Roscommon Swift Survey 2020



A report by John Meade and Ricky Whelan



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1 Executive Summary

Swifts are a small species of bird that visit Ireland to breed during the spring and summer seasons. These birds arrive in early May and usually depart as soon as chicks have flown their nest by early August. Swifts live most of their lives "on the wing", where they have adapted to feed, drink, mate and sleep in flight, landing only when they enter a nest site to breed. In fact, once a young swift has flown its nest, it will remain on the wing for the next three to four years until they are ready to breed. Unlike Swallows or House Martins, whose nest structures can be seen under the eaves of houses and in sheds and other structures, Swift nests are hidden in cavities. These cavities can be found in masonry, under gutters, or roof spaces of old buildings where they can gain access through available gaps in broken fascia and soffit or under roof tiles etc. As a result, the nest of a Swift is much less visible. The best way to identify a Swift nest is to observe a Swift entering or leaving the cavity containing the nest. Occasionally, "whitewashing" or the presence of visible droppings can be seen below the nest. Swifts are site faithful, meaning that they return to the same nest site year on year. The major challenge faced by breeding Swifts is the loss of suitable nest sites. In recent years renovation and destruction of old properties and the design and use of modern building materials have acted to reduce access to Swifts significantly, leaving no cavities and therefore no available nest sites for breeding Swifts. We have essentially created a housing problem for Swifts. The loss of existing nest sites coupled with other wider environmental issues such as problems caused by climate change has resulted in large declines in Swift populations. It is with this in mind that many local authorities including Roscommon County Council have been motivated to conduct county Swift surveys to establish the distribution and density of nesting Swifts at county level and to identify measures to help conserve this iconic urban species into the future.

The Roscommon Swift Survey 2020 has been a huge success. However, as a result of national restrictions due to Covid-19, there was some delay in starting survey work and elements of community engagement on the project were also impacted. Therefore, much of the publicity and engagement took place via digital means and over social media.

Overall, it took over 45 days of survey work to adequately survey the 40 localities (towns and villages) in the county and to pinpoint the 117 active Swift nest sites confirmed during the fieldwork phase. These nest sites were distributed throughout 11 localities with Swifts observed in an additional 2 localities but with no nest sites confirmed. The colonies ranged in size from 1 to 24 nest sites found distributed across 31 individual structures/buildings. Swift nest sites are found in a host of building types with the highest percentage of nests found in public buildings (34%), house/residential buildings accounted for the second largest percentage of nests (29%) whilst church/religious, small business and castle/heritage sites accounted for 14%, 12% and 11% of nests respectfully. The main Swift populations were found to exist in Roscommon Town with 44 active nests confirmed followed by Boyle and Ballaghaderreen with 14 and 12 respectively.

The localities where Swift nests were found were in areas that were more populated, in the larger towns that could provide nesting opportunities. Swifts were not observed in areas that were more isolated from urban expanses (such as Ballinlough or Cloontuskert) despite appearing to be suitable. Rural sites were not investigated as part of this survey and there may be merit on surveying suitable heritage sites/structures for Swifts in future seasons.

The key to ensuring a future for Swifts in the county is to protect existing colonies which act as a source population. To ensure this happens it is important to encourage individual communities to take ownership and responsibility for their local Swifts and to carry out the required actions to protect

them into the future. An important part of our Swift Survey efforts is community engagement, where we aim to meet community members and raise awareness about Swifts and the challenges they face. With Covid-19 restrictions, a large part of community engagement was suspended. Despite this, many members of the public were keen to engage in discussions about Swifts, and in some localities such as Roscommon town some low-key activities took place (following social distance guidelines). As well as this, social media efforts were ramped-up and employed to raise awareness about Swift Survey efforts in Roscommon.

This report outlines the precise location of every nest site confirmed, it should be used as a reference document within the local authority, for communities and environmental groups alike to help direct the conservation efforts that are now needed.

2 Introduction

The Common Swift (*Apus apus*) may be one of Ireland's most iconic urban bird species. It is a summer migrant that breeds throughout Europe and much of Asia; and spends the winter in southern Africa. In recent decades, Swift numbers have been in decline throughout many parts of their range, giving much cause for concern. In Ireland, the recent Bird Atlas 2007-11 shows there has been a 26% loss in range since 1970 and a severe decline in abundance since 1990 (Balmer et al. 2013). The latest long term trend in the Irish Swift population, available from CBS data, shows a decline of almost 58% in the breeding population between 1998-2016, and one of the largest declines in distribution of any species, almost 53% from 1972-2016 (Lewis et al., 2019). As a result, Swifts are now of conservation concern in Ireland and are Amber-listed (Colhoun et al. 2013).



Figure 1: Swift leaving nest situated under roof tiles. Photo: Mark Taylor

Most Swifts nest in cavities found in man-made structures such as within walls or under eaves of houses and old buildings. As a result of their association with man-made structures, they are a well-

known bird species in urban centres, particularly cities and towns. At the start of the Roscommon Swift Survey 2020, it was known that Swifts nested around several locations around Roscommon Town, based on previous survey efforts in 2015. However, it has also been noted that there have been some local declines in Swift numbers. These local declines reflect the trends observed throughout Ireland and internationally. While it has not yet been fully established why Swift numbers are in decline, one of the major factors may be the loss of available nest sites. This is largely due to the renovations of older buildings, which results in airtight buildings with no cavities for nests. Modern building techniques in new builds have similar results, leading to increasingly few nest opportunities for Swifts (Concern for Swifts 2013). Other factors that may contribute to Swift population decline are those related to climate change and poor weather conditions (Rajchard et al. 2006).

It has been documented that Swifts will nest in artificial nest boxes, thus allowing for populations to be maintained, notably where renovations to buildings have reduced nest site availability. Only one locality was documented to have artificial nest boxes installed for Swifts: A secondary school in Roscommon town installed nest boxes in 2017. However, Swifts have not yet been recorded breeding in these boxes. This illustrates another challenge for breeding Swifts. These birds are site faithful, meaning they return to the same nest site every year. Because of this, they will not readily move to a new colony, and can often be slow to make use of nest boxes. Playing Swift calls around a nest box has been shown to help Swifts take up occupation of a nest box. If more localities can be encouraged to install nest boxes around suitable sites, this can have a positive impact on maintain Swift numbers around Roscommon.

Although Swifts are known to return to the same nests site year after year, they are only afforded legal protection during their breeding season (May - September). The Wildlife Act affords protection to all actively nesting birds and to interfere or disturb any nest is unlawful. This means that there is no protection for nest sites when Swifts are absent over the non-breeding months (September - April) when their nest sites could potentially be destroyed. For example, if a developer knows Swifts are recorded as nesting at a site to be developed, and they were to demolish said structure outside of the Swift nesting season, they would not be in breach of any wildlife legislation. However, if the developer demolished the same wall after the Swifts had returned to nest, they would have done so in breach of wildlife legislation and could be investigated and prosecuted under the Wildlife Act by the National Parks and Wildlife Service. For this reason, Swift conservation efforts are often conducted in partnership with site owners/developers to ideally retain nest sites or mitigate for any loss of sites.

The 2020 Roscommon Swift Survey acts to quantify the level of Swift nesting activity across the county. The survey work will highlight areas where nesting Swift populations are found and in need of direct and immediate conservation measures. The survey will identify to site level the largest and most important Swift nesting sites that act as source populations within Roscommon and beyond the survey area. These sites, once identified need to be treated with the upmost sensitivity during any renovation or redevelopment to ensure existing Swift nest sites are retained.

3 Project Objectives

Aim:

To undertake a detailed survey of Swifts in towns and villages across Roscommon to establish a picture of the distribution of nesting Swifts in the county. The data collected will allow planners and decision makers to effectively manage Swifts at site level, helping to conserve this important part of Roscommon's urban heritage.

