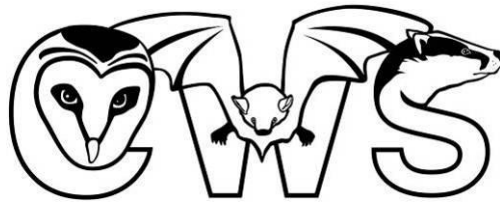


2023 Bat Survey Report for North Rye House, Donnington, Moreton-in-Marsh, GL56 0XU



Cotswold Wildlife Surveys

December 2023

QUALITY CONTROL

Date	Version	Name
19.10.18 20.10.18	Daytime inspection Nocturnal survey	Andy Warren – BSc (Hons), MA (LM), Tech Cert (Arbor A), MCIEEM, TechArborA Director + 2 assistants
13.07.21 04.08.21 20.08.21	Daytime re-inspection Nocturnal surveys	Andy Warren – BSc (Hons), MA (LM), Tech Cert (Arbor A), MCIEEM, TechArborA Director + 7 assistants
15.06.23 29.06.23	Daytime re-inspections and nocturnal surveys	Andy Warren – BSc (Hons), MA (LM), Tech Cert (Arbor A), MCIEEM, TechArborA Director + 6 assistants
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The information in this report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. The conclusions and recommendations expressed are reasoned judgements based on the evidence.

Every reasonable attempt has been made to comply with BS42020:2013 *Biodiversity – Code of practice for planning and development*, *CIEEM Guidelines for Ecological Report Writing* (CIEEM, 2017) and Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition, Collins, 2023). If there has been deviation from recognised practice, justification/explanation has been given.

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SUMMARY

At North Rye House near Donnington, Moreton-in-Marsh, planning permission was granted on 19th June 2023 for the erection of a stable building and outdoor manège, access track, siting of ground mounted solar panels, plus repositioning of an agricultural barn approved under 22/02335/AGFO (planning reference number 23/01172/FUL).

This was subsequently followed on 15th September 2023 for planning permission to demolish the house and replace it with a new dwelling and associated leisure building (planning application reference number 23/02341/FUL).

Planning permission is now being sought for the demolition of the existing stables and their replacement with garaging.

The site has a history of bat survey work.

In 2018 the house originally contained a maternity roost of Brown Long-eared Bats *Plecotus auritus* in the attic rooms, but these were excluded from the building in February 2020 under a Bat Mitigation Class Licence from Natural England. A replacement roost site (bat house) was created in a nearby barn as part of the mitigation strategy.

Whilst surveying the Brown Long-eared Bats in 2018, small numbers of Common and Soprano Pipistrelles *Pipistrellus pipistrellus* and *P. pygmaeus* were found roosting under the roof tiles.

Two nocturnal emergence surveys were subsequently carried out on the evenings of 4th and 20th August 2021.

During the first survey, a total of four Common Pipistrelles emerged from tile gaps in the west facing roof slope, three from the front of the house and one from the rear. Also recorded were overflying Noctule and Leisler's Bats *Nyctalus leisleri*, along with at least two Soprano Pipistrelles, a Whiskered/Brandt's Bat *Myotis mystacinus/M. brandtii*, a Natterer's Bat *M. nattereri*, one or two Daubenton's Bats *M. daubentonii*, at least one or two Brown Long-eared Bats and a Lesser Horseshoe Bat *Rhinolophus hipposideros*, the latter roosting in the nearby log store building.

On 20th August 2021, just two Common Pipistrelles were observed emerging from the roof of the house, with again several species noted flying round or overhead, including Noctule and Leisler's Bats, a Soprano Pipistrelle, single Natterer's and Daubenton's Bats, and a Brown Long-eared Bat, the latter roosting in the log store.

A second, dead, Brown Long-eared Bat was also noted in the stables, where it had perched up and died; cause unknown.

There were no signs of bat activity in the bat house.

The 2021 surveys confirmed the absence of roosting Brown Long-eared Bats in the house, but confirmed up to four Common Pipistrelles roosting in the roof slopes, with two Soprano Pipistrelles also roosting under roof tiles in 2018.

On 15th June 2023 the house, log store and stables were re-inspected. No bats were present in the log store or stables, but a roosting Natterer's Bat was found in the house roof void.

During the subsequent nocturnal survey the same evening, a total of four Common Pipistrelles and two Soprano Pipistrelles emerged from tile gaps in the east and north facing roof slopes of the house. Also recorded were overflying Noctule and Leisler's Bats, with a second Natterer's Bat flying round the garden. The roosting Natterer's Bat was not seen to emerge.

On 29th June 2023 the house, log store and stables were again re-inspected. No bats were present in any of the buildings, but a roosting Brown Long-eared Bat was found in the bat barn.

During the nocturnal survey the same evening, five Common Pipistrelles emerged from the roof of the house, but no Soprano Pipistrelles. One or two Noctule Bats were noted flying overhead, and again a single Natterer's Bat was detected flying round the garden having emerged elsewhere.

Taking all the inspections and surveys into account, the status of bats at the site is as follows:

- Common Pipistrelle – day roost for up to five bats in the roof of the house;
- Soprano Pipistrelle – day roost for up to two bats in the roof of the house;
- Natterer's Bat – day roost for a single bat in the roof void of the house;
- Brown Long-eared Bat – day roost for a single animal in the log store, and it or another also roosting in the bat barn;
- Lesser Horseshoe Bat – day roost used occasionally by one bat in the log store.

The stables have not been identified as a bat roost.

As the roost sites will be lost, a development licence from Natural England will be required consenting to the loss. Mitigation measures will include a pre-works toolbox talk to contractors, re-inspection of all the buildings, ecological supervision of the roof stripping of the house, this undertaken by hand, and ecological supervision of the demolition work on the stables to ensure no nesting birds are present.

Excluding Lesser Horseshoe, any roosting bats encountered will be relocated to the bat barn or Harlech bat boxes erected on nearby trees to provide replacement roost sites.

If a Lesser Horseshoe Bat is present at the time of demolition, work will be suspended until it has left of its own accord, as Lesser Horseshoes should not be handled. The bat barn provides a suitable alternative roosting location for this species.

The relocated agricultural barn will also contain a 16 m³ bat loft.

