

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

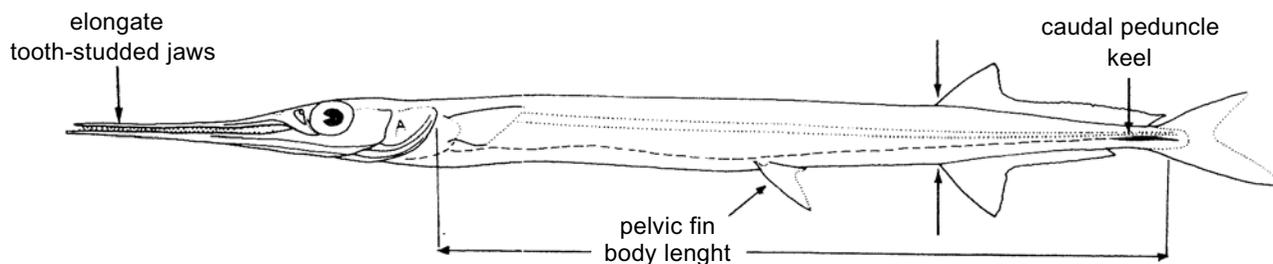
BELONIDAE

Needlefishes

Elongate fishes with both upper and lower jaws extended into long beaks filled with sharp teeth; nostrils in a pit anterior to eyes. No spines in fins; dorsal and anal fins posterior in position; pelvic fins located in abdominal position and with 6 soft rays; pectoral fins short. Lateral line running down from pectoral fin origin and then along ventral margin of body. Scales small, cycloid (smooth), easily detached.

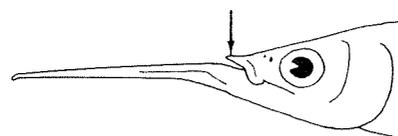
Colour: these fishes live at the surface: and are protectively coloured for this mode of life by being green or blue on the back and silvery white on the lower sides and belly. Usually, a dusky or dark blue stripe along sides; tip of lower jaw frequently red or orange.

Most species are marine, but some occur in freshwaters. Carnivorous, feeding largely on small fishes which they catch sideways in their beaks. Needlefishes tend to leap and skitter at the surface and some people have been injured when accidentally struck by them, particularly at night when the fishes are attracted by lights. Caught by casting or trolling surface or near-surface lures. Flesh excellent in flavour although some people have misgivings about eating it due to the green colour of the bones. Some freshwater needlefishes reach only 6 or 7 cm in total length while some marine species may attain 2 m.



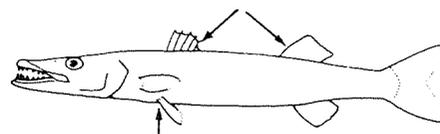
SIMILAR FAMILIES OCCURRING IN THE AREA:

Hemiramphidae (halfbeaks): only the lower jaw prolonged or none of the jaws prolonged (*Oxyporhamphus*) and lacking the needle-sharp teeth that stud the needlefishes' upper and lower jaws.



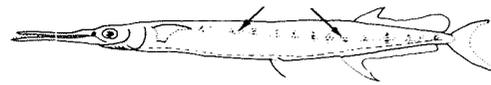
Hemiramphidae

Sphyraenidae (barracudas): jaws pointed but not prolonged into a beak; 2 dorsal fins, the first spiny; pelvic fins in thoracic position.



Sphyraenidae

KEY TO GENERA OCCURRING IN THE AREA:



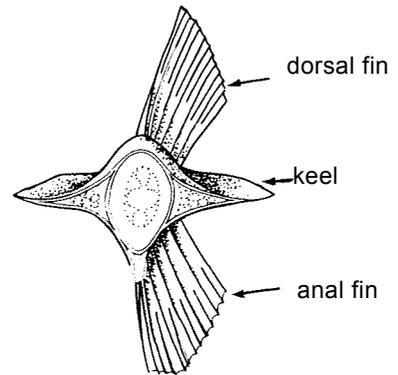
Ablennes

Fig. 1

Out of 10 genera and about 32 species in the family, only 8 species belonging to 4 genera occur in the Western Indian Ocean.

