LIFE IN CAVES

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

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

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

"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 (eutroglobionts), 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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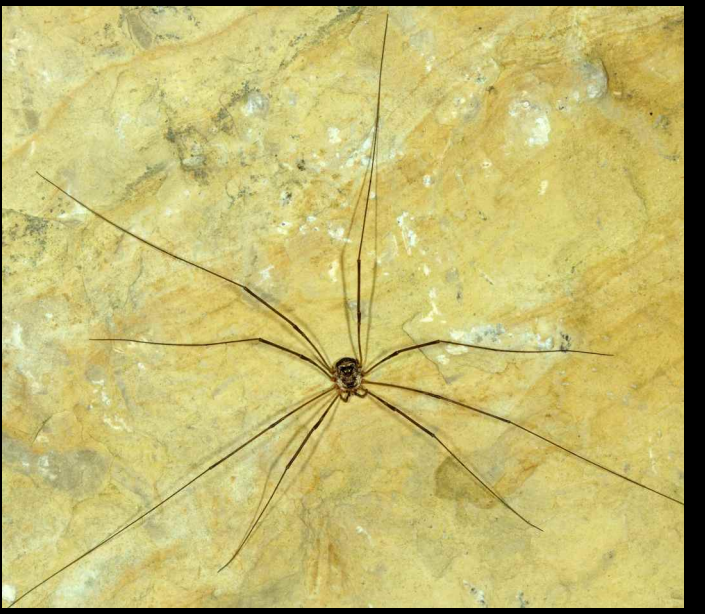
CAVE ANIMAL OF THE YEAR 2016



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

One of these animals is the

Höhlenlangbein

(Cave Longleg)

Amilenus aurantiacus -

Cave Animal of the Year 2016

CAVE ANIMAL OF THE YEAR 2016

The Höhlenlangbein (Cave Longleg)
Amilenus aurantiacus

Amilenus aurantiacus belongs to the family Phalangiidae of the harvestmen (order Opiliones). There is no accepted common name in English, its German name, „Höhlenlangbein“, translates to „Cave Longleg“. It was first described in 1881 by the French naturalist and arachnologist Eugène Simon. These animals spent the winter in natural caves, mines and rock cellars. For this reason, this arachnid species has been choosen as the Cave Animal of the Year 2016.

Amilenus aurantiacus lives in all types of forests, in the Alps predominantely in montane beech forest communities, in subalpine coniferous forests and in streamside marshes. They spend the summer in the ground layer under rocks and wood, under leaf litter and occaisonally in the herbaceous layer of wetland plant communities. *Amilenus aurantiacus* is a sub-troglophilous species, spending the winter in caves or crevisses, where temperatures don't drop below the freezing point. They are gathering there in large communities of hundreds and even thousands of individuals to go through their last moult and survive the winter together. Lokal differences in abundances are co-determined by the existance of caves and crevisses.

Male of Amilenus aurantiacus

Female of Amilenus aurantiacus

As the name „Höhlenlangbein“ (Cave Longleg) implies, *Amilenus aurantiacus* is a species with conspiciously long legs. On the abdomen, characteristic lyra-shaped markings are found (an inverted letter „z“). The markings are less obvious in the males, but clearly visible against a pale background in the females. Body length (without legs) is 2,8 to 3,3 mm in the males, and 3,5 to 5,5 mm in the females.

The distribution of *Amilenus aurantiacus* extends from the French Western Alps over Switzeland, Germany and Austria to Hungary, the Balkan peninsula and Northern Greece. In Germany, the species is known from the Alps, the Suebian Alp, Rhineland-Palatine, the Odenwald and Rhön mountains, the Frankonian Alps, Thuringia, the Middle and Southern Harz mountains, the Kyffhäuser and Zittauer mountains. Only recently, additional populations were found in the Hessian - North Rhine-Westphalian border areas of the Hochsauerland (Rothaargebirge) and at the edge of the Ostsauerland mountains, where large numbers are spending the winter in mine tunnels.

With the designation of the Cave Animal of the Year, the Verband der deutschen Höhlen- und Karstforscher e.V. (German Speleological Society) wants to raise awareness for the subterranean ecosystems and the animals found there, and point out the urgend need for action in research and conservation in this field.

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.