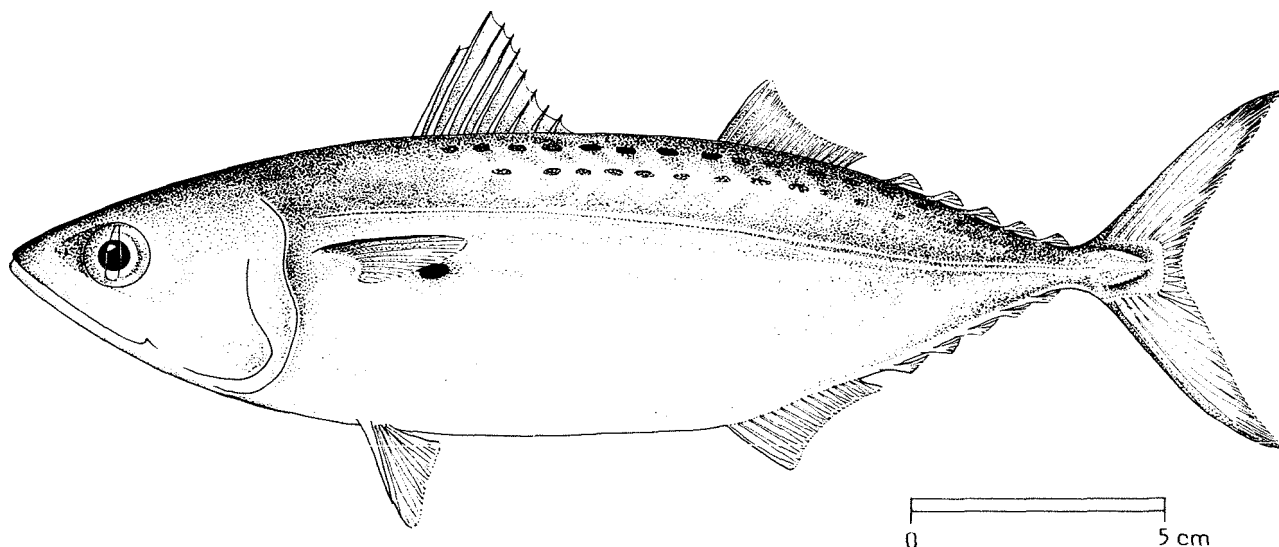


1983

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SCOMBRIDAE

FISHING AREA 51
(W. Indian Ocean)Rastrelliger kanagurta (Cuvier, 1817)OTHER SCIENTIFIC NAMES STILL IN USE: Rastrelliger chrysozonus (Rüppell, 1836)

VERNACULAR NAMES:

FAO : En - Indian mackerel
 Fr - Maquereau des
 Sp - Caballa de la India

NATIONAL:

DISTINCTIVE CHARACTERS :

Body moderately deep, its depth at margin of gill cover 4.3 to 5.2 times in fork length; head longer than body depth. Maxilla partly concealed, covered by the lacrimal bone, but extending to about hind margin of eye. Well developed adipose eyelids. Gillrakers very long, visible when mouth is opened, 30 to 46 on lower limb of first arch; a moderate number of bristles on longest gillraker, 105 on one side in specimens of 12.7 cm, 140 in specimens of 16 cm, and 160 in specimens of 19 cm fork length. Two widely separated dorsal fins; second dorsal and anal fins each followed by 5 or 6 finlets. Intestine 1.4 to 1.8 times fork length.

Colour: back blue/green, flanks silver with a golden tint; 2 rows of small dark spots on sides of dorsal fin bases, narrow dark longitudinal bands on upper part of body (golden in fresh specimens) and a black spot on body near lower margin of pectoral fin; dorsal fins yellowish with black tips, caudal and pectoral fins yellowish; other fins dusky.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Rastrelliger brachysoma (not reported from Area 51, but may occur there occasionally): more deep-bodied, the depth at margin of gill cover 3.7 to 4 times in fork length (4.3 to 5.2 in R. kanagurta); intestine very long, 3.2 to 3.6 times in fork length (1.4 to 1.8 in R. kanagurta); bristles on longest gillrakers more numerous, about 150 on one side in specimens of 12.7 cm, 210 in specimens of 16 cm, and 240 in specimens of 19 cm in fork length.

