# The Barn, Frog Farm, Otford, Kent

Ecological Scoping Survey

A Report for Mr and Mrs Chaplin

November 2017

Greenspace Ecological Solutions

www.greenspace-ecology.co.uk

info@greenspace-ecology.co.uk

# The Barn, Frog Farm,

# Otford,

# Kent

Bat and Barn Owl Survey

November 2017

Controlled Copy

01 of 02

01 Mr and Mrs Chaplin

02 Greenspace Ecological Solutions Ltd.

This report was written by Linnet Whiston, amended by
Guy Newman MCIEEM and proof read by James Johnston



Report Number J20452

Greenspace Ecological Solutions Ltd.
Suite H3, Blackham Court,
Withyham, East Sussex,
TN7 4DB

Tel: 01892 457062
www.greenspace-ecology.co.uk
info@greenspace-ecology.co.uk

## CONTENTS

# 1 PROJECT OVERVIEW

Client: Mr and Mrs Chaplin

Site Address: The Barn, Frog Farm, Pilgrims Way, Otford, Kent TN14 5JQ

Attending Ecologists: Guy Newman (Natural England Class 2 Bat Licence)
Genevieve Labram

Survey Date: 10th August 2017

Site Proposals: Conversion of an existing barn into a residential dwelling

Associated Planning Reference Number: Unknown

Source of Relevant Documents:

| Document: | Source: |
|---|---|
| Site Location Plan: | Google Earth Pro |
| Desk Study: | Kent and Medway Biological Record Centre (KMBRC), Magic.gov.uk |

# 2 INTRODUCTION

## 2.1 Context

2.1.1 In response to proposed development of The Barn at Frog Farm, Otford; the building and its immediate surrounds have been subject to an Ecological Scoping Survey.

2.1.2 The site's potential to support protected species and habitats has been assessed and appropriate recommendations provided. Buildings have been assessed for their potential to support roosting bats and barn owls. The building and the associated section numbers are depicted in Figure 1. Photographs of the site are provided in Appendix A.

## 2.2 Site Location

2.2.1 The site lies on the outskirts of the village of Otford, Kent, at national grid reference is TQ 5187 5921. The geographical location of the site is depicted in Image 1.

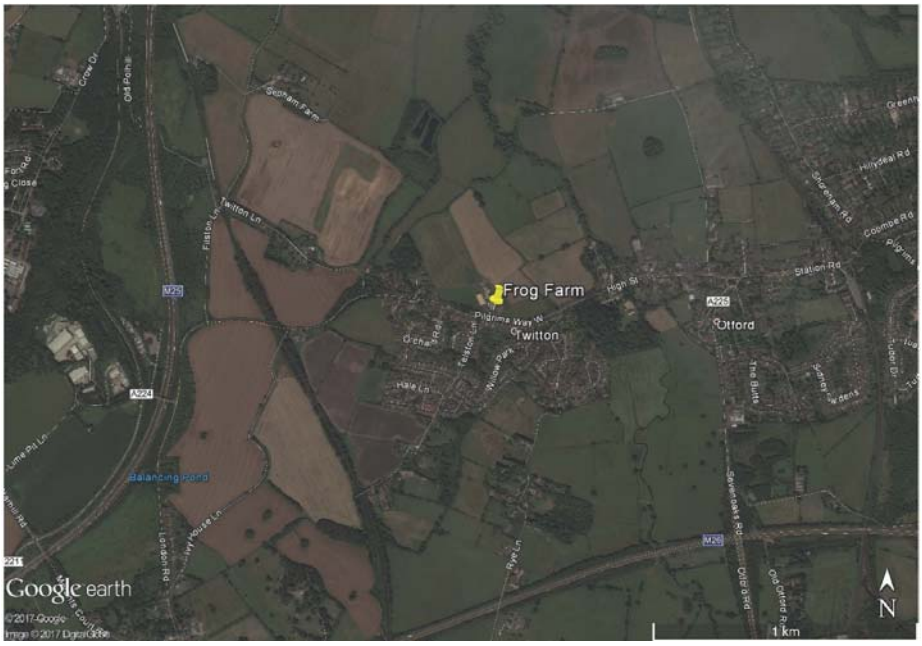


*Image 1. Geographical Location of Frog Farm*

## 2.3 Description

2.3.1 The site comprises an L-shaped barn which lies within an area of hardstanding and amenity grassland. The habitats immediately surrounding the barn are of low ecological value and consequently, no further reference to these habitats is made within this report. The survey in this instance is therefore restricted to an ecological scoping survey of the building to be affected.

2.3.2 The site is bound to the west, north and east by farmland and a road to the south. The site is accessed via an entrance off Pilgrims Way West.

