

ON A NEW SPECIES OF *PUNTIUS* (FAMILY : CYPRINIDAE)
FROM BASTAR DISTRICT, MADHYA PRADESH

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ABSTRACT

A new species *Puntius saberi* collected from Bastar district of M. P. is described.

INTRODUCTION

During the course of taxonomic studies on the fishes of Bastar we came across 13 examples of fish belonging to the genus *Puntius* measuring 28 to 45 mm in total length collected by Shri A. K. Karmakar from Cheroguru Talao, near Pujaripal village, 23 kms. from Sukma on 21.7.1978. These examples represent hitherto unknown species. Description of the systematic characters of this new species to accomodate it in the genus *Puntius* is given in this text.

SYSTEMATIC POSITION

Order : CYPRINIFORMES

Sub-order : *CYPRINOIDEI*

Family : CYPRINIDAE

Genus : *Puntius* Hamilton

Puntius saberi sp. nov. (Fig. 1)

MATERIAL

Holotype : 43 mm total length Reg. No. Z. S. I. FF 1398.

Locality : Cheroguru Talao, Pujaripal village, 23 Kms. from Sukma; Coll. A. K. Karmakar, Date : 21. VII. 1978.

Paratypes : 12 examples, 28-45 mm total length. Reg. No. Z. S. I. FF 1399, Locality, collector and date as in holotype.

DESCRIPTION

D. 3/8, P. 13-14, V. 8-9, A. 2/6, C. 18. L. 1. 31-32.

Body laterally compressed, dorsal profile arched anteriorly behind dorsal fin gradually falls till base of caudal fin. Length of head 3.9 (3.6—4.1) in total length and 3.05 (2.7-3.5) in standard length. Width of head 2.1 (1.8-2.5), height of head 1.4 (1.2-1.5) in head length. Height of head 1.5 (1.4-1.7) in depth of body. Diameter of eye 3.9 (3.6-4.3) in length of head. Snout slightly convex in the anterior side, length of snout 3.8 (3.3-4.3) in the length of head, devoid of tubercle. Upper jaw slightly longer than lower jaw. Lower labial

fold interrupted. Interorbital space flat, 1.2 (1.0 to 1.4) in the diameter of the eye. Height of the body 3.5 (3.3-4.0) in total length and 2.7 (2.6-3.0) in standard length.

Barbels two pairs; rostral shorter than maxillary. Rostral barbel 4.9 (3.5-6.0) in head length and 0.8 (0.7-1.1) in eye diameter. Maxillary barbel 3.5 (2.7-4.3) in head length and 1.2 (1.0-1.5) in eye diameter. Height of

eye diameter. Length of anal 6.4 (5.8-7.0) in total length and 4.9 (4.6-5.4) in standard length. Caudal not deeply forked and the lobes are almost equal. Length of caudal 4.6 (3.7-5.7) in total length and 3.5 (2.6-4.6) in standard length.

Lateral line complete with 31-32 scales, pre-dorsal scales 9-10, $4\frac{1}{2}$ scales between lateral line and base of ventral fin. Height

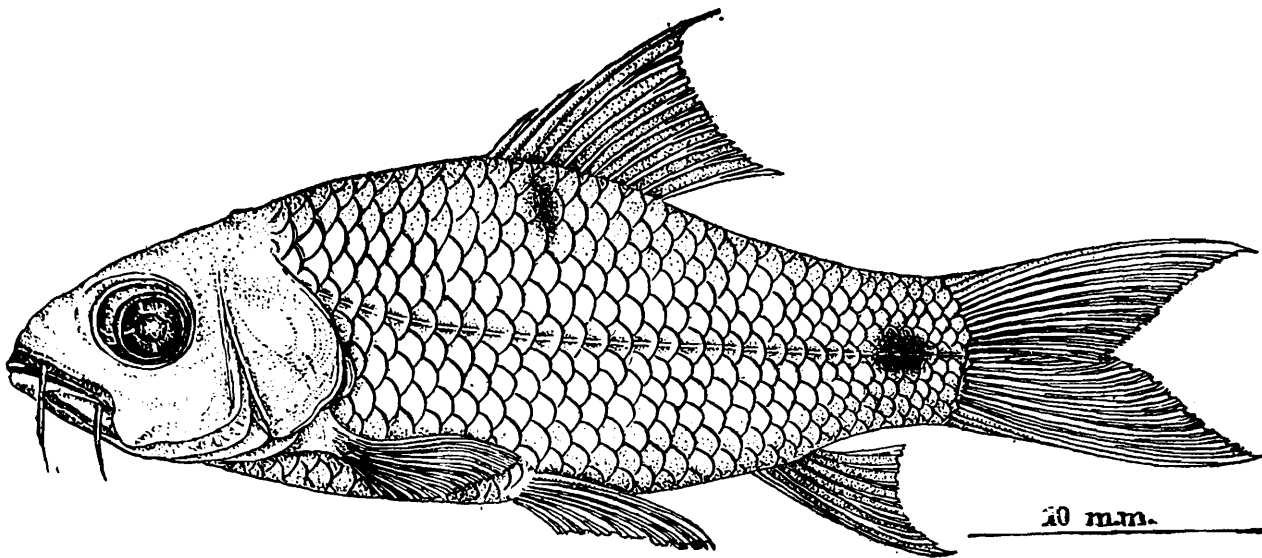


Fig. 1. *Puntius saberi* sp. nov. Lateral view.

dorsal fin 4.4 (3.7-4.5) in total length and 3.3 (2.9-3.5) in standard length. Base of dorsal fin 6.7 (5.6-7.5) in total length and 5.2 (4.4-5.8) in standard length.