1a. Body strongly laterally compressed and marked with a series of vertical bars (Fig.1); anal fin rays 24 to 28 Ablennes

1b. Body rounded or squarish in cross-section; no vertical bars present; anal fin rays 13 to 23

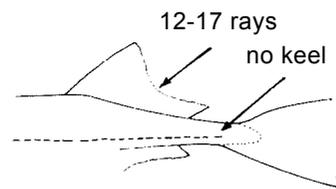


cross section through caudal peduncle

Platybelone argalus

2a. Caudal peduncle strongly depressed (flattened dorsoventrally) and with well developed lateral keels, least depth of caudal peduncle about half the width (Fig.2); gillrakers present Platybelone

2b. Caudal peduncle not strongly depressed, a small lateral keel on caudal peduncle or no keel at all, caudal peduncle deeper than wide; gillrakers absent

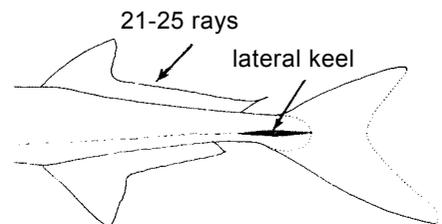


Strongylura

Fig. 3

3a. Dorsal fin rays 12 to 17; no keels on caudal peduncle (Fig.3); no expanded black posterior dorsal fin lobe at any size Strongylura

3b. Dorsal fin rays 20 to 26; a weak, darkly pigmented lateral keel on each side of caudal peduncle (Fig.4); juveniles with an expanded black lobe in the posterior part of the dorsal fin Tylosurus



Tylosurus

Fig. 4

LIST OF SPECIES OCCURRING IN THE AREA:

Code numbers are given for those species for which Identification Sheets are included

<u>Ablennes hians</u> (Valenciennes, 1846)		BELON Ablen 1
<u>Platybelone argalus platyura</u> (Bennett, 1837)	}	BELON Platy 1
<u>Platybelone argalus platyura</u> (Rüppell, 1837)		
<u>Strongylura incisa</u> (Valenciennes, 1846)		
<u>Strongylura leiura</u> (Bleeker, 1850)		BELON Strong 4
<u>Strongylura strongylura</u> (van Hasselt, 1823)		BELON Strong 5
<u>Tylosurus acus melanotus</u> (Bleeker, 1850)		BELON Tylo 1
<u>Tylosurus crocodilus crocodilus</u> (Peron & LeSueur, 1821)		BELON Tylo 2
<u>Tylosurus choram</u> (Rüppell, 1837)		

Prepared by B.B. Collette, National Marine Fisheries Service, Systematics Laboratory, NOAA, Washington, D.C., USA

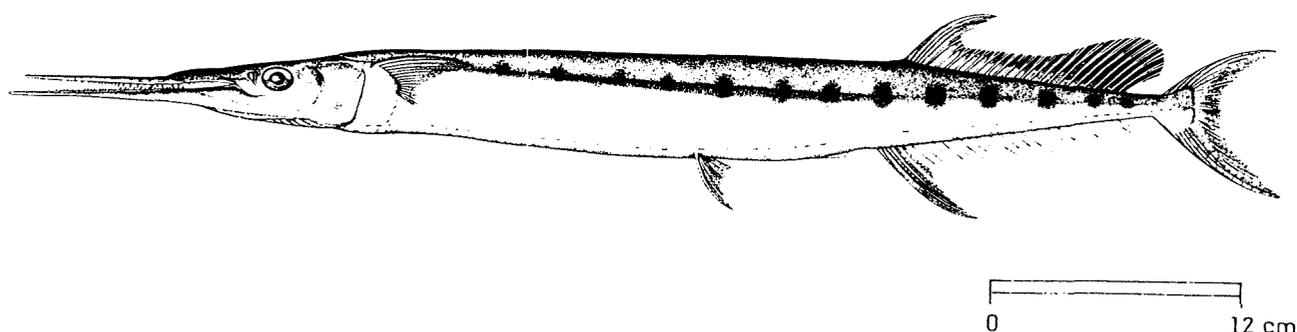
Species illustrations provided by author

