FAO SPECIES IDENTIFICATION SHEETS

Revised 1983

FISHING AREA 51
(W. Indian Ocean)

URANOSCOPIDAE

Stargazers

Body thick, compressed posteriorly, naked or with small scales. Head very large, bony and heavy; eyes dorsal; mouth large, vertical; lower jaw heavy, projecting; upper jaw protrusile; maxillaries exposed, with supramaxilla; small teeth in jaws, vomer and on palatines (roof of mouth); gill membranes widely separated, with 6 branchiostegal rays. Spinous dorsal fin small or absent, or continuous with soft-rayed part of fin; soft dorsal and anal fins similar, opposite; pelvic fins on isthmus, well in front of pectorals, with 1 short spine and 5 rays.

Colour: generally brownish with dark or pale spots or mottling on body.

Stargazers are moderate-sized (to 40 cm total length) fishes caught as bycatch in bottom trawls from depths of 40 to 400 m. They appear to be uncommon and none is of commercial importance at present.

SIMILAR FAMILIES OCCURRING IN THE AREA:

Scorpaenidae (Synanceia & Pseudosynanceia): pelvic fins located between pectoral fins; 13 to 17 dorsal fin spines (3 or 4 in Uranoscopidae); anal fin with 2 to 4 spines and 4 to 8 soft rays (0 or 1 spines and 12 or more soft rays in Uranoscopidae).
KEY TO GENERA OCCURRING IN THE AREA:

1a. Spinous dorsal fin separate from soft-rayed part of fin; large spine just above base of pectoral fin (Fig. 1) ........... Uranoscopus

1b. Spinous dorsal fin continuous with soft-rayed part of fin; no spine above pectoral fin base (Fig. 2) ...................... Ichthyscopus

LIST OF SPECIES OCCURRING IN THE AREA:

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

Ichthyscopus inermis Cuvier, 1829
Uranoscopus archionema Regan, 1921 (= U. haplostoma Regan, 1921)
Uranoscopus crassiceps Alcock, 1890
Uranoscopus fuscomaculatus Kner, 1868
Uranoscopus guttatus Cuvier, 1829
Uranoscopus cognatus Cantor, 1850

Prepared by P.C. Heemstra, J.L.B. Smith Institute of Ichthyology, Grahamstown, South Africa
FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

XIPHIIDAE

Swordfishes

A single species in the area - see species sheet for:

Xiphias gladius Linnaeus, 1758   XIPH Xiph 1

Prepared by I. Nakamura, Fisheries Research Station, Kyoto University, Maizuru, Kyoto, Japan
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: XIPHIIDAE

FISHING AREA 52
(W. Indian Ocean)

Xiphias gladius Linnaeus, 1758

OTHER SCIENTIFIC NAMES STILL IN USE:
Xiphias estara Phillipps, 1932
Xiphias gladius estara: Whitley, 1968

VERNACULAR NAMES:

FAO: En - Swordfish
Fr - Espadón
Sp - Pez espada

DISTINCTIVE CHARACTERS:

Body elongate and cylindrical. Upper jaw prolonged into a long bill, flat oval in cross-section about both jaws prolonged into long bills in immature individuals; eye large; mouth not protrusible; fine, file-like teeth present in specimens of about 1 m (body length), disappearing with growth; gill opening wide, gill membranes united only basally and free from isthmus; no gillrakers on gill arches. Two separate dorsal fins in adults (continuous in immature specimens), the first much larger than the second; two separate anal fins in adults (continuous in immature specimens) the first much larger than the second; pectoral fins falcate, a little rigid and situated low on body sides; pelvic fins absent; caudal fin large and lunate; a large keel present on each side of caudal peduncle. Lateral line indistinct, but recognizable in specimens to about 1 m (body length) as a wavy-shaped line, disappearing with growth. Scales with small spines present in specimens to about 1 m (body length). Vertebrae 26 (15 t 11 or 16 + 10).

Colour: dorsal and lateral sides of body blackish-brown, gradually fading to light-brown on ventral side; fin membrane of first dorsal fin dark blackish-brown; other fins brown or blackish-brown.
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Istiophoridae: upper jaw prolonged into a long spear, its cross-section round; fine rasp-like teeth present on both jaws; 2 dorsal fins close together, the first much larger than the second; pelvic fins present; a pair of keels present on each side of caudal fin base; lateral line present; vertebrae 24 (26 in Xiphiidae).

Pristis (Pristidae): the body colour and the prolonged flat bill are similar to those in swordfish, but differ in having a more depressed body, a flat bill with long spines on both lateral margins and 5 gill slits on ventral side of body.

SIZE:

Maximum: 444 cm (total length) and 536 kg; common to 300 cm (total length).

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Worldwide in tropical and temperate waters, sometimes migrate to cold waters; found throughout the area.

Epipelagic, primarily oceanic, but sometimes seen in coastal waters as well; highly migratory and aggressive, usually not forming schools; generally found above the thermocline but fairly often seen in considerable depth (about 800 m).

Feels on a wide variety of fish, especially schooling fishes, crustaceans and squids. Believed to use its sword to kill prey.

PRESENT FISHING GROUNDS:

Good commercial longline fishing grounds around 15°N lat (Arabian Sea).

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

The reported catches for this species in the area totalled about 900 t in 1981.

Caught mainly with surface longlines and harpooning, sometimes with driftnets or surface gillnets as bycatch (commercial fishing boats); by trolling (sports fishing boats).

Marketed iced locally, usually frozen by longliners; prepared as sashimi (sliced raw fish) and teriyaki (grilled with soy-sauce and sugar) in Japan; usually prepared as steaks. Flesh oily and tasty.