R. faughni (not reported from Area 51 but may occur there occasionally, nearest record is from Madras): body slimmer, its depth at margin of gill cover about 5 to 6 times in fork length; intestine about equal to fork length; gillrakers short, not extending far into mouth when the latter is opened, and less numerous (20 to 25 on lower limb of first gill arch; 30 to 46 in R. kanagurta); only 30 to 55 bristles on one side of longest gillraker (over 100 in R. kanagurta).

Auxis and Scomber species: a conspicuous pattern of oblique zig-zag or wavy dark lines on back. Furthermore, Auxis has a simple interpelvic process, a well developed corselet of scales and a median keel between the pair of small keels on each side of caudal peduncle; 8 dorsal and 7 anal finlets (5 dorsal and anal finlets in R. kanagurta).

Other species of Scombridae: first and second dorsal fins close together; 7 to 10 finlets behind dorsal and anal fins.

SIZE:

Maximum: 35 cm; common to 25 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Found from Natal northward along the coast of East Africa, Madagascar, Réunion, Comoros, Aldabra, the Seychelles, to the Red Sea, western India, and Sri Lanka. The range extends eastward to the Philippines, Australia and Samoa. Has entered the eastern Mediterranean Sea.

A common, coastal pelagic species, often found in large schools. Off India, batch spawning extends from March through September.

Feeds primarily on plankton, mainly larval crustaceans.

FAO Species Synopsis No. 29.

PRESENT FISHING GROUNDS:

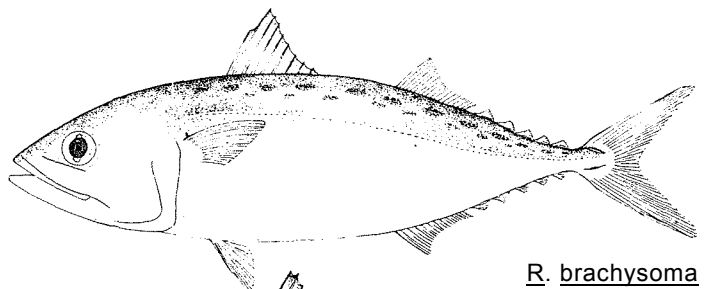
Most of the Indian catch comes from the west coast off the Ratnagiri-Quilon region.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

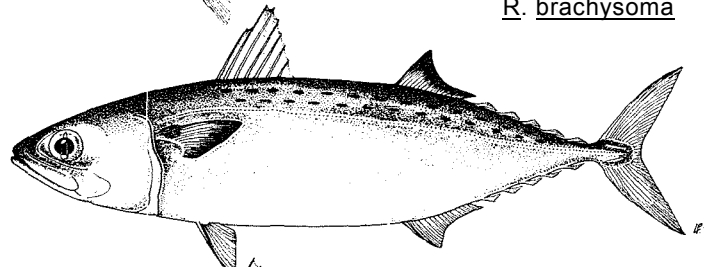
The catch from Fishing Area 51 totalled about 55 000 t in 1981 (mainly India).

Caught mainly with purse seines, encircling gillnets, lift nets, and bamboo stake traps.

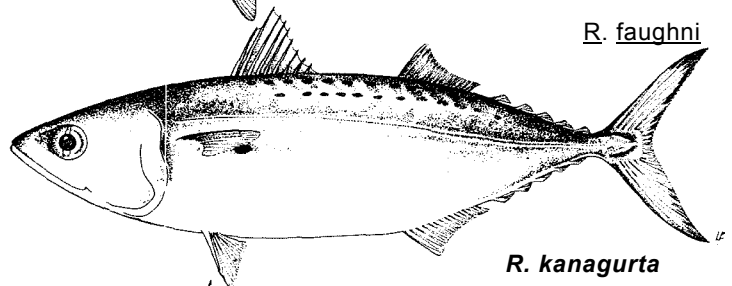
Marketed fresh, frozen, canned, dried-salted, and smoked; also made into fish sauce.



