



Daytime Bat Potential Roost Assessment (PRA) - letter of report:
Willowbrook, Danworth Lane, Hurstpierpoint, Hassocks BN6 9LW

Ref: WEc_BN6

28th February 2023

Dear Sue Ockenden,

Wychwood Environmental Ltd (WE) was commissioned to undertake a daytime bat survey (Preliminary Roost Assessment [PRA]) for the above barn building (Figures 1-2). It is understood that a planning application for the conversion of this building to a residential property is proposed to be submitted. The survey was conducted to ensure that plans would not be constrained by the presence of roosting bats that may be disrupted by the development.

Bats are European protected species, protected via The Conservation of Species and Habitats Regulations (2017) and also the Wildlife and Countryside Act 1981, as amended. Therefore, it is an offence to kill or injure a bat or interfere with any roosting or resting site. A bat roost is interpreted as "any structure or place used for shelter or protection" whether or not bats are present at the time.

The survey was completed to inform the Local Planning Authority (LPA) of any material impacts resulting from the proposed development and to ensure compliance with the requirements of the Natural Environment and Rural Communities (NERC) Act (2006) (Section 40) and the Government Circular: Biodiversity and Geological Conservation – Statutory obligations and their impact within the Planning System (ODPM 06/2005, Defra 01/2005). Details of legislation and legal protection afforded to all species of British bats are given in Appendix 1.

Site Location

The site is located off Danworth Lane, a single track country lane. The site is approximately 0.8km north from northern edge of Hurstpierpoint and approximately 1km to the east of the edge of Burgess Hill (Figure 1 & 2). The M23 is located approximately 1.5km to the east of the development site. The site consists of several outbuildings and stables with a stable yard and paddocks. In the wider area there is a stream approximately 80m to the north and the surrounding area consists of arable and pasture fields with mature trees and some hedgerows present. Overall, the site is located in an area that has moderate potential to support foraging and commuting bats.



Figure 1. Google Earth view of Willowbrook with the location of the barn outlined in red.

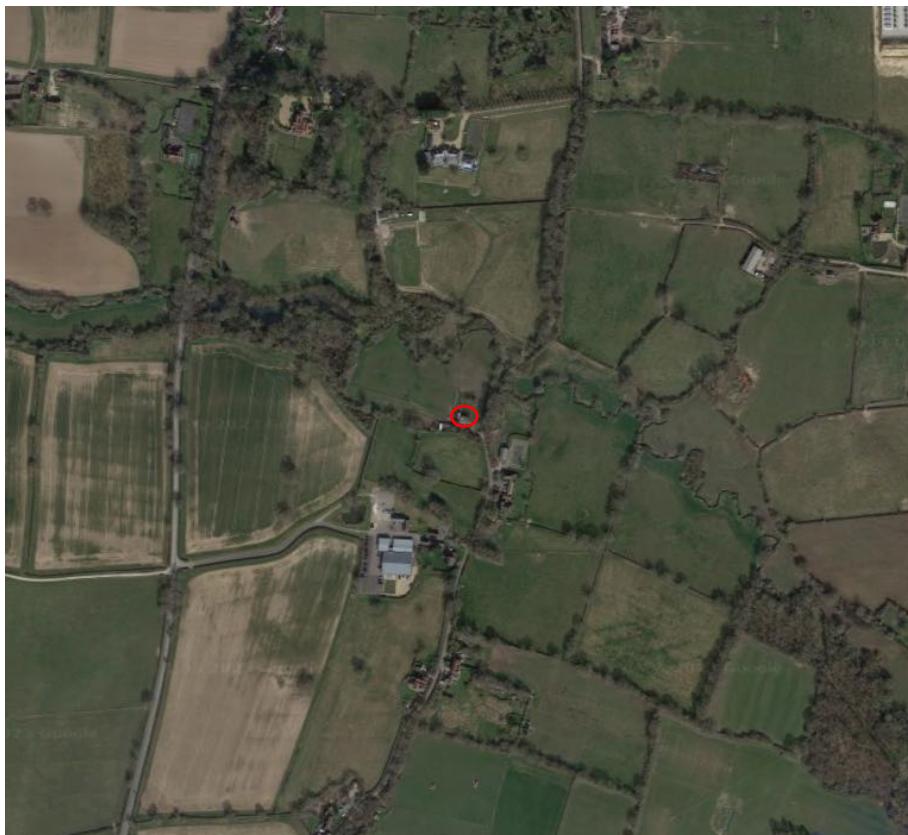


Figure 2. Google Earth view of the property within the wider landscape.

Survey Methods

Building Inspection

The field survey was conducted by Nadine Clark, MCIEEM (Bat Class Licence Registration 2015-14593 CLS-CLS) on the 10th February 2023 following best practice survey techniques, as outlined by the Bat Conservation Trust (BCT)¹ and Mitchell-Jones and McLeish (2004)².

