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CHLAM

1983

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

CHLAMYDOSELACHIDAE

Frilled sharks

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

Chlamydoselachus, anguineus Garman, 1884 CHLAM Chlam 1

Prepared by L.J.V. Compagno, Tiburon Center for Environmental Studies, San Francisco State University, Tiburon, California, U.S.A.

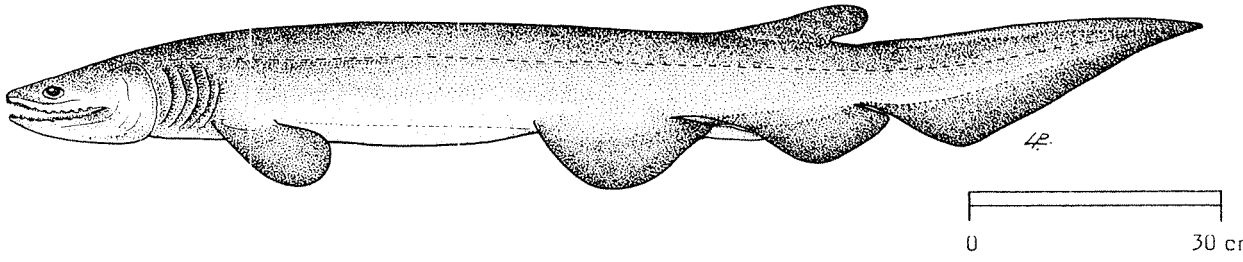
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CHLAMYDOSELACHIDAE

FISHING AREA 51
(W. Indian Ocean)

Chlamydoselachus anguineus Garman, 1884

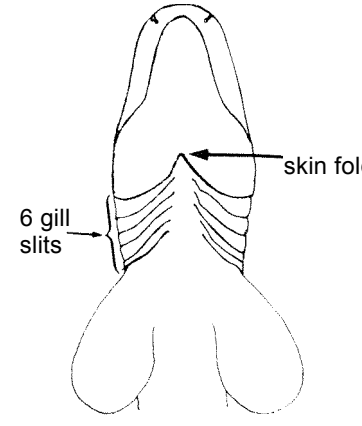
OTHER SCIENTIFIC NAMES STILL IN USE: None

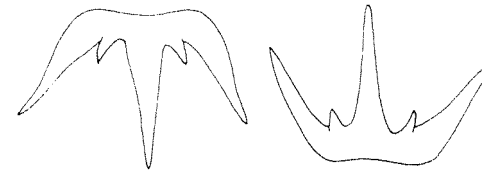


VERNACULAR NAMES:

FAO: En - Frilled shark
Fr - Requin lézard
Sp - Tiburón anguila

NATIONAL:





upper and lower lateral teeth

DISTINCTIVE CHARACTERS:

A medium-sized shark with a long, eel-like body. Head with 6 pairs of long and frilly gill slits, the last in front of pectoral fin origins, the first connected to each other across the throat by a flap of skin; no gillrakers on inner gill slits; nostrils without barbels or nasoral grooves; no nictitating lower eyelids; snout very short, bluntly rounded; mouth extremely long, extending far behind the eyes, and nearly terminal; teeth of upper and lower jaws alike, with 3 strong cusps and a pair of minute cusplets between them, not compressed or bladelike. A single dorsal fin, posterior to pelvics; anal fin present; caudal fin strongly asymmetrical, without a subterminal notch or a lower lobe. Caudal peduncle not depressed, without keels or precaudal pits. Intestinal valve of spiral type.

Colour: grey-brown above, sometimes lighter below, fins dusky.

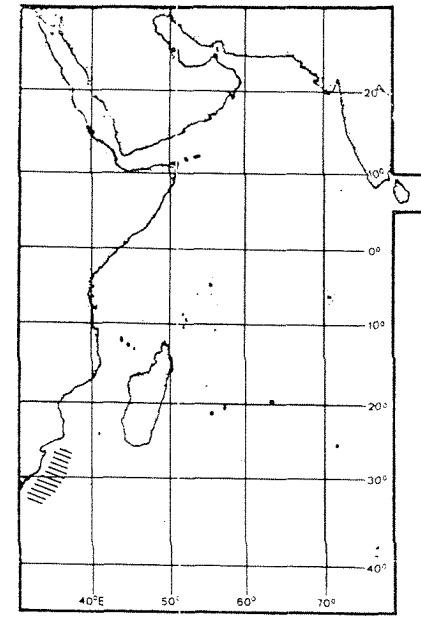
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

The combination of the characters described above readily distinguishes this species from all other sharks occurring in the area.

