

House Martin Survey 2017

Funded through the BTO House Martin Appeal



What are we doing and why?

House Martin populations are in decline and we need your help to understand why. BTO monitoring work highlighted a period of sharp decline in the 1980s, from which the species has failed to recover; numbers have fallen further in recent years and the House Martin is now listed as a species of conservation concern.

Following on from a small-scale study, carried out between 2009 and 2013, BTO volunteers helped us to carry out a nationwide survey last year, providing for a robust UK population estimate.

This summer, we need your help to record activity at individual House Martin nests, so that we can see how the timing of nesting, the number of nesting attempts and breeding success vary across the UK. By recording additional information about nest sites and locations, we also hope to investigate what other factors influence nesting performance.

The 2017 survey is a repeat of the 2016 nest study and follows the same methodology.

If you have any questions about the survey or have queries about the survey instructions, please contact us via phone (01842-750050) or email housemartins@bto.org, or contact your BTO Regional Organiser. More information is available at www.bto.org, where you can also get involved in the survey.

Can I help?

We'd like as many people to take part in the House Martin Survey as possible. This will not only help to improve our understanding of the causes of decline, but also each participant's understanding of their House Martins.

If you have breeding House Martins on your property or nearby, and can answer 'yes' to the following questions, then your participation would be greatly appreciated:

Can the nests be viewed safely, without causing disturbance to the birds?

Is the site convenient for me to visit regularly (e.g. once a week - missing an occasional visit is fine)?

Do I have permission to view the site?

Can I (maybe with help from friends) commit to visits throughout the season (mid-April to September)?

Instructions

STEP 1: SELECTING YOUR STUDY SITE

You can select any site you want for the study. It should have one or more House Martin nests that can be viewed safely from ground level or from a window, without causing disturbance to the birds. Most nests are on buildings, but your site may also be another man-made structure, such as a bridge, or a natural nest site on a cliff.

To provide robust information for the nest study, it is important that you are able to watch the site throughout the breeding season, starting around mid-April and ideally visiting at least once a week – missing a week for a holiday will be fine, however. This will enable us to ascertain the number and timing of breeding attempts and their success. Some House Martins may still be feeding young in the nest in September or, exceptionally, early October. To ensure that second broods are not missed, you should continue visiting until at least mid-September or until the birds have finally left.

A key aim is to identify whether nests are used to raise two (or more) broods in a season, so **it is important not to assume the site has been deserted if you do not notice any activity during August**. Activity may be difficult to detect if birds are incubating a second brood.

The ideal study colony is one located on or close to your home or place of work. Nests elsewhere can be studied if you are able to commit to regular visits. We recommend seeking permission from the site owner before carrying out the survey. We also recommend informing the owners of nearby properties about the survey. Seeking permission may not always be essential, e.g. if nests are located on unoccupied or non-residential properties and are visible from public rights of way, but you should still give careful thought about contacting the landowner. At some sites, a group of observers may wish to carry out the survey as a team to ensure that regular visits can be carried out.

SUBMITTING YOUR OBSERVATIONS: Results can be submitted at any time over the course of the breeding season by using our website (www.bto.org/housemartins). It is best to enter your returns after you have completed each visit, while they are still fresh in your memory. If you do not have access to the Internet, please return completed paper forms to: BTO House Martin Study, The Nunnery, Thetford, Norfolk, IP24 2PU. Contact us at: housemartins@bto.org or 01842-750050 if you have any questions about the survey. THANK YOU

STEP 2: REGISTERING YOUR SITE

Before recording details about your site, you will need to register for the survey if you have not already done so. To register, go to our website (www.bto.org/housemartins). If you do not have access to the Internet, please contact your local BTO Regional Organiser, or the House Martin Survey Organiser (01842–750050).

The first step is to record information about your site(s) or copy your information from 2016. For the purposes of this survey, a 'study site' is a single building (or other structure) on which House Martin nests have been built. If you will be watching nests on more than one building, each building should be registered as a separate site (even if you are able to watch the nests at the same time). You can set up as many study sites as you like.

