

Three new species identified amongst the Tegu lizard family

3 August 2016



Tupinambis cryptus from Trinidad's Northern Range.
Credit: John Murphy

The golden tegu lizard, previously thought to be a single species, may actually comprise four distinct clades, including three new cryptic species, according to a study published August 3, 2016 in the open-access journal *PLOS ONE* by John Murphy from the Field Museum of Natural History, USA and colleagues.

Tegus are among the largest Neotropical lizards, and while some [species](#) occur only in Brazil, *Tupinambis teguixin* inhabits much of northern South America. Commonly known as the golden tegu, *T. teguixin* is also sometimes called the "black and white" tegu and can be confused with the closely related species, *Salvator merianae*. To help resolve the systematics and nomenclature of this species, the authors examined museum samples of golden tegus for genetic and morphological differences across its geographical distribution. The authors noted subtle differences in leg scale morphology, as well as the shape of eye and lip areas, and identified substantial genetic divergence across the tegu large range.

The authors split the species currently recognized as *T. teguixin* into four morphologically distinct but geographically overlapping species, including three new cryptic species - *T. cryptus*, *T. cuzcoensis*, and *T. zuliensis* - that look similar to the human eye but are genetically distinct. The authors suggest that further research in northeastern South America might identify additional species within the *T. teguixin* group, which would aid in planning for tegu conservation.

"We demonstrate for the first time that two lineages of the Golden Tegu, *Tupinambis teguixin*, are living side by side at multiple locations in South America, and that *T. teguixin* is composed of at least four distinct species," said John Murphy. "This situation is known in many other species. What is surprising is that it has gone unrecognized in a species heavily exploited by humans for more than 200 years."

More information: Murphy JC, Jowers MJ, Lehtinen RM, Charles SP, Colli GR, Peres AK Jr, et al. (2016) Cryptic, Sympatric Diversity in Tegu Lizards of the *Tupinambis teguixin* Group (Squamata, Sauria, Teiidae) and the Description of Three New Species. *PLoS ONE* 11(8): e0158542. [DOI: 10.1371/journal.pone.0158542](https://doi.org/10.1371/journal.pone.0158542)

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