Wicklow Swift Survey 2019



A report by Ricky Whelan and Oran O'Sullivan



Project funded by:

The Department of Culture, Heritage and the Gaeltacht and Wicklow County Council as an action of the National Biodiversity Action fund.



An Roinn Cultúir, Oidhreachta agus Gaeltachta Department of Culture, Heritage and the Gaeltacht



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1 Executive Summary

Swifts are a small species of bird that visits Ireland to breed in Spring, arriving in early May and departing as soon as the chicks are fledged usually by early August. They are insectivorous and live life largely in flight and are adapted to feeding, drinking, gathering nest material and mating on the wing (in flight). They nest in cavities in masonry, on gaps in the roof spaces of old buildings gaining access through broken fascia and soffit or under roof tiles. They are site faithful and return to the same nest site year on year. Modern buildings are designed and built to be airtight and in the last 20+ years we have improved our buildings so much that we have left few nesting opportunities for Swifts, we have essentially created a housing problem for Swifts. The loss of existing nest sites coupled with other wider environmental issues including factors caused by climate change has resulted in large declines in Swift populations in Ireland. It is with this in mind that many local authorities including Wicklow County Council have been motivated to carry out a county Swift survey to establish the distribution and density of nesting Swifts in the county and to come up with a response to help conserve this iconic urban species into the future.

The Wicklow Swift Survey 2019 has been a huge success overall. The survey work and community engagement aspects of the project were carried out as planned and built on the good work of Oran O'Sullivan (Irish Garden Birds) carried out on behalf of the Wicklow County Council Heritage Office and the BirdWatch Ireland Branch in 2018 and the years previous. The main aspects of the project (surveying, engagement, data analysis and reporting) were carried out in collaboration between Oran O'Sullivan and BirdWatch Ireland.

Overall it took in excess of 50 days survey work to adequately survey the 56 localities (towns and villages) in the county and to pinpoint the 103 Swift nest sites confirmed during the fieldwork phase. These nest sites were distributed throughout 18 localities with Swifts observed in an additional 7 localities but with no nest sites confirmed. The colonies ranged in size from 1 to 8 nest sites found distributed across 57 individual structures/buildings. Swift nest sites are found in a host of building types with the majority being in residential properties in private ownership (55%), small businesses (27%), heritage sites (7%), church religious sites (7%) and public buildings (4%). The main Swift populations were found to exist in Wicklow Town (24), Arklow (14), Rathdrum (11) and Bray (11) respectively. The populations in the remaining 14 localities where Swift nests were confirmed ranged from between 5 and 1 nest sites and these are the areas that are in critical need of conservation action.

Looking at the distribution on a county scale we see a similar pattern in the Swift population to that of the human population. Most Swift nests sites are found in the larger settlements along the east side of the county with a significant lack of nest sites in the upland areas that dominate the centre of the county. This can be explained by Swifts tendency to nest in urban areas and in colonies thus hotspots are frequently encountered at county level. 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 when conservation measures are taken to create new, safe and permanent nest sites. A big part of ensuring this happens is to ensure individual communities take ownership and responsibility for their local Swifts and carryout the required actions to protect them into the future. A large part of the 2019 Wicklow Swift Survey was in community engagement, meeting community members to raise awareness about Swifts and empower them to take a leading role in species

protection locally. However, this cannot be done without support from experts and the local authority and the report offers recommendations at both a county and local level to help conserve Swifts. In some localities, individuals and groups are already off to a good start, taking action for Swifts but more of this will be needed at a wider scale to ensure a future for Swifts in county Wicklow. The local authority through its Heritage, Planning, Engineering, Asset Management and other relevant staff can also play a key role in conserving Swifts through their everyday work.

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 steer the conservation efforts that are now needed.

2 Introduction

The Common Swift (*Apus apus*) is perhaps the most iconic and intriguing of our urban bird species. It is a summer migrant that breeds throughout Europe and much of Asia, and winters 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), while the latest Countryside Bird Survey data shows an alarming 39% decline between 2008 and 2013 (Crowe et al. 2014). 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

Throughout most of its breeding range, the Swift nests in cavities in walls or under eaves of houses and old buildings. Because of this, they are a well-known bird species in urban centres, particularly cities and towns. Based on data from existing surveys, it is known that Swifts nest in several Co. Wicklow towns, including Wicklow Town, Bray and Arklow. However, anecdotally, it is also of concern locally that numbers are in critical decline, mirroring the national and international trends. Reasons for the decline of Swifts are not fully understood, but it is thought the loss of available nest sites due to renovations of old buildings and modern building techniques restricting the availability of suitable nesting cavities is a significant factor (Concern for Swifts 2013).