SIZE:

Maximum: about 196 cm; common to 150 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:



A relatively rare. wide-ranging. deepwater bottom-dwelling shark. sporadic in its occurrence in the area and elsewhere. At present known only from off South Africa in the area, but likely to be found elsewhere. It also occurs in the Eastern Atlantic and Western and Eastern Pacific.

Usually it is found on the outer continental shelves and upper slopes. at depths between 120 and 1 280 m. but sometimes comes into shallow waters. Ovoviviparous. number of young 8 to 12. size at birth about 39 cm.

PRESENT FISHING GROUNDS:

Incidentally caught offshore in deepwater.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Rarely taken in bottom trawls.

Used for fishmeal.

ECHIN

1983

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

ECHINORHINIDAE

Bramble sharks

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

Echinorhinus brucus (Bonnaterre, 1788) ECHIN Echin 1

Prepared by L.J.V. Compagno, Tiburon Center for Environmental Studies, San Francisco State University, Tiburon, California, U.S.A.

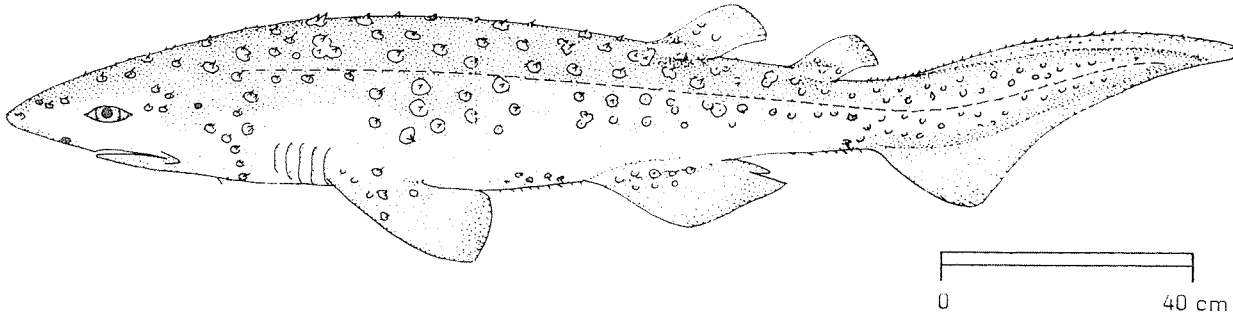
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ECHINORHINIDAE

FISHING AREA 51
(W. Indian Ocean)

Echinorhinus brucus (Bonnaterre, 1788)

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

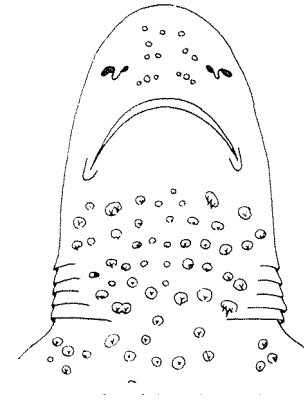
FAO: En - Bramble shark
Fr - Squale bouclé
Sp - Tiburón de clavos

NATIONAL:

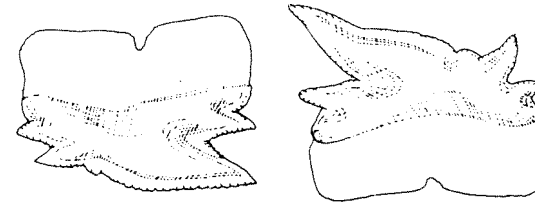
DISTINCTIVE CHARACTERS:

A medium-sized, heavy-bodied shark with very large, platelike deriticles scattered sparsely over the body and armed with one or more thornlike cusps. Head with 5 gill slits, all anterior to pectoral fins, the fifth abruptly elongated at lower end; snout broadly rounded; mouth extending to behind eyes; spiracles always present, small-sized; eyes on sides of head, without nictitating eyelids; teeth small, strongly compressed, bladelike, and alike in both jaws, with a strong primary cusp and one or more cusplets on either side; the cusplets increase with tooth replacement during growth. Dorsal fins spineless, the first originating over or posterior to pelvic fin origins; second dorsal fin s.bout as large as first; inner corners of pectorals rounded; pelvics much larger than second dorsal; anal fin absent; caudal fin strongly asymmetrical, without a well-developed lower lobe. Caudal peduncle riot depressed, without keels or precaudal pits. Intestinal valve of spiral type.

