

First Record of the Bagrid Fish *Mystus microphthalmus* from India

W. Vishwanath and H. Tombi Singh

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Day (1878) described *Macrones microphthalmus* which he collected from the Irrawady of Burma, but he did not furnish the details of the collection and measurements of the fish. Later, Misra (1976) and Jayaram (1977) referred to the species as *Mystus microphthalmus*. There is no report of the existence of the fish from any other country. Although Chaudhuri (1912), Hora (1921, 1936), Hora and Mukherji (1935), Menon (1952) and Menon (1954) reported on the fishes from Manipur, India, the reports did not include the species.

The authors collected six specimens of the species at the confluence of the Manipur River and the Chakpi (24°18'N, 93°54'E) in the state of Manipur and reports here for the first time the availability of the species in India. Day's collection of the fish in the National Museum, Calcutta, is in a poor state and not suitable for comparative studies with the present collection. The collection data, measurements and characteristics of the fishes are given in the paper.

Mystus microphthalmus (Day)

(Local name [Manipuri]:

Nganan; Burmese name: Ngaike)

(Fig. 1)

Macrones microphthalmus Day, 1878: 446 (type

Locality: Burma along the valley of the Irrawady);

Day, 1889: 154.

Mystus (Mystus) menoda microphthalmus: Jayaram,

1955: 547 (synonymies, review).

Mystus (Mystus) microphthalmus: Misra, 1976: 96 (description based on that given by Day).

Mystus microphthalmus: Jayaram, 1977: 34 (diagnostic characters).

Material examined. MU/LSD/FM-48 (Manipur University, Life Sciences Department, Fisheries Museum), 1 specimen, 605.0 mm TL (460.0 mm SL), Sept., 1981; MU/LSD/FM-49, 1 specimen, 125 mm TL (86.0 mm SL), Nov., 1982; MU/LSD/FM-50, 1 specimen, 340 mm TL (259.1 mm SL), Dec., 1984; MU/LSD/FM-61, 62, 2 specimens, 128.0 and 130 mm TL (87.0 and 89.0 mm SL), Jan., 1985; MU/LSD/FM-290, 1 specimen, 295.0 mm TL (220.0 mm SL), Oct., 1985.

Diagnosis. This is a big bagrid fish, sepia coloured, the dorsal side pale in colour. The species can be distinguished from other species of *Mystus* in India in the following points: (i) median longitudinal groove on head do not reach base of occipital process; (ii) occipital process on head do not reach basal bone of dorsal fin and (iii) upper lobe of caudal fin produced into a filament.

Description. Morphometric data of the specimens (see Table 1) followed by those given by Day (1878) and Misra (1976) respectively in parentheses are given below: D I, 7, 0; P I, 9; V i, 5; A iii, 9; C 17. Length of head 4.3–4.8 (4.0; 4.0–4.4); depth of body 5.0–6.41 (6.75; 6.7–8.0); length of caudal 3.21–4.2 (5.33; 4.5–5.2) in total length. Diameter of eyes 10.0 (6.0; 6.0–7.0) in length of head; 2.8 (2.0; 2.9) in the length of snout and 3.6 (2.5; 2.5) in interorbital space. Base of rayed dorsal 1.0 (1.0; 1.0) in base of adipose dorsal. Height of dorsal 0.98–1.27 (1.0; 1.0) in the depth of body; 1.8–2.26 (—; 2.0) in the length of head. Height of caudal peduncle 1.2–1.25 (—; 2.0–2.3) in the length of caudal peduncle. Length of caudal 0.67–0.98 (—; 1.1) in the length

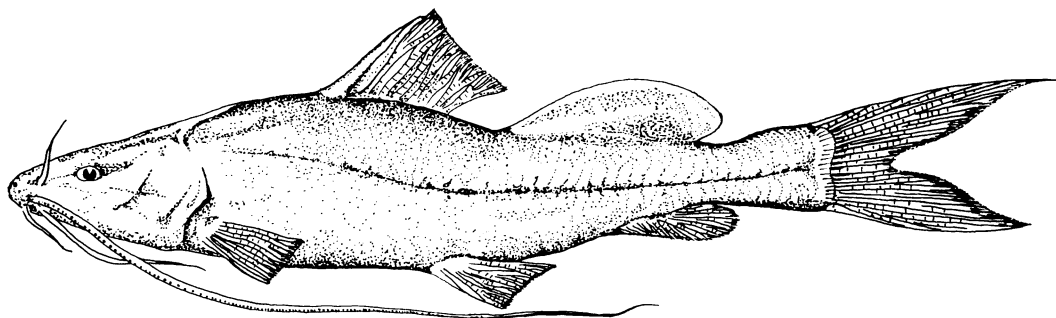


Fig. 1. *Mystus microphthalmus*, MU/LSD/FM-48, 460.0 mm SL, Manipur, India.

Table 1. Measurements and counts of six specimens of *Mystus microphthalmus*.

