

## FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

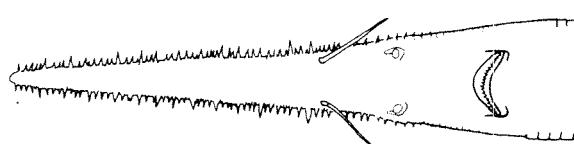
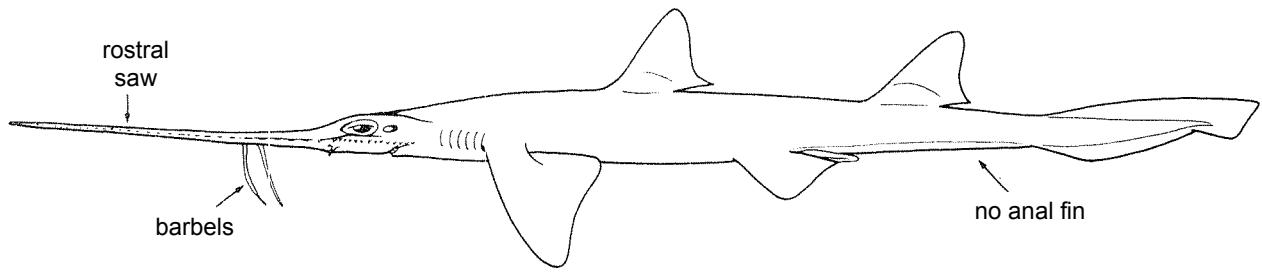
## PRISTIOPHORIDAE

## Sawsharks

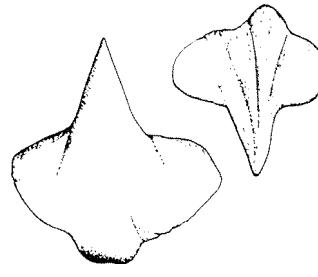
Small sharks. Trunk and precaudal tail cylindrical to somewhat depressed, trunk without lateral ridges but tail with long lateral folds, reaching caudal fin; precaudal tail about as long as trunk. Head not expanded laterally, considerably depressed; 5 or 6 small gill slits present, all in front of the pectoral fin origins, their upper ends not expanded onto upper surface of head; no gill sieves or complex rakers on internal gill slits; spiracles present and very large, behind eyes; nostrils without barbels, nasoral grooves or circumnarial grooves, far anterior to mouth; eyes dorsal on head, without nictitating eyelids; snout extremely long, depressed and bladelike, with lateral teeth and unique rostral barbels in front of nostrils; mouth small, short, transversely arched, and well behind eyes; labial furrows very short, confined to mouth corners; teeth small, not bladelike, with a single low cusp, similar in upper and lower jaws and weakly differentiated along the jaws. Two dorsal fins, without spines, the first dorsal moderately large, high and angular, much shorter than the caudal fin, and with its base nearly equidistant between pectoral and pelvic fin axes; second dorsal fin about as large as first; anal fin absent; 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 not present or very short; vertebral axis of caudal fin slightly raised above body axis. Caudal peduncle depressed, without precaudal pits but with low lateral folds continuing from precaudal tail. Intestinal valve of spiral type.

Colour: uniform brown above, white below, fins dusky, no colour pattern.

These are moderately abundant, primarily deepwater sharks, found on the outer continental shelves and upper slopes down to 915 m, sometimes inshore in shallow water. They probably use their rostral saws to injure and kill small fishes and crustacea, much as do the batoid sawfishes (Pristidae). They have a disjunct distribution at present from the Western Pacific, Western Indian Ocean, and Western North Atlantic, but were formerly almost worldwide. They are fished for food, particularly in the Australian region, but also in the Western North Pacific. Harmless sharks, not exceeding 1.4 m total length.



underside of head



teeth

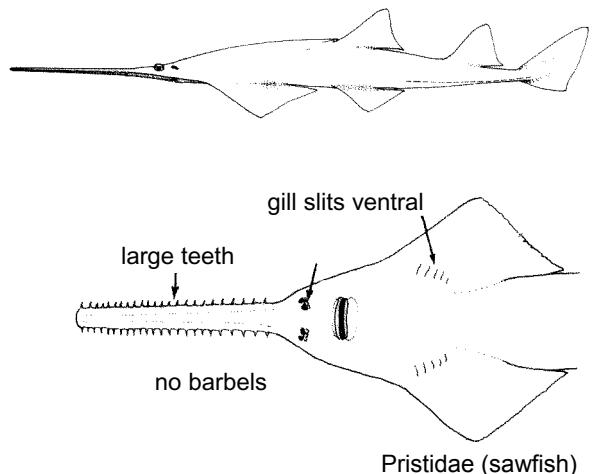


intestinal valve of spiral type

**SIMILAR FAMILIES OCCURRING IN THE AREA:**

No other sharks in the area have a rostral saw with barbels.

Sawfishes (Pristidae, a family of batoid fishes) are common in the area and also have a rostral saw, but differ from the sawsharks in having the pectoral fins expanded anteriorly over the gill openings and fused to the sides of the head, so that the head and pectoral fins form a distinct pectoral disc with the gill openings ventral (as in other batoids); additionally, the trunk is shorter and more depressed, the first dorsal fin is partially or entirely above the pelvic fin bases, the rostral saw has relatively few, uniformly large, continuously growing teeth (small, varying in size along the rostrum, and not growing, but periodically replaced in Pristiophoridae) and no barbels. Furthermore, the species of sawfishes are much larger, reaching 6 m or more.



