

**ACROSSOCHEILUS MANIPURENSIS** sp. nov. (PISCES : CYPRINIDAE)  
FROM MANIPUR, INDIA

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ABSTRACT

A new species *Acrossocheilus manipurensis* under the family Cyprinidae from Eastern Manipur has been described.

INTRODUCTION

During the course of our taxonomic studies on the fishes of Taret hill stream, Saibol, Tengnoupal district, Manipur, collected by Mr. I. S. Laishram, we came across an interesting example of fish belonging to the genus *Acrossocheilus*, 130 mm. in total length. This example represent hitherto an unknown species. Genus *Acrossocheilus* is represented in India by the only species, *Acrossocheilus hexagonolepis* (Mc Clelland). Species under the genus *Acrossocheilus* are mainly distributed in mountain stream of Burma, Thailand, Indo-China, China, Malaya and Sumatra.

SYSTEMATIC POSITION

Order : CYPRINIFORMES

Suborder : CYPRINOIDEI

Family : CYPRINIDAE

Genus : *Acrossocheilus* Oshima

*Acrossocheilus manipurensis* sp. nov. (Fig. 1 and 2)

MATERIAL

*Holotype* : 130 mm. in total length, Reg. No. Z. S. I. FF. 1698.

*Locality* : Taret hill stream, Saibol, 20 kms. east of Tengnoupal, Manipur, Coll. I. S. Laishram, Date-15. V. 1981.

DESCRIPTION

D. 3/8, P. 16, V. 9, A. 2/5, C. 19 L. I. 40-41  
L. tr. 5.5/5.5.

Body laterally compressed, dorsal profile arched. Depth of body 4.19 in total length and 3.26 in standard length. Length of head 5.42 in total length and 4.21 in standard length. Width of head 1.50, height of head 1.20 in head length. Height of head 1.55 in depth of body. Eye diameter 3.00 in length of head. Snout arched, its length 2.82 in length of head, beset with pores and tubercles. 8 spinous gill rakers on the upper arm of the first gill arch ; on lower arm 2 spinous and 2 short and blunter gill rackers finally reduced

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to mere ridges. Upper lip separated from upper jaw with a groove, lower labial fold interrupted in the middle. Interorbital space 1.12 in diameter of eye.

Barbel two pairs, rostral and maxillary. Rostral barbel 3.00 and maxillary barbel 3.20 in head length. Rostral as long as and maxillary 1.07 in eye diameter. Height of dorsal fin 5.42 in total length, 4.21 in standard length. Base of dorsal fin 8.12 in total length, 6.31 in standard length. Dorsal fin insertion

length. Caudal deeply forked, lobes are almost equal. Length of caudal 4.48 in total length, 3.48 in standard length.

Lateral line complete with 40-41 scales, predorsal scales 13, lateral transverse scales 5.5/5.5, 3.5 scales between lateral line and base of ventral fin. Depth of caudal peduncle 1.36 in its length, circumpeduncular scales 12. Back and top of head dark slate coloured, scales with black marking, underside pale yellow, a black mark covering the caudal base.