2.3.3 The wider landscape is predominantly agricultural land with pockets of woodland. The centre of Otford is approximately 800m east of the site and the M26 motorway lies approximately 1km south of the site to the nearest point.

## 2.4 Policies and Legislation

*National Planning Policy Framework*

2.4.1 The National Planning Policy Framework 2012 (NPPF) aims to protect species of significant conservation importance in England (in this case bats and barn owls), as covered by wildlife legislation (see below), the NPPF, the national and local Biodiversity Action Plans (BAP) and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Local planning authorities have an obligation to protect such species and are also required to seek opportunities to promote and enhance biodiversity in accordance with the above legislation, policies, and plans.

*Legislation - Bats*

2.4.2 All British bat species and their places of rest and shelter receive UK and European protection under the Conservation of Habitats and Species Regulation 2010 (as amended) (Habitats Regulations 2010) and the Wildlife and Countryside Act (WCA) 1981 (as amended). This protection means that bats and their places of rest and shelter are a material consideration in the planning process.

2.4.3 Taken together, unless under licence, these make it an offence to:

- Deliberately capture or intentionally take a bat;
- Deliberately or intentionally kill or injure a bat;
- To be in possession or control of any live or dead bat or any part of, or anything derived from a bat;
- Damage or destroy a breeding site or resting place of a bat;
- Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection;
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
- Deliberately disturb any bat, in particular any disturbance which is likely to (i) impair their ability to survive, breed, reproduce or to rear or nurture their young; or in the case of

hibernating or migratory species, to hibernate or migrate; or (ii) to affect significantly the local distribution or abundance of the species to which they belong.

2.4.4 A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to use the same roost sites at different times of year, current legal opinion is that a bat roost is protected whether or not the bats are present at the time.

2.4.5 In addition to the above, certain species of bat are listed on Annex II of the Habitat Regulations 2010. Annex II species include greater and lesser horseshoe bats, barbastelle and Bechstein's bat. Where present, consideration to the requirement of a Special Areas of Conservation (SAC) should be given.

*Legislation - Birds*

2.4.6 All British birds, their nests and eggs are protected by law. It is an offence to deliberately take, kill or injure a wild bird or take, damage, or destroy any nest or egg of any wild bird under the Wildlife and Countryside Act (1981) (as amended).

2.4.7 Schedule 1 provides additional protection to rare species such as barn owl *Tyto alba* in that they are further protected against intentional and/or reckless disturbance whilst nesting.

### 2.5 Objectives of the Survey

2.5.1 The objectives of the survey were to:

- Evaluate the potential for bats to roost within the building;
- Evaluate the potential for bats to be affected by proposals;
- Identify any legal or policy constraints related to bats that may affect the development;
- Assess whether further presence / likely absence surveys are required for bats; and
- Evaluate the potential for barn owls to nest within the buildings within the site.

### 2.6 Survey Constraints

2.6.1 Access into part of the Barn was not possible as access was blocked by a partition wall. A hole in this partition wall allowed a partial view of this section and it appears to be constructed of the same materials as within the sections readily accessible. A search for evidence of bats and barn owls could not, however, be fully undertaken.

# 3 SURVEY METHODOLOGY

## 3.1 Desk Study

3.1.1 A desk study was undertaken to determine the presence of sites and habitats of conservation importance together with historical records of bat species and barn owls within a 2km radius of the site. The following bodies were consulted for the desk study:

- Magic.gov.org
- Kent and Medway Biological Record Centre (KMBRC)

## 3.2 Bat Scoping Survey

3.2.1 Where buildings or other structures are present within the site, specific survey work was undertaken to assess their suitability to support roosting bats. In this instance, a variety of equipment was used to complete the bat scoping survey, including close focusing binoculars, high powered torches, endoscopes, and a ladder.

3.2.2 The results of a scoping survey enable the buildings to be categorised as having Confirmed, High, Moderate, Low, or Negligible potential to support roosting bats. An outline of categorisation procedure for classifying bat potential is presented in Appendix B.

3.2.3 In accordance with current best practice guidance (Collins, 2016), the categorisation of High, Moderate, Low, or Negligible potential determines the need or not for further summer emergence surveys. Although left to the discretion of the appointed ecologist, in most instances High potential requires three, Moderate potential requires 2 and Low potential requires 1 evening emergence or pre-dawn re-entry survey/s. Greater detail on the minimum number of surveys recommended in most instances is presented in Appendix C.

## 3.3 Barn Owl Survey

3.3.1 To assess the presence of breeding barn owl, the buildings to be affected by the proposed development were subject to an assessment looking for evidence such as feathers, staining, owl pellets, carcasses, and owls themselves. Suitable features for nesting such as ledges were searched for and reported if present.

