



Suffolk Biodiversity  
Partnership

# SUFFOLK LOCAL BIODIVERSITY ACTION PLAN Grouped Plan for Bats

**National lead:** Bat Conservation Trust (BCT) (Lisa Hundt)

**Local lead:** Suffolk Bat Group

**Associated plans:** Built Environment, Wood Pasture & Parkland and Lowland Woodland



**Barbastelle bat** (© Hugh Clark / Bat Conservation Trust)

**Grouped Plan for bats** covers the following 13 species:

**Barbastelle** (*Barbastella barbastellus*)

**Brandts** (*Myotis brandtii*) \*

**Brown long-eared** (*Plecotus auritus*)

**Common Pipistrelle** (*Pipistrellus pipistrellus*) \*

**Daubentons** (*Myotis daubentonii*) \*

**Leislars** (*Nyctalus leisleri*) \*

**Lesser horseshoe** (*Rhinolophus hipposideros*),

**Nathusius' pipistrelle** (*Pipistrellus nathusii*) \*

**Natterer's** (*Myotis nattereri*) \*

**Noctule** (*Nyctalus noctula*)

**Serotine** (*Eptesicus serotinus*) \*

**Soprano pipistrelle** (*Pipistrellus pygmaeus*)

**Whiskered** (*Myotis mystacinus*) \*

Note: all of the bats in this grouped plan are UK Biodiversity Action Plan species, except those marked \*, which are Suffolk character species.

## 1 Introduction to the species

**Barbastelle bats** are rare and distinctive bats with a pug-like face and large, wide ears. weighing 6-13.5g. Their fur is blackish on the back and the tips of the hairs may be pale cream or yellow, giving them a frosted appearance. The Barbastelle has very broad dark grey/brown ears that join on the forehead and this, together with its short facial features, give it a pug like appearance. Barbastelle bats are associated with broadleaved woodlands with their summer

roosts typically in trees and old buildings and they hibernate in trees, underground tunnels and ice houses. This bat is certainly rare, although increased survey effort in suitable areas of habitat has shown it to be widespread albeit in very small numbers. Suffolk holds a significant percentage of the UK population and numbers are regularly recorded.

**Brown long-eared bats** are medium sized, weighing from 6-12 g. They can be distinguished from all other bats by their large ears; the adults are light brown and pale underneath. Brown long-eared bats are associated with open woodland, orchards and parkland Their summer roosts are often in older buildings including houses, barns and churches; they hibernate in caves, tunnels, trees and buildings.



**Brown Long-Eared bat** (© Hugh Clark / Bat Conservation Trust)

**Common Pipistrelle bats** are strongly associated with buildings and less with riparian habitats eating small insects such as mosquitoes and midges.

**Daubenton's** bats are a medium sized bat, weighing between 7-12 g. Strongly associated with water, they are often seen skimming the surface of the water to catch insects. They can be distinguished from other species by the short brown ears and pink circle of skin around the eyes; their fur is red-brown and pale underneath. Summer roosts include trees, caves, bridges and stone buildings; their hibernation roosts are often underground.



**Daubenton's bat hibernating** (© Lucinda Spencer / Suffolk Bat Group)

**Leisler's bats** are one of the larger bat species and has distinctively bi-coloured dorsal fur and appear to have a mane of fur around the neck. Predominately a tree-dwelling bat with a geographical bias towards the west of Suffolk.

**Lesser-horseshoe bats** are one of the smallest British bats, weighing between 5-9g. They have a distinctive nose that is related to its particular type of echolocation system. Their summer roosts include caves and buildings and hibernation roosts tend to be in caves, cellars and tunnels. This bat is found at only one site in Suffolk and to date refers to just a single individual.

**Nathusius' Pipistrelle** is a rare bat in the UK, though records have increased in recent years and it has been identified in Suffolk from bat detector surveys. It is a migratory species, and most bats are encountered in autumn, although some do remain all year and breed in the UK. It has only been classed as a resident species since 1997 and first recorded in Suffolk in 2005. It is similar in appearance to, but slightly larger than the much more commonly found common and soprano pipistrelles, and the fur on its back is longer, sometimes giving a shaggy appearance.

