

# 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 2015



Numerous animal species are living in caves.  
They are depending on  
the cave's constant climate.

One of these animals is the  
**Cellar Glass-Snail**

*Oxychilus cellarius* -  
Cave Animal of the Year 2015

# CAVE ANIMAL OF THE YEAR 2014

Cellar Glass-Snail – *Oxychilus cellarius*

The Cellar Glass-Snail belongs to the terrestrial lung-bearing snails. It was first described in 1774 by the Danish naturalist Otto Friedrich Müller. The animal lives all year round in natural caves, mines and in rock-cut cellars. For this reason, it was designated as „Cave Animal of the Year 2015“. The snail stands for a large number of animal species, which all depend on sheltered and frost-free refuges below ground.

The Cellar Glass-Snail inhabits humid and shady places. It is found in forests, bushes, between rocks and in gardens, but is also commonly found in natural caves, mine tunnels and rock-cut cellars. Here, this species builds permanent populations, which are migrating quite far into the depth zone. The snail feeds on rotting plant parts and algae, but acts also as a predator, devouring other snails and their eggs. In caves, observations are known of Cellar Glass-Snail devouring wintering moths. The snails may reach an age of 12 to 14 months.

Cellar Glass-Snail



Portrait of the Cellar Glass-Snail

The shell of the Cellar Glass-Snail is usually up to 11 mm large, almost disk-shaped with slightly arched whorles. It has five to six whorles, which are evenly increasing in size. The navel on the lower side is funnel-shaped and open. The surface is almost completely smooth and lustrous. The upper side of the shell is translucent and yellowish grey, the lower side is substantially paler and yellowish. The body is colored blue-grey, the foot is light grey.

The natural distribution area of the Cellar Glass-Snail encompasses Western, Central and Northern Europe. The Eastern border of its distribution runs through Poland and Slovakia. In Scandinavia, the species is restricted to coastal areas. The snail prefers altitudes between 300 and 800 m a.s.l., the upper limit of its occurrence in the Alps is about 1,800 m a.s.l. In all German karst areas, the Cellar Glass-Snail is regularly found in the caves.

The German Speleological Federation 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.

