



BATS OF THE BATHSCAPE

Dan Merrett

There are 18 species of bat resident in Britain and 15 of them can be found in the Bathscape area, making it one of the best bat hotspots in the country.

An evening visit to almost any of Bath's larger parks will reward the sharp-eyed visitor with a view of pipistrelle bats hunting their insect prey. By listening in on their echolocation calls using a bat detector they can be split into two species, the common pipistrelle and the soprano pipistrelle. A third type of pipistrelle, the Nathusius pipistrelle, is rarer and more difficult to distinguish by its call on a standard bat detector. Though the pipistrelles are our smallest bats they Hoover up gnats as they fly and are believed to eat up to 3000 each night. They have adapted well to urban environments and favour roosting in houses, often tucking themselves away behind soffit boards or under raised tiles. They don't create holes or chew wires, but just hide away during the day in existing safe spaces beneath the warm roof.

Some years ago I recall counting over 100 soprano pipistrelles emerging from the roof of a house in the Southdown area of the city, while in the Chew Valley area there used to be a remarkable roost of over 700.

All our British bats feed on insects, whether that is midges, moths, flies or beetles, but each has its own characteristics to minimise direct competition with other species of bat. Within our parks along with the pipistrelles, our largest British bat, the noctule, is also often recorded. With its large size and long thin wings this fast flying bat has less to fear from predators such as sparrowhawks and as a consequence is more confident to emerge earlier in the evening when it is still quite light, often being the first bat to be seen. It hunts larger insects like moths and beetles and can be seen flying high in the sky around the city's green spaces. Being higher up out of our immediate vision means that the best way to locate it is with a bat detector where its loud deep calls can be heard from tens of metres away.


The noctule's call as heard on a bat detector is often described as a regular chip-chop sound, whereas a similarly large bat, the serotine, is said to resemble the erratic beat of a jazz drummer. Though rare or absent in most of the country the serotine bat is actually commonly seen in and around Bath and can be identified by sight with some practice by its large size and broad wings.

Bathscape bat walks over recent years have found it in Victoria Park, Moorfields Park and Carr's Wood, while I have previously seen several in St Catherine's Valley, South Stoke and around Smallcombe Valley.





Horseshoe bat



While noctule bats usually roost in trees (often making use of old woodpecker holes) serotine bats typically roost in houses, though in an unusual case in the Swainswick area of the Bathscape a house had serotine bats roosting in one end of the loft and noctule bats roosting in the other end. Thankfully the owner appreciated the bats and enjoyed watching them as they emerged on summer evenings.


The canal and river are especially important to our local bats, particularly in stretches where they are fringed by trees and sheltered from surrounding light. For some species they act as bat motorways allowing them to quickly and safely travel across the Bathscape whilst picking up a few choice insects along the way. Generalist species like the pipistrelle like to circle above water bodies, flying the same beat until the insect numbers are temporarily exhausted; while for specialist feeders like the Daubenton's bat, rivers are where they will concentrate their hunting throughout the night.


An evening walk along the canal on a warm dry summer's evening will almost invariably provide a sighting of bats and typically these will be pipistrelles and Daubenton's. The two bats can be told apart easily by their habit of hunting, with the pipistrelles swooping up and down to catch their prey while Daubenton's bats fly a few inches above the water plucking insects from the surface with their large hairy feet. Daubenton's bats belong to a group of bats collectively known as myotis bats which are difficult to tell apart by their echolocation call and consequently several of our local bat detector records refer simply to 'Myotis species', however the low skimming flight of the Daubenton's over water allows it to be confidently identified by sight.

A bat that is amongst the most common in number but rarely detected on bat walks is the brown long-eared bat. This woodland specialist has short broad wings which allow it to fly slowly amongst the branches of trees. As its name suggests it has large ears and because of its excellent hearing it does not need to make such loud echolocation calls as other bats. It primarily eats moths and when hunting can afford to switch off its echolocation and instead listen to the fluttering wings of the moths as it approaches them. This is particularly useful as several species of moth have hearing receptors on their bodies, attuned to the call frequencies of approaching bats, which allows them to take evasive action and fly away or land to avoid capture.

When the brown long-eared does catch a moth it often likes to take it back to a feeding perch to hang up and eat it. Church porches are a favoured place for this and moth wings and bat droppings can be found in many of our local church porches and indeed the brown long-eared is amongst the most common bats found roosting within the roofs of churches. As it is a slow flyer and ill-suited to long journeys, the mosaic of insect-rich woodland across much of our area is of particular value to this bat.

The feature of the Bathscape area that is probably of greatest value to local bats however is the geology, and specifically the historical mining of the limestone. The various old stone mine entrances around Bath are now designated as the Bath and Bradford-on-Avon Special Area for Conservation, an international designation recognising their importance at a European scale.





The mines are important winter hibernation sites for several of our local bat species and also as autumn swarming sites where bats gather in numbers to find a mate, a bit like a flying disco. The mines are particularly associated with horseshoe bats, which are a speciality of the area. There are two species of horseshoe bat, the rare lesser horseshoe bat and the even rarer greater horseshoe bat. Both species use the stone mines for hibernation but unusually can also be found roosting in some mines in the summer.

The horseshoe bats in the stone mines have been well studied in an attempt to reverse the population declines they suffered in the second half of the 20th century.

A greater horseshoe bat at the Browne's folly stone mines to the east of Bath held the record for being the oldest known bat in the UK with a ring on his ankle placed there when he was a juvenile showing him to be almost 30 years old. In the early 2000s greater horseshoe bats from the Combe Down stone mines were radio tracked to discover where they hunted and were found to make extensive use of the countryside to the south of the city and some of the wilder areas of the urban fringe. When the mines were filled in for safety in the early 2000s, chambers and flyways were retained for the bats and a heated incubator provided, which increasing numbers of lesser horseshoe bats have used for raising their young each summer.

With the green fingers of countryside stretching right into the centre of Bath, and the canal and river to fly along, even the rare horseshoe bats can be found in the city. A Bath & NE Somerset Council commissioned study found horseshoe bats making extensive use of the urban river corridor. The vaults associated with many of the city's Georgian terraces are also sometimes used by horseshoe bats, with the dome created by the capped off coal chutes proving a favoured spot for lesser horseshoes to quietly hang from.

If you would like to learn more about Bath's bats then several organisations including Bathscape, Avon Wildlife Trust and Bath City Farm run occasional bat walks where you can try out a bat detector. Avon Bat Group is an active volunteer group that operates across the county, getting involved in all aspects of bat conservation as well as leading local walks, while nationally the Bat Conservation Trust has a wealth of information about the UK's bats.

Further information

Avon Bat Group: <http://www.avonbatgroup.org.uk>

Bat Conservation Trust: <https://www.bats.org.uk/>

How to use a bat detector youtube video:

<https://www.youtube.com/watch?v=g8au0HkQM30>

ABOUT THE AUTHOR

Dan Merrett is the Bathscape Scheme Manager. He has worked in wildlife conservation for over 20 years and moved to Bath in 2003 to manage a local bat project.

