

## NORFOLK BIODIVERSITY ACTION PLAN

### BROWN LONG-EARED BAT (*Plecotus auritus*)

### NOCTULE BAT(*Nyctalus noctula*)

### SOPRANO PIPISTRELLE (*Pipistrellus pygmaeus*)

Ref: 1/S30	Tranche 1	Species Action Plan 30
Plan Author:		Norfolk County Council (Catherine Greenhough)
Plan Co-ordinator:		Communities and Nature Topic Group
Plan Leader:		Norwich Bat Group
Date:		4 June 2009
Stage:		Final

Brown long-eared bats can be distinguished from all other bats by their enormous ears, which measure  $\frac{3}{4}$  the length of their body. They are a medium-sized bat, weighing from 6-12 grams. Brown long-eared bats are associated with open woodland and parkland and are heavily reliant on dwellings for roost opportunities.

Noctules are the largest bats in the UK, weighing from 18-40 grams with a wingspan of 330-450 mm. They occur in a range of habitats and feed in the open, often over trees. Noctules roost almost exclusively in trees.

Soprano pipistrelle bats are one of the smallest bats in the UK, weighing 4-8 grams. They form the largest maternity colonies of all UK bats (500-700 bats are not uncommon). Soprano pipistrelles have a strong affinity for riparian habitats for foraging and are heavily reliant on buildings for roost opportunities.

This grouped action plan addresses the needs of brown long-eared, noctule and soprano pipistrelle bats. However, the actions proposed apply to all 12 bat species resident in Norfolk (**Table 1**) because:

- All bat species and their roosts are equally protected by law;
- The conservation problems faced by all bats are believed to be generally similar, so measures proposed here are likely to be of benefit to a number of species; and
- Those organisations and individuals currently concerned with the conservation of bats deal with all species.

**Table 1.** Bats recorded in Norfolk (based on NBIS bat records, 2009)

Common name	Latin	Comments
Barbastelle	<i>Barbastella barbastelles</i>	Likely significant population
Brown long-eared	<i>Plecotus auritus</i>	Second most common bat in Norfolk <sup>1</sup>
Noctule	<i>Nyctalus noctula</i>	
Serotine	<i>Eptesicus serotinus</i>	
Leisler's	<i>Nyctalus leisleri</i>	
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	Under recorded
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Most frequently recorded bat in Norfolk <sup>1</sup>
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	Rarest bat breeding in Norfolk <sup>1</sup>
Daubenton's	<i>Myotis daubentonii</i>	Third most common bat in Norfolk <sup>1</sup>
Natterer's	<i>Myotis nattereri</i>	
Whiskered/Brandt's	<i>Myotis mystacinus/Myotis brandtii</i>	Brandt's bat was not recognized as separate species in Britain until 1970 (Harris <i>et al.</i> 1995).

## 1. CURRENT STATUS

### National Status

- Brown long-eared bats are common and widespread throughout Britain and Ireland except for the Scottish islands (Richardson, 2000). The UK population is estimated to be around 245,000 individuals (JNCC, 2007). The conservation status of this species is favourable (JNCC, 2007).
- Noctule bats are restricted to England, Wales and south-west Scotland (Richardson, 2000). The UK population is estimated to be around 50,000 individuals (JNCC, 2007). The conservation status of this species is unknown (JNCC, 2007).
- Soprano pipistrelle bats are common and widely distributed across Britain and Ireland, although they are more common in Scotland and parts of Ireland (Richardson, 2000). The UK population is estimated to be 1,300,000 individuals (JNCC, 2007). The conservation status of this species is unknown (JNCC, 2007).

### Norfolk Status

- Brown long-eared bats: Norfolk Biodiversity Information Service (NBIS) holds over 500 records of this species dating back to 1897. Brown long-eared bats appear to be distributed throughout Norfolk. There are, however, no records of this species towards the west of Norfolk (although this may simply be a reflection of recording effort rather than an absence of the species). **Figure 1** illustrates the distribution of brown long-eared bats in Norfolk.
- Noctule bats: NBIS holds over 400 records dating back to 1896. From these records, this species appears to be less widely distributed than brown long-eared bats but again this may be simply a reflection of recording effort. **Figure 2** illustrates the distribution of noctule bats in Norfolk.
- Soprano pipistrelle bats: NBIS holds around 160 records, dating back to 1998. No records for this species exist prior to this date because the common pipistrelle *P. pipistrellus* and soprano pipistrelle were considered the same species. It is likely that the soprano pipistrelle species is under-recorded in Norfolk. **Figure 3** illustrates the distribution of soprano pipistrelle bats in Norfolk.