1. INTRODUCTION

At North Rye House near Donnington, Moreton-in-Marsh, planning permission was granted on 19th June 2023 for the erection of a stable building and outdoor manège, access track, siting of ground mounted solar panels, plus repositioning of an agricultural barn approved under 22/02335/AGFO (planning reference number 23/01172/FUL).

This was subsequently followed on 15th September 2023 for planning permission to demolish the house and replace it with a new dwelling and associated leisure building (planning application reference number 23/02341/FUL).

Planning permission is now being sought for the demolition of the existing stables and their replacement with garaging.

The site has a history of bat survey work, and the results of the latest nocturnal emergence surveys in June 2023 are included in this report.

In England, Scotland and Wales, all bat species are fully protected under the Wildlife and Countryside Act 1981 (WCA) (as amended), through inclusion in Schedule 5. In England and Wales this Act has been amended by the Countryside and Rights of Way Act 2000 (CRoW) and the Natural Environment and Rural Communities Act 2006 (NERC), which add an extra offence, makes species offences arrestable, increases the time limits for some prosecutions, and increases penalties.

All bats are also included in Schedule 2 of the Conservation (Natural Habitats, & c.) Regulations (the Habitats Regulations), which defines 'European protected species of animals'. In England this is the Conservation of Habitats and Species Regulations 2010, in Scotland the Habitat Regulations 1994 (as amended), and in Northern Ireland the Conservation Regulations 1995.

All bats are also protected under the Bern Convention Appendix II, the Bonn Convention Appendix II, and the Wild Mammals (Protection) Act 1996.

The above legislation can be summarised thus (Mitchell-Jones and McLeish, 2004):

- ❑ *Intentionally or deliberately kill, injure or capture (or take) bats;*
- ❑ *Deliberately disturb bats (whether in a roost or not);*
- ❑ *Recklessly disturb roosting bats or obstruct access to their roosts;*
- ❑ *Damage or destroy roosts;*
- ❑ *Possess or transport a bat or any part of a part of a bat, unless acquired legally;*
- ❑ *Sell (or offer for sale) or exchange bats, or parts of bats.*

The word 'roost' is not used in the legislation, but is used here for simplicity. The actual wording is 'any structure or place which any wild animal...uses for shelter or protection' (WCA), or 'breeding site or resting place' (Habitats Regulations). As bats generally have both a winter and a summer roost, the legislation is clear that all roosts are protected whether bats are in residence at the time or not.

2. METHODOLOGY

In order to fully assess bat occupation of a particular site, the Bat Conservation Trust (2023) recommends that information gathered from a desk study of known bat records, and a daytime site walkover, is used to inform the type and extent of future bat survey work, potentially including nocturnal emergence surveys.

The preliminary roost assessment (PRA) is usually in the form of a diurnal walkover and can be carried out at any time of the year. It provides an opportunity to check for signs of bat occupancy and/or the suitability for bat roosting.

Evidence of bat activity includes droppings, scratch marks, feeding remains, carcasses, or even roosting animals, whilst suitability is determined by the type and number of potential roost features (PRFs) typically used by bats.

Roosting places vary depending on the species. Pipistrelles usually inhabit narrow cracks or cavities around the outside of buildings, but they will roost in similar niches inside larger barns. Typical sites include soffit spaces, gaps behind fascia boards and end rafters, crevices around the ends of projecting purlins, under warped or lifted roof and ridge tiles, or in gaps in stone and brickwork where mortar has dropped out.

Larger species such as Brown Long-eared Bats, Myotis bats (Natterer's and Whiskered/Brandt's), and Lesser Horseshoes, like to roost in the roof voids of buildings, and can often be found hanging singly or in small groups from ridge boards or roof timbers, especially where these butt up against gable walls or chimney breasts. They especially favour older structures with timber frames. Here they squeeze into tight crevices making them difficult to observe.

Where bats are found, or there is evidence of bat occupation or activity, i.e. that bat use is confirmed, a roost characterisation survey is undertaken. The results are used to inform the impact assessment and design of mitigation measures. Roost characterisation includes nocturnal emergence surveys, unless sufficient information has already been collected using robust survey methods with no significant constraints.

Nocturnal emergence surveys allow numbers and species of bats to be confirmed, and should only be undertaken when bats are out of hibernation and in their summer roosts.

The bat active period is generally considered to be between April and October, although particularly cold weather will affect the level and extent of bat activity. Indeed, the air temperature at the start of each survey should be at least 10°C or above, with no strong wind or heavy rain. The survey starts 15 minutes before sunset and continues for one and a half to two hours after sunset.

Visits will be a minimum of three weeks apart, and the number of surveys and timing is dependent on the evidence found or the suitability of the site to bats. This will be determined by the ecologist.

In general, at least two emergence nocturnal surveys will be carried out, but a third visit may be necessary if the results are inconclusive or further information is required.

Nocturnal emergence surveys are also used to determine the presence or absence of bats, where signs of bat activity are indeterminate or absent but the suitability for bat roosting is considered to be low, moderate or high.

For a site with no evidence but low suitability, just one nocturnal emergence survey is required, this to be in the period May to August.

For moderate suitability a minimum of two visits are needed between May and September, of which one must be in the period May to August.

With high suitability, three visits will be necessary between May and September, of which two must be in the period May to August.

Where there is no evidence of bat presence, and no suitability for roosting, no nocturnal surveys will be needed.

The number of surveyors and/or the use of night vision aids (NVAs) is determined by the ecologist, and is dependent on the complexity of the structure. For simple structures just one surveyor using an appropriate number of NVAs will be sufficient, but for larger sites and/or more complex or irregularly shaped structures, e.g. those with multiple elevations and/or roof slopes, more surveyors will be required.

On 19th October 2018 a thorough inspection of the attic rooms of the house and the external roof was made by Andy Warren (Natural England bat licence No. 2015-16489-CLS-CLS), including the exterior and interior walls, eaves, gables, window casements and door frames.

10x42 Nikon binoculars and a Fenix TK75 torch were used for the inaccessible/unreachable areas. On this occasion an endoscope was not used, as there were no crevices and cavities that could not be inspected with a torch or by use of binoculars from a ladder.