Objectives:

- Carry out a survey of Swifts across Roscommon localities to locate nesting colonies.
- Engage (through social media) volunteers, community groups and local people to take part in Swift survey work and become aware of Swifts in their locality and any vulnerable nesting sites.

4 Methodology

A total of 40 towns and villages in Roscommon were identified for Swift survey work. Of this number, 5 towns were ranked as 'High Priority' for survey work. The remaining 35 localities ranged as 'Lower Priority'. The 'High Priority' towns were selected based on several criteria including known presence of nesting Swifts, the town size and the suitability of buildings for nesting Swifts in the town. 'Lower Priority' towns were those where there are no records of Swifts and smaller town size. Town size was determined using census data and on satellite imagery to ascertain the extent of the respective urban areas.

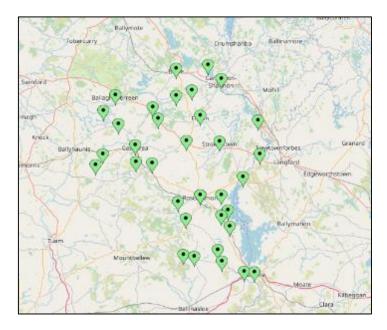


Figure 2: Locations of towns and villages (green icons) selected for the 2020 Roscommon Swift Survey.

A total of 45 survey days were scheduled to adequately survey all the towns and villages in Roscommon. John Meade carried out the surveys to adequately cover the survey range. The number of survey days was weighted toward the larger towns, where more time was needed to identify the location of colonies and where possible, the specific buildings used by the Swifts. For the 'Lower Priority' towns/villages, two to three towns/villages were surveyed per day, which allowed for repeat visits to confirm the presence or absence of Swifts in each of the 30 towns or villages.

Survey work took place from the beginning of June to late July 2020. Ordinarily, surveys would begin in early May, however due to restrictions in place due to Covid-19, surveys were delayed. Survey visits were carried out during fine weather to increase chances of encountering Swifts. Survey visits were carried out before 11am and after 6pm where possible to maximise encountering peak Swift activity. A standardised survey form was designed to capture survey location, date, time, weather conditions and Swift activity (See Appendix 1). Details of Swift nest locations were also recorded and information on location, building type, site of nest entrance, number of nests present, and photos of each site were taken.

This project also aimed to engage volunteers and local community groups through social media. The aim of this was to encourage people to take part in the survey work, developing a local network of Swift volunteers and encouraging the development of local Swift projects in towns and villages across the county. At the beginning and throughout the project, contact was made with volunteers. They were invited to contribute their Swift records and knowledge of local Swift hotspots that could assist survey efforts.

5 Data Collection

Survey data from all locations was entered to Microsoft Excel and mapped in ArcGIS Online. All confirmed nest sites are photographed and included in the <u>Site Based Results</u> section of this report. Blue arrows were added to each nest site image to illustrate the exact location of the Swift nests.



Figure 3: Screenshot of ArcGIS Online Swift sighting mapping tool

6 Citizen Science

Several known Swift enthusiasts, local birdwatchers and BirdWatch Ireland volunteers were contacted and asked to help with survey work in their local area. As well as this, online requests were made for the public to share their knowledge of locations where Swifts were active or nesting. The information gathered from the public were entered into an excel spreadsheet and used by the field survey team to narrow their search area in respective localities.

All records from the public which arrived by email and social media messaging were answered and contributors thanked for their input. A high proportion of records submitted by the public were in relation to Swallows and House Martins which are commonly confused with Swifts. Nonetheless each contributor was thanked, sent a copy of the Saving Swifts guide to help with the ID issues and encouraged to participate in future surveys.

While Covid-19 restrictions hampered efforts to host local events, other events led by local Tidy Towns still went ahead in mid-June, which were attended by the Roscommon Swift fieldworker in order to encourage and discuss Swift conservation efforts.

7 Results

A total of 40 towns/villages in Roscommon were surveyed for this project. Of the 40 towns/villages Swifts were identified in 13, with nesting sites confirmed in 11 of these. The 2020 Roscommon Swift Survey identified a maximum count of 198 Swifts (peak count of all areas combined) and confirmed 117 nests. These results provide a baseline figure from which we can measure future changes of Swift distribution and densities in the county. These findings are concentrated around 31 buildings/structures, which are documented with photographs and plotted in ArcGIS Online. In total, John Meade conducted 45 field survey days and 10 days of office work to complete and coordinate the survey work and to collate the results. Overall results of the Roscommon Swift Survey 2020 are presented in Table 1, localities are presented from the town with the highest number of confirmed nests to the lowest in the site-based results section.

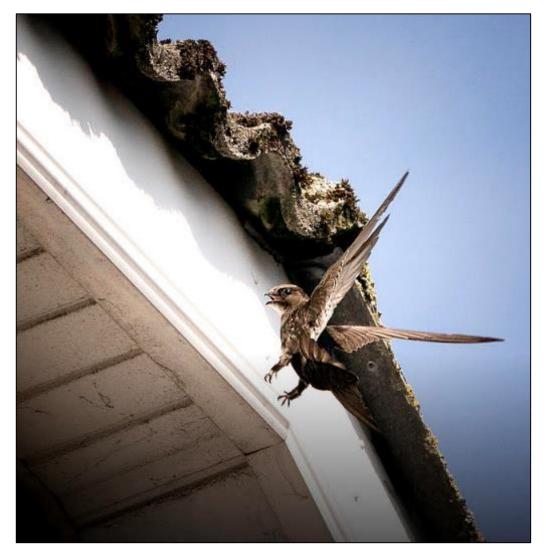


Figure 4: Swift approaching nest site entrance. Photo: Mike Taylor

7.1 Survey Visits

An initial visit to each of the 40 Roscommon towns and villages was completed to survey for the presence of Swifts. In towns or villages where Swifts were recorded as present (in flight or at nest sites) on first visits, subsequent surveys were completed to confirm breeding and identify exact nest site locations.

The highest number of Swift nests was recorded in Roscommon town, where 44 nests were found (*Table 1*). This was followed by 14 nests in Boyle and 12 confirmed in Ballaghaderreen. The Roscommon side of Carrick-on-Shannon had 11 nests all associated with the railway station. Next was Castlerea with 10 nests. Both Elphin and nearby Strokestown had 7 confirmed nests each. Frenchpark had 6 nests. The remaining sites, Athlone (Roscommon side), Knockcroghery and Ballyfarnan had 3, 2 and 1 nests, respectively. The largest peak count (maximum number of birds observed during a single visit) of Swifts was recorded in Roscommon Town with 90 Swifts being observed.

 Table 1: Summary information for all towns surveyed during the 2020 Roscommon Swift Survey.

No.	Locality	Swifts present	Peak number of Swifts	Nests present	Number of nests
1	Roscommon Town	Yes	90	Yes	44
2	Boyle	Yes	34	Yes	14
3	Ballaghaderreen	Yes	14	Yes	12
4	Carrick-on-Shannon	Yes	20	Yes	11
5	Castlerea	Yes	12	Yes	10
6	Elphin	Yes	6	Yes	7
7	Strokestown	Yes	12	Yes	7
8	Frenchpark	Yes	8	Yes	6
9	Athlone	Yes	6	Yes	3
10	Knockcroghery	Yes	4	Yes	2
11	Ballyfarnan	Yes	4	Yes	1
12	Athleague	tbc	0	No	0
13	Ballinameen	tbc	0	No	0
14	Ballinlough	yes	0	None confirmed	0
15	Ballintober	tbc	0	No	0
16	Ballyforan	tbc	0	No	0
17	Bellanagare	tbc	0	No	0
18	Brideswell	tbc	0	No	0
19	Castlecoote	tbc	0	No	0
20	Clontuskert	tbc	0	No	0
21	Cloonfad	tbc	0	No	0
22	Cootehall	tbc	0	No	0
23	Croghan	tbc	0	No	0
24	Curraghboy	tbc	0	No	0
25	Dysart	tbc	0	No	0
26	Gorthaganny	tbc	0	No	0
27	Granlahan	tbc	0	No	0
28	Keadew	tbc	0	No	0
29	Kilteevan	tbc	0	No	0
30	Lanesborough- Ballyleague	tbc	0	No	0
31	Lecarrow	tbc	0	No	0
32	Lisacul	tbc	0	No	0
33	Loughglinn	tbc	0	No	0
34	Monksland	Yes	0	None Confirmed	0
35	Moore	tbc	0	No	0
36	Portrunny	tbc	0	No	0
37	Roosky	tbc	0	No	0
39	Termonbarry	tbc	0	No	0
40	Tulsk	tbc	0	No	0

7.2 Swift Nests

Figure 6 shows the density of Swift nest sites across the towns/villages of Roscommon, low density (blue), average (red) and high density (yellow).