## 3.4 Other Species

3.4.1 Consideration was given to the site's suitability to support other protected and notable species. None were present and beyond those noted above no further reference to protected species are included within this report.

# 4 SURVEY RESULTS

## 4.1 Desk Study

*Statutory Designated Sites*

4.1.1 Two statutory designated sites lie within 2km of the site. These are Otford to Shoreham Downs Site of Special Scientific Interest (SSSI); and Sevenoaks Gravel Pits SSSI. The closest of these is Otford to Shoreham Downs Site of Special Scientific Interest SSSI which is located approximately 1.5km north-east of the site. Neither of these sites are recognised for their bat or barn owl assemblages.

*Non-statutory Designated Sites*

4.1.2 Seven non-statutory designated sites lie within 2km of the site. These are Woodlands West of Shoreham Local Wildlife Site (LWS); Polhill Bank Kent Wildlife Trust (KWT) Reserve; Fackenden Down KWT reserve; Woods and Dows Above Kemsing LWS; Palace Park Wood Wildlife Trust (WT) reserve; Sevenoaks Wildlife Reserve KWT reserve; and Crown Meadows Wood WT reserve. The closest of these is Palace Park Wood WT Reserve which is located approximately 1km south-east of the site. None are recognised for their bat or barn owl assemblages.

*Ancient Woodland*

4.1.3 29 areas of ancient woodland lie within 2km of the site. The closest of these is an area of ancient semi-natural woodland which lies approximately 480m west of the site.

*UK BAP Priority Habitats*

4.1.4 Four BAP Priority Habitats are situated within 2km of the site. These are coastal and floodplain grazing marsh, lowland calcareous grassland, deciduous woodland, and traditional orchard. The closest of these habitats is an area of deciduous woodland which lies approximately 300m north-west of the site.

*Protected or Notable Species*

Bats –

4.1.5 Records of pipistrelle bat *Pipistrellus* spp., common pipistrelle *P. pipistrellus*, soprano pipistrelle *P. pygmaeus,* Nathusius' pipistrelle *P. nathusii*, a long-eared bat *Plecotus* sp., brown long-eared bat *P. auritus*, serotine *Eptesicus serotinus*, an unknown myotis species *Myotis* spp. whiskered/ Brandt's/Alcathoe bat *M. mystacinus/M. brandtii/M. alcathoe*, whiskered bat *M. mystacinus*, Natterer's bat *M. nattereri,* Daubenton's bat *M. daubentonii*, noctule *Nyctalus noctula*, Leisler's bat *N. leisleri* and an unknown bat species *Chiroptera* sp. were returned within 5km of the site.

4.1.6 The closest record is of a grounded soprano pipistrelle bat found approximately 210m south of the site in 2013. The closest record of a bat roost is of an unknown roost type of serotine bats that originates approximately 450m north-east of the site in 2015.

Barn Owl –

4.1.7 No records of barn owl were returned within 2km of the site.

**4.2 Protected Species**

Bats

*The Barn – External Inspection*

4.2.1 The barn to be converted is an agricultural building which has a footprint of approximately 250m$^2$ and is comprised of three distinct sections.

4.2.2 Section 1 (S1) is a double height barn constructed of concrete blocks to 1.5m and ill-fitting timber weather boarding above. The roof is pitched and covered with corrugated asbestos sheets and a timber lean-to is attached to the northern elevation. The lean-to has a roof of interlocking tiles.

4.2.3 Section 2 (S2) is a single-storey building attached to the south-eastern corner of S1. Constructed of rendered concrete block to approximately 1.5m, timber weatherboarding is present above. The roof is pitched and has a covering of straight-edged clay tiles.

4.2.4 Section 3 (S3) is a single storey extension attached to the south-west corner of S1. Constructed of concrete blocks to approximately 1.5m, timber weatherboarding is present above. The roof has a shallow slope and is covered with corrugated asbestos sheeting.

4.2.5 Potential Roosting Features (PRF) and access points for bats on the exterior of the building include slipped and missing roof tiles on S2; the void between the external and internal skin of weather boarding on S1 on the south-western aspect; and gaps in the fascia boards on the gable ends of S1. The weatherboarding is generally tightly fitted with no gaps where the boards overlap. No PRF were recorded on S3.

*The Barn – Internal Inspection*

4.2.6 The interior of S1 is set over two floors, the uppermost being accessed by way of an external staircase and is open to the ridge. The building is timber framed and the majority of its elevations are single-skinned with gaps present allowing light into the building. Areas of the internal elevations are lined with a black hessian material which is torn in places. No loft void, underlining or insulation exists within this section of the building.

