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Four new species of *Rasbora* of the Sumatrana group (Teleostei: Cyprinidae) from northern Sumatra, Indonesia

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Abstract

Four new species of the minnow genus *Rasbora* of the Sumatrana group, *R. arundinata*, *R. haru*, *R. maninjau*, and *R. bindumatoga*, are described from northern Sumatra. *Rasbora arundinata* is distinguished from all congeners in the Sumatrana group by the black midlateral stripe overall forming a reed-leaf-like profile. *Rasbora haru* differs from its congeners in the Sumatrana group in having the black midlateral stripe overall forming a stamen-like profile. The new species endemic to Lake Maninjau in central west Sumatra, *Rasbora maninjau*, is unique among all the congeners in the Sumatrana group in having a combination of the black midlateral stripe extending from the midhumeral region of uniform width, the prominent acutely triangular basicaudal blotch, and the oval supra-anal pigmentation. *Rasbora bindumatoga* is distinguished from all congeners in the Sumatrana group by a combination of the black rectangular subdorsal blotch, the absence of supra-anal pigmentation, and the somewhat oval basicaudal blotch. *Rasbora arundinata*, *R. maninjau*, and *R. bindumatoga* occur allopatrically in the northwestern coastal region of Sumatra, while *R. haru* is known from northeastern coastal area of Sumatra. A new diagnostic character for the Sumatrana group is described: partial exposure of the upper lip due to a submedial contact between the maxilla and the lower lip, which is marked posteriorly by a lachrymal groove.

Key words: Danioninae, *Rasbora*, new species, northern Sumatra, Sundaland

Introduction

Rasbora is a small-to-moderate-sized genus in the family Cyprinidae that lives throughout a vast geographical range within Asia, including the Indian subcontinent, southern China, and Southeast Asia (Weber & Beaufort 1916; Brittan 1954a). With currently 77 species, *Rasbora* constitutes the most species-rich genus in the cyprinid subfamily Danioninae (Eschmeyer 2013; Froese & Pauly 2013). Taxonomically, *Rasbora* has been widely considered as a catch-all group due to a lack of unique diagnostic characters (Brittan 1954a; Kottelat & Vidthayanon 1993; Liao *et al.* 2010; Tang *et al*. 2010). In the first and most comprehensive revision of *Rasbora*, Brittan (1954a) recognized three subgenera (*Rasbora*, *Rasboroides*, and *Megarasbora*), and further classified the subgenus *Rasbora* into eight species complexes: the *lateristriata*, the *sumatrana-elegans*, the *caudimaculata*, the *trifasciata*, the *argyrotaenia*, the *daniconius*, the *einthovenii*, and the *pauciperforata* complexes. Brittan's species complexes have been widely used as a practical system for the classification of the group and frequently revised by many authors (Kottelat & Vidthayanon 1993; Siebert & Guiry 1996; Kottelat 2005; Liao *et al.* 2010). In their brief revision of *Rasbora*, Kottelat & Vidthayanon (1993) replaced the category of species complex with 'species group,' which has been widely used by most of the later workers.

Authors after Brittan (1954a) have created several new genera (*Boraras*, *Brevibora*, *Horadandia*, *Kottelatia*, *Rasboroides*, *Trigonopoma*, and *Trigonostigma*) for some lineages within *Rasbora* (Kottelat & Vidthayanon 1993; Kottelat & Witte 1999; Liao *et al.* 2010). Despite these newly created genera, many workers still have recognized a larger assemblage equivalent to the concept of the genus *Rasbora sensu* Brittan (1954a), being frequently referred to as "the genus *Rasbora sensu lato*" (hereafter *Rasbora s. l.*). *Rasbora s. l.* comprises the genus *Rasbora sensu stricto* (hereafter *Rasbora s. s.*) and the new genera mentioned above (Kottelat & Vidthayanon 1993; Kottelat & Witte 1999; Conway 2005; Liao *et al.* 2010; Tang *et al.* 2010).

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approximately 53 km to Painan on Padang-Painan road, 1°04'52.8"S, 100°27'26"E.

Rasbora vulgaris: BMNH 1905.5.6.4–5 (syntypes), 2, 37.7 and 34.8 mm SL, Malaysia, Selangor, Kuala Lumpur; RMNH 24858, 20, 68.1–78.1 mm SL, Malaysia, Malacca, Penang, Baya Lepas; RMNH 26373, 5, 21.7–50.4, Malaysia, Selangor, 2 km Batu Tiga to Subang Road.

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