



REVISED PLAN FEBRUARY 2016

BATS

1. INTRODUCTION

Eighteen species are currently known in Britain and over half of these have been recorded in the sub-region. Each species has its own ecological niche, but they share certain basic features and requirements: insect-rich feeding habitat; summer roosting sites and winter hibernation sites.

Bats forage where insects are most abundant: woodlands (especially broad-leaved), over ponds, lakes and slow flowing water, meadows and along the margins between these habitats such as hedgerows with trees. They also use tall, overgrown shrubby hedges especially if they overhang to some extent as height and shelter are both critical in producing the right microclimate for insects and, therefore, for bat feeding. Ideally shrubby hedgerows should ideally be cut on a 2-3 year rotation. Any in-fill planting or new hedgerow planting should include trees.



Whiskered bat © Paul Elliott

Bats are generally most abundant where these habitats are unpolluted (although there is some evidence that Daubenton's bat hunts in greater abundance below sewage discharge points) and are managed to maximise general species richness. Some species are aerial hawkers (e.g. pipistrelle species), some glean their food from vegetation (e.g. brown long-eared) and others take most of their food on the ground (e.g. lesser horseshoe).

There is good evidence that the smaller species rely on linear landscape features, such as hedgerows, to commute from their roost sites to foraging areas. A place where a bat resides is termed a 'roost'. Although bats are loyal to their roosting sites, bats are a dynamic species and will utilise different roosts at various times of the year based on their requirements at any given time.

Bats are active from spring to late autumn during which time they occupy summer roosts. These vary in size, from solitary males to maternity colonies composed mostly of females and their single pups. Maternity colonies are usually present around June to August and may comprise anything from half a dozen to several hundred females and their young, depending on the species. Summer roosts are usually found in trees or buildings with suitable features, such as holes, cracks, crevices or large voids, dependant on the species requirement. Bats make use of all sorts of built structures, including houses, churches, farm buildings and bridges.

During the winter months insects are in short supply and bats enter hibernation. During this time they need a site that is safe from predators, with a high humidity, at a low temperature (ideally 4⁰C) but frost-free. Such sites are often underground (e.g. caves, mines, grottoes) but hibernating bats are also found roosting at sites that can be used all year round such as stone walls, wall cavities, beneath roofing tiles or in other crevices in buildings and in substantial tree hollows.

Although bats represent a significant portion of the British mammal fauna they are under-recorded; what data exists indicates that the populations of most species have suffered

severe declines in the post-war decades. Some bat species will happily live in urban and suburban areas of the sub-region, feeding in gardens and parks. Others are associated with areas of woodland and other semi-natural habitats. The Daubenton's bat, for example, feeds almost exclusively over water and so is associated with lakes, ponds, rivers, reservoirs and canals. The lesser horseshoe bat needs a roost site with an entrance large enough to fly through and easy access to broad-leaved woodland.

The following species have been identified in the sub-region:

Species	Habitat requirements
Common Pipistrelle	Feeds in gardens, parks, woodland and hedgerows. Roosts in tree holes, buildings
Soprano Pipistrelle	Feeds in gardens, parks, woodland and hedgerows, especially near rivers and other water features. Roosts in tree holes, buildings
Nathusius' Pipistrelle	Feeds in woodlands (deciduous and pine) and parks. Roosts in trees holes or cracks, rarely in buildings
Brown Long-eared	Woodland. Roosts in trees and buildings with large roof voids close to woodland. Often roosts in churches and barns.
Noctule	Feeds above woodland and over meadows, parkland and rivers etc. Roosts almost exclusively in tree holes
Daubenton's	Feeds almost exclusively over water. Roosts in trees and buildings (including bridges) near water
Whiskered	Feeds mainly in woodland. Roosts in trees and buildings
Brandt's	Feeds mainly in woodland. Roosts in trees and buildings
Natterer's	Feeds mainly in woodlands. Roosts in trees and buildings, especially in large joints in old timbers
Leisler's	Feeds in similar habitat to noctule. Roosts in tree holes but also in buildings.
Serotine	Feeds in similar habitat to noctule. Roosts in trees and frequently in buildings, especially under ridge tiles.
Barbastelle	Feeds and roosts in woodland.
Lesser horseshoe	Feeds over unimproved pasture near rivers and woodland. Mostly roosts in buildings with access points large enough to fly through.