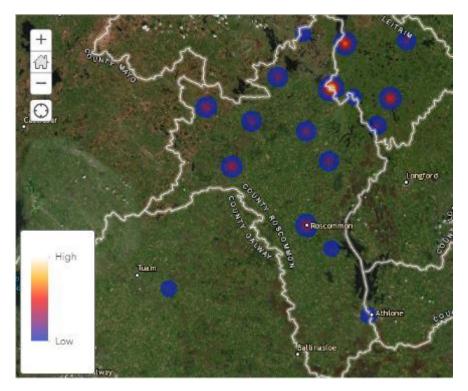


Figure 5: Heat map showing the densities of Swift nests across Roscommon (ArcGIS (Online) ESRI, 2020)

The map identifies 11 localities within Roscommon county where Swift nest sites were confirmed. Colonies on the Roscommon side of Athlone and Carrick On Shannon were also included to give a more complete picture for the county. A section of the 2018 Westmeath Swift Survey Report is included in the appendix of this report as it contains information on nest sites on the Roscommon side of Athlone Town which are a useful further reference.

Figure 7 shows the breakdown of confirmed Swift nestsites found in various building types in the county. Public buildings containing the highest number of active nests. House/Residential buildings hold the second largest total of active nests with Church/Religious, Small Business and Castle/Heritage Sites also hosting significant nesting Swift colonies.

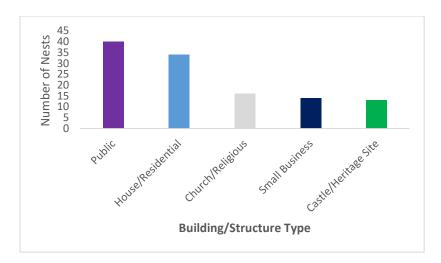


Figure 6: Overall number of Swift nests per building/structure type

Figure 8 shows the breakdown of nests by locality and building type. The chart shows how Swifts rely on a range of building types in Roscommon Town, Boyle, Ballaghaderreen, Elphin and Castlerea whilst Swifts are reliant on a single building type in the remaining localities.

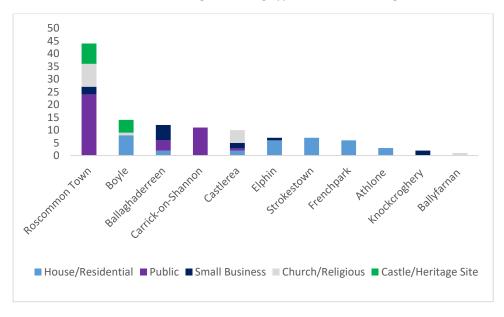


Figure 7: Number of nests confirmed by building type found in Roscommon localities.

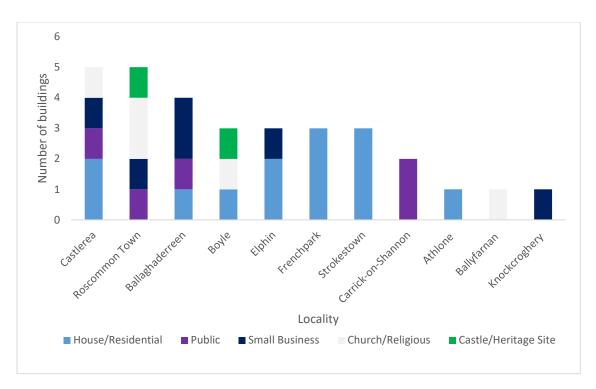
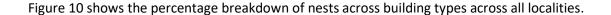


Figure 8: Numbers of buildings containing nesting Swifts by locality in Roscommon.



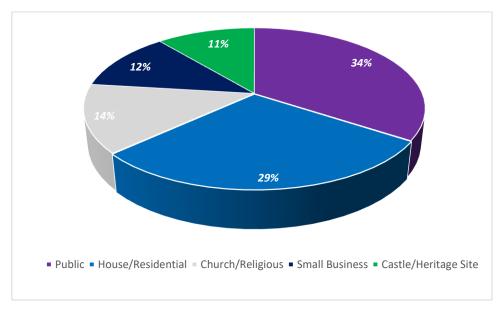


Figure 9: Percentage of Swifts nests per structure/building type in Roscommon localities.

Overall, 34% of Swift nests were found to exist within Public buildings. House/Residential type buildings accounted for 29% while Church/Religious buildings host 14%. Finally, Small Business and Castle/Heritage Sites contained 12% and 11% of active nests respectively.

Table 2 shows the total percentage of nests found per locality. Roscommon Town is a very important settlement for Swifts with 38% of all nests confirmed with the next largest colony being found in Boyle with 12% of the nests. Ballaghaderreen, Carrick On Shannon (Roscommon side) and Castlerea contained 10%, 9% and 8% of active nests with the remaining localities hosting between 1% and 6% of nest sites found.

Table 2: Percentage of the total confirmed Swift nests by town/village.

Town/Village	Nests %
Roscommon Town	38%
Boyle	12%
Ballaghaderreen	10%
Carrick-on-Shannon	9%
Castlerea	8%
Elphin	6%
Strokestown	6%
Frenchpark	5%
Athlone	3%
Knockcroghery	2%
Ballyfarnan	1%

8 Site Based Results

A total of 40 towns/villages in Roscommon were surveyed for this project. Of the 30 locations, Swift nest sites were confirmed in 11.

Results of the Swift survey are represented below for individual towns and villages. Each location in which Swifts were found nesting is documented with photographs of the nest sites, with the approximate location of the nests marked on each photo (yellow arrows). Peak numbers of Swifts observed flying at each location is also given. Peak number of Swifts observed relates to the highest number of Swifts counted in a town or village at any one-time during survey work.

To view the online map and nest site locations of Swifts for each town/village surveyed use the following link:

https://bwi.maps.arcgis.com/apps/MapJournal/index.html?appid=81ddc38cfcde40ffab699be638ee5 b20



Figure 10: Screenshot taken from the online ArcGis Swift Conservation Project record viewer (ArcGis Online)

8.1 Roscommon Town

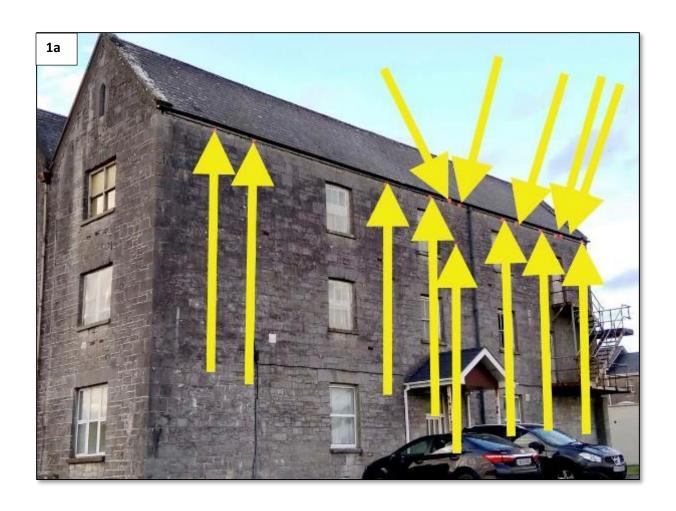
Roscommon (Ros Comáin), deriving from the Irish for Saint Coman's wood, is the county town and the largest town in Roscommon. It is roughly in the centre of the island of Ireland and its population in the 2016 census was 5,876. Coman Mac Faelchon built a monastery there in the 5th century and the woods near the monastery became known as Ros Comáin.



