



A new fish species of the Genus *Hapalogenys* (Perciformes: Hapalogenyidae) from the Bay of Bengal, India

ANIL MOHAPATRA¹, DIPANJAN RAY¹ & VIKAS KUMAR²

¹Marine Aquarium and Regional Centre, Zoological Survey of India, Digha, India-721428. E-mail: anil2k7@gmail.com

²Centre for DNA Taxonomy, Molecular Systematics Division, Zoological Survey of India, Kolkata, India

Abstract

A new species of the genus *Hapalogenys*, *Hapalogenys bengalensis* sp. nov. is described from fourteen specimens collected from the Bay of Bengal coast. The species is distinct in having three longitudinal dark stripes; pelvic-fin tip almost reaching the base of first anal-fin spine when depressed; transverse scale rows above lateral line 7–8, below lateral line 19–20; gill rakers 18 (7 on lower limb and 11 on upper limb); posterior angle of jaw reaching vertical through anterior rim of eye. Genetic divergence (13.0–14.2%) and analysis of NJ tree shows that the new species is closely related to *H. kishinouyei* in the “*Hapalogenys kishinouyei* complex” with significant morphological difference from the other three species reported from the same complex.

Key words: India, Bay of Bengal, *Hapalogenys bengalensis* new species, DNA Barcoding

Introduction

The family Hapalogenyidae (Actinopterygii: Perciformes) is represented by a single genus *Hapalogenys* Richardson, 1844. However, the genus *Hapalogenys* has long been placed under the family Haemulidae (Akazaki 1984; Nelson 2006). Springer and Raasch (1995) established the family Hapalogeniidae (Hapalogenyidae) for *Hapalogenys* but without strong evidence. Ren and Zhang (2007), on the basis of molecular studies, supported the hypothesis of Springer and Raasch (1995) and suggested upgrading the genus *Hapalogenys* to the family Hapalogeniidae (Hapalogenyidae). Sanciangco *et al.* (2011), on the basis of a molecular phylogeny study confirmed that *Hapalogenys* is not a member of the family Haemulidae, but is a sister taxon to *Lobotes* (Lobotidae). The presence of short barbels or fur-like papillae on the chin, antrorse spine before the first dorsal-fin spine, rounded shape of caudal fin, absence of distinct canines on the palatines and vomer, and the presence of more than six sensory pores on the chin separate *Hapalogenys* from the Haemulidae.

The genus *Hapalogenys* is represented by 11 nominal species and seven valid species worldwide reported to date (Froese & Pauly 2013). Iwatsuki and Russell (2006) reviewed the genus *Hapalogenys* from the Indo-West Pacific region and included seven species under the genus, including the description of two new species. Iwatsuki and Russell (2006) included three valid species of the genus *Hapalogenys* with stripes viz. *Hapalogenys kishinouyei* Smith and Pope, 1906 with five stripes, *H. dampieriensis* Iwatsuki and Russell, 2006 with four stripes and *H. filamentosus* Iwatsuki and Russell, 2006 with two stripes, and termed as “*Hapalogenys kishinouyei* complex” a species group defined by having two to five longitudinal stripes on the body and with a filamentous pelvic fin.

During the collection of fish samples from the east coast of India, the authors came across a different species of the ‘*Hapalogenys kishinouyei* complex’, with three longitudinal stripes and filamentous pelvic fin. After thorough observations it was concluded that the species is different from the other species reported in the complex. Detail characters and diagnosis of the new species together with supporting genetic data (COI) are presented here.