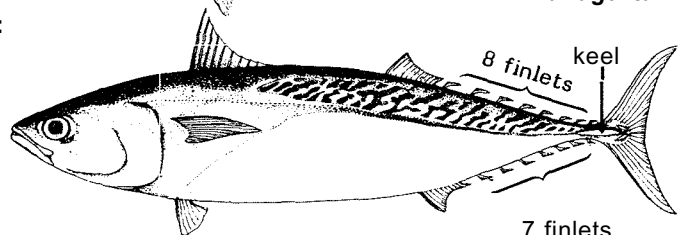
R. brachysoma



R. faughni

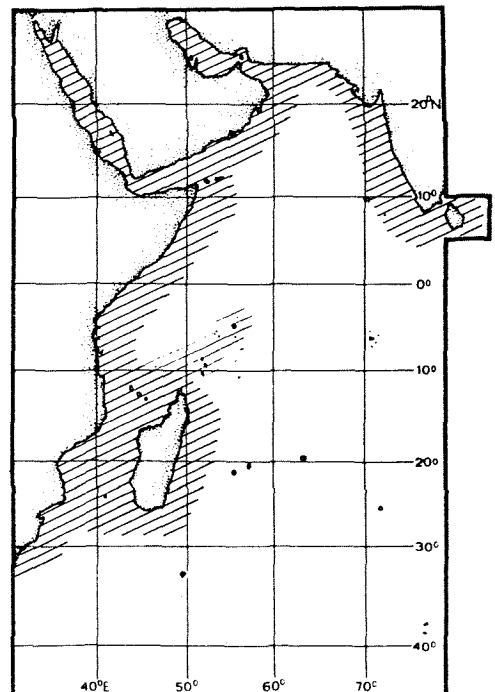


R. kanagurta



7 finlets

Auxis thazard

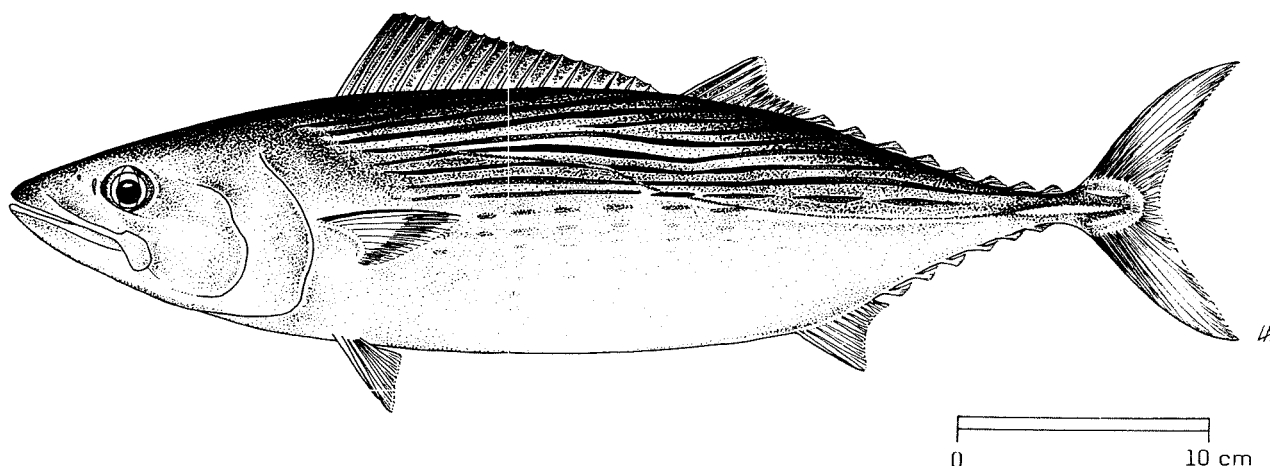


FAO SPECIES IDENTIFICATION SHEETS

FAMILY : SCOMBRIDAE

FISHING AREA 51
(W. Indian Ocean)Sarda orientalis (Temminck & Schlegel, 1844)