All floors, walls and exposed surfaces of the areas of the building were checked, both internally and externally (where access allowed), for signs of use by bats including:

- Bat droppings (size of droppings grouped into small, medium or large to signify type of bat that may be present);
- Feeding remains (certain bat species often eat the bodies and leave the wings of invertebrate prey including moths, butterflies and larger flies such as lace wings);
- Oil (from fur) and urine stains;
- Scratch marks;
- Presence of 'clean' gaps and crevices in the fabric of buildings which could indicate regular movement of bats;
- Bat corpses; and
- Actual sightings.

The building was examined using direct observation with the aid of close focusing binoculars, a high-powered torch and ladders where necessary to enable closer inspection of suitable features. The void was also inspected for evidence of roosting bats. Photographs were taken of relevant features.

The bat roosting potential of this region of the building is graded on a scale of High, Moderate, Low, Negligible, as outlined in Table 4.1 of the BCT 2016 Good Practice Guidelines.

An ecological walkover of the site was also undertaken, following standard extended Phase 1 habitat survey protocols (IEA, 1995). This involved systematically walking over the site and classifying each parcel of land based on vegetation, into one of approximately 90 habitat types (JNCC, 2003).

A search for any invasive non-native species, as listed under Schedule 9 of the Wildlife and Countryside Act 1981, as amended,³ such as Japanese knotweed (*Fallopia japonica*) was also carried out.

Any habitats or features of interest and any sightings, signs or evidence of protected or notable fauna or any potential habitats suitable for such species, were assessed as detailed below:

- The suitability of habitats was assessed for amphibians (including great crested newts, *Triturus cristatus*)⁴;

¹ Collins J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed) (published by Bat Conservation Trust, London)

² Mitchell-Jones A J (2004). *Bat mitigation guidelines*. English Nature.

³ <http://archive.defra.gov.uk/wildlife-pets/wildlife/management/non-native/documents/schedule9-list.pdf>

⁴ Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10(4), 143-155.

- The suitability of habitats was assessed⁵ for badgers (*Meles meles*) and any evidence including setts, latrines, paths, hairs, bedding, and footprints and scratching places.
- The suitability of the site was assessed for hedgehog (*Erinnaceus europaeus*).
- Buildings with features potentially suitable for roosting bats were assessed following best practice guidelines as outlined by the survey techniques published by the Bat Conservation Trust (BCT)⁶ and Mitchell-Jones and McLeish (2004)⁷. Trees within the development area were also assessed for their potential to support roosting bats (following BCT protocols).
- Landscape features such as hedgerows, trees and shrubs were also assessed for their potential suitability for bat foraging and commuting;
- The suitability of habitats was assessed for dormice (*Muscardinus avellanarius*), nesting birds, reptiles and amphibians.

The site was not assessed for water voles (*Arvicola amphibius*) or otter (*Lutra lutra*) due to its location and the lack of suitable habitat present on site.

Limitations

There were no constraints or limitations identified to this PRA survey.

Results

Desk Study

Based on known roosts from granted European Protected Species (EPS) Mitigation licenses⁸ for bats, there is one EPS mitigation licences recorded within a 2km radius of the site. This licence held in the Magic Map database is for the destruction of a resting place roost of soprano pipistrelle (*Pipistrellus pygmaeus*) and common pipistrelle (*Pipistrellus pipistrellus*) (Figure 3) approximately 1.8km to the west of the site. In addition to the bat licence record, within 2km, there were three records of EPS Mitigation licences for great crested newts (*Triturus cristatus*). The closest record is approximately 1.2km to the east of the development site and this is for the destruction of a resting place for great crested newts granted in 2011. Other records for great crested newt licences are found 1.3km to the south and 1.9km to the north. There are also positive records for great crested newts in the area with the closest record for a pond with evidence of great crested newt presence located approximately 380m to the north of the proposals. This record is separated from the site by a stream but the closest record where there are no major barriers to dispersal is 530m to the south.

No statutory designated sites fall within 2km of the site. The site falls within a SSSI Impact Zone but it does not fall within the type of development that would require the LPA to consult with Natural England. There are several small patches of ancient woodland present within 2km with the closest Northend Copse, located approximately 630m to the north. There are no non-statutory designated sites within 1km of the proposed development⁹.

⁵ Badger survey followed guidelines recommended in Harris *et al.* (1989).

⁶ Collins J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn) (published by Bat Conservation Trust, London).

⁷ Mitchell-Jones A J (2004). *Bat mitigation guidelines*. English Nature.

