

World's Smallest Frogs Discovered in New Guinea

ScienceDaily (Dec. 12, 2011) — Field work by researcher Fred Kraus from Bishop Museum, Honolulu has found the world's smallest frogs in southeastern New Guinea. This also makes them the world's smallest tetrapods (non-fish vertebrates). The frogs belong to the genus *Paedophryne*, all of whose species are extremely small, with adults of the two new species -- named *Paedophryne dekot* and *Paedophryne verrucosa* -- only 8-9 mm in length.

The study was published in the open access journal *ZooKeys*.

Previous research had led to the discovery of *Paedophryne* by Kraus in 2002 from nearby areas in New Guinea, but the genus was not formally described until last year (Kraus 2010, also in *Zookeys*). The two species described earlier were larger, attaining sizes of 10-11 mm, but the genus still represents the most miniaturized group of tetrapods in the world.

"Miniaturization occurs in many frog genera around the world," said the author, "but New Guinea seems particularly well represented, with species in seven genera exhibiting the phenomenon. Although most frog genera have only a few diminutive representatives mixed among larger relatives, *Paedophryne* is unique in that all species are minute." The four known species all inhabit small ranges in the mountains of southeastern New Guinea or adjacent, offshore islands. Their closest relatives remain unclear.

The members of this genus have reduced digit sizes that would not allow them to climb well; all inhabit leaf litter, and their reduced digits may be a corollary of a reduced body size required for inhabiting leaf litter and moss. Habitation in leaf litter and moss is common in miniaturized frogs and may reflect their exploitation of novel food sources in that habitat. The frogs' small body sizes have also reduced the egg complements that females carry to only two, although it is not yet known whether both eggs are laid simultaneously or at staged intervals.

Recommend this story on **Facebook**, **Twitter**, and **Google +1**:



These are images of specimens of *Paedophryne dekot* (A) and (B), and *P. verrucosa* (C), and (D). (Credit: Photos by Fred Kraus)

Like

163

Tweet

58

3

Other bookmarking and sharing tools:

| [More](#)

Story Source:

The above story is reprinted from [materials](#) provided by [Pensoft Publishers](#).

Note: Materials may be edited for content and length. For further information, please contact the source cited above.

Journal Reference:

1. Fred Kraus. **At the lower size limit for tetrapods, two new species of the miniaturized frog genus *Paedophryne* (Anura, Microhylidae).** *ZooKeys*, 2011; 154 (0): 71 DOI: [10.3897/zookeys.154.1963](https://doi.org/10.3897/zookeys.154.1963)

Need to cite this story in your essay, paper, or report? Use one of the following formats:

APA

MLA

Pensoft Publishers (2011, December 12). World's smallest frogs discovered in New Guinea. *ScienceDaily*. Retrieved December 14, 2011, from <http://www.sciencedaily.com/releases/2011/12/111212123943.htm>

Note: If no author is given, the source is cited instead.

Disclaimer: *Views expressed in this article do not necessarily reflect those of ScienceDaily or its staff.*