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. Swifts are long-lived and faithful to their nest sites from year to year, and it is known that an individual pair will not readily move to a newly provided colony. Newly available sites are most likely to be occupied by new pairs if they are attracted to the area by other birds. Therefore, it is essential that any provision and placement of alternative nest sites must be guided by information on where Swifts are currently nesting.

Another important factor to note and relating to the protection of existing nest sites; Swift nest colonies are not afforded any legal protection outside of the breeding season despite it being known that Swifts return to the same nest sites year on year. The Wildlife Act affords protection to all actively nesting birds and to interfere or disturb any nest is unlawful. For example, if a developer knows Swifts are recorded as nesting at a site to be developed. If that developer was to demolish said structure between September and April (outside of 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 (May – September) 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 in an effort to ideally retain nest sites or mitigate for any loss of sites.

The 2019 Wicklow 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 help. The survey will identify to site level the largest and most important Swift nesting sites that act as source populations within the county and further afield. 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. The survey team will make special effort to include local community groups and residents in the project, so they become knowledgeable about Swifts in their respective localities and in turn take increased responsibility in the future conservation and protection of Swifts in their locality and county.

3 Project Objectives

Aim:

To undertake a detailed survey of Swifts in towns and villages across Co. Wicklow 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 Wicklow's urban heritage.

Objectives:

- Carry out a survey of Swifts in Co. Wicklow towns and villages to locate nesting colonies.
- Engage volunteers, community groups and local people to take part in Swift survey work and become aware of Swifts in their locality and vulnerable nesting sites.
- Encourage the development of Swift projects in towns and villages and provide training and advice to local groups and communities for the implementation of conservation projects and building and installation of Swift boxes and bricks.

4 Methodology

A total of 56 towns and villages in Co. Wicklow were identified for Swift survey work. Of this number, 8 towns were ranked as 'High Priority' for survey work. The remaining 48 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: Observing Swifts in Arklow during Swift Awareness Week 2019. Photo: Oran O'Sullivan

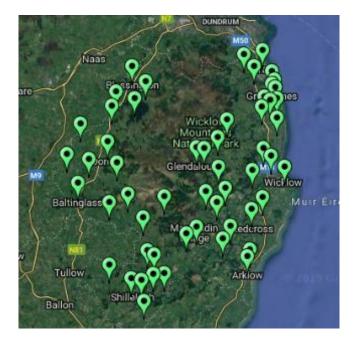


Figure 3: Locations of towns and villages (green icons) selected for the 2019 Co. Wicklow Swift Survey (Scribble Maps 2019).

A total of 50 survey days were scheduled to adequately survey all the towns and villages in Co. Wicklow. Based on our knowledge of Swift distributions in the county and the known presence of nesting pairs in specific towns, it was possible to calculate that 35 days were required to survey the 'High Priority' towns and 15 days for the 'Lower Priority' towns. The number of survey days is 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, three to four towns/villages were surveyed per day, allowing for all 58 towns/villages to be surveyed in 50 days.

The survey work took place from early May to early August 2019. 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 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 local groups (particularly Tidy Towns Groups) and volunteers. They were invited to take part in the Swift survey of their local town/village. This provided them with the opportunity to avail of survey training and advice, while also helping to reduce the overall cost of this project.

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. Yellow arrows or circles were added to each nest site image to illustrate the exact location of the Swift nests.

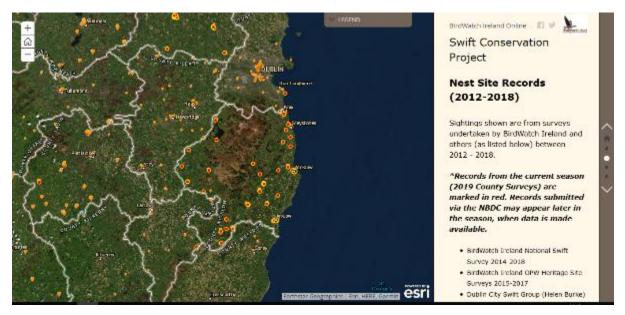


Figure 4: Screenshot of ArcGIS Online Swift sighting mapping tool

6 Citizen Science

A network of volunteers was established to help with survey work and links were developed with Tidy Towns Groups across the county.

Input from local volunteers was collected through the ArcGIS Online Mapping Application and bulk records were accepted in Excel format and integrated online. Records of Swift sightings/nests were also sent by email to BirdWatch Ireland and details of the records entered to the online platform.

Regular contact and liaison with local groups was made throughout the project to support on the ground citizen science efforts and to promote the survey and follow up actions locally.

Active effort was made to meet with local groups to recruit new citizen science contributions; this was supported by raising awareness of Swifts and the Wicklow Swift Survey through social media platforms and local media coverage (print and broadcast).



