

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 (eutroglionts), which are exclusively living below ground and which are adapted to this way of life, for example by reduction of the eyes or the loss of pigmentation.



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CAVE ANIMAL OF THE YEAR 2018



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

One of these animals is the
White-legged Snake Millipede –
the Cave Animal of the Year 2018

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The White-legged Snake Millipede *Tachypodoiulus niger*

The White-legged Snake Millipede (also called “Black Millipede”) was first described in 1815 by the British zoologist William Elford Leach. The animals may be found in natural caves, mining galleries and rock cellars all year round, where they may even form stable populations. For this reason, the White-legged Snake Millipede was chosen as Cave Animal of the Year 2018.

The White-legged Snake Millipede belongs to the class Diplopoda, which is characterized by two pairs of legs on each segment, where it is a member of the family Julidae. The animals are 20 to 50 mm long, brownish black to deep black with conspicuous pale legs. Juveniles are pale brown, with darker sides and a dark longitudinal line on the back. The body of these animals consists of 41-56 segments.



White-legged Snake Millipede in resting position and stretched out



Frontal view of the White-legged Snake Millipede

The White-legged Snake Millipede is basically a forest species, which also ventures out into open landscape, where it inhabits predominantly complexes of bushes. In limestone areas it also inhabits cracks, fissures and caves, where it is found even into the dark zone. These millipedes can reach an age of 6 to 7 years, sexual maturity is reached after 1,5 to 2 years. The White-legged Snake Millipede is a nocturnal inhabitant of the leaf litter and tree bark, it's nightly radius of action is around 10 m, where it climbs even trees, bushes and rocks. It is the fastest of all native millipedes, with a speed of up to 24 mm per second. When threatened, the White-legged Snake Millipede shows a typical fright and flight reaction: Lying on its back or sides, it wriggles snake-like to escape from predators and find a hiding place.

The main food source of this millipede is the leaf litter, but wood, moss and needle litter is eaten as well. Cave populations feed mainly on organic material transported into the cave.

The White-legged Snake Millipede is found in all of Germany except for the Northern Part of the North German Flatlands, and is known from all cave regions in Germany. Within Europa, its distribution includes France, Spain, the Benelux States, Switzerland, Austria, Czechia, Ireland and Great Britain.

The Verband der deutschen Höhlen- und Karstforscher e.V. (German Speleological Society) has chosen the Cave Animal of the Year with the intention to point out the immense deficiencies in the research of subterranean ecosystems and their associated faunas.

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.