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

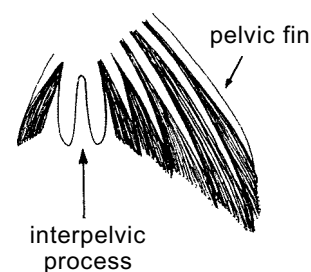
FAO: En - Striped bonito
Fr - bonite oriental
Sp - bonito mono

NATIONAL:

DISTINCTIVE CHARACTERS:

A small, relatively narrow-bodied tuna. Mouth rather wide, upper jaw reaching beyond hind margin of eye; teeth fairly large and conical, 12 to 20 on each side in upper jaw, 10 to 17 in each lower jaw; no tooth patches on upper surface of tongue; 8 to 13 gillrakers on first arch. Dorsal fins close together, the first (spiny) very long, (17 to 19 spines) and straight or only slightly concave in outline; 7 to 9 dorsal and 6 or 7 anal finlets; pectoral fins short; pelvic fins separated by 2 flaps (interpelvic process). Lateral line conspicuously wavy. Body entirely covered with scales which are minute except on the well developed corselet; caudal peduncle slender, with a prominent lateral keel between two smaller keels on each side.

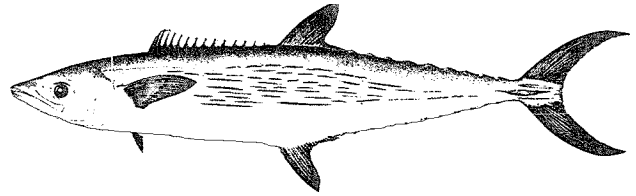
Colour: back and upper sides steel-blue, with 5 to 11 dark slightly oblique stripes running forward and downward; lower sides and belly silvery. Juveniles to 30 cm fork length) with several transverse bars. First dorsal fin solid black.



DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Scomberomorus species: none has the longitudinal dark stripes on back characteristic of Sarda; dorsal fin spines at most 17, usually less (17 to 19 in S. orientalis).

Other species of Scombridae: upper jaw shorter; the maxilla not reaching to hind margin of eye; first dorsal fin clearly concave and shorter. The only other species with longitudinal dark stripes is Katsuwonus pelamis, but these are on belly, not on back.



Scomberomorus lineolatus

SIZE:

Maximum: 102 cm; common to 50 cm.

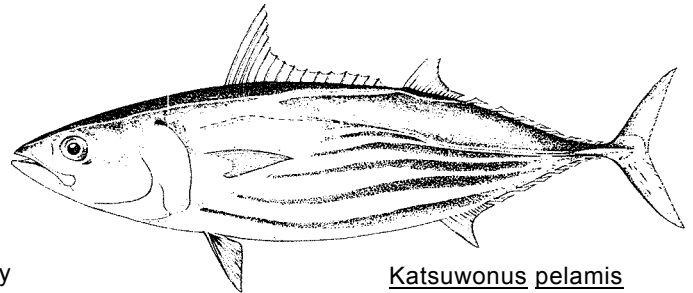
GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Widespread in the Indo-Pacific but with many gaps in its known distribution. Reported from Durban to Natal, South Africa, Aldabra, the Seychelles, Red Sea, mouth of the "Gulf", all along the west coast of India and Sri Lanka.

Inhabits coastal waters but is also found around some islands. Schools with other small tunas. Spawning varies with the monsoon season.

Feeds on small fishes, particularly cupleoids, crustaceans and squids.

FAO Species Synopsis Nos 46 and 118.



