

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

SPHYRAENIDAE

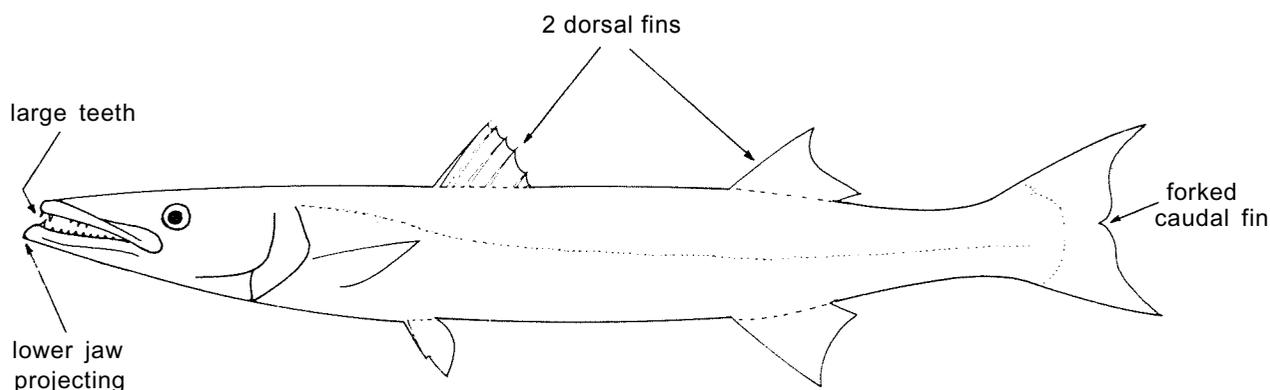
Barracudas

Body elongate, usually slightly compressed. Head large, with a long, pointed snout; mouth large, horizontal, the lower jaw projecting beyond the upper; strong canine teeth of unequal size in jaws and on palatines (roof of mouth). Two short and widely separated dorsal fins, the first with 5 fairly strong spines inserted about opposite to pelvic fins, the second (soft) dorsal about opposite to anal fin. Pectoral fins short (shorter than head). Caudal fin forked. Lateral line well developed, nearly straight; scales cycloid (smooth to touch).

Colour: usually grey to blue above, with silvery reflections, lighter to white below. Body sometimes with vertical or oblique bars or chevrons. Some species with longitudinal yellow/orange stripes or dark blotches.

Voracious predators found in tropical and warm temperate seas, mainly in coastal waters, but also in open oceans; often found in surface waters, but to depths of 100 m or more. Small species and juveniles often show schooling and gregarious behaviour; depending on the species, large adults are mostly solitary or more or less gregarious. Large solitary species are dangerous; several attacks have been reported from the Western Indian Ocean; attacks often occur in shallow murky waters. Like sharks, often a problem for artisanal fishermen; usually caught with trolling lines, also sometimes with nets. Flesh good, marketed fresh, frozen, dried, salted or smoked. Large individuals of the large species (especially *S. barracuda*) have occasionally been implicated in ciguatera fish poisoning. The catch of unspecified barracudas from the area was about 9 000 m in 1981.

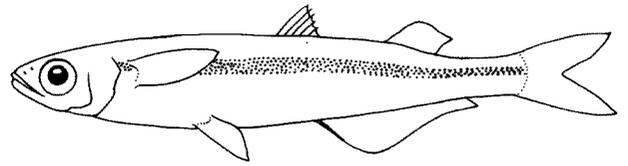
The taxonomy of the Indo-Pacific species is not satisfactory and needs revision.



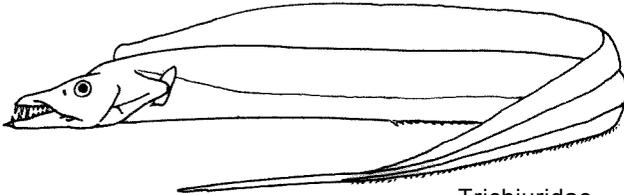
SIMILAR FAMILIES OCCURRING IN THE AREA:

Atherinidae, Mugilidae, Polynemidae: all have two widely spaced dorsal fins, but the snout is short, the mouth small, and there are no canine teeth; also, lower pectoral fin rays filamentous in Polynemidae.