Colour: dark grey or purplish grey to dull brown or olive above, lighter to white below with or without darker blackish or reddish blotches on sides.



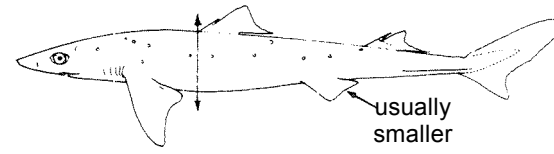
underside of head



upper and lower lateral teeth

DISTINGUISHING CHARACTERS OF SIMILAR FAMILIES OCCURRING IN THE AREA:

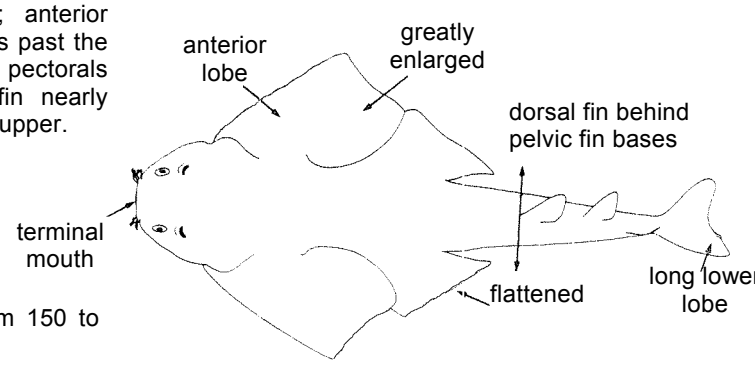
Squalidae and Pristiophoridae: denticles smaller, more closely set. not platelike; fifth gill slits not abruptly larger than first to fourth; spiracles larger; first dorsal fin origin well anterior to pelvic origins; pelvic fins usually about as large as second dorsal fin or smaller; Pristiophoridae also with rostral saw and barbels.



Squalidae

Squatinidae: trunk much flattened dorsoventrally; mouth terminal; eyes on upper surface of head; teeth not bladelike, with a single cusp and no cusplets; origin of first dorsal fin posterior to pelvic fin bases; anterior margins of pectorals expanded as triangular lobes past the gill slits and partly concealing them; both the pectorals and pelvics very large and winglike; caudal fin nearly symmetrical, but with a lower lobe longer than the upper.

All other shark families: anal fin present.



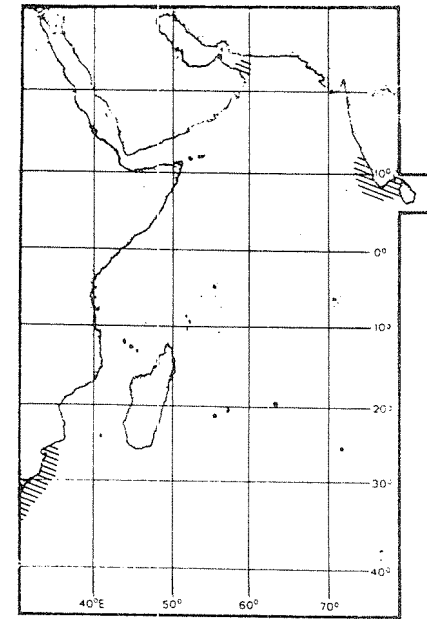
Squatinidae

SIZE:

Maximum: to about 274 cm; common from 150 to 260 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

A wide ranging, temperate to tropical shark found off South Africa, Oman, and southern India. Elsewhere, in the Eastern Atlantic, Mediterranean Sea, Western Atlantic and Western Pacific.



An inhabitant of the outer continental shelves and upper continental slopes, commonly found at depths between 400 and 900 m, but occasionally occurring in shallow waters. A bottom-dwelling species, probably slow-swimming. Ovoviviparous, with up to 24 young, size at birth at least 30 cm.

Feeds on small bony fishes, other sharks, and crabs.

PRESENT FISHING GROUNDS:

Offshore, rarely caught.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught in bottom trawls.

Used for fishmeal and liver oil, flesh used for medicinal purposes in South Africa.