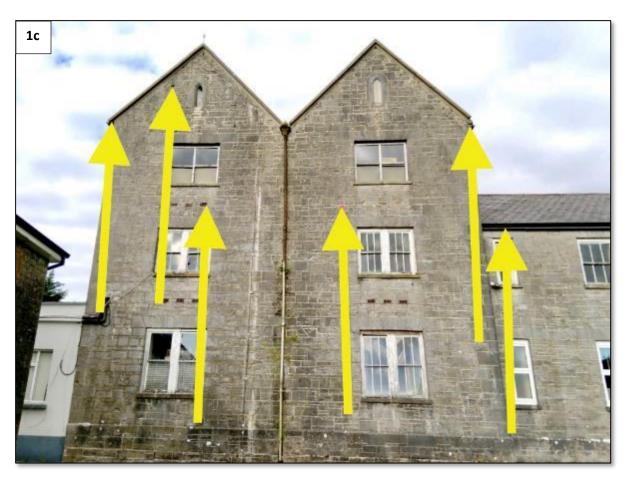
Figure 11: Location of confirmed nests in Roscommon Town represented with yellow markers (ArcGIS ESRI Online 2020).

Table 3: List of all confirmed nests in Roscommon Town.

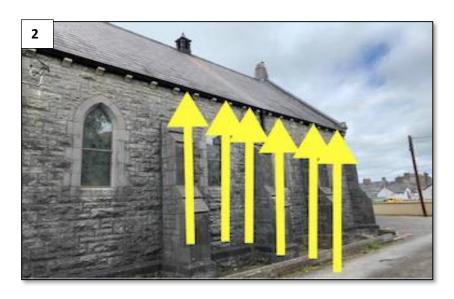
Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1a,b,c,d	Sacred Heart Hospital, Golf Links Road	45	24	Public
2	Old Methodist Church, Abbey Street	14	6	Church/Religious
3a,b,c,d	Roscommon Castle, Castle Street	24	8	Castle/Heritage Site
4a,b	Convent of Mercy, Convent Court	16	4	Church/Religious
5	Mary Raftery Jewellers, The Square	12	3	Small Business

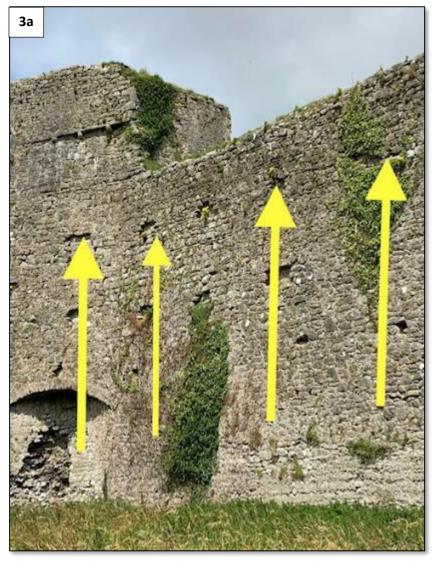






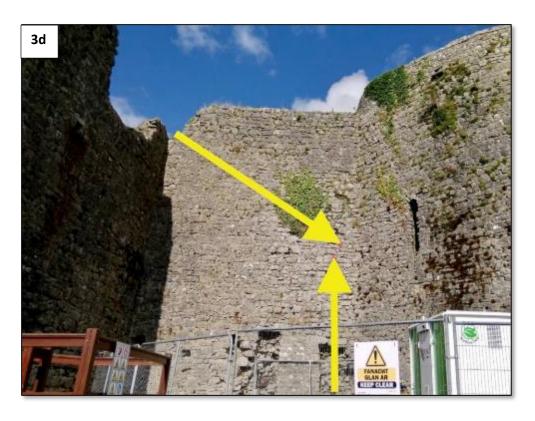


















8.2 Boyle

Boyle derives its name from the Irish 'Mainistir na Búille' which translates to monastery of the Buille river. It is located in the north of Roscommon close to County Sligo and is situated at the foot of the Curlew Mountains near Lough Key. As of 2016, the population of the town was 2,568.



Figure 12: Location of confirmed nests in Boyle represented with yellow markers (ArcGIS ESRI Online 2020).

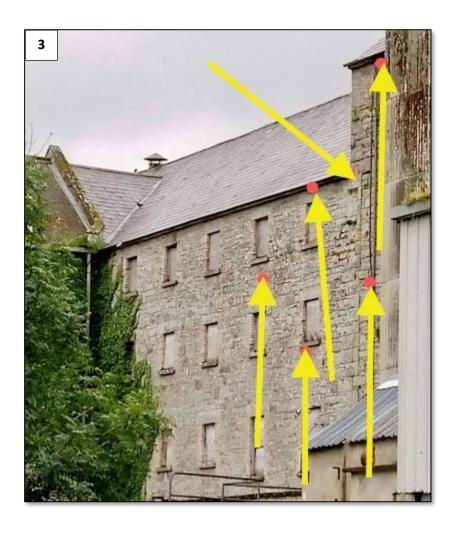
Table 4: List of all confirmed nest sites in Boyle.

Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1,1a	Old Building, Quarry Lane	16	7	House/Residential
2	Church, Ross Lane	24	1	Church/Religious
3	Old Mill, Mill Road	16	6	Castle/Heritage Site









8.3 Ballaghaderreen

The name Ballaghadereen is derived from the Irish "Bealach an Doirin" is a town in the northwest of the county, although traditionally it was part of County Mayo. It was transferred to County Roscommon under the Local Government Act of 1898. This has led to some anomalies as the local GAA team still play in the Mayo Championship and its players represent County Mayo. The population was 1,808 in the 2016 census.

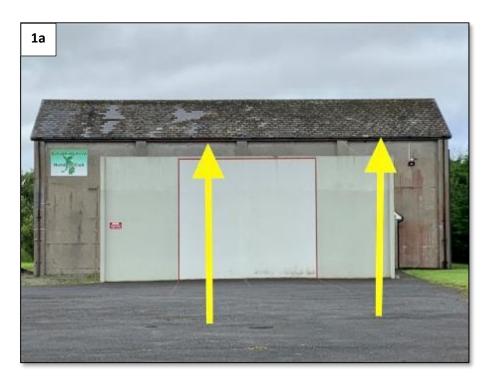


Figure 13: Locations of Confirmed nests in Ballaghaderreen represented with yellow markers (ArcGIS ESRI Online 2020).

Table 5: List of all confirmed nest sites in Ballaghaderreen

Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1, 1a	School Building, Convent Road	20	4	Public
2	Carrolls Bar, Main Square	10	2	Small Business
3	New Street Building	8	4	Small Business
4	Old Building, Main Street	6	2	House/Residential











8.4 Carrick-on-Shannon

Carrick-on-Shannon (Cora Droma Rúisc) meaning Weir of the Marshy Ridge is the county town of Leitrim. A small part of the town lies across the River Shannon in County Roscommon. This area contains the railway station, in which Swifts are breeding in two buildings associated with the station. The population of the town was 4,062 in 2016.



Figure 14: Locations of confirmed nests colonies in Carrick-on-Shannon marked with yellow markers (ArcGIS ESRI Online 2020).

