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A new genus and species of Bythitidae (Teleostei: Ophidiiformes) from northwestern Australia

JØRGEN G. NIELSEN[1] and WERNER SCHWARZHANS[2]

[1]*Natural History Museum of Denmark, University of Copenhagen, Universitetsparken 15, DK-2100 Copenhagen Ø, DENMARK*
jgnielsen@snm.ku.dk
[2]*Ahrensburger Weg 103 D, 22359 Hamburg, GERMANY*
wwschwarz@aol.com

ABSTRACT

A new genus and species of bathyal bythitid fish (Teleostei: Ophidiiformes) is described based on a single specimen caught at a depth of 392 m in the Timor Sea off the coast of northwestern Australia. *Timorichthys disjunctus* gen. nov., sp. nov. differs from all other bythitid genera by the position of the anus midway between the tip of the snout and origin of the anal fin. The joined vertical fins and the type of intromittant organ furthermore place the new genus in the subfamily Bythitinae.

KEYWORDS: Bythitidae, *Timorichthys disjunctus* gen. nov., sp. nov., viviparous brotula, taxonomy, northwestern Australia.

INTRODUCTION

The intensive bottom trawling off northwestern Australia by the Research Vessel *Southern Surveyor* in 2007 revealed a number of new and rare ophidiiform fishes (Nielsen 2010, 2011). The present paper deals with one 39 mm SL adult male trawled at a depth of 392 m. At first it did not seem similar to any family known from the area. However, the ratio of the number of dorsal and anal pterygiophores to the number of adjacent vertebrae being more than one, the joined vertical fins, the single pelvic fin ray and the presence of a copulatory organ being an integrated part of the fleshy genital hood with the penis present as a small soft papilla without pseudoclaspers place the specimen in the subfamily Bythitinae of the viviparous family Bythitidae, order Ophidiiformes (Nielsen *et al.* 1999).

The specimen is distinctly different from any of the 15 genera presently referred to the Bythitinae first and foremost by the position of the anus midway between the snout and the anal fin origin, but also by the non-tapering body, the opercular spine being covered by skin and the head pore pattern. Consequently, a new genus and species are here described for it.

MATERIAL AND METHODS

The specimen is curated in Museum Victoria (NMV), according to the standards for museum collections Fricke & Eschmeyer (2011). Ichthyological terminology, measurements and counts follow Nielsen *et al.* (1999); the terminology of the head pores and otoliths follows Schwarzhans *et al.* (2005).

SYSTEMATICS

Timorichthys gen. nov.

Type species, here designated, *Timorichthys disjunctus* sp. nov. Gender masculine.

Diagnosis. Differing from all other bythitid genera by position of anus halfway between tip of snout and origin of anal fin. Body non-tapering and compressed. Head short with blunt snout. Scales and lateral line absent. Vertical fins joined. Pectoral radials not prolonged. Mouth oblique, ending well behind eye. Weak opercular spine covered by skin. Anterior nostril close to upper lip, ending in distinct tube. Palatines with few, small teeth. Few, large head pores: 3 anterior infraorbital pores, a pair of anterior mandibular pores at lower jaw symphysis and 1 posterior mandibular pore behind termination of maxilla. Otolith with small, undivided, centrally placed sulcus. Rays in dorsal fin 74, anal fin 46, pectoral fin 11 or 12. Vertebrae 16+36. Anterior gill arch with 6 long rakers.

Remarks. The combination of the position of the anus, the hidden opercular spine, the head pores, and the form of the body is so unique that *Timorichthys* does not resemble any other bythitid genus.

Etymology. The generic name refers to the Timor Sea, from which the holotype originated.