GINGL

1983

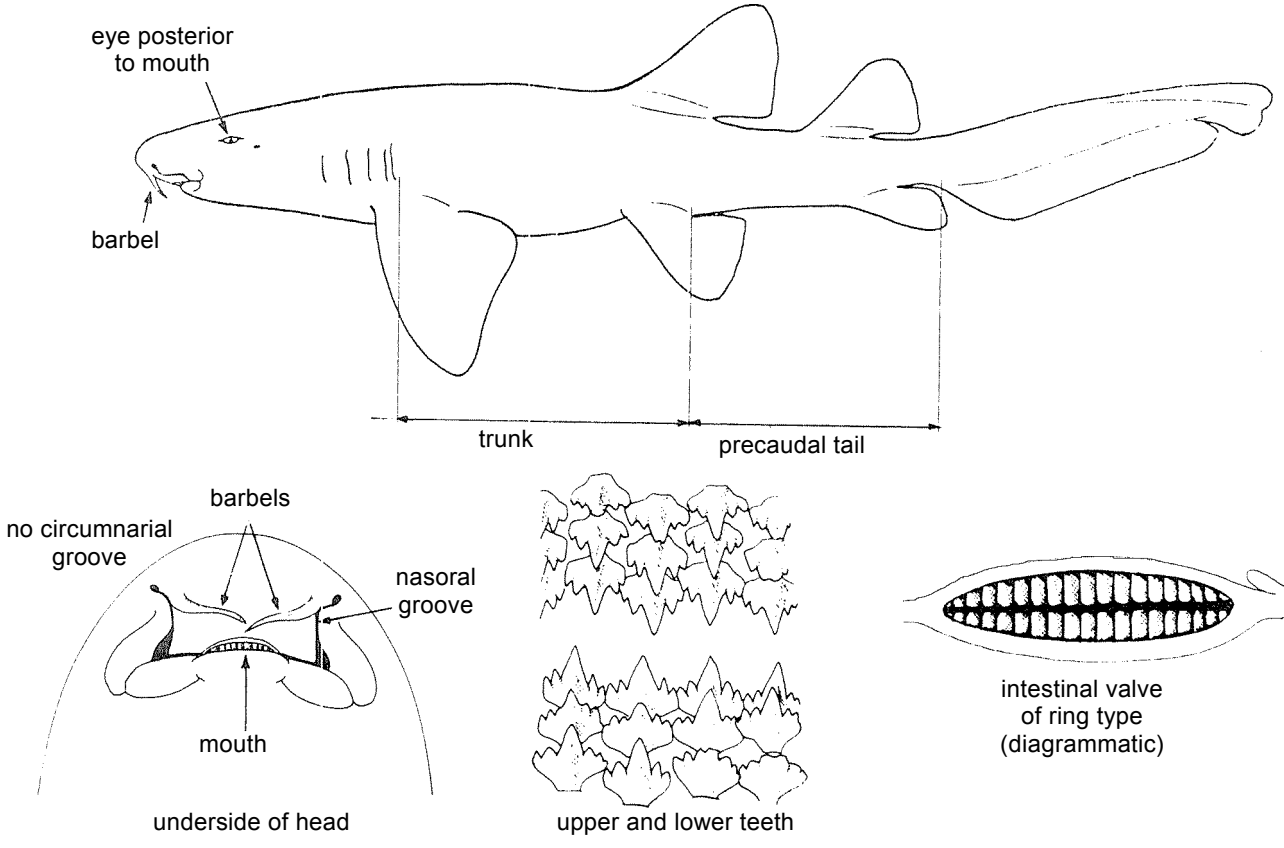
FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

GINGLYMOSTOMATIDAE

Nurse sharks

Small to large-sized sharks. Trunk and precaudal tail cylindrical, not depressed and without lateral ridges; precaudal tail shorter than trunk. Head not expanded laterally, moderately depressed; 5 small gill slits present, the last 2 over or behind pectoral fin origins, their upper ends not expanded onto upper surface of head; no gill sieves or rakers on internal gill slits; spiracles present and very small, below level of eyes; nostrils with well-developed barbels and na!,oral grooves but without circumnarial grooves, close in front of mouth; eyes on, or just above, sides of head, without nictitating eyelids; snout very short, very broadly rounded or truncated, moderately depressed, but not bladelike and without lateral teeth and barbels; mouth moderately large, short, transversely arched, and well in front of eyes; labial furrows large, present on both jaws, and with the uppers reaching front of mouth; teeth small, bladelike or not, with a single cusp and one or more cusplets on either side; teeth similar in upper and lower jaws and poorly differentiated along each jaw; no enlarged anteriors, intermediates, or lateral tooth rows formed from the continuously varying dentition. Two dorsal fins, without spines, the first dorsal moderately large, high and rounded or angular, much shorter than the caudal fin, and with its origin over or somewhat posterior to the pelvic fin on ins but not posterior to the pelvic fin bases; second dorsal fin either as large as the first dorsal or about 2/3 its size; anal fin present, moderately large, and angular, with its origin under the second dorsal fin base; caudal fin strongly asymmetrical, much less than half of total length, without a rippled or undulated dorsal margin but with a strong subterminal notch; lower lobe absent or very short; vertebral axis of caudal fin raised above body axis. Caudal peduncle cylindrical, without precaudal pits or longitudinal keels. Intestinal valve of ring type.



