

BaTML Factsheet: A simple habitat use model for bats in the UK

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Introduction

In order to interact naturally with their surroundings, establish viable populations and indeed survive, bats need all of the following occurring within their immediate environment:

(1) Roosts

A choice of different roosts (including alternatives) for different times of the year, unseasonable changes in weather conditions, disturbance and depending on whether they are male or female. The following examples of roosting requirements are typical for most bat species in the UK:

- Maternity roosts
- Male roosts
- Harems / breeding sites
- Spring and autumn transitional roosts
- Hibernacula

Depending upon the species involved a number of these requirements could potentially occur at one site. In reality, however, more often they tend to be separate to each other, albeit in the same locality.

(2) Commuting Corridors / Flyways

Bats need to find their way to/from their roosts to feeding sites and other roosting sites. This is greatly aided by the presence of linear features along which bats can navigate and orientate themselves in the dark. This is especially true for smaller species and it has been suggested that a gap of as little as 30m in such a feature could act as a barrier to movement for some species. In addition to this, these features also can provide a degree of protection from potential predators, and can act as valuable feeding corridors allowing bats

to catch prey whilst travelling to specific foraging areas. On windy nights the leeward side of these features may not only be more attractive to bats because it saves them energy by avoiding the windy conditions, but also they can find more insect food which will also be taking shelter for the same reason. The following are examples of features used by bats whilst commuting:

- Tree lines / woodland edge
- Hedgerows
- Waterways (i.e. rivers/canals/lake shores)
- Walls
- Woodland tracks

(3) Foraging Sites

Finally bats need a healthy supply of food (insects) in order to survive. As such it is important that good healthy insect populations thrive in the environment throughout the period when bats are active and bats are able to access these.

Conclusion

If any of the above features are not available or removed from the equation then potentially bat populations will struggle to be successful. Therefore all aspects relating to these features need to be considered when the conservation of bats is on the agenda.

Habitat Use Model – Bats in the UK

The simple model shown below demonstrates the interaction between the required features. Consider all of the things that could potentially impact upon this model and hence influence the success/failure of bats within the environment.

