

***Garra laishrami*, a new species of cyprinid fish
(Teleostei: Cyprinidae)
from the Godavari River drainage,
Eastern Ghats of Odisha, India**

Supriya Surachita*, Basudhara Roy Chowdhury** and Sharat Kumar Palita*

Garra laishrami, a new cyprinid fish, is described from the Godavari River drainage in Odisha, India. It is distinguished from all its congeners in the Indian sub-continent in having a combination of the following characters: a weakly developed bilobed proboscis, each lobe with 1–4 unicuspид acanthoid tubercles; transverse lobe of the snout covered with 33–47 medium- to large-sized unicuspид acanthoid tubercles; transverse groove demarcating transverse lobe on snout extended laterally; two prominent tubercles anteromedially between nostrils; 9–10 predorsal scales; lateral line complete, scales along lateral line (28–32)+2 on caudal-fin base; and 15 circumpectoruncular scale rows.

Introduction

Species of labeonine genus *Garra* are elongate, small- to medium-sized, bottom-dwelling fishes distributed from Borneo, southern China and southern Asia through Middle East Asia, Arabian Peninsula and East Africa to West Africa (Zhang & Chen, 2002). They are usually found under rocks and among stones and boulders of torrential streams and rivers. They adhere to the rocky bottom substrate with the help of a gular disc, acting like a sucker (Kottelat, 2020). Species of this genus are characterised by the presence of a gular disc developed from tissues of the gular region (Kottelat, 2020) and that exhibit variations in the size, shape and arrangement of the snout

tubercles (Nebeshwar & Vishwanath, 2013). To date, four species of *Garra* have been reported from the freshwater bodies of Odisha viz., *Garra annandalei* Hora, 1921; *G. gotyla* (Gray, 1830); *G. lamta* (Hamilton, 1822) and *Garra mullya* (Sykes, 1839) [Mogalekar & Cancial, 2018].

The Kolab River rises near the Sinkaram Hills of the Eastern Ghats, passing through Koraput, Nabarangpur and Malkanagiri districts in Odisha. It is an important tributary of the Godavari River, having a total length of 448 km, of which 88 km flow in the Koraput District. A collection of fishes from the Kolab River in the Koraput District of Odisha included an undescribed species of *Garra*, which is described herein.

* Department of Biodiversity and Conservation of Natural Resources, Central University of Odisha, Landiguda, Koraput - 764020, India. E-mails: skpalita@gmail.com (SKP, corresponding author), surachitasupriya@gmail.com (SS)

** Zoological Survey of India, Freshwater Fish Section, 27 J.L. Nehru Road, Kolkata-700016, India.
E-mail: basudhararoychowdhury@gmail.com

