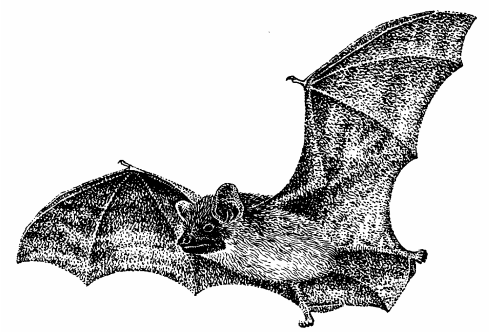
BATS

DESCRIPTION

General Ecology



Nine of the bat species found in the UK have been recorded in Greater Manchester. Bats have one baby each year and females gather together during the summer in warm, clean, draft free maternity roosts to give birth. The young are generally born in June and are dependent on their mothers for approximately six weeks. When the youngsters are able to hunt independently the summer maternity colony is dispersed. In autumn male bats roost singularly and are visited by small numbers of females in order to mate. The females then store the sperm inside their bodies until spring, when they become pregnant. Bats hibernate during the winter in cool, humid places with stable conditions. Therefore, they require different sites for summer and winter roosting.

In the UK, all species of bat are insectivorous and the adults will feed wherever insects occur. They particularly favour woodlands, their edges and the rides within them, hedges, unimproved pasture/parkland, sheltered gardens and areas where there is standing or flowing water, usually with native shrubs and trees adjacent. Bats follow linear landscape features such as lines of trees, hedges and waterways in order to commute from their roost sites to their feeding grounds. They also use these features to navigate between feeding areas and alternative roosts. Bats use a range of feeding sites over the course of a night and concentrate on different feeding sites on different nights according to the weather conditions and insect availability.

Key Habitats

Different species of bat have differing habitat requirements but in general terms the following apply:

Summer roosts – Tree holes, external features on buildings, weatherboarding, beneath slates and beams, roof voids, cavity walls, bridges and under ivy.

Winter roosts – Cavities with stable temperature and humidity e.g. tree holes, walls, bridges, culverts, mines and caves.

Autumn roosts – As summer but also includes caves and mines.

Feeding habitat – Woodlands, their edges and the rides within them, hedges, unimproved pasture/parkland, sheltered gardens and areas where there is standing or flowing water, usually with native shrubs and trees adjacent.

Commuting routes – Lines of mature trees, hedges and waterways.

Management Requirements

Bats use a wide variety of habitats and use different habitats depending on the time of year. They are, therefore, dependent on conditions being favourable in all of these.

BATS

CURRENT STATUS

International

Bats are believed to have declined in many parts of the world in recent years.

National

All species of bats are believed to be under threat in UK. Estimates from the National Bat Colony Survey suggest that the population of pipistrelle bat, for example, has declined by approximately 70% between 1978 and 1993. The pipistrelle bat is a UK BAP Priority Species. All other species of bat that occur in Greater Manchester are considered of conservation concern in the UK.

Greater Manchester Resource and Distribution

Population levels of bats in Greater Manchester are inadequately known and as yet, there is little information on trends. There is generally thought to be a decline in bats across Greater Manchester although in some areas anecdotal evidence suggests there may be a slight increase due to reduction in pollution levels, but there is no hard evidence for this.

All bat species are considered to be of conservation importance in Greater Manchester.

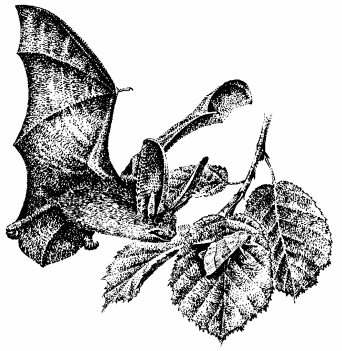
Pipistrelle – Information on pipistrelle bats is confused by the fact that recently two separate species (P*ipistellus pipistellus* & *Pipistellus pygmaeus*) have been found. Historic data (i.e. before the split) indicates that the pipistrelle occurs in all ten districts of Greater Manchester. Information on the separate species indicates that *P. pistrellus* may be the more common of the two.

Serotine – Manchester and Stockport with unconfirmed records in Bury.

Daubenton's – Probably occur in all ten districts of Greater Manchester. The species benefits from the high concentration of mill lodges in Greater Manchester.

Whiskered – Wigan, Bolton, Bury, Rochdale, Manchester, Trafford, Stockport & Tameside. It is not confirmed in Salford.