A nocturnal emergence survey was subsequently undertaken on the 20th October 2018 by Andy Warren and two assistants. The survey started 15 minutes before sunset and continued for one and a half hours after sunset.

The survey was aided by the use of Wildlife Acoustics Echo Meter Touch detectors and iPads.

On 13th July 2021 a thorough re-inspection of the house was made by Andy Warren.

Nocturnal emergence surveys were subsequently undertaken on 4th and 20th August 2021 by Andy Warren and seven assistants. The surveys started 15 minutes before sunset and continued for one and a half hours after sunset.

The surveys were aided by the use of Wildlife Acoustics Echo Meter Touch detectors and iPads, and BatBox Duet detectors.

Pre-survey inspections of the house, log store and stables were also carried out.

On 15th June 2023 the house, log store and stables were re-inspected by Andy Warren, followed by a nocturnal emergence survey with eight observers.

This was repeated on 29th June 2023.

Pulsar Accolade LRF XP50 Pro Thermal Binoculars were also used to check for roosting bats and to assess bat activity around the site.

The results of the inspections and surveys are detailed in Section 3.

3. RESULTS

3.1 Desk Study

In view of the known presence of bats in the house, a background data search was not carried out in this case.

However, CWS has carried out many surveys in the area, i.e. within a 10 km radius, over the last 13 years, with species recorded including Common and Soprano Pipistrelles, Brown Long-eared, Natterer's, Whiskered/Brandt's, Daubenton's *Myotis daubentonii*, Noctule, Leisler's *Nyctalus leisleri*, Lesser Horseshoe, Serotine and Barbastelle *Barbastella barbastellus*.

These include several maternity roosts, in particular for Brown Long-eared, Lesser Horseshoe and Barbastelle.

3.2 Location

North Rye House is located 3.3 km northeast of Stow-on-the-Wold near the small hamlet of Donnington (1.4 km to the west-southwest). The house is accessed via a long driveway off the Fosse Way, and lies at Ordnance Survey Grid Reference SP 20621 28638 (Appendix 1).

3.3 Site Description

The survey site comprised a large, detached stone house with a pitched tile roof. It was built in a 'T-shape' and had gable ends facing northwest, southwest and southeast (Figs. 1 and 2).



Figs. 1 & 2 North Rye House

The ridges and roof tiles of the pitched roofs were all present (Fig. 3), although some small gaps were noted under a few tiles where they were slightly raised or dislodged.

The verges originally had a few gaps which appeared to provide access to the attic rooms in the roof void (Fig. 4), but these were all re-pointed under licence in February 2020.



Figs. 3 & 4 Roof and northwest facing gable end

The external stonework was largely sound, and the window casements and door frames were tightly fitting, as were the eaves soffits.

Internally there were several attic rooms, with the two main voids lying above the higher part of the house (Figs. 5 and 6).

The roof was lined with foil-backed insulation, and until the verges had been re-pointed in February 2020, light penetrated from narrow gaps at the gable ends.



Figs. 5 & 6 Attic rooms

A maternity roost of Brown Long-eared Bats was present in 2018, but these were excluded from the house under licence from Natural England in February 2020.

In July 2021 there were no signs of recent bat activity in the attic rooms, including the void above the integral garage, and it was assumed that the interior of the house was no longer accessible to bats.

The house was set in extensive private grounds, these mature and well-wooded.

Approximately 50 m to the west-northwest of the house lay a single storey log store/garage building (Fig. 7), this partially open-fronted, with a large, open-ended timber barn another 50 m beyond that (Fig. 8).

A replacement roost site in the form of a bat house was created in the barn for the Brown Long-eared Bats.



Figs. 7 & 8 Garage building (L) and barn (R)

Between the log store and barn, there is a set of single storey timber stables with a pitched roof covered by felt tiles and timber shingles, the latter covered in moss and decayed (Figs. 9 and 10).



Figs. 9 & 10 Timber stables

The only sign of bat activity in the stables was a dead Brown long-eared Bat in the southeastern-most stall. This had perched up and died, but the cause of death was unknown.

The layout of the site is shown in the aerial photograph in Appendix 2.

Bat house

The bat house was inspected in July 2021 to see if it was being used by bats. No signs of bat activity or occupation were found, and it was evident that animals had not yet started using the structure (Figs. 11 and 12 - overleaf).

The building was re-inspected in June 2023, and on 29th June, a roosting Brown Long-eared was present (Fig. 13 – overleaf).



Figs. 11 & 12 Exterior (L) and interior (R) of bat house



Fig. 13 Brown Long-eared Bat in bat house – 29th June 2023

3.4 Other species

Apart from spiders and insects, in particular large numbers of cluster flies, there were no signs of other species using the attic rooms of the house.

No birds' nests were found in or on the house, but two Blue Tits *Cyanistes caeruleus* were seen going to roost on 20th October 2018; one in a roof end gap at the northwest facing gable, and the second in a soffit hole at the front of the house.

The log store contained an old Swallows' *Hirundo rustica* nest taken over by a Wren *Troglodytes troglodytes*, with another old Swallows' nest and old Blackbirds' *Turdus merula* nest in the stables.

3.5 Emergence Surveys

3.5.1 4th August 2021 survey

The first of the 2021 emergence surveys was conducted on 4th August, commencing at 20:30 and finishing at 22:20.

The weather conditions during the time of the survey were recorded and are presented in Table 1 overleaf.

Parameter	Value
Temperature (°C)	18.5 start; 17.0 finish
Cloud cover (%)	30
Precipitation	None
Wind speed (Beaufort scale)	0
Sunset	20:51

Table 1 Weather conditions during the emergence survey

A total of four Common Pipistrelles emerged from tile gaps in the west facing roof slope, three from the front of the house and one from the rear.

Also recorded were overflying Noctule and Leisler's Bats, along with at least two Soprano Pipistrelles, a Whiskered/Brandt's Bat, a Natterer's Bat, one or two Daubenton's Bats, at least one or two Brown Long-eared Bats and a Lesser Horseshoe Bat, the latter roosting in the nearby log store building.

The times of bat detections and observations are shown in the table below.

