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Schistura obliquofascia, a new loach from Uttarakhand, India (Cypriniformes: Nemacheilidae)

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Abstract

A new nemacheilid loach, *Schistura obliquofascia*, is described from Kalsa, a stream near Chanfi, tributary of Gola River, Ganga basin in Uttarakhand, India. The new species is readily distinguished from congeners by the following combination of characters: 12–14 oblique olivaceous dark bars on the body and three rows of black spots on the dorsal fin; lateral line complete with 104–112 pores, dorsal fin with 3–4 simple and 8½ branched rays; 8+8 branched rays in caudal fin; dorsal adipose crest prominent; males lacking suborbital flap; and 10–11 pores in preoperculo-mandibular canal. The sequence of the cytochrome *b* gene of length 307 base pairs was used for molecular characterization of the species.

Key words: Ganga basin, cytochrome b, phylogeny, New nemacheilid

Introduction

Fishes of the genus *Schistura* McClelland (1838) in the family Nemacheilidae are predominantly small sized with attractive coloration; medially interrupted lower lip without forming two lateral triangular pads; moderately arched mouth, 2.0–3.5 times wider than long; usually a black bar (sometimes dissociated) on caudal-fin base; dorsal fin with one or two black marks along its base (Kottelat 1990; Vishwanath & Laishram 2001). They inhabit running fresh waters of hill streams of most parts of continental Asia and adjacent islands (including Greater Sunda Islands), of Europe and northeast Africa (Ethiopia). Eschmeyer (2012) treated 182 species of *Schistura* as valid of which 12, viz., *Schistura beavani* (Günther), *S. chindwinica* (Tilak & Husain), *S. fasciata* Lokeshwor & Vishwanath, *S. minutus* Vishwanath & Shantakumar, *S. multifasciata* (Day), *S. papulifera* Kottelat, Harries & Proudlove, *S. reticulofasciata* (Singh & Banarescu), *S. savona* (Hamilton), *S. sijuensis* (Menon), *S. tigrinum* Vishwanath & Nebeshwar, *S. tirapensis* Kottelat, and *S. zonata* McClelland are distributed in the Ganga-Brahmaputra basin.

A collection of fishes from a stream near Chanfi, tributary of the Gola River, Ganga basin in Uttarakhand, India, included an unnamed species of *Schistura* which is herein described as *Schistura obliquofascia*. The phylogenetic position of the new species is also studied by comparing its nucleotide sequences of cytochrome b (cyt b) gene with that of *S. kloetzliae* Kottelat, *S. thai* (Fowler), *S. fasciolata* (Nichols and Pope), *S. beavani*, *S. longa* (Zhu) and *S. corica* (Hamilton).

Materials and methods

Live specimens were collected and tips of the caudal fins were dissected from the anesthetized specimens and kept in 95% alcohol and stored at -20°C until use. After removing the fin, specimens were preserved in 10% formalin along with two intact specimens for morphological studies. The type specimens are deposited in the Manipur