Nocturnal Bat Survey Report
Stancliffe House Farm, Wortley, Sheffield, S35 7DA

Client:
Khella Property Services Ltd

Date:
August 12, 2025

Author:
Paul Liptrot

Email:
info@EverythingEcology.co.uk

Project:
P196

OS Central Grid Reference:
SK 31961 96190

Version
V01

Project Number	P196
Project Name	Stancliffe House Farm, Wortley, Sheffield, S35 7DA
Site location	Stancliffe House Farm, Wortley, Sheffield, S35 7DA OS Grid Reference: SK 31961 96190
Filename	P196 Standcliffe House Farm Draft.docx
Version	V01

Principal Authors

Paul Liptrot BSc(Hons) MCIEEM

Check By

Elizabeth McBride Bsc(Hons) MCIEEM

Version History

Version and Date	Details - notes of revisions
V01 – 12/08/2024	First version sent to client.

Field Investigations and Data

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work. Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by Everything Ecology Ltd for inaccuracies in the data supplied by any other party.

Declaration of Compliance

The information which we have prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental 'Management's Code of Professional Conduct. We confirm that the opinions expressed within this document are our true and professional bona fide opinions.

Third-Party Disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by Everything Ecology Ltd at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Contents

Figures

Tables

1 Executive summary

1.1 Purpose of report

1. This report presents the results of a single Nocturnal Presence /likely Absence Survey at Stancliffe House Farm, Wortley, Sheffield, S35 7DA. OS Central Grid Reference SK 31961 96190. The survey covered Building 1 and Building 2. Please refer to Figure 7-1 for a location plan and 7-2 for a building plan overview.

2. The Nocturnal Dusk Emergence Survey of Building 1 and Building 2 was undertaken on the 24th July 2025 using five surveyors, led by Paul Liptrot MCIEEM, Principal Ecologist, Natural England Class 4 Bat licence number: CL20-2018-37087-CLS-CLS.

3. The survey informs the construction of an extension of Building 1.

4. The report includes an assessment of the potential ecological constraints of the proposed activities concerning roosting bats and advice on avoiding, minimising, or mitigating potential impacts.

Key issues and recommendations

5. The Preliminary Roost Assessment undertaken by Arbtech on the 17th January 2024 Classified Building 1 as having low suitability for roosting bats. As such, a single nocturnal survey was undertaken by Everything Ecology to confirm the presence or likely absence of roosting bats.

6. No bats were recorded roosting in Building 1 or Building 2 during the nocturnal survey; as such, bats offer no further constraint to the proposals at this time.

7. Building 1 and the surrounding habitats also offer suitability for nesting birds. As such, protection measures, as detailed in Section 4.2.2, should be undertaken as part of the proposals.

2 Introduction

9. This report was written by Paul Liptrot, BSc (Hons) MCIEEM. Paul has twelve years of experience carrying out ecological assessments. Paul holds a Natural England Class 4 bat licence, a Natural England Class 1 great crested newt (GCN) licence and a Natural England barn owl licence. He also has experience producing and implementing mitigation licences for bats and badgers and drafting mitigation licences for GCN.

10. Jaz Singh commissioned the report on behalf of Khella Property Services Ltd. This report presents the results of a nocturnal bat survey undertaken at Stancliffe House Farm, Wortley, Sheffield, S35 7DA OS Central Grid Reference SK 31961 96190. The survey was commissioned to inform plans to construct an extension to Building 1.

Figure 2-1 Habitat surrounding the survey site

11. Please refer to Figure 7-2 for a plan showing the scope of the assessment.

2.1 Objectives

12. The objectives of this report are shown in Table 2-1.

Table 2-1. Objectives of the report

Objectives
To provide an ecological assessment of the site's suitability to support roosting bats and nesting birds.
To identify key ecological constraints to the proposed development/activities.
To inform master planning to allow significant ecological effects to be avoided or minimised wherever possible.
To allow any further ecological surveys required to inform an Ecological Impact Assessment to be identified and appropriately designed.
To allow likely mitigation or compensation measures to be developed.

