



# Article

urn:lsid:zoobank.org:pub:AC3B5355-F8E8-44D8-84E3-BF5863507AEE

## A new species of the Genus *Microbrotula* (Teleostei: Bythitidae) from Cenderawasih Bay, New Guinea, Indonesia

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### Abstract

Following the recent revision of *Microbrotula* (Schwarzhans & Nielsen, 2011), an additional nine specimens of the viviparous genus *Microbrotula* (Teleostei: Bythitidae), all caught in the Cenderawasih Bay, Irian Jaya, New Guinea, Indonesia, were made available to us. These specimens represent a new species described here as *M. geraldalleni*. It belongs to the group of species with 6 caudal and 14 pectoral fin rays and is closest to *M. greenfieldi*, differing in the higher dorsal and anal fin ray counts (68–73 and 61–65 vs. 62–70 and 58–61, respectively), the presence of 3 posterior mandibular pores (vs. none), 2–3 preopercular pores (vs. none), a connected squamation over the head including cheek, opercle and occiput (vs. 3 separated scale patches) and with a unique scale-less triangular window just above the opercle. *Microbrotula geraldalleni* may be endemic to the Cenderawasih Bay.

**Keywords:** Bythitidae, viviparous brotulas, Cenderawasih Bay, New Guinea, Indonesia, coral reef fishes, new species, *Microbrotula*

### Introduction

Fishes of the genus *Microbrotula* are adapted to a secretive mode of living in tropical reefs of the Indo West-Pacific, where they co-occur with species of the much more common dinematchthyins of Bythitidae. Seven species were recognized in the genus *Microbrotula* by Schwarzhans and Nielsen (2011). Fishes of the genus *Microbrotula* are rarely caught and are hitherto known from fewer than 50 specimens. With nine specimens known, *M. geraldalleni* n.sp. is the second most common species of the genus after 19 specimens known of *M. bentleyi* (which, however, were obtained from many different locations over a wide area of distribution).

### Material and Methods

See Schwarzhans and Nielsen (2011) for comparative material. Institutional abbreviations follow Fricke and Eschmeyer (2011).

Morphometric characters are given as percent of standard length (SL). In the descriptions holotype values are given first followed by paratype values in parentheses. Size of eye is measured as horizontal diameter of pigmented eyeball. Counts were made from radiographs, except for pectoral fin rays, gill rakers, teeth and scale rows. Abbreviations used for counts are: D/V = anterior dorsal fin ray above vertebra number; D/A = anterior anal fin ray below dorsal fin ray number; V/A = anterior anal fin ray below vertebrae number.

Otoliths were removed through the gill cavity by making a small incision in the otic capsule above the gills on the right side. Otolith measurements include length, height and thickness of the otolith and length of the colliculum, a structure filling the sulcus on the inner face (for otolith terminology see Schwarzhans *et al.* 2005). Measuring of the colliculum was selected over measuring the sulcus, the usual measurement in otoliths, because in