Table 6: List of all confirmed nest sites in Carrick-on-Shannon

Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1	Stone Building next to Railway Station, Station Road	20	8	Public
2	Main Railway Station Building, Station Road	10	3	Public

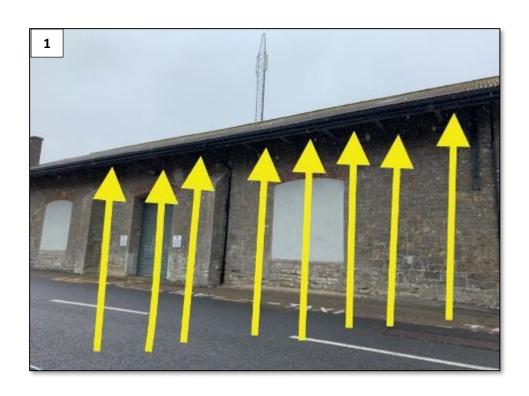






Figure 15: Swift information board at Carrick on Shannon Railway Station erected by CoS Tidy Towns Group and Swift Conservation Ireland.

8.5 Castlerea

Castlerea (An Caisleán Riabhach meaning brindled castle) is the second largest town in Roscommon. While some Swifts were observed flying around residential areas, no nests were found there. It is located in the west of the county and had a population of 1,992 at the 2016 census. The town is built on the banks of the River Suck and the River Francis, both of which are tributaries of the River Shannon.

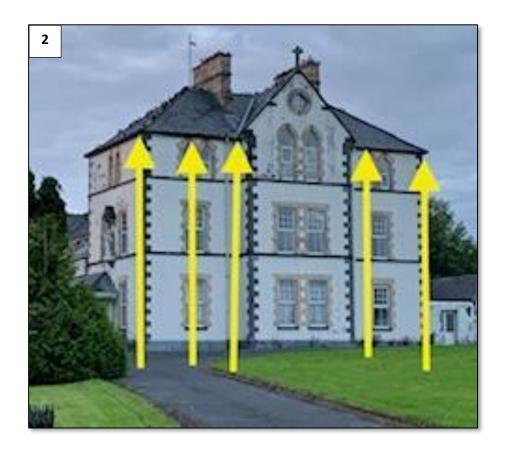


Figure 16: Locations of confirmed nest colonies in Castlerea marked by yellow symbols (ArcGIS ESRI Online 2020).

Table 7: List of all confirmed nest sites in Castlerea

Photo No.			Confirmed Nest Count	Building Type
1	Mikes Motors Main Street	6	2	Small Business
2	St. Annes Convent, Convent Road	12	5	Church/Religious
3	Trinity Arts Centre, Church Road	10	1	Public
4	House, North Church Road	10	1	House/Residential
5	8 Station View	5	1	House/Residential











8.6 Strokestown

Strokestown (Irish 'Béal na Búillí' which translates to mouth of the Bumlin river) is a small town in east Roscommon not far from the River Shannon and the Longford border. Notable features include the second-widest street in Ireland and the Strokestown Park House, an 18th-century mansion with the longest herbaceous border in Ireland. There is a museum commemorating the Great Famine of 1845 in the town. The town's name means the "mouth of the ford of the strokes" referring to the Bumlin River that runs through the demesne. The town's population was 825 in 2016.



Figure 17: Locations of confirmed nest colonies in Strokestown marked by yellow symbols (ArcGIS ESRI Online 2020).

Table 8: List of all confirmed nests in Strokestown

Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1	Bridge Street	13	2	House/Residential
2	Elphin Street	10	3	House/Residential
3	Church Street	10	2	House/Residential







8.7 Elphin

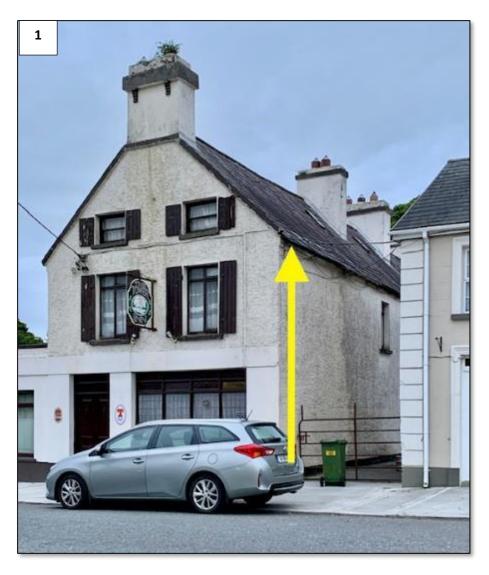
Elphin (Ail Finn) is a small town in north County Roscommon. The Irish name means "rock of the clear spring", which derives from a story of St. Patrick raising a large stone from a well opened by him in this area. St. Patrick also founded an episcopal monastery or college at Elphin, which was one of the first monasteries founded by the saint. Elphin Latin School had famous students such as Oliver Goldsmith and Sir William Wilde, Oscar Wilde's father. It had a population of 565 in 2016.



Figure 18: Locations of confirmed nest colonies in Elphin marked by yellow symbols (ArcGIS ESRI Online 2020).

Table 9: List of all confirmed nest sites in Elphin.

Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1	Tower Inn Main Street	6	1	Small Business
2	House on Main St. F45P7D3	4	1	House/Residential
3	House on Main St. F45RC65	10	5	House/Residential







8.8 Frenchpark

Frenchpark, historically known as Dungar (Dún Gar meaning "narrow fort") is a village in north County Roscommon on the N5 national road. The nearby French Park Estate was until 1952 the ancestral seat of the French family Barons de Freyne. A historic smokehouse is the only remaining legacy of this barony. The village had a population of 454 in 2016.



Figure 19: Locations of confirmed nest colonies in Frenchpark marked by yellow symbols (ArcGIS ESRI Online 2020).

Table 10: List of all confirmed nest sites in Frenchpark.

Photo	Address	Peak Swift	Confirmed Nest	Building Type	
No.		Count	Count		
1	Former pub Eden House, N5	6	2	Small Business	
2	Old House, corner of N5 and Fair Green	6	2	House/Residential	
3	Old House, Cloonshanville Park	8	2	House/Residential	







8.9 Athlone (Roscommon side)

Athlone is the county town of County Westmeath but parts of it lie west across the River Shannon in County Roscommon. Athlone was previously surveyed in the Westmeath County Swift Survey so it was not prioritised in the Roscommon Survey of 2020. Thus, it was only surveyed late in July 2020 and although 3 nests were found it is likely there are more nests present in Athlone west of the River Shannon.



Figure 20: Confirmed nest colonies in Athlone (Roscommon Side) marked by yellow symbols (ArcGIS ESRI Online 2020).

Table 11: List of all confirmed nest sites in Athlone.

Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1	16-18 College Park	10	3	House/Residential



8.10 Knockcroghery

Knockcroghery (Cnoc an Chrocaire) meaning 'Hill of the Hanging' is a village in southern Roscommon located between Athlone and Roscommon town close to Lough Ree on the River Shannon. It is one of the closest population centres to the geographical centre of Ireland. The village lies at the foot of a stony ridge which protects it from the east wind that rises up from Galey Bay. This hill was where people were hanged historically and gave rise to the village's name. It had a population of 351 in 2016.

Swifts are often seen here flying between Athlone and Roscommon and going to hunt over the insect-covered waters of Lough Ree.



Figure 21: Confirmed nest colonies in Knockcroghery marked by yellow symbols (ArcGIS ESRI Online 2020).

Table 12: List of all confirmed nest sites in Knockcroghery.

Phot No	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1	Murray's Pub, Main Street	4	2	Small Business



8.11 Ballyfarnon

Ballyfarnon (Béal Átha Fearnáin) meaning "ford mouth of the alders" is a small town in north County Roscommon very close to the County Sligo border. Built on the River Feorish at the foot of Arigna mountain, it is a very scenic village that lies between Loughs Skean and Meelagh with Lough Arrow and Lough Allen also nearby. It had a population of 187 in 2016.