## 2. CURRENT FACTORS IN NORFOLK CAUSING LOSS OR DECLINE

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

- Loss of significant roost sites (i.e. maternity and hibernation sites) in man-made structures and trees, 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. Of particular concern is the loss of wetlands, woodlands and grasslands, the in-filling of ditches, dykes, ponds and pools, and the increased use of pesticides as a result of agricultural intensification.
- Disturbance to, or destruction of, commuting routes resulting from the removal of hedgerows and the artificial illumination of linear features such as rivers and hedgerows.

### **3. CURRENT ACTION IN NORFOLK**

- Natural England provides free advice services about bats, primarily aimed at householders and churches, including, where appropriate, a visit by one of its bat worker volunteers. In Norfolk, the Bat Conservation Trust has been contracted to administer the 'batline' advice service.
- Organisations such as Norwich Bat Group, Norfolk Wildlife Trust and the RSPB promote bat conservation within Norfolk at events such as Wild about Norfolk.
- Norwich Bat Group, amongst other organisations, has a programme of guided walks, illustrated talks and training, and assists with the publication of articles in the local press.
- Norwich Bat Group is involved with the Count Bat Project, which aims to involve under-represented groups in bat conservation.
- Norwich Bat Group participates in national and local surveys and research, including the Bat Conservation Trust's National Bat Monitoring Programme.

#### 4. ACTION PLAN OBJECTIVES AND TARGETS

##### National

- Brown long-eared bat: No national targets have been set.
- Noctule bat: No national targets have been set.
- Soprano pipistrelle bat: No national targets have been set

##### Norfolk<sup>1</sup>

Maintain existing (minimum) range of bats in Norfolk as follows:

- Brown long-eared: 63 occupied 10 km<sup>2</sup> squares<sup>1</sup>;
- Noctule: 46 occupied 10 km<sup>2</sup> squares<sup>1</sup>; and
- Soprano pipistrelles: 27 occupied 10 km<sup>1</sup> squares.

---

<sup>1</sup> Please note that this figure will be revised following the completion of the Norfolk Bats and Roadside Mammals Survey which is being carried out from 2009 to 2010.

## Brown Long-eared, Noctule and Soprano Pipistrelle Bats – Norfolk Action Plan

NORFOLK ACTION		LEAD ACTION BY:	PARTNERS:
<b>5.1.</b>	<b>Policy and Legislation</b>		
<b>5.1.1</b>	Ensure relevant national and local biodiversity policy is included within appropriate planning documents such as the Standard Planning Application Form ('1App') for district and county councils (ongoing).	LA ecologists and officers responsible for ecological issues	NBP
	Promote the ALGE validation checklist to planners at district and county councils (ongoing).	NALGE	NBP
<b>5.2</b>	<b>Site Safeguard and Management</b>		
<b>5.2.1</b>	Identify important bat areas and distribute this information to statutory and non-statutory organisations by 2014.	NBG	NBIS
<b>5.2.2</b>	Promote best practice to all major tree surgery contractors using BCT's 'Bats In Trees' and other appropriate publications by 2012.	NCC/NALGE	LAs
<b>5.2.3</b>	Encourage appropriate habitat management for bats across the county by using Norfolk County Council's countryside grant scheme, Natural England's agri-environment schemes and the Forestry Commission's woodland grant schemes to target important bat foraging areas (ongoing).	NCC, NE, FC	FWAG
<b>5.3</b>	<b>Species Management and Protection</b>		
<b>5.3.1</b>	No action proposed.		
<b>5.4</b>	<b>Advisory</b>		
<b>5.4.1</b>	Continue offering advice to house-holders through Natural England's Volunteer Bat Workers (ongoing).	VBW	
<b>5.4.2</b>	Recruit and train two additional Volunteer Bat Workers every six years.	NE	NBG
<b>5.4.3</b>	Develop, distribute and promote a Bat Advice Note to all district and county council planners by 2011.	NBG	NE