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: BELONIDAE

FISHING AREA 51
(W. Indian Ocean)Ablennes hians (Valenciennes, 1846)

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO : En - Flat needlefish
 Fr - Orphie plate
 Sp - Agujón sable

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate and greatly compressed laterally. Upper and lower jaws greatly elongated and studded with small sharp teeth. Gillrakers absent. Anterior parts of dorsal and anal fins with high falcate lobes; dorsal fin rays numerous, 23 to 26, usually 24 or 25; posterior part of dorsal fin with a prominent dark lobe; anal fin rays numerous, 24 to 28, usually 26 or 27; pectoral fins falcate; pectoral fin rays 13 to 15; caudal peduncle without lateral keels, caudal fin deeply forked, lower lobe much longer than upper. Females lack the right gonad and males either lack it or have it greatly reduced. Total number of vertebrae 87 to 93.

Colour: bluish green above, silvery white below. A broad dark blue stripe along sides and about 12 to 14 prominent dark vertical bars on body; tip of lower jaw red. Juveniles and adults have an elevated black lobe in the posterior part of the dorsal fin. Scales and bones green.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Other species of Belonidae: body rounded or squarish in cross-section (strongly laterally compressed in A. hians), no vertical bars on body, fewer anal fin rays, less than 24 (24 or more in A. hians) and no prominent dark lobe to posterior part of dorsal fin, except in juveniles of Tylosurus species.

SIZE:

Maximum: at least to 120 cm total length and 90 cm body length (without beak and caudal fin); common to 70 cm body length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Found off coasts and islands throughout the area from South Africa through the Red Sea and the "Gulf" to India and Sri Lanka. A worldwide species of tropical and warm-temperate waters.

A pelagic species inhabiting offshore surface waters; inshore occurrences seem to be more frequent around islands than along the mainland coast.

Carnivorous, feeding mainly on small fishes.

PRESENT FISHING GROUNDS:

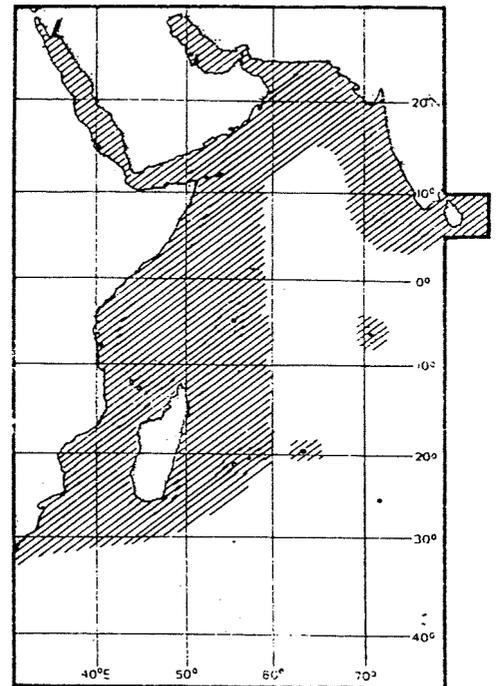
Coastal and offshore waters throughout the area; locally abundant, but no special fishery; at times taken commercially on the southeast coast of India and commonly brought into the markets of Cochin, southwest India.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not collected for this species. An unusually large catch of 59 625 kg was made in 1965 at Vizhinjam, Kerala.

Caught mainly by casting or trolling surface or near-surface lures; also with seines and drift nets.

Marketed mostly fresh.