Figure 18: Locations of confirmed nest colonies in Ballyfarnon) marked by yellow symbols (ArcGIS ESRI Online 2020).

Table 10: List of all confirmed nest sites in Ballyfarnon.

Photo No.	Address	Peak Swift Count	Confirmed Nest Count	Building Type
1	St. Patrick's Catholic Church	4	1	Church/Religious



9 Publicity

The Roscommon Swift Survey 2020 has been widely promoted via print, broadcast and social media. The project received coverage in the local papers with the "Roscommon Herald" and "Roscommon People" both running the story. Much covrage was included on the BirdWatch Ireland website, Ezine and social media platforms as well as benefitting from target emails sent by the Roscommon Branch of BirdWatch Ireland.

As part of the public engagement efforts throughout the Swift season, a County Swift Survey information video was launched on YouTube (May 30th), a press release was issued to local media, and a short video was launched though social media. On the BirdWatch Ireland website, an article requesting Swift records was released, which including a request for records on the BirdWatch Ireland Ezine (May 30th/Issue 128, June 30th/Issue 129). The BirdWatch Ireland Twitter and Facebook platforms were used to raise awareness about the Swift Survey and a targeted e-mail was sent to the BirdWatch Ireland mailing list and via the Roscommon Branch.



Figure 19: Article on the Roscommon Herald website

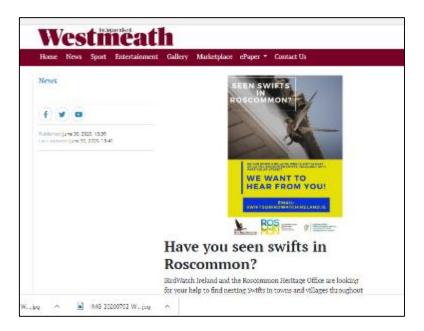


Figure 20: Article on Westmeath Independent Webpage

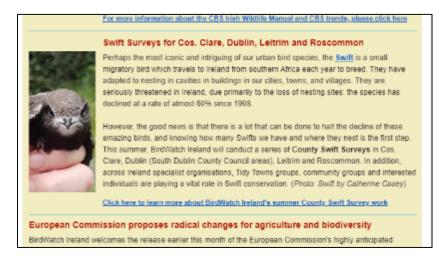


Figure 21: Extract form BirdWatch Ireland Ezine (Issue 128)



Figure 22: Survey Feature on the BirdWatch Ireland Website

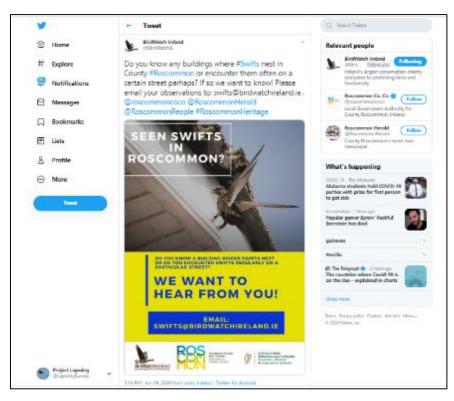


Figure 23: Screenshot of BirdWatch Ireland Twitter profile showing the tweet promoting a call for Roscommon Swift records



Figure 24: Sceenshot of YouTube showing the 2020 County Swift Survey info video



Figure 25: Poster graphic used to promote the Roscommon Swift Survey and invite submission of records

9.1 Community Engagement

Community engagement public events were ruled out due to Covid-19 restrictions, in keeping with government recommendations and best practice guidelines. In lieu of local events in the communities, promotion and awareness raising efforts were increased to raise the project profile through digital and local print media.

Some engagements were made in Roscommon Town (following all Covid-19 guidelines) to meet with local Tidy Towns representatives and visit local Swift colonies. Due to the high density of nest sites in the town this was deemed necessary to guarantee full coverage of all sites.

In autumn and next spring, it is planned to present the results and recommendations of the report and begin the process to inform and empower these communities to protect and conserve their own Swift populations locally.

9.2 Events

No organised community events took place to comply with Covid-9 restrictions.



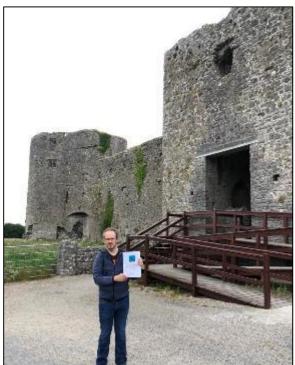


Figure 26: Kathleen and Paul from Roscommon Tidy Towns Group visiting Swift colonies in the town

10 Discussion

The Roscommon 2020 Swift Survey was hugely successful in locating Swift nesting strongholds in the county and highlighting areas in need of conservation measures. This survey is an innovative step towards safeguarding Swift populations in Roscommon. It is very encouraging to see Roscommon County Council recognising the importance of Swifts as an integral part of the urban landscape and the county's heritage and putting in place proactive measures to help conserve the species. Equally, it is through funding from the National Biodiversity Action Plan Fund (administered by the local authorities on behalf of the National Parks and Wildlife Service) that makes this work possible and shows their vital and continued commitment to biodiversity research and conservation. Following on from previous surveys, this project and associated findings provide a detailed picture of the distribution of nesting Swifts in county Roscommon. This survey builds on surveys conducted in other counties around Ireland: the Offaly Swift Survey (2017), the Tipperary, Laois and Westmeath Swift Surveys (2018), and the Meath, Sligo and Wicklow surveys (2019). Now, along with Swift surveys in Clare, Leitrim, South County Dublin and this Roscommon survey in 2020, we have a far greater understanding of Swift populations dynamics both locally and in a regional context. This information is essential for future Swift conservation, and it will be utilised for the protection of Swift colonies both locally and across the country. These projects are pioneering in many respects and can be used as a case study from which many other local authorities, organisations and communities can learn. We continue to build the jigsaw of counties in Ireland who have completed Swift surveys, and with each new county surveyed we develop a deeper understanding of the true factors affecting Swifts, but more importantly we draw up localised recommendations to ensure each county has a plan to protect their individual Swift populations long into the future.

The Swift nest site data collected through this survey is perhaps the most important element of the project. This key information allows us to take the first steps in protecting each site. Of the 40 localities surveyed in Roscommon in 2020, nesting Swifts were only confirmed in 11, accounting for just over one quarter of all surveyed towns and villages. Of these 11 locations, only five towns had 10 or more nests sites confirmed. Breeding Swift populations are especially vulnerable at locations where low density of nest sites were found, these towns and villages could see local extinctions in a short number of years. With the exception of Roscommon town (≥20 nests), Swifts in most Roscommon localities are in immediate need of conservation action to protect existing colonies. Unintentional losses of localised Swift populations can occur where planning decisions, restoration works and building projects have overlooked the presence of Swift nests. This report is a vital first step in stopping the ongoing losses of Swift nest sites in county Roscommon, but now the hard work begins in ensuring their future through careful planning procedures, proactive protection of sites locally and nest box projects throughout the county. Swift nests were located in 31 structures throughout the county, many of which are in public ownership.

When combined, Roscommon Town, Boyle and Ballaghaderreen hold 60% of the nests located in this survey. These are towns with a high proportion of old buildings, so it is unsurprising that these locations would hold many Swifts. Surprisingly however, other sites with many urban expanses such as Castlerea, or Strokestown had few nests in residential buildings. It is likely that with more survey time, more nests could be located in these areas, as large numbers of Swifts were observed in residential estates, but nest locations remained unconfirmed. In both Ballinlough and Monksland, Swifts were observed in flight but no nest site was confirmed. Swifts are known to avoid upland areas, so it is possible that towns with higher elevations had no observed Swifts for this reason, or a lack of

available nest sites is also a likely factor. Other survey areas, such as Monksland, had a large number of modern buildings, therefore it was unsurprising that Swifts were not observed in these areas.

