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A NEW RECORD OF YELLOW TAIL ANEMONEFISH, *AMPHIPRION CLARKII* (BENNETT, 1830) FROM TUTICORIN TROPICAL WATERS, SOUTHEAST COAST OF INDIA

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INTRODUCTION

In September 2008, four numbers of clownfishes were obtained during the cage operation for ornamental fish collection carried out at Van Island of Tuticorin, Southeast coast of India. For the better health and survival, the fishes were packed in individual polythene bags filled with sufficient air and they were transported to the Marine ornamental fish hatchery at the Centre of Advanced Study in Marine Biology, Annamalai University. They were accommodated in the quarantine tank with two numbers of sea anemones, *Stichodactyla mertensii* for three days. Among the four, one fish has died and the same was measuring a total length of 111 mm and weight of 25 g. Based on the observed meristic characters and available literatures (Fautin and Allen, 1992; Rao, 2003) it was identified as Yellow tail anemonefish, *Amphiprion clarkii* (Fig. 1) which was not reported before in the coastal waters of Indian mainland.

DESCRIPTION

The body was oval, elongated and compressed. The entire body colour was blackish brown except at trunk region. The pectoral, pelvic and caudal fins were bright yellowish in colour. Head profile steep, snout blunt, mouth small, terminal and protractile. Teeth are present on both the jaws with single nostril. Scales are present on operculum to caudal base and the opercle and pre-opercle are serrated.

Three white bands were present on the body, among them first two were broad. First band starts from the nape and runs across the head behind the eye. The second band occurs on the middle of the body just behind the pectoral fin starts from the base of the 10th dorsal spine and end at the base of 2nd dorsal soft ray. In ventral part, this band occurs in between anus and first anal spine. Third white band runs down the caudal fin and the caudal peduncle. The width of first, second and third white bars were 9 mm, 10 mm and 4 mm likewise. The gap between first and second band was 28 mm and between second and third it was 20 mm. The first band joined at the upper side and incomplete in ventral side of the body. Snout and thorax were yellowish in colour. Prominent lateral line and nasal pore were present. The maximum length of the pectoral fin base was 10 mm. The length of pelvic fin base, anal fin base and caudal fin base were 11 mm, 24 mm and 14 mm.

Morphometric Characters

The morphometric characters were taken to the nearest millimeter and given in Table.1

Meristic characters

The fins include a single dorsal with 10 spines

Keywords: Yellow tail anemonefish, *Amphiprion clarkii,* Tuticorin reef waters.

Table : 1. Morphometric measurements of *Amphiprion clarkii*

CHARACTERS	(IN MM)
Total length	111
Fork length	107
Standard length	86
Maximum body depth	46
Head length	27
Pectoral fin length	24
Pelvic fin length	31
Dorsal fin length	52
Eye diameter	7
Anal fin length	26
Pre orbital length	7
Post orbital length	13

and 16 soft rays and the anal fin with 2 spines and 13 soft rays. Pectoral fin has 19 soft rays. Pelvic fin was found with one spine and five soft rays. There are 33 opercula spines and 39 lateral line scales and the same was found to be Ctenoid. Upper jaw and lower jaw had 12 and 17 teeths respectively. Rao (2003) reported this species from Andaman and Nicobar waters and mentioned the characters as in the case of present study, D.X-XII, 14-16; A.II, 12-14; P.19-20; V.I, 5.

The taxonomic position of this species is given below

Phylum : CHORDATA
Sub phylum : VERTEBRATA
Super class : GNATHOSTOMATA
Grade : TELEOSTOMI
Class : ACTINOPTERYGII
Sub class : NEOPTERYGII
Division : TELEOSTEI
Super order : ACANTHOPTERYGII
Order : PERCIFORMES
Sub order : LABROIDEI
Family : POMACENTRIDAE
Sub family : AMPHIPRIONINAE
Genus : ***Amphiprion*** (Bloch and Schneider, 1801)
Species : ***Amphiprion clarkii*** (Bennett, 1830)

DISTRIBUTION

This species is widely distributed in tropical and subtropical waters of the Indo-West Pacific region (Fautin and Allen, 1992). It is found in tropical shallow waters, lagoons and on the outer reef slopes of Persian Gulf, Western Australia, Melanesia, Taiwan, Southern Japan and the Ryukyu islands at a depth of 1-50 meters.

REMARKS

The marine ornamental fishes are one of the most popular attractions in world wide due to their

Fig. 1. : *Amphiprion clarkii* (Bennett, 1830)

adaptability to live in confinement. Among all coral associated ornamental fishes, anemonefishes are abundant (Kumaraguru, 1997). About 28 species of known anemonefishes are recognized under two genera *Amphiprion* and *Premnas* (Fautin and Allen, 1992). Compared to other damsel fishes, these fishes have some remarkable behavioral characteristics like symbiotic association with sea anemones (Mariscal, 1970; Allen, 1972; Fautin & Allen, 1992), formation of a group consisting of monogamous pair and protandrous hermaphroditic character (Allen, 1972; Fautin and Allen, 1992; Fricke and Fricke, 1977; Moyer and Nakazono, 1978; Ross, 1978).

Among clownfishes, *Amphiprion clarkii* has the symbiotic relationship with ten types of symbiotic sea anemones (Fautin & Allen, 1992). It is not commercially important as a food fish and is generally not edible. This species is however popular as an aquarium fish and can be bred and reared in captivity. It is omnivorous and feeds on algae and marine invertebrates such as copepods, amphipods and isopods. The new arrival of this species in Tuticorin tropical waters may be the post tsunami outcome.

Abréviations and symboles

D = Dorsal fin

A = Anal fin

P = Pectoral fin

V = Ventral / pelvic fin

Above letters followed by Arabic numerals = Number of rays

A coma (,) in between Roman and Arabic numeral means that the fin is continues

Above letters followed by Romanian numerals in capitals = Number of fin spines

SUMMARY

Yellow tail anemonefishes were recorded for the first time at Tuticorin coral reef waters (Lat.8° 45'N; Long. 78°10' E), Southeast coast of India during cage operation. Since this species is uncommon to the Indian main land waters, it has been taken for studying the morphometric and merestic characters to probe taxonomical aspects and distribution pattern. These fishes were identified as *Amphiprion clarkii* belonging to the family Pomacentridae.

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