	MU/LSD/FM					
	48	49	50	61	62	290
Standard length (mm)	460.0	86.0	259.1	87.0	89.0	220.0
Head length (mm)	140.0	26.0	79.1	26.0	26.2	62.0
% in standard length						
Length of head	30.4	30.2	30.5	29.9	29.4	28.2
Depth of body	20.7	22.7	26.2	22.4	22.6	20.0
Length of maxillary barbel	72.8	69.8	—	73.0	70.2	84.0
Length of nasal barbel	7.6	11.6	—	9.6	10.2	8.2
Length of external mandibular	21.7	23.2	—	22.8	23.0	27.3
Length of internal mandibular	10.9	11.6	—	11.6	11.8	14.5
Length of caudal peduncle	10.9	10.3	10.9	10.1	10.9	11.6
Height of caudal peduncle	8.7	8.7	8.7	9.0	9.2	7.6
Length of dorsal fin base	15.2	17.1	15.4	17.2	16.9	14.9
Length of posterior margin of dorsal fin	9.7	8.6	—	8.9	9.1	9.5
Height of dorsal fin	16.3	23.2	13.5	24.1	24.7	21.0
Length of dorsal spine	13.0	17.2	—	16.8	17.0	15.1
Length of adipose dorsal fin base	17.8	20.0	—	18.2	17.9	17.5
Height of adipose dorsal fin	5.5	5.7	—	5.5	5.8	5.8
Length of pectoral fin base	4.3	4.8	—	4.5	4.4	4.6
Length of anterior margin of pectoral fin	16.3	13.7	16.9	13.6	13.5	16.5
Length of posterior margin of pectoral fin	4.9	5.0	—	4.8	4.7	14.5
Length of pelvic fin	14.1	13.2	14.5	13.2	13.3	12.7
Length of pelvic fin base	3.6	4.4	—	4.2	4.1	3.9
Length of anal fin base	12.3	15.2	—	14.2	13.6	13.2
Height of anal fin	10.9	11.3	—	11.5	11.6	10.9
Length of posterior margin of anal fin	7.5	7.8	—	7.4	7.9	8.0
Length of upper lobe of caudal fin	31.5	45.3	31.2	35.4	24.5	35.1
Length of lower lobe of caudal fin	22.2	26.9	—	25.3	26.1	24.7
Distance between tip of snout and:						
Dorsal fin insertion	43.5	41.0	—	40.2	41.3	39.3
Pectoral fin insertion	26.0	25.8	—	25.2	26.0	24.0
Pelvic fin insertion	57.6	53.8	—	55.0	54.1	54.0
Anal fin insertion	77.2	72.0	—	72.6	72.4	71.1
Vent	65.2	61.5	—	62.7	72.3	61.5
% in head length						
Distance between tip of snout and:						
Anterior nostril	3.9	4.6	—	4.2	3.6	3.2
Posterior nostril	12.1	15.8	—	11.2	13.6	12.0
Nasal barbel base	10.9	14.2	—	11.2	13.6	9.7
Snout length	28.6	32.3	20.8	32.3	35.1	29.0
Eye diameter	9.2	6.5	7.2	6.2	7.6	10.9
Width of mouth	46.2	46.2	—	46.8	46.3	46.5
Interorbital width	33.6	38.5	34.4	38.5	41.9	33.1
Height of head	55.7	55.7	58.7	55.6	55.7	5.16
Width of head	75.0	82.7	76.8	82.9	95.4	75.0
Distance between anterior nostrils	21.3	20.4	—	21.2	20.8	23.5
Distance between posterior nostrils	19.1	18.0	—	19.0	20.8	23.5
Distance between anterior and posterior nostrils	8.7	10.9	—	9.2	8.9	8.5
Length of occipital process	10.6	15.4	—	13.6	12.4	15.1
Width of occipital process at base	6.7	7.7	—	7.6	6.9	8.0
Length of occipital groove	60.7	65.8	62.4	65.8	69.0	59.7

Table 1. Continued.

	MU/LSD/FM					
	48	49	50	61	62	290
Counts						
Dorsal fin rays	I, 7, 0	I, 7, 0	I, 7, 0	I, 7, 0	I, 7, 0	I, 7, 0
Pectoral fin rays	I, 9	I, 9	I, 9	I, 9	I, 9	I, 9
Pelvic fin rays	i, 5	i, 5	i, 5	i, 5	i, 5	i, 5
Anal fin rays	iii, 9	iii, 9	iii, 9	iii, 9	iii, 9	iii, 9
Caudal fin rays	8+9	8+9	17	8+9	8+9	8+9
Gill rakers	2+8	2+8	—	2+8	2+8	2+8

of head.

Maxillary barbel reaches upto anal insertion, nasal upto 1/2 diameter of eyes, outer mandibular upto pectoral insertion and inner mandibular extends behind the eyes. Undivided dorsal fin osseous, spiny which is weak and entire. Pectoral spine strong, serrated internally, teeth retrorse. Upper tip of caudal fin longer.

Remarks. The body proportions of the present specimens almost fit into the descriptions of Day (1878, 1889) and Misra (1976). However, it is observed that the body becomes deeper, the occipital groove and the occipital process on head shorter and the filament of the upper lobe of caudal fin becomes shorter as the fish grows in size. The diameter of eyes are smaller when compared to the earlier descriptions. As the Manipur River forms a part of the Chindwin-Irrawady River System, it is quite obvious that the fish extends its distribution in this area. The fish has a good taste and high market value. The specimen (MU/LSD/FM-50) is deposited at the Fire Proof Spirit Building of the Zoological Survey of India, Calcutta.

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(Department of Life Sciences, Manipur University, Imphal, Manipur, India)

Mystus microphthalmus のインドからの初記録

W. Vishwanath • H. Tombi Singh

Mystus microphthalmus は Day がビルマのイラワジ川の標本に基いて記載して以来報告がなかった。インドの Manipur 川と Chakpi から 6 個体の標本が得られたので、原記載には述べられていない形態的特徴も含めて詳しく記載した。