

## FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

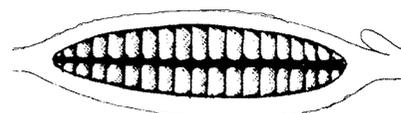
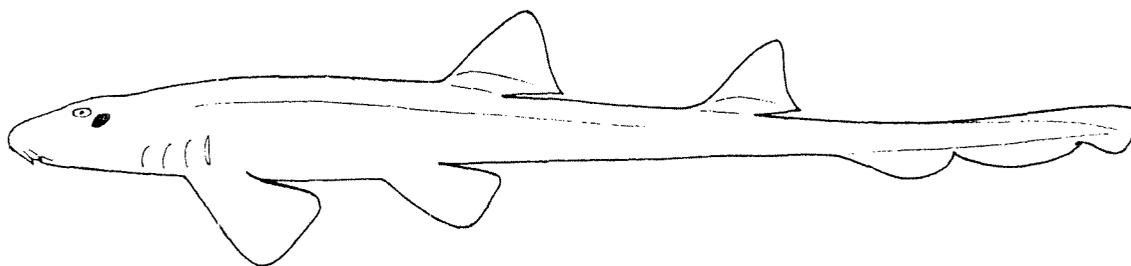
## HEMISCYLLIIDAE

## Longtail carpetsharks

Small sharks. Trunk cylindrical or moderately depressed, precaudal tail cylindrical and somewhat longer than trunk, lateral ridges on sides of trunk and tail present or absent. Head not expanded laterally, cylindrical or moderately depressed; 5 small gill slits present, the last 3 over the pectoral fin base, their upper ends not expanded onto upper surface of head; no gill sieves or rakers on internal gill slits; spiracles very large and located behind and below eyes; nostrils with barbels, nasoral grooves, and circumnarial grooves, close in front of mouth; eyes above and medial to sides of head, without nictitating eyelids; snout short to moderately long, slightly depressed, parabolic to broadly rounded, not greatly flattened and bladelike and without lateral teeth or barbels; mouth small, nearly transverse, and well in front of eyes; labial furrows present on both jaws and relatively large, with upper furrows extending in front of mouth; teeth small, not bladelike, with a single cusp on upper and lower teeth and with cusplets small or absent; teeth similar in upper and lower jaws, not differentiated into medials, anteriors, intermediates, laterals or posteriors. Two dorsal fins without spines, the first moderate-sized, sub-angular, much shorter than the caudal fin, and with its origin over or behind the pelvic fin bases; second dorsal fin about as large as the first and of similar shape; anal fin moderately large, very low, broad and rounded, with its origin well behind the second dorsal base and its base separated by a notch from the caudal fin; caudal fin strongly asymmetrical, much less than half of total length, without a rippled dorsal margin or lower lobe but with a strong subterminal notch; vertebral axis of caudal fin hardly raised above body axis. Caudal peduncle cylindrical, without precaudal pits or keels. Intestinal valve of ring type.

Colour: back yellowish, brownish or grey-brown, lighter below, with dark or light spots or dark saddles, sometimes absent in adults.

Longtail carpetsharks are a small group of inshore tropical sharks of the Indian Ocean and Western Pacific, being confined to continental waters and continental islands. They are slow-swimming bottom-dwellers, often clambering with their muscular paired fins on coral and rocky reefs. They feed on invertebrates and small fishes, and are harmless to people. They are commonly caught and utilized for food, but are of minor importance to fisheries. Although often collected, members of this family are poorly known taxonomically, and the arrangement of species adopted here for species reported from the area is extremely tentative.

