



Bat, Breeding Bird and Barn Owl Survey
Archways, Sicklinghall

August 2020

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Site:

Archways
Sicklinghall Road
Wetherby
LS22 6AA

Dates:

Scoping survey: 3rd June 2020
Emergence survey: 2nd July 2020

Client:

Dan Jones

Client's agent:

Wildblood Macdonald
Parkhill Studio
Parkhill
Walton Road
Wetherby
Ls22 5DZ

Planning Authority:

Harrogate Borough Council

Our ref:

20-925

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1 Summary

A bat, breeding bird and barn owl survey and subsequent emergence survey has been undertaken on Archways, Wetherby, which is a residential property.

A building inspection, followed by an emergence survey in July 2020, did not reveal any bat roosts. The property has limited potential bat access, via very low number of lifted tiles. None of the surrounding mature garden planting had any crevices which could be utilised by roosting bats but would hold value for commuting and foraging bats. The property was covered by an emergence survey, and very low bat foraging was noted, with no emergences. Proposed works will, therefore, not impact on bats and no further survey work is required.

No evidence of breeding birds was identified within the property; however, the mature garden planting holds relatively high value. Therefore, the vegetation removal should avoid the bird breeding season if possible. If works are to be carried out in the bird breeding season a check should be made immediately prior to works commencing for the presence of any active bird nests in areas affected by works. If any active nests are discovered, then, where possible, work to these areas should be carried out once any chicks have fledged in order to avoid disturbance.

There will be no loss of barn owl habitat.

2 Introduction

MAB Environment and Ecology Ltd was commissioned by Wildblood Macdonald to undertake a bat, breeding bird and barn owl scoping survey on a residential property at Archways, to accompany a planning application for demolition and rebuild. Development plans are appended.

The site is located on the western edge of Wetherby (Central grid reference: SE 391 481). The location of the site is shown on Figure 1 below, and the application site boundary is shown in Figure 2.

The report was written by Sarah Emerson Grad CIEEM of MAB Environment and Ecology Ltd.

The report's primary objective is to provide an impact assessment for the development on bats, define any necessary mitigation proposals, and to assess the requirement for a Protected Species Licence. A secondary objective is to assess potential impact on breeding birds.