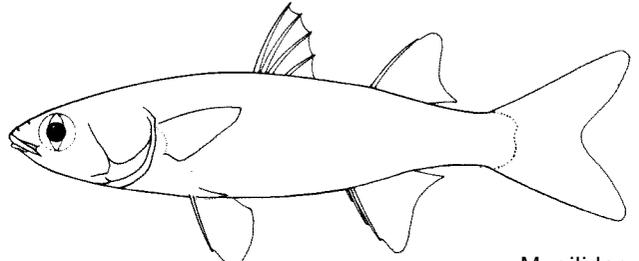
Trichiuridae, Gempylidae, etc.: may have elongate snout, large mouth and canine teeth, but never two short arid well spaced dorsal fins.



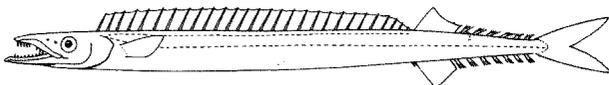
Atherinidae



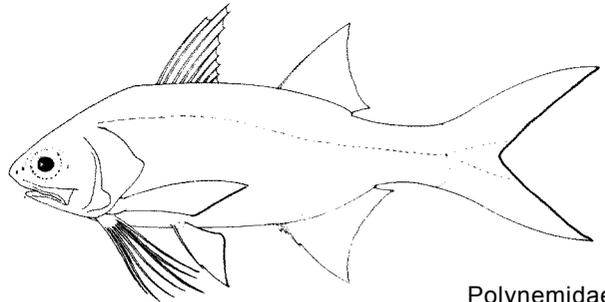
Trichiuridae



Mugilidae



Gempylidae



Polynemidae

KEY TO GENERA OCCURRING IN THE AREA:

Sphyraena only.

LIST OF SPECIES OCCURRING IN THE AREA:

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

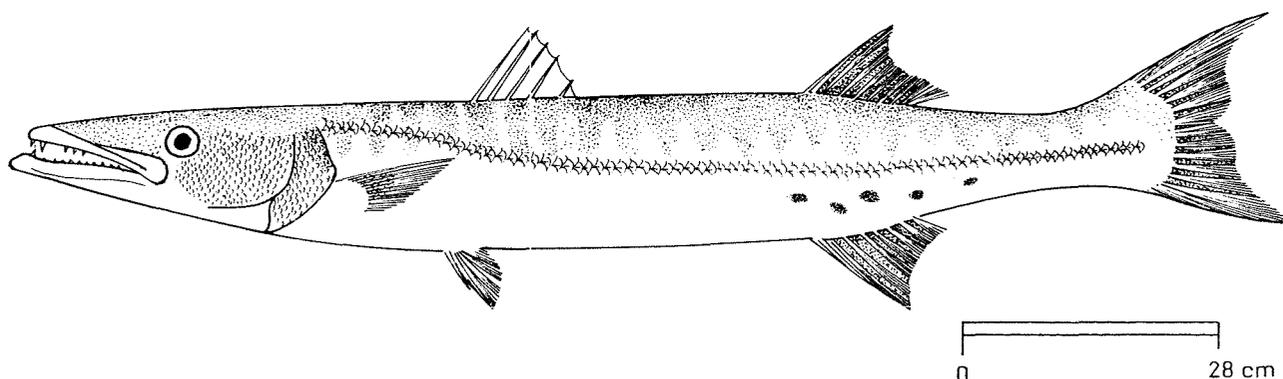
- Sphyraena acutipinnis Day, 1876
- * Sphyraena africana Gilchrist & Thompson, 1909
- Sphyraena barracuda (Walbaum, 1792) SPHY Sphy 1
- Sphyraena flavicauda Rüppell, 1835
- Sphyraena forsteri Cuvier, 1829 SPHY Sphy 2
- Sphyraena jello Cuvier, 1829 SPHY Sphy 3
- Sphyraena novaehollandiae Günther, 1860
- Sphyraena obtusata Cuvier, 1829 SPHY Sphy 4
- Sphyraena putnamiae Jordan & Seale, 1905
- Sphyraena genie Klurizinger, 1870
- **Sphyraena raghara Chandhuri, 1917

Prepared by J.M. Rose, Ichthyological Laboratory, Pont de Briques, France. Revised by P.J.P. Whitehead, Zoology Department, British Museum (Natural History), London, UK, and J.E. Randall, Bernice Bishop Museum, Honolulu, Hawaii, USA

* Possibly a synonym of S. acutipinnis fide de Sylva, D.P., 1973, J.Mar.Biol.Assoc.India, 15:83
** ?=S. idiastes Heller & Snodgrass, 1903 fide de Sylva (1973:87)

