

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 74,000 (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 9 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 Environmental 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, East Hertfordshire District and Hertsmere District.

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 Bat Group is providing information to assist this scheme.

13.5 NATTERER'S BAT ACTION PLAN OBJECTIVES

To clarify the current status of the Natterer's bat in Hertfordshire

To maintain or improve the existing population of Natterer's bats in Hertfordshire.

To continue to increase our knowledge of the ecology and behaviour of the Natterer's bat in Hertfordshire and maintain and enhance the habitat conditions which this species requires.

To maintain and improve the advisory system for bats.

13.6 PROPOSED ACTION

13.6.1 Policy and Legislation

N1. Since studies have shown that listed barns are likely to be used by Natterer's Bats, lobby for mandatory bat surveys for listed barns as part of the process of planning application.

Action: HMBG, LA's.

N2. Lobby for greater protection for bat feeding areas.

Action: HMBG, BCT.

13.6.2 Site Safeguard and Management

N3. Ensure all Natterer's key areas are recognised and protected in Local Plans at the next review, through the Wildlife Sites system.

Action: LA's, HERC.

N4. Ensure that all planning applications affecting bat sites take into account their conservation importance. Where bats are known or suspected to roost in a site, the applicant should be obliged by the Local Planning Authority to provide sufficient information concerning the population, evaluation of the importance, assessment of impact and proposals for mitigation.

Action: LA's.

N5. Safeguard the integrity of roosting sites and seek appropriate management of all occupied sites by year 2000.

Action: HMBG.

N6. Seek to maintain and enhance foraging habitats and key landscape feature between roosting and foraging sites. Identify priority areas for action by 2000.

Action: HMBG, HMWT, CMS, FWAG.

13.6.3 Species Management and Protection

No action proposed.

13.6.4 Advisory

N7. Ensure advice is available for all relevant authorities, landowners and managers, by 1998, on appropriate management of foraging habitats and conservation and improvement of roosting areas, including tree roosts as well as buildings and underground sites.

Action: HMBG, BCT.

13.6.4 Research and Monitoring

N8. To continue a monitoring programme, to monitor activity at all known roost sites, both in summer and winter using the monitoring and survey techniques in line with the methods of the National Bat Monitoring Programme.

Action: HMBG.

N9. To survey all listed barns in Hertfordshire (save those whose listing is consequent upon the barn being within the curtilage of another listed building) for the presence of bats by the year 2000.

Action: HMBG, HERC.

N10. Investigate the movements of Natterer's bats to and between foraging areas to identify key commuting landscape features, by 2000. Recruit and train fieldworkers to enable this survey work.

Action: HMBG.

N11. Identify other sites that may prove suitable for use by Natterer's bats through ongoing survey work.

Action: HMBG.

13.6.6 Communication and Publicity

N12. Increase awareness that bat roosts (even when the bats are not in residence) and their roost access points are protected under the Wildlife and Countryside Act (1981) as well as the bats themselves.

Action: HMBG, BCT, LA's.

N13. Ensure continued public awareness of the species through talks and events. Target: 3 talks/events annually.

Action: HMBG.