4.2.7 The ground floor is heavily cobwebbed and unsuitable for use by roosting bats.

4.2.8 Approximately 50 bat droppings of a size and shape indicative of use by pipistrelle bats were recorded in the south-east corner of the building's first floor. A single pipistrelle bat was recorded roosting behind the torn hessian attached to this elevation and a dead, decaying pipistrelle bat was also recorded on the floor in this corner of the building.

4.2.9 Beyond the bats recorded using the hessian, roosting opportunities within S1 are restricted to between the roof tiles of the lean-to.

4.2.10 Internally the building section S2 is open to the timber roof frame. Bitumen felt lines the eastern but not the western pitch. Roosting opportunities within S2 are restricted to between the tiles and the felt lining. No evidence of bats was recorded within S2.

4.2.11 The building section S3 is in a state of dilapidation and consequently the interior is well lit and unsuitable for use by bats. No suitable roosting opportunities exist, and no evidence of bats was recorded within this section.

Barn Owl

4.2.12 A plyboard ledge at a height of approximately 3m is located at the western end of the first floor, of S1. This feature could not be accessed due to reasons of health and safety, but no evidence of use by barn owls was identified below. What appeared to be an owl box present at the eastern gable end displayed no signs of use by owls and no field signs indicative of use by barn owls were recorded within this section of the building.

4.2.13 The buildings sections S2 and S3 support no suitable nesting ledges and no evidence of barn owl was recorded.

4.2.14 Several (5-10) bird nests were recorded within S1. None of these nests were in use at the time of the survey.

# 5 CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Designated Areas

5.1.1 The nearest designated site lies approximately 1km from the site and none within 2km are recognised for their bat or barn owl assemblages. Due to this and the localised scale of the proposed, the development will result in no detrimental impact to any other designated sites.

## 5.2 Ancient Woodland

5.2.1 The closest ancient woodland site is an area of ASNW located approximately 480m north of the site. This distance is beyond the 15m buffer recommended by Natural England and the Forestry Commission when working near ancient woodland sites. When considering the localised nature of the proposed development, this development will have no detrimental impact on areas of ancient woodland.

## 5.3 Protected Species

*Bats Roosting Habitat – Buildings*

5.3.1 The presence of a single pipistrelle bat behind the hessian on the southern internal elevation and bat droppings and a dead pipistrelle bat directly below this feature confirm the structures use by roosting bats. The barn (B1) is split into three distinct sections (S1, S2 and S3) and beyond the identified bat roost, alternate roosting opportunities for bats recorded within S1 and S2 extend to; on top of the ridge board and behind an area of double skinned weatherboarding and the fascia boards at the gables ends of S1 and beneath raised roof tiles within S2.

5.3.2 The building section S3 supports no suitable features for bats and no further consideration to this section is required at this time.

5.3.3 All British bats are protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife & Countryside Act 1981 (as amended). This legislation affords them protection against, killing, injury and disturbance as well as the destruction, damage, or obstruction of access to their places of rest.

5.3.4 As the proposed conversion works will result in the loss and/or disturbance of the known bat roost present, and also any potential bat roosts which have yet to be identified, then no works should be conducted to building until further surveys for bats have been completed.

5.3.5 In accordance with the Bat Conservation Trust's Bat Survey Good Practice Guidelines (Collins, 2016), three dusk emergence or pre-dawn re-entry surveys should be conducted on buildings

with confirmed or High suitability. Bat surveys can only be undertaken in suitable weather conditions between May and September (inclusive) with at least two surveys conducted between May and August. To ensure reasonable effort is applied, these surveys must be undertaken by a team of suitably experienced ecologists using electronic bat detectors.

5.3.6 The surveys serve to establish the number, species, and roost type of bats (should they be present), information which will go on to inform the European Protected Species Mitigation (EPSM) licence that will be required from Natural England in order to proceed with the work.

5.3.7 It should be noted that although bats have been identified within the building, conversion of the existing structure into a residential dwelling provides opportunity for multiple mitigation strategies to be applied and there is no known reason why a EPSM licence would not be granted by Natural England.

*Barn Owl*

5.3.8 Although an owl box and a timber ledge suitable for use by barn owls were noted within section S1 of the barn, no evidence of barn owl was recorded and no further surveys for barn owl are required at this time. Given the potential for barn owl to breed within the barn, should barn owls or evidence of barn owls using the building be identified at any time, all works should stop, and the appointed ecologist consulted on the appropriate manner in which to proceed. Note; barn owls are known to breed at any time of year and consequently the sensitive periods for breeding noted for other bird species are non-applicable.

5.3.9 Disused bird nests were, however, recorded within the building and as all breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended), it is recommended that works to areas deemed suitable or with confirmed nesting birds are conducted outside the core breeding period for birds of Late February – August inclusive.

