

# A NEW FRESHWATER CYPRINID FISH *ASPIDOPARIA* FROM THE CHATRICKONG RIVER, MANIPUR, INDIA<sup>1</sup>

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(With two text-figures)

**Key words:** *Aspidoparia*, new species, Manipur

The freshwater cyprinid genus *Aspidoparia* Heckel distributed in India and west Asia, is represented by two species in India, namely *A. morar* (Hamilton-Buchanan) and *A. jaya* (Hamilton-Buchanan). This paper describes *A. ukhrulensis* from the Chatrickong river draining the southeastern part of Ukhrul district, Manipur. The species is characterised by 14 rows of scales in front of the dorsal fin; lateral line scales 35-37; pectoral fin I, 12-13; pharyngeal teeth 2 rows, lateral scale count from lateral line to ventral fin 2; absence of barbels; deciduous moderate scales. It has smaller head width, and less height at occiput. This species differs from *A. morar* and *A. jaya* in having fewer lateral line scales. A key to identification of the genus is provided.

## INTRODUCTION

The genus *Aspidoparia* was erected by Heckel (1843) to accommodate *A. jaya* and *A. morar*, both described by Hamilton-Buchanan (1822) from India. Two species of the genus have been recognised so far: *A. morar* (Hamilton) and *A. jaya* (Hamilton), both from India. The relationships of *Aspidoparia* have been discussed by Howes (1979) based on osteological characters. This genus is Oriental, but is also represented in west Asia (Kottelat 1984). A new species of *Aspidoparia* is described from the Chatrickong river, flowing through Chatric village in Ukhrul district, Manipur, India. The Chatrickong is formed by two important rivers Khunukong and Sanalok, which meet at Dhadado and flow as Chatrickong for about 5 km in the Indian region, then on to Myanmar, finally joining the Chindwin drainage.

During a survey on June 6, 1996, we collected 4 specimens from the lower course of Chatrickong in Ukhrul district, which is the waterhead of the Chindwin drainage in eastern

Manipur. This report describes a new species of *Aspidoparia*. Notes on *A. morar* and *A. jaya*, and a key to the genus *Aspidoparia* are also provided.

## MATERIAL AND METHODS

The specimens were collected by side tracking, locally known as Kongkakhai, on the side of the lower course of the river. The fishes were fixed and preserved in 10% formalin. The type specimens are deposited in the Manipur University Museum of Fishes (MUMF); measurement and counts follow Jayaram (1981). The body proportions are expressed as percentage of Standard Length (SL) and Head Length (HL). Lateral transverse scales were counted as scales between lateral line and dorsal fin origin, and also from lateral line to the base of the ventral fin origin.

*Aspidoparia ukhrulensis* sp. nov.

(Figs 1-2)

**Local name:** *Boikisi*.

**Holotype:** MUMF 1025, 75.1 mm SL, Chatrickong river, Ukhrul district, Manipur, 150 km from Imphal, India. 6.vi.1996, coll. Keishing Selim

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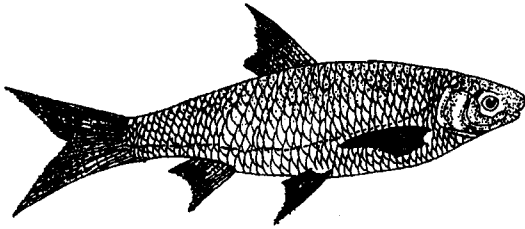


Fig. 1: *Aspidoparia ukhrulensis* sp. nov.

**Paratype:** MUMF 1026, 1027, 1028 (3 specimens), 69.5-76.7 mm SL. Data same as holotype.

#### KEY TO THE SPECIES

- a. Lateral line scales 52-60; anal fin with 7 branched rays, pharyngeal teeth in two rows ..... *A. jaya*
- b. Lateral line scales 38-42; anal fin with 9 branched rays, pharyngeal teeth in three rows ..... *A. morar*
- c. Lateral line scales 35-37; anal fin with 9 branched rays, pharyngeal teeth in two rows ..... *A. ukhrulensis*

#### DESCRIPTION

D ii, 7; P i, 12-13; V i, 7; A iii, 9; PDS 14; L1. 35-37; Ltr 5/1/3; C 19 (10+9). Body elongate and subcylindrical; abdomen rounded. Head length short compared to depth of body, mouth small and inferior, jaws short, no barbels. Lower jaw curved without any lip, pharyngeal teeth in two rows. Dorsal fin inserted opposite to the origin of pelvic fin and nearer the base of the caudal fin. The first simple dorsal ray is strong, osseous and not serrated posteriorly. Pectoral fins long and pointed posteriorly, their length longer than the dorsal height, not reaching the pelvic fin base. Pelvic fins do not reach anal fin base. Vent opens at the base of anal fin. Scales moderate and deciduous. There are 5 rows of scales between the dorsal fin origin and the lateral

line and 2 rows from the lateral line to the base of ventral fin. Lateral line is complete with 35-37 scales and is slightly curved. Caudal fin forked with lower lobe longer than the upper.

