

A new species of the genus *Pethia* from Mizoram, northeastern India (Teleostei: Cyprinidae)

MAYANGLAMBAM DISHMA¹ & WAIKHOM VISHWANATH²*Department of Life Sciences, Manipur University, Canchipur-795003, Manipur, India.*E-mail: ¹dishma27@gmail.com; ²wvnath@gmail.com

Abstract

The paper describes *Pethia expletiforis*, a new cyprinid species from the Ka-ao River, Kaladan drainage, Mizoram, India. It is distinguished from its congeners in the Chindwin-Irrawaddy and Ganga-Brahmaputra drainages by the combination of: a complete lateral line, nine predorsal scales, 12 circumpeduncular scales, $\frac{1}{2}4/1\frac{1}{2}$ transverse scales, a black blotch on the caudal peduncle, and the absence of a humeral mark and barbels.

Key words: New cyprinid, Kaladan drainage, Northeastern India

Introduction

Pethiyagoda *et al.* (2012) segregated the South Asian members of the genus *Puntius* into five distinct genera, viz., *Dawkinsia*, *Dravidia*, *Pethia*, *Puntius* and *Systomus* and allocated 30 species previously under the genus *Puntius* under the genus *Pethia*. They recognized the genus to have the following combination of characters: small adult size (usually less than 50 mm SL, exceptionally to 80 mm SL); rostral barbels absent; maxillary barbels usually absent, minute if present; last unbranched dorsal-fin ray stiff, serrated; antrorse predorsal spinous ray and post-epiphysial fontanelle absent; free uroneural absent; infraorbital 3 deep, partially overlapping the cheek and preoperculum; lateral line complete, interrupted or incomplete (usually incomplete), with 19–24 scales on body in lateral series; a black blotch on caudal peduncle; and frequently other black blotches, spots or bars on side of body. Pethiyagoda (2013) replaced the genus *Dravidia* with *Haludaria* since the former is preoccupied in Diptera: Sarcophagidae.

The Kaladan (also known as Koladyne) is an independent drainage, originating from the western face of the Chin Hills in Myanmar and drains into the Bay of Bengal at Sittwe, Myanmar, after flowing through Mizoram, India. The ichthyofauna of the river is poorly explored. A recent ichthyological survey of the Ka-ao River, a tributary of the Kaladan near New Serkawr village of Saiha district, Mizoram, India, included some specimens of *Pethia*, which on detailed comparison with its congeners, proved to be an undescribed species, which is herein described as *Pethia expletiforis*, new species.

Material and methods

Specimens were preserved in 10% formalin and then transferred to 70% ethanol. Measurements were made point-to-point with digital callipers to the nearest 0.1mm. Counts and measurements follow Kullander (2008), except that the head depth at eye is measured vertical to the middle of the eye, and pre-anal scales are counted along the ventral midline from the posterior end of the head to the origin of the anal fin, but excluding the 1–2 successively smaller scales between the pelvic fins. Drawings were made from images captured using a digital camera fitted on a stereo-zoom light microscope. Head length (HL) and measurements of body parts are expressed as proportions of standard length (SL), and subunits of the head as proportions of head length. The value in parentheses after a specific count