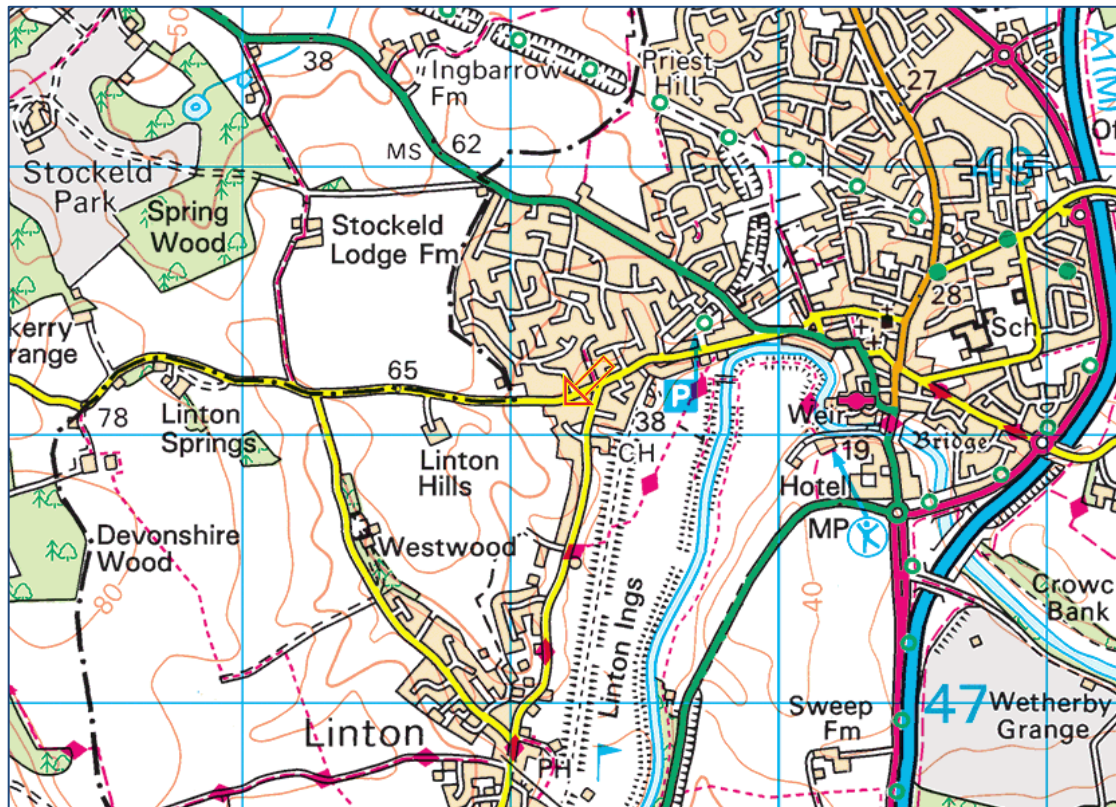


Figure 1: Site location.



Figure 2: Red line application boundary.

3 Methodology

3.1 Desktop Study

3.1.1 Bat roost records for a 2km radius around the site were commissioned from the North Yorkshire Bat Group (NYBG).

3.1.2 Aerial imagery from Google Earth and 'MAGIC' government website were used to assess the location of the site and the surrounding habitat for value to bats. This includes proximity of the site to good bat foraging habitat such as woodland and water bodies and if the site is linked to such habitats by linear features like hedgerows, woodland edges or rivers which bats use to commute around the environment.

3.2 Field Survey

3.2.1 The site was surveyed by Sarah Emerson GradCIEEM who has worked as an ecologist since 2015 and for MAB since 2017. She holds a Class Survey Licence WML-A34 (Bat Survey Level 2) registration number: 2016-26716-CLS-CLS. She also holds a Class Survey Licence for Great Crested Newts WML-CL09 (level 2) registration number 2016-19358-CLS-CLS. The surveys were carried out in accordance with the Bat Conservation Trust, Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).

3.2.2 The exterior of the building was inspected during the day using halogen torches (500,000 candle power), binoculars, ladders, and a flexible endoscope (a Sea Snake LCD inspection scope). All normal signs of bat use were looked for, including bats, bat droppings, feeding waste, entry and exit holes, grease marks, dead bats, and the sounds / smells of bat roosts.

3.2.3 All signs of breeding bird activity and barn owl (*Tyto alba*) activity were looked for. Signs looked for included white droppings, often vertical down walls or beams; active nests and nesting materials; (birds flying into and out of barns: generally, summer only); bird feathers, particularly swift (*Apus apus*), swallow (*Hirundo rustica*) and house martin (*Delichon urbica*), bird corpses, feeding waste (including pellets), and the sound/smell of birds.

3.2.4 Trees marked for removal or directly affected by the development scheme were assessed during the day from the ground using close focusing binoculars and a halogen torch (500,000 candle power). Features such as woodpecker holes, splits, cracks, rot holes, dense ivy, and peeling bark were looked for which are commonly used by bats for roosting and for shelter. Any features were then inspected for any signs of bat use, including staining around potential access points, bat droppings bats, and the sounds / smells of bat roosts.

3.2.5 Other trees within the site and areas of vegetation were also assessed for value to bats and their importance as foraging and commuting habitat.

3.2.6 The buildings were assessed for their degree of potential to support roosting bats. This includes assessing the building design, materials and condition. See Table 1 for more information.

Colour code	Suitability.	Roosting habitats	Commuting and foraging habitats
Grey	Negligible risk	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Yellow	Low risk	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions 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 or hibernation).	Habitat that could be used by small numbers of commuting bats such as 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 only be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Amber	Moderate risk	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only-the assessments in this table are 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 commuting such as a line 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.
Red	High risk	A structure or tree 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 and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats 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.

Table 1: Guidelines for assessing the suitability of proposed development sites for bats. Adapted from BCT Bat surveys for Professional Ecologists, Good Practice Guidelines 2016.

3.2.7 Emergence surveys were carried out using 2 surveyors with ultra-sound detectors (Pettersson D240x). The D240x detector was set to 10x expansion with manual triggering with an Edirol R09 WAV solid state recording device for the time expansion channel, with heterodyne output through the other channel. Time expansion recordings were analysed with BatSound software.