Natterer's – Bolton and may occur in Wigan and Oldham although this is not confirmed.



Leisler's – Trafford and possibly Manchester.

Noctule – Wigan, Bolton, Bury, Rochdale, Salford and Trafford. Appears to be in decline in Greater Manchester.

Brown long-eared – Wigan, Bolton, Bury, Salford, Trafford and possibly Rochdale and Manchester.

Legal

All bat species are protected by European and listed on Appendix III of the Bern Convention, Appendix II of the Bonn Convention and Annex IV of the Habitats Directive (1992). They are also protected in England under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations 1994 and Schedule 5 & 6 of the Wildlife and Countryside Act 1981 (as amended). As such, they are a material consideration in determining planning applications.

A licence is required to be able to handle bats and enter roost sites.

CURRENT FACTORS AFFECTING THE SPECIES

International

Unknown.

National

- Reduction of insect prey abundance, due to high intensity farming practice and inappropriate riparian management.
- Loss of feeding habitats in general to development (housing and roads).
- Loss of insect rich feeding habitat and flyways due to loss of wetlands, hedgerows and other suitable prey habitats.
- Loss of summer and winter roosting sites in buildings, caves, bridges and old trees.
- Disturbance and destruction of roosts, including loss of maternity roosts due to demolition, renovation work and the use of toxic timber treatment chemicals.
- Deliberate exclusion from house roosts, both legally and illegally.
- Deliberate killing of roosting bats when their presence is unwelcomed and through acts of vandalism.

Greater Manchester

In addition to the above factors affecting bats, those listed below are particularly relevant to the Greater Manchester area. The negative factors are those that are thought to contribute to the decline of bat populations. The positive factors are those measures that may already be assisting in the conservation of the species:

Positive factors	Negative factors
Some bat habitats are included within SBIs which afford some protection to inappropriate development through the statutory planning process.	***Summer roosts:*** Destruction of roosts through renovation in houses including painting barge boards, replacing with UPVC and re-roofing.

BATS

Positive factors	Negative factors
	Summer roosts (continued):
The legal protection of bats make it illegal to "intentionally or deliberately kill, injure or capture bats"; "deliberately disturb bats (whether in a roost or not)" and "damage, destroy or obstruct access to bat roosts". Therefore, a bat survey is required when development is planned where structures or habitats exist that may be bat roosts.	Exclusion of bats from their roosting places by obstruction of roost entrances.
Adoption of Bolton BAP as Supplementary Planning Guidance in which there is an action plan for bats.	Re-pointing of bridges. Conversion of barns to dwellings.
	Felling of mature trees
	The inappropriate use of insecticide and rodenticides.
	Use of timber treatments at inappropriate times or inappropriate ways, even "bat friendly" products.
	Deliberate disturbance by leaving lights and radios on to deter bats from roosts. This is a serious problem for nursing females.
	Winter roosts:
	Repointing of walls containing cavities Felling of mature and dead trees
	Demolition of walls/buildings/bridges and culverts when bats are hibernating.
	Autumn roosts:
	As summer roosts although bats are less vulnerable once their young are independent and when they are not hibernating.
	Feeding habitat/commuting routes:
	Direct loss through development
	Direct loss through inappropriate management e.g. intensive management of roadside verges and parkland, removal of standing dead wood and decaying, trees and removal of scrub.
	Intensification of farming practices e.g. increased field size resulting in loss of field boundaries, use of pesticides and use of worming products.

LONG TERM TRENDS AND POTENTIAL THREATS

All roost sites

- Accelerating loss of traditional roost sites in older buildings especially barn conversions.
- Increased pressure from development.
- Intolerance of roost owners to the presence of bats.

Feeding habitat/commuting routes

- Increased pressure from development.
- Many pipistrelle colonies depend on scrub that has developed on "derelict" sites in conjunction with residential gardens.
- Loss of mill lodges (which particularly affects Daubenton's).
- Effects of climate change are uncertain but possible scenarios include both positive and negative effects. Change may have advantages in that insect prey such as midges could increase as the climate gets wetter but temperature changes could also have a negative impact on hibernation survival.

CURRENT ACTION

National

- The National Bat Colony Survey has monitored many roosts since 1978.
- DEFRA is funding a National Bat Monitoring Programme which is carried out by the Bat Conservation Trust and volunteers.
- Research into bat distribution and habitat preference is being undertaken by JNCC and others.