Katsuwonus pelamis

PRESENT FISHING GROUNDS:

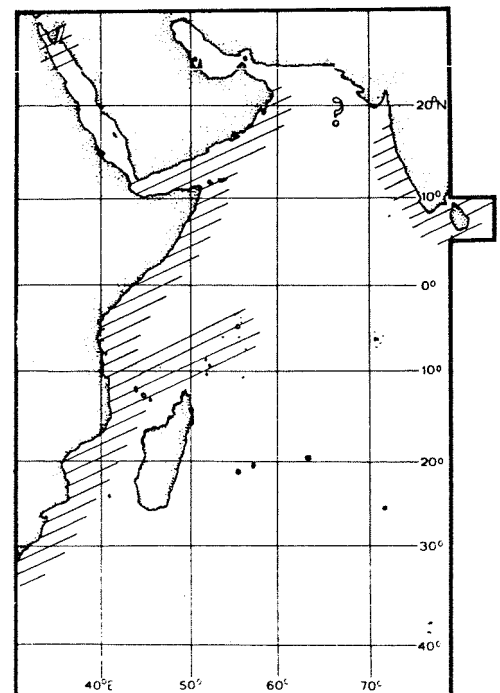
Coastal waters. The fishing season on the southwest coast of India extends from June to September.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

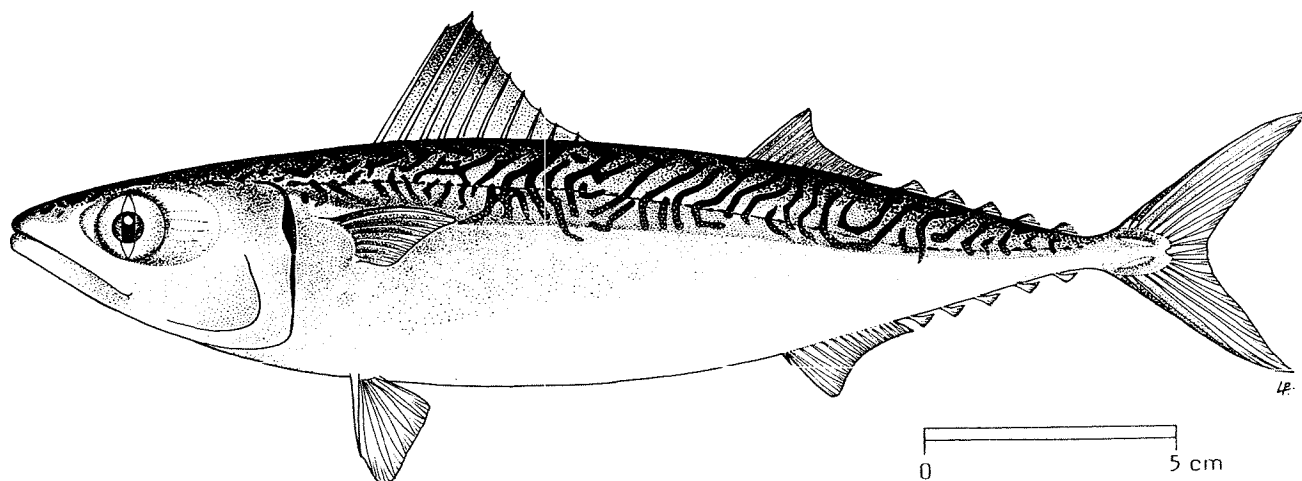
Caught mainly by pole and line, and with purse seines, and drift nets (around Sri Lanka and southwest India).