Colour: pale brown, dark brown, reddish brown, yellow or olive above, lighter below; one species with dorsal saddles and dark spots in young, fading and lost in adults.

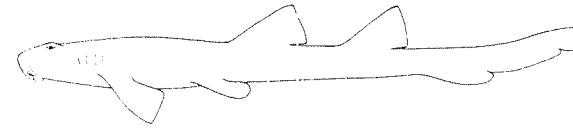
Nurse sharks are small to relatively large, common inshore sharks of the tropical continental and insular seas of the world, often found on coral reefs. They eat a wide variety of small bony fishes and invertebrates, sucked into their mouths by the strong, bellows-like action of their oral cavities. They are taken in inshore line and net fisheries for sharks and are prized for their extremely thick, tough, durable skin, which makes excellent leather; also used for food, fresh or dried-salted, livers for vitamin oil, and offal for fishmeal.

SIMILAR FAMILIES OCCURRING IN THE AREA:

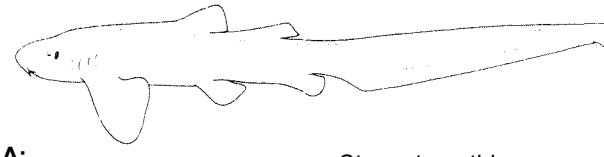
Hemiscylliidae: precaudal tail longer than trunk; spiracles large, nearly or quite eye length; nostrils with circumnarial grooves; anal fin very low and arcuate.

Stegostornatidae: body with lateral ridges; spiracles as large as, or larger than eyes; first dorsal fin with origin far anterior to pelvic fin origins; caudal fin about half of total length.

The combination of characters such as tha nasoral groves, the presence of barbels, the anterior mouth, the posterior position of the first dorsal fin, the absence of nictitating lower eyelids, the absence of body ridges, caudal keels and precaudal pits, and the asymmetrical caudal fin with ventral lobe weak or absent readily distinguishes this family from all others in Fishing Area 51.



Hemiscylliidae

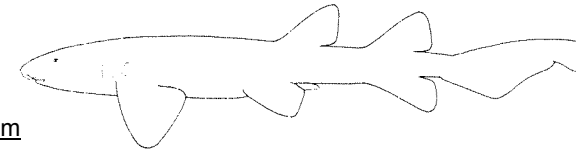


Stegostomatidae

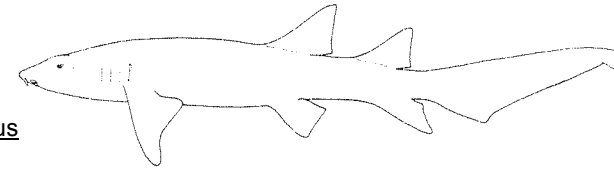
KEY TO GENERA AND SPECIES OCCURRING IN THE AREA:

1a. Nasal barbels very short not reaching mouth; teeth narrow, not bladelike, with large primary cusps and small cusplets; origin of first dorsal fin behind pelvic fin origins; second dorsal and anal fins as large as first dorsal; pectoral, pelvic, dorsal and anal fins broadly rounded; caudal fin without a ventral lobe, less than 1/4 of total length (Fig.1) ..... Ginglymostoma brevicaudatum

1b. Nasal barbels longer, nearly or quite reaching mouth; teeth broad, more bladelike, with small primary cusps and several cusplets, somewhat comb-shaped; origin of first dorsal fin in front of pelvic fin origins; second dorsal and anal fins smaller than first dorsal fin; pectoral, pelvic, dorsal and anal fins narrow and angular or even falcate; caudal fin with a short ventral lobe, more than 1/4 of total length (Fig.2) ..... Nebrius ferrugineus



Ginglymostoma brevicaudatum Fig.1



Nebrius ferrugineus Fig.2

LIST OF SPECIES OCCURRING IN THE AREA:

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

Ginglymostoma brevicaudatum Günther, in Playfair & Günther, 1866	GINGL Gingl 2
Nebrius ferrugineus (Lesson, 1830)	GINGL Neb 1

Prepared by L.J.V. Compagno, Tiburon Center of Environmental Studies, San Francisco State University, Tiburon, California, U.S.A.