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPHYRAENIDAE

FISHING AREA 51
(W. Indian Ocean)*Sphyraena barracuda* (Walbaum, 1792)OTHER SCIENTIFIC NAMES STILL IN USE : *Sphyraena picuda* Bloch & Schneider, 1801

VERNACULAR NAMES:

FAO : En - Great barracuda
 Fr - Barracuda
 Sp - Picuda barracuda

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate and slightly compressed. Head large, with a long, pointed snout; mouth large, maxilla (upper jaw) reaching to or a little beyond anterior margin of eye, lower jaw projecting; strong, pointed, contiguous, vertical flattened teeth of unequal size in each jaw and similar teeth on roof of mouth (palatines). No gillrakers on first arch; upper and lower gill arch platelets rough, but without distinct spines. Origin of first (spinous) dorsal fin slightly behind pelvic fin origin; anterior dorsal and anal fin rays reaching beyond tips of posterior rays when fin depressed; pectoral fin tip reaching beyond pelvic fin base. Scales rather large, less than 100, usually 80 to 90 in lateral line.

Colour: deep green to steel grey above, sometimes with a purplish tinge, sides mostly silvery, becoming abruptly white on ventral surface. Small individuals with 18 to 22 oblique dark bars on back (faint to absent in adults; adults usually with several to many scattered inky blotches on hind part of body below lateral line. Second dorsal, anal and caudal fins violet to blackish with whitish tips.

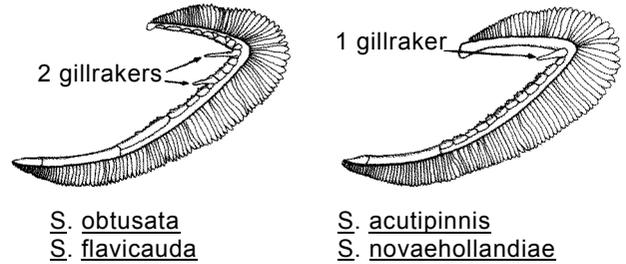
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Sphyraena obtusata, S. flavicauda: 2 gillrakers on first arch and no bars on body; also, inside of mouth bright yellow/orange in S. obtusata.

S. acutipinnis and S. novaehollandiae: 1 gillraker on first arch, no bars on body and more than 124 lateral line scales; also, first dorsal fin origin opposite pelvic fin base in S. acutipinnis.

S. forsteri: also without gillrakers, but distinct spines on lower gill arch platelets.

Other Sphyraena species: also without gillrakers on first arch, but no inky spots below lateral line on posterior part of body and more than 100 lateral line scales.



SIZE:

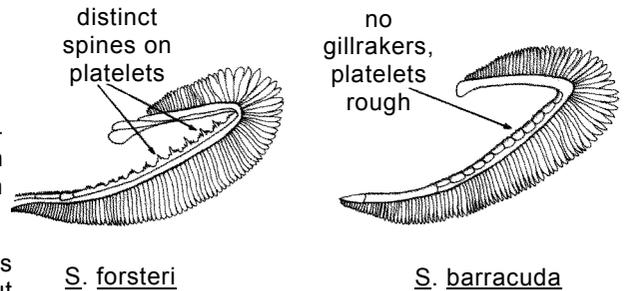
Maximum: 180 cm; common to 140 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Probably throughout the area, but previous identifications not necessarily reliable. Elsewhere, found in the Eastern Indian Ocean, Western Pacific and Eastern and Western Atlantic.

Found predominantly at or near the surface, but has been taken as deep as 100 m. Diurnal and solitary, but can be found in small schools, the adults in the open sea or around reefs, the juveniles sometimes common in mangrove swamps and estuaries.

Feeds on moderate or quite large fishes, either around reefs or near the surface, the juveniles taking small fishes (anchovies, etc.). A voracious feeder, known to attack swimmers. Nearly all attacks a result of provocation (as by spearing) or mistaken identity in musky water (a human limb might appear to the barracuda as a fish).