If you are inputting your results online, locate your site on the map by inputting the postcode or grid reference of the site, or by using the navigation tools on the map. Then zoom in to pinpoint your site and define the site boundary by drawing a polygon.

You will then be asked to provide additional details about the site. Refer to the **Codes** (below) and answer as many questions as you can. Some will need to be answered during your first survey visit, but you will be able to return to the webpage at a later date to edit these answers if necessary.

If you are completing the survey on paper, you should use a separate copy of **Form A** for each study site. Please provide as much information as possible and draw a location diagram or map of your site to ensure that we can correctly identify the location. If you are re-surveying the same site(s) as in 2016, please note this on the form.

CODES USED FOR TELLING US ABOUT YOUR SITE(S)

1. BUILDING TYPE: Buildings (including public houses, hotels, police stations and shops) should be described as Detached, Semi-detached or Terrace as appropriate.

DET (Detached): a building containing one main unit that is not attached to other buildings. Include inns, hotels, small blocks of flats and police stations in this category if they are located in a stand-alone building.

SEM (Semi-detached): a building containing two dwellings or other units.

TER (Terrace): a row of dwellings or other units that are all attached to each other.

BAR (Barn): an agricultural building used for storage (e.g. of grain, hay, livestock, machinery, etc.).

FAC (Factory/industrial building): a building where goods are manufactured or stored. Include large retail units, food stores.

MUN (Municipal building or similar): large and complex structures, including schools, hospitals, council offices, universities, large blocks of flats and office complexes.

WOR (Place of worship): building specifically built as a religious meeting place, including, for example, chapels converted to dwellings. Where a previously existing building structure has later been converted into a place of worship, it should be recorded in one of the other categories as appropriate (e.g. detached, terrace).

CLI (Cliff or other natural site): any nests that are located on natural structures such as cliffs and rocky outcrops.

BRI (Bridge)

OTH (Other): other man-made structures, such as water towers or jetties. Record further details in the Comments box.

2. BUILDING AGE: Use the following categories to record the age of the building, or to estimate the age if unknown. If you are undecided between two age categories, record the age as the older of the two categories.

NEW = built since 1990 **MOD** = 1945 to 1989 **MID** = 1919 to 1944 **OLD** = built before 1919 **UNK** = Unknown

3. NUMBER OF STOREYS: Record the number of storeys for the building on which the colony is located. For non-residential structures, such as bridges and water towers, the number of storeys should be recorded as '1'.

4. NUMBER OF COMPLETE NATURAL NESTS ON FIRST SURVEY VISIT: A complete nest is a nest with a fully built structure (apart from the entrance hole), which is therefore ready to be used for nesting.

5. NUMBER OF NESTS OCCUPIED IN 2017 (IF KNOWN): If you are not monitoring all the nests on the building, please provide an estimate of the total number of occupied nests on the building this year. The number of natural nests and artificial nests used should be recorded separately. These options can be edited later in the season and can be left blank initially.

STEP 3: MAKING A PRELIMINARY VISIT

Where possible, a preliminary visit should be carried out by mid-April, i.e. before the start of any nesting activity. If this is impossible, or if the birds arrive unexpectedly early, please record details as soon as possible.

If you are re-surveying the same site(s) as in 2016, use the same nest numbers again.

During this preliminary visit you should complete the information about the site (**Form A**) and about any existing nests (**Form B**). You should also carry out your first main survey visit during the preliminary visit, to record whether or not House Martins have yet arrived (**Form C**). Whether or not you plan to enter your results online, we recommend that you use a paper copy of **Form A** or a notebook to record information when visiting the site.

Start by recording the position of all existing nests at your study site. For sites with just one or two nests these can be added to your **Site diagram**. Alternatively, you can draw a separate diagram of the side(s) of the building or take a photo of the nests. *It is vital that you are able to confidently identify each individual nest throughout the breeding season.* A photo may prove to be extremely helpful when new nests are built or one of the existing ones falls down.

