

En Ouer fir d'Natur

Leud an ear to nature



PROFILE

EN: GEOFFROY'S BAT
LAT: *MYOTIS EMARGINATUS*

Episode 7

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Did you recognise the Geoffroy's bat in the clip?

Admittedly, that was a bit tricky, because very few people have ever heard a bat's call out in nature. Like all bats, the call of the whiskered bat is inaudible to the human ear – you need a bat detector to make the calls audible in the ultrasonic range.

Nevertheless, the 'En Ouer fir d'Natur' campaign aims to draw attention to these secretive animals: because the night is actually full of their calls!

The Geoffroy's bat uses these calls for both orientation and hunting. What is astonishing is that their echolocation calls reach a volume of up to 110 decibels – as loud as a jackhammer right next to your ear. This means that we humans can actually be glad that our ears cannot pick up these sounds...

Way of life

The Geoffroy's bat is a typical inhabitant of traditional cultural landscapes – landscapes that consist, next to forests, of villages and small-scale agricultural areas that are used in a variety of ways. Here, colourful hay meadows alternate with cow pastures, differently cultivated fields with orchards, and in between there are many hedges, impressive solitary trees and bushes. Rows of trees and shrubs such as hedges or rows of fruit trees are particularly important, as they use them for orientation, known as 'guidelines'.

The Geoffroy's bat is nocturnal and sleeps upside down during the day in the summer months in roosts such as attics or old buildings. In the evening, it leaves its roost on fixed flight paths and flies to its hunting grounds, where it searches specifically for mosquitoes and spiders.



In one night, they can catch up to 1,000 mosquitoes and other insects, mainly by collecting them from leaves or catching them in their webs – a true natural remedy against these crawling creatures! They consume a third of their body weight in insects every night.

In spring, the females form nurseries of up to 1,000 animals in buildings, where they each give birth to one young. This is suckled for about seven weeks. The females return to the same colony every year – the young also join them later. Geoffroy's bats can live for over 20 years.

The Geoffroy's bat hibernates until early May in winter quarters such as caves and old mines.

Distribution in Luxembourg

There are 22 species of bats in Luxembourg, all of which are strictly protected under European and Luxembourg law. Over 70% (16 species) of these are in an insufficient or poor state of conservation, meaning they are threatened with extinction – the Geoffroy's bat is one of them.

In Luxembourg, the Geoffroy's bat is mainly found in the river valleys of the Moselle, Sauer and Attert. The females hunt within a radius of 4 to 5 kilometres around their colonies. Luxembourg is located on the north-western edge of the European range of this heat-loving species.

Threats to the Geoffroy's bat

The Geoffroy's bat is threatened in many ways. One of the greatest threats is the increasing loss of its food source: the dramatic decline in insects and spiders – mainly due to the use of pesticides and the intensification of agriculture – means that it can hardly find enough food in many regions.

The landscape has changed significantly in recent decades as a result of changes in agricultural use, which has also had an impact on the Geoffroy's bat. For example, the proportion of cow pastures in the landscape has declined sharply – these were always a particularly good source of food for the Geoffroy's bat. Now, however, dairy cows are increasingly kept in stables without access to pasture. The disappearance of fruit trees, because they are no longer used or replanted, also has a negative impact on the Geoffroy's bat. Flower- and insect-rich hay meadows have given way to monotonous silage meadows – there are simply not as many insects here to provide food for the whiskered bat and many other animals.

Another critical issue is the loss of suitable roosting sites. Old buildings that previously served as nurseries for females are being renovated or demolished, leaving the bats with no access and thus depriving them of an essential part of their habitat.

How can I help the whiskered bat?

- 1. Nature-friendly gardening:** Design your garden and surroundings to be as diverse and natural as possible – with a variety of different native wildflowers, hedges and fruit trees. Pesticides should be avoided altogether. Night-blooming plants such as evening primrose and honeysuckle are a plus, as they attract nocturnal insects that bats feed on.
- 2. Consume organic products:** By buying organic products from your region, you are supporting extensive agriculture that preserves habitats for insects and thus for bats.
- 3. Avoid light pollution:** Do not use unnecessary outdoor lighting at night and leave the night to the bats. They avoid illuminated areas. If you want them to hunt insects around your home, this is a must!
- 4. Protect roosts, make attics accessible:** Old buildings with known colonies should be renovated in a bat-friendly manner. Roosts must not be closed off or destroyed. In the case of known roosts, work should be postponed until September to March, as this is when bats are in their winter quarters.

For more information on the Geoffroy's bat and bats in general, take a look here:

- NABU: Bats – Help for the beautiful creatures of the night
<https://www.nabu.de/tiere-und-pflanzen/saeugetiere/fledermaeuse/index.html> (in German)
- SICONA Luxembourg: Bat conservation project (in German) <https://sicona.lu/fledermausprojekt/>
- Short film about the Geoffroy's bat 'Eis wëllt Lëtzebuerg' (in Luxembourgish):
<https://www.youtube.com/watch?v=luUPcbm66ao>



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