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LEPIDOCEPHALUS DIBRUENSIS, A NEW COBITID FISH FROM DIBRU RIVER, DIBRUGARH, ASSAM, WITH A KEY TO THE INDIAN SPECIES OF *LEPIDOCEPHALUS* BLEEKER

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ABSTRACT

A new species of *Lepidocephalus* from Dibru river, Guijan, 60 km. from Dibrugarh, Assam, is described and a key to the identification of the Indian species of the genus *Lepidocephalus* provided.

INTRODUCTION

During the course of my studies on the freshwater fish fauna of Assam, I came across two well preserved specimens belonging to the genus *Lepidocephalus* and measuring 90.0-100.0 mm in total length, collected by the author on 4. 12. 75, from Dibru river, Guijan, 60 km. from Dibrugarh Assam. These specimens on careful study, appear to represent hitherto unknown species. A detailed description of this new species along with a revised key to the genus *Lepidocephalus* is provided in the present paper.

Lepidocephalus dibruensis sp. nov.
(Figs. 1 & 2)

Material : Two specimens including the holotype, 90.0-100.0 mm total length, collected by T. K. Sen on 14. 12. 1975 from Dibru river, Guijan, 60 km. from Dibrugarh, Assam.

MEASUREMENTS AND DESCRIPTION

Body depth at dorsal fin origin 14.00-15·55 (M—14.77), at anal fin origin 13.00-13.33 (M—13.16), head length 13.00-14.44 (M—13.72), dorsal fin base 11.00-11.11 (M—11.55), distance between anterior tip of snout and origin of dorsal fin 42.00-45.55 (M—43.77), Caudal peduncle length 11.00-11.66 (M—11 33), distance between anterior origin of pelvic and anal fin 23.00-23.33 (M—23.16), distance between anterior origin of pelvic and base of caudal fin 40.00-41.11 (M—40.55), all in percent of total length. Eye-diameter 23.07-26.92 (M—24-99), snout length 38.46-42.85 (M—40.65), pectoral fin length 70.37-73.09 (M—16.75), inter-orbital space 3.33-3.50 (M—3.41), all in percent of head length. Eye-diameter 36.36-38.88 (M—37.62) in percent of snout length.

Body comparatively more elongated with the distinguishing height of the body, a median longitudinal groove more prominent anteriorly extending from head to base of the caudal fin leaving the impression of the lateral line. Six barbels longest one reaches up to the post orbital margin, mandibular flap is distinct, the sub, and post orbital regions and also the upper part of the opercle

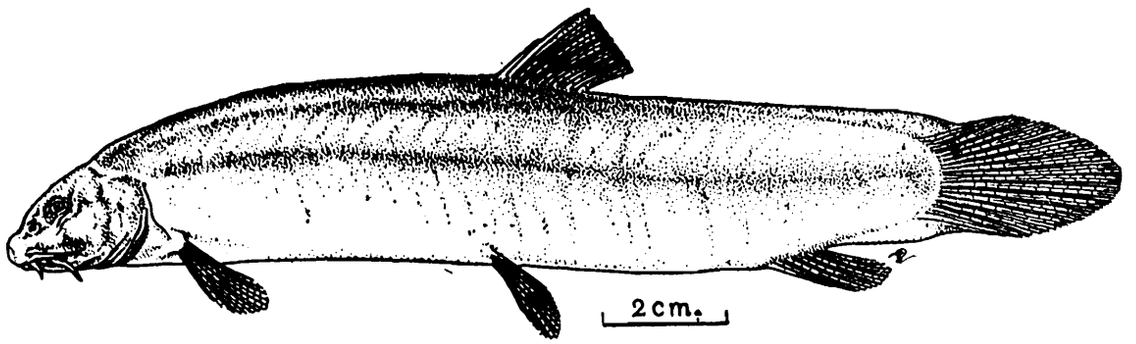

Fig. 1. *Lepidocephalus dibruensis* sp. nov. Lateral view.

scaled (Cycloid), the Sub-orbital bifid spine is typically (Bird) shaped with two convex bonny elevations or curves on both the right and left sides of the spine anteriorly (Fig. 2), eye-diameter distinctly broad, inter-orbital space distinctly convex, the distance between the base of the head and the snout dorsally is like a round bonny arch, snout constricted, the dorsal profile is prominently convex towards the head region and gradually slopes