Our trials showed that experienced observers are able to monitor a group of no more than 10 nests at once. If you are able to monitor all the nests on your site, this will provide extremely valuable information for the nest study. However, this may be impractical if your site has a very large number of nests, or has nests on more than one side of the building. If this is the case, we suggest that you split the nests into groups, with each group comprising one to 10 nests that can be observed concurrently. Choose one or more groups to monitor. For example, you could choose to observe the nests on just one aspect of the building.

Use your diagram or photograph to number all the nests which you are going to monitor during the nest study. Having chosen which nests to monitor, please record a few details about each nest, using the codes below, which are also repeated on **Form B**. As soon as possible after the preliminary visit, please enter all the information online (or on paper **Forms A, B and C**). It will be really helpful for us to have this information at the beginning of the season.

CODES USED FOR TELLING US ABOUT YOUR NEST(S)

1. Nest present on first survey visit?

Record 'Yes' if the nest is present at the time of your first visit, even if it is incomplete. However, record 'No' for any 'nests' which consist of only a ring-mark or a few bits of attached mud at the time of the first visit. If a pair starts re-building one of these 'nests', at a later date it should be treated as a brand new nest and recorded accordingly. **Replacement nests:** Note that if a nest falls down during the breeding season and the birds start re-building a new nest in exactly the same position, it should not be recorded as a new nest. In this instance, you should treat the nest as a replacement for the old nest and continue to use the same nest number.

2. Nest condition on first survey visit: This field is only required for nests that are present on the first visit.

N1 – Incomplete nest, ¼ built **N2** – Incomplete, ½ built **N3** – Incomplete, ¾ built **N4** – Complete nest (incl. artificial nests)

3. Wall surface: Use these codes to record the type of wall surface that the nest is built against (i.e. the wall not the soffit).

BK = Brick **ST** = Stone **PD** = Pebbledash **WD** = Wood **PL** = PVC or equivalent (plastic)
ML = Metal **RN** = Rendered **OT** = Other (Please note further details in the Comments box) **UK** = Unknown/unspecified.

4. Soffit type: The soffit is the material bridging any gap between the house wall and the roof overhang (eaves). Record the type of soffit, using the codes below. If you select 'Other', please give details in the 'Colony Details/Notes' column.

PL = PVC or equivalent (plastic) **WD** = Wood **ML** = Metal **OT** = Other **UK** = Unknown

5. Aspect of nests: The approximate compass direction faced by the nest should be recorded as N, NE, E, SE, S, SW, W or NW.

6. Nest height (top of which storey): Record which storey the nest is located at. For example, where the nests are at the top of the second storey, this should be recorded as '2'. Nests in a gable at roof level should be recorded as being on the top storey even if the gable protrudes above the level of the top storey. If the nest is located on a structure that does not have storeys, please record the height as '1'. Note that for the purposes of this question, the 'ground floor' is level '1'.

7. Nest location: Record where the nest is located on the structure.

EV (Under eaves) – nests located under eaves on horizontal part of the roof. Eaves are the part of a roof that overhang the wall.