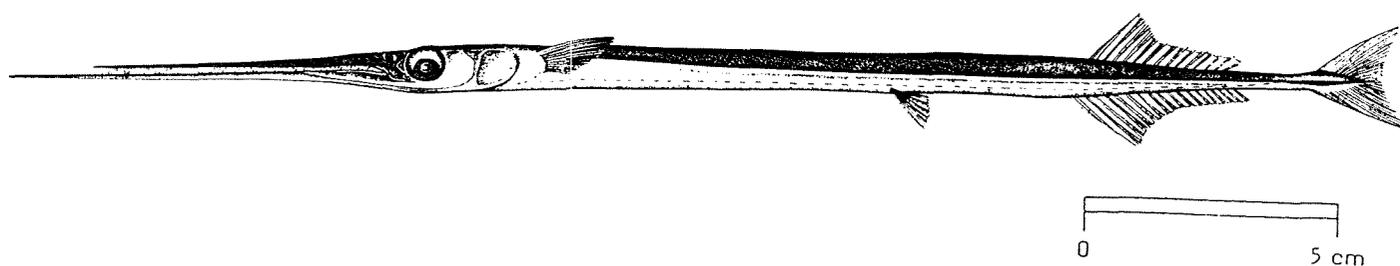
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: BELONIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Platybelone argalus platyura</i> (Bennett, 1837) *

OTHER SCIENTIFIC NAMES STILL IN USE: *Belone platyura* Bennett, 1832
Belone platyura Rüppell, 1897



VERNACULAR NAMES:

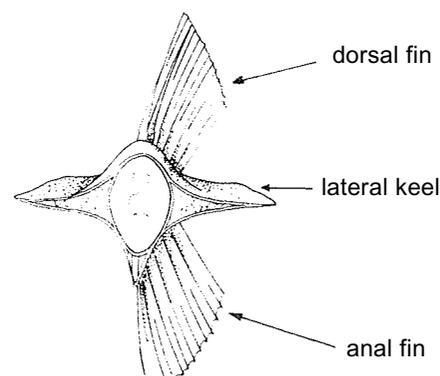
FAO : En - Keeltail needlefish
Fr - Orphie carène
Sp - Agujón de quilla

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate, rounded in cross-section. Upper and especially lower jaws greatly elongated and studded with fine teeth. Gillrakers present. Anterior parts of dorsal and anal fins not forming prominent lobes; dorsal fin rays few; 12 to 15; anal fin rays 15 to 20; pectoral fin not falcate, pectoral fin rays 10 to 12, usually 11; caudal peduncle greatly depressed with very large lateral keels; caudal fin forked, upper and lower lobes of about equal length. Predorsal scales (in front of dorsal fin) comparatively few and large, 108 to 120. Both right and left gonads present, right longer than left. Total vertebrae 62 to 75.

Colour: bluish green above, silvery below. A dark blue stripe along sides. Fins clear, without pigment. Scales and bones green.



cross section through caudal peduncle

P. argalus

*Including two subspecies: *P. argalus platyura* Bennett, 1832 and *P. argalus platyura* (Rüppell, 1837)

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Other species of Belontiidae: caudal peduncle not strongly depressed (not wider than deep), lateral keels either small or absent (well developed in P. argalus) and gillrakers absent (present in P. argalus also, body strongly compressed laterally and dark bars on sides of Ablennes hians, and many more dorsal fin rays in Tylosurus species (21 to 26, compared to 12 to 15 in P. argalus).

SIZE:

Maximum: at least 38.2 cm standard length (without caudal fin) and 25.6 cm body length (without beak and caudal fin); common to 30 cm standard length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the Western Indian Ocean, known from many island groups (P. argalus platyura) and from the Red Sea and the "Gulf" (P. argalus platyura). P. argalus platyura also extends into the central and South Pacific and other subspecies are found worldwide in tropical and warm-temperate waters.

A pelagic species inhabiting offshore surface waters but particularly abundant about islands.

Carnivorous, feeding mainly on small fishes.

PRESENT FISHING GROUNDS:

Incidentally in surface waters, but no special fishery.