## Brown Long-eared, Noctule and Soprano Pipistrelle Bats – Norfolk Action Plan

NORFOLK ACTION		LEAD ACTION BY:	PARTNERS:
<b>5.5</b>	<b>Future Research and Monitoring</b>		
<b>5.5.1</b>	Participate in national initiatives to monitor bats organized by the BCT (ongoing).	NBG	NBIS, BTO
<b>5.5.2</b>	Encourage householders or other roost owners to collect and submit records on their roosts (ongoing).	NBG	NE, NNNS, NBIS
<b>5.5.3</b>	Undertake a Norfolk-wide, road-based survey to establish current bat distributions by 2010 to establish meaningful baseline data.	NBG	BCT, NBIS, NNNS
<b>5.5.4</b>	Establish annual road-based surveys in order to identify population trends for Norfolk (ongoing).	NBIS	NBG, NNNS
<b>5.5.5</b>	Based on the results of the roadside survey undertaken in 2009, undertake habitat analysis of bat encounters by 2012.	NBG	BCT, NBIS
<b>5.6</b>	<b>Communications and Publicity</b>		
<b>5.6.1</b>	Maintain a co-ordinated programme of guided bat walks, attracting a total of at least 150 people annually (ongoing).	NBG	All
<b>5.6.2</b>	Maintain a programme of event attendance, illustrated talks and popular written articles in local press (ongoing).	NBG	All
<b>5.6.3</b>	Collate bat records within Norfolk and share with NBIS on an annual basis (ongoing).	NBG	NBIS
<b>5.6.4</b>	Contribute to the annual mammal report published by the Norfolk and Norwich Naturalists' Society (ongoing).	NBG	All
<b>5.6.5</b>	Publish a distribution atlas of bats in Norfolk by 2013.	NBG	NBIS
<b>5.7</b>	<b>Links with other Action Plans</b>		
<b>5.7.1</b>	Bats have a wide range of habitat requirements and should be considered in conjunction with all terrestrial Habitat Action Plans.	All BAP Topic Groups	
<b>5.7.2</b>	Actions identified within this SAP link to actions in the Norfolk Barbastelle Species Action Plan.	NE	NBSG

### **Abbreviations and Acronyms (Organisations)**

BCT	Bat Conservation Trust
BTO	British Trust for Ornithology
FC	Forestry Commission
FWAG	Farming and Wildlife Advisory Group
LAs	Local Authorities
NALGE	Norfolk Association of Local Government Ecologists
NBG	Norwich Bat Group
NBIS	Norfolk Biodiversity Information Service
NBP	Norfolk Biodiversity Partnership
NBSG	Norfolk Barbastelle Study Group
NCC	Norfolk County Council
NE	Natural England
NNNS	Norfolk and Norwich Naturalists' Society
VBW	Volunteer Bat Workers

## HABITAT MANAGEMENT GUIDELINES

*(This guidance is taken from Habitat Management for Bats (JNCC, 2001), and is a general summary as different species have different habitat requirements. For more detailed information or advice, please consult the references or contacts overleaf. For information relating to bat roosts (e.g. timber treatment and works to roosts/potential roost), please contact Natural England and/or the Bat Conservation Trust.)*

Several basic principles are relevant to the management of habitats for bats:

- **Avoid loss of suitable habitat:** This has a direct effect on the number of bats that can survive in an area, and is an important factor in the recent decline of some bat populations;
- **Avoid fragmentation and isolation of habitats:** Dividing habitats into smaller areas, or isolating them through loss of connecting features such as hedgerows, may prevent them from being used by some bats. For example, even gaps as small as 10 m may prevent bats – especially the smaller species – from using hedgerows as a route to fly between roosts and foraging areas;
- **Minimise the use of pesticides:** Herbicides and insecticides can both affect the abundance of insect prey available to bats. Reduce spray drift by expanding unsprayed field margins, create buffer zones around hedgerows, ditches and water bodies, and spray only in still conditions;
- **Prioritise protection of suitable habitat in the vicinity of bat roosts:** If a roost is known about and the species using it can be determined, then appropriate management can be undertaken to benefit the bats. Conversely, it is also important to protect *potential* roost sites such as old trees, buildings and bridges, near suitable foraging habitats.



## CONTACTS

Bat Conservation Trust  
15 Cloisters House  
8 Battersea Park Road  
London  
SW8 4BG

Helpline: 0845 1300 228  
Email: [enquiries@bats.org.uk](mailto:enquiries@bats.org.uk)  
Web: [www.bats.org.uk](http://www.bats.org.uk)

Catherine Greenhough  
c/o Norwich Bat Group

Email: [catherinegreenhough@hotmail.com](mailto:catherinegreenhough@hotmail.com)

Natural England  
Dragonfly House  
2 Gilders Way  
Norwich  
Norfolk

Tel: 01603 674920  
Email: [enquiries.east@naturalengland.org.uk](mailto:enquiries.east@naturalengland.org.uk)

