimizing the number of people present. Enjoy the photos!



The nighthawk was released by placing it on a log in the woods; it soon flew to the ground nearby.



Above: a young swift prior to release. Note the long wingtips extending below Sue's hand. During the car trip from the Montreal area, the eight swifts, five swallows and one nighthawk were fed hourly, in total consuming many hundreds of mealworms en route. Accustomed to spending time in large flight cages, all the birds were restless in the confines of their soft-sided travelling cases and were very eager to be on their way when they got to London.



Left: Sue Wylie of Le Nichoir in Hudson, Quebec, has just unzipped the swift travelling case, and some of the young swifts are whizzing by in their first experience of totally unrestricted flight. How many swifts can you spot in the photo? (There are actually four.) Sue has been bringing swifts to London for release since 2008.

12.0 Documenting Other Wildlife Species

Swift monitors mostly operate in the evening as dusk approaches. The interval that overlaps day and night offers opportunities to see and/or hear species, such as swifts and swallows, that hunt by day, and species, such as bats and nighthawks, that forage by night. Bats, Common Nighthawks and Barn Swallows, like swifts, eat only insects caught in flight and are experiencing population declines. Keeping track of dates, numbers and whereabouts of these species contributes to the knowledge of these at-risk groups in London.

Relatively little is known about the predators who may seek to make a meal of swifts. Collecting sightings of raptors near swift chimneys adds a little to our understanding of how the two groups may interact.

Thank you for submitting observations of these other wildlife groups. We hope that keeping an eye and an ear alert for other species adds interest to your monitoring sessions, especially on evenings when swifts are scarce.

12.1 Common Nighthawks

For many years, swift monitors have been encouraged to submit observations of nighthawks. Spring migration for nighthawks peaks around the last week of May and the first week of June. The nesting season runs until about the end of July. Fall migration peaks in late August and early September. See **Table 10** for 2021 nighthawk observations.

Though our monitoring efforts were reduced in May, June and the first half of July, monitors reported a number of nighthawks during this period (5 locations, 6 dates, total of 7 birds). All spring migration and summer nesting-season reports came from northwest London, especially the general area of the university campuses. These are locations where, in past years, we have been most likely to find nighthawks.

Of the 32 nighthawks observed in 2021, 25 were reported in August (19) and September (6). The earliest date for fall migration was August 10 and the latest September 19. There appeared to be a big nighthawk movement on August 24 (same night as numbers of migrating swifts peaked), when a total of 10 nighthawks was seen or heard at 4 different locations: King's, Ryerson, Huron and South Collegiate.

Compared to 2020, in 2021 monitoring started a month earlier and, during fall migration, covered three more locations. Yet, in 2021 a total of just 32 nighthawks was reported from 21 monitoring visits.

By way of comparison, in 2020, 95 nighthawks were tallied during 32 monitoring visits. The total included two large groups: 26 on August 26 at Labatt's, and 22 on September 8 at King's. Total numbers of nighthawks tallied in 2018 and 2019 were fairly similar to the total in 2021.

Marguerite Annen lives on the 14th floor of a downtown condominium. On August 27, she wrote, "I have heard no nighthawks this summer. They have been part of the music of my summer evenings since I moved here, usually several calling from various roofs. This year, nothing."

All 2021 records of nighthawks have been retained in our files and included with swift monitoring data shared with Ontario SwiftWatch.

12.2 Barn Swallows

The Barn Swallow is another Threatened species whose reports from swift monitors are welcomed. As in past years, Barn Swallows nested and foraged around the Wemple Building at King's College and around O'Neil/Ridley Hall at Huron College. At least several pairs were at each location. For the first time, no Barn Swallows were reported from Elborn College, where a pair has traditionally nested above a doorway in an alcove on the east side of the building. Plans are afoot to erect an artificial swallow nesting structure in the open meadow just northwest of Elborn. Perhaps, with a safer nesting location available, away from human disturbance, Barn Swallows will return to the area. Barn Swallow data are forwarded to Ontario SwiftWatch along with swift data.



A nighthawk above Kingsway Academy, September 3, 2021.