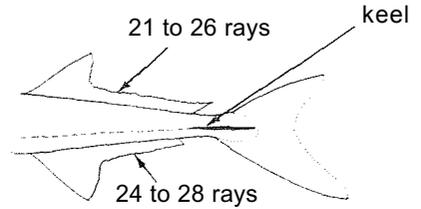
CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

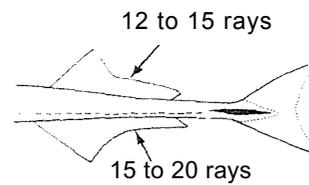
Caught mainly by casting or trolling surface or near-surface lures; also with seines and trammel nets, often using lights.



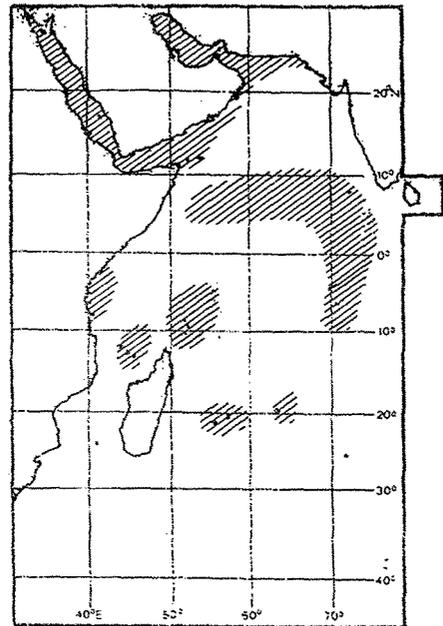
Ablennes hians



Tylosurus species

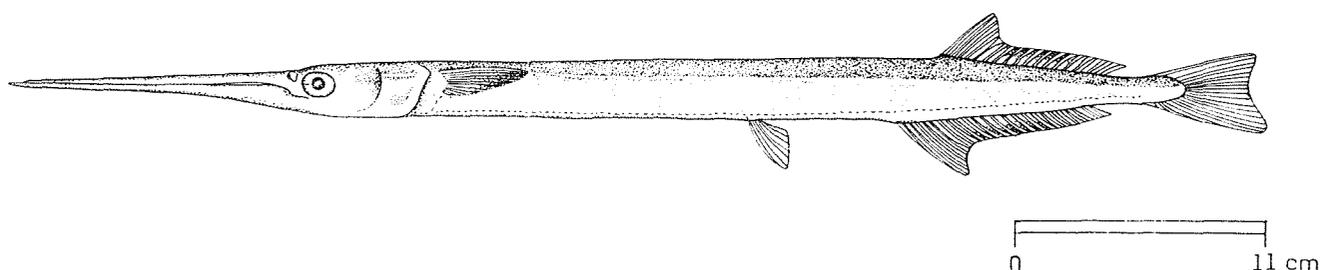


Platybelone argalus



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: BELONIDAE

FISHING AREA 51
(W. Indian Ocean)Strongylura leiura (Bleeker, 1850)OTHER SCIENTIFIC NAMES STILL IN USE : Belone ciconia Richardson, 1846
Belone leiurus Bleeker, 1850

VERNACULAR NAMES:

FAO : En - Banded needlefish
Fr - Aiguillette ruban
Sp - Agujón cintado

NATIONAL:

DISTINCTIVE CHARACTERS:

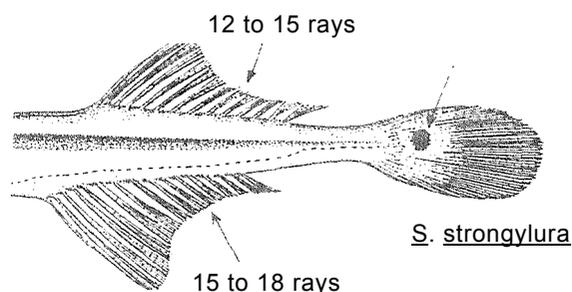
Body elongate, laterally compressed, almost rectangular in cross section. Upper and lower jaws greatly elongated and studded with sharp teeth; gillrakers absent. No spines in fins; anterior parts of dorsal and anal fins forming distinct lobes; origin of dorsal fin over 7th to 10th ray of anal fin; dorsal fin rays 17 to 21; anal fin rays 23 to 25; pectoral fins not falcate; pectoral fin rays 10 or 11. Caudal peduncle without lateral keels; caudal fin emarginate, not deeply forked. Predorsal scales (in front of dorsal fin) moderately small, 130 to 160; bases of dorsal and anal fins covered with scutes.