5.3.10 Should this timeframe be unobtainable, a thorough search for the presence of breeding birds should be conducted by a suitably experienced ecologist prior to the start of works. Should evidence of breeding birds be recorded, works within 5m of the nest, or works that have the potential to destroy the nest, should stop until the eggs have hatched, and the chicks fledged, or the nest is deemed by a suitably experienced ecologist to have been abandoned.

# 6 ECOLOGICAL ENHANCEMENTS

6.1 Opportunities to include biodiversity enhancements exist within the proposed development and in accordance with the requirements of the NPPF the following recommendations are considered appropriate for the site:

- The installation of bird boxes in suitable locations within the site would increase the site's potential for nesting birds. For song birds, the boxes should be selected from either open fronted boxes and hole nesting boxes. To compensate for the loss of barn owl suitability, consideration to the installation of a barn owl box should also be considered. To maximise suitability, boxes should be installed either on trees or within the fabric of the barn conversion. Barn owl boxes should be installed at a height of $\geq$ 3m. Song bird boxes should be installed on sheltered aspects close to vegetation at a height of 2-3m, preferably on north, north-east or north-west facing elevations.
- The installation of a 'Bug Hotel' within the grounds and consideration to an invertebrate friendly planting scheme within the soft landscaping palette will increase the sites invertebrate diversity. Invertebrate friendly planting designs are set out in Appendix D.
- The incorporation of a wildlife-friendly planting scheme within the grounds post-development, using native plant species, would be of benefit to invertebrates, and subsequently birds and bats.
- Any tree planting should be undertaken using native species such as pedunculate oak, small leaved *lime Tilia cordata,* black poplar *Poplar nigra*, wild service tree *Sorbus torminalis* or similar.
- Enhancements in regard to bats are best set out upon the completion of the further surveys outlined in section 5.3 of this report.

# 7 SUMMARY

7.1 In response to proposed conversion of the barn at Frog Farm, Otford, the structure was subject to an Ecological Scoping Survey.

7.2 The habitats surrounding the structure support little ecological value and these habitats were screened out of the survey. The building's potential to support bats and barn owls have been assessed and appropriate recommendations provided.

7.3 Inactive bird nests were recorded within the building and recommendations in regard to timings and methods of best practice have been provided

7.4 Confirmation of the barn use by pipistrelle bats was established and potential for bats also exists beneath the roof tiles, fascia boards and weatherboarding.

7.5 In accordance with the BCT Guidelines, further surveys to determine, the species, number and roost types for bats are required. These survey/s will serve to inform the EPSM licence that will be required to destroy the roost/s.

7.6 No evidence of nesting barn owl was identified but an owl box and a timber ledge within the barn provide opportunities for barn owls to breed. No further surveys for barn owl are required at this time, but should barn owls or evidence of barn owls be identified at any time, all works should stop and the appointed ecological contacted on the appropriate manner in which to proceed.

7.7 In accordance with the requirement of the NPPF, recommendations to increase the site's suitability for wildlife have been provided.

# 8 REFERENCES

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

Eaton et al (2015). Birds of Conservation Concern 4: The population status of birds in the UK, Channel Islands and Isle of Man. British Birds 108.

National Planning Policy Framework (NPPF) 2012
http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf

Natural Environment and Rural Communities (NERC) Act 2006.
http://www.legislation.gov.uk/ukpga/2006/16/contents

The Conservation of Habitats and Species Regulations (Habitats Regulations) 2010.
http://www.legislation.gov.uk/uksi/2010/490/contents/made

Wildlife and Countryside Act (as amended) 1981. http://jncc.defra.gov.uk/page-1377

# Figures


Job Reference : J20452

Project Title
Barn at Frog Farm

DRAWING TITLE
Figure 1 : Location of building and building areas

| | | |
|---|---|---|
| Date : 27-11-17 | Checked: LW | Scale : NTS |
| Drawn: OK | Approved : N/A | Status : Final |



GES Greenspace Ecological Solutions

Legend

Building

# Appendices

## APPENDIX A – PHOTOGRAPHS

Plate 1: View of S1 (rear) and S2 (foreground) facing north-west

Plate 2: North-eastern aspect of S1 showing main body and lean-to

Plate 3: North-western aspect of S1

Plate 4: South-western gable end showing double skin and gaps in weather boarding