Literature cited

- Annandale, N. 1919. The fauna of certain small streams in the Bombay Presidency. V. Notes on freshwater fish mostly from the Satara and Poona districts. Record of the Indian Museum, 16: 125–138.
- Baliarsingh, B. K., L. Kosygin, S. K. Swain & A. K. Nayak. 2013. Species diversity and habitat characteristics of freshwater fishes in the Similipal Biosphere Reserve, Odisha with some new records. Biological Forum, 5: 64–70.
- Chauhan, B. S. 1947. Fish and fisheries of the Patna State, Orissa. Record of Indian the Museum, 45: 267–282.
- Dandapat, A. K. 2015. Fish fauna study of Samuka River. M. Sc. Thesis. Orissa University of Agriculture and Technology, Bhubaneswar, 35 pp.
- Das, U., L. Kosygin & A. K. Panigrahi. 2016. *Garra binduensis*, a new species of cyprinid fish (Teleostei: Cypriniformes) from North Bengal, India. Bioglobia, 3: 52–58.
- Ezung, S., B. Shangningam & P. P. Pankaj. 2021. A new fish species of genus *Garra* (Teleostei: Cyprinidae) from Nagaland, India. Journal of Threatened Taxa, 13: 18618–18623.
- Gong, Z., J. Freyhof, J. Wang, M. Liu, F. Liu, P. Lin, Y. Jiang & H. Liu. 2018. Two new species of *Garra* (Cypriniformes: Cyprinidae) from the lower Yarlung Tsangpo River drainage in southeastern Tibet, China. Zootaxa, 4532: 367–384.
- Gray, J. E. 1830–1835. Illustrations of Indian zoology; chiefly selected from the collection of Major-General Hardwicke, Treuttel, Wurtz, Treuttel, Jun. and Richter, London & Parbury, Allen & Co., London, 2 vols., 200 pls.
- Gurumayum, S. D. & L. Kosygin. 2016. *Garra tamangi*, a new species of cyprinid fish (Teleostei: Cypriniformes) from Arunachal Pradesh, northeastern India. Species, 55: 84–93.
- Hamilton, F. 1822. An account of the fishes found in the river Ganges and its branches. Archibald Constable & Co., Edinburgh & Hurst, Robinson & Co., London, i–vii + 1–405, pls. 1–39.
- Heda, H. K. 2009. Fish diversity studies of two rivers of the northeastern Godavari basin, India. Journal of Threatened Taxa, 1: 514–518.
- Hora, S. L. 1921. Indian cyprinoid fishes belonging to the genus *Garra*, with notes on related species from other countries. Records of the Indian Museum, 22: 633–687.
- Jerdon, T. C. 1849. On the freshwater fishes of southern India. Madras Journal of Literature and Science, 15: 302–346.
- Kosygin, L. B. Shangningam, P. Singh & U. Das. 2021. *Garra jaldhakaensis*, a new cyprinid fish (Teleostei: Cyprinidae) from West Bengal, India. Records of the Zoological Survey of India, 121: 325–331.
- Kottelat, M. 2001. Fishes of Laos. Wildlife Heritage Trust, Colombo, 198 pp.
- Kottelat, M. 2020. *Ceratogarra*, a genus name for *Garra* *cambodiensis* and *G. fasciacauda* and comments on the oral and gular soft anatomy in labeonine fishes (Teleostei: Cyprinidae). Raffles Bulletin of Zoology, Supplement, 35: 156–178.
- McClelland, J. 1838. Observations on six new species of Cyprinidae, with an outline of a new classification of the family. Journal of the Asiatic Society of Bengal, 7: 941–948.
- Menon, A. G. K. 1964. Monograph of the cyprinid fishes of the genus *Garra* Hamilton. Memoirs of the Indian Museum, 14: 173–260.
- Mogalekar, H. S. & J. Cancyal. 2018. Freshwater fishes of Orissa, India. Journal of Fisheries, 6: 587–598.
- Moyon, W. A. & L. Arunkumar. 2018. *Garra moyon-khullenii*, a new labeonine species (Cyprinidae: Labeoninae) from Manipur, Northeastern India. International Journal of Fisheries and Aquatic Studies, 6: 107–115.
- Nebeshwar, K. & W. Vishwanath. 2013. Three new species of *Garra* (Pisces: Cyprinidae) from north-eastern India and redescription of *G. gotyla*. Ichthyological Exploration of Freshwaters, 24: 97–120.
- Nebeshwar, K. & W. Vishwanath. 2017. On the snout and oromandibular morphology of genus *Garra*, description of two new species from the Koladyne River basin in Mizoram, India, and redescription of *G. manipurensis* (Teleostei: Cyprinidae). Ichthyological Exploration of Freshwaters, 28: 17–53.
- Nebeshwar, K., K. Bagra & D. N. Das. 2012. *Garra kalpangi*, a new cyprinid fish species (Pisces: Teleostei) from upper Brahmaputra basin in Arunachal Pradesh, India. Journal of Threatened Taxa, 4: 2353–2362.
- Prashad, B. 1919. On a new species of *Discognathus* from the Kangra Valley. Records of the Indian Museum, 16: 163–165.
- Premananda, N., L. Kosygin & B. Saidullah. 2017. *Garra chindwinensis*, a new species of cyprinid fish (Teleostei: Cypriniformes) from Manipur, Northeastern India. Records of the Zoological Survey of India, 117: 191–197.
- Ramakrishna, S. Z. Siddiqui, P. Sethy & S. Dash. 2006. Faunal resources of Similipal Biosphere Reserve, Mayurbhanj, Orissa. Conservation Area Series, 28: 1–87, 8 pls.
- Rao, C. R. N. 1920. Some new species of cyprinoid fish from Mysore. Annals and Magazine of Natural History, Series 9, 6: 45–64, pls. 1–2.
- Rath, S., B. Shangningam & L. Kosygin. 2019. *Garra simbalbaraensis*, a new species of cyprinid fish (Teleostei: Cyprinidae) from Himachal Pradesh, India. Zootaxa, 4652: 487–496.
- Roni, N., Y. Chinglemba, Y. Rameshori & W. Vishwanath. 2019. A new species of the genus *Garra* Hamilton (Teleostei: Cyprinidae) from Northeast India. Zootaxa, 4619: 545–554.
- Roni, N. & W. Vishwanath. 2017. *Garra biloborostris*, a new labeonine species from north-eastern India (Teleostei: Cyprinidae). Vertebrate Zoology,