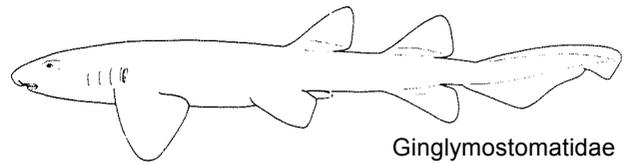


intestinal valve  
of ring type  
(diagrammatic)

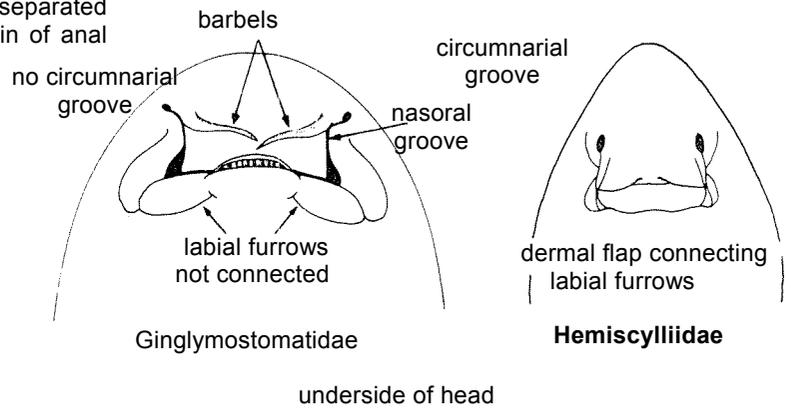
**SIMILAR FAMILIES OCCURRING IN THE AREA:**

Ginglymostomatidae: precaudal tail not greatly elongated, shorter than head and body; no circumnarial grooves around nostrils; head more depressed and flattened; spiracles minute; labial furrows not connected across chin by a dermal flap (this is present in Hemiscylliidae); anal fin higher, more angular, and separated from the lower caudal fin origin by a space; origin of anal fin under second dorsal fin base.

Stegostomatidae: precaudal tail not greatly elongated, shorter than head and body; no circumnarial grooves around nostrils, labial furrows not connected across chin by a dermal flap; first dorsal origin far anterior to pelvic fin bases, its insertion over or slightly anterior to pelvic fin insertions (far posterior to pelvic insertions in Hemiscylliidae), second dorsal fin much smaller than first dorsal; pelvic fins much smaller than pectoral fins, anal fin origin under second dorsal fin base, and caudal fin about as long as rest of shark.



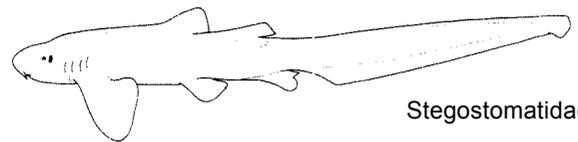
Ginglymostomatidae



Ginglymostomatidae

Hemiscylliidae

underside of head

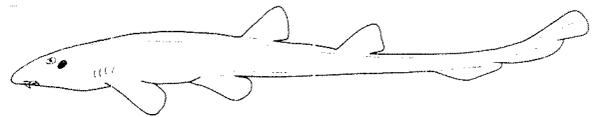


Stegostomatidae

**KEY TO SPECIES OCCURRING IN THE AREA\*:**

1a. Body and tail very slender; colour pattern with numerous small dark spots and bars (Fig.1) ..... Chiloscyllium indicum

1 b. Body and tail moderately stout; colour pattern variable, either with numerous small light spots on dark background or with sparse dark spots and transverse bands; or with spots and bands

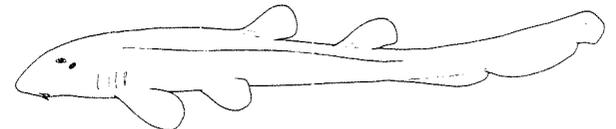


Chiloscyllium indicum

Fig.1

2a. Ground colour of body dark with numerous light spots

3a. Dorsal fins small and rounded, snout rounded; transverse dark saddles broad and prominent, spots white (Fig.2) .... Chiloscyllium plagiosum

