

ON A NEW SPECIES OF *NOEMACHEILUS* (PISCES : COBITIDAE) FROM
ARUNACHAL PRADESH, INDIA

A. K. DATTA AND R. P. BARMAN
Zoological Survey of India, Calcutta

ABSTRACT

A new species of Cobitid fish, *Noemacheilus arunachalensis* from Namdapha river, Arunachal Pradesh, India is described and illustrated.

INTRODUCTION

The fishes of the cobitid genus *Noemacheilus* van Hasselt are distributed throughout the Indian subcontinent, Thailand, Malaya, Vietnam, China and Afghanistan. While working on the fish fauna of the Namdapha wildlife sanctuary, Tirap district, Arunachal Pradesh (formerly NEFA), we came across three examples of a fish referable to this genus which, when compared with the known species belonging to the genus proved to be a hitherto unknown species. The present species comes closer to the Burmese species, *N. cincticauda* (Blyth) but clearly differs from the latter species in the absence of lateral line, longer eye diameter and in other morphological details. The new species is named *Noemacheilus arunachalensis* after its locality.

Noemacheilus arunachalensis sp. nov.
(Plate XIV)

Holotype : *Material* : 63 mm. in standard length. Reg. No. Z. S. I. FF. 1713.

Locality : Namdapha river, Namdapha Wild Life Sanctuary, Tirap district, Arunachal Pradesh, India. Coll. Dr. S. Biswas and Shri S. Saha. Dated 14.4.81.

Paratypes : 2 examples, 40 mm.-54 mm. in standard length. Reg. No. Z. S. I. FF. 1714 locality, collector and date as in holotype.

DIAGNOSIS

Head length 4.44-4.91 and body depth 5.73-7.71 in standard length. Eye diameter 6.50-9.00 in head length. Body marked by 12-14 lateral black blotches, the insertion of dorsal fin in the posterior half of the body, the origin of ventral fin before the origin of dorsal, the position of eye in the anterior half of the head and lateral line absent.

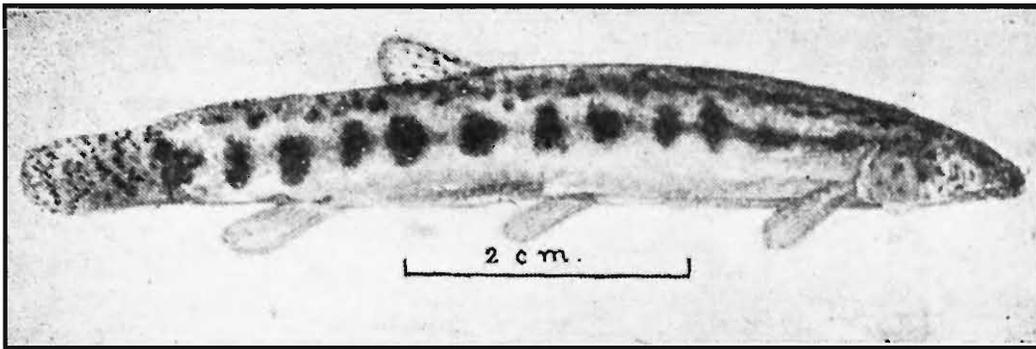
DESCRIPTION

D. 8, P. 7, V. 6, A. 7

Head pointed, ventral surface cylindrical. Length of head 4.73(4.44-4.91) in standard length ; width of head 2.21(2.17-2.25) in length of head ; height of head 1.83(1.80-1.86) in length of head. Mouth terminal, lower lip interrupted in the middle. Nostril apart, nearer to eye than to tip of snout. Eye nearer to snout than to the gill opening, invisible from below ; interorbital space convex, snout tapering. Eye diameter 7.61(6.50-

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PLATE XIV



Noemacheilus arunachalensis n. sp.

9.00) in length of head, 1.61(1.33-2.00) in interorbital width. Barbels three pairs—two pairs rostral and one pair maxillary not extending to the nostril.