Norfolk Biodiversity Information Service  
Planning and Transportation Department  
Norfolk County Council  
County Hall (Room 301)  
Norwich  
NR1 2SG

Tel: 01362 869292  
Fax: 01362 860951

Norwich Bat Group

Email: [info@norwichbatgroup.org.uk](mailto:info@norwichbatgroup.org.uk)  
Web: <http://www.norwichbatgroup.org.uk/>

## REFERENCES

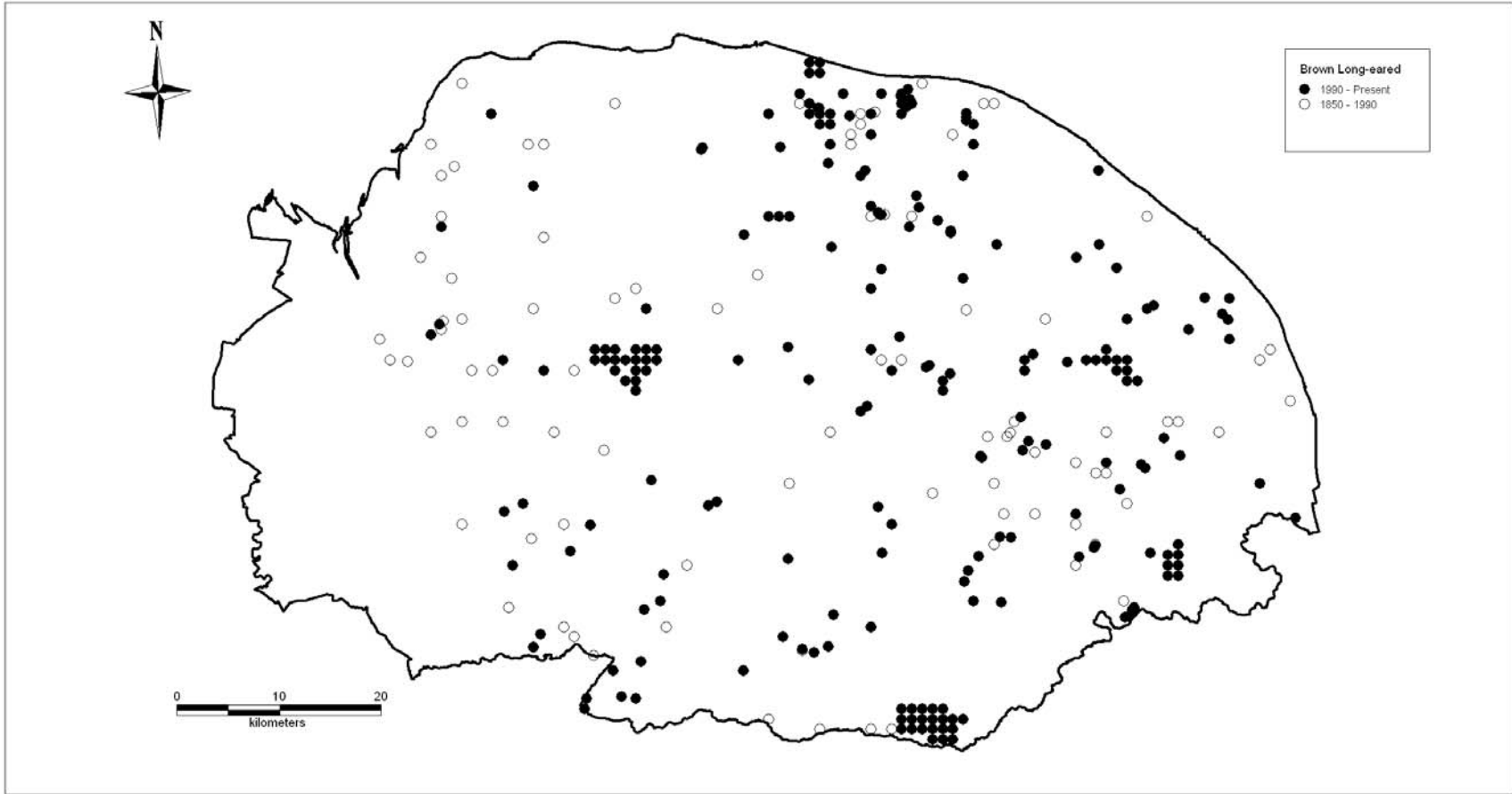
Harris, S., Morris, P., Wray S. and Yalden, D. 1995. **A review of British mammals: population estimates and conservation status of British mammals other than cetaceans.** JNCC: Peterborough .

