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## Rediscovery of the Earless Microteiid Lizard *Anotosaura collaris* Amaral, 1933 (Squamata: Gymnophthalmidae): A redescription complemented by osteological, hemipenial, molecular, karyological, physiological and ecological data

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### Abstract

More than a century after its discovery by Ernest Garbe, and almost 80 years after its original description, we obtained a series of specimens of the earless gymnophthalmid *Anotosaura collaris*, the type species of the genus, up to now known only by a single specimen. On the basis of the material obtained at and close to the type locality we redescribe the species, adding information about the external and hemipenial morphology, osteology and karyotype. Molecular data confirm its sister relationship with *Anotosaura vanzolinia* as well as the close relationship of *Anotosaura* with the Ecleopodini *Colobosauroides* and *Dryadosaura*. We supplement this information with thermophysiological, ecogeographical, karyotypic and ecological data.

**Key words:** *Anotosaura collaris*, Gymnophthalmidae, Brazil, earless lizard, Caatinga

### Introduction

In the thirties of the last century, after a relatively long period of stasis in the taxonomic knowledge of Brazilian lizards, Afrânio do Amaral, the Director of Instituto Butantan, turned his attention to the biological collections of the Museu Paulista, latter dismembered into several institutions, one of which came to be the present Museu de Zoologia, Universidade de São Paulo (MZUSP). Although his main research focus was on uncovering undetected lizard parasites, he found several apparently undescribed lizards collected by the Museum's naturalists in different parts of Brazil. Ernest Garbe was one of those. He was hired in 1901 and since then was actively engaged in collecting specimens from unexplored parts of Brazil and sending the samples to the Museum. Amaral eventually published an important paper on this material, in which he describes 17 new lizard species, some of which as new genera (Amaral 1933). Although several were later considered synonyms of previously known species, others remain valid and are still extremely rare. Examples are the microteiid *Anotosaura collaris* Amaral, 1933, only known by its type specimen, *Anolis nasofrontalis* Amaral, 1933 and *A. pseudotigrinus* Amaral, 1933, known from only a few individuals (Williams & Vanzolini 1980), all collected by Garbe.

In 1908, in one of the first systematic explorations of the Brazilian Caatingas, Garbe was sent to the interior of state of Bahia, from where he returned in 1909 with an unprecedented amount of new material (Ihering & Ihering 1911). At Villa Nova da Rainha, presently municipality of Senhor do Bonfim, Garbe obtained the first, and up to now the only known, specimen of the earless microteiid lizard described by Amaral as a new genus and species, *Anotosaura collaris*.