Body marked by twelve incomplete blotches—six predorsal, two subdorsal and four postdorsal. Depth of body 6.70 (5.73-7.71) in standard length. Dorsal profile convex, ventral profile somewhat straight. Dorsal fin small, posterior to ventral, nearer to the base of caudal fin than to the tip of snout. Dorsal fin rays 8(II/6). Length of dorsal 7.31 (6.67-7.71) in standard length ; 1.50 (1.44-1.57) in length

of head. Predorsal distance 1.55 (1.51-1.60) in standard length. Dorsal fin with irregular black spots. Pectoral fin rays 7, lateral in position ; length of pectoral 7.86 (7.71-8.00) in standard length ; length of pectoral shorter than head. Pelvic fin rays 6, lateral in position ; shorter than pectoral, separated from anal by a considerable distance. Anal fin rays 7, shorter than head ; length of anal 9.51 (9.00-10.00) in standard length. Distance between vent to anal fin .31 (.09-.71) in that between anal opening and pelvic base ; distance between vent to anal fin .21 (.07-.45) in that between

TABLE 1. Measurements (in mm.) and meristic counts of Holotype and two paratypes of *Noemacheilus arunachalensis* sp. nov.

	*I	II	III
Total length	74	63	48
Standard length	63	54	40
Depth of body	11	7	6
Length of head	13	11	9
Depth of head	7	6	5
Width of head	6	5	4
Length of snout	4	4	3
Eye diameter	2	1.5	1.0
Interorbital width	3	2	2
Dorsal fin rays	11/6	11/6	11/6
Predorsal distance	39	35	25
Length of pectoral fin	8	7	5
Distance from anterior origin of pelvic to caudal base	29	25	18
Anal fin rays	7	7	7
Distance from vent to anal fin	2.0	1.0	.5
Pectoral fin rays	7	7	7
Length of caudal peduncle	9	7	6
Depth of caudal peduncle	8	6	5
Distance between origin of Pelvic to origin of anal fin	17	15	11
Length of caudal fin	11	9	8
Distance between origin of ventral to tip of snout/caudal base	32/29	28/25	20/18
Distance between dorsal origin to caudal base	25	20	15
Distance from anal opening to ventral base	14	11	7
Length of dorsal fin	9	7	6
Length of ventral fin	7	6	4
Length of anal fin	7	6	4
Ventral fin rays	6	6	6

*Holotype

TABLE 2. Comparison of *Noemacheilus arunachalensis* with its related species.

	<i>N. arunachalensis</i> sp.	<i>N. cincticauda</i>
Depth of body in standard length	6.70(5.73-7.71)	6.54(6.12-7.30)
Length of head in standard length	4.73(4.44-4.91)	4.37(4.18-4.55)
Length of pectoral in standard length	7.86(7.71-8.00)	4.74(4.64-4.89)
Length of dorsal in standard length	7.13(6.67-7.71)	5.88(5.73-5.97)
Length of anal in standard length	9.51(9.00-10.00)	6.80(6.45-7.17)
Diameter of eye in interorbital width	1.61(1.33-2.00)	1.49(1.22-1.75)
Depth of caudal peduncle in length of caudal peduncle	1.17(1.13-1.20)	1.1(.9-1.8)
Diameter of eye in length of head	7.61(6.50-9.00)	5.22(4.59-6.00)
Dorsal fin rays	8	9
Pectoral fin rays	7	9
Ventral fin rays	6	9
Anal fin rays	7	8
Lateral line	absent	Present, terminates above pectoral.

anterior origin of pelvic and anal fin. Lateral line absent.

Caudal fin with five V-shaped bands and irregular black spots. Caudal rounded ; length of caudal 5.58 (5.00-6.00) in standard length. Depth of caudal peduncle 1.17 (1.13-1.20) in its length.

AFFINITIES

The new species, *N. arunachalensis* comes closer to *N. cincticauda* in respect to the position of dorsal fin which is in posterior half of the body, pectoral shorter than head, depth of body and length of head in standard length, diameter of eye in interorbital width, depth of caudal peduncle in length caudal peduncle. It differs from *N. cincticauda* in respect to body colour pattern ; length of anal fin in standard length.

It also disagrees on the following points—paired fins laterally placed in *N. arunachalensis* but paired fins horizontally placed in *N. cincticauda*. Eye diameter 6.50-9.00 in the former species vs. 4.59-6.00 in the latter species in head length. Ventral considerably

apart from anal opening in the former, ventral nearer to anal opening in the latter, 12-14 black ocellus on the body versus 10-11 broad black band on the body ; lateral line absent versus lateral line terminating above pectoral. Morphometric measurements of the other parts are detailed in table no. 2.

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