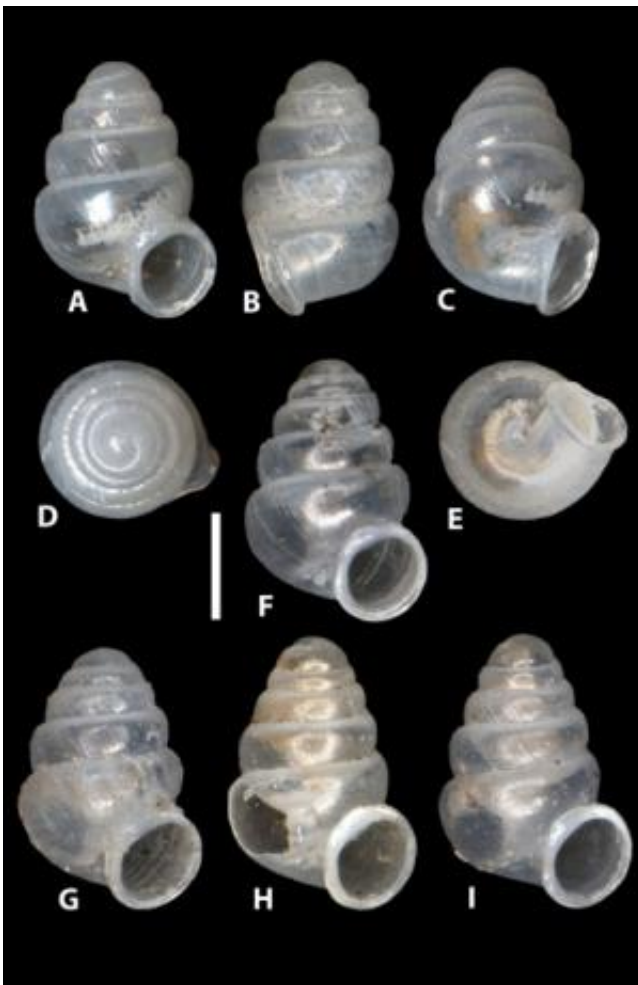


# Scientists discover tiny glassy snails in caves of Northern Spain

March 10 2015

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Glassy shells of *Zospeum vasconicum* from Cueva de la Ermita de Sandaili (type locality) are displayed. Credit: Adrienne Jochum

Two minute, glassy snails found in 2012 during a 17-cave sampling expedition of Northern Spain have been described. The international expedition team of scientists included Adrienne Jochum and Alexander Weigand (Germany), Rajko Slapnik and Jana Valentincic, (Slovenia), Carlos Prieto and Benjamín Gómez (Spain).

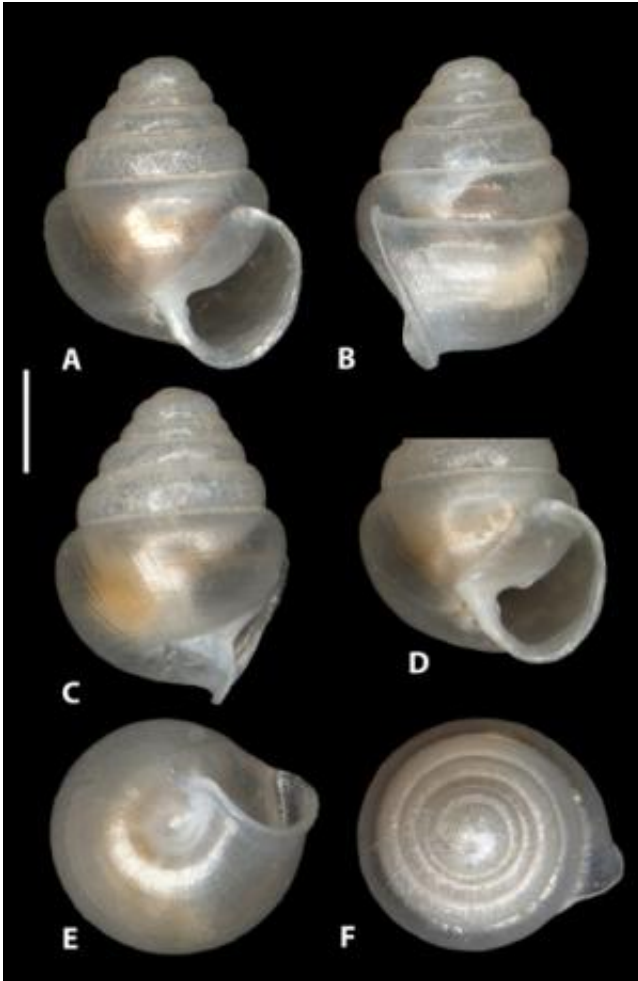
The cave-dwelling [snails](#), known as Thorn Snails, are less than 2mm big and are amongst the smallest terrestrial snails known, some barely reaching 1 mm in shell size. Their evolution dates back to the Cenozoic Era, ca. 65 million years ago. These transparent, unpigmented snails belong to the genus *Zospeum*, whose [species](#) are all cave dwellers.

The two [new species](#), *Zospeum vasconicum* and *Zospeum zaldivarae*, comprise a genus containing about 20 species known to inhabit caves from Northern Spain to the Dinaric Alps of former Yugoslavia. The team's discovery of the first subterranean Thorn Snail colony in Northern Spain was initially published in the journal *MalaCo*. Now, the classification of these enigmatic snails from the moist, muddy cave walls underneath the Basque-Cantabrian Mountains has been published in the open access journal *ZooKeys*.

Previous research dates from the latter half of the 19th and 20th Centuries and was conducted on shells alone. Live individuals are very rare. Molecular studies published by the first three authors have contributed much to the knowledge of the evolution of these tiny troglobitic snails. The new species belong to the first recorded live *Zospeum* populations from Spain. Two years ago, Alexander Weigand described the cave-dwelling, Thorn Snail relative of these Spanish species from a plunging 950m-deep chasm in the Velebit Mts. of Croatia.

These rare denizens of the dark can only be found alive using a magnifying glass. Knowledge of their subterranean ecology as well as a

"gut feeling" of where they might be hanging out is necessary. The two new species were described using shell criteria in conjunction with molecular investigations.



Rotund shells of *Zospeum zaldivarae* from Cueva de las Paúles (type locality) are shown. Credit: Adrienne Jochum



Authors on *Zospeum* hunt in cave of Northern Spain are shown. Credit: Adrienne Jochum

**More information:** Jochum, A., De Winter, A.J., Weigand, A.W., Gómez, B. & Prieto, C.E. (2015). Two new species of *Zospeum* Bourguignat, 1856 from the Basque-Cantabrian Mountains, Northern Spain (Eupulmonata, Ellobioidea, Carychiidae). *ZooKeys*, 483: 8?96. [DOI: 10.3897/zookeys.483.9167](https://doi.org/10.3897/zookeys.483.9167)

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Citation: Scientists discover tiny glassy snails in caves of Northern Spain (2015, March 10)  
retrieved 20 April 2024 from  
<https://phys.org/news/2015-03-scientists-tiny-glassy-snails-caves.html>

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