Figure 5: Searching for Swifts in Bray during a Swift Walk with Ricky Whelan of Birdwatch Ireland on May 7th, 2019. Photo: Ricky Whelan

7 Results

A total of 56 towns/villages in Co. Wicklow were surveyed for this project. Of the 56 towns/villages Swifts were identified in 25, with nesting sites confirmed in 18 of these. The 2019 Wicklow Swift Survey identified a maximum count of 367 Swifts (peak count of all areas combined) and confirmed 103 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 57 buildings/structures, which are documented with photographs and plotted in ArcGIS Online. In total Ricky Whelan, (BirdWatch Ireland) and Oran O'Sullivan (Irish Garden Birds) have conducted 50 field survey days and 20 days of office work to complete and coordinate the survey work and to collate the results. During this time a myriad of Tidy Town Groups/local groups/volunteers took part in this project. Overall results of the Wicklow Swift Survey 2019 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.

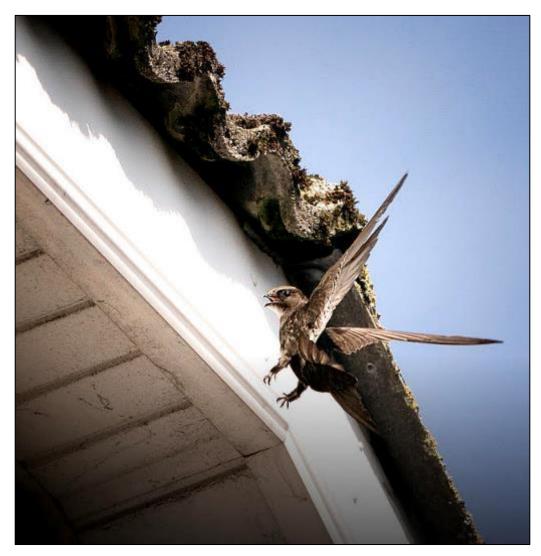


Figure 6: Swift entering nest site. Photo: Mike Taylor

7.1 Survey Visits

An initial visit to each of the 56 Wicklow 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 Wicklow, where 24 nests were found (*Table 1*). This was followed by 14 nests in Arklow and 11 confirmed in Rathdrum and Bray. The remaining 14 localities reporting between 1 and 5 nests. The largest peak count (maximum number of birds observed during a single visit) of Swifts was recorded in Arklow with 85 Swifts being observed.

No.	Town/Village	Number of times surveyed	Swifts present	Peak number of Swifts	Nests present	Number of nests
1	Wicklow	10	yes	54	Yes	24
2	Arklow	5	yes	85	Yes	14
3	Rathdrum	8	yes	16	Yes	11
4	Bray	4	yes	60	Yes	11
5	Baltinglass	4	yes	6	Yes	5
6	Greystones	6	yes	25	Yes	5
8	Coolattin	2	yes	10	Yes	5
10	Aughrim	5	yes	21	Yes	5
9	Tinahely	4	yes	12	Yes	4
7	Ballinaclash	3	yes	8	Yes	3
11	Knockanarrigan	1	yes	8	Yes	3
16	Rathnew	8	yes	12	Yes	3
12	Blessington	3	yes	6	Yes	2
13	Carnew	3	yes	9	Yes	2
14	Coolafancy	2	yes	4	Yes	2
15	Grangecon	3	yes	6	Yes	2
17	Dunlavin	2	yes	6	Yes	1
18	Kiltegan	1	yes	2	Yes	1
19	Kilcoole	3	yes	7	Not confirmed	0
20	Avoca	3	yes	2	Not confirmed	0
21	Coolboy	1	yes	2	Not confirmed	0
22	Enniskerry/powerscourt	2	yes	2	Not confirmed	0
23	Redcross	3	yes	2	Not confirmed	0
24	Ashford	5	yes	1	Not confirmed	0
25	Glenealy	6	yes	1	Not confirmed	0
26	Aghavannagh	1	No	0	No	0
27	Annacurra	2	No	0	No	0
28	Annamoe	1	No	0	No	0
29	Ballyknockan	1	No	0	No	0

 Table 1: Summary information for all towns surveyed during the 2019 Wicklow Swift Survey.