**Natterer's bats** are of medium size, weighing between 7-12 g. Their fur is often light buff brown and white underneath; they have quite long ears with a pointed tragus inside the ear. Their summer roosts are typically in old stone buildings, large timber framed barns and tree holes, their hibernation roosts are often underground. They occur in a range of habitats including open woodland and parkland and they often hunt alongside hedgerows. There are a high proportion of timber framed buildings in Suffolk, predominately barns, and the protection of their roosts in these buildings is of great importance.

**Natterer's** and **Daubenton's** are both of the *Myotis* genus sharing similar physical characteristics. Bat detector records cannot differentiate between the two species and so many are recorded as *Myotis* sp. unless other identification features are recorded in addition.

**Noctules** are the largest bat in the UK, weighing 18-40g. They are often the first bat to appear in the evening. The adults have distinctive golden/rust coloured fur and a distinctive mushroom shaped tragus (inner lobe) inside their ears. They are predominately a tree dwelling bat, but occur in a range of habitats, with wooded habitats preferred. Their summer roosts tend to be in trees and will hibernate in trees and bat boxes.

**Serotines** are large and robust bats with roosts in either older houses with large roof voids or churches. They favour foraging over parkland and open pasture feeding on dungflies and beetles.

**Soprano pipistrelle bats** are one of the smallest bats in the UK, weighing 3-8 g. They form the largest maternity colonies of all UK bats (500-700 bats are not uncommon). Soprano pipistrelles are medium to dark brown in colour. They have a strong affinity for riparian habitats for foraging and are heavily reliant on buildings for roost sites. In Suffolk they have only been reliably identified as distinct from the Common pipistrelle since 2004/5 through bat detector records using computer analysis. Records prior to 2003 and roost records to date, if unsupported by detector records, could refer to either species.

**Whiskered/Brandts** bats are extremely scarce in Suffolk and occasionally found in hibernation roost sites. It is difficult to separate these 2 species. Whiskered bat is very similar to Brandt's bat and the two species were only separated in 1970. Both are small species with somewhat shaggy fur – Brandt's bat is slightly larger than whiskered bat. The two species are most reliably separated by differences in dentition and penis shape. Other distinguishing features are thought to include tragus shape and claw length.

## 2 Current status

### 2.1 National (from The Mammals of Suffolk, 2009)

Barbastelle	Rare and declining
Brown Long-eared	Declining
Common Pipistrelle	Recovering
Daubenton's	Stable
Leisler's	Rare maybe declining
Lesser Horseshoe	Vulnerable and declining
Nathusius' Pipistrelle	Rare
Natterer's	Widespread but uncommon
Noctule	Declining
Serotine	Uncommon possibly declining
Soprano Pipistrelle	Likely to be stable
Whiskered/Brandts	Vulnerable

### 2.2 Suffolk – current status (from SBRC records 2011)

Current distributions for several species show strong recording bias. 505 Pip combined 1km squares recorded in every 10km square.

Species	Number of occupied 1 km squares	Range & abundance	Accuracy
Barbastelle	40	Widespread, but uncommon	Partial survey
Brown-long eared	624	Widespread and common	Partial survey
Common Pipistrelle	682	Widespread and common	Partial survey
Daubenton's	50	Widespread and locally common	Partial survey
Leisler's	14	Rare and uncommon	Partial survey
Lesser horse-shoe	1	Rare	Partial survey
Nathusius' Pipistrelle	2	Rare	Partial survey
Natterer's	131	Widespread and uncommon	Partial survey
Noctule	86	Widespread and uncommon	Partial survey
Serotine	109	Widespread and uncommon	Partial survey
Soprano Pipistrelle	74	Widespread and common	Partial survey

### 2.3 National trends

#### Barbastelle

Trend unknown. This species is being monitored in the National Bat Monitoring Programme (NBMP) Woodland Survey that currently focuses on designated Special Areas of Conservation (SAC) sites for this species. The survey has been rolled out to non-SAC sites to some extent but this is currently restricted by limited resources. Greater site coverage and a longer data run will be needed before a UK Barbastelle trend can be produced and this is not expected before 2012.

### **Soprano pipistrelle**

Fluctuating - probably stable, sample or full survey, 2007, derived from the NBMP Annual Report 2007. (2008), Bat Conservation Trust/Joint Nature Conservation Committee. Trend from field survey shows a non-significant decrease of 15.6% since 1999 with a fairly stable trend since 2003. Trend from colony counts shows a significant decrease of 31.1% since 1999, but this may simply reflect movements of bats to other unknown roosts. Field survey considered to be more robust, therefore this species is considered to be stable.