3 Methods

3.1 Justification of methods and design

13. If a bat roost is present in Building 1, the proposed building extension work would possibly destroy or negatively affect the roost and potentially kill any bats present.

14. The Preliminary Roost Assessment[1] classified the building as offering low suitability for roosting bats and recommended using five surveyors. Please refer to Table 3- for the Bat Conservation Trust, the Suitability Table taken from Collins (2023).

15. The survey design follows current best practice as outlined by Bat Conservation Trust.[2] Using five surveyors and five-night vision cameras.

Table 3-1 Suitability of roosting habitats and foraging and commuting habitats[3]

Suitability	Description Roosting habitats	Commuting and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e.no, habitats that provide continuous lines of shade/protection for flight lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions b and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats c).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.

1 Arbtech (2024) Preliminary Ecological Appraisal and Preliminary Roost Assessment Stancliffe House Farm, Woodhead Road, Wortley, Sheffield, S35 7DA (author Jade Lemm)
2 Collins (ed) 2023 Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement. The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6
[3] Collins (ed) 2023 *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn).* Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement. *The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6*

Suitability	Description Roosting habitats	Commuting and foraging habitats
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flightpaths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

[a] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
[b] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn, followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al., 2015). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.
c This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

3.2 Field survey

3.2.1 Species and species groups

Bats - nocturnal presence or absence surveys

16. Five surveyors using five-night vision cameras were used to provide full coverage of the Buildings. The surveyors were equipped with Echo Meter Touch bat detectors connected to Android tablets or iPad minis. Six infrared cameras, one with each surveyor and two unmanned (Cannon XA30, XA15, XA60 and XA50 with supplementary infrared lights (950nm and 850nm)), were used during the survey.

17. Please refer to Section 7 for a plan showing surveyors and camera locations. Surveyors were positioned to give a clear view of all potential bat access features being surveyed (where possible). Video stills of the darkest point of the survey have been provided in Appendix 8.1 from each camera. Echolocation calls collected during the nocturnal survey

were analysed in the field on the Android tablets and in Anabat Insight (Version 2.0.8), where appropriate.

18. During nocturnal bat surveys, the main objective is to record any bats entering or leaving the surveyed structure and the location of any roost entry and exit points. In addition, surveyors record any other bat activity detectable from their survey position. Where possible, the time of recording, species, the number of bats, type of activity, and flight path of observed bats are also recorded. Bats entering or leaving a building, structure, or tree is evidence of bat roost presence within that entity. Emergence surveys commence 15 minutes before sunset and continue until a minimum of 1.5 hours after sunset. All surveys were undertaken in weather conducive to bat activity, i.e. little or no rain, low wind, and temperatures above or around 10 °C.

Survey timing and weather conditions

Table 3-2 Weather conditions

Date	Survey/Visit type	Temperature °C	Cloud cover %	Wind Speed Beaufort	Humidity %	Rain
24th July 2025	Nocturnal Presence / Likely Absence Survey	Start:18 End:16	Start: 30 End: n/a	Start: 3 End: 2	Start 79 End: 82	Dry – no rain

Surveyors

19. The site visit was undertaken by the surveyors detailed in Table 3-.

Table 3-3 Surveyor details

Surveyor	Position and qualifications
Paul Liptrot	Principal Ecologist, BSc (Hons) MCIEEM. Natural England Class 4 Bat licence number: CL20-2018-37087-CLS-CLS. 12 years' experience undertaking bat surveys
Elizabeth McBride	Principal Ecologist, BSc (Hons) MCIEEM. Natural England Class 2 Bat licence number: 2017-29301-CLS-CLS 12 years' experience undertaking bat surveys
David Gash	Consultant Ecologist with over 20 years' experience undertaking bat surveys
Florian Graber	Consultant Ecologist with over four years' experience undertaking bat surveys
Paul Jarman	Consultant Ecologist with over seven years' experience undertaking bat surveys