3.2.8 Surveyors used were:

- Sarah Emerson Grad CIEEM (SE) as above.
- Richard Askew (RA) has a BSc in Zoology and has carried out bat surveys for MAB since 2019. He holds a Class Survey Licence WML-CL17 (Bat Survey Level 1) registration number: 2020-46293-CLS-CLS-1.

4 Constraints

Internal access was not possible due to Covid-19, the property was covered by an emergence survey to mitigate for this.

5 Site Description

The surveyed building is a residential property, which was brick built, with a pan tiled roof. Site boundary is mature garden planting.



Photo 1: North east aspect of property



Photo 2: Mature garden planting

6 Results

6.1 Desktop Study

The surveyed site is within an area of moderate-quality bat foraging habitat, with connectivity to the River Wharfe via mature tree lined boundaries. Habitats to the west of the site are of lower habitat quality, dominated by permanent pasture with minimal field margins or hedgerow.



Figure 3. Aerial view of the surrounding landscape.

6.1.2 Bat Group Records

Records returned from North Yorkshire Bat Group (NYBG) do not contain any from the site itself, with a maternity roost of common pipistrelles noted approx. 1.5km east of the site. No other breeding roosts were identified from this search. Other records returned were from Noctules, soprano pipistrelles, and whiskered/ Brandt's bats. Full records can be found appended.

6.2 Visual Inspection

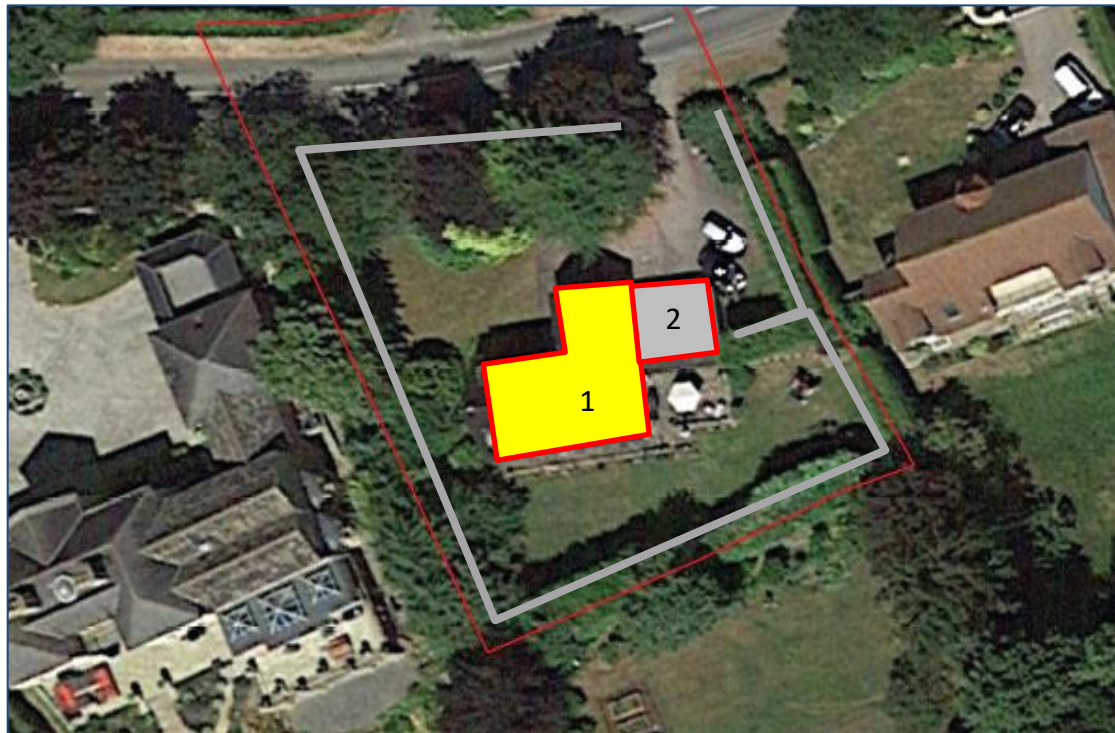


Figure 4: Visual inspection results

Building ref.	Description	Features with potential bat roost habitat (PBRH).
1 –Low potential risk of supporting bats	Two-storey stone-built residential property, with a pitched concrete pan tiled roof. Soffits are very well-sealed, with no potential access, and tiles generally well-sealed, however, very low number lifted providing limited access.	Limited access under tiles.
2 - Negligible risk of supporting bats.	Single storey flat roof extension, which is very well-sealed all the way round.	No PBRH.
Surrounding vegetation - negligible risk of supporting bats	Mature garden planting on site boundary. None of which had any features which would be suitable for roosting bats. However, holds value for commuting and foraging.	No PBRH. Some potential for commuting/foraging.