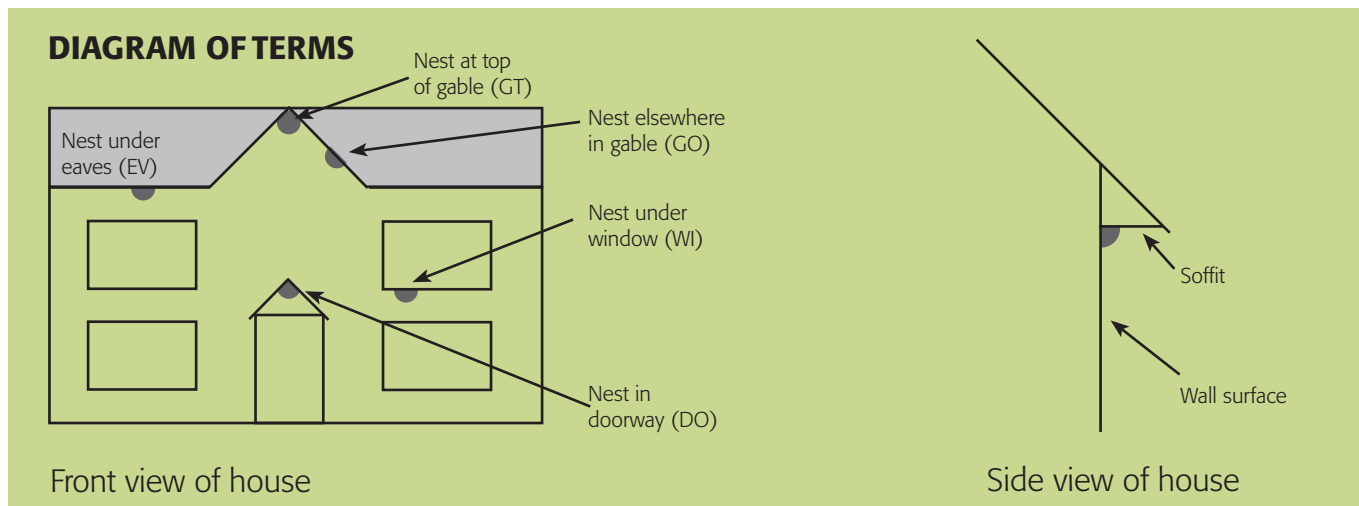
GT (At the top of a gable) – nests located at the apex (top) of a gable. A gable is a (usually) triangular portion of a wall between the edges of a dual pitched roof.

GO (Under a gable but not at the top) – nests located along the sloping edges of a gable.

WI (Attached to a window or under a window ledge) – nests attached to part of a window, or underneath a window ledge

DO (Within a doorway) – nests in the doorway or within a porch.

OT (Other) – Please use for any nest locations that do not fit in any of the above categories. Use Comments box for details.



STEP 4: THE MAIN SURVEY VISITS

WHEN TO CARRY OUT YOUR SURVEY VISITS

Please monitor the nests at least once week throughout the breeding season, though there is no need to worry if you need to miss a week due to a holiday. At key periods of activity, especially when the birds are feeding young, more frequent observations will help us to pinpoint the precise timing of nesting. During these periods, twice weekly or even daily visits would give useful information.

Less frequent visits may be adequate at certain times in the season, e.g. in April, before the main nesting activity begins, and in August and September, if the birds appear to have left the site. At these times, fortnightly visits could be carried out, though weekly visits would still be preferable. Please avoid a gap of more than a fortnight between visits, otherwise nesting activity may be missed. For example, nests can be partially constructed and then fall down within just a few days, or feeding activity can suddenly cease due to predation.

In practice you should allow for a maximum observation period of 15 minutes on each visit for each nest or group of nests. However, during peak periods, visiting for just a minute or so may be sufficient to immediately record that young are still present in all nests.

Visits can be made at any time of day, apart from the first and last hours of daylight when birds may be roosting. You should also avoid periods of heavy rain or heavy wind, as these may affect activity.

RECORDING NEW NESTS (Form B)

Please note that any new nests that were not present during the preliminary visit but which are built among your chosen nests during the breeding season should also be monitored. Each new nest should be numbered and information recorded on **Form B as soon as the birds begin building it**. They should also be added to your site diagram or photo. **Replacement nests** (built in exactly the same position as a nest which has fallen down) **do not need to be recorded as a new nest. Use the same number as the nest they are replacing.**

RECORDING ADDITIONAL INFORMATION

Please use the appropriate survey codes wherever possible. However, we cannot cover every eventuality, so please use the Comments boxes to tell us about anything else that you think is relevant. Some examples for **Form C** may include:

- *the (minimum) number of young from a particular nest, if you observe them fledging;*
- *the presence of a predator that is taking an interest in the colony, or is observed attacking a nest;*
- *a record of any severe weather events, or the presence or absence of mud close to the colony following periods of rain or drought.*

WHAT TO RECORD DURING A VISIT

It will be useful to have **Form C** with you but you may find it easier to record information in a notebook and then enter it on the online system or paper **Form C** later.