3.2.2 Limitations

20. No constraints were such that they affected the overall conclusions and recommendations made in this report.

Results

21. In this section, the results of the nocturnal survey will be presented.

3.2.3 Bats

Presence/ likely absence Surveys

22. No bats were recorded roosting in Building 1 or Building 2 during the nocturnal survey.

23. During the survey visit, activity from the common pipistrelle, unidentified Myotis bat and soprano pipistrelle was recorded on and within proximity of the survey buildings. Activity started on site at 22:10 with a Myotis bat entering the site from the southwest. The activity continued infrequently through the next 40 to 60 minutes, with primarily infrequent activity from the common pipistrelle and soprano pipistrelle bats observed foraging and commuting intermittently on the periphery of the site.

24. Please refer to Figure 7-2 for plan showing the surveyor positions

3.2.4 Birds

25. No detailed bird survey was undertaken as part of this assessment. The habitats on site (trees and hedgerows) and Building 1 were noted to have suitability for nesting birds in the Preliminary Ecological Appraisal (PEA). A bird nest consistent with swallows was identified within Building 1 during the PEA.

4 Ecological constraints and opportunities, and recommendations for mitigation and further survey

4.1 Proposals

26. This assessment is to inform the extension of Building 1. Building 2 is currently going to be retained as part of the proposals.

4.2 Species and Species Groups

4.2.1 Bats

27. Bat offers no further constraints to the proposals at this time. Adequate surveys have been undertaken to confirm the likely absence of roosting bats within Building 1 and Building 2.

28. To help the proposed development result in a net gain to biodiversity, enhancement measures for roosting bats and nesting birds could be installed in the proposed extension. See Appendix 8.2 and 8.3 for example, designs.

4.2.2 Birds – proposed protected measures.

29. A detailed breeding bird survey has not been undertaken as part of this survey investigation.

30. It is considered likely that the site offers value to local bird populations, providing nesting opportunities. However, the extent of the habitats will likely restrict the site and impacted areas from being used by rare or notable bird species.

31. As Building 1 was noted to have evidence of nesting birds, the proposed works, without suitable avoidance or mitigation, could result in the destruction or disturbance of active bird nests, which could result in individual birds and/or chicks being injured or killed.

32. Under the Wildlife and Countryside Act 1981, as amended (section 1), it is an offence to remove, damage or destroy the nest of any wild bird while that nest is in use or being built. Planning consent for development does not provide a defence against prosecution under this Act.

33. It is recommended that the works be undertaken outside the main bird nesting period, which runs from March to August inclusive. Some bird species, such as pigeons, can nest

throughout the entire year, and some bird species, like blackbirds, can have multiple broods, which can extend the nesting period. Likewise, if the weather is favourable, some species can start nesting in late winter. Therefore, before the proposed works start on site, a visual assessment by construction staff or a designated biodiversity champion must be undertaken if the works are undertaken outside the main nesting period.

34. Should works need to be carried out within the main nesting period, a suitable method statement for the protection of nesting birds will need to be put in place, which will include:

- A pre-works inspection of suitable nesting features and nests within the site buildings and habitats and the immediate work area undertaken by a Suitably Qualified Ecologist (SQE). If active nests are found, work cannot commence until all chicks have fledged.
- If, at any point during the works, nesting birds are found, works will be suspended, and advice will be sought from a Suitably Qualified Ecologist.

4.3 Legal Implications and reasonable avoidance measures

4.3.1 Bats

35. As stated above, adequate surveys have been undertaken to confirm the likely absence of roosting bats within Building 1 and Building 2. However, as bat roosts can form overnight reasonable avoidance measures for the protection of bats, detailed below, should be undertaken as part of the proposals.

- The roof should be dismantled by hand.
- If signs of bats (i.e. droppings) or live or dead bats are found at any point during the proposed works, the project ecologist should be contacted.

36. All bat roosts are legally protected under the Wildlife and Countryside Act 1981 (as amended) [3] and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 [4]. A Sufficient survey following best practice has been undertaken to determine whether a bat roost is currently present in the survey building. However, if, in the unlikely event, a bat is found to be present during the demolition works, all work should cease, and the project ecologist should be contacted to avoid an offence.