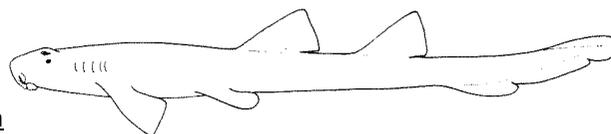


Chiloscyllium plagiosum

Fig.2

\* Key also includes the extralimital C. punctatum and C. plagiosum, which are known from east of the area and may eventually occur within it

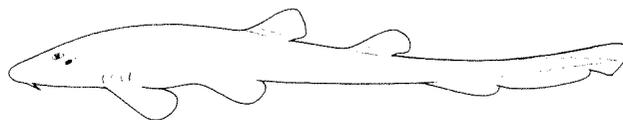
- 3b. Dorsal fins larger and angular, snout truncated anteriorly; transverse dark saddles hardly indicated, spots blue (Fig.3) ..... Chiloscyllium caerulopunctatum



Chiloscyllium caerulopunctatum Fig.3

- 2b. Ground colour of body light without light spots, with or without dark transverse spots or bands

- 4a. Dorsal fins smaller than pelvic fins, dorsals without projecting free rear tips (Fig.4) ..... Chiloscyllium griseum



Chiloscyllium griseum Fig.4

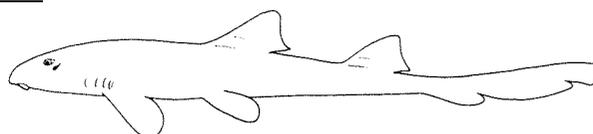
- 4b. Dorsal fins larger than pelvic fins, dorsals with projecting free rear tips (Figs 5,6)



Chiloscyllium arabicum Fig.5

- 5a. A lateral ridge present on each side\*; first dorsal fin origin behind pelvic fin bases\*\* (Fig.5); young without stripes and spots ... Chiloscyllium arabicum

- 5b. No lateral ridges on sides; first dorsal fin origin over anterior half of pelvic bases (Fig.6); young with saddle markings and a few scattered dark spots ..... Chiloscyllium punctatum



Chiloscyllium punctatum Fig.6

**LIST OF SPECIES OCCURRING IN THE AREA:**

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

Chiloscyllium arabicum Gubanov in Gubanov & Shleib, 1980

\*\*Chiloscyllium caerulopunctatum Pelegrin, 1914

Chiloscyllium griseum Müller & Henle, 1839

Chiloscyllium indicum (Gmelin, 1789)

\*\*\*\*?Chiloscyllium plagiosum (Bennett, 1830)

\*\*\*\*?Chiloscyllium punctatum Müller & Henle, 1839

REMIS Chilo 1

REMIS Chilo 2

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

\*Lateral ridges present in C. indicum, C. punctatum and C. caerulopunctatum

\*\*Also posterior to pelvic bases in C. indicum

\*\*\*Usually synonymized with C. plagiosum, but recently recognized as distinct; only known from Madagascar

\*\*\*\*Presence in the area uncertain

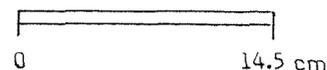
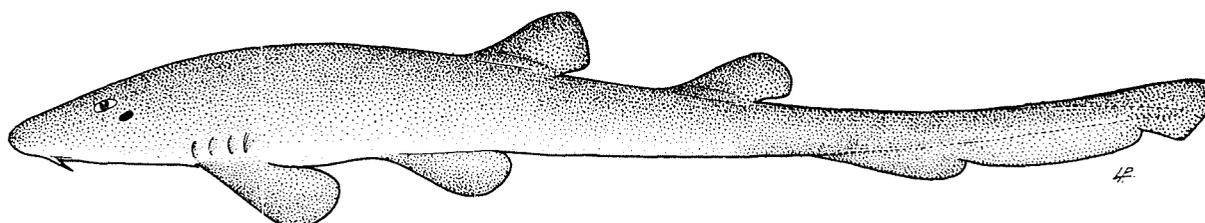
\*\*\*\*\*Occurs just outside the area, on the east coast of India

## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HEMISCYLLIIDAE

FISHING AREA 51  
(W. Indian Ocean)Chiloscyllium griseum Müller & Henle, 1839

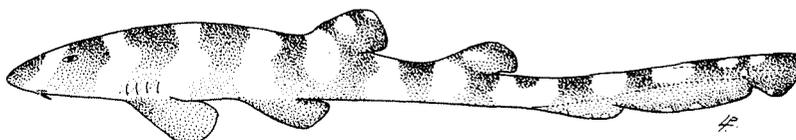
OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

FAO : En - Grey bambooshark  
Fr - Requin-chabot gris  
Sp - Bamboa gris

NATIONAL



young

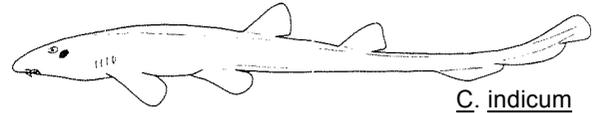
## DISTINCTIVE CHARACTERS:

A small shark; body moderately stout, without lateral ridges; precaudal tail moderately stout, longer than trunk. Snout broadly rounded; 5 small gill slits; spiracles large and below eyes; eyes elevated, with a low supraorbital ridge above them, without nictitating eyelids; nostrils with short barbels, nasoral grooves, and circumnarial grooves; mouth small, transverse, and well in front of eyes; teeth small, similar in both jaws, with a single small cusp. Two dorsal fins, slightly smaller than pelvic fins and without attenuated, projecting free rear tips; origin of first dorsal fin varying from over last third of pelvic fin bases to over pelvic fin insertions; second dorsal fin almost as large as first; anal fin long, low and broadly rounded, with its origin behind free rear tip of second dorsal fin and with its insertion at lower caudal fin origin; caudal fin strongly asymmetrical, with a pronounced caudal subterminal notch but without a ventral lobe, its length less than 1/3 length of rest of shark. Caudal peduncle cylindrical, without keels or precaudal pits. Intestinal valve of ring type.

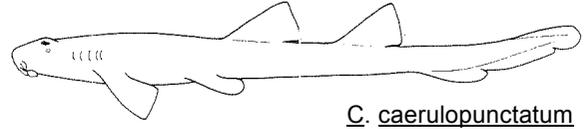
Colour: light brown, yellow-brown or grey-brown above, cream below, with 12 or 13 prominent saddle marks young, fading out with growth and absent in adults.

**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

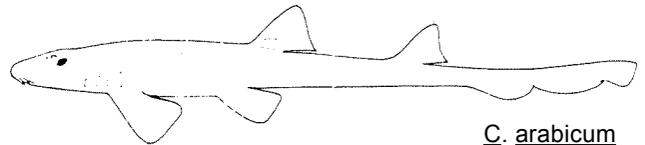
Chiloscyllium indicum: a more slender shark, with first dorsal fin origin over pelvic inner margins, anal fin origin far posterior to second dorsal rear tip; ridges present on sides; snout narrower, numerous dark spots on body.



Chiloscyllium caerulopunctatum: a rare species known from off Madagascar; dorsal fins larger; snout truncated; ridges present on sides; numerous small light blue spots on dorsal surface, dorsal pectoral and pelvic fins.



Chiloscyllium arabicum: recently described from the "Gulf"; a ridge on each side of body; free rear tips of dorsal fins attenuated; pelvic fins smaller than dorsal fins.



**SIZE:**

Maximum: at least 74 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

Restricted to the northeastern part of the area, from the "Gulf" eastward to Pakistan, India, and probably Sri Lanka. Elsewhere in the Eastern Indian Ocean/Western Central Pacific, extending eastward to Malaya, Thailand, Indonesia, South China, Japan, Philippine Islands, and New Guinea, but many records need confirmation.

A common, sluggish inshore bottom dweller. Oviparous, deposits eggs in small, oval egg cases on the bottom.