- 67: 133–137.
- Roni, N. & W. Vishwanath. 2018. A new species of the genus *Garra* (Teleostei: Cyprinidae) from the Barak River drainage, Manipur, India. Zootaxa, 4374: 263–272.
- Roni, N., T. Sarbojit & W. Vishwanath. 2017. *Garra clavirostris*, a new cyprinid fish (Teleostei: Cyprinidae: Labeoninae) from the Brahmaputra drainage, India. Zootaxa, 4244: 367–376.
- Shangningam, B. & W. Vishwanath. 2015. Two new species of *Garra* from the Chindwin basin, India (Teleostei: Cyprinidae). Ichthyological Exploration of Freshwaters, 26: 263–272.
- Shangningam, B., L. Kosygin & B. Sinha. 2019. A new species of rheophilic cyprinid fish (Teleostei: Cyprinidae) from the Brahmaputra Basin, northeast India. Zootaxa, 4695: 148–158.
- Singh, D. F. & G. M. Yazdani. 1992. Studies on the Ichthyofauna of Nasik District, Maharashtra, India. Records of the Zoological Survey of India, 90: 195–201.
- Sun, C., X. Li, W. Zhou & F.-L. Li. 2018. A review of *Garra* (Teleostei: Cypriniformes) from two rivers in West Yunnan, China with description of a new species. Zootaxa, 4378: 49–70.
- Sykes, W. H. 1839. On the fishes of the Deccan. Proceedings of the Zoological Society of London, 1838: 157–165.
- Thoni, R. J., D. B. Gurung & R. L. Mayden. 2016. A review of the genus *Garra* Hamilton 1822 of Bhutan, including the descriptions of two new species and three additional records (Cypriniformes: Cyprinidae). Zootaxa, 4169: 115–132.
- Vishwanath, W. 1993. On a collection of fishes of the genus *Garra* Hamilton from Manipur, India, with description of a new species. Journal of Freshwater Biology, 5: 59–68.
- Wu, H.-W. & Yao. 1977. Barbinae. Pp. 229–394 in: H.-W. Wu et al (eds.), [The cyprinid fishes of China]. Volume 2. People's Press, Shanghai [in Chinese].
- Zhang, E & Y.-Y. Chen. 2002. *Garra tengchongensis*, a new cyprinid species from the upper Irrawaddy River basin in Yunnan, China (Pisces: Teleostei). Raffles Bulletin of Zoology, 50: 459–464.
- Zhang, E. 2006. *Garra rotundinasus*, a new species of cyprinid fish (Pisces: Teleostei) from the upper Irrawaddy River basin, China. Raffles Bulletin of Zoology, 54: 447–453.

