

Flea toad may be world's smallest vertebrate

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Brachycephalus pulex. Credit: [Dias, I/Wikimedia Commons](#), [CC BY-SA](#)

A trio of biologists at Universidade Estadual de Santa Cruz, in Brazil, has verified that a tiny frog, *Brachycephalus pulex*, also known as the Brazilian flea toad, which is found only in southern Brazil, is not only the

world's smallest amphibian, it is also the world's smallest vertebrate. Their paper is [published](#) in the journal *Zoologica Scripta*.

Researchers first discovered the tiny frog back in 2011. The discovery team found evidence that the frog lives only on a few hills in a southern part of Bahia, in Brazil. At the time, researchers also believed the frog was a toad, hence its name.

For this new study, the researchers ventured to the site where the original specimens were found and caught and released several more after measuring them and checking for signs of maturity—they wanted to make sure those they measured were adults. To do so, they had to check both their gonads and vocal slits. Once they confirmed a specimen was as big as it was going to get, they measured its body length.

Measurements of 46 specimens revealed the average male [body length](#) to be slightly over 7 millimeters—making them smaller than a pea—or put another way, two of them could rest comfortably on a pinky fingernail. Females were, on average, 1 millimeter longer. The researchers noted that the smallest specimen they found was just 6.45 millimeters long, which they note is approximately 30% smaller than the previous smallest [frog](#) observed.

The find represents the smallest observed vertebrate, although not the smallest possible. They suggest that there may be smaller creatures that have not yet been found and studied. They also note that there are likely limits—most tiny frogs have odd quirks, they point out, such as fewer toes than other frogs, or insufficiently formed ears—signs that suggest frogs that are any smaller would have trouble surviving.

More information: Wendy H. Bolaños et al, Zooming in on amphibians: Which is the smallest vertebrate in the world?, *Zoologica Scripta* (2024). [DOI: 10.1111/zsc.12654](https://doi.org/10.1111/zsc.12654)

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