Table 10. Dates, numbers and locations of Common Nighthawks observed during swift monitoring in 2021.

| Location | Dates and Numbers |
|-----------------------|---|
| Kingsway | Au 10=2, Au 13=1, Au 17=1, Au 31=2, Sep 2=1, Sep 3=2 (6 dates, 9 birds) |
| Huron | Jun 4=1, Jun 22=2, Aug 10=1, Au 24=2 (4 dates, 6 birds) |
| King's | Jun 12=1, Aug 24=4 (2 dates, 5 birds) |
| Ryerson | Jun 28=1, Aug 24=2 (2 dates, 3 birds) |
| South Collegiate | Aug 24=2 (1 date, 2 birds) |
| ICORR | Sep 15=2 (1 date, 2 birds) |
| Smith Fruit | Aug 31=1 or several (1 date, ≥1 bird) |
| Dorchester Apartments | Jun 29=1 (1 date, 1 bird) |
| UWO Heating Plant | Jul 16=1 (1 date, 1 bird) |
| Elborn College | Aug 11=1 (1 date, 1 bird) |
| Labatt's | Sep 19=1 (1 date, 1 bird) |

12.3 Raptors

Because some raptors can be predators on Chimney Swifts, during monitoring sessions volunteers often note these species. Such reports provide information on when raptors show up in the vicinity of swift chimneys and sometimes include details of interactions with swifts.

The large and chunky **Red-tailed Hawk** poses little threat to the agile and fast-flying swifts. This was the raptor species most frequently observed by monitors. Sightings came from Elborn, ICORR, King's and Kingsway. A pair that nested near Kingsway likely also accounted for sightings at nearby King's College.

As usual, **American Kestrels** (one to three birds, likely including a youngster) were regularly observed (July 13 to August 10) around First-St. Andrew's church – in flight or perched on the roof, steeple, wooden alcoves, etc. Kestrels are believed to nest in the area most years, possibly behind louvres in the spire. A kestrel seen on August 24 at 388 Dundas, a block to the south, was likely one of the FSA birds. Almost invariably, swifts ignore the kestrels (unless one perches on top of a chimney a swift is trying to enter, which was not observed happening in 2021).

A **Sharp-shinned Hawk** was seen by monitors at South Collegiate on September 21. Although this species could be a threat to swifts, by then swifts had abandoned the South chimney for the season.

A **Peregrine Falcon** was reported just once (September 7), perched on a building near First-St. Andrew's. By that date, swifts were no longer overwintering in any of the FSA chimneys. This species could be a threat to swifts.

The **Merlin** is a known predator of London swifts. A few pairs nest in the city and others pass through on migration, especially fall. In 2021, Merlin were reported during seven monitoring shifts at six locations:

- South Collegiate: June 13, one heard; June 29, swifts were harassing a Merlin.
- Elborn: June 22, a Merlin was being harassed by a smaller bird (a swift?).
- Dorchester Apts: June 29, one flew over area.
- Smith Fruit: August 31, a swift was chasing a possible Merlin.
- 388 Dundas: September 1, a Merlin dashed through a swirling flock of swifts that was descending into the chimney. It failed to take a swift and disappeared. Swifts dispersed for about 2 minutes, then returned and resumed circling.
- FSA: September 7, a screaming Merlin flew fast and low over the church roof. By that date, swifts were no longer present at FSA.

12.4 Bats

In 2021, we received reports of bats from just five locations: 1 at First-St. Andrew's on Jul 6, 1 at Whitehall Apts on Aug 15, 1 at South Collegiate on Aug 24, 1 at Phoenix on Aug 24, and 1 at Kingsway on each of Aug 10, 20 and 24, for a total of 7 bats sighted. Interestingly, on Aug 24, bats were reported at three locations: South, Phoenix and Kingsway. In stark contrast to the situation in 2021, in 2020, reports were submitted for 67 bat sightings (1 group had 36 bats) at 13 locations, with dates ranging from Jul 14 to Sep 22.