### **Lesser horseshoe**

Increasing - sample or full survey, 2007, derived from the NBMP Programme Annual Report 2007 (2008), Bat Conservation Trust/Joint Nature Conservation Committee. Trend from hibernation survey shows a statistically significant increase of 41% since 1999. Trend from colony counts shows a statistically significant increase of 49.2% since 1999. Significant upward trends from both surveys strongly suggest that the population is increasing. This may be due to success of targeted actions under the Species Action Plan, but the recent run of mild winters might also have contributed by increasing overwintering survival.

*Source: Data derived from Biodiversity Action Reporting System (BARS), 2009. National trends are not available for other species of bats.*

## **3. Current factors affecting bats in Suffolk**

The threats to bats in Suffolk are not fully known, but are likely to include:

- Loss of significant roost sites (i.e. maternity and hibernation sites) in traditional timber framed barns and historical buildings, such as churches, resulting from lack of awareness, entrenched attitudes towards bats and ignorance of the legislation protecting them.
- Loss of, and disturbance to, other roost sites caused by the same factors listed above.
- Loss and degradation of feeding habitats as a result of development and changes in land-use.
- Disturbance to, or destruction of, commuting routes resulting from inappropriate management of hedgerows and the artificial illumination of linear features such as urban environments
- Reduction in insect prey abundance due to intensive farming practices and loss of wetlands, hedges and other suitable prey habitats.
- The proliferation of wind turbines in rural locations across the county
- Light pollution is now common in the natural environment; the effect of this upon bats at the population level is not fully understood but is known to be detrimental.

### **3.1 Species specific factors**

**Barbastelle** - dependence upon woodland/veteran trees makes them vulnerable to inappropriate woodland management and over-zealous tree surgery

**Brown long-eared** – dependence upon buildings such as barns and domestic roofs makes this species vulnerable to the conversion of barns and loft spaces and loft and cavity wall insulation

**Daubenton's** – habitat preference for riverine corridors makes this species vulnerable to inappropriate lighting associated with new and existing developments.

**Leisler's** - high risk from wind turbines.

**Lesser Horseshoe** - sensitive to disturbance to roosts, especially nursery and winter roosts. Intensive agricultural practices restrict foraging habitats.

**Natterer's** – dependence upon timber framed barns/old buildings makes this species vulnerable to renovation, exclusion and historically toxic remedial timber treatment.

**Noctule** – dependence upon trees makes this species vulnerable to the intensive management of woodlands/trees and loss of tree roosts. High risk from wind turbines

**Pipistrelle sp.** – dependence upon buildings makes these species vulnerable to renovation, exclusion and historically toxic remedial timber treatment. **Nathusius' Pipistrelle** - High risk from wind turbines

**Serotine** - dependence upon buildings such as churches and domestic roofs makes this species vulnerable to the renovation and development, exclusion and timber treatment

**Whiskered/Brandts** – insufficient information

### Annual numbers of sites surveyed in Suffolk for the National Bat Monitoring Programme

\*Species verification at these roosts will enable them to be moved over to other columns and increase coverage for the relevant species.

Year	Colony Counts						Field Survey	Waterway Survey	Hibernation Survey	Woodland Survey (Barbastelle)	Nathusius' Pip Survey
	45 Pip	55 Pip	Pip SP	BLE	Natt	Sero					
1997	2	0	11	0	0	1	N/A	5	0	N/A	N/A
1998	1	0	14	0	0	1	2	4	0	N/A	N/A
1999	2	2	16	0	0	3	1	3	0	N/A	N/A
2000	1	2	13	0	0	4	2	4	0	N/A	N/A
2001	2	2	11	0	0	3	0	1	1	N/A	N/A
2002	4	2	13	1	0	4	2	3	2	N/A	N/A
2003	4	4	13	1	1	4	3	5	2	N/A	N/A
2004	4	4	8	2	0	3	6	7	2	N/A	N/A
2005	4	5	10	2	0	3	7	10	2	0	N/A
2006	4	5	10	3	0	3	6	9	2	0	N/A
2007	4	1	11	1	0	1	7	7	3	0	N/A
2008	4	2	11	2	0	2	6	8	4	0	N/A
2009	4	1	12	2	0	2	6	8	4	0	0
2010	4	2	9	0	0	2	6	4	7	1	1

**NB** Pip = Pipistrelle, SP = Soprano Pipistrelle, BLE = Brown Long-eared, Natt = Natterer's, Sero = Serotine.

## 4 Current action

### 4.1 Legal status

All bats and their roosts are protected by UK law and they are also covered by the EU Conservation of Habitats and Species Regulations 2010 as European Protected Species. Since the first legislation, introduced in 1981, that gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented in all countries within the UK. For all countries of the UK therefore, the legal protection for bats and their roosts may be summarised as follows:

### 4.2 Management, research and guidance

There is no activity specific to Suffolk.