30	Barndarrig	2	No	0	No	0
31	Charlesland	1	No	0	No	0
32	Clara	2	No	0	No	0
33	Coolkenno	1	No	0	No	0
34	Curravanish	1	No	0	No	0
35	Delgany	2	No	0	No	0
36	Donard	1	No	0	No	0
37	Glendalough	1	No	0	No	0
38	Greenan	2	No	0	No	0
39	Hollywood	1	No	0	No	0
40	Kilbride	1	No	0	No	0
41	Killincarrig	2	No	0	No	0
42	Kilmacanogue	1	No	0	No	0
43	Kilpeddar	1	No	0	No	0
44	Kilquade	1	No	0	No	0
45	Knockananna	1	No	0	No	0
46	Lacken	1	No	0	No	0
47	Laragh	2	No	0	No	0
48	Newcastle	2	No	0	No	0
49	Newtownmountkenneddy	1	No	0	No	0
50	Poualphouca	1	No	0	No	0
51	Rathdangan	1	No	0	No	0
52	Roundwood	1	No	0	No	0
53	Shillelagh	2	No	0	No	0
54	Stratford	2	No	0	No	0
55	Valleymount	1	No	0	No	0
56	Woodenbridge	3	No	0	No	0

7.2 Swift Nests

Figure 8 shows the density of Swift nest sites across the towns/village of Co. Wicklow, low density (blue), average (red) and high density (yellow). Wicklow and Arklow show the highest density whilst Rathdrum and Bray show medium to high densities of Swift nests.



Figure 7: Heat map showing the densities of Swift nests across county Wicklow (ArcGIS (Online) ESRI, 2019)

The survey has identified a total of 103 active Swift nest sites across the county. No single colony was found to contain more than seven active nests. The highest density of nests in a loose colony is likely found in the residential estates in Arklow where more nests are likely to exist but their locations could not be confirmed due to the difficulty in locating the sites in densely populated areas.

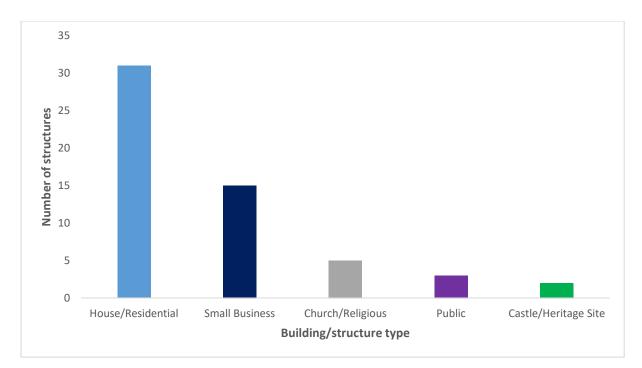


Figure 8: Overall number of Swift nests per building/structure type

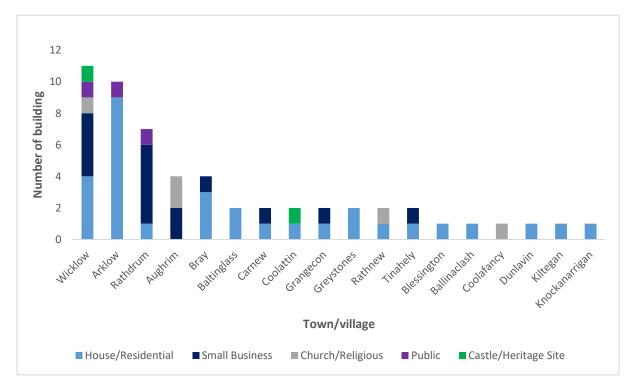


Figure 9: Number of buildings/structures confirmed to be occupied by Swifts in Co. Wicklow localities.

Swift colonies have been recorded in a total of 56 different buildings and structures across Co. Wicklow. A further breakdown of use of these buildings and structures is shown in (Figure 9), with 31 nests in houses, 15 in small business, 5 in church/religious, 3 in public buildings and 2 in castle/heritage sites.

The types of buildings and structures that accommodate Swift colonies varied across the towns and villages in the county (*Figure 10*). The three towns with the highest number of nests showed differing patterns of usage. Wicklow showed a good spread of nests across building types, Arklow had a high dependency on residential properties, whereas small business properties were a big feature for nesting Swifts in Rathdrum.

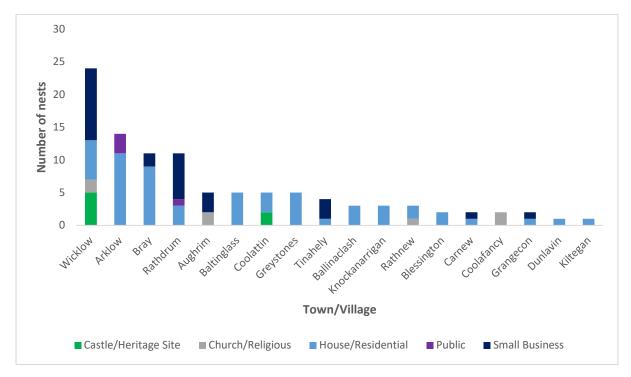


Figure 10: Number of confirmed Swift nests in each town/village according to building type.