PRESENT FISHING GROUNDS:

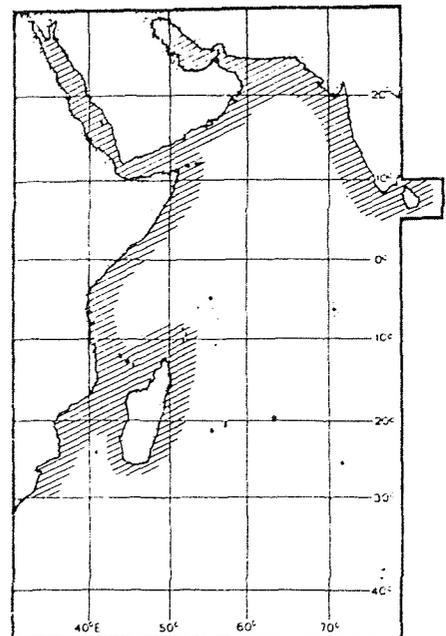
No specific fishery in the area.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION

Separate statistics are not reported for this species.

Caught mainly by trolling lines by both artisanal and sport fishermen, but also sometimes taken in nets.

Marketed fresh, frozen or dried salted. Flesh good, but cases of poisoning (ciguatera) reported in the tropical Western, Atlantic and Pacific.

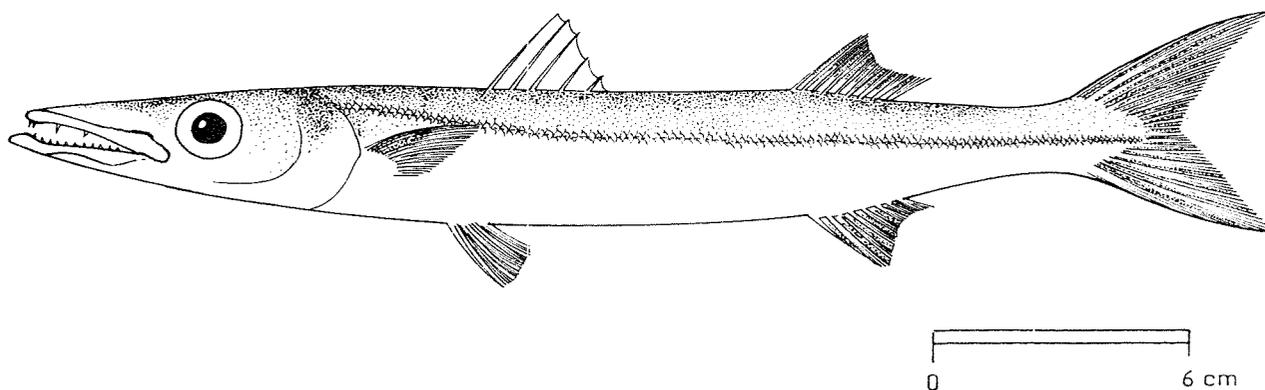


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPHYRAENIDAE

FISHING AREA 51
(W. Indian Ocean)*Sphyraena forsteri* Cuvier, 1829

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO : En - Bigeye barracuda
 Fr - Bécune de Forster
 Sp - Picuda de Forster

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate and slightly compressed. Head large, with a long, pointed snout; eye very large, mouth large, maxilla (upper jaw) reaching to anterior margin of eye, lower jaw projecting; strong, pointed, flattened teeth in both jaws, large in front, smaller behind and a few triangular, flattened teeth on roof of mouth (palatines). No gillrakers on first arch; upper gill arch platelets rough, lower platelets with distinct spines. Origin of first (spinous) dorsal fin slightly behind pelvic fin origin; pectoral fin tip reaching beyond pelvic fin base. Scales moderate, more than 100, usually 105 to 115 in lateral line.

Colour: blue/black above, sides silvery, without dark bars or chevrons; a dark blotch in axil of pectoral fin. Inside of mouth dark grey. Tips of second dorsal and anal fins white.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Other Sphyraena species: either no gillrakers or 1 or 2 gillrakers on first arch, but no distinct spines on lower gill arch platelets; also, dark bars or chevrons may be present on sides, or lateral line scales less than 100 or more than 125.

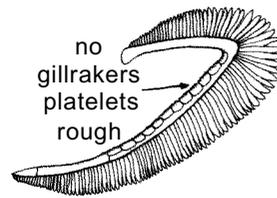
SIZE:

Maximum: 64 cm; common between 20 and 30 cm.

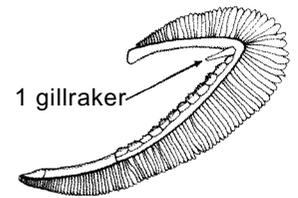
GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Probably throughout the area, but previous identifications not necessarily reliable. Elsewhere, found in the Eastern Indian Ocean and Western Pacific southward to northeastern Australia.