Plate 5: View of S1 and S3 from the south-east

Plate 6: south-western aspect of S2 showing missing roof tiles

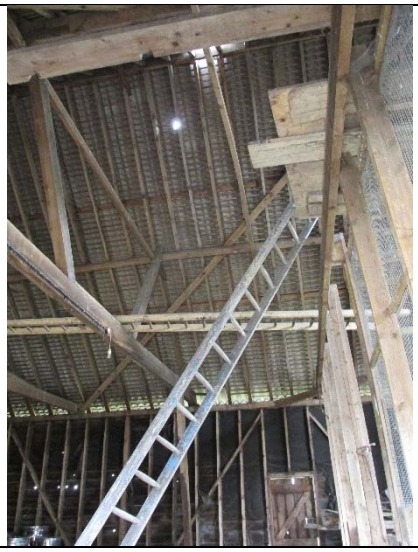

Plate 7: Interior of S1 showing gaps in roof and wooden platform

Plate 8: Location of bat droppings within S1 (red pencil)

Plate 9: Bat droppings within S1 (red pencil for scale)

Plate 10: Dead bat within S1

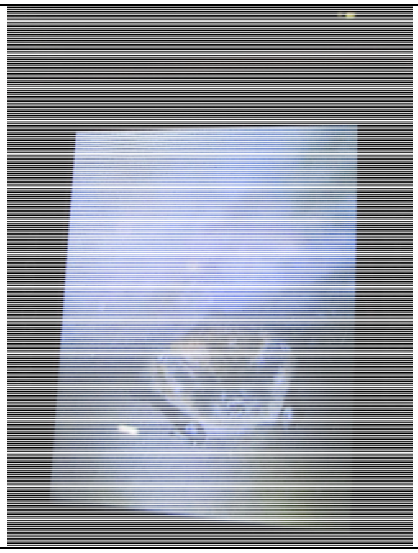

Plate 11: Bat roosting in S1 viewed through endoscope

Plate 12: Bird nest within S1

Plate 13: Bird nest within S1

Plate 14: Interior of the lean-to of S1

Plate 15: Interior of S2

Plate 16: Interior of S3 showing dilapidation

# APPENDIX B

**Categories of Bat Roost Potential**

| Roost type / Level of potential | Summer Roost used by Non- Breeding Bats | Maternity Roost | Hibernation Roost |
|---|---|---|---|
| Confirmed roost | Presence of bats or evidence of bats identified. Confirmation of a roost will likely require further surveys. | | |
| High | Building/Structure or tree with multiple opportunities for one or more species of roosting bat. Optimal orientation. Good connectivity to optimal foraging habitats. | Building/Structure or tree with multiple roosting opportunities for pregnant female bats and young pups. Optimal orientation. Good connectivity to optimal foraging habitats. | Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats throughout the winter months. |
| Moderate | Building/Structure for tree with some opportunities for roosting bats. Preferable orientation. Connectivity to moderate to high quality foraging habitat available. | Building/Structure or tree with some roosting opportunities for pregnant female bats and young pups. Good orientation. Good connectivity to moderate to high quality foraging habitats. | Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats for some of the winter months. Moderate connectivity to suitable foraging areas. |
| Low | Building/Structure or tree with limited opportunities for roosting bats. Poor connectivity to foraging habitat. | Building/Structure or tree with limited opportunities for breeding bats. Poor connectivity to foraging habitat. | Building/Structure or tree with limited potential to support hibernating bats due to instable environmental conditions. |
| Negligible | Building/Structure or tree with no or very limited opportunities for roosting bats. Little to no connectivity to foraging habitat | Building/Structure or tree with no or very limited opportunities for breeding bats. Little to no connectivity to foraging habitat. | No suitable roosting opportunities for hibernating bats. |

# APPENDIX C

**Minimum Number of Bat Surveys Required in Most Instances**

| Negligible | Low roost potential | Moderate roost potential | High roost potential* |
|---|---|---|---|
| Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required. | Structures: 1 survey visit. 1 dusk emergence or pre-dawn re-entry survey[a].<br><br>To be conducted during May – August.<br><br>Trees: Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required. | 2 separate survey visits. 1 dusk emergence survey and 1 pre-dawn re-entry survey[b].<br><br>To be conducted during May-September with at least one of the surveys May – August. | 3 separate survey visits. At least 1 dusk emergence survey and a separate pre-dawn re-entry survey. The third visit could be either a dusk or dawn survey[b].<br><br>To be undertaken during May-September with at least two of the surveys between May and August. |

[a] Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case by case basis. If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

[b] Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; It is recommended that surveys are spaced out at least two weeks apart, preferably more. A dawn survey immediately after a dusk survey is considered one visit. If there is potential for a maternity colony, then consideration should be given to seasonal detectability and the ecologist should use their professional judgement to design the most appropriate survey regime.