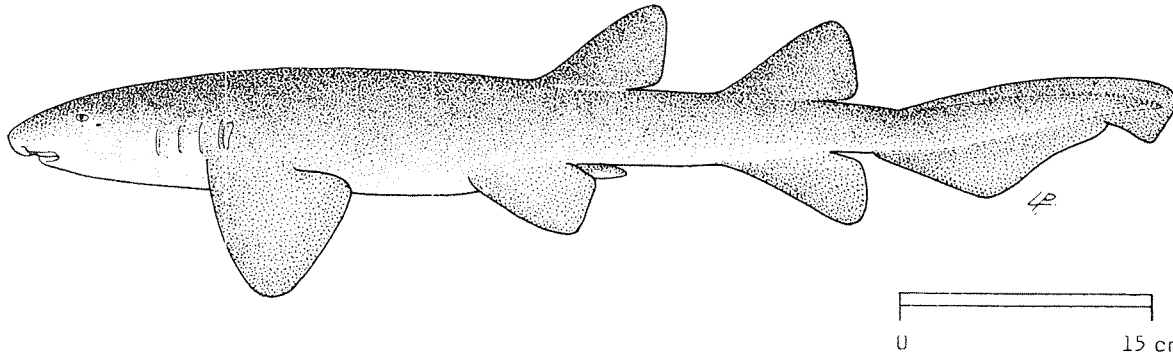
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: GINGLYMOSTOMATIDAE

FISHING AREA 51
(W. Indian Ocean)

Ginglymostoma brevicaudatum Günther, in Playfair & Günther, 1866

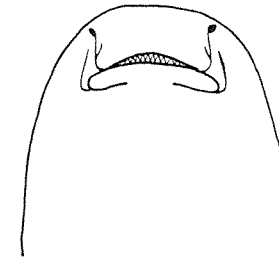
OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO: En - Shorttail nurse shark
Fr - Requin-nourrice à queue courte
Sp - Gata riodriza rabicorta

NATIONAL:

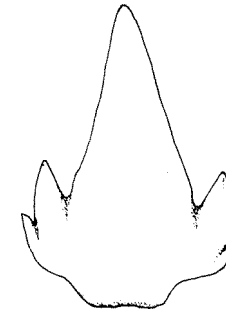


underside of head

DISTINCTIVE CHARACTERS:

A small, relatively stout-bodied shark with a short precaudal tail. Head with 5 moderate gill slits, the last 2 behind pectoral fin origin and very close to each other; no gillrakers; nostrils close to front of snout, with minute barbels and nasoral grooves connecting them with the mouth; no nictitating lower eyelids; snout very short, broad and very broadly rounded; mouth nearly transverse and far forward on head, well in front of eyes; teeth small, weakly differentiated in different regions of the mouth, not compressed, with long medial cusps and very short cusplets on sides. Two dorsal fins, both with rounded apices, the origin of the first about over the pelvic midbases and its insertion well behind the pelvic fin insertions; second dorsal about as large as first; anal fin present, high and with an angular apex, and with its origin about under or slightly behind the origin of the second dorsal fin; caudal fin about 1/5 of total length, strongly asymmetrical, with a strong subterminal notch but with ventral lobe hardly developed. Caudal. peduncle not strongly depressed, without lateral keels or precaudal pits; no dermal ridges on sides of body. Intestinal valve of ring type.

Colour: no colour pattern, dark brown above, lighter below.

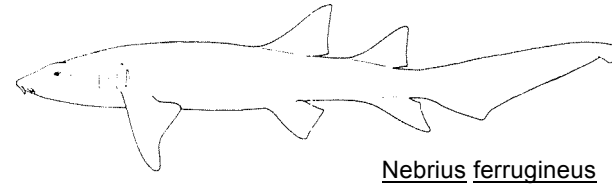


lower tooth

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Nebrius ferrugineus: nasal barbels longer; teeth with now cusps and higher cusplets, more strongly compressed; origin of first dorsal fin about opposite pelvic fin origins; fins angular; caudal fin about 1/3 of total length.

