

## **A revision of *Mantidactylus microtis* and *M. microtypanum*, and a comparison with other large Madagascan stream frogs (Anura: Mantellidae: Mantellinae)**

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### **Abstract**

We revise two stream frogs, *Mantidactylus microtis* and *M. microtypanum*, providing data on its known distribution and life history traits, based upon observations in nature. For *M. microtis* we show for the first time photographs of the live individuals, while for *M. microtypanum* we also describe its putative tadpoles. The transfer of *microtis* from *Boophis* to *Mantidactylus* is formally justified by morphological and ecological traits, e.g., the lack of nuptial pads, the torrenticolous life style and the low number of eggs. *Mantidactylus microtis* shares some characters with *M. microtypanum*: distribution (both live in south-eastern Madagascar), natural history (both are stream frogs), morphology (wide digital expansions, lack of femoral glands, presence of a mostly unforked omosternum, cryptic dorsal colouration, small tympanum, and presence of a derived cloacal structure). *Mantidactylus microtypanum* differs from the species of the subgenus *Mantidactylus* (*M. grandidieri* and *M. guttulatus*), to which it was so far ascribed, for the lack (vs. presence) of femoral glands, and presence of expanded (vs. moderately expanded) fingertips. Whether *M. microtis* and *M. microtypanum* are phylogenetically related, or their overall similarity is due to convergence, is discussed.

**Key words:** *Mantidactylus*, *Boophis*, Madagascar, Ecology, Generic attribution

### **Introduction**

The ranoid family Mantellidae is endemic to Madagascar and Comoros, and includes a wide range of species and ecological forms currently ascribed to five genera: *Mantidactylus*, *Mantella*, *Boophis*, *Laliostoma*, and *Aglyptodactylus* (Vences *et al.* 2003). The most speciose mantellid genera are *Mantidactylus* and *Boophis*, respectively with around 80 and 40 species (Andreone 2003, Cadle 2003).