⁸ <https://magic.defra.gov.uk/MagicMap.aspx>

⁹ <https://www.midsussex.gov.uk/planning-building/policies-maps/>

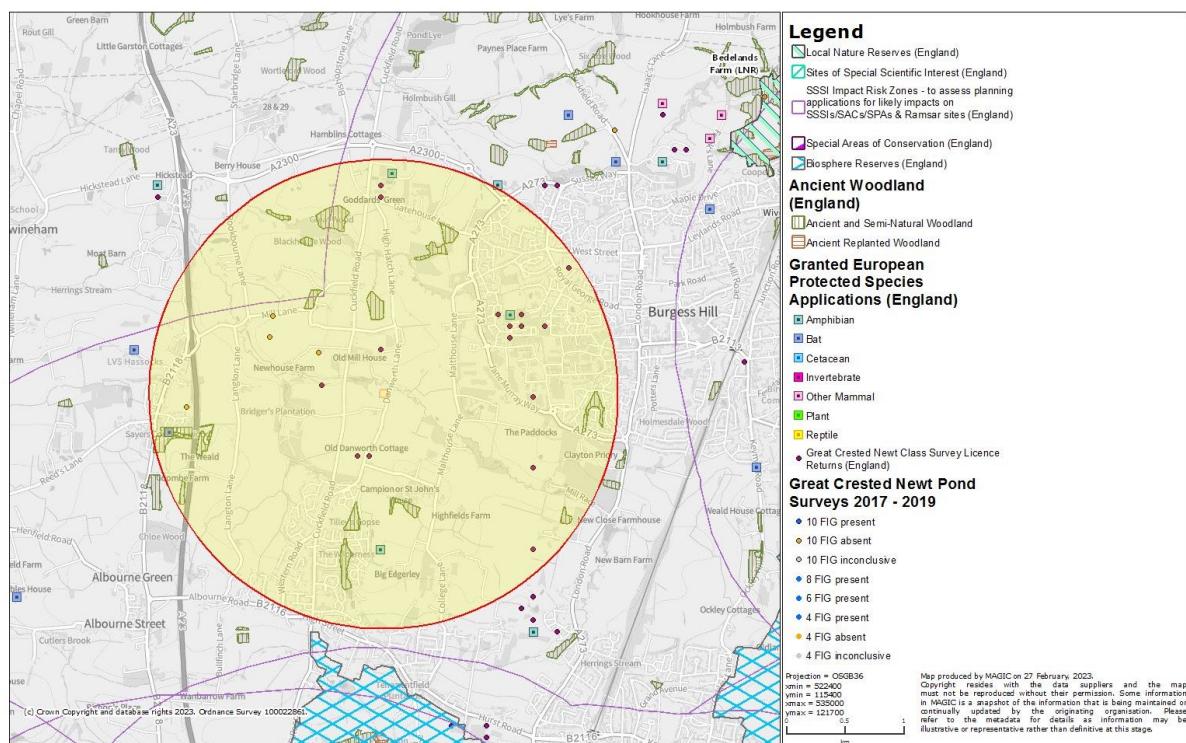


Figure 3. EPS Mitigation Licenses, and ancient woodland present within 2km of Willowbrook (marked as yellow shaded circle). (Source: <https://magic.defra.gov.uk/MagicMap.aspx>).

Building survey

The proposed conversion to a dwelling involve alterations to the property including new windows and internal and external alterations. Figures 4 & 5 below show the existing elevations of the property along with the proposed elevations, respectively.

The building at Willowbrook that is proposed for conversion was used as a hay barn and storage area at the time of the survey. The building is a single-storey detached property of a timber construction (Photographs 1 - 3). The building had a gable roof with bitumen felt over plywood. The felt was in good condition with no obvious gaps present. The walls of the building consisted of single skin weatherboarding which had been painted. Internally, there were some sections where clear plastic sheeting was present under the cladding although in most parts of the building this was coming apart. The weatherboarding did have some damage and gaps present (Photographs 4&5) but due to it being a single skin there were do crevices suitable for use by roosting bats. There were gaps at the eaves of the northern and southern elevations into the inside of the building. There were windows on the northern and western elevations which consisted of a piece of glazing with putty to hold in the pane. There were no gaps present around the edge of the window and no potential roosting features or evidence of roosting bats was found during the external inspection.

Internally the building had no enclosed roof space and was open to the roof with exposed timber joists (Photograph 6). Internally, there was no evidence of roosting bats and the timber frame did

not have any cracks or crevices within the timbers which could provide crevice roosting opportunities.

Overall, based on features present, barn which is proposed to be impacted by the works has **negligible** potential to support roosting bats, as outlined in Table 4.1 of the BCT 2016 Good Practice Guidelines.