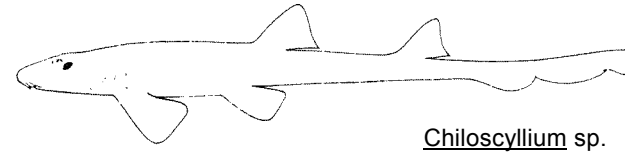
Chiloscyllium species: small sharks with large spiracles, extremely long precaudal tails, and broadly rounded, low, keel-shaped anal fins.



Nebrius ferrugineus

SIZE:

Maximum: about 75 cm (adult male), males adolescent at about 59 cm.



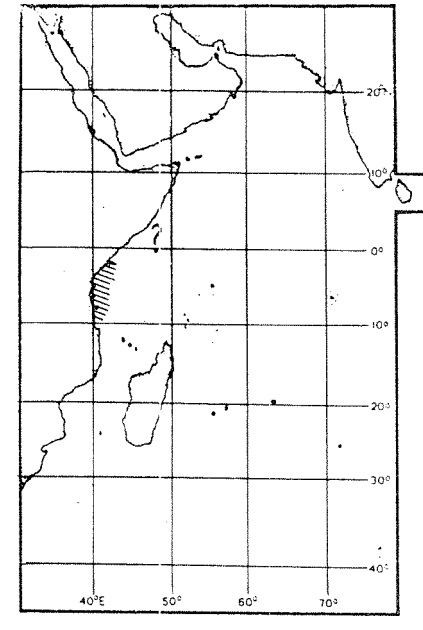
Chiloscyllium sp.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Confined to the Western Indian Ocean, off Tanzania, Kenya, Mauritius and possibly Seychelles. Not known from Madagascar at present.

A sluggish, bottom-dwelling, shallow-water shark, common off East Africa. Mode of reproduction unknown.

Feeding habits unknown, but probably small fishes and bottom invertebrates.



PRESENT FISHING GROUNDS:

Uncertain at present, presumably taken off East Africa.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Gear and utilization uncertain.

GINGL Neb 1

1983

FAO SPECIES IDENTIFICATION SHEETS

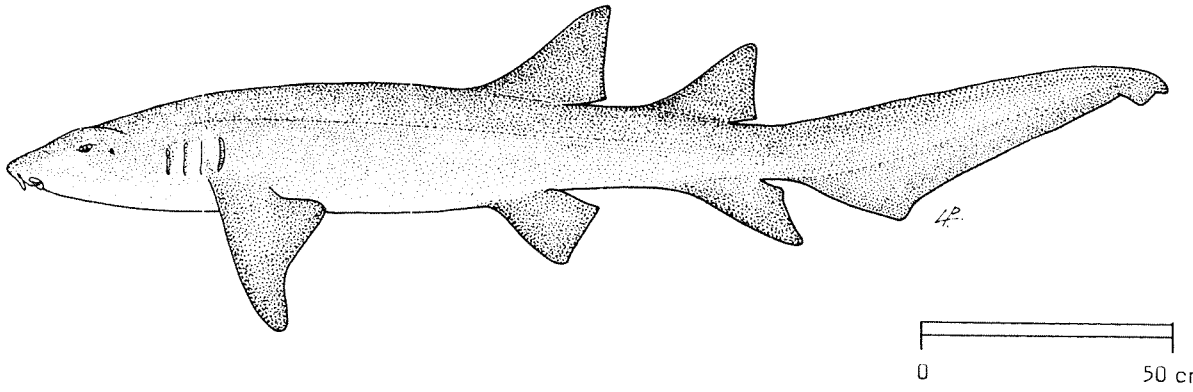
FAMILY: GINGLYMOSTOMATIDAE

FISHING AREA 51
(W. Indian Ocean)

Nebrius ferrugineus (Lesson, 1830)

OTHER SCIENTIFIC NAMES STILL IN USE:

Nebrius concolor Rüppell, 1837
Ginglymostoma ferrugineum (Lesson, 1830)
Nebrius doldi Smith, 1953



VERNACULAR NAMES:

FAO :
En - Tawny nurse shark
Fr - Requin-nourrice fauve
SF - Gata nodriza atezada