## 5 Organisation statements

The day to day activities, functions and commitments of statutory and non-statutory organisations can be found on the websites of the individual organisations. To view these follow the links to:

Organisation	Website
Babergh District Council	<a href="http://www.babergh.gov.uk/babergh/home">www.babergh.gov.uk/babergh/home</a>
Bat Conservation Trust	<a href="http://www.bats.org.uk/">www.bats.org.uk/</a>
Environment Agency	<a href="http://www.environment-agency.gov.uk/">www.environment-agency.gov.uk/</a>
Forestry Commission	<a href="http://www.forestry.gov.uk/">www.forestry.gov.uk/</a>
Mid Suffolk District Council	<a href="http://www.midsuffolk.gov.uk/">www.midsuffolk.gov.uk/</a>
National Trust	<a href="http://www.nationaltrust.org.uk/main/">www.nationaltrust.org.uk/main/</a>
Natural England	<a href="http://www.naturalengland.org.uk/">www.naturalengland.org.uk/</a>
St Edmundsbury Borough Council	<a href="http://www.stedmundsbury.gov.uk/">www.stedmundsbury.gov.uk/</a>
Suffolk Bat Group	<a href="http://www.suffolkwildlifetrust.org/species-and-habitats/species-projects/the-suffolk-bat-group/?highlight=suffolk+bat+group">http://www.suffolkwildlifetrust.org/species-and-habitats/species-projects/the-suffolk-bat-group/?highlight=suffolk+bat+group</a>
Suffolk Coastal District Council	<a href="http://www.suffolkcoastal.gov.uk/">www.suffolkcoastal.gov.uk/</a>
Suffolk County Council	<a href="http://www.suffolk.gov.uk/Environment/CountrysideServices/">http://www.suffolk.gov.uk/Environment/CountrysideServices/</a>
Suffolk FWAG	To be advised
Suffolk Wildlife Trust	<a href="http://www.suffolkwildlifetrust.org/">www.suffolkwildlifetrust.org/</a>
Waveney District Council	<a href="http://www.waveney.gov.uk/">www.waveney.gov.uk/</a>

### Suffolk Bat Group

- Provides licensed bat workers who undertake bat survey visits to assist Natural England in protecting roosts and bats in Suffolk in partnership with BCT.
- Trains new batworkers.
- Reports known roost sites to SBRC to ensure protection.
- Arranges a programme of summer activity surveys, winter hibernation counts and bat box projects, the results of which ensure mapping of species distributions.
- Promotes Bat Conservation Trust's National Bat Monitoring Programme to members and the general public.
- Gives land management advice in relation to bats to landowners and managers.
- Arranges public focused events e.g. guided walks & talks.

### Suffolk Biodiversity Partnership planning group

- Members of SBP support Local Authorities with regard to their responsibilities to European Protected Species such as bats. Recently this has been through training events for planners and support with the 1App. validation biodiversity checklist. Actively

promotes the use of Suffolk validation biodiversity checklist for planning applications with reference to bats.

- Ensure planning policies in Local Development Framework documents include bats where appropriate, e.g. in relation to barn conversions.

**Suffolk FWAG, Local Authorities & SWT** - Support and advice on Environmental Stewardship applications and options that benefit bats and their habitats.

**FC, EA & SWT** - Promote good practice guidance relating to woodland/tree management (felling licence requirements).

## 6 Action Plan Targets

1. Maintain range of species across Suffolk at 2009 extent.
2. Increase coverage of surveys e.g. number of NBMP sites by 10% to get more accurate understanding of populations.
3. Provide training for batworkers and the general public.

There is no target to maintain or expand bat populations in Suffolk as there is no adequate or appropriate data to allow populations to be measured for the county. See action below.