37. You are breaking the law if you do certain things, including:

- Deliberately capture, injure or kill bats.
- Damage or destroy a breeding or resting place.
- Obstruct access to their resting or sheltering places.
- Possess, sell, control or transport live or dead bats or parts of them.
- Intentionally or recklessly disturb a bat while it is in a structure or place of shelter or protection.

38. Either or both of the following could happen if you are found guilty of any offences:

- You could be sent to prison for up to 6 months.
- You could get an unlimited fine.

4.3.2 Wild Birds

You're breaking the law if you:

- intentionally kill, injure or take wild birds
- intentionally take, damage or destroy a wild bird's nest while it's being used or built
- intentionally take or destroy a wild bird's egg
- possess, control or transport live or dead wild birds, or parts of them, or their eggs
- sell wild birds or put them on display for sale
- use prohibited methods to kill or take wild birds

39. Some birds, known as 'schedule 1 birds', e.g. barn owls, have extra legal protection. For these bird species, it's also an offence to do the following, either intentionally or by not taking enough care:

- disturb them while they're nesting, building a nest, in or near a nest that contains their young
- disturb their dependent young
- You could get an unlimited fine and up to 6 months in prison for each offence if you're found guilty.

Activities that can harm birds

- These activities can affect wild birds, particularly during breeding season:
- trimming or cutting trees, bushes, hedges and rough vegetation
- renovating, converting or demolishing a building
- creating a disturbance, e.g. noise, lighting and vibration
- taking actions to prevent problems, e.g. shooting birds or removing nests

5 Conclusions

40. Buildings 1 and 2 have been assessed as having low suitability for roosting bats. Therefore, a single nocturnal survey was undertaken on the 24th July 2025 to confirm presence / likely absence of roosting bats.

41. No roosts were recorded; as such, bats offer no further constraint to the proposals at this time.

42. Building 1 also offers suitability for nesting birds; as such, a nesting bird check is required before any works are undertaken within the main nesting period (March to August), see the previous section for further details.

6 References

[1] J. Collins, Ed., Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. The Bat Conservation Trust, 2023. [Online]. Available: https://cdn.bats.org.uk/uploads/images/Resources/Bat-Survey-Guidelines-23NoPrint.pdf?v=1694682790

[2] P. F. Reason and S. Wray, 'UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats', Chartered Institute of Ecology and Environmental Management, Version 1.1, Dec. 2023. [Online]. Available: https://cieem.net/wp-content/uploads/2023/09/Bat-Mitigation-Guidelines-2023-V1.1.pdf

[3] Wildlife and Countryside Act (As Amended). 1981. [Online]. Available: https://www.legislation.gov.uk/ukpga/1981/69/contents

[4] Conservation of Habitats and Species (Amendment) (EU Exit) Regulations. 2019. [Online]. Available: https://www.legislation.gov.uk/uksi/2019/579/contents/made

7 Figures

Site

Everything Ecology

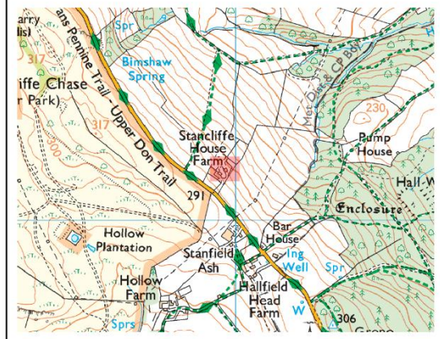
E: info@everythingecology.co.uk

Project	Stancliffe House Farm, Wortley, Sheffield, S35 7DA
Title	Location Plan
OS Grid	SK 31961 96190
Client	Khella Property Services Ltd

Map date	Size	Author	Version
2025-08-07	A3	Paul Liptrot	V01

RGB Aerial Photography - ©BlueskyInternational Limited,© Crown copyright and database rights [2017] OS 0100042840, QGIS3.40.8-Bratislava