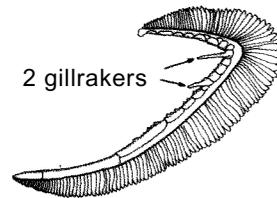
Found close to shore or over shallow banks, frequently near bottom. Mainly nocturnal and solitary. Feeds mainly on fishes, but also on penaeid shrimps and squids.



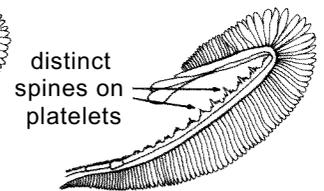
S. barracuda
S. jello



S. acutipinnis
S. novaehollandiae



S. obtusata
S. flavicauda



S. forsteri

PRESENT FISHING GROUNDS:

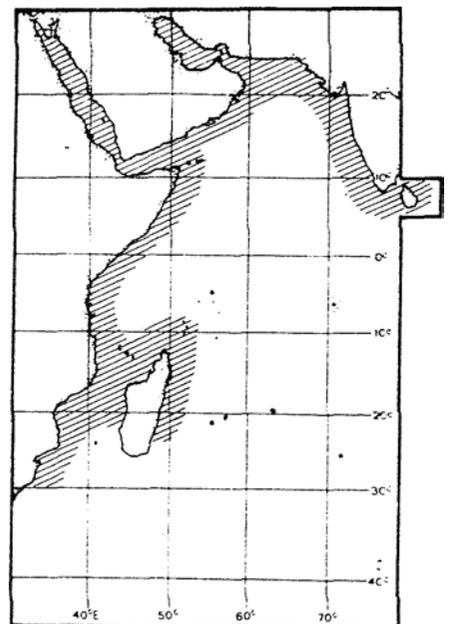
No specific fishery in the area.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Captured by trolling lines, chiefly at night.

Marketed fresh, frozen or dried salted. Flesh good; unreliable identifications hint at poisonous qualities, but this needs confirmation.



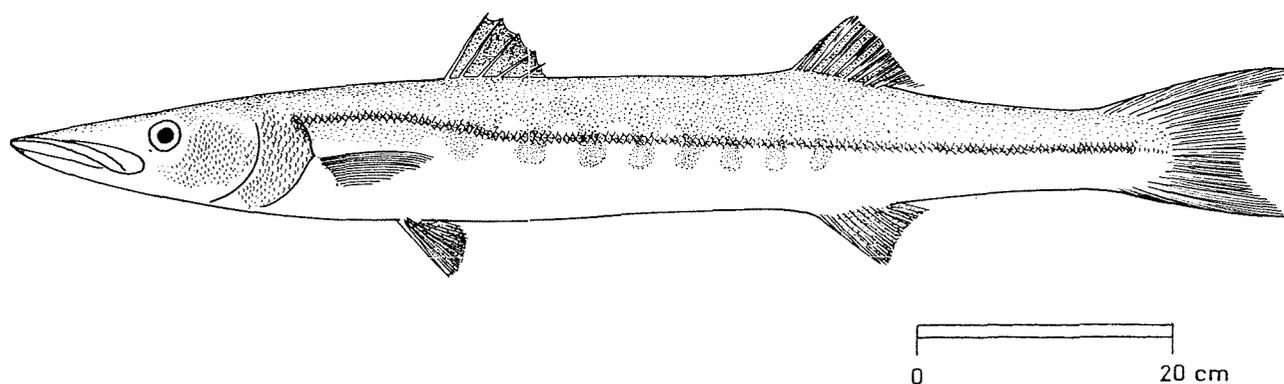
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPHYRAENIDAE

FISHING AREA 51
(W. Indian Ocean)

Sphyraena jello Cuvier, 1829

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

- FAO : En - Pickhandle barracuda
- Fr - Barracuda jello
- Sp - Picuda serperitiria

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate and somewhat round. Head large, with a long, pointed snout; mouth large, maxilla (upper jaw) almost reaching to anterior margin of eye, lower jaw projecting; strong, pointed, flattened teeth in both jaws, large in front, smaller behind and a few triangular, flattened teeth on roof of mouth (palatines). No gillrakers on first arch; upper and lower gill arch platelets rough, but without distinct spines. Origin of first (spinous) dorsal fin slightly behind pelvic fin origin; anterior dorsal and anal fin rays not reaching beyond tips of posterior rays when fin depressed; pectoral fin tip reaching beyond pelvic fin base. Scales small, more than 130, usually 135 to 140 in lateral line.