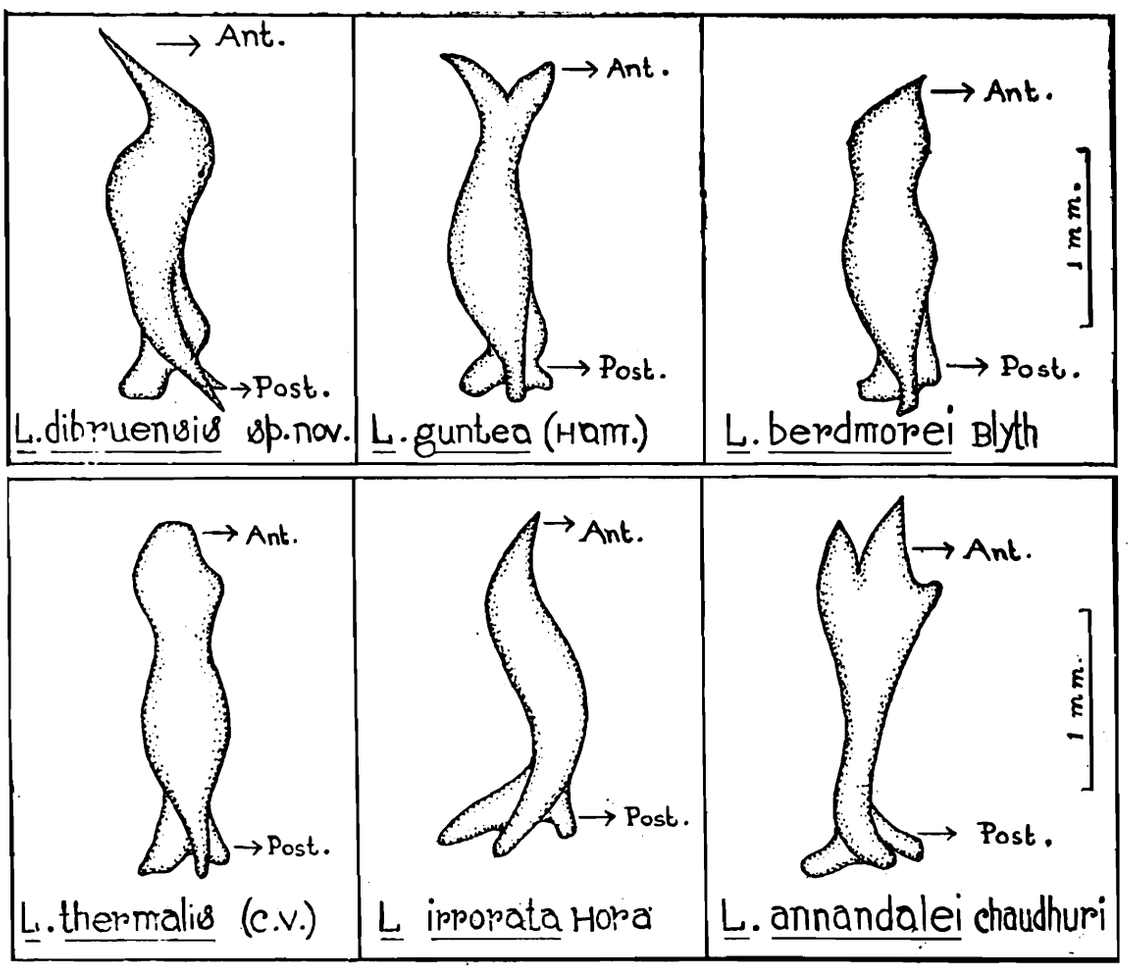

Fig. 2. Comparative structural representation of the bifid sub-orbital spine of *Lepidocephalus dibruensis* sp. nov. and other allied species under this genus.

downward to the snout, ventral profile more or less horizontal with a longitudinal integumental groove extending from the middle of the paired pectoral fins to the base of the paired pelvic fins, dorsal fin slightly towards the head and opposite to the origin of the pelvic fins, caudal fin lanceolate type, anal, pectoral and pelvic fins are shortened comparatively with the size of the body, lateral line absent.

MERISTIC CHARACTERS

Dorsal fin with 2 weak flexible spines and 6 rays, pectoral 8, pelvic 7, anal 7 and caudal 17-18 rays.

Colour : In alcohol yellowish all over the body with a conspicuous light dark median band (composed of black fused dots) extending from the base of the head to the base of the caudal fin, minute black dots on the dorsal surface of the body more densely in the head region-absent in the abdominal regions, all the fins are light yellowish without any colour pattern. A black ocellous on the middle of the base of the caudal fin, present.

Distribution : Dibru river, Guijan, 60 km. from Dibrugarh, Assam.