The number of confirmed Swift nests in each town/village was categorised by building type occupied (**Figure 11**). All but two localities where Swift nests were confirmed had nest sites in residential properties. The exceptions being Aughrim and Coolfancy where nests were split between small business and church/religious properties respectively. Four localities had nests in church/religious sites overall. Seven localities showed nests in small businesses properties whilst colonies in castle/heritage sites were only found in two localities, namely Wicklow and Coolattin.

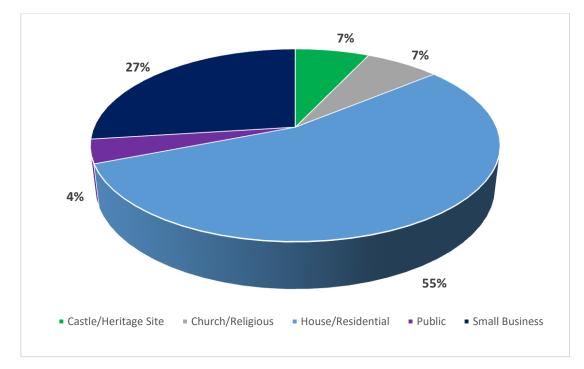


Figure 11: Percentage of Swifts nests per structure/building type in county Wicklow.

Overall 56% of Swift nests were found in houses/residential buildings, 25% in small businesses, 7% in churches/religious buildings and 6% in public and castles/heritage sites respectively (*Figure 12*).

The table below (*Table 2*) shows the total county percentage of the proportion of Swift nests found per town/village. Wicklow contains 22.5% of Wicklow's Swift nests, more than any other town. The proportion of Swift nests in 14 towns ranges from 1-7%, while Wicklow, Arklow and Rathdrum combined hold 51% of Wicklow's overall nest count (xxx nests in total).

Town/village	% of nests	Town/village	% of nests
Wicklow	23%	Ballinaclash	3%
Arklow	13%	Knockanarrigan	3%
Bray	11%	Rathnew	3%
Rathdrum	11%	Blessington	2%
Aughrim	5%	Carnew	2%
Baltinglass	5%	Coolafancy	2%
Coolattin	5%	Grangecon	2%
Greystones	5%	Dunlavin	1%
Tinahely	4%	Kiltegan	1%

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

8 Site Based Results

A total of 56 towns/villages in Co. Wicklow were surveyed for this project. Of the 56 locations, Swift nest sites were confirmed in 18.

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 boxes/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 12: Screenshot taken from the online ArcGis Swift Conservation Project record viewer (ArcGis Online)

*properties in densely populated residential estates were not photographed but a representative photo with typical nest site location marked is provided for reference in these cases.

9 Publicity

The Wicklow Swift Survey was promoted via community engagement efforts, through events and by using a combination of traditional print & broadcast media as well as online and social media outlets.

9.1 Community Engagement

Oran has made a concerted effort to engage with local community members during survey activities, to date Oran has engaged with local BirdWatch Ireland Members, Tidy Towns groups (Incl; Newtown

Mountkennedy, Rathdrum and Group residents, and owners.



Arklow, Bray, Wicklow), ICA members, local building

Figure 13: Swift Hero Brian O'Reilly surveying for Swifts in Baltinglass. Photo: RW

Table 27: List of community groups involved in the Swift Survey 2019

Bray Tidy Towns Group
Baltinglass Tidy Towns Group
St Patricks parish, Wicklow
Arklow Tidy Towns Group
Rathdrum Tidy Towns
Tinahely Tidy Towns
Dunlavin Tidy Towns

9.2 Events

We held two very successful launch events on May 09th and 10th in Bray (The Martello Hotel) and Baltinglass (Library) with over 50 people in attendance over both nights. Talks were followed by a short walk to observe Swifts feeding over the urban areas.

Oran O'Sullivan hosted a Swift Evening with Wicklow ICA on June 10th. The event was attended by 25 members of the group and we received great feedback.

Oran also hosted a stall at the Cruinniú na nÓg event at Russborough House on June 15th and spoke to visitors about the Swift survey, birds and wildlife.

Lastly we hosted a Swift Awareness Week event in Arklow on Wednesday June 26th and had a good turnout and were treated to massive numbers of Swifts over a residential area and a sighting of a hunting Peregrine Falcon as a bonus!



Figure 14: Enjoying views of Swifts at the Baltinglass Launch Event, May 9th. Photo: RW



Figure 15: Talkin Swifts in Arklow celebrating Swift Awareness Week, 26th June 2019. Photo: JM

9.3 Media Engagement

The project has been widely promoted on via print, broadcast and social media. The project has enjoyed coverage in the local papers including The Wicklow People (See Section 12) through BirdWatch Ireland Wings Magazine, via direct mail, through Wicklow County Council Heritage Office and website and through both BirdWatch Ireland and BirdWatch Ireland Wicklow Branches Social media outlets (See Section 11) and via direct contact through respective mailing lists.