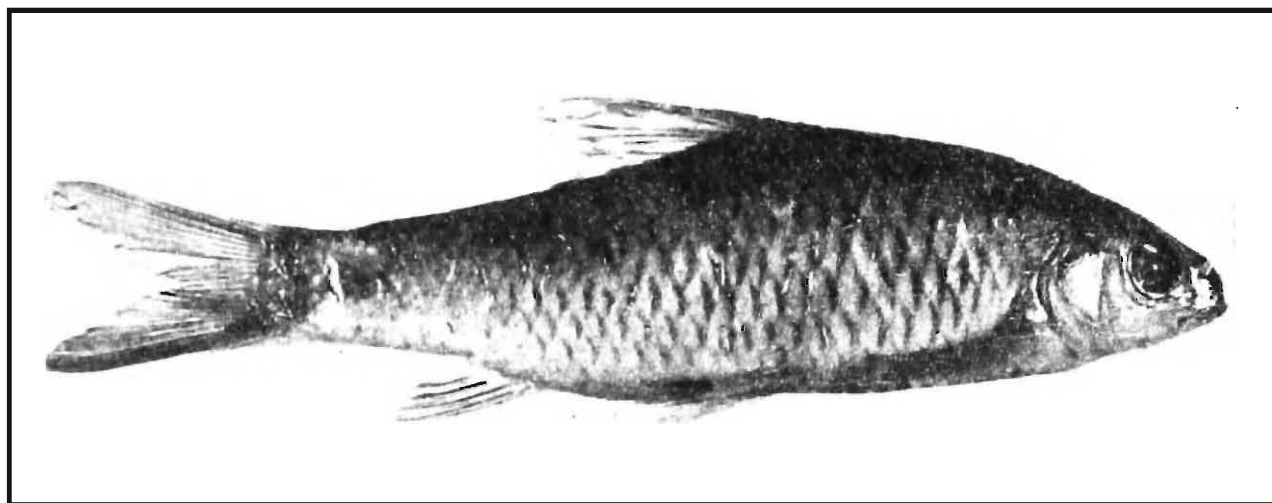


Fig. 1. Lateral view of *Acrossocheilus manipurensis* sp. nov. (Reg. No. Z. S. I. FF. 1698, 180 mm. in total length).

opposite to ventral fin insertion, lies slightly nearer to tip of snout than caudal base. Last undivided ray of dorsal fin strong, bony and denticulated. Pectoral fin 6.05 in total length, 4.70 in standard length, 1.12 in head length and 0.72 in head length excluding snout. Pectoral does not reach base of ventral. Ventral 6.84 in total length, 5.32 in standard length.

Eye diameter 3.12 in that of distance between ventral and anal fin insertions. Length of anal 6.50 in total length, 5.05 in standard

#### Relationship

Genus *Acrossocheilus* is distinguished by its conspicuously separated lower lip from lower jaw, having horny sheath; snout and cheeks bearing horny tubercles; barbels two rostral and two maxillary. *Acrossocheilus manipurensis* is distinctly separated from *A. hexagonolepis* (Mc Clelland) in having 40-41 lateral line scales versus 28-31; lateral transverse scales 5.5/5.5 versus 4.5/2.5; predorsal scales 13 versus 8; number of circumpeduncular scales 12 versus 9 and with a denticulated

bony dorsal spine versus a nondenticulated spine. It also varies from *A. hexagonolepis* in the following body measurements : length of head, caudal length and length of largest ray of dorsal in total length ; depth of body in

29-33 ; circumpeduncular scales 12 versus 14 ; origin of dorsal fin over 12th scale of lateral line versus over 10th scale of lateral line.

*A. manipurensis* comes closer to *A. bantamensis*, however, it differs *A. bantamensis* in