Marketed mainly fresh; also dried salted.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY : SCOMBRIDAE

FISHING AREA 51
(W. Indian Ocean)Scomber japonicus Houttuyn, 1782OTHER SCIENTIFIC NAMES STILL IN USE : Pneumatophorus colias (Gmelin, 178)
Scomber colias, Gmelin 1789

VERNACULAR NAMES:

FAO : En - Chub mackerel
Fr - Maquereau
Sp - Estornino

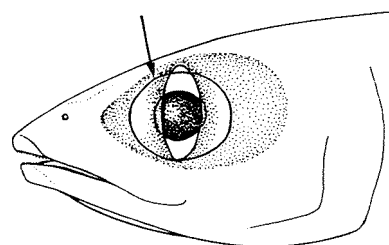
NATIONAL:

DISTINCTIVE CHARACTERS:

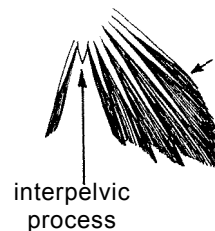
Body elongate and rounded, caudal peduncle slim. Snout pointed, front and hind margins of eye covered by an adipose eyelid; teeth in upper and lower jaws small and conical; teeth also present on vomer and palatines (roof of mouth); gillrakers 25 to 35 on lower limb of first arch, usually, 29 to 33 in the area. Two widely separated dorsal fins the first with 9 or 10 spines; anal spine fairly stiff and strong; 5 dorsal and 5 anal finlets; a single small flap (interpelvic process) between pelvic fins. Scales behind head and around pectoral fins larger and more conspicuous than those covering rest of body, but no well developed corselet. Two small keels on each side of caudal peduncle (at base of caudal fin lobes), but no central keel between them. Swimbladder present.

Colour: back steel-blue crossed by faint wavy lines; lower sides and belly silvery-yellow with numerous dusky, rounded blotches.

adipose eyelid



pelvic fin

interpelvic
process

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

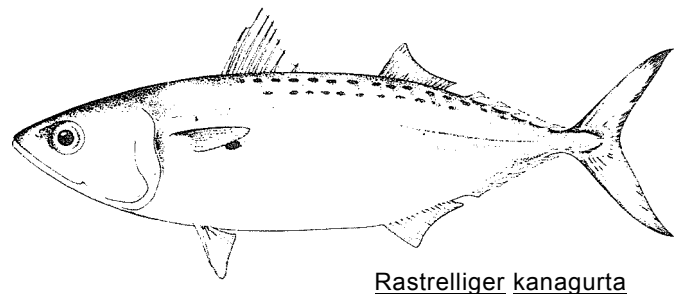
Rastrelliger kanagurta: much longer and more numerous gillrakers, clearly visible when the mouth is opened; no teeth on vomer and palatines; anal spine thin, rudimentary; last branchiostegal ray forming a wide plate.

Auxis rochei and A. thazard: a strong central keel between 2 feeble keels located at the bases of the caudal fin lobes; corselet of scales well developed, while the rest of body is scaleless.

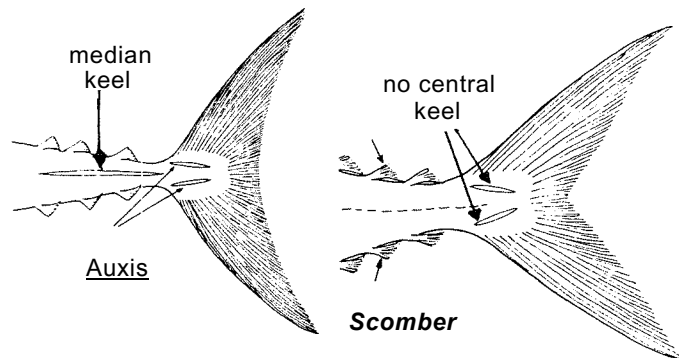
All other species of Scombridae: dorsal fins close together; a strong keel on the caudal peduncle between the 2 keels at bases of caudal fin lobes; size larger.

SIZE:

Maximum: 50 cm fork length; common to 30 cm



Rastrelliger kanagurta



caudal fin

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

A cosmopolitan species inhabiting temperate waters of the Atlantic, Indian and Pacific Oceans and adjacent seas. One population is common about the Cape of Good Hope, becoming progressively scarcer towards Natal. There are also records from the Red Sea, the "Gulf", and the coasts of India, but these may be attributable to Rastrelliger kanagurta.

