



## Lizard in the clouds: a new highland genus and species of Gymnophthalmidae (Reptilia: Squamata) from Maringma tepui, western Guyana

PHILIPPE J. R. KOK

Department of Vertebrates, Royal Belgian Institute of Natural Sciences, 29 rue Vautier, B-1000 Brussels, Belgium.  
E-mail: Philippe.Kok@naturalsciences.be

### Abstract

A new genus is erected for *Pantepuisaurus rodriguessi* **gen. nov. sp. nov.**, collected at 2080 m elevation on Mount Maringma, a sandstone flat-topped table mountain (tepu) located in the eastern Pakaraima Mountains, at the Guyana-Brazil border. The new genus mainly differs from all other known gymnophthalmids by the following combination of characters: distinctive ear opening and moveable eyelids, limbs pentadactyl with all digits clawed, prefrontals present, interparietal and parietals forming a jagged, irregular posterior margin, three pairs of genials, second pair of genials in contact with only one infralabial, dorsal scales hexagonal, keeled, in transverse rows only, ventral scales imbricate, hexagonal, mucronate, broadly keeled, in transverse rows only, and hemipenis weakly bilobed with series of curved transverse plicae bearing mineralized spicules.

**Key words:** *Pantepuisaurus rodriguessi* **gen. nov. sp. nov.**, endemism, Guiana Shield, microteiid, Pantepui, taxonomy, tepuis

### Introduction

The first expedition to the summit of Maringma tepui (5°13'N, 60°35'W, Figs. 1–3), one of the highest tepuis of Guyana, located about 17 km (airline) east of Mount Roraima, was conducted in 2004 by botanist David Clarke (University of North Carolina at Asheville) and collaborators, who cut a trail from the base of the mountain to its summit. In February 2006 Bruce Means (Coastal Plains Institute and Land Conservancy, Florida) reached the summit of Maringma by helicopter and collected a few frog species at the top, apparently none of them being new to science (D. Bruce Means, pers. comm.).

At the end of 2007, our team (composed of the author, and two Guyanese counterparts; helped by several Amerindian porters) sampled the area along an altitudinal transect (see Means & Savage 2007) from the surrounding uplands around the village of Philipi (5°21'N, 60°22'W, ca. 510 m asl) to the highest summit of Mount Maringma (ca. 2147 m asl), which represents a walk of roughly 40 km. We mostly followed the trail pioneered by Clarke (although many parts of it became undetectable) from the base of Maringma to its summit.

Only the very top of Maringma tepui has solid “dry” ground, and rocky outcrops are small and very limited in number. The summit vegetation (Fig. 3) consists of a mixture of the typical “tepu meadow”, large areas of quaking peat bog, and patches of dwarf forests largely dominated by *Bonnetia roraimae* (Bonnetiaceae). Deep swampy pools are numerous and surround the tepui summit, its plateau being not completely flat but more or less stair-stepped, with a total surface of about 170 ha. Climatic conditions on Maringma tepui are extreme, with great temperature fluctuation (we recorded temperature variation from 13.5 to 37.5°C during our stay on the summit between 25–30 November 2007). Freezing powerful winds, diluvian rains, and persistent mist were the usual weather conditions during our stay on the tepui.