Greater Manchester

- The South Lancashire Bat Group (SLBG) works across most of Greater Manchester to monitor bat roosts, feeding areas and commuting routes. In addition in November 2002 the Greater Manchester Bat Group (GMBG) was formally created which covers all of Greater Manchester. Records are lodged with Bolton Museum, but remain the property of the bat group and member concerned.
- SLBG/GMBG, English Nature Volunteers, the Wildlife Trusts and local authority ecologists/countryside staff work to promote awareness of bats to the general public, local authorities and developers.
- Projects undertaken under the auspices of organisations such as Red Rose Forest and the Mersey Basin Campaign will increase the amount of suitable habitat for bats.

BATS

OBJECTIVES

National

The only national action plan covering bats known to occur in Greater Manchester is for Pipistrelles. The national conservation objectives are:

- Maintain the existing population size of *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*.
- Maintain the existing geographical range of *P. pipistrellus* and *P. pygmaeus.*
- Restore population size of *P. pipistrellus* and *P. pygmaeus* to pre-1970 numbers.

Greater Manchester

In Greater Manchester, national targets and local aspirations have been translated into the following broad objectives:

To maintain and wherever possible increase the size and number of current colonies - making the national target species, the pipistrelle, the main focus of initial action. Consider the needs of all species present in Greater Manchester, especially those that have a particular stronghold in the area and those that are under particular threat.

Objective	Targets
Determine the current distribution of bats in Greater Manchester	Collect and collate records of bats and produce distribution map by 2004. Establish up-to-date baseline through survey.
Maintain the distribution and range of bat populations and habitats in Greater Manchester and prevent further losses and fragmentation	No further loss of bat populations or habitat from the level indicated by survey.
Increase the distribution and abundance of bats and suitable habitats in Greater Manchester without reducing the area of other valuable habitats and species	Identify the potential range for expansion by the end of 2006. Increase the number of and enhance the quality of roosting sites, feeding habitat and commuting routes with the aim of increasing bat population levels within Greater Manchester by 2010.

PROPOSED ACTION

Action	Lead Body	Timetable for Action
1. Policy		
Ensure the importance of bats and their associated habitats is recognised and protection policies are included in appropriate plans and strategies. Eg: UDP, supplementary planning guidance, Red Rose Forest, Pennine Edge Forest strategies, nature conservation/wildlife strategies.	**EN/GMEU/ LA's**	**2006**
Ensure all planning applications are adequately assessed in relation to their impact on bats' habitat: that loss or damage is avoided and that opportunities are taken for enhancement and creation. Ensure that proposed changes to licensing/derogation are fully integrated with planning application assessment where bats may be affected.	**LA's/GMEU/ WTs**	**Ongoing**
Ensure that UDPs and all other planning policy or mapping documents take full account of the UK Biodiversity Action Plan, A Biodiversity Audit for North West England and the Greater Manchester Biodiversity Action Plan. Ensure that proposed changes to the Town and Country Planning system fully integrates biodiversity requirements.	**LAs/EN/ GMEU**	**2006**
Ensure UDPs contain adequate policies for the retention of valuable wildlife habitat including bat feeding territories, ancient trees, corridors (including commuting routes) and stepping stones.	**LAs/EN/ GMEU**	**2006**
Endeavour to promote the conservation requirements of bats when reviewing and adjusting in agri-environment schemes	**DEFRA/ FRCA**	**Ongoing**
Ensure all local authorities are distributing advisory leaflets with all planning application forms.	**LAs**	**Ongoing**
Develop standard procedure for dealing with reports of bats by, for example local people, in relation to planning issues within LAs. Ensure consistency of approach across the Greater Manchester Boroughs.	**LAs/GMEU/ GMBG/SLBG /EN**	**By 2004**
2. Site and Species Safeguard		
Identify and safeguard key sites for bat roosts and foraging areas through designation of SBI and, where appropriate LNRs or SSSIs.	**GMBG/SLBG /GMEU/LAs**	**2007**
Cross reference all known roosts and foraging areas with SBIs. Record known sites onto electronic biological recording system and ideally onto Map based Geographical Information System.	**GMBG/SLBG /GMEU/EN**	**By 2004**

