

FIRST AUTHENTIC RECORD OF DELAGOA THREADFIN BREAM (*NEMIPTERUS BIPUNCTATUS* VALENCIENNES, 1830) TELEOSTEI: PICES: NEMIPTERIDAE FROM THE PAKISTANI WATERS

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ABSTRACT

Although Delagoa threadfin bream (*Nemipterus bipunctatus* Valenciennes, 1830) has been previously reported from Pakistan, however, its presence in the Northern Arabian Sea was always doubted. This paper reports collection of a specimen *N. bipunctatus* from the Karachi Fish Harbor in January, 2022, confirming for the first time as authentic occurrence of this species along Pakistan coast.

Key word: *Nemipterus bipunctatus*, Nemipteridae. Delagoa threadfin bream, first authentic record. Pakistan

INTRODUCTION

Family Nemipteridae is comprised 71 species belong to 5 genera (Froese and Pauly, 2023). In Pakistan 5 species belonging to genus *Nemipterus*, 4 species of *Parascolopsis* and 5 species of *Scolopsis* were reported (Psomadakis *et al.*, 2015). Psomadakis *et al.* (2015) reported 5 species of genus *Nemipterus* from Pakistani waters including *N. bipunctatus*, *N. japonicus*, *N. peronii*, *N. randalli* and *N. zysron*. They considered *N. bipunctatus*, *N. peronei* and *N. zysron* to have doubtful occurrence in Pakistan. Prior to that *N. bipunctatus* was reported from Pakistan by Fischer and Bianchi (1984) and Bianchi (1985) as *Nemipterus bleekeri*, however, Russell (1990) considered questionable occurrence of this species in Pakistani waters (Fig.1)

Nemipterus bipunctatus was originally described as *Dentex bipunctatus* by Valenciennes (1830) from Red Sea. It was also synonymized with *Nemipterus bleekeri* Day, 1888, *Nemipterus mulloides* Smith, 1939, *Nemipterus delagoae* Smith, 1941 and Munro 2000 as *N. bleekeri*. This species is known from Red Sea, Persian Gulf, East Africa south to Delagoa Bay in Mozambique, Mauritius, Seychelles, Madagascar, Sri Lanka, Bay of Bengal, Andaman Sea, and Strait of Malacca (Froese and Pauly, 2023), Myanmar (Psomadakis *et al.*, 2019) and Gulf of Mannar (Joshi *et al.*, 2010). Present paper makes first authentic record of this species from Pakistan.

MATERIALS AND METHODS

A specimen (31 cm) of *Nemipterus bipunctatus*, was collected from commercial landings at Karachi Fish Harbour on January 18, 2022. According to the fisherman, it collected from bottom set gillnet from offshore waters of Karachi. The features of the specimen were examined in detail in the Biological Laboratory of Marine Fisheries Department, Karachi and morphometric measurements were recorded and were compared with those given in Russell (1990). The sample was fixed in 5 % formalin and housed in the Museum of Marine Fisheries Department.

RESULTS AND DISCUSSION

The specimen collected from Karachi Fish Harbour was found to be *Nemipterus bipunctatus* which is commonly known as Delagoa threadfin bream. Morphometric measurements of the specimen are given in Table-1 and compared with the measurements given by Russell (1990).

Diagnosis (after Russell, 1990): Dorsal spines 10 with 9 soft rays; anal spines 3 with 3 soft ray; transvers

scale row on preopercle 3; length of snout almost equal or larger than orbit; a line from later border to reaching the dorsal profile. Pectoral fin reaching slightly further than anal. Pelvic fin reaching to anal fin; forked caudal fin, both lobes almost equal; rows of scale upward arched anteriorly underneath of lateral line (Fig.2); in upper jaw 3 to 4 arched of little canines (Fig.3); 10 to 14 gill rakers (Fig.4).

Colour: Body pinkish above and silvery below; under lateral line 5 to 7 arched stripe; anal fin bluish with 2 to 4 yellow longitudinal irregular stripes (Fig.5); 2 blue stripe with redish edge on snout (Fig.6) (absent in larger specimen); yellowish pink caudal fin other all fin crystalline.

Table. No.1. Morphometric measurement of *Nemipterus bipunctatus* .