- Pethia conchonius*, MUMF 3027/3, 44.6–47.8 mm SL; India: Manipur: Barak River.—MUMF 2012/2, 45.2–46.1 mm SL; India: Assam, Jatinga River.
- Pethia khugae*, MUMF 6112, 45.5 mm SL, holotype; India: Manipur, Khuga River, Churhampur district.—MUMF 6113, 3, 44.0–46.0 mm SL, paratypes; same as holotype.
- Pethia manipurensis*, MUMF 2701/3, 25.8–26.6 mm SL; India: Manipur, Manipur River, Imphal West District.
- Pethia meingangbii*, MUMF 501/1A, 34.0 mm SL, holotype; India: Manipur, Moreh Bazar, Moreh, Chandel district.—MUMF 501/2A, 30.0–35.0 mm SL, paratypes; same as holotype.
- Pethia ornata*, MUMF 3028, 42.0 mm SL, holotype; India: Manipur, Lokchao River, Moreh.—MUMF 3028 A, paratypes, 30.9–42.0 mm SL; same as holotype.
- Pethia phutunio*, ZSI F10929/1, 28.4 mm SL; Myanmar: Myitkyina district, Kamaing.
- Pethia stoliczkanai*, MUMF 6120, 10, 46.6–50.5 mm SL; MUMF 7250, 15, 47.5–53.9 mm SL; MUMF 9500-8, 9, 41.2–53.0 mm SL; India: Manipur, Lokchao River, Moreh.—MUMF 10001, 3, 41.0–45.5 mm SL; India: Manipur: Maklang River, Ukhru district.
- Pethia ticto*, MUMF 6115, 38 mm SL; India: Manipur, Jiri River, Jiribam subdivision.—MUMF 6116–6120, 5, 40.0–46.0 mm SL; India: Assam, Wetlands of Hajo, North Kamrup district.—MUMF 2501–2509, 9, 35.0–44.0 mm SL; India: Assam, Brahmaputra River, Guwahati.—MUMF 2510–2512, 3, 40.0–41.3 mm SL; India: Nagaland, Dikhu River, Moalenden.—MUMF 2513–2534, 21, 34.5–45.8 mm SL; India: Assam: Brahmaputra River, Guwahati.
- Pethia yuensis*, MUMF 500/1A, 44.0 mm SL, holotype; India: Manipur, Maklang River, 21 km from Moreh.—MUMF 500/4A, 29.0–55.0 mm SL, paratypes; India: Manipur, Moreh bazaar, Moreh.
- Pethia didi* & *P. tiantian*: data from Kullander & Fang (2005).
- Pethia erythromycter*, *P. macrogramma*, *P. nankyweensis* & *P. thelys*: data from Kullander (2008).
- Pethia gelius* & *P. shalynius*: data from Jayaram (1991).
- Pethia padamya*: data from Kullander & Britz (2008).

Acknowledgement

The authors are grateful to the Department of Biotechnology, New Delhi (Project No. BCIL/NER-BPMC/2012/1549) for research grant.

References

- Jayaram, K.C. (1991) Revision of the genus *Puntius* Hamilton from the Indian region. (Pisces: Cypriniformes, Cyprinidae, Cyprininae). *Records of the Zoological Survey of India, Occasional Paper*, 135, 1–178.
- Kar, D. & Sen, N. (2007) Systematic list and distribution of fishes in Mizoram, Tripura and Barak drainage of northeastern India. *Zoos' Print Journal*, 22, 2599–2607.
<http://dx.doi.org/10.11609/jott.zpj.1571a.2599-607>
- Kullander, S.O. (2008) Five new species of *Puntius* from Myanmar (Teleostei: Cyprinidae). *Ichthyological Exploration of Freshwaters*, 19 (1), 59–84.
- Kullander, S.O. & Britz, R. (2008) *Puntius padamya*, a new species of cyprinid fish from Myanmar (Teleostei: Cyprinidae). *Electronic Journal of Ichthyology*, 2, 56–66.
- Kullander, S.O. & Fang, F. (2005) Two new species of *Puntius* from northern Myanmar (Teleostei: Cyprinidae). *Copeia*, 2005, 290–302.
<http://dx.doi.org/10.1643/ci-04-138r1>
- Pethiyagoda, R. (2013) *Haludaria*, a replacement name for *Dravidia* (Teleostei: Cyprinidae). *Zootaxa*, 3646 (2), 199.
<http://dx.doi.org/10.11646/zootaxa.3646.2.9>
- Pethiyagoda, R., Meegaskumbura, M. & Maduwage, K. (2012) A synopsis of the South Asian fishes referred to *Puntius* (Pisces: Cyprinidae). *Ichthyological Exploration of Freshwaters*, 23 (1), 69–95.
- Roberts, T.R. (1989) The freshwater fishes of Western Borneo (Kalimantan Barat, Indonesia). *Memoirs of the California Academy of Sciences*, 14, 1–210.
- Roberts, T.R. (1992) Revision of the striped catfishes of Thailand misidentified as *Mystus vittatus*, with descriptions of two new species (Pisces: Bagridae). *Ichthyological Exploration of Freshwaters*, 3, 77–88.