Colour: top of head and back greenish; a silver stripe along sides widening posteriorly, lower sides and ventral surface white; pelvic fins whitish; pectoral fins with a distal dark spot, tip of fins yellow when fresh; tips of dorsal and anal fin lobes yellowish, some black pigmentation along middle of fins; caudal fin dark with a yellowish tinge to upper lobe.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA :

Strongylura strongylura: fewer dorsal and anal fin rays, 12 to 15 and 15 to 18, respectively (17 to 21 and 23 to 25 in S. leiura); a prominent round black spot at base of caudal fin; caudal fin rounded with central rays the longest

S. incisa: fewer predorsal scales, 100 to 120 (130 to 160 in S. leiura); bases of dorsal and anal fins without scales (covered with scales in S. leiura); origin of dorsal fin is above the 4th to 6th ray of anal fins (7th to 10th anal ray in S. leiura).

S. strongylura

Platybelone argalus: caudal peduncle strongly depressed dorsoventrally and with well developed keels (not depressed and no keels in S. leiura); gillrakers present (absent in S. leiura); fewer predorsal scales, 107 to 120; both left and right gonads present (only the right gonad present in S. leiura).

Tylosurus and Ablennes species: more dorsal fin rays, more than 20 (17 to 21 in S. leiura) and caudal fin deeply forked, with lower lobe much longer than upper; also, a narrow black keel on caudal peduncle in Tylosurus species; body greatly compressed laterally and a dark posterior lobe to dorsal fin and dark bars on sides in Ablennes hians.

SIZE:

Maximum: 73 cm total length and 46 cm body length (without head and caudal fin); common to 35 cm body length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the area, found on the East African coast from Durban (South Africa) to Tanzania, the Seychelles, Aldabra Island, the "Gulf" and along the coasts of Pakistan, India and Sri Lanka. Also found in the Eastern Indian Ocean and the Western Central Pacific, extending eastward through Southeast Asia to New Guinea, Australia and the Philippines.

Inhabits coastal areas, also entering estuaries.

Carnivorous, feeding mainly on snail fishes.

PRESENT FISHING GROUNDS:

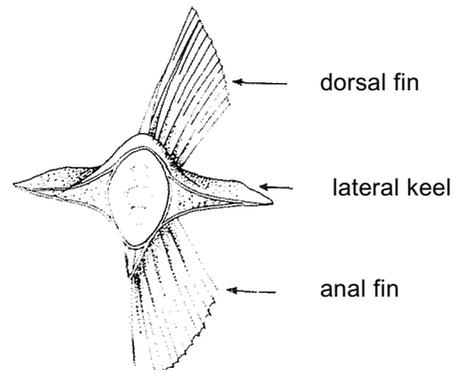
Taken at Veraval, Calicut, Karwar, and Cochin on the west coast of India.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

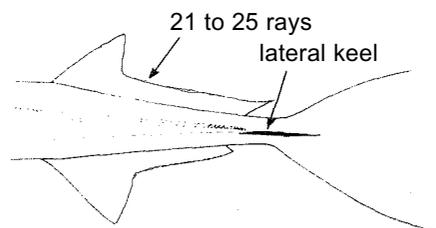
Taken with driftnets, shore seines and purse seines.

Marketed fresh.

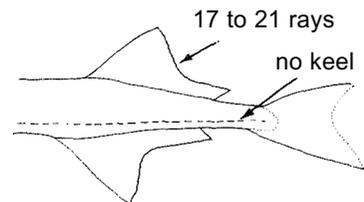


cross section through caudal peduncle

Platybelone argalus



Tylosurus



S. leiura