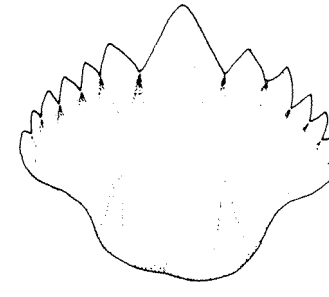
NATIONAL:

underside of head

DISTINCTIVE CHARACTHERS:

A large, relatively stout-bodied shark with a short precaudal tail. Head with 5 moderate gill slits, the last two behind pectoral origin and very close to each other; no gillrakers; nostrils close to front of snout, with short barbels and nasoral grooves connecting them with the mouth; no nictitating lower eyelids; snout very short, broad and very broadly rounded or truncated; mouth nearly transverse and far forward on head, well in front of eyes; teeth small, weakly differentiated in differernt regions of the mouth, somewhat compressed, with short medial cusps and short cusplets on sides. Two dorsal fins, both with angular apices, the origin of the first about over the pelvic origins and its insertion slightly behind the pelvic insertions; second dorsal slightly smaller than first; anal fin present, high and with an angular apex, and with its origin about under the midbase of the second dorsal fin; caudal fin about 1/3 of total length, strongly asymmetrical, with a: strong subterminal notch but with ventral lobe weak to short. Caudal peduncle not strongly depressed, without lateral keels or precaudal pits; no dermal ridges on sides of body. Intestinal valve of ring type.

Colour: no colour pattern, tan above, lighter below, fins slightly dusky.

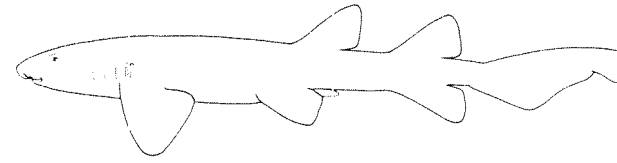


lower tooth

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Ginglymostoma brevicaudatum: nasal barbels smaller; teeth with high, narrow cusps and short cusplets; origin of first dorsal fin behind pelvic origins; fins broadly rounded; caudal fin less than 1/4 of total length.

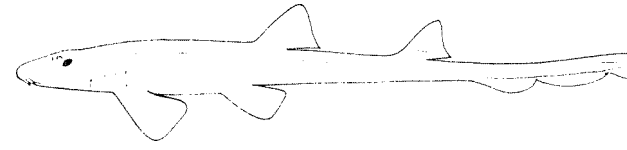
Chiloscyllium spp.: small sharks with large spiracles, extremely long precaudal tails, broadly rounded, low keel-shaped anal fins.



Ginglymostoma brevicaudatum

SIZE:

Maximum: reported to reach about 320 cm; commnon to 250 cm.



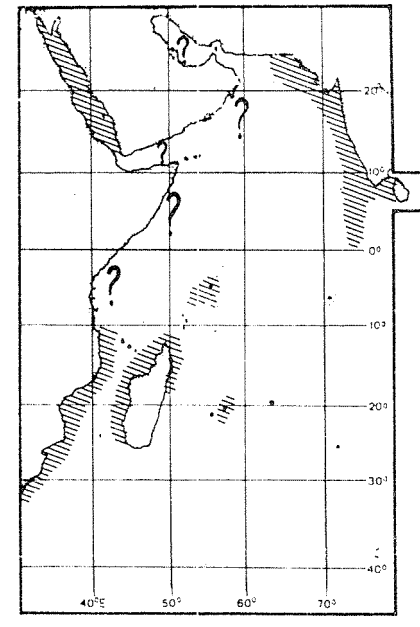
Chiloscyllium spp.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, from South Africa and Madagascar to Red Sea and India, also Mauritius and Seychelles. Elsewhere, in the Eastern Indian Ocean and Western Pacific eastward to Taiwan Island, Australia arid Tahiti.

A sluggish, nocturnal shallow-water bottom shark common on coral and rocky reefs, in lagoons and on sand flats, at depths from the intertidal zone to at least 70 m. Ovoviviparous, size at birth about 40 cm.

Feeds on a wide variety of bottom invertebrates and small fishes. including sea urchins, corals. crabs, octopi and squid; capable of capturing small reef fishes with its powerful suction feeding mechanism.



PRESENT FISHING GROUNDS:

Pakistan, India, Red Sea.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught with gillnets and line gear.

Utilized fresh and dried-salted for human consumption: livers rendered for oil: fins for the oriental sharkfin trade: and offal for fishmeal.

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