

***LABEO NIGRESCENS* DAY, 1870 (PISCES: CYPRINIFORMES: CYPRINIDAE), A NEW RECORD FROM KERALA**

P. Thomas John ¹ and K.C. John ²

¹Department of Zoology, Catholicate College, Pathanamthitta, Kerala 689645, India

²School of Applied Life Sciences, M.G. University, Pathanamthitta, Kerala 689653, India

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ABSTRACT

Labeo nigrescens is recorded for the first time from Kerala in the River Pamba at Perumthenaruvi. It is characterised by black colour, 17-18 dorsal fin rays, 39-40 lateral line scales, 4 prominent barbels, well developed fins with prolonged anterior rays, a very distinct labial fold, five branched labial appendages.

KEYWORDS

Cyprinidae, India, Kerala, *Labeo nigrescens*, new record, Pamba, Perumthenaruvi

The family *Cyprinidae* is the largest and most common group of fresh water fishes of any geographical region where they are present. Rainboth (1991) listed 177 genera under seven subfamilies from the Asian region. The Indian region harbours 58 genera under five sub families (Jayaram, 1999). The genus *Labeo* is widely distributed in south and south-east Asia, Africa and is well represented in India. Recently Jayaram and Dhas (1999) revised the genus *Labeo* and limited the species to 28. Talwar and Jhingran (1991) described 31 species under the genus *Labeo*.

The species *L. nigrescens* was first recorded from Mangalore and South Canara in Karnataka by Day (1870). Its presence in Kerala rivers had not so far been reported. In this paper a morphological description based on four specimens collected from the Pamba River at Perumthenaruvi is presented.

METHODOLOGY

The specimens were collected during an elaborate survey of the fish fauna of Pamba River at Perumthenaruvi (76°50'-76°55'E & 9°20'-9°25'N; see John & John (2004)), for a period of two years from February 2001 to January 2003. The collections were from river pools (Image 1^w) of the region during night using gill net of 2.5cm mesh size. Daytime efforts were unsuccessful in trapping these fishes. Live specimen (Image 2^w) obtained was kept in small clear rocky pools of the area for observation. Photographs and videographs were taken. An attempt to transfer the fish and maintain them in cement tank for rearing was not successful. Dead specimens were kept in 5% formalin after injecting the same into the viscera.

Labeo nigrescens Day, 1870

Materials examined

Four specimens, 129-360mm TL, 6.iv.2002, Pamba River at Perumthenaruvi, 300m, coll. Thomas John, Zoological Survey of India, Calicut, Reg. No. ZSI, CLT, V/F, 12476, det. by K.C. John.

Description of the species

D.ii-iii/14-15; P.i/14; A.ii/5; C.20; L.1.39; L.tr.5.5.

Head length 4.0 to 4.1mm, height of the body 2.8 to 4.1mm, length of caudal 2.5 to 3.5mm in the standard length. Body oblong and compressed. Snout blunt and swollen and projects over the jaw. It has a number of sensory tubercles all over, but larger at the tip (Image 3^w). Eyes medium in size, 4.3 to 5mm in the head length located in the anterior half of the head. They are brilliantly coloured with deep orange tinge. The mouth is inferior, small and slightly protractile. The upper lips lightly finbriated, lower lip (labial fold) with prominent fringes (Image 3^w). Barbels two pairs, the rostral pair long, placed almost at the tip of the snout and the maxillary pair shorter above the corners of the upper jaw.

Fins: The dorsal fin commences mid-way between tip of the snout and anterior base of anal fin. The first two rays together form a long filamentous structure, which is directed backwards. The pectoral does not reach the pelvic; equal or slightly less than the length of the head. The pelvic is inserted beneath the fourth dorsal ray and extends back slightly behind the insertion of the anal. Auxillary scale at the base of the pectoral conspicuous. The anal is rather elongated and reaches beyond the base of the caudal. The length of anal fin equals the distance between insertion of the pectoral fin and insertion of the pelvic fin. The caudal is prominent and deeply forked.

Scales: Large, cycloid, arranged in well-marked rows over the body, 5.5. rows between lateral line and base of the pelvic fin.

Lateral line: Straight, very prominent and ends at the median part of the base of the caudal fin.

Colour: Black in live condition. The colour persists even after preservation in 5% formalin.

Habitat

All the four specimens were collected from the river pools in the Perumthenaruvi region, above 300m in the forest area. The pools have a depth of 8-10m and have rocky bottom with silt deposition.

DISCUSSION

The present description of the species agrees well with that of Day (1870) except for a few morphological characters. For instance, the length of the pectoral fin described by Day reaches

^w see Images 1-4 on the web at www.zoosprint.org

above the pelvic fins. The upper edge of the dorsal fin is nearly straight in specimens described by Day, whereas in these specimens they are concave. But in the present specimen the pectoral fin never reaches the ventrals if placed backwards; the length being equal to or slightly less than the head length. Similarly the number of rows of scales between the lateral line and base of pectoral fin is 5.5 instead of 4.5 in the case of Day's specimen.

Day (1870) while describing the species from Mangalore, Canara did not mention the exact location of the collection or a detailed habitat description. In the present case the restriction of *L. nigrescens* in the hilly region of river Pamba seems to be quite fascinating as this fish has not so far been reported from any other rivers of Kerala. Moreover studies made by the second author for the past 20 years on the riverine fishes of Achenkovil and Pamba did not document *L. nigrescens* in any of the collections. The presence of *L. nigrescens* in the Perumthenaruvu region at least for the past 30 years has been well confirmed from the people of this locality. Locally the fish is known as 'Pamban' due to its exclusive presence in the Pamba branch of river Pamba.

The fish is well adapted for its benthic life. It always prefers to stay at the bottom when observed in the rocky pools near the collection site. The sensory appendages in the labial fold are actively mobile. The extreme difficulty and risk involved in the collection of this fish from the slippery rocky pools poses a problem for more detailed studies. The scarcity of this species must be taken as a sign of its rarity, and thereby a threatened status. More detailed surveys are being conducted in other hilly regions of the river to locate the species and to recommend its entry in the red data book.

This species bears a close affinity to the widely distributed *L. calbasu* in its colour and shape of fins. Day remarks that under *L. calbasu* in some districts, the adults have very elongated fins, the first few dorsal rays reach even to the base of the caudal, the pelvic extends to the end of the base of the anal and the anal when laid flat reaches the middle of the caudal.

However the *nigrescens* differs from *calbasu* in its fewer L_1 and L_{tr} row of scales. Also the caudal peduncle is deeper in *nigrescens* in contrast to a longer and slender caudal peduncle in *L. calbasu*. *Labeo calbasu* is reported to be absent in Kerala although Day mentioned its presence in 'Malabar'.

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