

13 Natterer's Bat species action plan

13.1 Introduction

The basic requirements of the Natterer's Bat *Myotis nattereri* are common to all bat species. They involve the need for breeding roosts, places to hibernate and suitable feeding habitats. It is a species that can be found in broadleaf woodland, along waterways, parkland and farmland. Maternity colonies are formed during the summer months when the female gives birth to a single young during June or July. Natterer's colonies tend to be mobile and need multiple roost sites. They frequently roost in the mortise joints of old large timber-framed buildings (e.g. barns and manor houses) but will also use tree cavities and occasionally bat boxes. During the winter months the bats seek out a suitable place to hibernate usually in the small crevices that can be found in cool, humid, underground structures. They require access to feeding areas that provide a suitable number and variety of insect prey; needing to move economically and safely between roost and feeding sites along the 'commuting routes' that can be found along riparian vegetation, hedgerows and woodland edge.

13.2 Current status

Natterer's Bats are found throughout the United Kingdom but it is a scarce and poorly known species. The distribution of the Natterer's Bat is probably limited by the fragmented nature of appropriate habitat. Very few summer breeding roosts are known in the UK and

it is a rare species in Europe. The UK is the stronghold for Natterer's Bats and is probably of international importance. The UK population estimate stands at about 74000 (Speakman, 1991). This species is protected under the Bern Convention (Appendix II) and listed on Annex IVa of the EC Habitats and Species Directive; it is included under the Agreement on the Conservation of Bats in Europe (Bonn Convention) and is protected under the Wildlife and Countryside Act 1981 (Schedule 5).

In Hertfordshire, since 1990 there have been nine summer Natterer's Bat maternity roosts discovered and 25 winter roosts. During the summer, they mainly favour barns that are more than 100 years old with thick beams containing hollow mortise joints. The barns usually have open or absent doors, unimpeded flying space within the barn and are close to woodland. 50% of the listed barns used by bats in Hertfordshire had evidence of Natterer's Bats and 25% had breeding roosts of this species (Briggs, 1995). Hibernation sites used by this species locally include chalk mines, tunnels, wells, icehouses, old lime kilns, a grotto and an artificial hibernaculum.

13.3 Current factors causing loss or decline

13.3.1 Loss of roosts

The recent growth in the number of barn conversions in Hertfordshire is posing a threat. Large numbers of old barns are now redundant and being converted into luxury dwellings resulting in the loss of suitable roost sites. Many bats may be affected by timber treatment chemicals, accidentally entombed in the timbers or are driven out.

During woodland clearance schemes many old trees suitable for roosting bats may be felled or have their branches lopped particularly if they possess rot holes and are regarded as unsafe or untidy.

Many underground hibernation sites are lost to bats by demolition, infilling, closure or use for other purposes. Some may be unfavourably modified and others may suffer from excessive disturbance. A study in Norfolk showed that in 10 years, 26% of about 100

underground sites suffered loss or damage (Goldsmith, 1988).

13.3.2 Fragmentation and Isolation of habitats and populations

Fragmentation of colonies occurs if discouraged from using their traditional roosts. Isolated populations are very vulnerable with the result that breeding is unlikely to occur leading to local extinction's.

Loss and disruption of flightline features such as hedgerows can separate the roost from the feeding area causing the colony to die out. A study in the Netherlands has suggested that a break of 10 metres introduced into a hedgerow will force a similar species of bat (Daubenton's Bat) to find an alternative, uninterrupted route to a preferred feeding ground (Hutson, 1993).

13.3.3 Loss and degradation of insect-rich feeding habitats

In Hertfordshire there has been a considerable decline in wetlands, hedgerows, unimproved pastures and ancient woodland. Modern farming practices and inappropriate habitat management have caused a reduction in numbers and variety of insects available for bats.

13.3.4 Climatic factors

Natterer's bats need warm dry summers and cold wet winters. Variations in the length of the seasons such as cold wet springs and summers can cause sudden crashes in the insect population causing increased mortality following emergence from hibernation and affect their breeding success. Global warming along with excessive water abstraction may have led to the lowering of the water table. As a consequence, the humidity in underground sites may change the suitability of these sites for hibernation.

13.3.5 Disturbance

Disturbance during the breeding season may cause bats to leave the roost and abandon their young. Any structural work to a building roost site such as rewiring/plumbing an attic, re-pointing of walls, refelting

of roofs, remedial timber treatment may pose a major threat to a summer maternity colony.