Feeds probably mainly on invertebrates.

**PRESENT FISHING GROUNDS:**

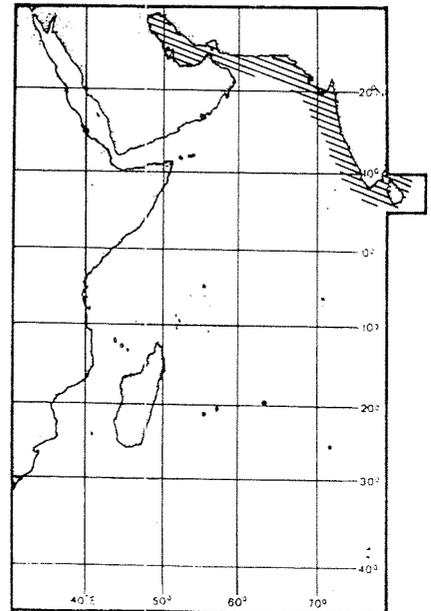
India and Pakistan.

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

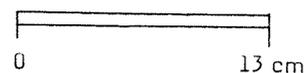
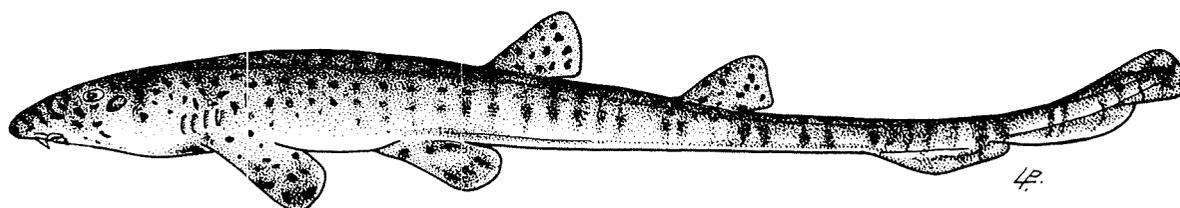
Caught in bottom trawls and in fixed bottom gillnets, drifting bottom gillnets, and occasionally pelagic gillnets.

Utilized fresh for human consumption.



## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HEMISCYLLIIDAE

FISHING AREA 51  
(W. Indian Ocean)Chiloscyllium indicum (Gmelin, 1789)OTHER SCIENTIFIC NAMES STILL IN USE: Chiloscyllium colax (Meuschen, 1781)

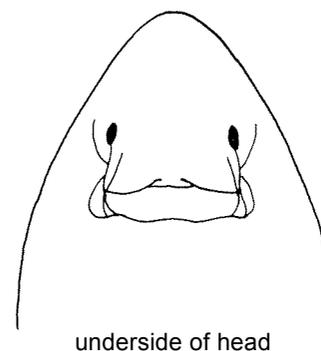
## VERNACULAR NAMES:

FAO :           En - Slender bambooshark  
                   Fr - Requin-chabot élégant  
                   Sp - Bamboa elegante

NATIONAL

## DISTINCTIVE CHARACTERS:

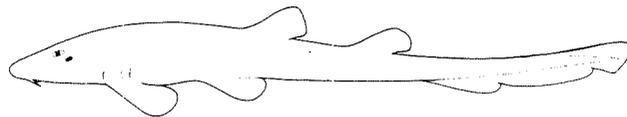
A small shark; body slender, with low lateral ridges; precaudal tail slender, longer than trunk. Snout narrowly rounded or almost pointed; 5 small gill slits; spiracles large and below eyes; eyes elevated, with a low supraorbital ridge above them, without nictitating eyelids; nostrils with short barbels, nasoral grooves and circumnarial grooves; mouth small; transverse, and well in front of eyes; teeth small, similar in both jaws, with a single small cusp. Two dorsal fins, about as large as pelvic fins and without attenuated, projecting free rear tips; first dorsal fin origin over inner margins of pelvic fins and behind pelvic insertions; second dorsal fin almost as large as first; anal fin long, low, and broadly rounded, with its origin far behind free rear tip of second dorsal fin and with its insertion at lower caudal fin origin; caudal fin strongly asymmetrical, with a pronounced subterminal notch but without a ventral lobe; caudal fin less than 1/3 the length of rest of shark. Caudal peduncle cylindrical, without keels or precaudal pits. Intestinal valve of ring type.