*For the purpose of this exercise a confirmed roost is considered under the criteria of 'High roost potential'

Appendix D - Wildlife Friendly Planting

ENGLISH NATURE

# Plants for wildlife-friendly gardens

working today
for nature tomorrow

# Plants for wildlife-friendly gardens

**This leaflet gives an indication of garden plants which provide good habitats for wildlife. Plants that occur naturally in England generally provide the best conditions for wildlife in gardens but many cultivated varieties are good too.**

## Trees and shrubs

### Large trees

Ash *Fraxinus excelsior*
Beech *Fagus sylvatica*
Elm *Ulmus procera*
Oaks *Quercus robur and Q. petraea*
Small-leaved lime *Tilia cordata*
White willow *Salix alba*
Wild cherry *Prunus avium*

### Medium/small trees

Alder *Alnus glutinosa*
Aspen *Populus tremula*
Crab apple *Malus sylvestris*
Field maple *Acer campestre*
Holly *Ilex aquifolium*
Rowan *Sorbus aucuparia*
Silver birch *Betula pendula*
Yew *Taxus baccata*

A combination of shrubs and climbers can make attractive native hedges of great benefit for wildlife, as well as providing an attractive boundary. Beech and holly also make good hedges.

### Native shrubs

Blackthorn *Prunus spinosa*
Dog wood *Cornus sanguinea*
Elder *Sambucus nigra*
Guelder rose *Viburnum opulus*
Hawthorn *Crataegus monogyna*
Hazel *Corylus avellana*

Dog rose.
Peter Wakely/English Nature 607

## Plants for under trees or shady areas

Archangel *Lamiastrum galeobdolon*
Betony *Stachys officinalis*
Bluebell *Hyacinthoides non-scriptus*
Bugle *Ajuga reptans* Foxglove *Digitalis purpurea* Ground ivy *Glechoma hederacea*
Lily of the valley *Convallaria majalis*
Lords-and ladies/cuckoopint *Arum maculatum*
Nettle-leaved bellflower *Campanula trachelium*
Primrose *Primula vulgaris*
Sweet violet *Viola odorata*
Wild daffodil *Narcissus pseudonarcissus*
Wood avens *Geum urbanum*

Foxglove. Peter Wakely/English Nature 18,879

Honeysuckle flower. Derek Ratcliffe/English Nature 14,736

### Climbers

Bramble *Rubus fruticosus*
Dog rose *Rosa canina*
Field rose *Rosa arvensis*
Ivy *Hedera helix*
Honeysuckle *Lonicera periclymenum*
Wild privet *Ligustrum vulgare*

## Exotic shrubs for nectar, pollen or fruits

Serviceberry *Amelanchier canadensis*
Butterfly bush *Buddleja davidii*
Japanese quince *Chaenomeles japonica*
Creeping cotoneaster *Cotoneaster frigidus*
Variegated cotoneaster *Cotoneaster horizontalis*
Mahonia *Mahonia spp.*
Mock orange *Philadelphus spp.*
Firethorn *Pyracantha coccinea*
Lilac *Syringa vulgaris*
Bodant viburnum *Viburnum bodnantense*
Laurustinus *Viburnum tinus*

Meadow cranesbill. Peter Roworth/English Nature 22,902

## Wildflowers

### Native wildflowers for borders

Agrimony *Agrimonia eupatoria*
Betony *Stachys officinalis*
Bluebell *Hyacinthoides non-scriptus*
Chicory *Cichorium intybus*
Chives *Allium schoenoprasum*
Common poppy *Papaver rhoeas*
Corncockle *Agrostemma githago*
Cornflower *Centaurea cyanus*
Corn marigold *Chrysanthemum segetum*
Cowslip *Primula veris* Cuckooflower *Cardamine pratensis* Dame's-violet *Hesperis matronalis* Dandelion *Taraxacum officinale* Devil's-bit scabious *Succisa pratensis* Field scabious *Knautia arvensis* Foxglove *Digitalis purpurea*
Germander speedwell *Veronica chamaedrys*
Goldenrod *Solidago virgaurea* Great mullein *Verbascum thapsus* Greater knapweed *Centaurea scabiosa*
Harebell *Campanula rotundifolia*
Herb-robert *Geranium robertianum*
Lady's bedstraw *Galium verum*
Marjoram *Origanum vulgare*
Meadow cranesbill *Geranium pratense*
Common mallow *Malva sylvestris*
Oxeye daisy *Leucanthemum vulgare*
Primrose *Primula vulgaris*
Red campion *Silene dioica*
Red deadnettle *Lamium purpureum*
Snowdrop *Galanthus nivalis*
Spiked speedwell *Veronica spicata*
Tansy *Tanacetum vulgare*
Teasel *Dipsacus fullonum*
Toadflax *Linaria vulgaris*
White campion *Silene alba*
White dead-nettle *Lamium album*
Wild thyme *Thymus drucei*
Yellow loosestrife *Lysimachia vulgaris*