Disturbance during the winter months may arouse the bats from hibernation causing them to utilise essential fat reserves. Hibernation areas used for recreational purposes in the winter lower the bats chances of survival.

13.3.6 Persecution

Since the introduction of The Wildlife and Countryside Act (1981) deliberate persecution of bats has decreased although persecution still does occur mainly through ignorance of the law.

Some people still have the mistaken perception that bats are a nuisance or even a pest. Most 'problems' stem from unfamiliarity and often have simple solutions.

13.4 Current action

The Hertfordshire and Middlesex Bat Group are carrying out ongoing investigations into the County status, habits and requirements of the Natterer's Bat. Key sites are being identified and entered onto a Geographical Information Alert System by the Hertfordshire Biological Records Centre. Some sites have been designated important Wildlife Sites and incorporated into District Local Plans.

Some planning applications are being checked for barn conversions. Planning lists are provided direct to the Bat Group by North Hertfordshire District Council, East Hertfordshire Council and Hertsmeire Borough Council.

A study conducted by Patty Briggs in East Anglia showed that 82% of the old barns with suitable features had evidence of use by bats; of these 37.5% had evidence of Natterer's Bats (Briggs, 1995).

The Bat Group continues to provide support to English Nature in its advisory capacity, and in survey, monitoring and education activities. Practical conservation management is carried out such as the protection of underground sites and creation of suitable roosting and hibernation sites.

Nationally during 1996 The Bat Conservation Trust launched the National Bat Monitoring Programme which aims to develop monitoring strategies for seven species of bat including the Natterer's Bat. The Hertfordshire and Middlesex Bat Group is providing information to assist this scheme.

13.5 Natterer's Bat Action Plan

Objectives, actions and targets

Objective 1: To clarify post 2000 status and establish base line population information on the Natterer's Bat in Hertfordshire

Target: Disseminate a current status report by 2008

Action code	Action	Target start date	Target end date	Lead partner	Other partners
NB/A/1.1	Collate all known records and map onto GIS	2004	2005	HBRC	HMBG
NB/A/1.2	Ensure all records are sent to the County Mammal Recorder		Ongoing	CMR	EN, HMBG
NB/A/1.3	Re-survey known sites (e.g. summer roosts, hibernation and potential swarming sites)		Annually	HMBG	Landowners
NB/A/1.4	Carry out standard counts at known sites		Annually	HMBG	Volunteers
NB/A/1.5	Set up a long term monitoring programme at key sites	2005	2007	HMBG	Volunteers
NB/A/1.6	Produce a current status report	2005	2008	HBRC	

Objective 2: To protect, enhance and create roost sites and suitable connecting and feeding habitats

Targets: a) Habitat usage study completed and disseminated by 2007
b) Four new roosting opportunities, in different areas, created annually

Action code	Action	Target start date	Target end date	Lead partner	Other partners
NB/A/2.1	Strengthen the planning system for barns, listed properties and timber framed house surveys, through provision of information	2004	Ongoing	HBRC	LA's, EN
NB/A/2.2	Conduct a habitat usage study so that Natterer's Bat main habitat requirements can be identified	2005	2007	HBRC	HMBG
NB/A/2.3	Create more roosting opportunities through trialing artificial mortise joints and provision of boxes suitable for Natterer's Bat		Ongoing	HMBG	Volunteers, licence holders

Objective 3: To raise awareness among key audiences, specifically landowners, planners, architects and churches

Target: To hold one seminar for key audiences annually

Action code	Action	Target start date	Target end date	Lead partner	Other partners
NB/A/3.1	Disseminate BCT leaflets whenever possible	2004	Ongoing	HBRC	EN, BCT
NB/A/3.2	Provide occasional seminars on general bat issues to key audience	2005	Annually	HMBG	Consultants

Relevant Action Plans:

Hertfordshire Plans

Farmland; Woodland; Wetlands

National Plans

Ancient and/or species-rich hedgerows; Lowland mixed deciduous woodland; Rivers and streams Habitat Statement

Abbreviations (Partners)

BCT – Bat Conservation Trust

CMR – County Mammal Recorder

EN – English Nature

HBRC – Hertfordshire Biological Records Centre

HMBG – Hertfordshire and Middlesex Bat Group

LA's – Local Authorities

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