A schooling pelagic species occurring mostly in coastal waters.

Feeds on small pelagic fishes, especially clupeoids, and pelagic invertebrates.

PRESENT FISHING GROUNDS:

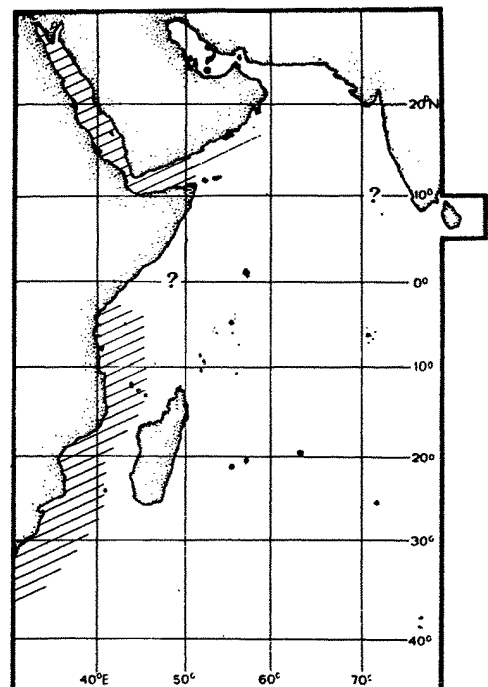
Coastal waters over the continental shelf.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics for this species are not reported from Fishing Area 51.

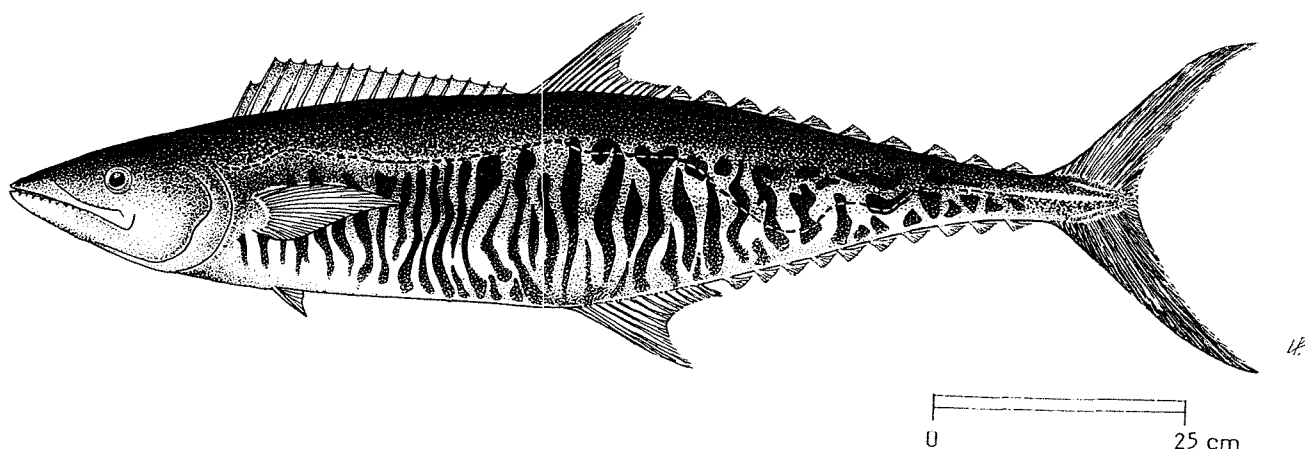
Caught with purse seines, often together with sardines, sometimes using light; also with trolling lines, gillnets, traps, beach seines and midwater trawls.

