

# Bats Action Plan.

<b>Scottish Biodiversity List:</b>	<b>Common pipistrelle</b>	<b>Yes</b>
	<b>Soprano pipistrelle</b>	<b>Yes</b>
	<b>Nathusius pipistrelle</b>	<b>Yes</b>
	<b>Daubenton's Bat</b>	<b>Yes</b>
	<b>Brown Long-eared</b>	<b>Yes</b>
	<b>Natterers Bat</b>	<b>Yes</b>
	<b>Noctule Bat</b>	<b>Yes</b>
	<b>Whiskered Bat</b>	<b>Yes</b>

## Summary

Bats are the only true flying mammals in the world, with at least 10 species found in Scotland with 9 known species breeding in Scotland, all of which eat insects. The numbers of bats and bat colonies have declined significantly in recent years, with some species now almost extinct. This is mainly due to loss of roost and hibernation sites, and habitat fragmentation. In North Lanarkshire 8 species have been recorded. However, it is uncertain how many of these species breed here.

Bats need consideration and protection by local communities and the local authority, especially as many roost sites are found in buildings, and may be affected by development such as building alterations. Trees, woodlands and meadows are of importance to bats. Management of woodland habitat to retain habitat corridors is important, as is the retention of older trees.

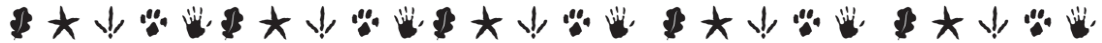
## Species Profile

### Daubenton's Bat

Rarely found away from riparian habitats, Daubenton's Bats forage over open water, taking insects from, on, or near the water surface. The main prey items are small flying insects. On rivers this species shows strong preference for smooth flowing water with tree cover on both banks. It typically forages over a short stretch of river, but their foraging site can be up to 5 - 10km from the roost. Daubenton's also feed over canals, lochs and small ponds. Summer roosts are found in tree holes, the stonework of bridges, and in buildings close to open water. Known hibernation sites are primarily in caves, mines and bridges as well as large trees.

### Pipistrelle Bat

Pipistrelles are Scotland's smallest and most common bat, most commonly associated with human habitation, often using houses for hibernation and roosting. The females roost communally and typically only give birth each year to single young. This lifestyle makes Pipistrelles very vulnerable to local extinction, especially if their roosts are destroyed. Pipistrelles are classified, as species requiring a mosaic of habitats, and as such are excellent biological indicators of the health of a wide range of habitats. Pipistrelles in Scotland are primarily found in river valleys, foraging over water and around trees. Access to these feeding habitats from their urban roost sites is essential and is made possible by linear landscape features such as hedge lines and shelterbelts, known as flyways. Pipistrelles therefore require winter and summer



roosts, wetland and watercourses in good condition and a range of terrestrial habitats enabling safe foraging conditions.

#### Brown Long-eared Bat

Brown long-eared bats are strongly associated with tree cover (Entwistle et al 1996) and select roosts within 0.5 meters of deciduous woodland. They select deciduous woodland as foraging habitat but also feed in mixed woodland and on the edges of coniferous plantations. They forage close to the roost (usually within 1.5km) and regularly use a series of sites, between which they move along flyways such as hedges or tree lines (Entwistle et al 1996). Together with pipistrelles, this is the Scottish species most closely associated with houses as summer roosts, although churches and barns are also used. Nursery colonies are occasionally found in trees and bat boxes (Boyd & Stebbings 1989). They hibernate singly or in small groups, generally within crevices (Horacek 1975). They are reported to use caves, both natural and man-made ones such as mines and quarries, and to choose relatively low temperatures (-3 to 11°C, average 7°C).

#### Natterer Bat

Natterers are a shy bat who often share their roost with other species of bat such as Pipistrelle and Daubenton and have thus been under recorded in Scotland. Nursery colonies live in occupied houses or in bridges, barns and farm buildings (about half the known roosts in Scotland are in occupied houses), but a radio tracking study in Wales has shown that about two thirds of maternity roosts are in trees (Smith 2000b). It is likely trees are also widely used in Scotland, although to date only one tree roost used by a nursery colony has been reported (Howe 1997). Within buildings, bats hide in crevices, often between end beams and gable walls, and one colony roosted deep in the cavity between a stone gable and a lathe-and-plaster wall (S.M. Swift). During hibernation they prefer cool entrance areas and can be found in mines and limestone quarries in southern Scotland (Herman & Smith 1992; Smith 2000a).