13.0 Outreach

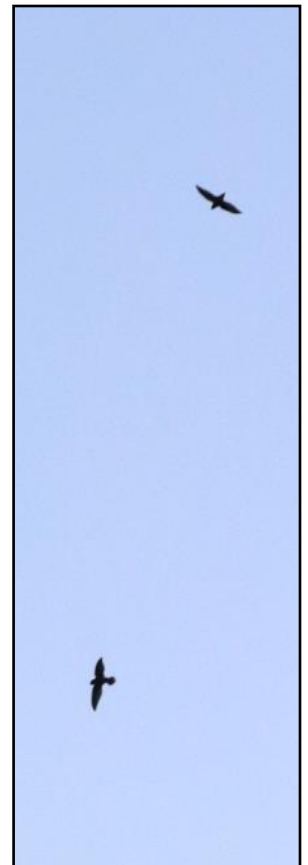
Having two people present during a monitoring shift makes it easier to engage with the public. Particularly during those intervals when swifts are scarce, one person can focus on the birds and the chimney while the other shares the swift story with interested passersby. When it comes to getting the word out about swifts – their unique lifestyle, dwindling numbers, amazing flying prowess, and exuberant presence, there's nothing quite as effective as a person-to-person conversation (safely distanced, of course), especially if swifts are visible. Many monitors served as enthusiastic ambassadors for swifts this year – thank you!

Another way of reaching out to the public was via updates on Nature London's Facebook page. These posts indicated the current best places to see large numbers of swifts as they migrated southward at the end of the summer. A new 2021 video clip of swifts entering a chimney was added to others posted on Nature London's YouTube channel.

14.0 Summary and Highlights of Evening Swift Monitoring in London, 2021

Although Nature London's formal swift monitoring program didn't start until June 15, we still had an amazing year. During 16 weeks of Tuesday-night monitoring at 13 chimneys, a remarkable 199 data entries were submitted. Another 176 entries reported 58 extra visits to the 13 chimneys, 82 visits to the 5 extra monitored chimneys, and 36 visits to 34 other chimneys. In all, 375 monitoring visits were made to a total of 52 different chimneys. Some 45 volunteers helped, either during organized monitoring or independently. Participants received weekly emailed updates. Data were later shared via spreadsheet with the provincial database kept by Ontario SwiftWatch.

In late summer, the discovery of three new active roosts brought great excitement, especially when one of them – Kingsway Academy – proved to be an ideal location for the release of swift youngsters brought from wildlife rehabilitation centres in Harrowsmith, ON and Hudson, QC.



15.0 Acknowledgements

First and foremost, a million thank you's are extended to our amazing 45 volunteer monitors, whose dedication to the cause enabled the 2021 program to be such a successful one, despite the delays and limitations of COVID. We especially acknowledge the 39 core volunteers who carried out the bulk of the monitoring. Thank you too for abiding by the COVID rules and keeping everyone healthy and safe.

Another huge thank you goes out to Sandy Symmes, whose unfailing cheerfulness, commitment to the cause, and schedule-wrangling skills ensured a Tuesday-evening program that ran like clockwork (even when it was unexpectedly expanded from 13 to 18 chimneys and when substitutes were needed on short notice). And thanks too for all the other swift chores Sandy did in between.

Additional thanks are extended to

- Ric Symmes for setting up the online data entry portal and being our go-between in dealings with Wufoo.
- Wufoo for giving us a reduced rate.
- Dave Wake for managing the Nature London swift database, for creating the weekly tables of results, for preparing all the graphs and tables in this report, and for carrying out multiple other vital duties, too numerous to keep track of.
- Glenn Berry, Susan Berry, Brendon Samuels, Dave Wake and Winifred Wake for their photographs used in this report. Photos taken by the first three are acknowledged where they appear; all others are by D or W Wake.
- Nature London and its Board of Directors for sponsoring the Nature London Chimney Swift Initiative, approving our spring start-up plans for monitoring, paying our bills and being there with moral support whenever called upon.
- Ontario SwiftWatch for providing a home for our London data in the provincial swift database.
- eBird for data accessed.
- Brendon Samuels for experimenting with chimney-rim placement of a video camera for monitoring swifts.
- Glenn (and Susan) Berry for developing innovative new techniques for shooting video of swifts entering chimneys, resulting in improved count accuracy.