Time	Observation
20:53	Noctule flew over
21:00	Common Pipistrelle emerged from west facing slope of house roof and flew off social calling
21:01	Noctule flew over
21:05	2 x Noctules flew over Common Pipistrelle flew over from west and away southeast
21:09	2 nd Common Pipistrelle emerged from west facing slope of house roof and flew off
21:12	Soprano Pipistrelle flew past
21:14	Noctule flew over
21:15	3 rd Common Pipistrelle emerged from west facing slope of house roof and flew off. Lesser Horseshoe Bat detected in log store
21:17	Whiskered/Brandt's Bat flew past, with 2 x Soprano Pipistrelles flying round
21:21	4 th Common Pipistrelle emerged from west facing slope of house roof and flew off
21:22	Noctule flew over and Lesser Horseshoe Bat flew out of log store
21:23	Daubenton's Bat flew past
21:24	2-3 Common Pipistrelles flying round
21:27	Daubenton's Bat flew past
21:28	Common Pipistrelles still present

21:29	Brown Long-eared Bat detected in the garden, with Natterer's Bat flying past
21:32	Leisler's Bat flew over
21:33	Common Pipistrelle still present
21:34	Daubenton's Bat flew past, and Lesser Horseshoe Bat now foraging in the stables
21:38	Brown Long-eared Bat flew past
21:40	1-2 Common Pipistrelles present
21:52	Common Pipistrelle still present
22:00	Common Pipistrelle still present
22:07	Intermittent pipistrelle activity
22:20	No more detections or observations and the survey ended

The bat flight paths at emergence are shown in Appendix 3.

3.5.2 20th August 2021 survey

The second of the 2021 emergence surveys was conducted on 20th August, commencing at 20:00 and finishing at 21:45. The weather conditions during the time of the survey were recorded and are presented in Table 2.

Parameter	Value
Temperature (°C)	19.5 start; 18.0 finish
Cloud cover (%)	100
Precipitation	None
Wind speed (Beaufort scale)	0
Sunset	20:19

Table 2 Weather conditions during the emergence survey

Just two Common Pipistrelles were observed emerging from the roof of the house, with again several species noted flying round or overhead, including Noctule and Leisler's Bats, a Soprano Pipistrelle, single Natterer's and Daubenton's Bats, and a Brown Long-eared Bat, the latter roosting in the log store.

A second, dead, Brown Long-eared Bat was also noted in the stables.

The times of bat detections and observations are shown in the table below.

Time	Observation
20:25	Common Pipistrelle emerged from west facing slope of house roof and flew off
20:29	Another Common Pipistrelle flew past social calling

20:32	Soprano Pipistrelle flew past
20:33	Noctule flew over
20:34	Common Pipistrelle flew past
20:38	Common Pipistrelle flew past and Noctule flew over
20:40	Brown Long-eared Bat emerged from log store and flew off
20:42	2 nd Common Pipistrelle emerged from west facing slope of house roof and flew off.
20:48	Noctule flew over and Soprano Pipistrelle flew past
20:50	Noctule over again
20:52	Daubenton's Bat flew past
20:54	Daubenton's Bat flew past again
20:57	2 x Common Pipistrelles flying round
20:59	Common Pipistrelles still present and Daubenton's Bat flew past
21:02	Brown Long-eared Bat flew past and 1-2 Common Pipistrelles present
21:07	Daubenton's Bat flew past again
21:11	Leisler's Bat flew over with Natterer's Bat flying past and Common Pipistrelle still present – social calling
21:20	Intermittent pipistrelle activity
21:45	No more detections or observations and the survey ended

The bat flight paths at emergence are shown in Appendix 4.

3.5.3 15th June 2023 survey

The first emergence survey of 2023 was carried out on 15th June 2023, commencing at 21:15 and finishing at 23:00. The weather conditions during the time of the survey were recorded and are presented in Table 3.

Parameter	Value
Temperature (°C)	19.0 start, 19.0 finish
Cloud cover (%)	0
Precipitation	None
Wind speed (Beaufort scale)	2 NE
Sunset	21:28

Table 3 Weather conditions during the emergence survey

A pre-survey inspection found a Natterer's Bat hanging on the gable wall in the house roof void, along with a few scattered droppings to indicate roosting for several days.

During the survey a total of four Common Pipistrelles and two Soprano Pipistrelles emerged from tile gaps in the east and north facing roof slopes of the house. Also recorded were overflying Noctule and Leisler's Bats, with a second Natterer's Bat flying round the garden. The roosting Natterer's Bat was not seen to emerge.

Details of the bat observations and detections are listed below.

Time	Observation
21:47	Noctule heard over the site
21:51	Common Pipistrelle flew by from the south
21:53	Noctule heard over the site
21:54	Soprano Pipistrelle emerged from the roof near the easternmost corner of the main house
21:55	Common Pipistrelle emerged near the southernmost corner of the house and flew north
21:56	Soprano Pipistrelle emerged from the roof near the easternmost corner of the main house
21:59	Leisler's Bat flew over the driveway and north garden
22:01	Common Pipistrelle emerged from the roof near the easternmost corner of the main house
22:02	Common Pipistrelle emerged at the western end of the house, towards the drive
22:03 – 22:23	Common Pipistrelle foraging in the north garden
22:04	Common Pipistrelle emerged near the southernmost corner of the house
22:05	Common Pipistrelle flew over the drive and north garden, heading northeast
22:11	Common Pipistrelle heard over the house
22:13	Natterer's Bat recorded southwest of the house
22:17	Natterer's Bat recorded northeast of the stables
22:20	Noctule heard over the site
22:21	Two Common Pipistrelles foraging southeast of the house
22:24	Common Pipistrelle foraging around the stables
22:32	A check of the roof void of the house revealed the Natterer's Bat still present but preparing to emerge
23:00	No further detections were made and survey ended.

The bat flight paths at emergence on 15th June 2023 are shown in Appendix 5.

3.5.4 29th June 2023 survey

The second emergence survey of 2023 was carried out on 29th June 2023, commencing at 21:15 and finishing at 23:00. The weather conditions during the time of the survey were recorded and are presented in Table 4.

Parameter	Value
Temperature (°C)	15.0 start, 14.0 finish
Cloud cover (%)	20
Precipitation	None
Wind speed (Beaufort scale)	2 W
Sunset	21:30

Table 4 Weather conditions during the emergence survey

The house, log store and stables were again re-inspected. No bats were present in any of the buildings, but a roosting Brown Long-eared Bat was found in the bat barn (Ref. Fig. 13).