Figure 5: Visual inspection results

Site Photographs



Photo 3: view of site from south eastern corner of garden.



Photo 4: example of well-sealed soffits.



Photo 5: Very low number of slightly lifted tiles.



Photo 6: well-sealed flat roof of Building 2.



Photo 7: Mature planting on site boundary.



Photo 8: mature garden boundary planting.

6.3 Emergence Survey

Date: 02/07/20

Start time: 21:24

End time: 23:09

Sunset: 21:39

Conditions: 12°C start, 12°C end. Dry. 70% cloud cover. Slight breeze (BF2).

Surveyors: Sarah Emerson (SE); Richard Askew (RA).

Equipment used: 2x Pettersson D240x time expansion ultrasound detector with Edirol R09 recorder.

Results summary:

No bats were identified emerging from surveyed building. Common pipistrelles were observed sporadically commuting across the site, whilst utilising the trees/hedges surrounding the garden to forage.

Observations:







Surveyor	Time	Species	Number	Activity	Annotation
SE	21:45	Common pipistrelle, <i>Pipistrellus pipistrellus</i>	1	Foraging in trees, west of building	
ES	21:46	Common pipistrelle, <i>Pipistrellus pipistrellus</i>	1	Foraging east of building, over hedgerows surrounding the garden	
RA	21:46- 21:47	Common pipistrelle, <i>Pipistrellus pipistrellus</i>	1	Foraging in trees to northwest of building, before commuting east over building	
RA	21:50 – 22:02	Common pipistrelle, <i>Pipistrellus pipistrellus</i>	1	Foraging in northwest corner of the garden	
SE	21:53	Common pipistrelle, <i>Pipistrellus pipistrellus</i>	1	Commuting across garden, east – west	
SE	22:18	Common pipistrelle, <i>Pipistrellus pipistrellus</i>	1	Commuting along trees west of building	



Figure 6 – Surveyor locations and bat activity recorded during survey 1 (02/07/2020).

7 Discussion and Analysis

The results of the surveys demonstrate that the buildings at Archways are not currently used as a roost site by bats. No signs of bat roosting were found during the external building inspection, and no bats were seen to emerge during the emergence survey in July 2020. There was no access to the internal void of the property due to Covid-19, however the potential access for bats was very limited. Bat activity was very low, and if there was a significant roost within the property, this would have been picked up. We can, therefore, safely rule out any bat use of the buildings.

There is no evidence of the use of the site by barn owls, and there was no evidence of breeding birds within the property, however, the surrounding vegetation will be utilised for nesting. We, therefore, recommend that work should be timed to avoid disturbance to nesting birds. If this is not possible, then a check should be made immediately prior to work for the presence of any nesting birds in areas to be worked on. If any active nests are found, then work to those areas should be delayed until after the bird breeding season or once any chicks have fledged.

8 Impact Assessment

No bats were utilising any of the buildings on site, and activity was low throughout the survey. Therefore, there will be no impact on roosting bats within the buildings or vegetation on site.

There will be a reduction in available nesting sites within the mature planted boundaries and a risk of disturbance to nesting birds if work is carried out where active nests are present.

There will be no impact on barn owl.

9 Mitigation & Compensation

9.1 Mitigation Summary

As no bat roosts are present within the building, no mitigation for bats and no further survey work is considered necessary.

As crevice habitat will be lost to the development, we recommend that replacement potential crevice bat roost habitat will be provided through the installation of a long-lasting, professional quality bat box, integral habitat within the new build property is preferable for longevity. This will ensure that ecological functionality of the site is maintained post-development.

