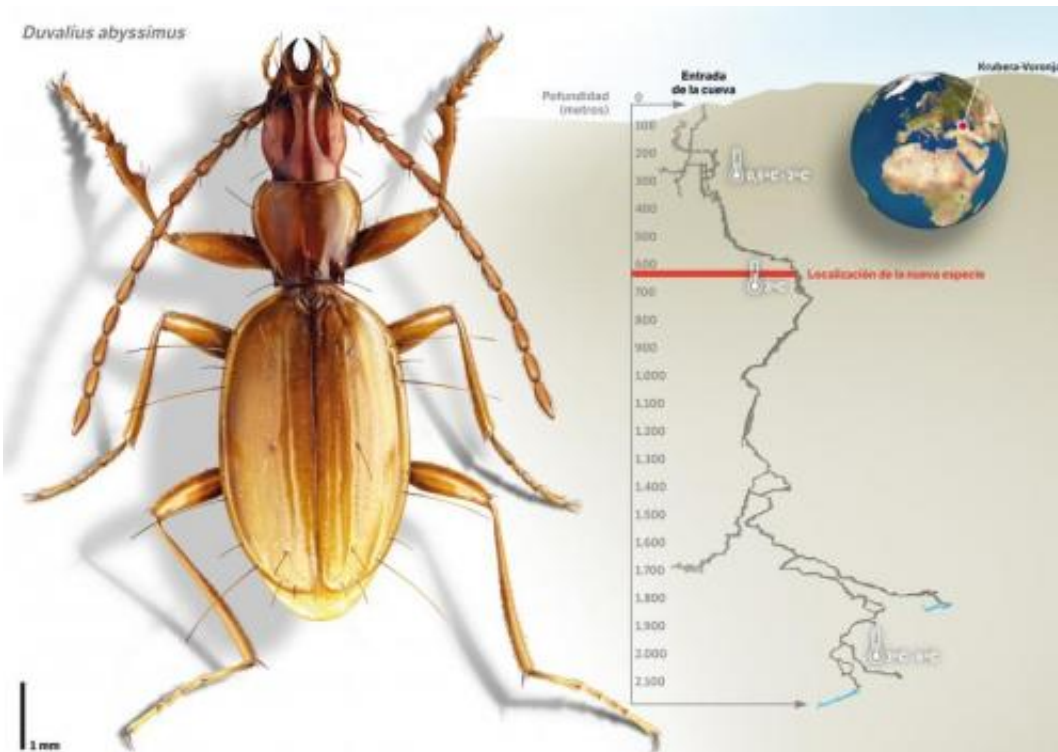


New species of beetle discovered in the world's deepest cave

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A drawing of *Duvalius abyssimus*. Credit: José Antonio Peñas

The unusual habitat of the Krubera cave in the Western Caucasus remains a mystery. Researchers from two Spanish universities have discovered a new species of beetle in the depths of this cave.

Cave [beetles](#) are one of the most iconic [species](#) found in subterranean habitats. They were historically the first living organisms described by

science that are adapted to the conditions of hypogean or subterranean life.

Now, a Portuguese scientist and a Spaniard have discovered a new species of beetle in the deepest [cave](#) known to man; a cave 2,140 metres deep. It is the Krubera cave, situated in the Arabika massif in the Western Caucasus.

Ana Sofía Reboleira, researcher from the Universities of Aveiro and La Laguna, and Vicente M. Ortuño, from the University of Alcalá, have published their discovery in the scientific journal 'Zootaxa'.

"The new species of cave beetle is called *Duvalius abyssimus*. We only have two specimens, a male and a female. Although they were captured in the world's deepest cave, they were not found at the deepest point," Ortuño, who has dedicated the last 10 years to studying subterranean fauna, declared to SINC.

The *Duvalius* genus is a successful colonizer of the Earth's depths. The majority of species have a hypogean lifestyle and live in caves or the superficial underground compartment.

"The [new species](#)' characteristics indicate that it is moderately adapted to life underground. Proof of this is that they still have eyes, which are absent in the highly specialised cave species," added the expert.

The Arabika massif region in Abkhazia, where this cave is found, is biogeographically a very interesting area. Altitudes fluctuate between 1,900 and 2,500 metres and the cave is composed of lower and upper Jurassic-Cretaceous limestone.

Its large area has provided endless subterranean refuges for fauna. In fact, various genera of endemic cave beetles live in the Western

Caucasus. "Its location is strategic, since there are fauna of European, Asian and also endemic origin in the zone," the scientist underlined.

The entrance to the cave is 2,240 metres above sea level and 15 kilometres from the Black Sea. Below numerous vertically-cutting sections, it reaches a depth of 1,400 metres. From this level, it splits into branches and in order to reach the greatest known depth, it is necessary to pass various flooded underground chambers using diving techniques.

"The discovery of the new beetle provides important data on species that co-exist in these almost unknown ecosystems, even more so when they are found in a geographical area that is very difficult to access, such is the case with this cave," Ortuño concluded.

More information: Ana Sofía Reboleira y Vicente M. Ortuño. "A new species of *Duvalius* from world's deepest cave (Coleoptera: Carabidae)". *Zootaxa* 3784 (3). [dx.doi.org/10.11646/zootaxa.3784.3.6](https://doi.org/10.11646/zootaxa.3784.3.6)

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