During the visit you will need to record the following:

- *The time you start observing the nest or group of nests.*
- *The observation time (i.e. the length of time that you watched each nest or group of nests).*
- *The condition of each nest.*
- *The highest level of House Martin activity observed at each nest (See Form C or Codes).*
- *The occurrence of any unusual incident or failure of the nesting attempt. This may be observed directly or determined from evidence at the site. This will usually relate to the collapse of the nest or damage to one or more of the eggs or young.*

Form C allows you to record observations for several nests at a time. If you are watching a larger group of nests, you'll need extra copies of the form.

CODES USED FOR TELLING US ABOUT YOUR VISIT(S)

Nest condition during visit: If the nest has fallen down since your last visit and only a ring-mark or a few bits of attached mud remain it should be recorded as **N0** (no nest present), unless the adults start re-building the nest when it can be recorded as **N1**. If the nest has partially collapsed, record the appropriate nest condition code (e.g. N3) to indicate how much of the nest remains.

N0 – No nest present **N1** – Incomplete nest, ¼ built **N2** – Incomplete, ½ built **N3** – Incomplete, ¾ built
N4 – Complete nest (incl. artificial nests)

Activity codes: For each nest, record one status code to describe the highest level of House Martin activity observed during your visit – the status codes are ordered from highest (FY) to lowest (V0). More details are provided below about codes V0, AV and FY.

High	<p>FY – Flying young still using nest (seen flying to or from nest)</p> <p>AF – Adult feeding young at nest</p> <p>VY – Visible young (young observed at nest entrance)</p> <p>AY – Audible young in nest</p> <p>DR – New droppings observed under nest</p> <p>AQ – Adults quarrelling/fighting at the nest</p>	Medium	<p>AN – Adult at nest (adult seen to enter complete nest)</p> <p>ON – House Martin at nest but you are uncertain whether it is an adult or recently fledged young</p> <p>AB – Adult building nest</p> <p>AV – Adults seen in the vicinity of the nest</p>	Low	<p>V0 – No activity observed in the vicinity of the nest</p>
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Code **AV** should be used if the adults appear to be showing some interest in the nest(s) or are approaching close to the nest(s) or the building. Where two or more nests are close together, use your best judgement to decide which nest(s) the birds are showing an interest in and record code **V0** for any other nests.

Code **FY** can be used if you see one or more of the young fledging from the nest. However, young House Martins have been recorded returning to the nest after fledging, so you can also use **FY** if you observe young birds flying back to the nest in the days after the first young fledge. **FY** should only be used when you are sure that the flying young are recently fledged and from the nest. If you are unsure, please use code **ON** instead.

CODES TO RECORD INCIDENTS OR NEST FAILURE: Occasionally, you may observe a more unusual event at a nest, which causes damage to the nest and to some or all of the eggs or young. More often, you may find evidence that such an event has occurred, e.g. the nest may be damaged or missing and you may find one or more dead chicks or broken eggs below the nest. If such an event occurs, record the most appropriate code from those listed below. Bear in mind:

- Do not record anything if you suspect that the nesting attempt has failed, but the nest is still complete and you have not observed any unusual activity. We will be able to predict the likely failure of nests based on the length of time that the adults were making feeding visits and the other activity codes you have recorded.
- If more than one code could apply, select whichever one you feel is most appropriate.
- Please do not guess what has happened. If you do not know why damage has occurred, or are unsure, please use one of the codes to record damage with the reason unknown (**EG**, **JG** or **XG** if the nest has given way (collapsed), or **EO**, **JO** or **XO** if other damage has occurred).
- Do not guess at what stage of the nesting attempt the event occurred unless you are certain. If in doubt, please use the 'unknown stage' codes (**X_**).
- If predation was observed or if the birds were usurped from the nest by another species, please record which species was responsible in the comments box.