TYPE SPECIMENS : FF 1203. holotype, 78.0 mm S. L. and 90.0 mm T. L. Dibru river, Guijan, 60 km. from Dibrugarh, Assam, *T. K. Sen*, 4. 12. 1975. FF 1204. paratype, 84.0 mm S. L. and 100.0 mm T. L. collected along with the holotype, all deposited in the National Zoological Collection of the Zoological Survey of India, Head quarter, Calcutta.

DIAGNOSIS AND AFFINITIES

Lepidocephalus dibruensis sp. nov. can be easily distinguished from all the other valid species viz., *Lepidocephalus guntea*, *Lepidocephalus irrorata*, *Lepidocephalus berdmorei*, *Lepidocephalus thermalis* and *Lepidocephalus annandalei* by the presence of the typically (Bird) shaped sub-*orbital spine* (versus different shaped suborbital spines), *lanceolate type of caudal fin* (versus truncate and semiemarginate types in all the other valid species viz. *L. guntea*, *L. irrorata*, *L. berdmorei*, *L. thermalis* and *L. annandalei*), *eye-diameter broader*—5 times in H. L. (Versus 4, 3½, 4½, 3 and 4 times in *L. thermalis*, *L. guntea*, *L. berdmorei*, *L. irrorata* and *L. annandalei* respectively), number of scales—22-25 rows of scales between the base of the anal fin and back (versus 25-30, 30-40, 40, 32 and 34 in case of *L. guntea*, *L. thermalis* and *L. annandalei* respectively), head length 7½ times in TL (versus 6½, 5½, 6—6¼, 5⅔—and 5½ times in *L. guntea*, *L. thermalis*, *L. berdmorei*, *L. irrorata* and *L. annandalei* respectively), light dark longitudinal colour band with only a few very minute scattered black dots on the dorsal surface of the body without any colour pattern on the fins (versus all the species and their fins are with irregular colour-bars, cross-bars, vertical bands with rows of black spots, irregular blotches etc.). *L. dibruensis* sp. nov. can be distinguished from other closely related group of fishes under different genera having bifid erectile spines. It is distinguished from *Acanthophthalmus*, vanhasselt group by the position of dorsal fin—it is situated more or less in the middle (versus towards the caudal fin), dorsal fin opposite to the anal fin (versus dorsal fin in advance of the anal fin), eye-diameter broader (versus minute eyes), colour pattern etc. It is distinguished from *Aborichthys*, Chaudhuri group by (1) Colour bands, (2) Caudal fin structure and (3) body being very much elongated. It is distinguished from *Botia*, Gray group by (1) absence of scales on head, (2) caudal fin structure, (3) depth of body, (4) head length, (5) dorsal fin ray and (6) colour pattern. It is distinguished from *Somileptes*, Bleeker group by (1) Caudal

fin structure, (2) head-profile, (3) absence of scales on head and (4) Colour pattern. It is distinguished from *Apua*, Blyth group by (1) absence of pelvic fins, (2) No. of barbles and (3) position of dorsal fin. It is distinguished from *Jerdonia* Day group by (1) No. of barbels, (2) No. of dorsal fin rays, (3) caudal fin structure and (4) position of dorsal fin.

REMARKS: The species is named after its locality, a small hillstream river named 'Dibru' at Guijan, 60 km. from Dibrugarh, Assam.

Key to the Indian species of *Lepidocephalus*

1. Head length less than 6 in T. L., Caudal fin slightly emarginate.. (2)

— Head length 6 or more in T. L., Caudal fin truncate or lanceolate (4)

2. Eye-diameter 3. in H. L. scale rows between anal fin base and back 34 ; height not more than 7.... ... . (3)

3. Scale rows between anal fin base and back 32 ; height of the body 7¼ in T. L.. ....*L. annandalei* Choudhuri

— Scale rows between anal fin base and back 30-40 ; height of the body 7½ in T. L. ....*L. thermalis* (C.V.)

4. Caudal fin truncate ; scale rows between anal fin base and back 40 ; height of body more than 7. .....*L. berdmorei* (Blyth)

— Caudal fin truncate or lanceolate ; scale rows between anal fin base and back 22-30, height not more than 7. ..... (5)

5. Caudal fin truncate, scale rows between anal fin base and back 25-30 ; height of the body 6⅔ in T. L., suborbital spine without convex side elevations or curves on the anterior side..... (Ham.) *L. guntea*

— Caudal fin lanceolate. scale rows between anal fin base and back 22-25, height of the body 6¼ in T. L., typical suborbital spine with two convex side curves or elevations on the anterior side.. ....Sen *L. dibruensis*

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