We recommend that vegetation clearance works are carried out outside of the bird breeding season. If this is not possible then a check should be made for active bird nests prior to works. If any active nests are present, then work should be delayed until after the bird breeding season or once chicks have fledged in order to avoid disturbance.

No mitigation is required for barn owls.

9.2 Method Statement

Bats

9.2.3 To mitigate for the loss of tile crevices and to enhance the site, an integral bat box will be incorporated within the design of the new build property, in a location as agreed by the ecologist.

Breeding birds

9.2.4 Work should be carried out outside of the bird breeding season. If this is not possible then a check should be made for active bird nests immediately prior to works. If any nests are discovered, work to these areas shall be carried out outside of the bird breeding season or once any chicks have fledged in order to avoid disturbance.

10 Recommended Ecological Enhancement

10.1 Landscape planting will comprise of native trees and shrubs, which provide food sources for birds, such as hawthorn, hazel, dog wood, guelder rose, birch, willow, field maple. Non-native planting often used in new developments such as laurel has very little ecological value and should be avoided.

10.2 Bird boxes should be incorporated within the development. Integral habitat is preferable, as when it is well-placed it can be completely out of sight, and any droppings should fall out into unoccupied areas. We recommend 2 bird boxes.

11 Information concerning bat protection and the planning system

11.1 Relevant Legislation

All bat species are protected under the Wildlife and Countryside Act (WCA) 1981 (as amended), the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations 2017').

Under the WCA it is an offence for any person to intentionally kill, injure or take any wild bat; to intentionally disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection; to intentionally damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection; to be in possession or control of any live or dead wild bat, or any part of, or anything derived from a wild bat; or to sell, offer or expose for sale, or possess or transport for the purpose of sale, any live or dead wild bat, or any part of, or anything derived from a wild bat.

Under the Habitat Regulations 2017, it is an offence to (a) deliberately capture, injure or kills any wild animal of a European protected species (EPS), (b) deliberately disturb wild animals of any such species, (c) deliberately take or destroy the eggs of such an animal, or (d) damages or destroys a breeding site or resting place of such an animal. Deliberate disturbance of animals of a European protected species (EPS) includes in particular any disturbance which is likely to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young; or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

Prosecution could result in imprisonment, fines of £5,000 per animal affected and confiscation of vehicles and equipment used. In order to minimise the risk of breaking the law it is essential to work with care to avoid harming bats, to be aware of the procedures to be followed if bats are found during works, and to commission surveys and expert advice as required to minimise the risk of reckless harm to bats.

11.2 Licences

Where it is proposed to carry out works which will damage / destroy a bat roost or disturb bats to a significant degree, an EPS licence must first be obtained from the Natural England (even if no bats are expected to be present when the work is carried out). The application for a license normally requires a full knowledge of the use of a site by bats, including species, numbers, and timings. Gathering this information usually involves surveying throughout the bat active season. The licence may require ongoing monitoring of the site following completion of the works.

Licences can only be issued if Natural England are satisfied that there is no satisfactory alternative to the development and that the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

11.3 Planning and Wildlife

National planning guidance for ecological issues is set out in the updated February 2019 National Planning Policy Framework (NPPF). The requirements are consistent with those specified in the July 2018 NPPF; which advocate biodiversity net gain and improvement where possible, as evidenced below.

Paragraph 174 refers to the requirement of plans to “protect and enhance biodiversity and geodiversity” In order to do this, “plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

In paragraph 175 the NPPF indicates that “when determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”

The accompanying ODPM / Defra Circular 06/2005 remains pertinent; circular 06/2005 is prescriptive in how planning officers should deal with protected species, see paragraphs 98 and 99:

The presence of a protected species is a material consideration when considering a proposal that, if carried out, would be likely to result in harm to the species or its habitat (see ODPM/Defra Circular, para 98)

LPAs should consider attaching planning conditions/entering into planning obligations to enable protection of species. They should also advise developers that

they must comply with any statutory species protection issues affecting the site (ODPM/Defra Circular, para 98)

The presence and extent to which protected species will be affected must be established before planning permission is granted. If not, a decision will have been made without all the facts (ODPM/Defra Circular, para 99)

Any measures necessary to protect the species should be conditioned/planning obligations used, before the permission is granted. Conditions can also be placed on a permission in order to prevent development proceeding without a Habitats Regulations Licence (ODPM/Defra Circular, para 99).