During the nocturnal survey five Common Pipistrelles emerged from the roof of the house, but no Soprano Pipistrelles. One or two Noctule Bats were noted flying overhead, and again a single Natterer's Bat was detected flying round the garden having emerged elsewhere.

Details of the bat observations and detections are listed below.

Time	Observation
21:39	Noctule heard over the site
21:54	Common Pipistrelle flew through the north garden
21:55	Two Common Pipistrelles emerged from the roof verge at the southeast facing gable end
21:59	Noctule heard over the site
22:01	Common Pipistrelle over the formal garden south of the house
22:02	Common Pipistrelle emerged towards the drive from the northwest face of the house roof
22:03	Common Pipistrelle emerged from the house dormers
22:05	Common Pipistrelle emerged from the northeast face of the house roof
22:11	Common Pipistrelle in the formal garden
22:11	Two Common Pipistrelles foraging around the north garden

22:13	Natterer's Bat flew over, northeast of the house and stables
22:14	Common Pipistrelle over the formal garden
22:18	Common Pipistrelle passed by northeast of the house and stables
22:22	Natterer's Bat seen in the formal garden
22:23	Common Pipistrelle circled the house
22:24	Natterer's Bat over the formal garden
23:00	No further detections were made and survey ended

The bat flight paths at emergence on 29th June 2023 are shown in Appendix 6.

4. CONCLUSIONS AND RECOMMENDATIONS

Bats tend to be seasonal visitors to properties, and are not usually in occupation all year round. The females normally form maternity colonies during May or June and then leave for adjacent trees and/or woodland during July or August once the young bats are able to fly and become independent. Here they will spend the winter months in hibernation before returning to the house or barn the following spring.

Male bats generally live alone and have a number of favoured roosts. During the summer they visit each of these for a few days at a time, before moving to their chosen hibernation site in mid-late October. Different species have different habits, but this seasonal movement is common to all.

Bats choose their roosts carefully. During the summer they look for sites which are warmed by the sun, and as a result are most often found on the south and western side of buildings.

Pipistrelles, our smallest and commonest bats, prefer to roost in very confined spaces around the outside of buildings, typical places being behind hanging tiles, weather boarding, soffit, barge and eave boarding, between roof felt and roof tiles or in cavity walls.

The suitability for roosting pipistrelles was originally considered to be moderate, as there were gaps under a few roof tiles and at the roof verges. The presence of roosting pipistrelles was subsequently confirmed by the 2018 nocturnal survey, when at least two Common and two Soprano Pipistrelles emerged from the southeast gable end of the house.

Although the verges were re-pointed in 2018/19, roosting pipistrelles were still present in 2021 and 2023, with at least five Common Pipistrelles and two Soprano Pipistrelles noted emerging from roof tile gaps on the west facing slope.

Another bat frequently encountered in buildings is the Brown Long-eared. This is also a common species, but unlike pipistrelles, they prefer the dry, warm space of the loft or roof void, and can often be found hanging from roof timbers, especially rafters and the ridge board next to chimney breasts.

A maternity roost of Brown Long-eared Bats was present in the attic rooms of the house in 2018, but these were subsequently excluded from the building under licence from Natural England in February 2020. Re-inspections on 13th July 2021 and 15th and 29th June 2023 confirmed the absence of Brown Long-eared Bats in the attic, although a roosting Natterer's Bat was present in the roof void on 15th June 2023.

One or two Brown Long-eared Bats are now roosting in the log store and the bat barn. A Lesser Horseshoe Bat was also present in the log store on 4th August 2021.

Taking all the inspections and surveys into account, the status of bats at the site is as follows:

- Common Pipistrelle – day roost for up to five bats in the roof of the house;

- ❑ Soprano Pipistrelle – day roost for up to two bats in the roof of the house;
- ❑ Natterer’s Bat – day roost for a single bat in the roof void of the house;
- ❑ Brown Long-eared Bat – day roost for a single animal in the log store, and it or another also roosting in the bat barn;
- ❑ Lesser Horseshoe Bat – day roost used occasionally by one bat in the log store.

The stables have not been identified as a bat roost.

As the roost sites will be lost, a development licence from Natural England will be required consenting to the loss. Mitigation measures will include a pre-works toolbox talk to contractors, re-inspection of all the buildings, ecological supervision of the roof stripping of the house, this undertaken by hand, and ecological supervision of the demolition work on the stables to ensure no nesting birds are present.

Since all in-use bird’s nests and their contents are protected from damage or destruction, any works which affect the buildings should ideally be undertaken outside the period March to September inclusive. If this time frame cannot be avoided, a close inspection of the buildings will be undertaken prior to works commencing. Work will not be carried out in close proximity to any in-use nest, and a minimum buffer of 5.0 metres will be established, although this could be more depending on the sensitivity of the species. Any in-use nest will be allowed to fledge before it is disturbed.

Excluding Lesser Horseshoe, any roosting bats encountered will be relocated to the bat barn or one of two Harlech bat boxes erected on nearby trees to provide replacement roost sites in case a bat is discovered during demolition (Fig. 14).



Fig. 14 Locations of bat boxes ■

If a Lesser Horseshoe Bat is present at the time of demolition, work will be suspended until it has left of its own accord, as Lesser Horseshoes should not be handled. The bat barn provides a suitable alternative roosting location for this species. The relocated agricultural barn will also contain a 16 m³ bat loft.

5. REFERENCES

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The Vincent Wildlife Trust, 2003. *The Bats of Britain and Ireland.* The Vincent Wildlife Trust, Ledbury.