**Proportional Measurements:** Body depth 26.85-28.48, Head length 21.15-23.30, Caudal length 24.36-27.10, Predorsal length 54.82-56.32, Dorsal fin height 20.00-20.90, Pectoral fin length 23.70-24.74, Pelvic fin length 15.53-16.29, Anal fin height 13.66-14.73, Caudal peduncle length 13.42-14.11, Caudal peduncle depth 10.90-11.21 in SL. Head width 49.69-50.00, Head height at occiput 75.46-80.00, Eye diameter 30.86-32.51, Interorbital space 33.33-36.80, Pectoral length 96.36-100.09, Snout length 24.53-27.87 in HL.

**Colour:** Back silvery-white and belly pale white.

**Habitat:** Found only at the lower course of the river where the current was slow. It does not come upstream where the current is strong, preferring pools with sandy bottom.

**Etymology:** The species is named after the type locality, Ukhrul district, Manipur.

**Distribution:** Chatrickong river, Ukhrul district, Manipur, India.

**Remarks:** *Aspidoparia ukhrulensis* differs from *A. morar* (Ham.-Buch.) in having fewer lateral line scales (35-37 vs. 38-42); fewer predorsal scales (14 vs. 17-18); pharyngeal teeth 2 rows vs. 3 rows; lateral transverse scale count from lateral line to the base of ventral fin 2 vs. 3. It also differs from *A. jaya* in lateral line scale count, 35-37 vs. 52-60. We feel that *A. jaya* and *A. ukhrulensis* are different species as the lateral line scale variation range differs vastly. Hence, physical examination was not done in *A. jaya*. Only that of *A. morar* was done for comparison.

*Aspidoparia jaya* (Ham.-Buch.)

*Cyprinus jaya* Ham.-Buch., 1822, Fish of Ganges: 333, 392 (type locality: northern Bihar)

NEW DESCRIPTIONS

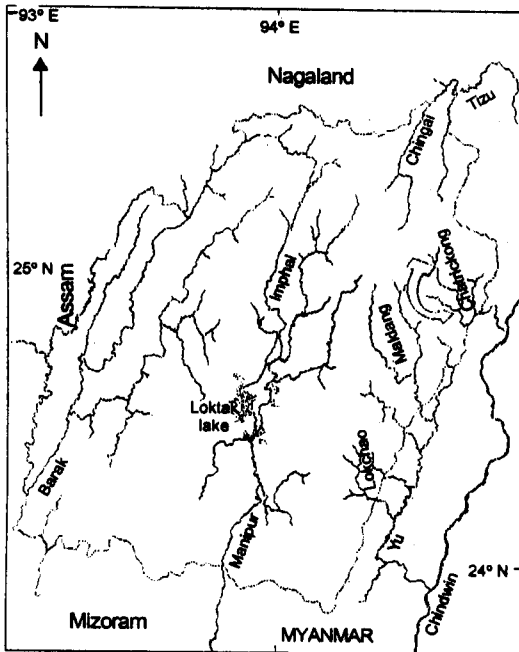


Fig. 2: Drainage map of Manipur showing the collection site

**Material examined:** None. (Description after Talwar & Jhingran, 1991)

**Diagnosis:** A species of *Aspidoparia* with anal fin having 7 branch rays; pharyngeal teeth in two rows; lateral line scales 52-60.

**Distribution:** INDIA: Gangetic provinces and Assam; Nepal and Bangladesh.

**Remarks:** The species differs from *A. morar* in branched anal rays 7 vs. 9; lateral line 52-60 vs. 38-42; pharyngeal teeth 2 rows vs 3 rows.

*Aspidoparia morar* (Ham.-Buch.)

*Cyprinus morar* Ham.-Buch., 1822, Fish of Ganges: 264, 384, pl. 31, fig. 75 (type locality: Yamuna river and Tista river).

