

Habitat Factsheet: Freshwater Sites

Introduction

This fact sheet concentrates on bat species that are present in northern Britain and their association with freshwater habitat, which includes; river, stream, lake, loch, canal, reservoir, pond, wetlands. In conjunction with any of the fore-mentioned, the presence and diversity of bankside vegetation can play a major role in how beneficial a particular habitat of this type is for bats.

The insect diversity/abundance peculiar to freshwater habitats, as well as the adjoining linear features along which bats can navigate, greatly enhances its conservation value from the perspective of bats. Many bat species are associated with feeding in proximity to freshwater habitats, and as such efforts should be made to enhance or create such areas, which will not only benefit bats, but will also be equally beneficial to the biodiversity of an area as a whole.



Habitat Requirements For Bat Species

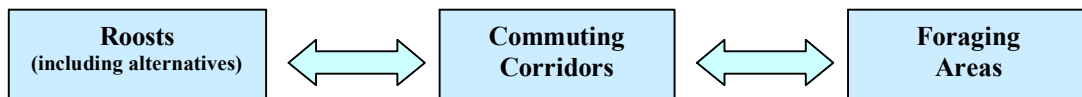
In order to sustain a viable population and indeed survive bat species require the following within their locality:

Roosting Sites - A choice of different roosts (including alternatives): In the vicinity of freshwater habitat these roosts tend to be in trees, nearby buildings, tunnels and bridges. In winter, hibernating bats may roost in trees, mines, older structures, tunnels or caves that have a stable internal environment, free from disturbance and unaffected by fluctuations in temperature or humidity.

Commuting Corridors - The presence of linear features along which bats can navigate: In this habitat the vegetated corridor created by a water course can be ideal commuting habitat. Hedgerows, tree lines, wooded paths etc. leading into the habitat from other localities will allow bats to enter and leave the area in search of other suitable roosting/foraging sites.

Foraging Sites - A healthy supply of food (insects): It is important that insect populations thrive in the area. At certain times of the year the insect diversity in such environments is greatly enhanced by the flying adults of insects which start off life as aquatic larvae (these feature heavily in the diet of some bat species i.e. Daubenton's). Calmer stretches of water with high or overhanging vegetation appears to be particularly attractive. In addition to this, on windy nights the leeward side of higher vegetation/physical features creates calmer areas within which insects can remain active and as such available for bats to feed upon. Finally, bats need open water from which to drink.

Conclusion - If any of the features shown below are not available/removed then bat populations will struggle to be successful locally.



Habitat Management

- Retain the dead/decaying sections of trees. Instead of felling, consider pollarding or careful surgery of dangerous trees.
- Reduce the impact of mowing, ploughing, fertilisers and pesticides by creating buffer zones beside water bodies/linear features.
- Maintain a balance of shaded and open areas of banking. Retain a variety of natural water body features and variation in depths. Improve water quality.
- Ensure any controlling of bankside or aquatic vegetation is done in a rotational manner and only work one bank at a time.
- Encourage native vegetation. Replant gaps in tree lines and hedgerows. Avoid fragmentation/loss of suitable habitat.
- Do not repoint stonework in bridges etc. unless absolutely necessary.
- If any work could potentially affect bat roosts then first of all consult Scottish Natural Heritage or Natural England.

Notes:

- (1) It is illegal to destroy/damage a bat roost even if bats are not present at the time.
- (2) Expert advice should always be sought so that any changes do not impact negatively upon other aspects of the environment.

Bat Species Most Strongly Associated With This Habitat:

Species	Dependency	Roost Locations	Foraging Behaviour
Daubenton's	HIGH Foraging/ Roost	Roosts in tree crevices, bridges, tunnels & buildings close to freshwater habitat.	Forages low over calm stretches of water. (confined/edge habitat) Captures insects by hawking & skimming.
Soprano pipistrelle	HIGH Foraging	Maternity roosts often in buildings. Otherwise may be found roosting in trees.	Forages in association with freshwater habitat. (edge habitat) Captures insects by hawking.
Bandit pipistrelle	MEDIUM Foraging	Maternity roosts often in buildings. Otherwise may be found roosting in trees.	Forages in all habitats (inc freshwater) (edge habitat) Captures insects by hawking.
Whiskered	HIGH Foraging	Roosts in trees & buildings.	Forages in woodland associated with freshwater habitat. (edge habitat) Captures insects by hawking & gleaning
Natterer's	MEDIUM Foraging	Roosts in trees, tunnels, older buildings with roof voids & other structures.	Forages in freshwater habitat within or adjacent to woodland areas. (closed/edge habitat) Captures insects by hawking & gleaning.
Noctule	HIGH Foraging	Roosts in trees (decaying trees or abandoned woodpecker holes).	Forages in open above suitable habitat especially near freshwater. (open habitat) Captures insects by hawking & swooping.

ECHOES Ecology Ltd

Wildlife Consultants Specialising in Bats
www.echoesecology.co.uk

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Registered Address: 25 Killin Drive, Polmont, Falkirk, FK2 0QQ