APPENDICES

Appendix 1: Location plan

Appendix 2: Site layout

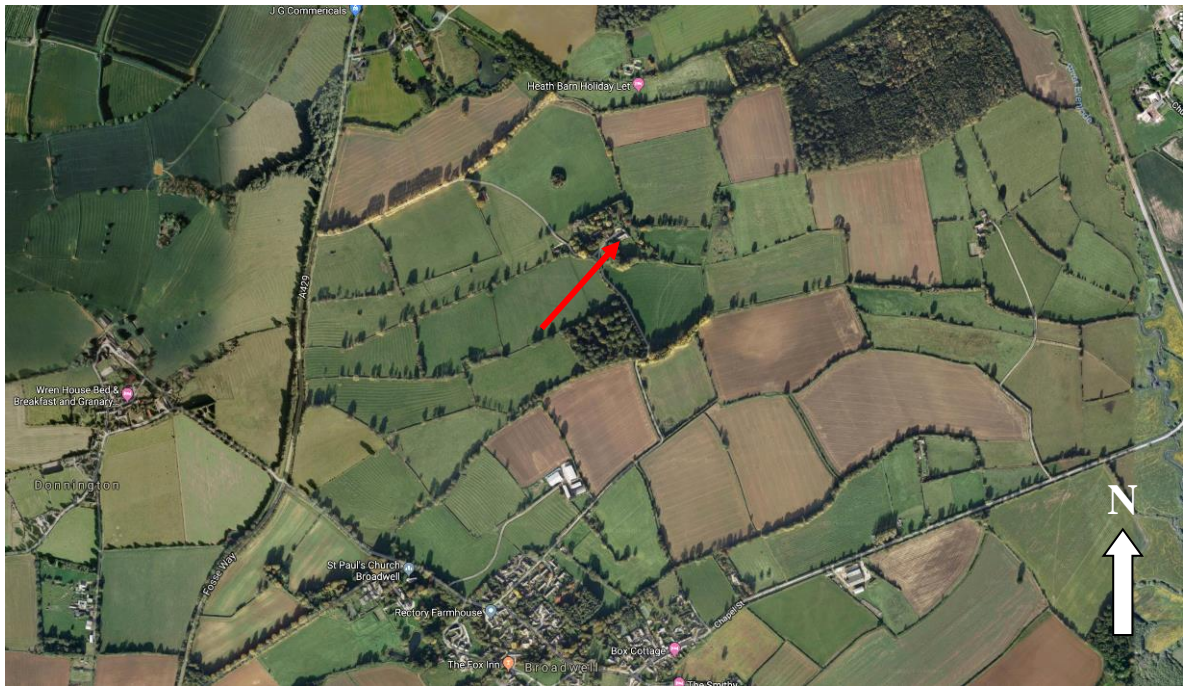
Appendix 3: Bat flight paths at emergence on 4th August 2021

Appendix 4: Bat flight paths at emergence on 20th August 2021

Appendix 5: Bat flight paths at emergence on 15th June 2023

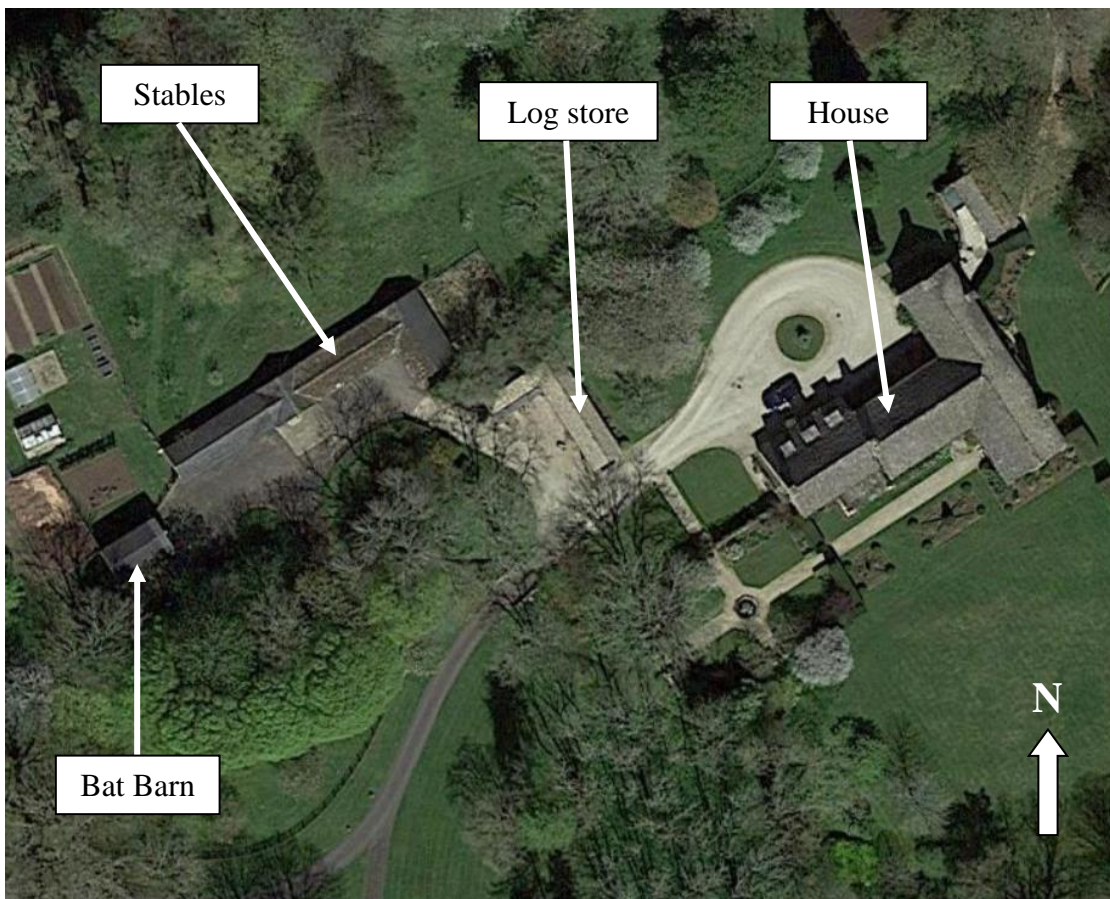
Appendix 6: Bat flight paths at emergence on 29th June 2023

