

'Swallows of the night':

Bats are fascinating and oft-misunderstood

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Picture: Donna Mullen

Seeing bats acrobatically catching insects in flight, it's little wonder they are known as 'swallows of the night'. Their name as *Gaeilge* is just as descriptive – 'Sciathán leathair' meaning leather wings. Some people are afraid of bats, probably because they are nocturnal and due to the many myths about them.

Bram Stoker hasn't helped the cause with all those wonderful horror films. However, there is no reason to fear bats. They are an individual mammal group more closely related to humans than any rodents.

They give birth to a single pup per year when the females form maternity roosts and, like all mammals, suckle their young. They are the only true flying mammal and are found all across the world, apart from the north and south polar caps.

There are nine species of bat in Ireland. All are small but have long wings – the body of a pipistrelle is typically the size of your thumb, but the wingspan is about 25cm. Our biggest bat is the Leisler's bat, which can still fit into the palm of your hand. It has a 32cm wingspan.

Bats have an important role in the natural ecosystem, keeping insect populations in balance. They are a very good indicator of how good our habitats are.

A healthy population of bats tends to indicate that the area is in good environmental condition.

'As blind as bat' is one of many myths. Bats are nocturnal mammals with good eyesight, but in the hours of darkness they rely on echo location (sonar) to hunt and orientate them-



Common Pipistrelle.

selves. This system of echolocation is so fine-tuned that bats will not fly into your hair – just to break another myth about bats.

Bats rely on linear habitats such as hedges to fly through the landscape. Hedges are like roadways for bats, allowing them to commute through the landscape, from their roosting sites to important foraging habitats such as woodlands and waterways.

Hedges

Hedges can be a very valuable resource, providing insect prey for bats. Bats in Ireland only eat insects and they eat a phenomenal amount of them. The Common Pipistrelle and Soprano Pipistrelle, our smallest bat species, can consume 3,000 insects, midges for example, in one night. So, bats are a very valuable predator of insects. Tall, thick hedges are ideal for bats, as they are more valuable as commuting routes and as a foraging habitat with lots of insects.

If you're out walking in the evening and see something flying by, it will likely be a bat. It's not going to be a bird flying at that hour of the night – not unless it is an owl, which is much bigger and therefore unlikely to be confused with a bat.

So, if you see something flitting up and down making lovely circles about three to four metres above the ground alongside the hedge, it is most likely to be a pipistrelle bat out foraging.

If you have a bat detector, an instrument that picks up the echolocation of bats, tune it to 50kHz and you will hear an array of popping noises. Welcome to the acoustic world of the bat!

Bats will roost in good mature trees in hedges. That's why it is very important to retain some trees in hedges. Trees with holes or split limbs provide a space for bats to roost.

Buildings

Bats are usually seasonal visitors to buildings, but at different times

Leisler's bat.



Bat Conservation Ireland is a small wildlife charity dedicated to the conservation of bats in Ireland. There are lots of resources for people to learn about bats. Bat Conservation Ireland runs the Irish Bat Monitoring Programme and volunteer participation in this programme is an ideal way to learn more about bats. The Daubenton's bat waterway survey takes place annually in the month of August, where people can learn how to use bat detectors to monitor bats themselves and survey their local waterway. For further information visit: www.batconservationireland.org www.learnaboutbats.com

of year. Between mid-March and September, breeding female bats form maternity roosts to give birth and raise their pups.

Most bats choose buildings as maternity roosts to take advantage of warm locations, including occupied buildings. In winter, bats need quiet, undisturbed roosts of relatively constant temperature for hibernation. Cellars, crevices and roof spaces of abandoned buildings are commonly used.

Bats can also use roosts in buildings as 'transition roosts' between summer breeding and winter hibernation, or 'night roosts', in which to rest between feeding periods.

The Lesser Horseshoe bat flies into open accessible areas to roost, as they can't crawl into crevices and tight spaces like other bat species. They are the only bat species in Ireland which hang upside down, with their wings wrapped around their body.

This leaves them exposed to disturbance and may be why they often use uninhabited buildings.

They prefer large entrances. These allow them sample the light before emerging. They form maternity roosts in the roof spaces of buildings such as old houses, stables and outhouses in summer. In winter, they hibernate in the cellars of old ruins, as well as caves, mines and souterrains.

Ireland has the second largest national population of Lesser Horseshoe bats in Europe. The range in Europe has been contracting.

As a result, it is listed under Annex II of the Habitats Directive, a list of species whose conservation requires the designation of Special Areas of Conservation. It is confined to the west and southwest of Ireland.

The Common and Soprano Pipistrelle bats are the species most likely to use occupied buildings as materni-

ty roosts. They tend to occupy crevices, rather than open attic spaces, in a variety of modern and old structures. The brown long eared bat roosts in large attic spaces, outbuildings and churches, as well as holes in trees.

Watercourses

Often called the 'water bat', the Daubenton's bat is easily recognised in flight by its low level flight a few centimetres above the surface of lakes, slow-moving rivers and canals.

It skims like a hovercraft above the water in search of caddisflies, mayflies and midges, and may even scoop prey from the water surface using its big feet.

Many other bats feed over lakes and rivers, but none has such a close association with water as the Daubenton's. They can even swim if they make a mistake and end up in the water. They roost under stone bridges, in ruins, canal tunnels, trees and damp caves.

Picture: Faith Wilson



The brown long eared bat.

Picture: Frank Greenway



Daubenton's bat.