Received 7 December 2021

Revised 8 May 2022

Accepted 10 January 2023

The whole contribution can be purchased as PDF file.

Availability

Generally all our publications are available as PDF files; full publications as a general rule after the printed version is out of print. If you have questions concerning particular contributions please contact us by e-mail:
pdf@pfeil-verlag.de.

The PDF files are protected by copyright.

The PDF file may be printed for personal use. The reproduction and dissemination of the content or part of it is permitted. It is not allowed to transfer the digital personal certificate or the password to other persons.

Prices

Books: Prices are to be found in the catalog.

Articles in journals and single contributions or chapters in books:

10 EURO basic price per order (including the first 10 pages),
and

0,50 EURO per page, beginning with the 11th page.

Page numbers are found in the contents of the publications.

Orders

Use our order form for PDF files or send your order informal per e-mail (pdf@pfeil-verlag.de). The only accepted payment is by credit card. While using the order form for PDF files, your data will be transmitted by secure link (ssl). You also may send the informations informally by e-mail, fax, phone or mail.

Handling

As soon as possible, depending on our business hours and your order, you will receive your PDF file together with the certificate and password by e-mail.

Larger PDF files can be downloaded from our webspace, if necessary.

Your invoice will be sent out by e-mail after we charged your credit card.

To open the encrypted PDF files you have to install your personal certificate after your first order. All PDF files with the same certificate can be opened from that time on.

Dieser Beitrag kann als PDF-Datei erworben werden.

Verfügbarkeit von PDF-Dateien

Prinzipiell sind von allen unseren Publikationen PDF-Dateien erhältlich. Komplette Publikationen in der Regel erst nachdem die gedruckte Version vergriffen ist. Anfragen bezüglich bestimmter Beiträge richten Sie bitte per E-Mail an pdf@pfeil-verlag.de.

Die PDF-Dateien sind urheberrechtlich geschützt.

Ein Ausdruck der PDF-Dateien ist nur für den persönlichen Gebrauch erlaubt.

Die Vervielfältigung von Ausdrucken, erneutes Digitalisieren sowie die Weitergabe von Texten und Abbildungen sind nicht gestattet.

Das persönliche Zertifikat und das Passwort dürfen nicht an Dritte weitergegeben werden.

Preise

Bücher: Die Preise sind dem Katalog zu entnehmen. Zeitschriftenbeiträge und einzelne Kapitel aus Sammelbänden bzw. Büchern:

10 EURO Grundbetrag pro Bestellung (einschließlich der ersten 10 Seiten),
und

0,50 EURO pro Seite ab der 11. Seite.

Den Umfang der Beiträge entnehmen Sie bitte den Inhaltsverzeichnissen.

Bestellungen

Bestellungen sind mit dem PDF-Bestellformular oder formlos per E-Mail (pdf@pfeil-verlag.de) an uns zu richten. Die Bezahlung ist ausschließlich per Kreditkarte möglich. Bei Verwendung unseres Bestellformulars werden die Kreditkartendaten über eine gesicherte Verbindung (ssl) übermittelt. Sie können die Daten aber auch formlos per E-Mail, Fax, Post oder telefonisch übermitteln.

Abwicklung

So bald wie möglich, aber abhängig von unseren Bürozeiten und der gewünschten Bestellung, schicken wir Ihnen die PDF-Datei(en) zusammen mit Ihrem persönlichen Zertifikat und dem zugehörigem Passwort per E-Mail. Größere Dateien bieten wir Ihnen gegebenenfalls zum Herunterladen an.

Der fällige Betrag wird von Ihrer Kreditkarte abgebucht und Sie erhalten die Rechnung ebenfalls per E-Mail.

Um die verschlüsselten PDF-Dateien öffnen zu können, muss bei der ersten Bestellung das passwortgeschützte persönliches Zertifikat installiert werden, welches anschließend auf dem Rechner verbleibt. Alle mit diesem Zertifikat verschlüsselten Dateien können anschließend auf diesem Rechner geöffnet werden.