Morphometric measurements(in mm)	Present study	Russell (1990)
Body depth as percentage of standard length	3.9	3.4 to 3.9
Orbit diameter as percentage of head length	4.0	3.1 to 3.9
Interorbital length as percentage of orbit diameter	1.7	1.2 to 1.7
Pectoral length as percentage of head length	1.2	1.2 to 1.5
Pelvic length as percentage of length	1.0	0.9 to 1.3

Comparison of morphometric measurements of the specimen from Pakistan with those given by Russell (1990) confirms that the specimens from Pakistan belongs to *Nemipterus bipunctatus*, as all the parameters are with the range given by Russell (1990). In colour pattern, the specimens from Pakistan comes in confirmation with the specimens described from other parts of the world (Russell, 1990; Joshi *et al.*, 2010; Psomadakis *et al.*, 2019). Two species of genus *Nemipterus* also found in Pakistani water which are differ from *N. bipunctatus*. *N. japonicus* can be easily identified on the basis of yellow caudal filament on upper lobe with most of the part is yellow pinkish (Fig.7) whereas *N. randalli* has red caudal filament in upper lobe having mostly of the upper body part pinkish red (Fig.8). Species is bottom living found up depth of 100 meter, diet depend on cephalopods (Squid) crustacean and polychaetes, size range up to 20 cm but common 15 cm (Russell, 1990). Sululu *et al* (2017) studied on the coastal water of Tanzania in the area of Dar-es Salam that species consumed 40 % crustacean, 32.1 % fish and mollusks were remaining items in the diet.

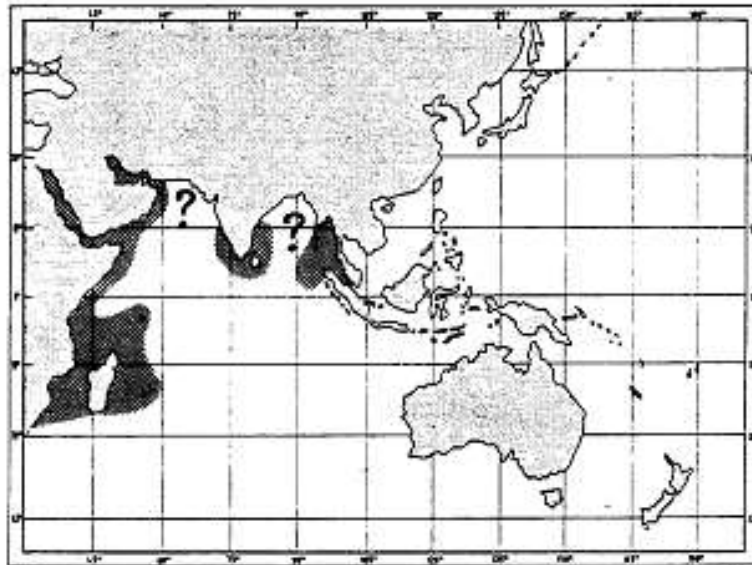


Fig.1. Geographical distribution. Russell, 1990. FAO Species Catalogue. Vol. 12. Nemipterid fishes of the world.



Fig.2. *Nemipterus bipunctatus*.



Fig.3. Canine teeth.



Fig.4. Gill rakers.

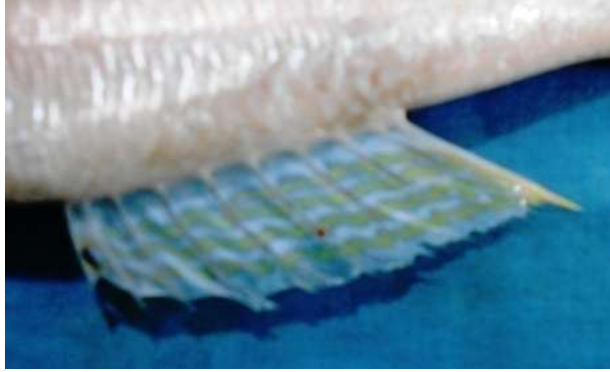


Fig. 5. Anal fin, yellow irregular lines.



Fig.6. Blue stripe on head.



Fig.7. *N. japonicus*.



Fig.8. *N. randalli*.

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