



Information & Instructions

1. Survey Objectives & Processes

The purpose of the Wild West End House Martin & Swift Survey is to learn more about the local population of the two target species in order to monitor their numbers in future and, if possible, provide information that will inform future local conservation actions for these species.

The first task in this process is to identify existing nest sites of the two target species within the Project envelope using two survey techniques.

Building on the knowledge gained through these processes, the Wild West End Project hopes to be able to encourage the protection of identified nesting sites and, subsequently to support the future conservation of these species in the Project area, which may include the provision of new, additional nest sites.

The survey has two core components to it, the two survey techniques. The first of these is a broad-based activity, the identification, and collation, of 'casual' or incidental records of nesting swift and house martins across the whole of the Project envelope. Anybody will be able to contribute to this aspect of the work, in a casual way, and all records will be collated by the Project into a database of nest records.

The second element of the survey uses transect surveys in a number of sample plots, which, after establishment in 2020, will, year on year, be used to monitor 'the population' of both species within the delineated survey plots, across the Wild West End Project area.

This element of the survey will be undertaken according to strict guidelines and will be able to be replicated each spring. In that way, over time, we will be able to assess future changes in local house martin and swift populations.

2. About the Target Species

Both house martins and swift are predominantly aerial species. They are summer migrants to northern Europe, spending the winter in Africa. House martins arrive back in the north east of England from around mid-April, swifts from early May; numbers of both species increasing locally into mid-May.

House martins are perching birds and part of the swallow family. Swift are more closely related to owls and nightjars. Whilst they share a similar lifestyle, i.e. they spend most of their time flying, they nest in buildings and eat airborne invertebrates, they are, in evolutionary terms, not that closely related to each other.

Both species feed, almost exclusively, on what is known as the 'aerial plankton'; which largely comprises flying insects and airborne spiders. Their welfare is therefore intimately

associated with the well-documented declines of insects and other invertebrates.

2.1 About House Martins

The house martin *Delichon urbicum* is an amber-listed species of conservation concern in the United Kingdom and is listed as being of European concern following declines across the continent. The UK population is around 480,000 pairs. Though still common and widespread over much of Britain, from 1970-2014, there was a 47% reduction in numbers; a 10% reduction in numbers occurring between 1995 and 2014.



2.1.1 Description

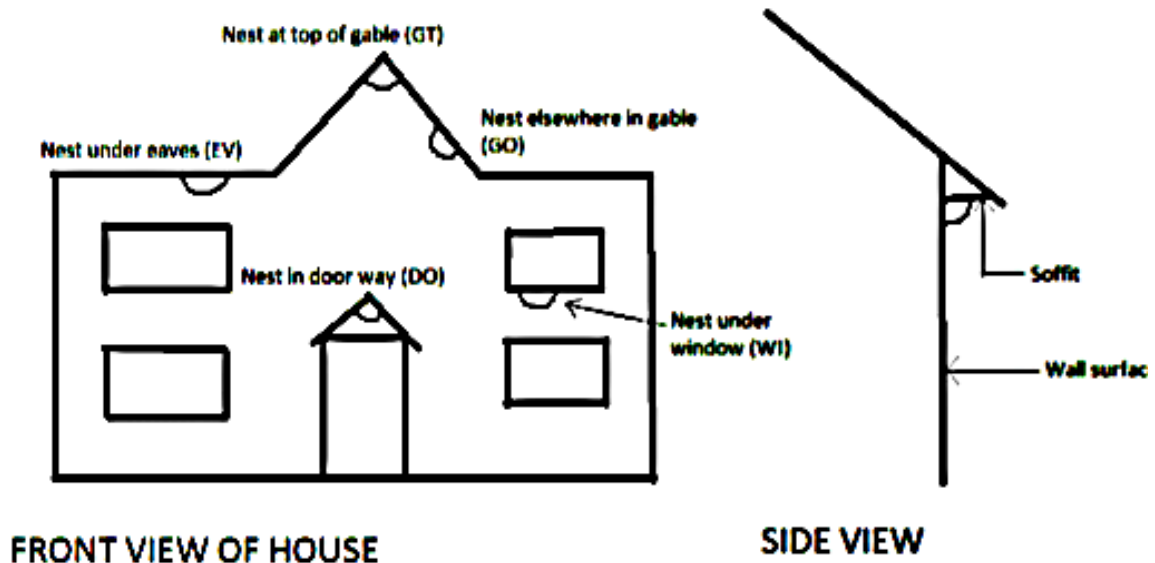
The house martin is a small, relatively long-winged bird (it is c.12cm in length with a wingspan of 26 to 29cm). It has glossy, blue-black upper parts and white under parts. It has a distinctive white rump with a forked tail and white feathers that cover its legs and toes. Like the swift, it spends much of its time on the wing, hunting invertebrate prey.



