



FIFE

LOCAL SPECIES

action plan

BATS



25 YEAR VISION:

Develop a proactive planning system that delivers evidence-based mitigation and protection, founded on sound monitoring.

Definition

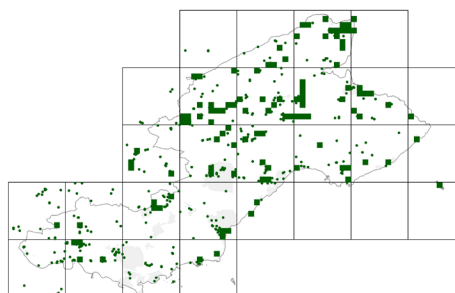
For the purpose of this action plan all species of bat regularly occurring in Fife are included:

Pipistrelle bats (*Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*): The pipistrelles are Britain's smallest bats and probably the commonest bats across Fife. The wingspan is between 180-240mm. The fur is chestnut brown with almost black wing membranes. Their flight is very jerky and usually just below head height. They can consume up to 3000 insects a night. They are the most commonly observed species, mainly because of their affinity for houses, large colony sizes and early (pre-dark) emergence times. They feed in open woodland, suburban gardens and over water. Hibernation occurs in tree crevices and buildings.

Brown Long Eared Bat: (*Plecotus auritus*): The easiest bat to identify due to its long ears, which are almost the size of its body; when at rest they tuck their ears back or roll them like ram's horns. It is a medium sized bat with broad wings that span 220 –250mm. The fluffy fur is grey-brown, yellowish in places with a lighter grey belly. They live in woodlands, parks and orchards and roost in trees and buildings, and often use the same site throughout the year. They fly slowly and erratically, sometimes close to the ground, taking prey directly from vegetation.

Daubenton's Bat (*Myotis daubentonii*): This is a medium sized bat with a wingspan of between 240-275mm. It has a paler, silver grey underside and darker brown to bronze upper body. It tends to be seen flying very low over still or slow moving water, mainly in flat countryside and around woodlands. It roosts in trees, stone buildings, underneath bridges or in crevices. They hibernate in winter in caves, mines and other subterranean sites.

Natterer's Bat (*Myotis natterii*): Medium sized with a wingspan of 245-300mm. Pale below, distinguishing features include bristles on the tail membrane and the tips of the ears are slightly curved back. Feeds by gleaning and readily occupies trees and bat boxes. Hibernates in caves and mines.



Current Status

There is insufficient survey data to accurately identify key sites. Figures below relate to all records (not just roosts) held by Fife Nature and there is little data on the current status of many roosts.

- Pipistrelles: records in FN database total 410.
- Brown Long Eared: records in FN database total 90.
- Daubenton's: records in FN database total 51.
- Natterer's: records in FN database total 37.

Key sites in Fife are difficult to identify but would include known hibernacula such as the Cults lime system, bat box schemes such as those at Tentmuir, Dura Den where very large long established house roosts of Pipistrelles are known, and Fettykill where one of the few known Daubenton roosts can be found.

Links with other policies/information

- Appendix II of the Bern Convention (1979).
- Annex IVa of the EC Habitats Directive (1992).
- Appendix II of the Bonn Convention (1979).
- Agreement on the Conservation of Bats in Europe (1991).
- Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations 1994; Schedules 5 and 6 of the Wildlife & Countryside Act 1981.
- Nature Conservation (Scotland) Act 2004.

Current Action

- The Bat Conservation Trust leaflet "Bats and Trees", which gives advice on management.
- Guidelines on Habitat Management included in JNCC's Habitat Management for Bats.
- SNH Appointed Voluntary Bat Workers.
- Bat box schemes and studies.
- National Bat Monitoring Programme.

Opportunities

- Education, monitoring, research and survey work is carried out by the Fife & Kinross Bat Group. Data collected contributes to the National Bat Monitoring Programme.



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Factors Causing Concern

- Disturbance at or in a roost either in summer or during winter hibernation can have severe effects and lead to abandonment of the roost, or death of bats.
- Timber treatment chemicals have led to the death of entire colonies and remain a persistent threat for years after treatment.
- Climate seriously affects both wintering bats and foraging breeding females.
- Loss to predators (mainly cats and owls) has been estimated at up to 11% for pipistrelles.
- Reduction in insect prey abundance, due to agricultural intensification.
- Loss of insect-rich feeding habitats and flyways due to loss of woodlands.
- Loss of winter hibernation sites due to disturbance, infilling of cave, mine and tunnel mouths.
- Loss of breeding sites due to timber treatment and building repairs.
- Loss of riparian woodland and tree lines leaving unsheltered (and thus rough) water.
- Reduction of access to foraging areas due to loss of connection between habitat (i.e. fragmentation); loss of linear landscape features (flyways) such as hedgerows and tree lines.
- Loss of roost sites due to: demolition, dereliction or renovation of stone-built waterside structures and felling of mature trees.
- EC directives regarding bridge strength leading to sealing up of roost spaces.

BATS



Objectives

Short Term	Medium Term	Long Term
<ul style="list-style-type: none"> • Protection of known sites through the planning system. • Robustly oppose any development proposal resulting in habitat loss or degradation at key roost sites, and develop toolkits for use by developers and planners to raise awareness of the needs of bats. • Develop a project to promote good land management and provision of suitable habitat, including re-establishment of linear landscape features such as hedgerows and tree lines on field margins. • Fife-wide surveys to be conducted to identify key roost sites and update data on the location and general welfare of bat colonies. • Determine through peer reviewed research, which wood preservatives are most harmful to bats (e.g.: Organochlorines), publicise this and work with developers to discourage their use in developments where bats are likely to be affected. 	<ul style="list-style-type: none"> • Prevent habitat loss and degradation at key sites. • Develop good land management practices for the benefit of bats. • Put in place an effective monitoring programme. • Work with Tayside Biodiversity Officer to develop 'toolkits' that will inform planners and developers and allow positive design features beneficial to bats to be incorporated into new developments (e.g. roost and hibernaculae features). • Use of innovative methods such as 'bat bricks' incorporated into developments to get around blocking of roosts and hibernaculae, while still allowing bat access without compromising the structure it is incorporated into. • Organise and implement an effective monitoring programme to determine if actions are having a positive effect on bat numbers and distribution. 	<ul style="list-style-type: none"> • Maintain and enhance the bat population through good habitat provision, and effective monitoring. • Continue to educate all relevant parties on the habitat requirements of bats, and how these are connected with other LBAP priority species and habitats, such as Ancient trees for example.

Action	Lead
Develop a coherent and accessible bat database to enable protection of sites.	Scottish Natural Heritage/ Fife & Kinross Bat Group
Run an education campaign to promote awareness of the needs of bats and provide boxes for roosting sites.	Fife & Kinross Bat Group
Scottish Natural Heritage & Fife & Kinross Bat group will develop three sites for survey work and raise awareness of good practice amongst planners.	Scottish Natural Heritage/Fife & Kinross Bat Group/Fife Coast & Countryside Trust/Fife Council Development Services