Appendix 1: Location plan

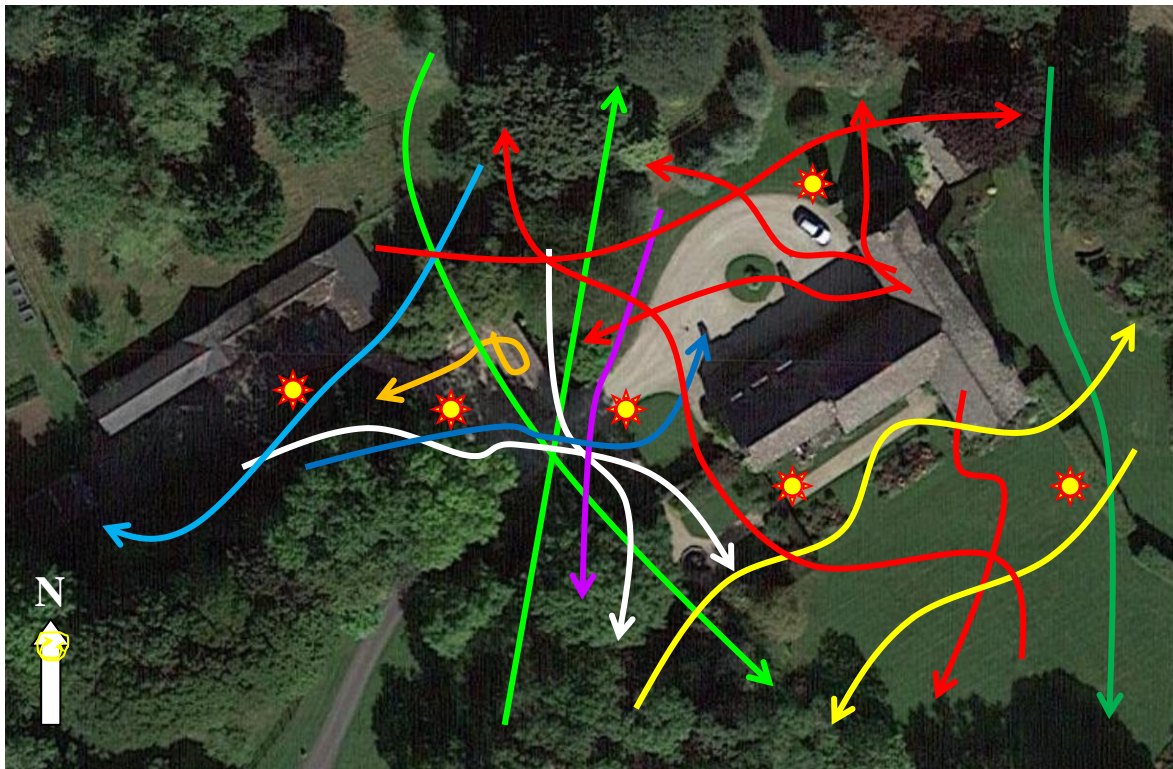


North Rye House

Appendix 2: Site layout

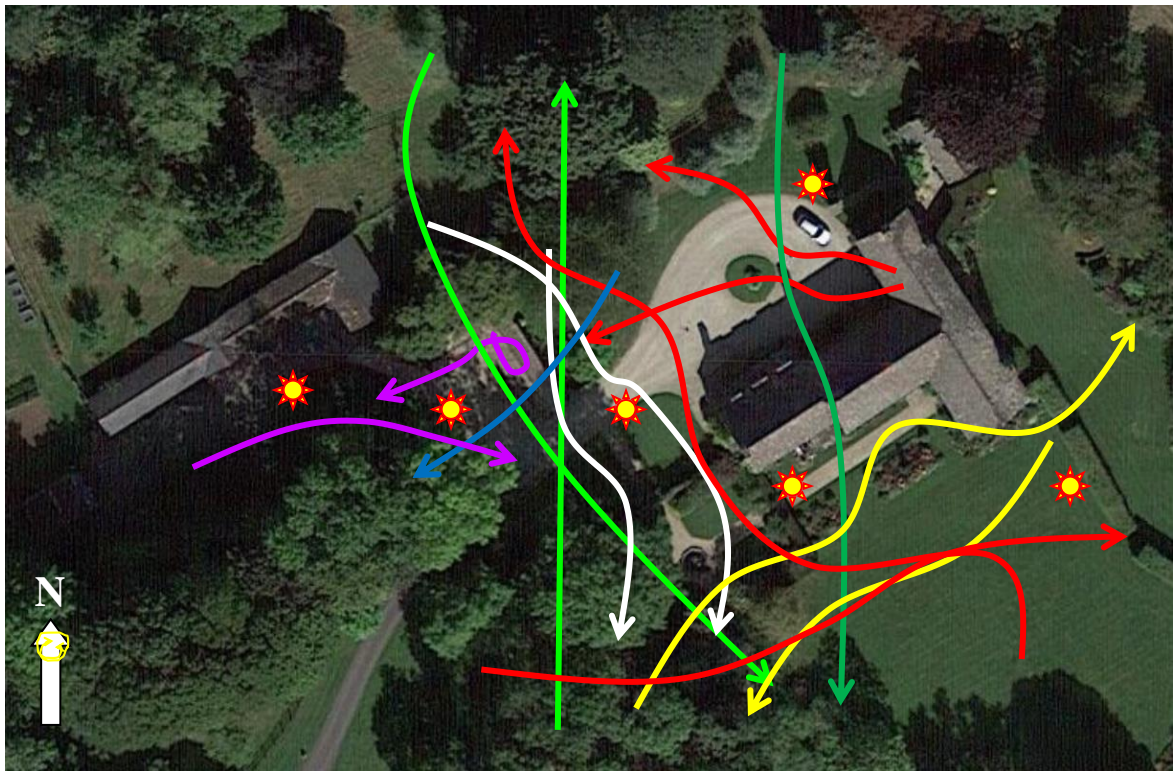


Appendix 3: Bat flight paths at emergence on 4th August 2021



- Brown Long-eared Bat** →
- Common Pipistrelles** →
- Soprano Pipistrelles** →
- Leisler's Bat** →
- Noctule Bat** →
- Lesser Horseshoe Bat** →
- Natterer's Bat** →
- Whiskered/Brandt's Bat** →
- Daubenton's Bat** →
- Positions of observers** *

