Badis laspiophilus, a new miniature addition to the ichthyofauna of West Bengal, north-eastern India, with observations on its ecology and preliminary notes on its ethology (Actinopterygii: Perciformes: Badidae)

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Abstract

Badis laspiophilus is described from the Torsa River drainage, West Bengal, India. It can be distinguished from congeners by a combination of characters which include a small size (15.7–21.0 mm SL), 14–16 circumpeduncular row scales, interorbital width 6.7–8.9 % SL, upper and lower jaws 8.2–9.2 and 10.2–13.4 % SL, respectively, presence of two dorsal-fin blotches and a single round blotch on the anal fin, and absence of cleithral, opercle and dorsolateral caudal peduncle blotches. Its benthic ecology is discussed and the Badis singenensis species group is diagnosed, of which B. laspiophilus and B. singenensis are considered members.

Key words: Percomorpha, Torsa River drainage, Shipra swamp area, Buxa Tiger Reserve

Introduction

The percoid genus Badis Bleeker, 1853 currently includes 21 recognised species (Kullander & Britz 2002; Vishwanath & Shanta 2004; Geetakumari & Vishwanath 2010; Schindler & Linke 2010; Geetakumari & Kadu 2011; Dahanukar et al. 2015; Valdesalici & van der Voort 2015). These are mostly distributed in Bangladesh, India, Myanmar and Nepal, with two species occurring in Thailand (Britz et al. 2012), while species richness is most pronounced in north-eastern India and Myanmar.

During a 2006 field survey in West Bengal, north-eastern India, a miniature badid with an unfamiliar colour pattern was captured (van der Voort 2009) and upon examination proved morphologically distinguishable from hitherto recognised species. The purpose of this paper is to provide a formal description of the West Bengal material as Badis laspiophilus, new species, alongside annotations on its exceptional benthic ecology and initial comments on its ethology.

The current research also calls for the recognition of a new species group, which we herein diagnose.

Material and methods

Type specimens were initially fixed in a 4 % formalin solution before being moved to a 75 % ethanol solution for long term storage. Morphometrics and meristics were taken following Kullander & Britz (2002). Measurements were made with an electronic digital calliper reading to the nearest tenth of a millimetre. All ratios are expressed as percentages of standard length (SL) or head length (HL). Counts were made under a dissecting microscope; fin ray counts were made with light transmitted through the fins. Numbers in parentheses following a count specify the quantity of specimens examined displaying that condition. Nomenclature of colour pattern (with the slight modification that we identify the posterior-most bar as the first) and terminology for the lateralis system on the head follows Kullander & Britz (2002). Osteological preparations (cleared and stained, C&S) as per Taylor & van Dyke (1985) with a slight modification (not stained for cartilage).