The following species may also be present:

Bechstein's
Alcathoe's

2.	OBJECTIVES	TARGETS
All the ' <i>Habitat</i> ' Action Plans are relevant to bats		
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS		
A.	Maintain extent, maintain / improve condition and where possible restore the available/important feeding habitats and associated flight lines.	2020
B.	To increase population size and range by maintaining and increasing opportunities for roosting (particularly in buildings, trees and underground sites) as maternity roosts, hibernation roosts and as roosts for other purposes.	2020
C.	Establish a programme to monitor populations at key sites in Warwickshire, Coventry & Solihull to supplement data from the National Bat Monitoring Programme.	2016

3. NATIONAL BAP OBJECTIVES & TARGETS

Six of Warwickshire's bats are on the current UK Biodiversity Action Plan (BAP) Priority Species list published in 2007 ([Joint Nature Conservation Committee](#)). The targets and objectives for the BAPS, updated in 2010, may be seen online:

- [Barbastelle bat](#) BAP
- [Lesser horseshoe bat](#) BAP
- [Bechstein's bat](#) BAP
- [Brown long eared bat](#) BAP
- [Noctule bat](#) BAP
- [Soprano pipistrelle bat](#) BAP

4. CURRENT STATUS

Historically, bats have undergone severe declines. In a survey conducted by the [London Bat Group](#) between 1978 and 1993 they estimated that the pipistrelle bat population (which covers three of the 18 species) had decreased by at least 70%. Bat populations studied in the [National Bat Monitoring Programme](#) (NBMP) over the last ten years appear to have been relatively stable with the overall trend weakly positive (NBMP Population Trends, 2008). Currently there is inadequate data on the population levels of bats in Warwickshire and trends are difficult to monitor, although anecdotal evidence suggests a general decline.

Status within Warwickshire is as follows:

Common pipistrelle	Common, widespread, not threatened
Soprano pipistrelle	Common, widespread, not threatened
Nathusius' pipistrelle	Rare, restricted, endangered

Brown long-eared	Common, widespread, not threatened
Noctule	Common, widespread, not threatened
Daubenton's	Frequent, widespread, vulnerable
Whiskered	Frequent, widespread, vulnerable
Brandt's	Frequent, widespread, vulnerable
Natterer's	Scarce, widespread, vulnerable
Leisler's	Scarce, widespread, vulnerable
Serotine	Scarce, widespread, vulnerable
Barbastelle	Rare, restricted, endangered
Lesser horseshoe	Scarce, restricted, endangered

4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#) (1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through [Sites of Special Scientific Interest](#) (SSSI) designation, [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

Bats are protected nationally by the Wildlife & Countryside Act and under Schedule 2 of the Conservation of Habitats & Species Regulations. Internationally there are several obligations. Firstly, in the EC Habitats Directive all species are included in Annex IVa and lesser horseshoe, greater horseshoe, greater mouse-eared, Bechstein's and barbastelle are included in Annex II. The [Bern Convention](#) (1979) lists all UK species in Appendix III, and all except the pipistrelle are listed in Appendix II. All species are included in the [Convention on the Conservation of Migratory Species of Wild Animals](#) (Bonn, 1980) and the [Agreement on the Conservation of Bats in Europe](#) (London, 1991).

Locally, impact on bats within the planning system can be limited by activities in accordance with PPS9 ([Planning Policy Statement: Biodiversity and Geological Conservation 2005](#)) and its accompanying [Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System](#).

[Natural England](#) (NE) is the lead body on implementation of the legal protection with respect to issuing protected species derogation licences and the Police are the lead body on investigating wildlife crime.

4.2 Current Factors Affecting the Species

Legislation exists to protect bats from most threats but lack of awareness and difficulties enforcing the legislation often leads to the consultation process being ignored. It is the

combination of these that appears to have led to such severe population declines. Threats include:

- **Loss of summer roosts** - e.g. roof repairs, cavity wall insulation, barn conversions, replacement of hanging tiles, replacement of fascia and barge boarding, felling or surgery to trees with holes and crevices; repairs to bridges
- **Loss of hibernation sites** - e.g. blocking of caves and capping of mines, heating of cellars.
- **Loss of and degradation of foraging habitats** - e.g. changes in land use, loss of woodland, destruction of ponds, reduction and contamination of the insect population by insecticides.
- **Loss of linear landscape features**, in particular hedgerow removal, which can isolate a colony from its main foraging habitat.
- **Use of timber treatment pesticides**, many of which are toxic to bats.

5. LOCAL ACTION

- Regular surveying and monitoring is being developed. [Warwickshire Bat Group](#) (WBG), Coombe Country Park rangers and interested individuals contribute to the National Bat Monitoring Programme (co-ordinated by the [Bat Conservation Trust](#)) at a number of sites across the County.
- Public awareness and educational activities are undertaken to improve the understanding and tolerance of bats. Various groups including the Warwickshire Bat Group, Warwickshire Country Parks, Coombe Country Park, and [Warwickshire Wildlife Trust](#) (WWT) organise bat walks.
- Consultation system of NE and Bat Group volunteers to protect threatened roosts.
- Various bat box schemes are being run by the WBG at [Brandon Marsh](#), [Abbey Fields](#) and [Earlwood](#).
- Members of the WBG regularly check bat boxes at sites, not necessarily just for targeted bat species.
- Radio-tracking surveys 2009-13 by WBG, searching for the rare barbastelle bat in south Warwickshire woodland in a joint effort with Warwickshire County Council and other partners to locate roost and maternity sites, commuting routes, foraging areas, and to encourage the protection and enhancement of these habitats. Boxes were installed and are monitored.
- Bats and roadside mammal surveys – a 25 mile route is driven by volunteers each summer to obtain bat records across the county.
- A bat cave has been constructed by Hansons using the old conveyor under Pagets Lane from Bubbenhall Wood into Bubbenhall Meadows. Work carried out between 2010 - 2012 comprised the installation of a wide mesh metal grille with lockable gate and letterbox opening, internal woodwork and modified drainage / ventilation and bat boxes in adjacent woodland which are monitored annually.
- WBG monitoring of 3 known roosts of rare bat species, namely lesser horseshoe and barbastelle bat, at 3 sites in the south of the county is continuing (2012).