The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances.

Further to NPPF and OPDM Circular 06/2005, Section 40 of the Natural Environment and Rural Communities Act (2006) states that ‘Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity’. Section 40(3) also states that ‘conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat’.

11.4 Legislation in relation to barn owls

Barn owls are afforded full protection under the Wildlife and Countryside Act, 1981. Their inclusion in Schedule One protects against wilful disturbance whilst an owl is at or near the nest, and makes it an offence to carry out any of the following actions:

- Killing or injuring a barn owl
- Catching a barn owl
- Taking or destroying any egg of a barn owl
- Damaging or destroying the active nest site with eggs or young or before eggs are laid
- Disturbing the dependent young of a barn owl
- Possessing, offering for sale or selling a barn owl (but see exceptions)
- Release or allow the escape of a barn owl into the wild (but see exceptions)

These actions are punishable by a maximum fine, upon conviction, of £5,000. Nesting has been recorded in every month of the year.

Protection is also given under the Countryside and Rights of Way Act, 2000 against reckless disturbance whilst nesting.

Because of recent declines in numbers, and concern over their current status, barn owls are also listed in the EC Birds Directive and Appendix II of the Bern Convention. They are an Amber Listed species in “Birds of Conservation Concern” (RSPB).

12 References

Altringham, John (2003). *British Bats*. The New Naturalist. Harper Collins.

Andrews Henry (2018) *Bat Roosts in trees A guide to identification and Assessment for tree-care and ecology professionals*

BS42020. Biodiversity - Code of Practice for planning and development. British Standards Institution 2013.

Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System.

<http://www.communities.gov.uk/publications/planningandbuilding/circularbiodiversity>

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.

Institute of Lighting Professionals ILP <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting>

Mitchell-Jones, A.J. & McLeish, A.P. (2004). *Bat Workers Manual*. JNCC

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature.

National Planning Policy Framework 2019:

<https://www.gov.uk/government/collections/revised-national-planning-policy-framework#revised-national-planning-policy-framework>

NYBG 2013 *Minimum Standards for Bat Surveys in North Yorkshire*

Flow diagram for small applications needing bat surveys between October and April

Richardson, P. (2000). *Distribution atlas of bats in Britain and Ireland 1980-1999*. The Bat Conservation Trust.

Russ, J. (2012). *British Bat Calls. A guide to Species Identification*. Pelagic Publishing 2012

Schofield, H.W. & Mitchell-Jones, A.J. (2004). *The bats of Britain and Ireland*. Vincent Wildlife Trust.

Stebbing, R.E., Yalden, D.W., & Herman, J.S. (2007). *Which bat is it? A guide to bat identification in Great Britain and Ireland*. The Mammal Society

The Conservation of Habitats and Species Regulations 2017.

<https://www.legislation.gov.uk/ukxi/2017/1012/contents/made>

UKBAP 1995. *UK Biodiversity Action Plan*. <http://www.ukbap.org.uk/>

University of Bristol 2005. *Online Guide to the bats of Britain*.
<http://www.bio.bris.ac.uk/research/bats/britishbats/index.htm>

RSPB (2009) Barn owls and the law:
http://www.rspb.org.uk/advice/law/barn_owls_law/index.aspx

The Barn Owl Trust (<http://www.barnowltrust.org.uk/>)

Barn Owl Trust (2012) *Barn Owl Conservation Handbook*, Pelagic Publishing, Exeter

Appendix 1: Glossary of bat roost terms

Bat Roost Definitions:

Day roost: a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.

Night roost: a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.

Feeding roost: a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.

Transitional / occasional roost: used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.

Swarming site: where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites.

Mating sites: where mating takes place from later summer and can continue through winter.

Maternity roost: where female bats give birth and raise their young to independence.

Hibernation roost: where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.

Satellite roost: an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

Appendix 2: Standard good working practices in relation to bats

Bats are small, mobile animals. Individual bats can fit into gaps 14-20mm wide. They can roost in a number of places including crevices between stonework, under roof and ridge tiles, in cavity walls, behind barge boards, in soffits and fascias and around window frames. Builders should always be aware of the potential for bats to be present in almost any small gap accessible from the outside in a building. The following guidelines are provided in order to reduce the risk of harm to individual bats.