Appendix 4: Bat flight paths at emergence on 20th August 2021



Brown Long-eared Bat →

Common Pipistrelles →

Soprano Pipistrelles →

Leisler's Bat →

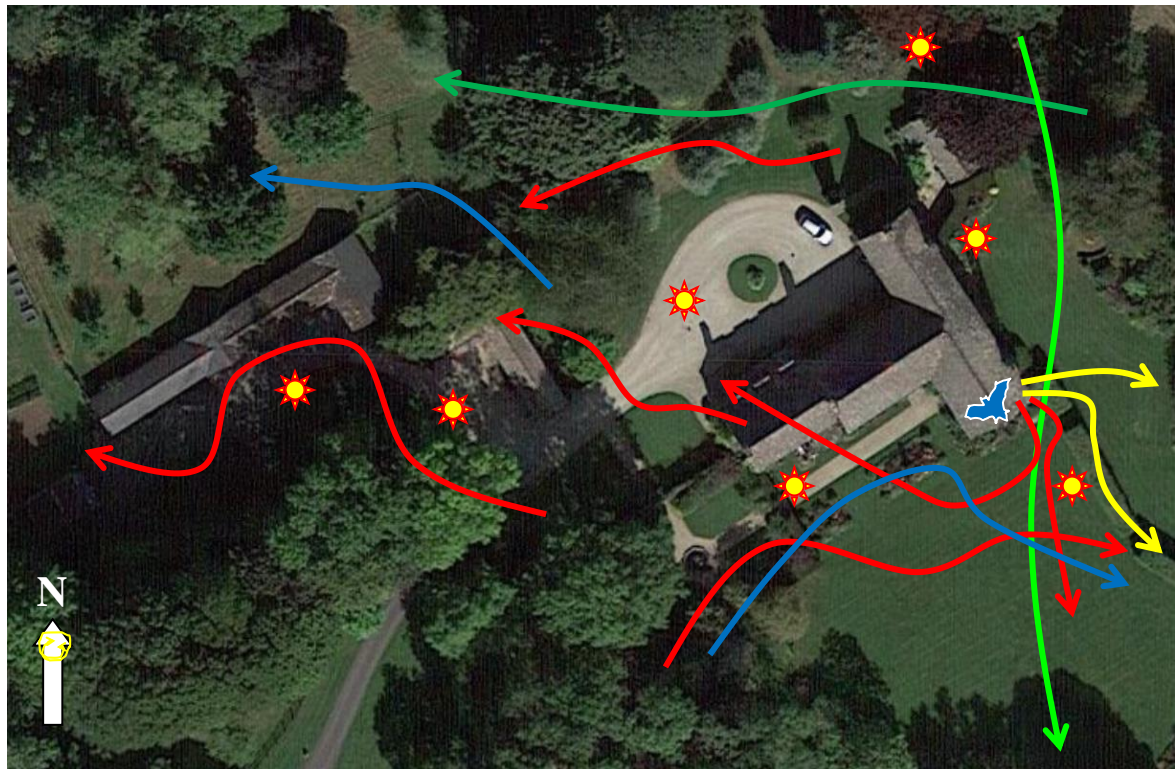
Noctule Bat →

Natterer's Bat →

Daubenton's Bat →

Positions of observers *

Appendix 5: Bat flight paths at emergence on 15th June 2023



Common Pipistrelles →


Soprano Pipistrelles →

Leisler's Bat →

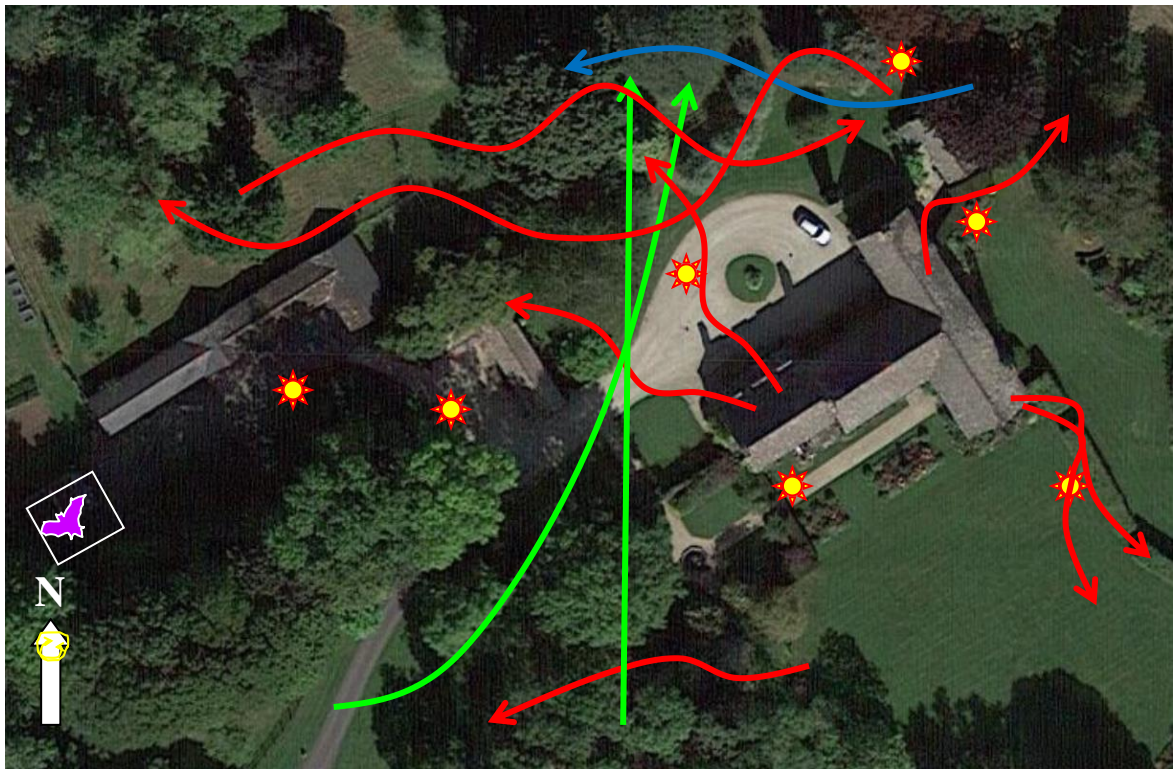
Noctule Bat →

Natterer's Bat →

Roosting Natterer's Bat 

Positions of observers 

Appendix 6: Bat flight paths at emergence on 29th June 2023



Common Pipistrelles →

Noctule Bat →

Natterer's Bat →

Roosting Brown Long-eared Bat 

Positions of observers 

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