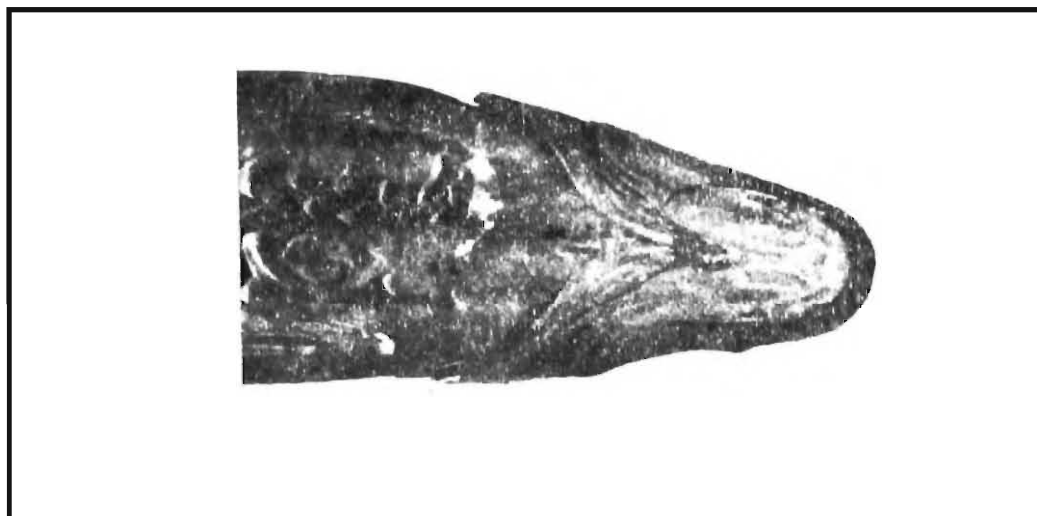


Fig. 2. Ventral view of the head of *Acrossocheilus manipurensis* sp. nov.

height of body ; eye diameter in that of distance between ventral and anal fin insertions.

having 3 unbranched dorsal spine versus 4 ; 40-41 lateral line scales versus 34-38 ; circumpeduncular scales 12 versus 14 ; depth of

TABLE 1. Comparison of *A. manipurensis* sp. nov. with related species

| Sl. No. | Characters                             | <i>A. hexagonolepis</i>         | <i>A. deauratus</i>             | <i>A. bantamensis</i>           | <i>A. manipurensis</i>          |
|---------|--|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 1.      | Dorsal fin                             | with 9 branched rays            | with 8 branched rays            | with 8 branched rays            | with 8 branched rays            |
| 2.      | Last simple dorsal ray                 | Osseous and smooth              | Osseous and denticulated        | Osseous and denticulated        | Osseous and denticulated        |
| 3.      | Lateral line scales                    | 28-31                           | 29-33                           | 34-38                           | 40-41                           |
| 4.      | Pte-dorsal scales                      | 8                               | 11-12                           | 12-14                           | 13                              |
| 5.      | Circumpeduncular scales                | 9                               | 14                              | 14                              | 12                              |
| 6.      | Depth of caudal peduncle in its length | 1.5                             | 1.5                             | 2.0                             | 1.36                            |
| 7.      | Lateral line transverse                | 4½-2½                           | 4½ to 6-1-2½ to 3               | 5½-1-2½ to 3                    | 5½-5½                           |
| 8.      | Origin of dorsal fin                   | Over 11th scale on lateral line | Over 10th scale on lateral line | Over 13th scale of lateral line | Over 12th scale of lateral line |

*A. manipurensis* also differs from *A. deauratus* in having 40-41 lateral line scales versus

caudal peduncle in its length 1.36 versus 2.0 ; origin of dorsal fin over 12th scale versus

over 13th scale. The points of differences detailed above are shown in the table 1.

*Key to the Indian and allied Indo Malay species of Acrossocheilus osima*

- 1 (a) Dorsal spine osseous and smooth, branched dorsal rays 9.
- 2 (a) Lateral line scales 28-31; predorsal scales 8; circumpeduncular scales 9. ... *A. hexagonolepis* (McClelland)
- 2 (b) Lateral line scales 23-25; predorsal scales 7-8; circumpeduncular scales 12. ... *A. sumatranus* (Weber & Beaufort)
- 1 (b) Dorsal spine osseous and denticulated; branched dorsal rays 8.
- 2 (c) Lateral line scales 24; predorsal scales 9; circumpeduncular scales 12. ... *A. vittatus* Smith
- 2 (d) Lateral line scales 26, predorsal scales 8; circumpeduncular scales 14. ... *A. malcolmi* Smith
- 2 (e) Lateral line scales 29-33; predorsal scales 11-14; circumpeduncular scales 14. ... *A. deauratus* (Cuv. & Val.)
- 2 (f) Lateral line scales 34-38; predorsal scales 11-14; circumpeduncular scales 14. ... *A. bantamensis* (Rendahl)
- 2 (g) Lateral line scales 40-41; predorsal scales 13; circumpeduncular scales 12. ... *A. manipurensis* sp. nov.

- 1 (c) Dorsal spine osseous and denticulated; branched dorsal rays 9.
- 2 (h) Lateral line scales 34; predorsal scales 11; circumpeduncular scales 6. ... *A. schroederi* Smith

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