A final thank you goes to everyone who submitted data or helped in any other way with Nature London's swift monitoring program in 2021. I have tried to make the list below complete, but, if you have been somehow missed, please accept my apologies and know that your efforts are still very much appreciated.

Marguerite Annen, Leslie Baker, Betsy Baldwin, Glenn Berry, Susan Berry, Garth Casbourn, Karin DeVries, Ruth Dickau, Jane Edwards, Guy Gaudry, Trish Gaudry, Sandy Grant, Shelagh Grant, Rick Hayman, Mary Ann Hodge, Sarah Hodgkiss, Steve Jarrett, Morag Kinchlea, Ann MacPhail, Bill Maddeford, Joanne Maddeford, Kathy McCoy, Gail McNeil, Theresa Morrissey, John Ninness, Vianne Ninness, Susan Price, Susan Relecom, Evelyn Rogers, Brendon Samuels, Judy Shaw, Ric Symmes, Sandy Symmes, Paul Thomas, Rebecca Thompson, Pat Tripp, David Wake, Winifred Wake, Emma-Lynne Wiegersma, Frits Wiegersma, Lynda Wiegersma, Quinten Wiegersma, Garry Williams, Heidi Williams, and Barb Yeo.

Special thanks go to the swifts themselves for their joyful exuberance, which warms our hearts and keeps us committed to their cause. Happy Swiftling! 😊



Appendix A

COVID-19 PROTOCOL FOR NATURE LONDON SWIFT MONITORING IN 2021 (June 1, 2021)

Introduction

The following material is based on currently available information. It may be updated from time to time to take into account evolving guidelines and restrictions from local and provincial authorities.

- Two weeks after receiving one dose of vaccine, the risk of developing serious illness is considerably reduced, but not eliminated.
- Many Londoners are still unvaccinated and have no protection at all against the virus.
- People who have had one or even two vaccine doses may have no symptoms but still pass the virus on to unvaccinated people, including household members.
- New COVID-19 variants currently circulating are significantly more contagious than the original virus and can produce dangerous illness, including among age groups that were less susceptible to the original virus.
- Compared to indoor settings, risk of transmission is lower outdoors, but is not zero.
- Because likelihood of transmission increases with amount of time people spend in relatively close proximity, distancing guidelines must be followed while monitoring (except for household members).

Please adhere to the COVID-19 protocol below, even if you have had one or both shots of the vaccine.

COVID-19 Protocol for Nature London Swift Monitoring

- Before deciding whether or not to participate in swift monitoring, consider your own health, age, vaccination status, and other issues, as well as the situation for members of your household and for your contacts.
- By agreeing to participate in the 2021 London swift monitoring program, monitors assume personal responsibility for their own health and safety and for adhering to current COVID-19 guidelines – provincial, local and those developed by Nature London for its swift monitoring program.
- If you have invited someone to join you for a swift monitoring session, it is your responsibility to ensure he or she reads this protocol and agrees to abide by it.
- Unless members of a monitoring team are from the same household,
 - they should not carpool to travel to or from the chimney, or sit in the same vehicle while monitoring,
 - they should maintain a physical distance of 2 m or more during monitoring.
- Consider monitoring from inside a vehicle (windows can be open), or place lawn chairs at least 2 metres from sidewalks or other areas of foot traffic (with 2 metres or more between monitors from different households).
 - Minimize conversation with passers-by and ensure they are at least 2 metres away.
- Wear a face mask, ensuring it covers your mouth and nose; keep hands away from face.
- Carry hand sanitizer and use as needed.
- Do not share or handle personal equipment belonging to others, e.g., binoculars, pen, clipboard, lawn chair (except household members).
- Stay home if feeling unwell or experiencing any symptoms of illness.
- If, during a monitoring session, you feel unable to control encroachment by others to within 2 metres, or feel unsafe for any other reason, terminate the monitoring session and leave immediately.

Any new COVID-19 guidelines issued by the Middlesex-London Health Unit or the provincial government immediately supplant the above.

- Please make sure you keep up to date on and follow the latest public health guidelines.

Enjoy the swifts and the monitoring sessions but, above all, be safe!