Figure 7-1 Location Plan



Buildings

Sureyors and NVA

FOV

Everything Ecology

E: info@everythingecology.co.uk

Project	Stancliffe House Farm, Wortley, Sheffield, S35 7DA
Title	Building ID Plan
OS Grid	SK 31961 96190
Client	Khella Property Services Ltd

Map date	Size	Author	Version
2025-08-07	A3	Paul Liptrot	V01

RGB Aerial Photography - ©BlueskyInternational Limited,© Crown copyright and database rights [2017] OS 0100042840, QGIS3.40.8-Bratislava

Figure 7-2 Building ID Plan

8 Appendices

8.1 Video stills

Table 8-1 Night Vision Aid still images

Camera		End
Camera 1		
Camera 2		
Camera 3		
Camera 4		

8.2 Bat Roost enhancement features

Everything Ecology

Vivara Pro Build-in WoodStone Bat Box or Bat Tude		Ibstock Enclosed Bat Box 'C'
 		
The Vivara Pro Build-in WoodStone Bat Box has been specifically designed		The Enclosed Bat Box 'C' from Ibstock is designed for the pipistrelle bat. It

to fit into the cavity of house walls. It features a slim sized entrance hole which can sit flush in a course of bricks to provide a discreet entry way for bats. It is manufactured from hard-wearing WoodStone and plywood with removable side panels so that several boxes can be placed side by side. Position the box at least 2m above ground level away from artificial light sources. WoodStone is a mixture of sawdust from FSC wood sources and concrete, and it is designed to last for years. It is breathable so there will be no problems with condensation and Woodstone maintains a consistent temperature inside, providing excellent insulation for roosting bats. Dimensions: (H) 500 x (W) 210 x (D) 150mm, Weight: 5.6kg * Height: 500mm * Width: 210mm * Depth: 150mm * Weight: 5.6kg * Material: WoodStone	is ideal for new builds as it can be integrated directly into the brickwork to produce a discrete but attractive home for bats. The inside of the box is designed to create several roosting zones which are ideal for crevice dwelling bats such as the pipistrelle. The bottom entrance means that no maintenance is required as droppings will simply fall out the bottom. This Ibstock Bat Box C is available in two sizes and three colours. Choose from smooth red, smooth blue or smooth cream brick. The box has an attractive bat motive on the front and is both durable and fully frost resistant. Dimensions: Small Box - 215 x 215mm, Large Box - 215 x 290mm. [4]

Figure 8-1 Wall integrated bat roost features examples

[4] All available from NHBS https://www.nhbs.com/4?q=&hPP=60&idx=titles&p=0&fR%5Bhide%5D%5B0%5D=false&fR%5Blive%5D%5B0%5D=true&fR%5Bshops.id%5D%5B0%5D=4&fR%5Bsubsidiaries%5D%5B0%5D=1&hFR%5Bsubjects_equipment.lvl1%5D%5B0%5D=Bat%20Boxes%20%3E%20Integrated%20Bat%20Boxes&slug=bird-boxes

8.3 Wall-integrated and tree-mounted bird boxes

<table>
<tr><td colspan="2">Vivara Pro WoodStone House Sparrow Nest Box</td><td>WoodStone Build-in Swift Nest Box Deep</td></tr>
<tr><td>  </td><td> 
  </td><td>  </td></tr>
<tr><td colspan="2">House sparrows are sociable opportunists that survive in most UK habitats, from towns</td><td>Swifts in the UK have been declining rapidly over the past decades. It is thought</td></tr>
</table>