Colour: blue/black or brown above, sides silvery, with a dark pattern of serpentine bars reaching a little below lateral line, but no inky spots on hind part of body below lateral line (bars very distinct in young).

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

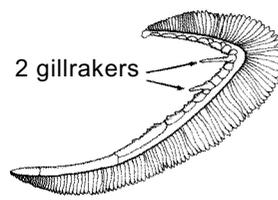
Sphvraena obtusata, S. flavicauda: 2 gillrakers on first arch and no bars on body; also, inside of mouth bright yellow/orange in S. obtusata.

S. acutipinnis and S. novaehollandiae: 1 gillraker on first arch and no bars on body; also, first dorsal fin origin opposite pelvic fin base in S. acutipinnis.

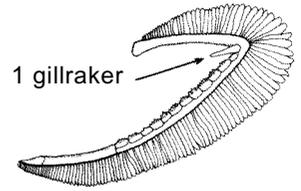
S. forsteri: also without gillrakers, but distinct spines on lower gill arch platelets.

S. barracuda: inky spots on hind part of body below lateral line and large scales (less than 100 in lateral line).

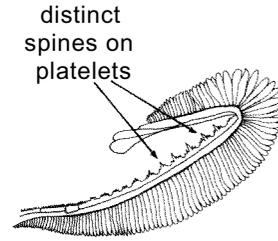
Other Sphyraena species: also without gillrakers on first arch, but dark chevrons on sides (S. bleekeri, S. putnanniae), no dark marks (S. raghava), or angled vertical bars and only 120 to 130 lateral line scales (S. genie).



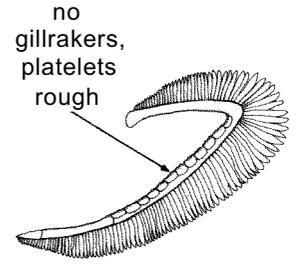
S. obtusata
S. flavicauda



S. acutipinnis
S. novaehollandiae



S. forsteri



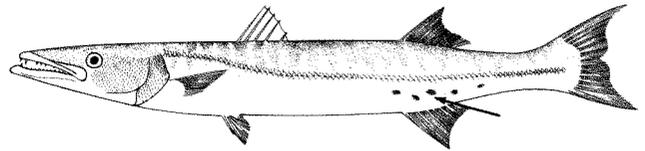
S. jello

SIZE:

Maximum: 150 cm; common between 50 and 100 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Probably throughout the area, but previous identifications not necessarily reliable (some probably refer to S. putnamiae). Elsewhere, found in the Eastern Indian Ocean and Western Pacific.



S. barracuda

Found predominantly at or near the surface. Diurnal and solitary (but the young often in small schools), usually at the edges of reefs and over shallow banks.

Feeds mainly on fishes, also squid.

PRESENT FISHING GROUNDS:

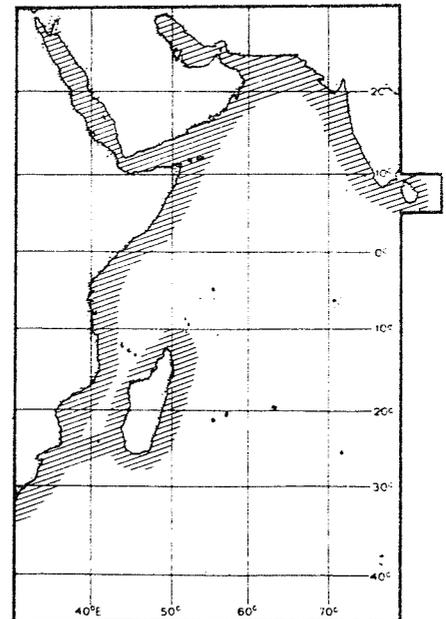
No specific fishery in the area.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Captured by trolling lines by both artisanal and sport fishermen, perhaps also in nets.

Marketed fresh, frozen or dried salted. Flesh good; unreliable identifications hint at poisonous qualities, but this needs confirmation.