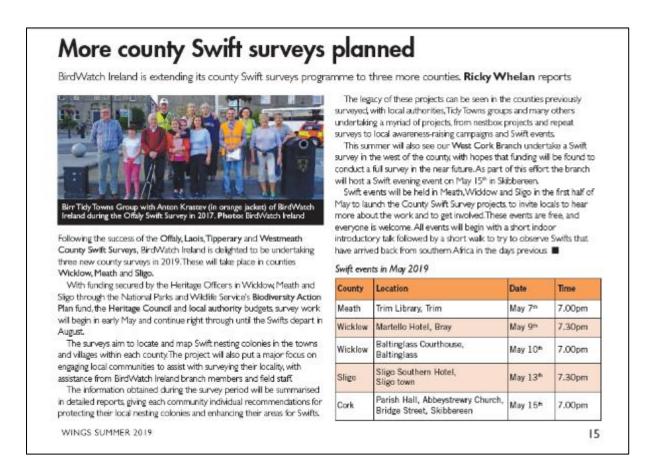


Figure 16: BirdWatch Ireland Wings Magazine Article in Summer Edition 2019

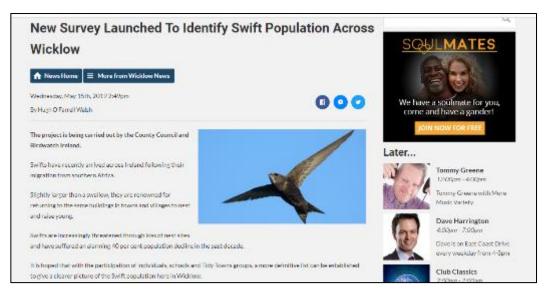


Figure 17: Wicklow Swift Survey coverage on the East Coast FM Website



Figure 18: Wicklow Swift Survey Coverage on the WicklowNews Website

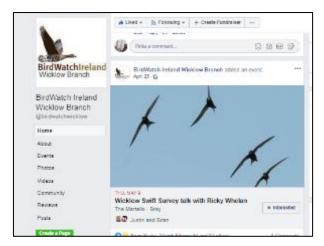


Figure 19: BirdWatch Ireland Wicklow Branch Facebook page event promotion post



Figure 20: BirdWatch Ireland Tweet re Swift Awareness Week Events



Figure 21: BirdWatch Ireland Tweet via @RickyWhelan twitter Handle



Figure 22: Our Wicklow Heritage Website

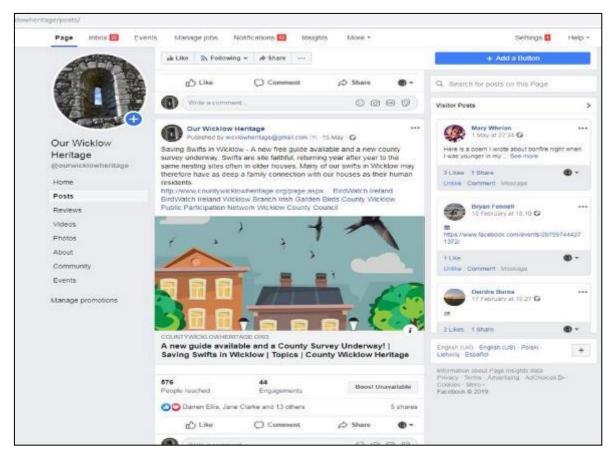


Figure 23: Our Wicklow Heritage Facebook Page

10 Discussion

The Wicklow Swift Survey is an innovative step towards safeguarding Swifts in Co. Wicklow. It is very encouraging to see Wicklow County Council recognising the importance of Swifts as an integral part of the urban landscape and the counties 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. This project and associated findings provide our first detailed picture of the distribution of nesting Swifts in Co. Wicklow, after a pilot study in the county in 2018. Following on from the 2017 Offaly Swift Survey, the Tipperary, Laois and Westmeath Swift Surveys conducted in 2018 and now Meath, along with Sligo and Wicklow in 2019 all give us 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, 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 56 localities surveyed in Wicklow in 2019, nesting Swifts were only confirmed in 18. This is less only 32% of all surveyed towns and villages. Of these 18 locations, four towns had more than 10 nests sites confirmed, and the remaining fourteen localities had between 1 and 5 nests. Breeding Swift populations are especially vulnerable at the localities with the low density of confirmed nest sites and could see local extinctions in a short number of years. With the exception of the four towns with more than 10 nest sites, Swifts 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 then is a vital first step in stopping the ongoing losses of Swift nest sites in Wicklow, 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.

