

# LIFE IN CAVES

Currently, about 3,000 different species of animals are known from caves in Germany.

Those which enter a cave accidentally are called cave visitors (eutrogloxenes).

Other species are regularly cave-dwelling during certain times of the year - for example bats. These are subtroglaphiles.



"Cave-loving" animals (eutroglophiles) are building stable populations in subterranean habitats, but also above ground.

Of special interest are the so-called "true" cave animals (eutroglabionts), which are exclusively living below ground and which are adapted to this way of live, for example by reduction of the eyes or the loss of pigmentation.



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# CAVE ANIMAL OF THE YEAR 2025



Many animals are  
depending on caves  
as sheltered and  
frost-free refuges.

One of these animals is the  
**Tissue moth** –  
the Cave Animal of the Year 2025.



# CAVE ANIMAL OF THE YEAR 2025

## The Tissue *Triphosa dubitata*

The Union Internationale de Spéléologie (UIS) is organising a series of high-profile campaigns to draw attention to the importance of protecting karst landscapes and their diverse karst phenomena. One of these campaigns is the selection of an international 'Cave Animal of the Year'. For this purpose, the group of cave butterflies was selected, from which each participating country can choose a regionally occurring cavernicolous butterfly species and present it to the public and the authorities as 'Cave Animal of the Year'. By choosing the Tissue moth, the German Speleological Society wants to emphasise that there is still an enormous need for action, particularly in researching underground ecosystems and the species that occur in them.

The Tissue moth (*Triphosa dubitata*) was first described for science by Carl LINNAEUS in 1758. The butterfly is a moth that regularly hibernates in large numbers in caves. This is where the other German name 'Olivbrauner Höhlenspanner' (Olive-brown cave moth) comes from. The first specimens can be found in caves as early as July. The species usually sits in large groups on the cave wall, more rarely on the ceiling, in the entrance, transition and depth regions.

The widespread distribution in our caves and the fact that the species is easily recognizable, even for the layman, led to the designation of the Tissue as "Cave Animal of the Year 2025". The species is representative of a large number of animal species that depend on sheltered underground retreats.



Cluster of Tissue moths in the winter habitat



The Tissue on a cave wall

The Tissue moth has a wingspan of 3.8 to 4.8 cm. The ground colour of the forewings is olive to violet-brown. The hind wings have a light grey-brown colour and are marked with a few indistinct transverse lines. All wings show a wavy, black fringe. Occasionally, specimens with a lighter overall colour can also be found. Overall, the colouring and markings can be very varied. When resting in their cave quarters, the moths have their wings either partially or fully open and form a triangle. The undersides rest more or less on the cave wall.

The species colonises forest edges, riparian forests, dry slopes and other habitats of the buckthorn, where the caterpillars feed from mid-May to early July. The moths can be found - with a break in May/June - in a hibernating generation in underground cavities almost all year round. The eggs are laid in spring.

In southern Germany, the Tissue moth can be confused with the much lighter-coloured, much rarer yellowish-grey cave moth (*Triphosa sabaudiata*), with which it is often associated.

The Tissue moth is distributed from Northwest Africa across Europe to East Asia. In Germany, it occurs in large numbers in all cave areas and can still be found in the Alps at an altitude of 2,200 metres above sea level.



# THE CAVE AS HABITAT

For all living organisms, caves are a very special place. The most characteristic trait is the lack of sunlight.

What seems to be a disadvantage on first sight also has its merits:

- There is no danger of sunburn or desiccation, and no need for camouflage.
- Cave animals have neither to adapt to daily or seasonal cycles, unless their food source shows such cycles.
- Temperatures are constant, with no danger of freezing.

In Central Europe, the main challenge for cave dwellers is the low food supply. Cave animals adapted to these conditions by developing a small body size, slow movements and a low metabolism.

Cave animals are very sensible to environmental changes. Therefore, a strict protection of subterranean habitats is essential.