JNCC (2001) **Habitat Management for Bats** [online] <http://www.jncc.gov.uk/page-2465> [Accessed 5 June 2008].

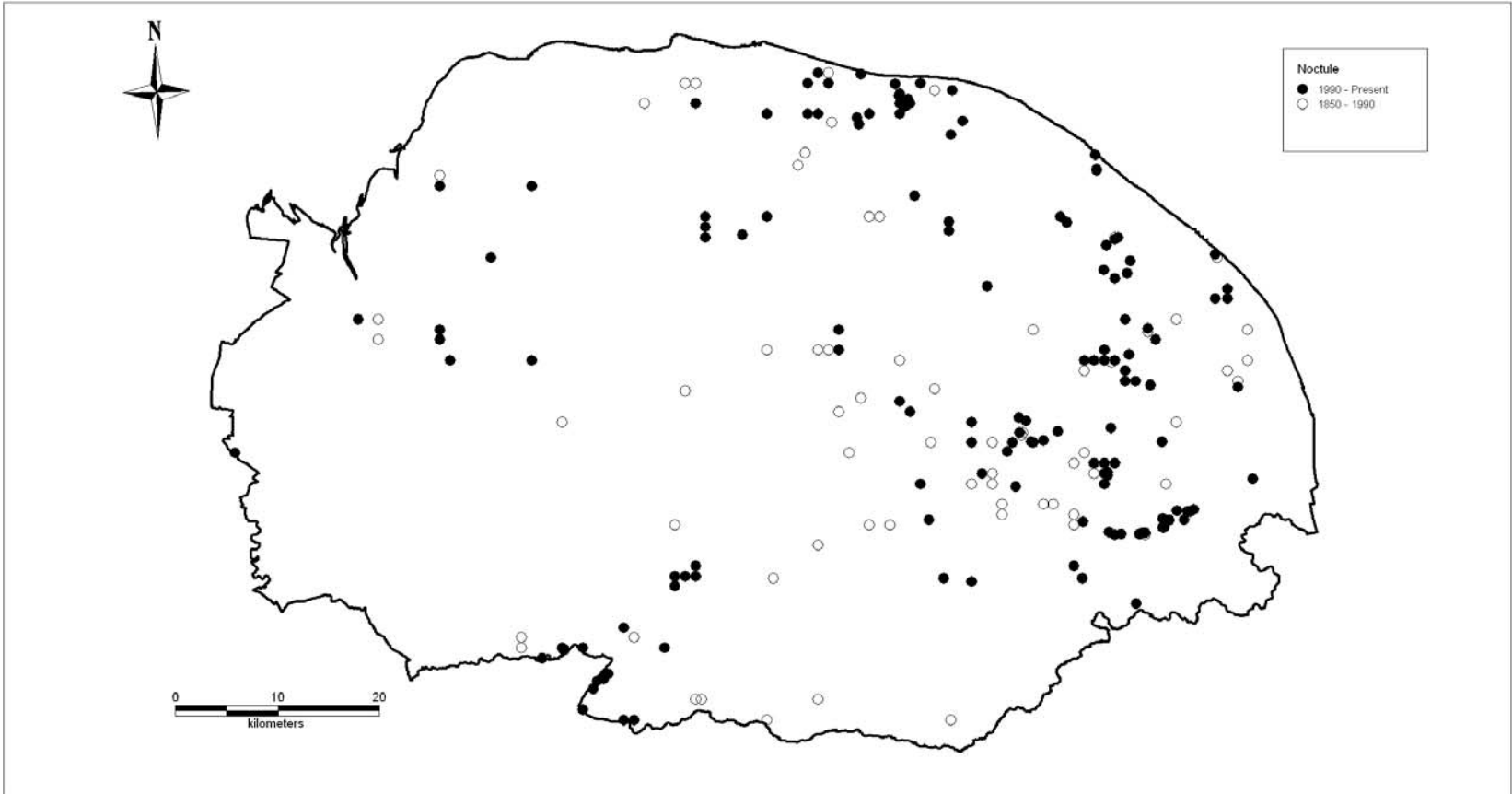
JNCC (2007) **Second report by the UK under Article 17 of the implementation of the Habitats Directive from January 2001 to December 2006** [online] [www.jncc.gov.uk/article/17](http://www.jncc.gov.uk/article/17) [Accessed 17 July 2008].

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

Figure 1. Brown long-eared bat distribution in Norfolk.



**Figure 2.** Noctule distribution in Norfolk.



**Figure 3.** Soprano pipistrelle distribution in Norfolk.