2.2 Nesting

House martin nests are cup-shaped, with a side entrance hole, made of mud pellets, strengthened with straw, and these are usually stuck on the outside wall of a building, relatively high up, often under the eaves, sometimes around windows. Rarely, they nest inside roofs or in sheds (locations within which their relative, the swallow, routinely nests).

House martins are colonial nesters, with an average group size of four to five nests in each colony. Locations where house martin nest might be located (see illustration below).



2.2. About Swifts

Swift *Apus apus* is a superb flier. These are beautiful, charismatic and rather strange birds. They have declined in number across the United Kingdom by over 50% in the last quarter of a century. The swift is a late-arriving summer visitor, that breeds across the United Kingdom; it is most numerous in the south and east. It spends its winters in Africa. Today, it is an amber-listed species of conservation concern with a national breeding population of some 59,000 pairs.



2.2.1 Description

The swift is a medium-sized, extremely long-winged species (length of c.17cm with a wingspan of 42 to 48cm). In colour, it is largely 'sooty brown', with some buffish white on the throat, but in flight - especially against a pale sky - it appears black. In profile, it has very long, scythe-shaped wings and a short, forked tail. Swifts are the most aerial of all British birds; it sleeps, mates and collects all of its nesting materials on the wing. It can fly very quickly. Its legs are so short that they cannot stand or perch on these; note, swift **never** perch on wires or trees, unlike house martins.

During the day, when foraging, swift can fly at great altitudes, almost out of our visible range and they will travel quite long distances away from nesting areas to good feeding grounds, so they may be absent from breeding areas for considerable periods.

By contrast, on fine summer evenings, swift gather in low-flying 'screaming parties'. In these, birds pursue each other in high speed, aerobatic groups, usually around the buildings in which their nests are located. As nesting swifts returns to their nests discreetly, the presence of these groups of screaming birds is often the best indication of breeding swifts' presence, and that they are nesting close by.

2.2.2 Nesting

Swifts nest in buildings, usually in cavities located high up, often in the roof or roof spaces, perhaps behind soffits, which are accessed by holes in the building's outer structure (i.e. gaps in walls, holes under lintels, missing or raised pan tiles etc.). Swift are usually gregarious and are colonial nesters, so if one nest is found there may be others in the area. Colony size tends to be determined by nest site availability, which is linked to a building's age and its design; in particular to the availability of cavities in roof spaces and suitably sized entrances to these.

The location of swift nests can be difficult and confirming their presence usually relies upon observing a swift enter the nest hole; an activity which tends to be done at high speed, at dusk, silently. The best time of day to look for such behaviour is around dusk on warm, still evenings. During late June and early July, swift will be feeding young and at this time breeding adults will be returning more regularly to the nest hole, with food for the nestlings.

3. Relations with the Wild West End Public

As house martins and swift nest on/in buildings, surveyors will be undertaking survey work/observations in close proximity to private properties and recording information about birds nesting on these. Please bear this in mind and ensure that the sensitivities and privacy of local residents is respected at all times.

Some local residents may ask what you are doing, and this provides an opportunity to tell people about the survey and the wider project. Treat such situations as an opportunity to engage more local people in the Project's work and pass on to them information about what the Project is trying to achieve.

4. Summary Instructions for Surveyors

The Wild West End House Martin & Swift Survey is using two complementary survey approaches to build up a greater understanding of the breeding status and distribution of house martin and swift within the Wild West End Project area.

4.1 Incidental or 'Casual' Nest Record Documentation

This mechanism is designed to allow any observer to record a house martin or swift nest that they find, anywhere within the Wild West End Project area (i.e. the inner-city wards of Arthur's Hill and Wingrove). This approach will allow the Project to build up a picture of the two species' wider nesting distributions across the Wild West End and to formulate an understanding of the 'minimum' number of nests present.