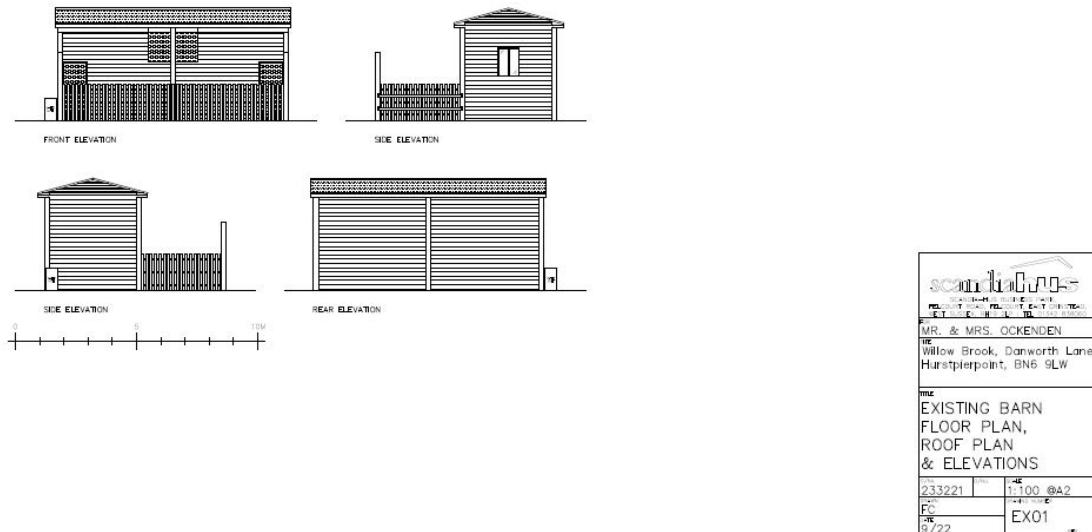


Figure 4. Existing Elevations of barn subject to alterations

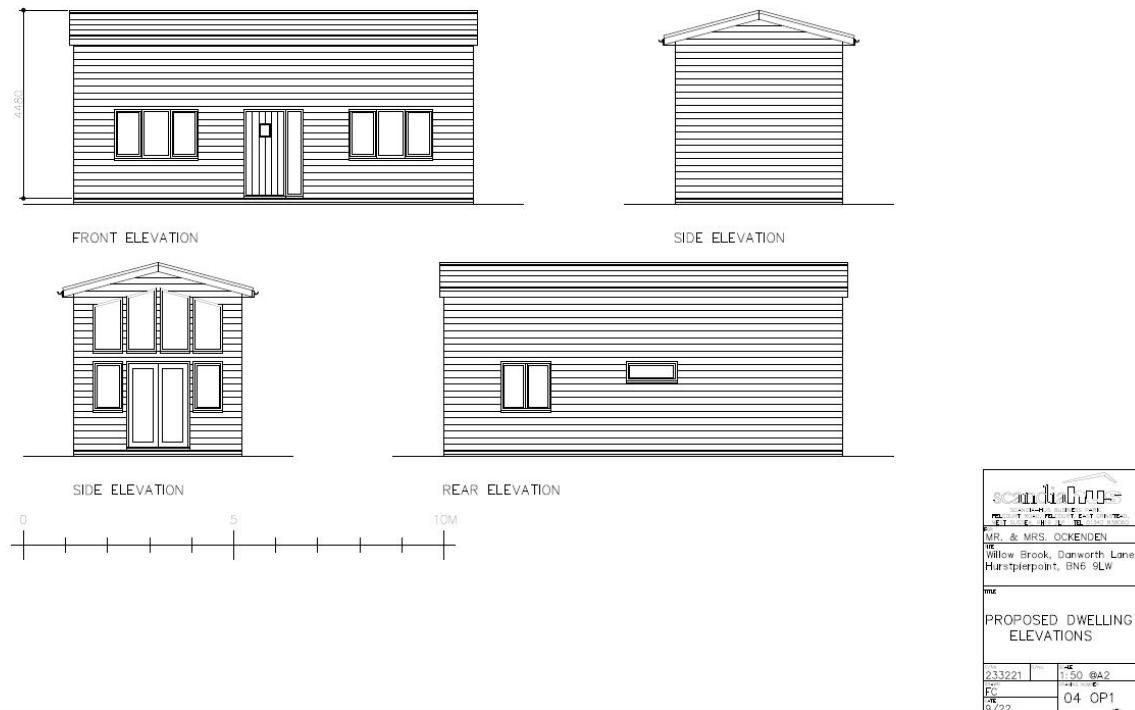


Figure 5. Proposed Elevations for conversion of barn

	
<p>Photograph 1 – View of western and southern elevation of the building showing the adjacent hardstanding</p>	<p>Photograph 2 – View of the southern and eastern elevation of the building showing the stable yard.</p>
	
<p>Photograph 3 – View of the northern elevation of the building showing the amenity grassland habitat around the northern and eastern elevations.</p>	<p>Photograph 4 – Northern elevation of barn showing boarded up door, well-fitting cladding and gaps at the eaves.</p>
	
<p>Photograph 5 – Southern elevation of building showing missing sections of weather boarding around existing door.</p>	<p>Photograph 6 – View of the internal roof structure with plywood present under the felt and the window on the northern elevation.</p>

Other protected species

No evidence of any other protected species such as badger, amphibian, reptile or nesting birds were found during the site survey on the 10th February 2023. There was an area of amenity grassland to the north of the building and some nettles and hardstanding present around the building. A mammal path was noted crossing Danworth Lane to the south of the site but no evidence of the species was found.