Wild thyme. Peter Wakely/English Nature 18,825

### Cultivated plants for borders

Grecian windflower *Anemone blada*
Angelica *Angelica archangelica*
Aubretia *Aubretia deltoidea*
California poppy *Eschscholtzia californica*
Candytuft *Iberis sempervirens*
Christmas rose *Helleborus niger*
Cosmos *Cosmos bipinnatus*
Evening primrose *Oenothera biennis* Fleabane *Erigeron spp.* Forget-me-not *Myosotis spp.*
French marigold *Tagetes spp.*
Globe thistle *Echinops ritro*
Grape hyacinth *Muscari botryodes*
Hollyhock *Althaea rosea*
Honesty *Lunaria rediviva*
Ice plant *Sedum spectabile*
Lenten rose *Helleborus orientalis*
Tree mallow *Lavatera spp.*
Michaelmas daisy *Aster spp.*
Mint *Mentha rotundilfolia*
Perennial cornflower *Centaurea montana*
Perennial sunflower *Helianthus decapetalus*
Phlox *Phlox paniculata*
Poached-egg plant *Limnanthes douglasii*
Red valerian *Centranthus ruber*
Snapdragon *Antirrhinum majus*
Spring crocus *Crocus chrysanthus and hybrids*
Sweet alyssum *Lobularia maritima*
Sweet bergamot *Monarda didyma*
Sweet William *Dianthus barbatus*
Tobacco plant *Nicotiana affinis*
Wallflower *Cheiranthus cheiri*
White arabis (single) *Arabis alpina*
Winter aconite *Eranthis hyemalis*
Yellow alyssum *Alyssum saxatile*

Teasel, with frost. Peter Wakely/English Nature 15,620

## Ponds and marshes

Water is important for wildlife, even a small area can attract birds, insects and other animals and creates a nice feature. The following list indicates plants which provide suitable habitats for wetland wildlife.

### Plants for marshy areas

Also suitable for pond edges.

Bugle *Ajuga reptans*
Hemp agrimony
*Eupatorium cannabinum*
Marsh marigold *Caltha palustris*
Marsh woundwort *Stachys palustris*
Meadowsweet *Filipendula ulmaria*
Purple loosestrife *Lythrum salicaria*
Ragged robin *Lychnis flos-cuculi*
Water avens *Geum rivale*
Water forget-me-not
*Myosotis scorpoides*
Water mint
*Mentha aquatica*
Water violet
*Hottonia palustris*
Yellow flag
*Iris pseudacorus*

Marsh marigold.
Paul Glendell/English Nature
25,293

## Plants for the pond

### Submerged plants

These provide oxygen and cover for secretive pond life.

Curled pondweed *Potamogeton crispus*
Hornwort *Ceratophyllum demersum*
Other pondweeds *Potamogeton spp.*
Mare's-tail *Hippuris vulgaris*
Spiked water milfoil
*Myriophyllum spicatum*
Water starwort *Callitriche spp.*

### Floating plants

These provide some shade and interest; you need a balance of floating and submerged plants to ensure some light gets to underwater areas.

Amphibious bistort
*Persicaria amphibia*
Broad-leaved pondweed
*Potamogeton natans*
Duckweeds *Lemna spp.*
Fringed waterlily
*Nymphoides peltata*
Frogbit
*Hydrocharis morsus-ranae*
Water crowfoot
*Ranunculus aquatilis*
White waterlily
*Nymphaea alba*
Yellow waterlily
*Nuphar lutea*

### Margins/pond edges

For a good wildlife-friendly pond and natural look, make shallow sloping edges (to help animals get in and out) and add plants to provide cover and interest.

Bogbean
*Menyanthes trifoliata*
Brooklime
*Veronica beccabunga*
Bur-reed
*Sparganium erectum*
Flowering rush
*Butomus umbellatus*
Greater spearwort
*Ranunculus lingua*
Lesser reedmace
*Typha angustifolia*
Lesser spearwort
*Ranunculus flammula*
Water mint
*Mentha aquatica*
Water plantain
*Alisma plantago-aquatica*

Bogbean. Peter Wakely/English Nature 836

## Warning

A number of plants can take over your pond and are damaging to our native plants in ponds lakes and rivers. Watch out for and avoid the following: water fern, parrot's feather, floating pennywort, Australian swamp stonecrop. If you already have these, get rid of them by composting or burning. Don't throw them out as it might spread the problem.

See our *Warning - Invasive Alien Pond Plants* leaflet for more detail.
Please remember, always buy from a reputable supplier (information available from English Nature Enquiry Service, 01733 455101). Never take plants from the wild - it is illegal to uproot any wild plant. See also our leaflet on wildlife-friendly gardening.

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