



# Journal of Biological Sciences

ISSN 1727-3048

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## First Records of Three Fishes from the Coastal Waters of Pakistan

Syed Ajazuddin and Muzammil Ahmed

Centre of Excellence in Marine Biology, University of Karachi, Karachi-75270, Pakistan

**Abstract :** This paper deals with the systematic study of three species of fishes collected by otter-trawling, beam trawling and gill-netting which are new to the coastal waters of Pakistan. The three species are *Pisodonophis boro* (Hamilton-Buchanan, 1822), *Muraenesox bagio* (Hamilton-Buchanan, 1822) and *Sidera picta* (Ahl, 1789). The occurrence, diagnosis, colour and geographical distribution of three species are described in this paper.

**Key words:** Fish fauna, rice-paddy eel, pike conger, speckled siderial moray, Pakistan coast

### Introduction

Marine fish fauna of the Pakistan is known through the contributions made by many workers (Bilqees *et al.* 1995; Mirza, 1978; Qureshi, 1980). Others notable workers like Fisher and Bianchi (1984) have published a monograph on the fish fauna of the western Indian Ocean including Pakistan (Area 51) and (Bianchi, 1985) documented a field guide to the commercial and brackish water species of Pakistan. Hoda (1988) listed the fishes known to the coast of Pakistan. Present paper records the occurrence of three species new to the coastal waters of Pakistan. Note on the occurrence, diagnosis, colour and distribution of each of these species is also given. These specimens are housed in the Center of Excellence in Marine Biology, University of Karachi.

### Materials and Methods

The present study based on the samples collected by a hired commercial trawler "Gulzar-e-Madina" at Manora channel, Sta.1, by gill-netting through a small boat," Safina-e-Daowd, at Korangi Creek, Sta.2, by beach seine and beam trawl at beaches of Manora and Sandspit backwaters, Sta. 3 and 4, respectively as shown in (Fig. 1) during the qualitative and quantitative programme of survey (1993 to 1996) of marine fauna and fisheries resources of Pakistan coast has been initiated at the centre of Excellence in Marine Biology, University of Karachi. Fishes were brought back in the laboratory for identification using (Fisher and Bianchi, 1984).

### Results

#### Systematic Account:

Family Ophichthidae

*Pisodonophis boro* (Hamilton-Buchanan, 1822) (Fig. 2)

For synonymy, see Day (1878).

**Material and measurements:** One specimen, total length (T. L.) 43.5 cm collected with beach seine 31st July, 1993 from the Sandspit backwater, Sta. 4, One specimen, total length (T. L.) 40.2 cm collected with beam trawl in 16th June, 1994 from the backwater of Sandspit, Sta.4, One specimen, total length (T. L.) 37.0 cm collected with beach seine in 11th May, 1996 from the Manora backwater, Sta.3.

**Diagnosis:** Body depth 1.3, head 10.4 to 10.6 in T. L. and 4.0- 4.1 in distance from the snout and to anus. Eyes  $\frac{1}{2}$  in snout. Snout moderately protruding in front of lower jaw. Teeth granular and multi-serial. Vertical fin discontinuous posteriorly. Anterior nostril tubular while posterior nostril along lower edge of lips. Dorsal fin low, originating far behind the end of pectoral fins. Pelvic fin absent. Lateral line inconspicuous.

**Colour:** Brownish olive above becoming lighter below, dorsal fin with a narrow dark edging.

**Remarks:** This species was noticed to inhabit muddy- cum-sandy flat, in comparatively protracted waters. It makes vertical burrows in the inter-tidal areas near low water mark.

**Distribution:** This species is reported from the Seychelles, East Africa from Natal to Tanzania, Sri Lanka, Indonesia to Polynesia and Indo-west Pacific. In the Arabian Sea (India), it is recorded by Day (1889), Ramakrishna Ayyar (1932), Aiyar *et al.* (1944), George and Desai (1944) and Chacko and Srinivasan (1954) while (Bal and Mohamed, 1957) documented the presence of the eel from Bombay coast (India) and now from Pakistan.

Family Muraenesocidae

*Muraenesox bagio* (Hamilton-Buchanan, 1822): (Fig. 3).

For synonymy see Fisher and Bianchi (1984).

**Material and measurements:** Two specimen total length (T.L.) 52.3 cm and (T.L.) 67.5 cm were collected with gillnet in 16th September, 1993 from, Korangi creek, Sta.2. Two specimen (T.L.) 57.5 cm and (T.L.) 58.2 cm were collected with trawl net in 30th October, 1996 at Sta.1, Manora channel, Karachi coast.