Nesting Birds

The building on site had low potential to support nesting birds and there were a few droppings present at the eaves where birds such as pigeons appear to occasionally roost. No further surveys are required but precautionary mitigation in relation to the conversion of the barn is provided.

Badgers and Hedgehogs

No evidence was found during the survey, but the site may be suitable for foraging and commuting mammals. Precautionary mitigation measures are provided.

Great crested newts

It is known from the desk study that great crested newts are present within the wider area with EPS mitigation licences issued within 2km and positive recorded held for great crested newts within 500m of the barn. However, the habitats present within the immediate vicinity of the barn which may be impacted during construction consisted of amenity grassland and hardstanding. These habitats do not have potential to support great crested newts and as such the proposals are not anticipated to have any negative impacts on this species.

Discussion and Recommendations

Bats

The barn building which is proposed to be converted to create a new dwelling house was assessed as having negligible potential to support roosting bats. Therefore, no further surveys in relation to bats are required to support the planning application for this scheme. Whilst the site itself had limited potential to support foraging and commuting bats precautionary measures in relation to lighting are provided below as the surrounding area had good quality foraging and commuting habitat present.

Lighting

The surrounding area supports moderate potential to support foraging bats given the occurrence of good quality foraging habitat within the wider local landscape. Therefore, outdoor lighting used within the vicinity of the building should be 'bat friendly'¹⁰. Lights should be at a low level and angled down or have baffles to prevent unnecessary light spillage into the surrounding area which could disturb foraging bats and their prey, especially along the treeline to the southeast and the hedgerow on the northern side of the existing access road. Security and timed lights should be at a low level and ideally set to be on for as short a time as possible. A copy of the BCT 'Statement on the impact and design of artificial light on bats' report is provided in Appendix 2 of this report.

¹⁰ <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

Mitigation for other species

No evidence of badgers or hedgehogs was found during the site visit but they may be present in the wider area. As a precaution, all trenches should be covered overnight or access out of the trench via a plank should be provided.

The building had the potential to support nesting birds although no evidence was found during the survey. As such, it is recommended that conversion works such as closing up of the eaves should occur outside the bird nesting season, which is generally accepted to extend from March - August inclusive (although dates vary by species and are subject to prevailing weather conditions). If this is not possible, the barn building should be inspected for evidence of nesting activity by a suitably experienced ecologist no more than 24 hours in advance of demolition. If this identifies any nesting activity the habitat feature should be left undisturbed until nesting ceases.

Enhancements

In line with local and national policy (NPPF 2021)¹¹ biodiversity enhancements will be required. These enhancements could include the use of native species planting within the landscaping scheme.

Landscaping

Planting of wildlife-friendly plant species as part of a landscaping plan would be beneficial as no habitats of ecological value are present within the redline boundary at present. A guide to bat friendly gardening is provided in Appendix 3.

Bird Boxes

At least two bird boxes should be installed on the site where possible. These could be woodcrete bird boxes that are hard wearing and installed within trees close to the site or alternatively integrated within the new building. Suitable boxes include the Schwegler 32mm 1B nest box and open fronted boxes such as Vivara Pro Barcelona WoodStone Open Nest Box or integrated boxes such as the Habitat Swift Box or universal swift box which, whilst not able to be sited in a location suitable for swifts, is a box that is used by a variety of other species such as blue tit, great tit, starling and house sparrow¹².

Bat Features

The inclusion of at least two bat access tiles¹³ on two aspects of the new roof should the building be re-roofed as part of the proposals is recommended.

Conclusion

The barn building is the only building set to be impacted by the developments and was evaluated as having **negligible** potential for roosting bats and as such no further surveys are recommended. Should a bat be found at any point during the development, all works are to cease immediately and

¹¹ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

¹² <https://cieem.net/swift-bricks-the-universal-nest-brick-by-dick-newell/>

¹³ <https://www.nhbs.com/bat-access-tile-set>

a suitably licenced and trained ecologist contacted. Precautionary mitigation in relation to nesting birds and mammal species is recommended. The site should aim to provide improved opportunities for protected species post-development.

Should you need any further advice on the information provided above, please do not hesitate to contact me.

Kind regards,

Dr. Craig Turner MCIEEM FRGS FLS

APPENDIX 1 – Legislation, Policy & Licensing

Bats

All species of British bat are fully protected under the Wildlife and Countryside Act 1981 as amended through inclusion in Schedule V. All bat species in the UK are also included in Schedule II of the Habitats Regulations 2017 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (“EC Habitats Directive”) which defines European protected species of animals.