#### Noctule Bat

This is the largest bat in the UK with their head and body usually between 37mm – 48mm and their wingspan between 320mm – 400mm. They primarily roost within tree structures, however, they have been known to roost within some building structures on rare occasions. They hibernate mainly in trees or rock fissures and hollows, but have also been found in bat boxes, buildings and other man-made structures in winter. They fly above the tree canopy out in the open with most food caught on the wing. They feed on midges early on in the season and later change to beetles and moths.

#### Whiskered bat

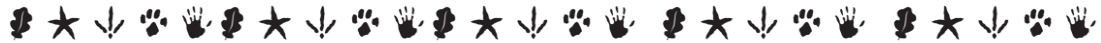
Whiskered bats often roost in buildings, trees, churches and use bat boxes within the summer months and hibernate in caves and tunnels usually in small numbers. They fly along regular routes over or alongside hedgerows or woodland edges. They feed on moths, spiders and other small insects.

### **Legal Status in Scotland**

All bats in Scotland are protected by the Wildlife and Countryside Act 1981, Schedule 6, and under Schedule 2 in Scotland is the Conservation (Natural Habitats &c.) Regulations 1994 (as amended).

This protection means that it is an offence

- Deliberately capture, injure or kill a bat



- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost

On a local level negative impact can be reduced by activities in accordance with NPPG14 Natural Heritage 1998 and PAN 60 Planning for Natural Heritage, Environmental Impact Assessment (Scotland) Regulations 1999. The presence of bats is a material consideration where a planning authority is considering a development proposal that would be likely to result in significant harm to the species.

### **Current Status**

In the UK bat species have declined considerably over the past century.

#### **Daubenton's Bat**

Daubenton's are widely spread through river valleys in North Lanarkshire. The most recent pre breeding population counts for North Lanarkshire estimated a total population of 150,000 individuals. National population levels have been classified as remaining stable over the period 1975-1995. The location of Daubenton's roosts is very hard to determine and only tree roosts have been found to date in the Council area.

#### **Pipistrelle Bat**

The most recent, pre breeding, combined Pipistrelle species population estimate for North Lanarkshire puts numbers at 2 million individuals. National population figures have been estimated at declining by between 60-70% over the last two decades of the 20th century.

Common and Soprano Pipistrelle species in North Lanarkshire represent over 90% of all recorded roosts and 95% of bats encountered by householders. As they are the bats most likely to be encountered by householders and those responsible for the upkeep of housing stock, it is hoped that an improvement of bat PR and information would aid considerably in their protection and population increase.

Nathusius pipistrelle have been recorded within North Lanarkshire at several locations though out North Lanarkshire however are still relatively scares.

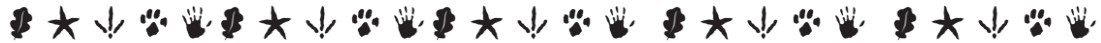
#### **Brown Long-eared Bat**

These species have a scattered distribution throughout North Lanarkshire however are not common. They have been recorded throughout North Lanarkshire within areas to the north and to the south however very few roost sites have been found.

#### **Natterer Bat**

Little is known about the current status of Natterer bat in North Lanarkshire it has only been recorded in four sites two to the far north in Kilsyth 1 around Greengairs and one bordering South Lanarkshire. They are likely to be under recorded. Under recording could be due to the fact that they are a shy, elusive and relatively quiet bat whose colonies can be overlooked in buildings, particularly when shared with other species of bat.

#### **Noctule Bat**



Noctule bat have only been recorded in a few sites in North Lanarkshire. However, all sites are wide apart from a site to the north of the region to one at the most southern point.

#### Whiskered Bat

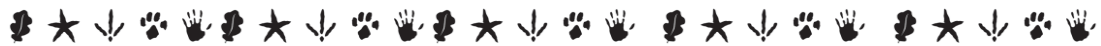
We are only aware of one record of this presence of this species within North Lanarkshire, this is to the most southern area around Garrion Gill within the Clyde Valley.