## 7 Actions

Action	Achieve by date	Key partners (lead partners shown in bold)
<b>Species protection/management</b>		
1. Work with landowners to protect all known hibernation sites by installing grills, locks etc.	Annually till 2016	NE, <b>SBG</b>
2. Ensure roost sites are identified to Suffolk Biological Records Centre.	Annually till 2016	<b>SBG</b> , SWT, NE, FC, LAs
<b>Research and monitoring</b>		
3. Promote National Bat Monitoring Programme to the general public e.g. through SBG webpages, public events & publicity material.	Annually till 2016	<b>SBG</b> , BCT
4. Ensure programme of summer activity surveys. Survey at least one new site per year.	Annually till 2016	<b>SBG</b>
<b>Advisory</b>		
5. Provide information to members on how to enhance gardens, parks, allotments for bats and provide advice on managing roosts in buildings.	2012 – 2016 Annually	<b>BCT</b> , <b>SBG</b> , LAs, SWT, NT <b>SSALGA</b>
6. Actively promote good practice guidance relating to woodland/tree management by contractors.	Annually 2012-2015	<b>FC</b> , NE, <b>SBG</b> , EA



7. Disseminate good practice guidance to building/roofing contractors/architects.	2012 & 2016	<b>NE, SBG, SWT, LAs.</b>
8. Support and advise on Environmental Stewardship applications and options that benefit bats and their habitats.	Annually till 2016	<b>NE, FWAG, SWT</b>
<b>Communications and publicity</b>		
9 Update Suffolk Bat Group webpages on Suffolk Wildlife Trust website every 6 months.	Annually till 2016	<b>SBG, SWT</b>
10. Publish 'PipSpeak' newsletter 2 times per year with details of events, training, contacts etc. on website	Annually till 2016	<b>SBG</b>
11. Raise awareness of the needs of bats amongst farmers, landowners and managers and the general public e.g. undertake at least 1 promotional event each year.	Annual 2012-2016	<b>SBG, NE, SWT &amp; FWAG</b>
<b>Training</b>		
12. Continue to train new potential bat workers to ensure an adequate number are available.	Annually till 2016	<b>SBG, NE</b>
13. Develop additional skills within SBG including computer sound analysis via training events/visits. Deliver 1 training event each year	Annually until 2016	<b>SBG, BCT</b>

## Monitoring the Action Plan

This Biodiversity Action Plan will be monitored and reviewed by the SBP Coordinator and the Suffolk Bat Group every five years.

## Success highlights

- SBG has carried out field surveys over the last 6 years targeted towards sites with high potential barbastelle suitability. This has enhanced the level of knowledge regarding this species in the County considerably and, of course, other bats on these important sites.
- SBG undertakes a programme of surveys including summer activity surveys, winter hibernation counts and bat box checks. Members of Suffolk Bat Group also participate in the Bat Conservation Trust's National Bat Monitoring Programme surveys such as the Daubenton waterway surveys.
- SBG acts as a focus for bat information exchange and knowledge; in 2007 the group delivered a bat conference in Suffolk attracting over 100 attendees & assisted BCT with regional conference in Jan 2010

- SBG is also supporting a number of innovative bat hibernacula projects in the County, creating purpose built roosts and/or converting existing structures to make them attractive to hibernating bats. SBG are participating in the monitoring of these structures.
- Training programme for volunteer batworkers – there are now 20 licensed batworkers for NE roost visits.
- Licensed batworker visits

## Abbreviations

BCT	Bat Conservation Trust
EA	Environment Agency
FC	Forestry Commission
FWAG	Suffolk Farming and Wildlife Advisory Group
LAs	Local Authorities
NE	Natural England
NT	National Trust
SBG	Suffolk Bat Group
SBP	Suffolk Biodiversity Partnership
SBRC	Suffolk Biological Records Centre
SSALGA	Suffolk Society of Allotment and Leisure Gardeners Association.
SWT	Suffolk Wildlife Trust

## References and further information

Bat Conservation Trust - species information leaflets and photo library ([www.bats.org.uk/](http://www.bats.org.uk/))

Bullion, S. (2009) The Mammals of Suffolk. Suffolk Wildlife Trust and Suffolk Naturalists' Society

Suffolk Biodiversity Partnership ([www.suffolkbiodiversity.org](http://www.suffolkbiodiversity.org))