The heat map in the results section shows the pattern and density of nesting Swifts across the county. We see that the Swifts are absent from the Wicklow mountains which accounts for a huge proportion of the county. Wicklow town holds almost a quarter of the nest sites found whilst, Arklow Rathdrum and Bray have 11 or more nest sites each but for their size it would be reasonable to expect more nest sites to be present. More work is certainly needed in Arklow where nesting Swifts proved very difficult to pin down. More investigation is also required in Greystones as a town its size should contain more active nest sites. It should also be noted that there were seven towns/villages where Swifts were observed in flight but no nest site was confirmed either due to the observations being made of transient birds over the town or that nests were missed due to the difficulty of finding the Swift nests at such low densities. Of the seven it is very likely that Kilcoole has a nesting Swift population and more work is needed to pin the locations down in future seasons.

This survey methodology allows us to investigate the importance of building/structure type for Swift nesting sites. From the results it is clear that residential properties (house/residential) were most important for nesting Swifts in Wicklow, accounting for 55% of all occupied nests. It is not unusual

that residential properties take the top spot here due to their density in any county compared to other building type. Small business properties accounted 27% of nest sites which is significant and shows the need to collaborate with local business to ensure a future for Swifts in Wicklow town centres and streetscapes. Church/Religious and Heritage sites accounted for 7% of sites respectively. The remit of the survey was to survey urban built spaces for nesting Swifts but due to the counties rich history and the myriad of historic buildings dotted throughout the county it would be worthwhile to investigate some of these rural sites for nesting Swifts in future as they may be home to colonies that this survey has overlooked. Lastly public buildings accounted for 4% of sites which is very low. Public buildings include schools, libraries, hospitals etc and are important locations for Swift colonies as they do not change ownership frequently if ever so colonies of Swifts are easier to protect and keep an eye on at these sites. It would be achieved by making provision for nesting Swifts in the development of new schools, primary care facilities, libraries and other buildings that are built and maintained by public bodies.

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 10 towns and villages that have nesting Swifts after surveys across Co. Wicklow in 2019. It is hoped this will be a valuable baseline resource going forward for both the council and local communities to help safeguard these important colonies into the future. In addition, the collaborative approach taken with this project to secure buy-in 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 county Wicklow's breeding Swift population.

11 Conclusions & Recommendations

In conclusion, the Wicklow Swift Survey 2019 has been a tremendous success. We now have, for the first time, 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, volunteers and groups has established a growing network of skilled and knowledgeable base of Swift Champions in Wicklow, who will now form the backbone of future Swift conservation efforts in the county. This survey should be repeated every five to 10 years to assess how the current colonies are faring and how many new colonies have been founded or restored.

11.1 General Recommendations

- Ensure the results of this report are made available and utilised for the protection of Swifts in Co. Wicklow. 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. Provide training and updates bi-annually to relevant local authority staff so proactive measures can be taken in the relevant departments to protect and enhance Swift populations in county Wicklow.
- 4. Wicklow County Council should implement an immediate Swift Colony Creation Project this would involve enhancing existing nest sites to include additional nesting opportunities through providing new nest boxes/bricks. Creating new sites for nesting Swifts around towns and villages in the county, 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.
- 5. Measures should be taken to protect each colony identified through this project. Wicklow County Council should ensure that any planning applications for redevelopment or new developments at 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.
- 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 largescale 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 2020 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.
- 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 2020 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. Consider a survey of rurally located heritage sites, castles, churches and other historic sites often contain nesting Swifts. The focus of the 2019 Wicklow Swift Survey was to survey urban areas in the county so suitable rural sites may contain important numbers of nesting Swifts. A list of sites could be compiled by looking at both listed protected structures and other known heritage buildings/ruins in the county.
- 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 assess 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: 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.

