

Tiny, record-breaking Chinese land snails fit almost ten times into the eye of a needle

28 September 2015



Perhaps the world's smallest land snail species, *Angustopila dominikae*, in the eye of a sewing needle. Credit: Dr. Barna Páll-Gergely and Nikolett Szpisjak.

Minuscule snails defy current knowledge and scientific terminology about terrestrial "microsnails". While examining soil samples collected from the base of limestone rocks in Guangxi Province, Southern China, scientists Barna Páll-Gergely and Takahiro Asami from Shinshu University, Adrienne Jochum, University and Natural History Museum of Bern, and András Hunyadi, found several minute empty light grey shells, which measured an astounding height of less than 1 mm.

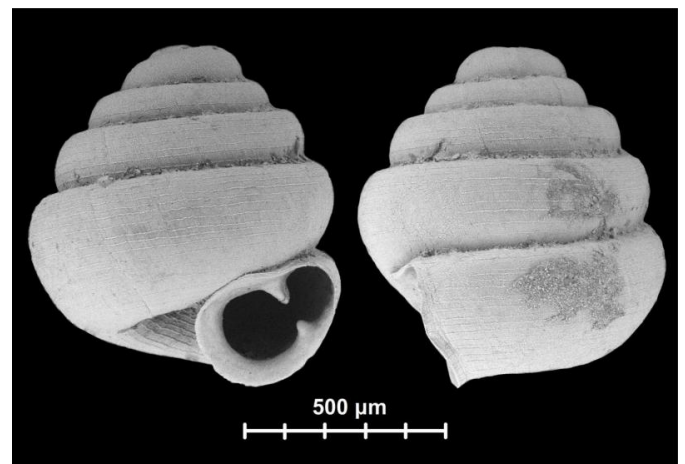
The single known shell of *Angustopila dominikae*, named after the wife of the first author, was measured a mere 0.86 mm in shell height. Thus, it is considered to be perhaps the World's smallest land snail species when focusing on the largest diameter of the shell. With very few reported instances of species demonstrating this degree of tininess, the team have described a total of seven new land snail species in their paper, published in the open access journal [ZooKeys](#).

Another of the herein described new species, called *Angustopila subelevata*, measured 0.83-0.91 mm (mean = 0.87 mm) in height.

Two of the authors have previously described other

species of tiny [land snails](#) from [China](#) and [Korea](#) in the same journal.

In their present paper, Dr. Pall-Gergely and his team also discuss the challenges faced by scientists surveying small molluscs, since finding living specimens is still very difficult. Thus, the evolutionary relationships between these species, as well as the number of existing [species](#) are yet little known.



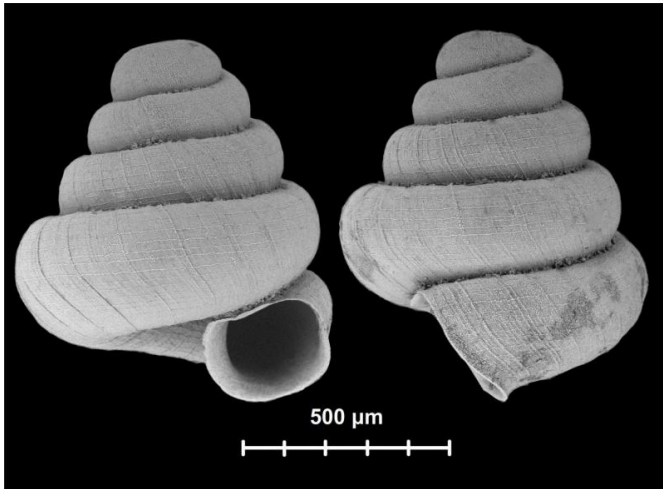
New snail species, *Angustopila dominikae*, the only known specimen measuring the astounding 0.86 mm in shell height. Credit: Dr. Barna Páll-Gergely

"Extremes in body size of organisms not only attract attention from the public, but also incite interest regarding their adaptation to their environment," remind the researchers.

"Investigating tiny-shelled land snails is important for assessing biodiversity and natural history as well as for establishing the foundation for studying the evolution of dwarfism in invertebrate animals."

"We hope that these results provide the taxonomic groundwork for future studies concerning the evolution of dwarfism in invertebrates," they

finished up.



New snail species, *Angustopila subelevata*, measuring from 0.83 to 0.91 mm in shell height of different specimens (average of 0.87 mm). Credit: Dr. Barna Páll-Gergely

More information: Páll-Gergely B, Hunyadi A, Jochum A, Asami T (2015) Seven new hypselostomatid species from China, including some of the world's smallest land snails (Gastropoda, Pulmonata, Orthurethra). *ZooKeys* 523: 31-62. DOI: [10.3897/zookeys.523.6114](https://doi.org/10.3897/zookeys.523.6114)

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