#### Current Factors Affecting This Species

- Reduction in insect prey abundance, due to high intensity farming practices and inappropriate riparian management e.g. river engineering practices, heavy grazing pressures and water pollution.  
Loss of maternity roost sites through damage or destruction resulting from factors such as a lack of public understanding of bats, and due to a misunderstanding of the legislative process, often leading to consultation not occurring with Greenspace development or Scottish Natural Heritage.
- Loss of hibernation and other seasonally important roost sites for the same reasons. These sites include buildings, trees and underground sites.
- Lighting - Illuminating a bat roost can cause disturbance (Downs et al 2003) and this may result in the bats deserting the roost or even becoming entombed within it (Packman et al 2015). Light falling on a roost access point will at least delay bats from emerging and this shortens the amount of time available to them for foraging (Boldogh et al 2007). As the main peak of nocturnal insect abundance occurs at and soon after dusk, a delay in emergence means this vital time for feeding is missed. This has been shown to have direct impacts on bats' reproductive ecology, such as slower growth rates and starvation of young (Duverge et al 2000).
- Lack of professional understanding in Housing, Arboriculture, Planning and Environment staff resulting in accidental roost destruction.
- Loss of insect rich feeding habitats and flyways, due to loss or degradation, isolation of wetlands, riparian, hedgerow and woodland habitats.
- Climate seriously affects both wintering bats and foraging females. Wet weather in spring is a major factor in reducing breeding viability in certain years.
- Predators such as Grey squirrels and cats have had an impact on a North Lanarkshire tree roosts.
- Windfarms can be an issue for bats in the UK, not only because of the risk of direct collision if turbines are placed on migration or commuting routes, but also because of displacement from foraging habitat.

#### Current Action

- Regular surveying and monitoring. National Bat Monitoring Programme
- NLC guided walks/events and information provided at shows.
- Close working relationship with Scottish Natural Heritage/BCT/Clyde Bat Group.
- Relevant training provided to CBG members and interested organisations.
- Presumption against development of SINC's in the NLC local plan. Many key bat sites are designated as SINC's.
- Appropriate mitigation on sites where development or land-use change threatens the species, is ongoing through the Greenspace Development Unit.



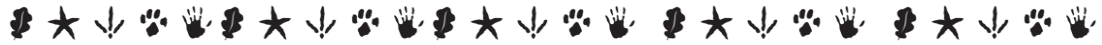
- Appropriate mitigation in the form of lighting design given in response to all new developments.
- Hedgerow enhancement and creation through planning consultations. Greenspace Development ask for this on all appropriate sites.
- Environmental statements from developments are identifying new colonies of bats.
- Provided Guidance Notes for Planners and other council departments whose activities could affect bats e.g. vets, pest control firms, building industry arboriculturists, planners, professional contractors, developers and road engineers.
- Maintain and build up a programme of publicity and education activities aimed at least 4 walks and talks per year.
- Creation of a Wildlife Tower at Drumpellier Country Park – with provisions for bats both summer and winter roosts.

## Proposed Objectives, Targets and Actions.

### Objectives

1. Maintain existing populations and range of bats in North Lanarkshire
2. Assist in the development and implementation of monitoring procedures for the identification of population trends.
3. Improve public understanding and appreciation of bats.

Action	Meets objective number	Action by	Target
<b>Site safeguard and management</b>			
1.1 Continue to encourage favourable management of land adjacent to known breeding sites to benefit foraging bats.	1	SNH, NLC, SWT	2 management plans in progress by 2024
1.2 Enhancement of underground sites to increase their suitability for hibernating bats.	1	NLC	3 sites by 2028
1.3 Enhancement of habitat by the addition of hedgerows and tree lines.	1	NLC	4 projects by 2028
<b>Advisory</b>			
2.1 Offer update training to planners and other council departments whose activities could affect bats.	1,3	NLC, SNH, CBG	By 2024
2.2 Incorporated mitigation for artificial lighting within all planning responses and design all lighting so impact will be minimised for any roosting, foraging and commuting bat features.	1	NLC	Ongoing.
2.3 Continue to Integrate bat habitat requirements into woodland management plans.	1	NLC	Ongoing
<b>Future research and monitoring</b>			
3.1 Expand on effectiveness of CBG database for bat records; feed this onto relevant organisations	2	CBG, SNH, NLC	Incorporated in to NLC GIS system. Ongoing



<b>Communications and publicity</b>			
4.1 Continue with publicity and education activities aimed at council departments, building trades, community groups, children, conservation organisations, arboriculturists and general public.	3	CBG, SNH, BCT, NLC, RSPB	One event, talk, article etc. per organisation annually.
4.2 Education programme with local school. In conjunction with purpose-built hibernacula if built in school or nearby grounds.	1,3	NLC	Annually

Updated by Kirsty Mooney Biodiversity Project Officer, NLC 2022

The Bat Conservations Trusts (BCT) – Fact sheets on individual species  
BCT - Bats and artificial lighting in the UK