Bat species are afforded further protection by the Countryside and Rights of Way (CROW) Act 2000; and the Natural Environment and Rural Communities Act 2006.

Under the above legislation it is an offence to:

- kill, injure or take an individual;
- possess any part of an individual either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by these species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- deliberate disturbance in such a way as to be likely to impair their ability to:
 - survive, to breed or reproduce, or to rear or nurture their young; or
 - 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;
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead bat, or any part of, or anything derived from a bat.

It is also an offence to set and use articles capable of catching, injuring or killing bats (for example a trap or poison), or knowingly cause or permit such an action. In the case all species of British bat there is also protection under *Schedule 6 of The Wildlife and Countryside Act 1981* (as amended) relating specifically to trapping and direct pursuit of these species.

Penalties on conviction

The maximum fine is £5,000 per incident or per bat (some roosts contain several hundred bats), up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.

Licensing

A European Protected Species Mitigation (EPSM) Licence or a Bat Low Impact Class Licence (BLICL) in relation to bats is required from Natural England for any work that would result in an otherwise unlawful activity (e.g. damage to a bat roost). A BLICL permits activities resulting in the disturbance and/or capture of certain species of bats and/or damage or destruction of roosts of low conservation significance. A license can only be issued to permit otherwise prohibited acts if Natural England are satisfied that all of the following three tests are met:

- The proposal is for ‘preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’;
- There is no satisfactory alternative; and,
- The action authorised by the license will not be detrimental to the maintenance of bat populations at a favourable conservation status in their natural range.

A bat roost is defined by the Bat Conservation Trust publication Bat Surveys for Professional Ecologists—Good Practice Guidelines 3rd Edition as “*the resting place of a bat*”¹⁴. Generally however, the word roost is interpreted as “*any structure or place, which any wild bat uses for shelter or protection*.”

Bats tend to re-use the same roosts; therefore legal opinion is guided by recent case law precedents, that a roost is protected whether or not the bats are present at the time. This can include for summer roosts, used for breeding; or winter roosts, used for hibernating.

¹⁴ Collins J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn) (published by Bat Conservation Trust, London)

APPENDIX 2 – Lighting guidance - the impact of artificial light on bats.

The following basic set of guidelines is summarized from the latest Guidance Note (08/18)¹⁵ provides a concise checklist of points to consider with any lighting scheme:

- *Use professional lighting design engineers to model and predict light spill so that it can be avoided.*
- *Reduce light levels to the minimum necessary to meet legal and safety requirements.*
- *Reduce horizontal and upward/downward light spillage to the minimum achievable. The use of cowling, masks, louvers etc. and limiting the height of lighting columns may be important depending on the design of the lighting units. No bare bulbs. Lighting should only light the target area.*
- *Use non-reflective surfaces within the area to be lit to minimise indirect (reflected) spillage of light. The use of planting or other structures to add screening.*
- *Reduce the duration of lighting. The use of lighting ‘curfews’ can also be helpful – especially in the vicinity of bats roosts. For example, the emergence of bats, typically within the hour after sunset, may be disrupted (delayed) by raised light levels and this may result in a loss of feeding opportunities.*
- *Consider the type of light to be used and whether a different type or design may reduce potential impacts on bats and other wildlife. Narrow spectrum lighting with minimal UV emission should be used.*
- *Use ‘screen planting’ to limit light spill into dark areas.*
- *Use narrow spectrum light sources to lower the range of species affected by lighting, as research has shown that spectral composition does impact biodiversity.*
- *Use light sources that emit minimal ultra-violet light*
- *Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue short wave length content they should be of a warm / neutral colour temperature <4,200 kelvin.*

For more details, please refer to:

<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

http://www.bats.org.uk/pages/bats_and_lighting.html

<http://www.batsandlighting.co.uk/index.html>

¹⁵ <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

GARDENING FOR BATS

All sixteen species of bats in the UK eat insects, and need a good supply of these from spring through to the autumn. By growing flowers attractive to a range of insects, our gardens can become important feeding stations for bats, birds and other wildlife.



Many plants depend on insects

We grow flowers in our gardens for our own enjoyment. But colour and perfume are really the plants' way of advertising themselves to insects. Sweet nectar and protein-rich pollen are bait to encourage insects to visit. In return, pollen is carried from one flower to another on their bodies so the flowers are fertilised.

Bats need insects

Flying uses a lot of energy, so bats have huge appetites. All our UK bats eat insects. Five species, including the long-eared bat, prefer moths, but most bats rely more heavily on flies as food than any other insect group. Especially important are craneflies, and a range of midge families and their relatives. Pipistrelles, the bats most likely to visit your garden, depend on catching very large numbers of tiny insects, some of which are pests.

