

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 (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 2026



Ground waters, and thus also cave waters,
harbour a multitude of animal species.

One of these animals is the
Cave Dwarf Amphipod –
the Cave Animal of the Year 2026.

CAVE ANIMAL OF THE YEAR 2026

Cave Dwarf Amphipod *Crangonyx subterraneus*

The cave dwarf amphipod (*Crangonyx subterraneus*) belongs to the order Amphipoda and was first described scientifically by the British zoologist Charles Spence BATE in 1859. The cave dwarf amphipod is a typical groundwater dweller and is found in groundwater habitats (springs, wells, river sediments, mines and caves). The species has neither body pigmentation nor eyes. The fact that the groundwater amphipod cannot survive outside its underground habitat led to the species being chosen as "Cave Animal 2026."

The cave dwarf amphipod represents a large number of species, which are depending on a intact ecosystem in subterranean waters. The Verband der deutschen Höhlen- und Karstforscher e.V. (German Speleological Society) has chosen the Cave Animal of the Year to point out the immense deficiencies in the research of subterranean ecosystems and their associated faunas.



The cave dwarf amphipod usually walks upright, with its back facing upwards



The tail appendages (uropods) are the same length

The genus *Crangonyx* is mainly found in North America; only a few species are known in Europe. The majority of species in this genus have neither body pigmentation nor eyes. However, there are surface species that do have eyes. Due to their small body size of about three millimeters, these species are found not only in rocky areas, but also in sandy and fine-pored groundwater bodies. It moves by swimming or walking on the sediment, but mainly with its back facing upwards. Like all amphipods, the cave dwarf amphipod breathes through gills and therefore requires oxygen-rich groundwater. The food consists of microorganisms and organic material.

Due to its characteristic mode of locomotion, the species can also be distinguished directly in situ from cave amphipods of the genus *Niphargus*, which swim sideways. Under the microscope, *Crangonyx* has a only slightly indented last body segment (telson), which is strongly divided in the genus *Niphargus*. The tail appendages (uropods) are all the same length.

The cave dwarf amphipod is found in Western and Central Europe and Great Britain. In Germany, the species is widespread but only locally common. In Poland, the species *Crangonyx paxi*, which is difficult to distinguish, occurs.

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.