**Diagnosis:** Body cylindrical in front and elongate, compressed along tail. Head sharply conical, mouth is large, extending to beyond eye, eye moderate, interorbital space about 10.09 to 10.87 times in head length, teeth sharp, more or less in 3 longitudinal rows on jaws and vomer, those on middle row of lower jaw and on vomer triangular, laterally tip of lower jaw with the large canines. Dorsal and anal fins continuous with caudal fin around tip of the body, dorsal fin rays before level of anus 47 to 52, pectoral fins elongate, well developed.

**Colour:** Light greyish brown shot with olive bronze above, lighter below. Dorsal and anal Fins with narrow black edge. Dorsal fin commences slightly in advance of gill-opening.

**Remarks:** The species noticed to inhabit soft bottom of Korangi creek in comparatively protracted waters. It makes burrows in the inter- tidal areas near low water mark.

**Distribution:** This species is reported from the Mauritius, Mozambique channel, Madagascar, Seychelles, East Africa from Natal to Tanzania, Sri Lanka, Indonesia to Japan, Australia, New Caledonia and Fiji.

Family Muraenidae

*Sidera picta* (Ahl, 1789), (Fig. 4).

For Synonymy, see Fisher and Bianchi (1984)

**Ajazuddin and Ahmad: Fish fauna, rice-paddy eel, pike conger, speckled siderial moray, Pakistan coast**

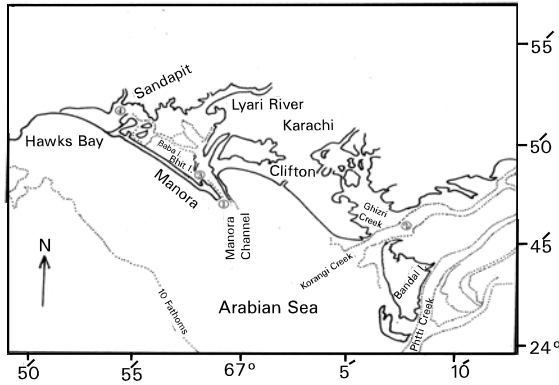


Fig. 1: Map showing the stations 1, 2, 3 and 4 in Northern Arabian Sea for fish sampling (sta.1. Manora Channel; sta. 2 Korangi creek; sta. 3. Manora backwater and sta. 4. Sandspit backwater) conducted

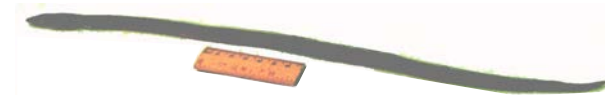


Fig. 2: *Pisodonophis boro*



Fig. 3: *Muraenesox bagio*

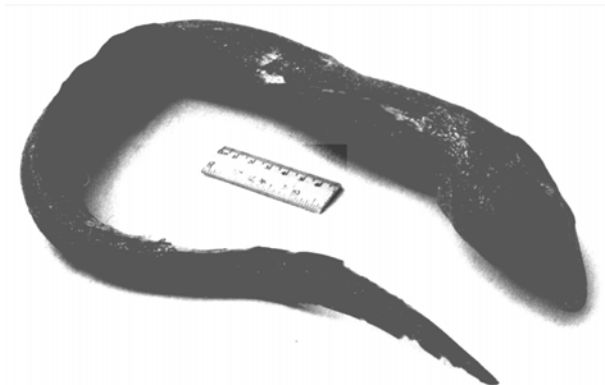


Fig. 4: *Sidera picta*

**Material and measurements:** One specimen total length (T. L.) -75.5 cm was collected with trawl net in 26th August, 1996 from Sta.1, Manora channel during the Trawl survey of the channel, Karachi at the depth of 13 meter.

**Diagnosis:** Depth 17 to 20, Head with steep profile, 5.85 to 6.00 in length, snout short and blunt, dorsal 2.4 to 3.0 times as high anal, originating on head just before gill opening. Conical teeth, in single series in both jaws. Vomer with 2-series Inter-maxillary with 3 mesial depressible fangs. Pectoral and pelvic absent. No obvious lateral line. Dorsal fin originating at a distance of 10.4 to 10.5 cm from the mouth.

**Colour:** Molted brown with greyish-yellow background covered with small black irregular intermixing specks.

**Distribution:** This species is reported from the Indo-West Pacific eastward to Pacific Central America, South Africa, East Africa, Madagascar, Mauritius, Seychelles, Indian coast and Sri Lanka.

The occurrence of this species reported by Day (1889) from Indian waters and Sorley (1932) from Bombay coastal waters. Now, this species is reported for first time from the coastal area of Pakistan.

**Remarks:** The species noticed to inhabit in shallow waters, typically sluggish found protection in holes and crevices They are prone to cause deep wound and their slippery bodies contribute to increase the rate of accidents among fisherman.

**Acknowledgments**

We are thankful to the Director of Center of Excellence in Marine Biology for giving the facilities for this work.

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