Colour: light brown above, cream below, with numerous dark spots on body, tail and fins, these often forming indistinct vertical bars and saddles.

## DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Other Chiloscyllium species: body and precaudal tail stouter, snout usually more broadly rounded or anteriorly truncated, first dorsal fin origin over or anterior to pelvic insertions (except in C. arabicum); dark spots few or absent.



C. griseum

## SIZE:

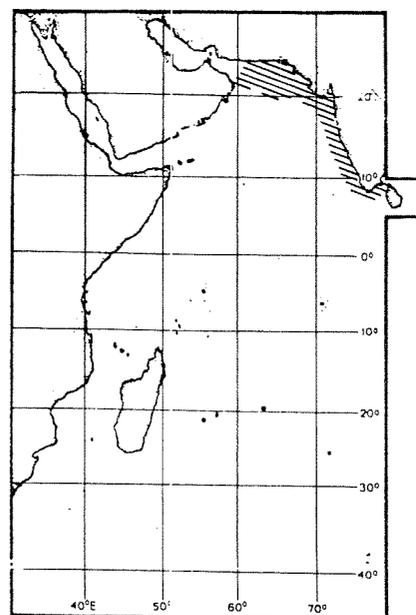
Maximum: about 65 cm.

## GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, restricted to the northeastern part, from the Arabian Sea off Pakistan to India and Sri Lanka. Elsewhere in the Eastern Indian Ocean/Western Central Pacific, extending eastward to Singapore, Thailand, Indonesia, Vietnam, Taiwan, the Philippine and Solomon Islands, and possibly Korea and Japan.

A sluggish inshore bottom dweller. Oviparous, deposits eggs in small, oval egg cases on bottom.

Feeds probably mainly on invertebrates.



## PRESENT FISHING GROUNDS:

Southern India.

## CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught in bottom trawls and in fixed bottom gillnets, drifting bottom gillnets, and occasionally pelagic gillnets.

Utilized fresh for human consumption, relatively unimportant.

HET

1983

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

HETERODONTIDAE

Bullhead sharks

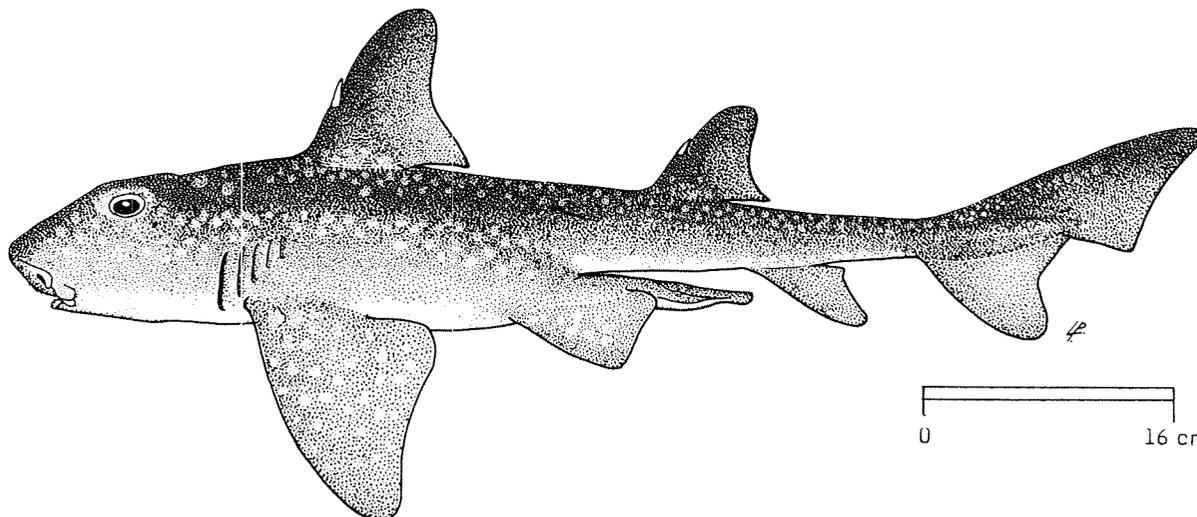
A single species in the area - see species for:  
Heterodontus ramalheira Smith, 1949

## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HETERODONTIDAE

FISHING AREA 51  
(W. Indian Ocean)*Heterodontus ramalheira* (Smith, 1949)

OTHER SCIENTIFIC NAMES STILL IN USE: None



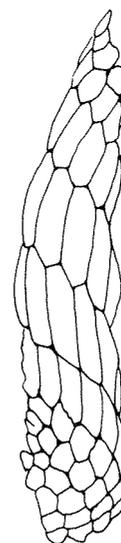
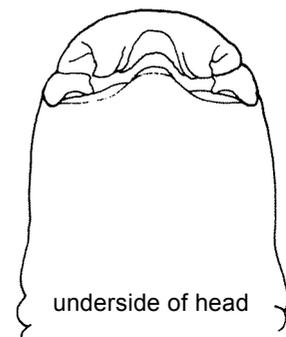
## VERNACULAR NAMES:

FAO : En - Whitespotted bullhead shark  
Fr - Requin dormeur chabot  
Sp - Dormilón boquigrande

NATIONAL:

## DISTINCTIVE CHARACTERS:

A small shark. Trunk and precaudal tail cylindrical, not depressed and without lateral ridges; precaudal tail longer than trunk. Head not expanded laterally, with prominent ridges over eyes; 5 moderate to small gill slits present, the first largest, the fifth about a third as long as the first, the last 3 over the pectoral fin bases; no gillrakers; spiracles present and very small, below level of eyes; nostrils without barbels but with strong nasoral grooves and circumnarial grooves, close in front of mouth; eyes dorsolateral on head, without nictitating eyelids; snout very short, broadly rounded, 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 laws, and with uppers reaching front of mouth; teeth small and cuspidate in front of mouth but enlarged, cusplless and molariform in rear of mouth, similar in upper and lower jaws. Two dorsal fins, each with a strong spine, the first dorsal moderately large, high and apically rounded, much shorter than the caudal fin, and with its origin about over the pectoral midbases; second dorsal fin about half the size of first; anal fin smaller than second dorsal, with its origin under second dorsal inner margin, angular in shape and separated by a wide space from the lower caudal fin origin; caudal fin strongly asymmetrical, much less than half of total length, without a rippled or undulated dorsal margin but with a strong subterminal notch and a prominent lower lobe; vertebral axis of caudal fin raised above body axis. Caudal peduncle cylindrical, without precaudal pits or: longitudinal keels. Intestinal valve of spiral type.

teeth from right side  
of upper jaw

Colour: dark reddish brown above, cream below, dorsal surface with scattered white spots.

### **DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

No other sharks in the area combine fin spines on the dorsal fins with the presence of an anal fin. The tooth morphology of this shark is unique among sharks of the area.

### **SIZE:**

Maximum: about 83 cm.

### **GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

Confined to the area, from southern Mozambique, Sofala Bank, Mozambique and the eastern Arabian Peninsula.

A bottom-dwelling shark occurring in deepish water along the Western Indian Ocean, at 108 to 275 m. Probably oviparous, although egg cases have not been found.

Feeds on crabs.

### **PRESENT FISHING GROUNDS:**

Uncertain.

### **CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

Caught in bottom trawls.

Utilization uncertain.