Flower shape and insect tongues

Flowers with long narrow petal tubes, such as evening primrose and honeysuckle, are visited by moths and butterflies. Only their long tongues can reach deep down to the hidden nectar. Short-tongued insects include many families of flies and some moths. They can only reach nectar in flowers with short florets. By planting a mixture of flowering plants, vegetables, trees and shrubs, you can encourage a diversity of insects to drop in and refuel.

Follow these general rules

- ? Plant flowers varying not only in colour and fragrance, but also in shape.
- ? Daisies and daisy-like flowers are open with a mass of shallow florets.
- ? Pale flowers are more easily seen in poor light.
- ? Single flowers have more nectar than double varieties
- ? Native wild flowers or those closely related are most useful
- ? Flowers with landing platforms and short florets such as daisy or carrot family attract many insects.
- ? Many flowering vegetables such as beans and courgettes are also good for insects.

Plant trees and shrubs

These are important in providing

- food for insect larvae
- food for adult insects
- shelter for flying insects

- roosting opportunities for bats.

In a small garden, choose trees that can be coppiced – cut down to the ground every few years - to allow new shoots to spring from the base. Young shoots and leaves will support leaf-eating insects, even if they do not produce flowers. Hawthorn and elder are useful small trees.

Create a wet area

A pond, a marshy area, even a half-tub made into a mini-pond can attract insects. Many of the tiny flies favoured by bats start life in water as aquatic larvae.

Say NO to insecticides

Chemical pesticides kill natural predators and so may do more harm than good. They reduce bats' insect prey, and surviving insects carry traces of poison.

Encourage natural predators

Hoverflies, wasps, ladybirds, lacewings, ground beetles and centipedes are the gardener's friends. As natural predators they help keep the balance, eating many pests.

- ? Allow some weeds to grow to provide ground cover for natural predators
- ? Grow favourites of hoverflies and other predators close to the flowers and vegetables that tend to become infested.
- ? Leave hollow-stemmed plants to overwinter as shelter for ladybirds.
- ? Leave heaps of dead leaves and brushwood undisturbed for hedgehogs.
- ? Most garden birds are effective predators. Provide them with regular food and water.

Prevent a CATastrophe

Many bats and other small mammals fall prey to Britain's most dangerous four-legged predator, the domestic cat. Cats do not need to stay out all night. Bring your cat in an hour before sunset so bats can emerge undisturbed.

(Send for our special leaflet on cats and bats.)

The Bat Conservation Trust, 15 Cloisters House
8 Battersea Park Road, London SW8 4BG
Tel 0845 1300 228 Fax 020 7627 2628

enquiries@bats.org.uk www.bats.org.uk

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August 2004

Gardening for bats

Aim at having flowers in bloom through the year, including both annuals and herbaceous perennials. Below are some suggestions, but this is by no means an exhaustive list. See what grows well in YOUR garden, and what seems most attractive to insects. Flowering times are approximate, varying in different areas. Regular dead-heading extends flowering period in many flowers. A=annual, HA=hardy annual, HHA=half-hardy annual, P=perennial, W=wild flower.

Flowers for borders

St John's Wort	<i>Hypericum</i>	P	March-
marigolds	<i>Calendula</i>	H/A	March - Oct.
aubretia	<i>a. deltoidea</i>	P	March-June
honesty	<i>Lunaria rediviva</i>	HB	March
forget-me-not	<i>Myosotis</i> sp.	A/P	March - May
elephant ears	<i>Bergenia</i>	P	April
Wallflowers	<i>Erysimum</i>	B	April - June
Cranesbills	<i>Geranium</i> sp.	P	May - Sept.
Yarrow	<i>Achillea</i>	P	May -
Poppies	<i>Papaver</i> sp.	A	May - July
Dames violet	<i>Hesperis matronalis</i>	P	May - August
Red Valerian	<i>Centranthus ruber</i>	P	May - Sept.
Poached egg plant	<i>Limnanthes</i>	HA	June - Aug.
Knapweed	<i>Centaurea nigra</i>	P	June- Sept.
Phacelia		HA	June - Sept.
Ox-eye daisy	<i>Leucanthemum vulgare</i>	P	June - Aug.
Evening primrose	<i>Oenothera biennis</i>	B	June-Sept.
Candytuft	<i>Iberis umbellata</i>	HA	June - Sept.
Sweet William	<i>Dianthus barbatus</i>	B	June - July
Blanket flowers	<i>Gaillardia</i>	P	June -
Verbena	<i>V. bonariensis</i>	HHA	June - Oct.
Scabious	<i>Knautia arvensis</i>	P	July-Aug.
Night-scented stock	<i>Matthiola incana</i>	HA	July-Aug.
Pincushion flower	<i>Scabious</i> sp.	A/P	July - Sept.
Cherry pie	<i>Heliotrope</i>	HHA	July - Oct.
Mexican aster	<i>Cosmos</i> sp.	A/P	July - Oct.
Cone flower	<i>Rudbeckia</i> sp.	A/P	August-Nov.
Mallow	<i>lavatera</i> sp.	P	August-Oct.
Michaelmas daisy	<i>Aster</i> sp.	P	August-Sept.
Ice plant 'Pink lady'	<i>Sedum spectabile</i>	P	Sept.