Action	Lead Body	Timetable for Action
Identify and secure areas for potential expansion of bat habitat to reduce isolation and fragmentation of roosting sites and feeding corridors.	**All BAP Parters**	**2006**
Contribute to the implementation of rele vant species and habitat action plans associated with bats.	**All BAP partners**	**Ongoing**
Develop and implement criteria for including roost sites, feeding habitat and commuting routes within or around SBIs.	**GMEU**	**By 2004**
Ensure that existing information on the location of all roost sites, foraging areas and commuting routes is accessible to local planning authorities.	**GMBG/ SLBG/EN**	**By 2004**
Ensure that any new information on the location of roosts and bat foraging areas is made accessible to local planning authorities.	**GMBG/ SLBG/ EN**	**Ongoing**
Ensure mitigation measures for bats in development proposals are approved as part of planning application and subsequently, appropriately licensed or derogated and implemented. Also that each Borough reports annually to the Sec State on all Derogations.	**EN/LA's**	**Ongoing**
3. Land management		
Promote and encourage positive management of bat habitat where the species is known to occur with landowners, occupiers and voluntary conservation bodies through long-term conservation management plans or agreements. Ensure guidelines widely available and accessible to interested parties.	**All BAP Partners**	**Ongoing**
Encourage retention by landowners and managers of old and dead trees that are suitable as bat roosts especially through local authority arboricultural departments and agri-environment agreements.	**All BAP Partners**	**Ongoing**
Promote planting and suitable management of hedgerows, field margins and lines of trees especially through local authority land management departments and agri-environmental agreements – monitor on annual basis.	**All BAP Partners**	**Ongoing**
4. Species Management		
Develop a co-ordinated system of training, licensing and deployment of conservation officers, planning committee members, planning officers, councillors and bat workers to ensure efficient and effective coverage across all Boroughs .	**EN/GMBG/ SLBG/ WTs**	**By 2004**

Action	Lead Body	Timetable for Action
Encourage the provision of artificial roost sites including the use of bat boxes and bat bricks in areas of good foraging habitat. Targeting should include local authority schools with mature trees, landowners with suitable trees through the TPO register, developers and private landowners through agri-environment schemes.	**All BAP Partners**	**Ongoing**
5. Advisory		
Develop and promote best practice for bat habitat management, particularly the integration of conservation management into agricultural practice. Ensure guidelines widely available and accessible to interested parties. Eg: Good Practice for the conservation and management of old and dead trees to benefit bat species.	**EN/DEFRA/ FWAG/LAs/ GM Biodiversity Project** **GMEU/EN/ GMBG/ SLBG/ WTs**	**2006** **By 2005**
Provide advice to landowners/occupiers where bats occur on appropriate management regimes sympathetic to the conservation of bat species.	**All BAP partners**	**Ongoing**
Produce and disseminate best practice guidance in form of fact sheets to the following: Building Industry/Planning Tree surgeons/Foresters/Tree Wardens Landowners and mangers Highways departments Schools House and property owners	**Relevant GMBAP Working Group**	**2006**
Establish demonstration sites to show good conservation and management practice of bat habitats.	**LA's/ WTs/ Identified by GM Biodiversity Project**	**2008**
6. Future Research and Monitoring		
1. Collate existing records and identify gaps in knowledge of bats. 2. If necessary undertake survey of bats using standardised and repeatable methodology.	**Relevant GMBAP Working Group** **All BAP Partners**	**2004** **From 2004**

Action	Lead Body	Timetable for Action
Establish and maintain a central register of all sites where species found sites including details of the condition of associated habitats and potential expansion areas. Make this information available to key partners.	**GMEU/ Bolton Museum/ Oldham Museum**	**2004**
Produce distribution map of known bat roosts, important foraging areas and commuting routes.	**GMBG/SLBG /GMEU/EN/ WTs**	**By 2004** (regularly update with new records).
Contribute to increasing information on UK bats by submitting information from GM register to National Biodiversity Network web based catalogue of survey information. Such information should also be widely available locally.	**Biodiversity Project Officer**	**When established**
Ensure participation across Greater Manchester in national initiatives for population assessment and monitoring, for example the national bat monitoring programme, and ensure that national information is fed back into Greater Manchester.	**GMBG/SLBG /EN/WTs**	**2004**
Develop and implement appropriate surveillance and monitoring programmes to assess progress towards action plan targets. Examples:	**Biodiversity Steering Group**	**2004**
Establish a baseline monitoring scheme for all bat species in Greater Manchester including all roost types, feeding habitats and commuting routes so that realistic targets can be set for increasing bat population levels and the effectiveness of efforts to do this can be properly evaluated.	**Relevant GMBAP Working Group/ GMBG/SLBG**	**2004**
Undertake surveys of Pipistrelle bat maternity roosts to determine the taxonomic status of Pipistrelle bats in Greater Manchester.	**GMBG/SLBG**	**2007**
Monitor changes to habitats or farming practises that may have implications for bats.	**GMBG/SLBG**	**Ongoing**
Continue to support the work of GMBG/SLBG.	**All BAP Partners**	**Ongoing**