Dorsal fin insertion opposite to ventral fin insertion, lies nearer caudal base than to the tip of the snout. The last undivided ray of dorsal fin is articulated and bony, weak tipped. Pectoral fin 6.2 (5.4-7.4) in the total length, 4.8 (4.4-5.8) in standard length, 1.6 (1.4-1.8) in head length and 1.2 (1.0-1.4) in head length excluding snout. Pectoral does not reach base of ventral. Ventral fin. 6.3 (5.7-6.6) in total length, 4.9 (4.6-5.2) in standard length. Distance between ventral fin insertion to anal fin insertion 2.5 (2.0-3.2) in

of caudal peduncle 1.0 (0.8-1.3) in its length. Two black spots, one below the insertion of dorsal fin, the other after 25 scales on the lateral line.

RELATIONSHIP

Pillay (1951) considered *Puntius pinnauratus* as a race of *Puntius sarana*. He merged *P. chrysopoma*, *P. caudomarginatus*, *P. oatesi*, *P. myitkyinae*, *P. sewelli* and *P. binduchitra* with *Puntius sarana*. The criteria of merging these species with *Puntius sarana* was based on morphometric and biometric comparisons. Wherein the distinguishing characters differentiating these species on morphometric data were untenable because the significant charac-

TABLE—1. Range of Morphometric Characters of the sample

	Total Length							Standard Length						
	Caudal length	Depth of Body.	Length of Head	Length of Longest Ray of Dorsal	Length of Pectoral	Length of Ventral	Length of Anal	Caudal Length	Depth of Body	Length of Head	Length of Longest Ray of Dorsal	Length of Pectoral	Length of Ventral	Length of Anal
<i>P. sarana</i>	3.7-5.2	3.1-4.1	4.0-5.4	4.1-6.4	5.0-6.8	5.8-7.8	7.0-10.2	2.8-4.3	2.4-3.7	3.2-5.3	3.0-4.8	4.1-5.7	4.4-6.2	5.4-8.3
<i>P. pinna-uratus</i>	4.4-5.5	3.4-4.0	3.9-4.6	4.4-6.1	5.5-6.8	5.8-7.6	6.7-8.4	3.0-4.3	2.8-3.3	3.0-3.8	3.3-5.3	4.4-5.3	4.5-6.2	5.2-6.8
<i>P. chryso-poma</i>	4.3-5.1	3.4-3.7	4.6-5.1	4.9-5.7	5.7-6.8	6.9-7.9	7.4-8.0	3.3-4.1	2.7-3.0	3.6-4.1	3.8-4.6	4.4-5.4	5.5-6.3	5.8-6.8
<i>P. saberi</i> sp. nov.	3.7-5.7	3.3-4.0	3.6-4.5	3.7-4.7	5.4-7.4	5.7-6.8	5.8-7.0	2.6-4.6	2.2-3.1	2.7-3.3	3.1-3.8	4.4-5.8	4.6-5.6	4.6-5.4

	Length of Head				
	Width of Head	Height of Head	Diam. of Eye	Length of Rostral Barbel	Length of Maxillary Barbel
<i>P. sarana</i>	1.5-1.9	1.1-1.5	2.8-5.2	3.0-6.8	2.0-4.5
<i>P. pinna-uratus</i>	1.6-1.8	1.3-1.5	2.8-4.2	3.1-6.0	2.4-3.8
<i>P. chryso-poma</i>	1.5-1.9	1.2-1.4	2.8-4.3	3.1-5.2	2.3-4.3
<i>P. saberi</i> sp. nov.	1.8-2.5	1.2-1.5	3.8-4.3	3.5-6.0	2.7-4.3

TABLE—2. Range of Morphometric Characters of the sample

Depth of Body	Interorbital Distance	Length of Caudal peduncle	Distance between Ventral fin insertion to anal fin insertion	Lateral line Scales	Lateral line Transverse	Rows of Scales between lateral line and base of Ventral	Pre-Dorsal Scales	No of rays in					
								D	P	V	A	C	
Height of Head	Diam. of Eye	Least height of caudal peduncle	Eye diameter										
<i>P. sarana</i>	1.3-2.1	1.0-2.3	1.1-1.9	3.2-5.0	28-34	10-14	3.5-5.5	9-13	3/8 to 4/8	13-17	8-9	3/5-6	18-19
<i>P. pinnauratus</i>	1.5-2.1	1.0-1.9	1.2-1.8	2.8-3.4	28-32	9-12	3.5-4.5	8-12	3/8	14-15	9	3/5-6	18-19
<i>P. chryso-poma</i>	1.5-2.0	1.0-1.8	1.2-1.6	2.5-4.1	29-32	12-13	3.5-4.5	11-13	3/8 to 4/8	15-16	8-9	3/5-6	18-19
<i>P. saberi</i> sp. nov.	1.4-1.7	1.0-1.4	0.8-1.3	2.0-2.8	31-32	10	4.5	9-10	3/8	13-14	8-9	3/6	18

ters of the species intergraded amongst themselves.

Puntius saberi differs from *P. sarana* and *P. pinnauratus* in having longer anal fin and longest ray of dorsal fin in relation to total length. It also differs in having a bigger head in relation to standard length. It varies in the following body proportions : interorbital distance in diameter of eye, length of caudal peduncle in least height of caudal peduncle, length of head in width of head, depth of body in height of head and distance between ventral fin insertion to anal fin insertion in eye diameter. The morphometric measurements to distinguish and to signify its relationship with *P. sarana* and *P. pinnauratus* are detailed in the table No. 1 & 2.

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