Herbs – both leaves and flowers are fragrant

Fennel	<i>Foeniculum vulgare</i>	July - Sept.
Bergamot	<i>Monarda didyma</i>	June - Sept.
Sweet Cicely	<i>Myrrhis odorata</i>	April - June
Hyssop	<i>Hyssopus officinalis</i>	July - Sept
Feverfew	<i>Tanacetum parthenium</i>	June - Sept.
Borage	<i>Borago officinalis</i>	May - Sept.

Rosemary	<i>Rosmarinus officinalis</i>	March - May
Lemon balm	<i>Melissa officinalis</i>	
Coriander	<i>Coriandrum sativum</i>	June - August
Lavenders	<i>Lavandula</i> sp.	
Marjoram	<i>Origanum</i> sp.	

Trees, shrubs and climbers important to insects

Oak	<i>Quercus</i> sp.	large gardens only
Silver birch	<i>Betula pendula</i>	
Common alder	<i>Alnus glutinosa</i>	Suitable for coppicing
Hazel	<i>Corylus avellana</i>	Suitable for coppicing
Elder	<i>Sambucus nigra</i>	Small
Pussy willow	<i>Salix caprea</i>	Suitable for coppicing
Hawthorn	<i>Crataegus monogyna</i>	Suitable for coppicing
Honeysuckle	<i>Lonicera</i> sp.	grow a variety for succession.
Dog rose	<i>Rosa canina</i>	Climber
Bramble	<i>Rubus fruticosus</i>	Climber
Ivy	<i>Hedera helix</i>	Climber
Buddleia	<i>Buddleia</i> spp.	shrub
Guelder rose	<i>Viburnum opulus</i>	shrub
Gorse	<i>Ulex</i> sp.	shrub

Plants for pond edges and marshy areas

Purple loosestrife	<i>Lythrum salicaria</i>	W	June - Aug.
Meadow sweet	<i>Filipendula ulmaria</i>	W	June - Sept.
Lady's smock	<i>Cardamine pratensis</i>	W	April - June
Water mint	<i>Mentha aquatica</i>	W	July - Sept.
Angelica	<i>Angelica sylvestris</i>	W	July - Sept.
Hemp agrimony	<i>Eupatorium cannabinum</i>	W	July - Sept.
Marsh marigold	<i>Caltha palustris</i>	W	March - May
Creeping Jenny	<i>Lysimachia nummularia</i>	W	May - August
Fringed water lily	<i>Nymphaea peltata</i>	W	June - Sept.
Water forget-me-not	<i>Myosotis scorpioides</i>	W	June - Sept.

Allow part of your lawn to grow long in summer and cut in autumn, removing the clippings. Avoid using fertilizers. Compost heaps are good producers of insects too.

Add a seat to watch your garden come to life!

Native Plant Species Recommended

Hedging/shrubs (60cm whips)	
Blackthorn	<i>Prunus spinosa</i>
Hawthorn	<i>Crataegus monogyna</i>
Common Dogwood	<i>Cornus sanguinea</i>
Guelder Rose	<i>Viburnum opulus</i>
Holly	<i>Ilex aquifolium</i>
Elder	<i>Sambucus nigra</i>
Field Maple	<i>Acer campestre</i>
Hazel	<i>Corylus avellana</i>
Spindle	<i>Euonymus europaeus</i>
Trees (regular standard size)	
Apple	<i>Malus</i> spp.
Cherry	<i>Prunus</i> spp.
Field Maple	<i>Acer campestre</i>
Hornbeam	<i>Carpinus betulus</i>
Rowan	<i>Sorbus aucuparia</i>
Wild Service	<i>Sorbus torminalis</i>
English Oak	<i>Quercus robur</i>
Shrubs/Herbaceous plants (formal beds)	
Use species attractive to pollinators e.g bees, butterflies, moths. See this selection of RHS plants for pollinators: http://www.rhs.org.uk/Gardening/Sustainable-gardening/Plants-for-pollinators (see Appendix 4)	
Note – all specimens should be of British native stock from reputable suppliers.	

Other sources of information include:

<https://www.buglife.org.uk/activities-for-you/wildlife-gardening>

<https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/creating-a-wildlife-friendly-garden/>

<https://www.rhs.org.uk/advice/design/design-with-plants/wildlife-friendly-garden-plants>

<https://www.wildlifetrusts.org/gardening>

For areas of lawn, a wildflower turf could be considered:

<https://www.wildflowerturf.co.uk/home.aspx>