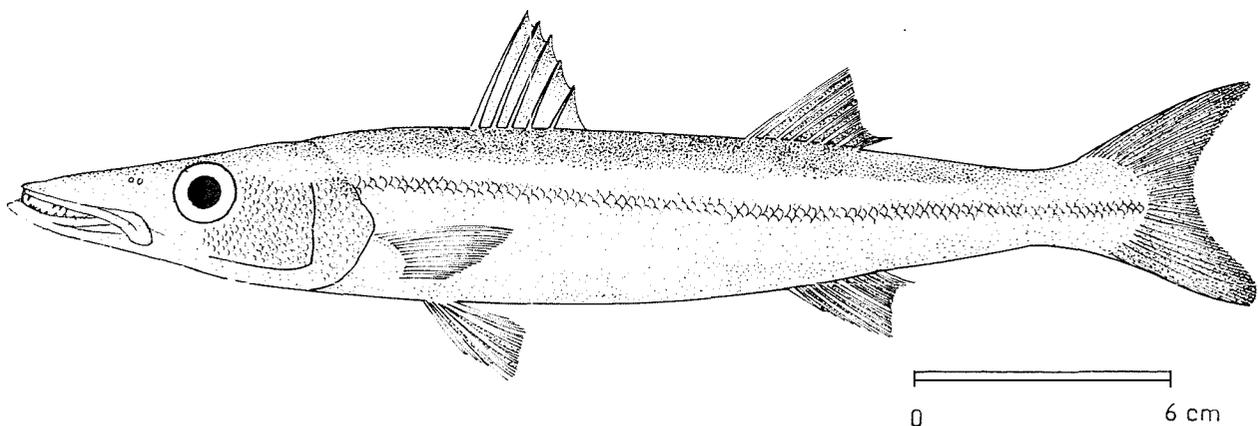


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPHYRAENIDAE

FISHING AREA 51
(W. Indian Ocean)Sphyraena obtusata Cuvier, 1829

OTHER SCIENTIFIC NAMES STILL IN USE:

Sphyraena chrysotaenia Klunzinger, 1884Sphyraenella chrysotaenia: Dutt & Seshagiri Rao, 1967

VERNACULAR NAMES:

FAO: En - Obtuse barracuda
Fr - Bécune obtuse
Sp - Picuda obtusa

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate and slightly compressed. Head large, with a long, pointed snout; mouth large, maxilla (upper jaw) reaching to anterior margin of eye, lower jaw projecting; strong, pointed, flattened teeth in both jaws, large in front, smaller behind, and a few triangular, flattened teeth on roof of mouth (palatines). Two gillrakers on first arch; upper and lower gill arch platelets rough, but without distinct spines. Origin of first (spinous) dorsal fin slightly behind pelvic fin origin; pectoral fin tip reaching first dorsal fin origin. Scales large, less than 100, usually 80 to 90 in lateral line.

Colour: grey/brown with greenish tinge above, sides silvery white without dark bars or chevrons; inside of mouth bright yellow/orange. Second dorsal, anal and caudal fins yellowish.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Sphyraeria flavicauda: pectoral fin tip not reaching to level of first dorsal fins origin and height of first dorsal fins less than postorbital distance.

S. acutipinnis and S. novaehollandiae: only a single gillraker on first arch and more than 100 lateral line scales.

S. forsteri: also without gillrakers, but distinct spines on lower gill arch platelets and more than 100 lateral line scales.

Other Sphyraena species: no gillrakers, also dark chevrons on sides (S. putnamiae) and/or more than 100 lateral line scales.

SIZE:

Maximum: 40 cm; common between 20 to 30 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Perhaps throughout the area, but previous identifications not necessarily reliable. Elsewhere, found in the Eastern Indian Ocean and Western Pacific.

Found near the surface and also just off the bottom (especially larger individuals). Diurnal and schooling (especially smaller individuals).

Feeds mainly on fishes.

PRESENT FISHING GROUNDS:

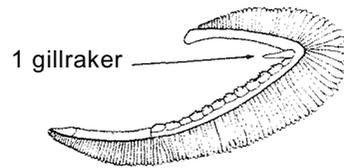
No specific fishery in the area.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

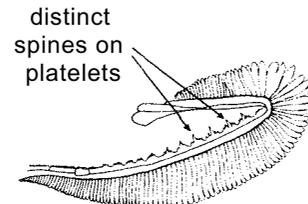
Separate statistics are not reported for this species.

Captured by trolling lines by both artisanal and sport fishermen, perhaps also in nets.

Marketed fresh, frozen or dried salted. Flesh good.



S. acutipinnis
S. novaehollandiae



S. forsteri