**Material examined:** MUMF/888-90, 88.5-138.4 mm in SL, 26.ii.1997, Leimatak river.

TABLE 1  
COMPARISON OF MORPHOMETRIC DATA AND COUNTS OF *A. UKHRULENSIS* SP. NOV. WITH THOSE OF *A. MORAR* FROM MANIPUR

| Characters                | Holotype                               | Paratype                                  | Paratype                           |
|---------------------------|--|---|------------------------------------|
|                           | MUMF/<br>1025<br><i>A. ukhrulensis</i> | MUMF/<br>1026-28<br><i>A. ukhrulensis</i> | MUMF/<br>888-90<br><i>A. morar</i> |
| Head length               | 21.70                                  | 21.15-23.30                               | 19.24-22.20                        |
| Body depth                | 27.82                                  | 26.85-28.48                               | 25.53-27.75                        |
| Caudal length             | 24:36                                  | 24.36-27.10                               | 27.02-27.55                        |
| Predorsal length          | 56.32                                  | 54.82-56.32                               | 53.82-59.26                        |
| Dorsal fin height         | 20.90                                  | 20.00-20.90                               | 27.23-24.83                        |
| Pectoral fin length       | 23.70                                  | 23.70-24.74                               | 22.48-24.83                        |
| Pelvic fin length         | 16.51                                  | 15.53-16.51                               | 14.01-16.55                        |
| Anal fin length           | 14.51                                  | 13.66-14.73                               | 13.80-14.39                        |
| <b>In % of HL</b>         |  |   |                                    |
| Head width                | 49.69                                  | 49.69-50.00                               | 50.00-65.40                        |
| Head height at occiput    | 75.46                                  | 75.46-80.00                               | 73.00-100.0                        |
| Eye diameter              | 32.51                                  | 30.86-32.51                               | 29.66-38.38                        |
| Interorbital space        | 36.38                                  | 33.33-36.80                               | 27.96-45.97                        |
| Pectoral fin length       | 100.09                                 | 96.36-100.09                              | 100.11-100.54                      |
| Snout length              | 24.53                                  | 24.53-27.87                               | 25.00-30.33                        |
| <b>Counts</b>             |  |   |                                    |
| Dorsal fin                | ii, 7                                  | ii, 7                                     | ii, 7                              |
| Pectoral fin              | i, 13                                  | i, 12-13                                  | i, 14                              |
| Ventral fin               | i, 7                                   | i, 7                                      | i, 7                               |
| Anal fin                  | iii, 9                                 | iii, 9                                    | iii, 9                             |
| Caudal fin                | 19                                     | 19  | 19                                 |
| Barbels                   | nil                                    | nil                                       | nil                                |
| Lateral line scales       | 35                                     | 35-37                                     | 38-42                              |
| Lateral transverse scales | 5/1/2                                  | 5/1/2                                     | 5/1/3                              |
| Predorsal scales          | 14                                     | 14  | 17-18                              |
| Pharyngeal teeth rows     | 2                                      | 2   | 3                                  |

**Diagnosis:** The species is characterized by nine branched anal rays; pharyngeal teeth in three rows. Lateral line complete with 38-42 scales.

**Distribution:** INDIA: North India. Iran, Pakistan, Nepal, Bangladesh, Myanmar and Thailand.

**Remarks:** It differs from *A. ukhrulensis* in the number of predorsal scales 17-18 vs. 14; lateral line scales 38-42 vs. 35-37; lateral transverse scales 5/1/2 vs. 5/1/3; pharyngeal teeth 3 rows vs. 2 rows.

NEW DESCRIPTIONS

REFERENCES

- HECKEL, J.J. (1843): Ichthyologie. In: J. von russegger, reisen in Europa, Asien and Africa mit bosonderer rucksicht auf naturwissen chaffliche, verhanaltnisse der betreffenden lander, unternommen in den jahren 1935 bis 1841 part 2 stugart, E schweizerbart.
- HAMILTON-BUCHANAN, F. (1822): An account of fishes found in the river Ganges and its branches. Archibad Constable and Company, Edinburgh, London, VIII+405, 39 pls.
- HOWES, G.J. (1979): Notes on the anatomy of the cyprinid fish *Macrochirichthys macrochirus* (Valenciennes) 1844 with comments on Cultrinae (Pisces, Cyprinidae) *Bull. Br. Mus Nat. Hist. (Zool.)* 36(3): 147-200.
- KOTELLAT, M. (1984): Review of the species of Indochinese freshwater fishes described by H.R. Sauvage. *Bull. Mus. natn. Hist. nat. Paris.* (4) 6(A3): 791-822.
- JAYARAM, K.C. (1981): The freshwater fishes of India, Pakistan, Bangladesh, Burma & Sri Lanka, a handbook, Zoological Survey of India, Calcutta, pp. 437-444.
- TALWAR, P.K. & A.G. JHINGRAN (1991): Inland fishes of India and adjacent countries. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, pp. 1158.