If an observer finds nesting house martin or swift within the Project area (between late April and early September), they simply record the species and the location of its nest on the Project recording form, completing all requested details; one line for each nest located.

The location of the nest should also be marked on a Project area map (if possible, using different colours for nests recorded on different dates, or 'dating' each nest recorded).

At the end of the season, the recording form and marked-up maps should be returned to the Project coordinator for analysis (see Section 7).

4.2 Transect Survey Instructions

This is a detailed, area-based assessment of the number of nesting house martin and swift which 'may be' nesting within the 'sample' transect survey plots.

This approach allows the Project to determine the number of nesting house martin and swift within small, defined plots of the Wild West End Project area; which means breeding densities in those plots can be calculated. The first survey year using this technique (2020), provides a baseline against which, future numbers can be compared.

There are four 'sample' transect survey plots across the Wild West End Project area. The transect surveys record more detail about nesting swift and house martins, than does the incidental records approach.

For more detailed instructions about the transect surveys, see Section 5.

5. Detailed Transect Survey Instructions

There are four transect survey plots across the Wild West End Project area. These are, across the core of the Project area, geographically dispersed, to try and achieve a wide area-coverage and also to offer engagement opportunities for people over as much of the Project area as is feasible.

The transect sample plots are:

- **Transect 1 – ‘North’**: encompassing the streets between Redewater Road and Fenham Hall Drive, north to south, and Kingsway and Wingrove Road, east to west Drive
- **Transect 2 – ‘South’**: encompassing the streets between Hadrian Road and the West Road, north to south, and Hoyle Avenue and Milvain Avenue, east to west
- **Transect 3 – ‘East’**: encompassing the streets between Studley Terrace and Fenham Road, north to south, and Sydney grove to Dilston Road, east to west
- **Transect 4 – ‘Central’**: encompassing the streets between Nuns Crescent/Nuns Moor Road and Sutherland Avenue, north to south, and Gowland Avenue and Wingrove Avenue, east to west

5.1 Timing of Visits

The transect survey method requires the transects to be walked three times between mid-May and mid-July. Transects should be walked in the evening, in fine weather conditions, commencing no earlier than three hours before sunset.

5.2 Survey Method

The three transect surveys between mid-May and mid-July should be separated by at least two weeks, ideally spread as evenly as possible over the survey period. In this way, the best coverage of each transect route, across the birds’ breeding season, will be achieved.

Weather conditions, which might affect the transect survey results, should be taken into consideration when planning the surveys, avoiding rainy, excessively windy or stormy evenings.

The transect routes have been designed so that surveyors can utilise pavements and footpaths as much as possible, though in some instances, surveyors will be required to walk along back lanes. Due care should be paid to maintaining surveyor safety at all times.

The transect routes have been formulated to provide a ‘representative’ sample of plots across the Project area and to allow the surveyors to, relatively easily, scrutinise locations where house martins and swift **might** be nesting in these. The transects are a way of sampling the ‘possible’ nesting populations of these target species.

When following a transect, surveyors need to walk down every street/lane along the route, carefully following the transect route, as delineated on the map, recording house martin and

swift nests on either side of the transect route, as they are discovered. The transect routes attempts to pass within 50m of most potential nesting habitat within each transect plot.

For each survey visit, the transect route should be walked at a 'slow walking pace', punctuated by periodic short stops for listening and observation. The direction in which the transect is walked should be as shown by the arrows on the transect map. During the survey, house martin nests, colonies and occupied nests should be mapped on to the recording map (as a circle, with the number of nests at each colony recorded in this) and documented on the recording form.

The location of swift nests, when discovered, should be mapped on the recording map. The presence of 'screaming parties' of swift should also be mapped as a circle, with the number of swifts seen in this, and arrows, which should indicate the general direction of flight.

House martins can usually be located by their calls or visually when in the vicinity of the nest, so they should be obvious to surveyors. Swift may be further afield, or feeding at high altitude, and, consequently, may be more difficult to 'pin down' to a specific nesting location/area.