- Roofs to be replaced, or which are parts of a building to be demolished, should be dismantled carefully by hand. Ridge tiles, roof tiles and coping stones should always be lifted upwards and not slid off as this may squash/crush bats.
- Re-pointing of crevices should be done between April and October when bats are active. Crevices should be fully inspected for bats using a torch prior to re-pointing.
- Any existing mortar to be raked should be done so by hand (not with a mechanical device).
- Look out for bats during construction works. Bats are opportunistic and may use gaps overnight that have been created during works carried out in the daytime.
- If any bats are found works should stop and the Bat Conservation Trust (0845 1300 228) or a suitably qualified bat ecologist should be contacted.

If it is necessary to pick a bat up always use gloves. It should be carefully caught in a cardboard box and kept in a quiet, dark place. The Bat Conservation Trust or a suitably qualified bat ecologist should be contacted.

Appendix 3: NYBG bat roost records

Species	Site	Gridref	Quantity	Date	Comment
Noctule Bat	Wetherby - River Wharfe	SE408475		22-Jul-00	In flight
Noctule Bat	Low Wood, The Avenue, Collingham	SE383463		21-May-10	In flight
Noctule Bat	Low Wood, The Avenue, Collingham	SE383463		05-Jun-10	In flight
Noctule Bat	Low Farm, Stammergate Lane, Linton, Wetherby	SE390465		20-Aug-18	
Noctule Bat	Bay Tree House, The Ridge, Linton, Wetherby	SE39024733		30-Aug-18	
Common Pipistrelle	Hewthwaite House, Parsons Green, Wetherby	SE407480	60	09-Jul-97	Maternity roost
Common Pipistrelle	Kiln Hill, Linton Lane, Linton	SE392470		03-Jul-98	Roost
Common Pipistrelle	Sicklinghall Primary School	SE385482		13-May-10	In flight
Common Pipistrelle	Low Wood, The Avenue, Collingham	SE383463		21-May-10	In flight
Common Pipistrelle	Low Wood, The Avenue, Collingham	SE383463		05-Jun-10	In flight
Common Pipistrelle	Hill Top House, Wetherby	SE398488	1	02-Jun-15	Roost
Common Pipistrelle	Hill Top House, Wetherby	SE398488	1	22-Jun-15	Roost
Common Pipistrelle	Low Farm, Stammergate Lane, Linton, Wetherby	SE390465	1	23-Aug-18	Roost
Common Pipistrelle	Bay Tree House, The Ridge, Linton, Wetherby	SE39024733		30-Aug-18	
Soprano Pipistrelle	Low Wood, The Avenue, Collingham	SE383463		21-May-10	In flight
Soprano Pipistrelle	Low Wood, The Avenue, Collingham	SE383463		05-Jun-10	In flight
Soprano Pipistrelle	Low Farm, Stammergate Lane, Linton, Wetherby	SE390465	1	23-Aug-18	Roost
Soprano Pipistrelle	Bay Tree House, The Ridge, Linton, Wetherby	SE39024733		30-Aug-18	
Soprano Pipistrelle	Low Farm, Stammergate Lane, Linton, Wetherby	SE390465	4	06-Sep-18	Roost
Pipistrelle species	24 Templar Gardens, Wetherby	SE406489		15-Jun-91	Grounded bat
Whiskered / Brandt's Bat	Sicklinghall Primary School	SE385482		13-May-10	In flight
Myotis bat sp.	Wetherby - River Wharfe	SE408475		22-Jul-00	In flight
Myotis bat sp.	Low Farm, Stammergate Lane, Linton, Wetherby	SE390465		23-Aug-18	
Unknown	5 Parsons Green, Wetherby	SE406480		30-Jun-84	Roost ?
Unknown	27 Oakwood Road, Wetherby	SE401492		25-Jun-97	Roost ?
Unknown	3 Riverdale, Wetherby	SE406479		17-Sep-85	Roost ?
Unknown	5 Parsons Green, Wetherby	SE407481		20-Jul-84	Roost ?
Unknown	Wood Grove, Linton Lane, Linton	SE391474		26-Jul-88	Roost ?