Marketed fresh, frozen, smoked, salted and occasionally also canned.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SCOMBRIDAE

FISHING AREA 51
(W. Indian Ocean)Scomberomorus commerson (Lacepède, 1801)OTHER SCIENTIFIC NAMES STILL IN USE: Cybium commersoni (Lacepède, 1801)

VERNACULAR NAMES:

FAO : En - Narrow-barred Spanish mackerel
 Fr - Thazard rayé (Indo-Pacifique)
 Sp - Carite estriado del Indo-Pacífico

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate, rather strongly compressed. Upper jaw reaching to posterior margin of eye or slightly beyond; teeth in jaws strong and compressed; gillrakers 0 to 2 on upper limb and 1 to 8 on lower limb of first gill arch (total 1 to 8). Two dorsal fins, the first with 15 to 18 spines and the second with 15 to 20 rays, followed by 8 to 10 finlets; anal fin originating below midpoint of second dorsal fin and with 16 to 20 rays followed by 7 to 12 finlets. Lateral line abruptly bent downward below end of second dorsal fin.

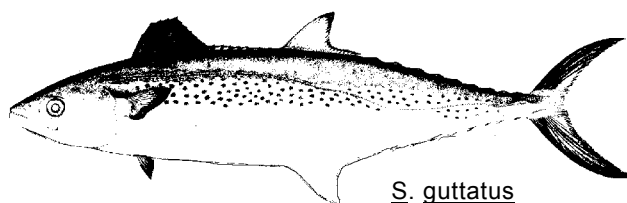
Colour: back iridescent blue/grey, sides silver with bluish reflections, marked with numerous thin, wavy vertical bands; the number of bars increases from as few as 20 in a 40 cm specimen to as many as 65 at 150 cm. Juveniles are frequently spotted.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

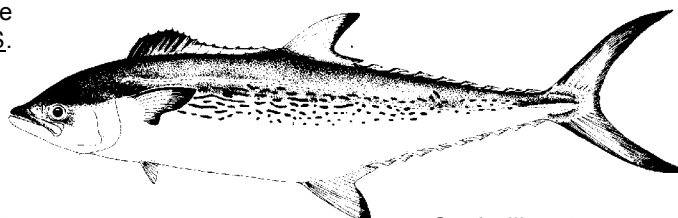
Scomberomorus guttatus and S. koreanus: dark spots along sides of body and lateral line almost straight; more gillrakers, total number on first gill arch 8 to 15 (1 to 8 in S. commerson).

S. lineolatus and S. plurilineatus: dark horizontal streaks along sides of body; lateral line almost straight; total number of gillrakers on first arch 7 to 15.

Acanthocybium solandri: no gillrakers. and 23 to 27 dorsal fin spines (15 to 18 in S. commerson); also, the snout as long as rest of the head (shorter in S. commerson).



S. guttatus



S. plurilineatus

SIZE:

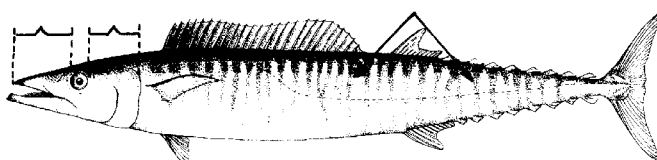
Maximum: 220 cm (largest species in genus); common to 90 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Common throughout the warmer parts of the Western Indian Ocean from Algoa Bay and Mossel Bay northward along the coast of East Africa, including Madagascar, Mauritius and Aldabra, to the Red Sea and the 'Gulf; Pakistan, west coast of India and Sri Lanka. The range extends eastward and northward to the Philippines and Japan and southward to New Caledonia and the southeast coast of Australia. Also has entered the eastern Mediterranean Sea.

A pelagic fish, inhabiting coastal waters at depths between 15 and 200 m; found in small schools.

Feeds chiefly on small schooling fishes such as sardines and anchovies.



Acanthocybium solandri

PRESENT FISHING GROUNDS:

Coastal waters, throughout its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

The total reported catch from Fishing Area 51 was about 13 000 t in 1980.

Caught mainly with drift gillnets, bamboo stake traps, midwater tawls, and by trolling.

Marketed mainly fresh; also dried salted; commonly made into fish balls.

