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OCCURRENCE OF A REEF FISH, *PARAMONACANTHUS JAPONICUS* (TILESIUS, 1809) IN VELLAR ESTUARY, SOUTH EAST COAST OF INDIA

MANISH KUMAR*, T.T. AJITH KUMAR AND S. RAVICHANDRAN

Centre of Advanced Study in Marine Biology, Annamalai University

Parangipettai-608 502, Tamilnadu

*Email : manifisheries@yahoo.co.in

INTRODUCTION

Paramonacanthus japonicus is a coral reef fish belonging to the family Monacanthidae of the class Actinopterygii and the order Tetraodontiformes. This species was first reported by Tilesius (1809) from the Japan coast. Even though it occurs in marine waters, its origin is originally from reef region (<http://www.zipcodezoo.com>). Some members of this family are used for aquarium trade also. There are approximately 22 species were reported in this genus (<http://www.zipcodezoo.com>). Among the various group of this family, *P. japonicus* is found to be common in reef regions, lagoons and soft bottom areas of the sea. In the present study, this species was recorded for the first time as shoal in the Vellar estuary and there is no earlier report available for their distribution in Indian estuaries.

In a routine survey of fishes made at the Vellar estuary revealed that a large number of *P. japonicus* (Fig. 1) was recorded. The fishes were found in the upper reaches of the Vellar estuary on 15th March, 2009 and no specimen was found in the subsequent days. The fishes were collected by encircling the net and immediately after collection they were transported to the hatchery and accommodated into a glass tank filled with fresh and filtered estuarine water with artificial aeration. 20 nos. of fishes were collected, in which the largest fish measuring was 63 mm length, 45 mm body depth and 6.85 gm weight. The water sample was also collected from the fishing site and the physicochemical parameters were recorded. The salinity was 25 ppt, D.O. 6 mg/l, temperature 28°C and pH 7.8.

SYSTEMATIC ACCOUNT

Order TETRAODONTIFORMES

Family MONACANTHIDAE

Paramonacanthus japonicus (Tilesius, 1809)

DESCRIPTION

The body was laterally compressed. Head and the body covered with lathery skin, very dark or brown in colour and they had three dark distinct bands on the body in upward direction. The caudal fin was wedge shaped and anal fin had rudimentary spines with 2-3 dark brown vertical bands. The first dorsal fin has one

Table-1 : Morphometric characters.

Characters	Measurements (cm)
Total length	6.3
Standard length	4.9
1 st dorsal fin length	2.1
2 nd dorsal fin length	0.7
Pectoral fin length	0.7
Anal fin length	0.6
Caudal fin length	1.4
Pectoral fin length	0.3
2 nd dorsal fin base length	1.7
Anal fin base length	1.6
Distance from snout to 1 st dorsal	1.9
Distance from snout to gill slit	1.9
Eye diameter	0.4



Fig. 1 : *Paramonacanthus japonicus*.



Fig. 2 : Colour changing behaviour of *Paramonacanthus japonicus* in the rearing tank.

strong spine with invert serration of 8-10 small spines. The dorsal and anal fins were commencing from opposite point to each other and ended near to the caudal fin. Second dorsal and anal fins were modified as rays and ended near to the rounded caudal fin. The snout was piggy shaped and the eyes were distinct which is situated just below the first dorsal spine. Gill slits have very small opening (Table-1). Upper jaw usually with three teeth in outer and two in the inner series on each premaxillary. The colour of the fish was observed to change during rearing in captive condition (Fig. 2). The fishes become fully dark black or faint, if any object come together. This is the peculiar adaptation of these fishes and because of this, the aquarist prefer these fishes.

DISTRIBUTION

The fishes are distributed widely in Bay of Bengal, East and west China, Great Barrier Reef, Gulf of Thailand, Hong Kong, Indian Ocean, Indonesian Sea, Indo-West Pacific, Southern Japan and North West Australia to Papua New Guinea, Malaysia, Taiwan and other parts of the world (<http://www.zipcodezoo.com>).

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REMARKS

Monacanthidae fishes are very common in coastal and reef waters of Indian and Western Pacific Ocean. *Paramonacanthus japonicus* was reported first time from the Gulf of Mannar region of Indian waters by Senthil Kumar (2001). This species inhabits the vicinity of reef environments, hide themselves among various plants or attached with animals. It feeds on wide variety of benthic invertebrates, corals or zooplankton (<http://www.fishbase.com>). A study conducted by Masuda et al. (1984) reported that the juveniles are some time moving towards the seaweed and seagrass beds in shallow water region. The moderate salinity of the estuarine water and the abundance of coastal vegetation, particularly mangroves may be the possible reason of this fish into the estuary.

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