

Occurrence of dusky sweeper *Pempheris adusta* Bleeker, 1877 in Ratnagiri waters, Maharashtra

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Pempheris adusta Bleeker, 1877, commonly called 'dusky sweeper' (Fig. 1), generally live on coral reefs and form schools in large caves among rocks. On 19/08/2009, a good number of specimens of *P. adusta* were observed at Mirkarwada landing centre in Ratnagiri (Fig. 2). They had elliptical, compressed body with iridescent, coppery silver colouration, because of which they were spectacular in appearance. The specimens were brought to the laboratory for identification and detailed study. The total length ranged between 110 and 116 mm and



Fig. 1. *Pempheris adusta*



Fig. 2. Catch of *Pempheris adusta*

the corresponding weight ranged from 17 g to 19 g. These fishes were landed by trawlers operating in 10-25 m depth at about 10-20 km towards south-west coast off Ratnagiri.

Pempheris adusta is placed under the Super Class: Osteichthyes, Class: Actinopterygii, Subclass: Neopterygii, Infraclass: Teleostei, Superorder: Acanthopterygii, Order: Perciformes, Suborder: Percoidei and Family: Pempheridae.

Pempheris adusta Bleeker, 1877 was identified on the basis of the following characters: compressed, elliptical body with short and blunt snout with strongly oblique protractile mouth; dorsal fin with 6 spines and 8 soft rays; anal fin with 3 spines and 42 soft rays; pectoral fin with 1 spine and 19 soft rays; body depth 2.1 in standard length, eye diameter 2.27 in head length; coppery brown in coloration with silvery tinge; a black blotch at the base of pectoral and blackish dorsal tip as mentioned by Smith and Heemstra (1986).

The distribution of this species is in the Indo-West Pacific Ocean from south of Transkei, South Africa and east to New Guinea. This is the first record of the species from Ratnagiri waters, Maharashtra. Since these fishes live among coral

reefs in the caves and rocks, it is possible that they drifted from the shelter of Angria Bank off Vijaydurg-Ratnagiri coast. Angria Bank is a shallow sunken atoll 40 km from north to south and 15 km from east to west (with depth of 20 m below surface water) on the continental shelf off the west coast located 105 km west of Vijaydurg, Maharashtra. The bank is steep on all sides with great depths surrounding it (Anon, 2003). It is one of the largest underwater reefs with 57 species of macro-algal fauna (Dhargalkar *et al.*, 2001). Therefore, the reef may have abundant fish fauna which remained unexplored. The coppery brown coloration *P. adusta* with silvery tinge may be to camouflage predators like perches, eels and carangids which abound in Ratnagiri waters.

Smith and Heemstra (1986) mentioned 15 species in the Indo-Pacific waters under the genus *Pempheris* but described only 3 species namely *P. schwenkii* Bleeker, 1855; *P. mangula* Cuvier, 1829 and *P. adusta* Bleeker, 1877. Distribution and occurrence of the species belonging to the family Pempheridae in Indian waters is given in Table 1.

Table 1. Report of the species of the family Pempheridae

Author	No. of species	Name of species	Synonyms	Place of occurrence
Smith and Heemstra (1986)	3	<i>P. schwenkii</i>		Indo-west Pacific, south to Natal
		<i>P. mangula</i>	<i>P. molucca</i> <i>P. oualensis</i>	Indo-west Pacific, south to Porto Amelia
		<i>P. adusta</i>	<i>P. adustus</i> <i>P. oualensis</i> <i>P. onalensis</i>	Indo-west Pacific, south to the Transkei
Talwar and Kacker (1984)	3	<i>P. vanicolensis</i>		Phillipines, Australia, Port Blair in Andaman sea
		<i>P. moluca</i>	<i>P. mangula</i> <i>P. malbarica</i> <i>P. oualensis</i>	Central Indo Pacific, Andaman sea
Day (1878)	2	<i>P. mangula</i>	<i>P. otaitensis</i> <i>P. vanicolensis</i>	Seas of India
		<i>P. Molucca</i>	<i>P. malabarica</i>	Red sea, Seas of India
Jones and Kumaran (1980)	1	<i>P. oualensis</i>		South Africa, Laccadives, Indonesia, Phillipines and Australia
Murty, Easterson and Fernando (1969)	1	<i>P. oualensis</i>		Minicoy

In the FAO identification species sheets for fisheries purposes, Fischer and Bianchi (1984) have mentioned four species under the genus *Pempheris* viz., *P. moluca* Cuvier, 1831, *P. oualensis* Cuvier, 1831, *P. schwenkii* Bleeker, 1877 and *P. vanicolensis*

Cuvier, 1831 in area 51 (Northern Indian Ocean and Arabian Sea). Therefore, 15 species mentioned by Smith and Heemstra (1986) needs re-examination. A thorough taxonomic revision of the available species can solve the discrepancies.