A detailed breakdown of nest sites shows public buildings and residential buildings account for over 60% of nest sites. This is an encouraging spread given that over 30% are found to be in public buildings which can afford Swifts more protection as buildings in public ownership do not tend to change ownership often and a point of contact can usually be found if concerns need to be raised. The biggest colony in the county and an important source colony is the Sacred Heart Hospital in Roscommon Town, this site should be protected carefully.

The remaining nests have an even spread across church/religious, small business and castle/heritage sites with 14%, 12% and 11% of nests contained respectively. This is positive as these types of buildings rarely change ownership and contacts can be found in most cases if intervention is required.

Roscommon Town has a strong Swift population as does Boyle, Ballaghadreen and Carrick on Shannon, they will require some intervention to guarantee the future of breeding Swifts in these towns but the priority for now needs to be in the localities with smaller colonies. Ballyfarnan and Knockcroghery are in immediate danger of loosing breeding Swifts and urgent action should be taken here to protect the existing nest sites and increase the colonies where possible. Once gone it can be very difficult to get Swifts to re-establish. Castlerea, Elphin, Strokestown and Frenchpark are also in need of conservation action to head off any further losses to the local populations. Protection of existing sites is always the first key step as the loss of one strong site can be critical. The establishment of some new safe and permanent nest box sites would go a long way to guarantee a future for Swifts in these towns.

Working with the HSE and OPW in the future should help to protect Swifts in the county. The OPW should be encouraged and supported to take care of Swifts in structures they own and try to establish colonies at sites such as Boyle Abbey. As well as this the OPW and the County Council need to be cognisant of the breeding Swifts in Roscommon Castle as redevelopment and renovation works are planned here in the future. The HSE are hosting the largest colony found within the county at the Sacred Heart Hospital in Roscommon. It might be worthwhile to notify the relevant contact and share the report and information with them in order to ensure Swifts are protected at this site going forward as loss of this site for Swifts would be disastrous.

The site-based results and accompanying detailed online maps and photographs in this report, provide an excellent user-friendly account of Swift nest site locations across each of the 11 towns and villages that have nesting Swifts after surveys across Roscommon in 2020. It is hoped this will be a valuable baseline resource for both the council and local communities to help safeguard at these important colonies into the future. In addition, the collaborative approach taken with this project to secure buyin from local communities, volunteers and groups has established a strong and energetic countywide network of Swift Champions, a key component to future conservation efforts. Efforts should now begin to encourage and activate Swift conservation efforts across the county and with collaboration between the local authority, BirdWatch Ireland and local stakeholders much can be achieved to guarantee a future for Roscommon's breeding Swift population.

11 Conclusions & Recommendations

In conclusion, the Roscommon Swift Survey 2020 has been extremely successful. We now have a detailed picture of the distribution of Swifts in the county. We have identified and mapped confirmed nest sites throughout towns and villages across the county, a basis on which conservation measures can now be assessed. Other results include new information on the building types used by Swifts for nesting, which will help inform conservation priorities and policy. The engagement with local communities, and volunteers through social media platforms has established a growing network of contacts for Swift conservation in Roscommon. This survey should be repeated every five to 10 years to assess how the current colonies are faring and how any new colonies have been established or restored.

11.1 General Recommendations

- 1. Ensure the results of this report are made available and utilised for the protection of Swifts in Roscommon. Publish a link to PDF report on relevant section of council website for access by the public. In addition, distribute the report to as many localities as possible through relevant local groups and interested individuals.
- 2. The map data associated with this report (nest site grid references) should be made known and available to relevant personnel in the council (e.g. planners/architects) and/or incorporated into council systems to help prevent future loss of Swift nest sites.
- 3. Make plans to present the results of this survey at a community level and engage the public in order to allow them to help protect and conserve their local Swift populations.
- 4. We encourage Roscommon County Council to implement an immediate Swift Colony Creation Project – this would include enhancing existing nest sites to include additional nesting opportunities through providing new nest boxes/bricks. This would also create new nest sites in areas where nesting Swifts are absent or have been lost. This can be done by retrospectively installing nesting boxes on suitable buildings or utilising commercially available Swift Bricks to create nest sites in sites under development or planned for development going forward. Creating a three to five-year plan for identifying existing and planned buildings and installing the nesting structures is recommended. This project should especially be encouraged where population numbers are vulnerable.
- 5. Measures should be taken to protect each colony identified through this project. Roscommon County Council should ensure that any planning applications for redevelopment or new developments at a location highlighted in this report— takes the existing swift nests into account so that existing nest sites are preserved or where that cannot happen that alternative accommodation for swifts are provided to mitigate the loss of existing sites. Ideally these should be built into any new structures using specialised "Swift Bricks". Alternatively, external swift boxes and call systems can be provided by the developer/property owner. All details on making provisions for Swifts can be accessed in the BirdWatch Ireland Saving Swifts Guide here: https://birdwatchireland.ie/publications/saving-swifts-guide/

- 6. Local authority should include appropriate wording on Swift conservation measures in the next County Development Plan (suggested text/policy in Appendix). This information should include links to detailed information on the provision of artificial nest sites for Swifts e.g. Swift bricks, Swift nest boxes into all new public building and renovation works and in large-scale commercial developments. Incorporate measures for Swifts into future county Biodiversity Action Plans which outlines their status, conservation measures and management practices needed architects and planners should be involved delivering these results.
- 7. Through the regular planning process, recommend that all suitable new developments (outside of Local Authority works) of large buildings such as schools, apartments, housing estates and offices to include provision for Swifts. This can be achieved by using specially designed inbuilt bricks which meet the requirements of Swifts nest and load bearing capacity of the building or by using externally fitted nest boxes. This measure can be used to offset the environmental impact of such large-scale developments.
- 8. More work is needed in 2021 to raise awareness about the status of Swifts and the conservation measures needed to prevent their future decline with all members of the county council responsible for heritage, planning, environmental management and administration.
- 9. Offer Tidy Towns groups the opportunity to be presented with the results of the project and to discuss the findings and recommendations with relevant and experienced Swift experts. Tidy Towns groups play a key role in Swift conservation around the country, an effort that is growing annually.
- 10. Continue at county level in 2021 to encourage local volunteers and community groups to continue surveying for Swifts each summer and entering records to the online mapping system. This has been shown to work in county Offaly where members of Tidy Towns groups have re-surveyed their own localities to ensure Swifts are present at known colonies whilst identifying new and previously unrecorded sites. Following on from this, encourage local community groups to establish Swift conservation projects in towns and villages across the county.
- 11. Encourage other County Councils to get involved with an annual Swift Survey in 2021. Swifts were observed outside of the Roscommon County boundary throughout the 2020 survey, and so could not be included in the results of this report. Further surveys around the rest of Connaught and along the River Shannon would offer extremely important results for Connaught and allow for the assessment of the Swift population in Connaught overall.
- 12. Develop a school's programme to engage and educate primary school children about Swifts and their conservation and to establish school conservation projects.
- 13. Develop an initiative to work with businesses to protect and promote swifts nesting in small businesses and industrial buildings.
- 14. Work with new and retro fitted commercial developments / housing to include a provision for Swift nest boxes where relevant.
- 15. It is recommended to repeat the whole county survey in 5-10 years to reassess the Swift population and monitor the success of conservation measures.

- 16. Distribute the Saving Swifts guide to relevant groups around the county and to relevant local authority staff and councillors. The guide is available online here: https://birdwatchireland.ie/publications/saving-swifts-guide/ and contains all the information required to help conserve Swifts and establish nest box projects.
- 17. Encourage any uptake or efforts that follow the guidelines within the All-Ireland Pollinator Plan. These actions can directly contribute to Swift conservation through the benefits for and related increase in hoverflies which are a favoured prey item for Swifts.