and cities to farmland and countryside. Substantial declines in both urban and rural populations have led to concerns for this species. This house sparrow nest box is manufactured from woodstone - a mix of concrete and FSC wood fibres. This material is strong and highly insulating which helps to provide a thermally stable environment within the box. It also protects against damage from predators such as cats, woodpeckers and squirrels. It is available with one or two breeding chambers, which can be particularly suitable for house sparrows as they prefer to nest in colonies. The boxes can be integrated into the masonry of a new house or fixed onto an external wall using strong screws and wall plugs (not included). If possible, it should be positioned near to vegetation and at a minimum of 2m above ground.. Single Chamber: Dimensions: 16cm x 29cm x 21cm (D x H x W), Weight: 7.25kg Double Chamber: Dimensions: 16cm x 29cm x 21cm (D x H x W), Weight: 7.5kg	that the destruction of suitable nesting habitat is a core reason for this decline, and many councils are now advising swift bricks to be used in new-builds and renovations. By installing nest boxes such as this one it will greatly help to support their numbers. This build-in nest box is designed to be integrated into the cavity of a building. It is constructed from long lasting FSC certified WoodStone with a plywood backing. This nest box should be sited at least 5m high, with a clear flight path and avoid south facing sites. Dimensions: 18cm x 42cm x 15.5cm (H x W x D), Weight: 5.3kg, Material: FSC certified WoodStone and plywood

Figure 8-2 Wall integrated bird nesting features [5]

[5] All available from NHBS
https://www.nhbs.com/4?q=&hPP=60&idx=titles&p=0&fR%5Bhide%5D%5B0%5D=false&fR%5Blive%5D%5B0%5D=true&fR%5Bshops.id%5D%5B0%5D=4&fR%5Bsubsidiaries%5D%5B0%5D=1&hFR%5Bsubjects_equipment.lvl1%5D%5B0%5D=Bat%20Boxes%20%3E%20Integrated%20Bat%20Boxes&slug=bird-boxes
Photos from NHBS website

Everything Ecology

1B Schwegler Nest Box	Vivara Pro WoodStone House Martin Nest
 Natural cavity nest sites have declined dramatically so providing a nest box in your garden or woodland can provide much-needed breeding and roosting space for cavity-nesting species. The 1B is the bestselling nest box for garden birds and will attract a wide range of species and is available with different entrance hole sizes. Examples of bird species attracted to the different entrance hole sizes are: • 32mm: great, blue, marsh, coal and crested tit, redstart, nuthatch, collared and pied flycatcher, wryneck, tree, and house sparrow (and bats) • 26mm: blue, marsh, coal, and crested tit and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole. • Oval (29 x 55mm): redstarts (because more light enters the brood chamber) and it is suitable for all other species which nest in the 32mm boxes. Schwegler bird boxes are carefully designed to provide a stable environment and to mimic natural nest and roost sites with internal brood chamber dimensions that are similar to natural cavities. These Woodcrete nest boxes are famous for their durability - lasting for at least 20-25 years. Woodcrete is a breathable blend of wood, concrete and clay which will not rot, leak, crack or warp, whilst preventing condensation and	 House Martins build nests constructed from mud on the eaves of buildings often in colonies averaging five nests, but changes to house construction and roof design mean that suitable nest sites have dramatically declined. Providing an artificial nest provides a great alternative and house martins will readily use artificial nests and encourage other birds to nest nearby. These WoodStone House Martin Nests have been specially designed to appeal to house martins and are constructed from WoodStone, a mixture of wood fibres and concrete that is durable and provides great thermal properties for the growing nestlings. The backing to the nests is also WoodStone, making them very durable. These nests should be sited underneath the eaves on exterior walls of your house or outbuildings, at a minimum height of 2m above the ground. The WoodStone House Martin Nests are available in single units, with either a right-hand or left-hand entrance or as a double unit with two nests side by side. **Single Nests - dimensions** (H) 120 x (W) 200 x (D) 150mm, **weight**: 1.5kg **Double Nests - dimensions** (H) 120 x (W) 380 x (D) 150mm, **weight**: 3.6kg

maintaining more constant temperatures inside than wooden boxes. **Dimensions**: 23cm x 16cm (H x D), **Weight**: 3.6kg, **Material**: Schwegler Woodcrete, **Fixing**: galvanised steel hanger and aluminium nail	

Figure 8-3 Bird nesting tree boxes and house martin cups