Town	Recommendations
Wicklow	A good selection of sites are in use, covering housing estates, commercial and
	religious buildings. For 2020, nest boxes should be deployed in the new
	Library building, county hall, and perhaps Wicklow Gaol.
	A L.A. partnership grant has been applied for under the aegis off St Patricks
	Parish which has a number of suitable Swift buildings in its grounds.
	Depending on the grant applications progress, Swift conservation work will
	be carried out in 2020. TT and local residents' associations have a role to
	play in Swift conservation and monitoring.
Arklow	The concentration of nest sites in the Sheephouse area (St Peters Place etc.)is
	vulnerable in that many of the houses in the interconnected estates are likely
	to be retro fitted in the coming years and nest sites may be lost. There my be
	an opportunity to fit boxes in the adjacent supermarkets (LIDL and Super
	Valu). Arklow TT showed an eagerness to put up boxes in the Knockanrahan
	area and will need some guidance. The Sheephouse area estates should be
	trested as a group for Swift conservation purposes.
Rathdrum	Two boxes were put up in 2019 in St Saviours Church, adjacent to active nests
	in Mc'Graths business premises (currently closed). Most of the Rathdrum
	nest sites are in business premises, many of which are closed but may re-
	open depending on the economic outlook and construction of new housing
	developments. The unfinished Market Square centre has obvious potential
	and is close to existing nests on Main Street. The old Mill buildings adjacent
	to Glanbia and The Ivy Leaf are due to be let to the Tidy Towns committee
	who plan to open a visitor / exhibition centre and café on the premises. The
	Mill building has good potential for Swift conservation work. Contact with
	the TT committee is vital to progress any nest box project.
Bray	This town is undergoing a boom of sorts in construction of commercial
	buildings and apartment blocks. The best concentration of birds is in the
	established housing estates of Wolfe Tone Square, again liable to disturbance
	through renovation and retrofitting. Potential for Swift conservation might
	best be focussed on the big houses of Kilruddery and Powerscourt, though
	the Tidy Towns group may have a role to play in Wolfe Tone Square
Aughrim	Contact with the very active TT group would be advisable as we feel there is
-	more potential for Swift conservation in this town.
Baltinglass	New developments and reconstruction work on the old Convent site with
-	conversion to a regional Primary Care Centre for the HSE into has great
	potential for Swift conservation. A local Swift champion has already
	contacted the architects of this scheme with a view to providing Swift
	nestboxes in the old bell tower and integrated bricks in some of the new
	build areas. Follow up needed
Greystones	Swifts are all but gone with just two localities with nesting birds. The housing

11.2 Town Specific Recommendations

	estates of Redford Park and Rathdown Park will probably retain their population though the house on the seafront that is used for nesting will be
	renovated in due course and may lose its colony. TT needs to be contacted to
	watch over Redford and Rathdown Park area.
Ballinaclash	The small population is probably stable and two of the house owners are
Dumnaciash	aware of Swifts nesting.
Coolattin	The house on the crossroads is likely to hold a stable population. Coolattin
	House itself could be improved for Swifts through contacts with local Swift
	champion and guide.
Tinahely	Tidy Towns group could keep an eye on birds in the village and gauge any
	potential developments or retrofits
Knockanarrigan	Established nesting in the old post office with further potential in the
	property next door which put up two nest boxes in 2019.
Blessington	The village is thought to have potential and only one small colony was located
	in a partially disused detached residence. TT should be contacted.
Carnew	A few nests located on Main street with more birds flying around the general
	area of the old castle. A thorough search of the castle grounds and walls
	should be sought in 2020, via contact with the local development company.
Coolafancy	Nest Boxes in place in church grounds, probably stable, small colony
Grangecon	A good TT committee in place and aware of Swifts. Nest Box to be erected on
	public house premises.
Rathnew	TT committee could assist in nest location and possible box deployment.
Dunlavin	TT committee seeking a meeting in 2020.
Kiltegan	Needs to be rechecked in 2020, local contact and box in place.

12 Acknowledgements

The Wicklow Swift Survey would not be possible without the commission and funding from Wicklow County Council. We thank Deirdre Burns, Wicklow Heritage Officer for her efforts in coordinating the effort on behalf of the local authority and her invaluable support and steer at every step. Thanks also goes to the BirdWatch Ireland Wicklow Branch, especially Joe Lennon whose local steer and efforts are paramount to the success and future legacy of the survey. Thanks to the staff at Baltinglass Library who hosted our launch event in May and local Swift hero Brian O'Reilly who has hit the ground running in his effort to help Swifts in Baltinglass and surrounds. We thank all those who have attended events, met with Oran locally to conduct surveys, submitted records and helped us along the way.

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Appendices

Appendix 1

12.1 Swift Survey Sheet 2019

Observer Name					
Date/Time					
County	WestWicklow		Wicklow	Laois	
Town/ Village					
Weather					
Final Peak Swift Count					
Total Confirmed Swift Nests					
Local Tidy Town Group Contacted	Yes	/	No		
Nest Site Form					

	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) House/Residential, Business, Industrial, Church/Religious,	Using Nestbox (Yes/No) (Yes/No)	Swifts Peak Count	Confirmed Swift Nests	Description of Nest Site Location	Photo (as phone)	Tag per
		School, Castle/Heritage Site 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 24: A row of Swift nest boxes installed at Mullingar Courthouse. Photo: Richella Duggan



Figure 25: Installing Swift boxes as part of the fabric of the wall. Photo: Lynda Huxley



Figure 26: Swift Bricks installed during build phase in Nothing Hill London.



Figure 27: A Swift Brick installed in a newly erected redbrick wall. Photo: <u>www.birdbrickhouses.co.uk</u>