Survey visit should be undertaken during daylight hours, but within three hours of sunset (which is when screaming swift are most likely to be noted). Between 40 and 70 minutes is likely to be required to completely survey a transect route; though this may increase slightly if more nests are located.

On the transect survey recording forms (one for each transect), record the date, start and finish times and the weather details for each survey by circling the 'best fit' conditions in the table on the reverse of the recording form (see example weather table below).

Visit	Cloud	Rain	Wind	Visibility
1	0-33%	None	Calm	Good
2	33-66%	Drizzle	Light	Moderate
3	66-100%	Showers	Breezy	Poor

On completion of all three transect surveys, the survey results should be collated on to a summary form and map and all paperwork returned to the Project Coordinator (see Section 7).

5.3 Equipment for Surveyors

To undertake a transect survey for house martins and swift you will need:

- Binoculars
- Clipboard and pencil/pen
- Map of the transect route
- Copy of the transect survey recording form
- Copy of the survey instructions, (for reference, when required)
- A compass (useful but not essential), which will the surveyor work out the aspect (i.e. facing direction) of any nests found

- Wild West End Project information sheet and contact details, so that surveyors can provide interested residents with more information about the WWE Project

5.4 Survey Visits – Timing & Tasks

What to record?

During each transect the number of **complete** house martin nests found should be counted and the location of these recorded on the map. The number of nests occupied by house martins during each visit should be recorded. This may vary from visit to visit, as some birds nest later than others. Also record information about each house martin **colony** located and record this on the survey form.

Be aware, some house martins may build new nests ‘from scratch’ in June, so additional nests may appear on later survey visits and these may be located some distance away from already mapped, existing colonies.

Also be aware that a house martin ‘colony’ could have **no occupied nests** or no **complete nests** (e.g. if all nests are only part-built or if they have fallen down). These should also be recorded (add such information in the Notes column of the recording form).

The location of swift nest sites located should be recorded on the map; the occurrence and ‘approximate location’, and direction of flight, of any screaming parties of swift should also be mapped.

5.4.1 Timetable of Transect Survey Activity

First Survey Visit (Mid to late May)

- Cover the whole of the transect route; checking which areas contain suitable nesting habitat, for scrutiny on future visits
- Mark and number each colony found on the map
- Record the number of nests in each colony

Second Survey Visit (Early June to late June)

- Cover the whole of the transect route, again
- Re-examine any colonies found during the first transect survey and also mark any new colonies on the map
- Mark and number each colony on the map
- Record the number of nests in each colony. In particular, record the total number of complete nests and the number of those that are occupied.

Third Survey Visit (Late June to mid-July)

- Cover the whole of the transect route, again
- Map any new nest/colonies found
- Record additional information about already recorded nests/colonies
- Record the number of occupied and complete nests
- Note the presences of any fledged young, count these if possible

6 Definition of Terms

Colony - A house martin colony is defined as one or more nests on a single structure; note, nests located on a row of terraced houses should be regarded as 'one colony'.

Complete Nest - A 'complete nest' is a nest with a fully built structure with a clear entrance hole, which is therefore ready to be used for nesting. Damaged nests or those still under construction should be considered incomplete and not included in any count of 'complete nests' – though they may be complete by the time of a second or third transect survey and should be recorded in the Notes column of the recording sheet.

Occupied Nest - A nest should be counted as occupied if it is complete and you see (or hear) any of the following evidence:

- An adult house martin entering or leaving the nest
- Audible young heard, or young house martins peeking out of the nest
- A pile of droppings that have clearly originated from the nest during the current breeding season

Please note that some 'complete nests' may be in use by another species (e.g. house sparrow) – such nests should be excluded from the total count as they are not available for house martins to use.

Transect Survey – A transect survey is simply a survey that is walked along a line, regardless of its shape, along which the subject of the survey (e.g. house martin nests) is counted on either side of the walked line.

7. Return of Paperwork/Survey Results

All incidental records sheets and maps, transect survey forms, maps and summary sheets should be returned (directly or by post) to the Project Coordinator, by the end of September, to:

Ruth Hayward
Wild West End Project
c/o The Time Exchange
235 Stanton Street
Newcastle upon Tyne
NE4 5LJ

Email - wildwestend@greeningwingrove.org.uk

Telephone Number - 07410 944713

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