Action	Lead Body	Timetable for Action
Develop links with universities and encourage research on bats and associated flora and fauna	**Relevant GMBAP Working Group/ Academic Institutions**	**2003 onwards**
7. Communication and Publicity		
Seek opportunities to raise the profile of bats in the media and improve public awareness of its wildlife and conservation value particularly amongst farmers and their advisers.	**All BAP partners**	**Ongoing**
Encourage public involvement in conservation initiatives and promote access to demonstration sites.	**All BAP partners**	**Ongoing**
Publicise existing sites demonstrating good practice in the management and conservation of bats and their habitats ensuring information widely available to landowners/managers.	**All BAP partners**	**Ongoing**
Develop a public campaign and recording initiative to identify the location of bat roosts.	**WTs/GMBG/ SLBG**	**2004**
Provide a programme of training for all ten local authorities to ensure key officers are aware of their legal obligations towards bats and how they may help to conserve them.	**GMEU/EN**	**2007**
Develop and extend current public awareness campaigns such as bat walks and to include the promotion of wildlife gardening as a means of increasing sources of food for bats in urban areas – annual.	**GMBG/SLBG /WTs/LAs**	**Ongoing**
Develop a phased programme to contact owners of known roosts and foraging areas to encourage protection and sympathetic management	**GMBG/SLBG**	**2007**
Produce press release for Greater Manchester on bats, possibly tied into conference/seminar, to include where people can get advice on bats from.	**Relevant GMBAP Working Group**	**By end of 2004**
Development and promote a "bat pack" of educational materials for use in schools and by key agencies delivering environmental education in the region.	**WTs**	**2004**
Promote best land management practice across Greater Manchester and develop communication links with land managers by holding a conference/seminar on land management issues.	**Relevant GMBAP Working Group**	**By end 2004**

BATS

Abbreviations

DEFRA	Department of the Environment, Food and Rural Affairs
EA	The Environment Agency
EN	English Nature
FWAG	Farming and Wildlife Advisory Group
GMEU	Greater Manchester Ecology Unit
GMBG	Greater Manchester Bat Group
LAs	Local Authorities
LNR	Local Nature Reserves
SBI	Site of Biological Importance
SLBG	South Lancashire Bat Group
SSSI	Site of Special Scientific Interest
WTs	Wildlife Trusts

RESOURCE IMPLICATIONS

UK BAPs

Not given

Greater Manchester

Ideally to meet the identified survey and monitoring needs and to satisfy legislation particularly in regarding to development control and checking of licences issued, a species protection officer at approximately £30,000 per year should be funded.

Possible Sources of Funding

European Life Funding
Heritage Lottery Fund
Landfill Tax
Manchester Airport

RELATED ACTION PLANS

UK BAPS

Pipistrelle bat

Greater Manchester BAPS

Woodlands
Grasslands
Ponds and Lodges
Urban

Proposed for 2nd Tranche of GMBAP: Reservoirs, Rivers and Streams, Hedgerows

Other BAPs

Oldham BAP:	Bat, Ponds, Lodges, Rivers, Hedgerows
Bolton BAP:	Bat, Ponds, Hedgerows, Grasslands, Woodlands
The North Merseyside BAP:	Bats, Woodlands, Grasslands, Ponds, Field Boundaries
Lancashire BAP:	Bats, Woodland, Grasslands, Rivers and Streams
Cheshire BAP:	Bats, Ancient and/or Species-rich Hedgerows, Woodlands, Ponds, Unimproved grassland

CONFLICTS WITH OTHER ACTION PLANS

None Identified

CONTACTS FOR BAT BAP GROUP:

Organisation	Contact	Tel. Number
Greater Manchester Ecology Unit	Suzanne Waymont	0161 342 3598
Wigan MBC	Roz Park	01942 404232
Helen Perkins		
	Alan Price	01457 810828
Greater Manchester Bat Group	Angela Graham	0161 275 3878
English Nature Bat Advice Line		01704 385735
South Lancashire Bat Group		0161 797 4745
National Bat Help Line		020 7627 8822
Greater Manchester Ecology Unit		0161 342 3596
English Nature Cheshire to Lancashire Team		01942 820342

PROPOSED REVIEW OF THE PLAN

The Biodiversity Action Plan for Bats will be reviewed in 2008, and thereafter every five years.

REFERENCES

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