



A new species of *Mantidactylus* (subgenus *Chonomantis*) from Ranomafana National Park, eastern Madagascar (Amphibia, Anura, Mantellidae)

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Abstract

We describe a new frog species of *Mantidactylus* belonging to the subgenus *Chonomantis* from Ranomafana National Park, in the Southern Central East region of Madagascar, at mid-elevations (about 950 m above sea level). Specimens of *Mantidactylus paidroa* sp. nov. were observed during the day in cavities under large rocks next to a stream in rainforest. Their advertisement calls are unique in *Chonomantis* and consist of a long series of note pairs. The new species shows a high divergence to other *Chonomantis* species in DNA sequences of the mitochondrial 16S rRNA gene (5.6–10.8%). *Mantidactylus paidroa* is so far only known from several streams in Ranomafana National Park but may have been overlooked at other rainforest sites in eastern Madagascar. We propose an IUCN threat status of Data Deficient for this new species.

Key words: Amphibia, Anura, Mantellidae, *Mantidactylus paidroa* sp. nov., Madagascar

Introduction

Frog species in the family Mantellidae form a highly diversified group that is endemic to Madagascar and the Comoro island of Mayotte (Blommers-Schlösser & Blanc 1991, Glaw & Vences 2003). Within this family, the genus *Mantidactylus* is one of the most species-rich groups and is further subdivided into various subgenera. One of these, the subgenus *Chonomantis*, has mainly been defined by tadpole morphology since the larvae of all *Chonomantis* species have characteristically derived funnel-shaped mouthparts. Adults of *Chonomantis* are relatively small, mainly ground-dwelling frogs most of which have a characteristically sharp dorsolateral border between the dark brown lateral and lighter brown dorsal colouration (Vences & Glaw 2004). Many species are furthermore characterized by a frenal stripe, that is, a white stripe running under the eye along the upper lip. Ventrally individuals are usually dark coloured, sometimes with a pattern of white spots or a median white line, especially on the throat. Like all *Mantidactylus*, males have femoral glands with a medial depression, and the size and distinctness of these appear to be species-specific. Species of *Chonomantis* are generally diurnal but also show crepuscular and nocturnal activity, and are mostly found in rainforest habitats close to streams. Males are smaller than females and in most species they have a distinctly larger tympanum. At present, the subgenus is composed of eight species: *Mantidactylus aerumnalis*, *M. albofrenatus*, *M. brevipalmatus*, *M. charlotteae*, *M. delormei*, *M. melanopleura*, *M. opiparis* and *M. zipperi* (Vences & Glaw 2004, Glaw & Vences 2006, 2007).

In this paper we describe a new species of *Chonomantis* that we discovered during a recent field survey in Ranomafana National Park, in mid-elevation rainforest, in the Southern Central East of Madagascar.

Materials and methods

The new species was first discovered by its typical advertisement calls during a general amphibian survey along a transect at a site locally named Ankerana, within Ranomafana National Park. Calls were recorded with the internal