11.2 Town Specific Recommendations

Town	Recommendations
Roscommon	All nests located in Roscommon were found in public buildings and heritage
	sites and small businesses in the town. It would therefore be very important
	to involve local Tidy Towns and resident's association in ongoing monitoring
	and conservation of this population. It would be good to increase the
	population into residential areas. For 2021, nest boxes could be installed in
	more public buildings, such as libraries and secondary schools.
Boyle	All nests in Boyle were found in old buildings and old mills. No large colonies
	were located, with only scattered nests located over large areas. The
	involvement of Tidy Towns is essential in preserving the breeding numbers
	here. Further survey efforts would be useful in pinning down further nest sites,
	this would require the involvement of volunteers. There are many locations
	throughout the areas along the river and at the abbey where nest boxes could
	be fitted. Work with the OPW to encourage Swifts to establish a nesting colony
	at Boyle Abbey.
Ballaghaderreen	Swifts were observed flying over several sites around Ballaghaderreen but not
Ü	linked to sites in all cases. There are a number of suitable buildings along Main
	Street that would make ideal sites for nest boxes. A nest box scheme here
	could act to attract nesting Swift back to the centre of the town.
Carrick-on-	The only population in the Roscommon side of Carrick is associated with the
Shannon	railway station. This colony is robust and should be carefully preserved now
	and into the future. Establishing a new colony on the same side of the river
	would be a good idea and provide a second colony for Swifts on this side of
	town and spread the risk if anything was ever to happen to the Railway Station
	buildings.
Castlerea	Nests were found in a few scattered areas around the town during the 2020
	breeding season, and all nests should be maintained and increased with nest
	boxes in future years to ensure that all Swift nests are preserved, and colonies
	grown. The Arts Centre on Church Road is an important area for Swifts and
	should be added to with Swift boxes immediately for 2021.
Elphin	There is a spread of Swift nest sites in residential buildings in the centre of
•	Elphin. Only one building of the three contains more than one nest. Consider
	using nest boxes to encourage the colonies to grow at the three sites or close
	by.
Strokestown	Despite a high peak number of Swifts observed in this area, only seven nests
	were confirmed. Further survey efforts here would be required in future
	seasons to pin down nests. Installation of nest boxes in the village should also
	be encouraged immediately.
Frenchpark	This town had numerous old buildings suitable for Swifts and all nests should
·	be maintained and increased with nest boxes in future years to ensure that all
	Swift nests are preserved and colonies grown.
Athlone	This area of Athlone could provide numerous Swift nests if those present are
	maintained and developed over the next few years, Thus, all current nests
	should be maintained and increased with nest boxes in future years to ensure
	that all Swift nests are preserved and colonies grown.
Knockcroghery	Needs a nest box scheme urgently to help bolster the small population in the
	village. A number of suitable buildings exist to locate boxes and a caller.
Ballyfarnon	This village is quite remote and close to County Sligo, Swifts are often seen over
	the town and the one nest found should be added to by providing nest boxes
	in the centre of the village in time for the 2021 season.
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Acknowledgements

The Roscommon Swift Survey 2020 would not be possible without the commission and funding from Roscommon County Council and the Department of Culture, Heritage & the Gaeltacht under its National Biodiversity Action Plan funding. We thank Nollaig Feeney - Roscommon County Council Heritage Officer for her enthusiasm and efforts in coordinating on behalf of the local authority and her support and steer at every step. Thanks goes to Larry Mitchell for his assistance and steer in locating nests in several localities. We thank Lynda Huxley for her steer giving her experience of Swifts in both Roscommon Town and Carrick on Shannon having completed survey work with respective communities in the past. We thank Kathleen and Paul from Roscommon Tidy Towns for her support and assistance with records throughout the 2020 breeding season. Lastly, we thank all those who have contributed to our Swift records and given their time to assist with Swift surveys, these surveys could never be so successful without the widely received support from our local communities.

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Appendices

Appendix 1

12.1 Swift Survey Sheet 2020

Observer Name						
Date/Time						
County						
Town/ Village						
Weather						
Final Peak Swift Count						
Total Confirmed Swift Nests						
Local Tidy Town Group Contacted	Yes	/	No			

	Nest Site Form						
Time 24hr format	Nest Location (12 Pearse St, Trim)	Building Type: (e.g. House/Residential, Industrial, Church/Religious, School, Castle/Heritage Site)	Using Nestbox (Yes/No)	Swifts Peak Count	Confirmed Swift Nests	Description of Nest Site Location	Tag per
		House/Residential, Business, Industrial, Church/Religious, School, Castle/Heritage Site	(Yes/No)				
		House/Residential, Business, Industrial, Church/Religious, School, Castle/Heritage Site	(Yes/No)				
		House/Residential, Business, Industrial, Church/Religious, School, Castle/Heritage Site	(Yes/No)				
		House/Residential, Business, Industrial, Church/Religious, School, Castle/Heritage Site	(Yes/No)				

12.2 Suggested Policy Wording – County Development/Heritage Plan documents or similar

It is illegal under The Wildlife Act 1976 (+ amendments) to intentionally kill or cause harm to nesting bird species. Therefore, to comply with Irish legislation and to follow best practice the following actions should be carried out within the respective situations outlined below.

BirdWatch Ireland are happy to supply further steer and recommendations if needed at any point and can be reached at swifts@birdwatchireland.ie or on (0)5791 51676

When working on buildings where Swifts are nesting (during nesting season):

- Avoid working on the building while Swifts are nesting (end April end August inclusive), if work must take place it must be limited to areas where Swifts will not be affected (internal work) or disturbed. Wholescale removal of roof structures and masonry is to be avoided always within the nesting season.
- Do not block nest access with scaffold and don't net or wrap areas where Swifts are nesting.

When working on buildings where Swifts are nesting (outside of nesting season):

- Preserve the Swifts nest access holes or make new ones to match the old exactly.
- If existing nest entrances can't be retained, mitigation by erection of externally fixed specialised Swift nest boxes should be made.

When working on new builds or renovations to buildings that don't have Swifts nesting:

- At the planning stages for all new public buildings (over 5 metres) built-in Swift bricks (preferable) or externally fixed Swift nest boxes should be incorporated.
- At the planning stages of all new private buildings (over 5 metres) built in Swift bricks or externally fixed Swift nest boxes should be considered.

12.3 Swift Nest Boxes and Bricks in use (some examples)

There is a myriad of Swift bricks (integrated into fabric of wall) and Swift nest boxes (externally fitted) available commercially. Within the available options many can be rendered over or painted to match the building. Pages 22-27 of the Saving Swifts guide () offer further case studies where both bricks and boxes have been used at a range of sites/building types.



Figure 27: A row of Swift nest boxes installed at Mullingar Courthouse. Photo: Richella Duggan



Figure 28: Installing Swift boxes as part of the fabric of the wall. Photo: Lynda Huxley

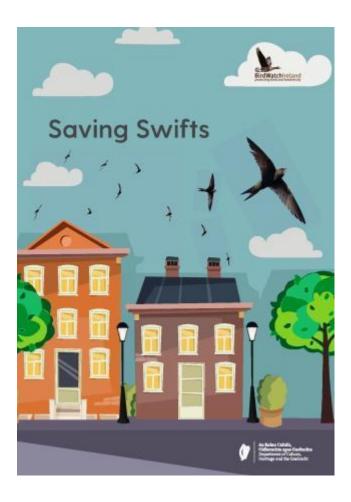


Figure 29: Swift Bricks installed during build phase in Notting Hill London.



Figure 30: A Swift Brick installed in a newly erected redbrick wall. Photo: <u>www.birdbrickhouses.co.uk</u>

12.4 BirdWatch Ireland Saving Swifts Guide



The BirdWatch Ireland Saving Swifts Guide is available as a free download here: https://birdwatchireland.ie/publications/saving-swifts-guide/

The guide is a one stop shop for any and all who are motivated to help conserve Swifts at their own home or on a larger scale such as community and county scale projects.