Incidents that occurred:

a. when eggs were in the nest (see note):

EG – Nest gave way (collapsed) with eggs inside
EI – Nest or Eggs damaged by man intentionally
EM – Nest or Eggs damaged by man unintentionally
EO – Nest or Eggs damaged by other/unknown causes
EP – Eggs predated
ET – Eggs thrown or fallen out prior to hatching (see note)
EU – Eggs usurped from nest by another species
EW – Nest damaged by wind

b. when young were in the nest:

JG – Nest gave way (collapsed) with young inside
JI – Nest or Young damaged intentionally by man
JM – Nest or Young damaged by man unintentionally
JO – Nest or Young damaged by other/unknown causes
JP – Young predated
JT – Young thrown/fallen out
JU – Young usurped from nest by another species
JW – Nest damaged by wind

c. at unknown stage: use unless certain that eggs/young present.

XG – Nest collapsed; eggs or young not known to be present
XI – Intentional damage by man
XM – Unintentional damage by man
XO – Other/unknown damage at unknown stage
XP – Predation at unknown stage
XU – Usurped from nest by another species
XW – Wind damage at unknown stage

Note: It is difficult to be certain that eggs were in a nest when an incident occurred. Therefore, you should only use these egg stage codes if you see broken eggs or the remains of eggs following an incident, or observe eggs being predated or removed. In particular, please be cautious about using code '**ET**'. This code should only be used if the remains of unhatched eggs are found under the nest (i.e. containing yolk or unhatched young). If remains of eggs which may have hatched are found (i.e. egg shells only), please record this in the Comments box instead. The Comments box should be used if you wish to record an unusual event and do not feel that any of the codes are appropriate, or if you suspect something has occurred but are unsure.

STEP 5 (OPTIONAL): 10-MINUTE TIMED COUNTS (FORM D)

An optional monitoring activity is to record the number of visits made by adult birds to particular nests during 10-minute periods. Timed counts can be recorded in a notebook and the results entered online or on Form D.

Timed Counts should ONLY be carried out when the adults are building the nest (activity code 'AB') or actively feeding young ('AF').

Please carry out timed counts if you can. Frequency of nest visits by adult birds may be an important factor affecting breeding success, as it may be related to the distance to the nearest sources of mud and availability of invertebrates.

You can carry out as many timed counts as you wish, and you may be able to carry out timed counts for several nests at once. If you are carrying out timed counts when the young are being fed, it would be helpful if you can continue carrying out timed counts until they fledge, so

that we can assess whether the frequency of nest visits made by the adults varies as the young get older.

When undertaking timed counts, please ensure that the start time is random, i.e. do not start the count immediately before or after one of the adults has visited the nest. A good way to ensure that the start time is random is by deciding the start time at least two minutes in advance. However, if you are undertaking consecutive timed counts, you can start the second timed count immediately after the end of the first count – there is no need to wait for two minutes between counts. It is important to be strict about the start and end times: a visit made by a bird arriving at the nest two seconds before the start time should not be included in the count.

STEP 6: SUBMITTING YOUR OBSERVATIONS

Results can be submitted online at any time over the course of the breeding season, by logging in to your House Martin Survey Home Page from www.bto.org/housemartins). If you can do so, it is advisable to submit results immediately after each visit when the details are still fresh in your memory. You will also be able to see the data you entered for previous visits and this will, hopefully, build up a satisfying picture of the progress of each nest. Entering your data online during the course of the season will also be of the greatest value to us. It will mean that we may have a snapshot of the current breeding season as it develops and will be able to make maximum use of this information as we feedback national results to you and publicise the survey in the media.

If you do not have Internet access, paper forms should be sent to House Martin Nest Study, BTO, The Nunnery, Thetford, Norfolk, IP24 2PU. Please ensure that the information is complete and that you include all the necessary forms (**Forms A, B, C** and, optionally, **Form D**). You may have multiple copies of the survey visit form (**Form C**), so please double check that the visit forms cover the whole breeding season.