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

- In 2012 there were 36 HLS agreements in Warwickshire having the Schwegler Bat Box options, giving a total of 839 boxes in all.
- WBG mapping of commuting routes for barbastelle bats by radio tracking 11 individual bats around the only known roost in the county, to highlight areas for enhancement (2012-3); also to discover more about key feeding areas and new roosts. Evidence of breeding in bat boxes, erected in 2009. Habitat enhancements including additional bat boxes, creation of wildflower meadows and hedgerow planting.
- The Warwickshire Biological Record Centre (WBRC) is responsible for maintenance of bat records database, with WBG offering verification where needed.
- The Warwickshire Barbastelle Project (WBRC), using SITA Trust funding, has carried out landscape enhancement for barbastelle bats, including the erection of additional bespoke bat boxes, creation of 1ha of wildflower meadow and the addition of standard trees to existing hedgerows. The planting of 1.1km of hedges has created an improvement in connectivity (2014).
- WWT has erected 10 bat boxes in the Princethorpe Woodlands complex (2014).

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL SPECIES PLANS			
Policy, Legislation & Protection			
PL1. Continue the monitoring of planning applications.	WCC	LAs WWT	NE ongoing
PL2. Protect the 3 known populations of lesser horseshoe and barbastelle bats.	WBG	NE WWT	2015
Site / Species Safeguard & Management			
SM1. Respond to threats to roosts and important foraging habitat by survey and appropriate action.	WBG	NE LAs	ongoing
SM2. Increase the number of agri-environment schemes which include bat box options by 15 agreements.	NE	WBG	2015
SM3. Maintain, enhance and restore landscape elements e.g. hedgerows, trees, to provide flight lines, especially in locations where barbastelle and lesser horseshoe bat roosts occur, using agri-environment schemes.	NE	WBRC WWT WBG	2020

ACTION	Lead	Partners	By
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SM4. Protect potential underground hibernation sites by grilling if feasible.	WBG	NE WWT	2015
Advisory			
A1. Liaise with landowners and managers to alert them to the importance of significant roosts, feeding areas and hibernacula. Ensure that advice is available on conservation management of roosts and foraging habitat around roosts.	WBG	NE WWT FC LAs	ongoing
A2. Provide guidance on favourable management of roosts and foraging habitats where needed.	NE	BCT WBG WWT	ongoing
A3. Promote and develop good practice in consultation with the building industry, tree surgeons, foresters, highway department, vets, pest control firms, including timber treatment and the use of least toxic chemicals.	BCT	WWT LAs FC NE WBG	ongoing
Research & Monitoring			
RM1. Continue the survey and monitoring of the existing local bat population for targeted species including lesser horseshoe, barbastelle, Leisler's, serotine and Nathusius' pipistrelle, and expand survey wherever possible.	WBG	WWT CRT WCC	ongoing
RM2. Identify potential roosts for targeted species.	WBG	NE WWT	2016
RM3. Identify and survey potential underground hibernation sites.	WBG	NE WWT	2015
RM4. Contribute bat records to BCT predictive mapping project for all UK bat species and use the outcome to target areas for surveying to support RM1 .	WBG	WBRC	ongoing
RM5. Continue to monitor bat boxes at key sites in Warwickshire, Coventry & Solihull and contribute records to the WBRC.	WBG	WBRC	ongoing
Communication & Publicity			
CP1. Increase public awareness of bat ecology and conservation via the delivery of bat walks, bat talks and stands at public events.	WBG	WWT NE WCC	ongoing

ACTION	Lead	Partners	By
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CP2. Support training schemes for volunteer bat workers.	WBG	BCT NE	ongoing

Abbreviations: BCT – Bat Conservation Trust, FC – Forestry Commission, LA – Local Authority, NE – Natural England, WBG – Warwickshire Bat Group, WBRC – Warwickshire Biological Record Centre, WCC – Warwickshire County Council, WWT – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Results will be entered onto the national Biodiversity Action Reporting System BARS. Progress with this plan up to 2008 can be seen at www.warwickshirewildlifetrust.org.uk/LBAP.

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9. FURTHER INFORMATION

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[Bat Conservation Trust](#) Helpline Tel: 0845 1300 228

Bat Conservation Trust: [Woodland management for bats](#).

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10. CONTACT

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[Warwickshire Bat Group](#) - click on 'Contacts' on the left hand side.