**KEY TO GENERA AND SPECIES OCCURRING IN THE AREA:**

- 1a. Six pairs of gill openings; largest rostral teeth serrated ..... Pliotrema warreni
- 1b. Five pairs of gill openings; largest rostral teeth not serrated ..... Pristiophorus sp.\*

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

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

Pliotrema warreni Regan, 1906

PRISTIOP Plio 1

\*Pristiophorus species

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

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\* Dr. Bruce Welton (personal communication) examined a specimen of Pristiophorus from Pakistan, apparently collected in the northern Arabian Sea. The identity of this specimen is uncertain at present

1983

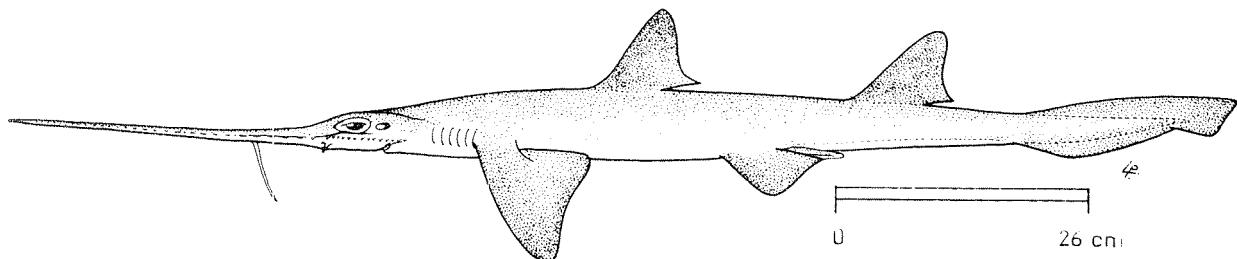
## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PRISTIOPHORIDAE

FISHING AREA 51  
(W, Indian Ocean)

Pliotrema warreni Regan, 1906

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

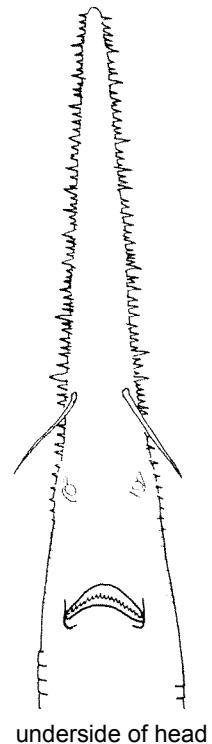
FAO : En - Sixgill sawshark  
 Fr - Requin scie flutien  
 Sp - Tiburón sierra del Cabo

## NATIONAL:

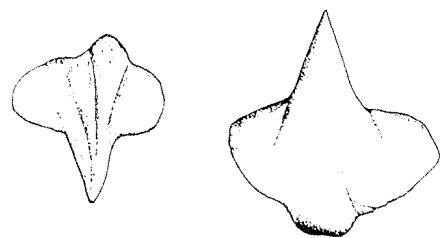
## DISTINCTIVE CHARACTERS:

A small shark. Body moderately depressed. Head with 6 pairs of small gill openings, the last in front of pectoral fin origins; no gillrakers; mouth small, short and arcuate, located far posterior, behind eyes; snout extremely long, greatly flattened, with enlarged pointed dermal denticles along sides forming the teeth of a rostral saw and a pair of tong barbels on its ventral surface in front of nostrils; largest rostral teeth serrated; nostrils without barbels or nasoral grooves; teeth very small, not bladelike, with one conical cusp, alike in both jaws. Two moderately large dorsal fins, without spines, the first on back between pectoral and pelvic fins, the second as large as first; pectoral fins broad and moderately large; anal fin absent; caudal fin much less than half the total length, asymmetrical, with a subterminal notch and no lower lobe. No precaudal pits, but a long low dermal fold or keel extending on precaudal tail from pelvic fins to base of caudal fin on each side.

Colour: light brown above, white below, fins dusky.



underside of head



upper tooth

and  
near centre

lower tooth

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

Another sawshark, Pristiophorus species, apparently occurs in the northern Arabian Sea off Pakistan (Dr. B. Welton, personal communication). This differs from Pliotrema warreni in having only 5 pairs of gill openings.

No other sharks or batoids in the area combine the characters of a rostral saw, rostral barbels, no anal fin and 6 pairs of gill openings.

### SIZE:

Maximum: about 136 cm.

### GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Virtually confined to the area, off South Africa (Natal) and southern Mozambique; also Cape coast of South Africa.

A common shark of moderate depths, taken near the bottom in water 60 to at least 430 m deep. Ovoviviparous, number of developing eggs in uterus 7 to 17, but the few litters of young reported ranged from 5 to 7 individuals; size at birth about 36 cm.

A small, harmless shark, feeding on small bottom fish, crustaceans and squid.

### PRESENT FISHING GROUNDS:

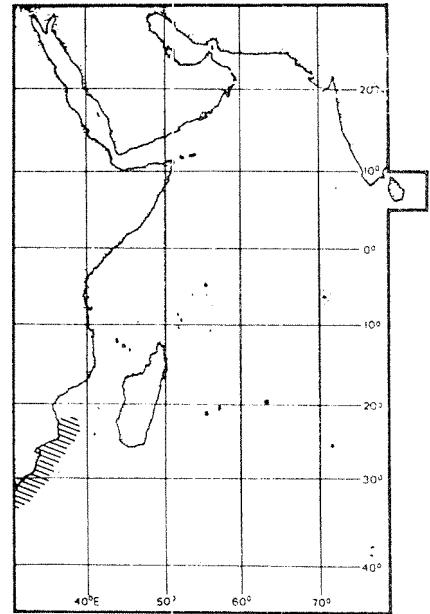
South Africa and southern Mozambique.

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

Separate statistics are not reported for this species.

Caught with bottom trawls.

Mode of utilization uncertain, probably limited at best.



## FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

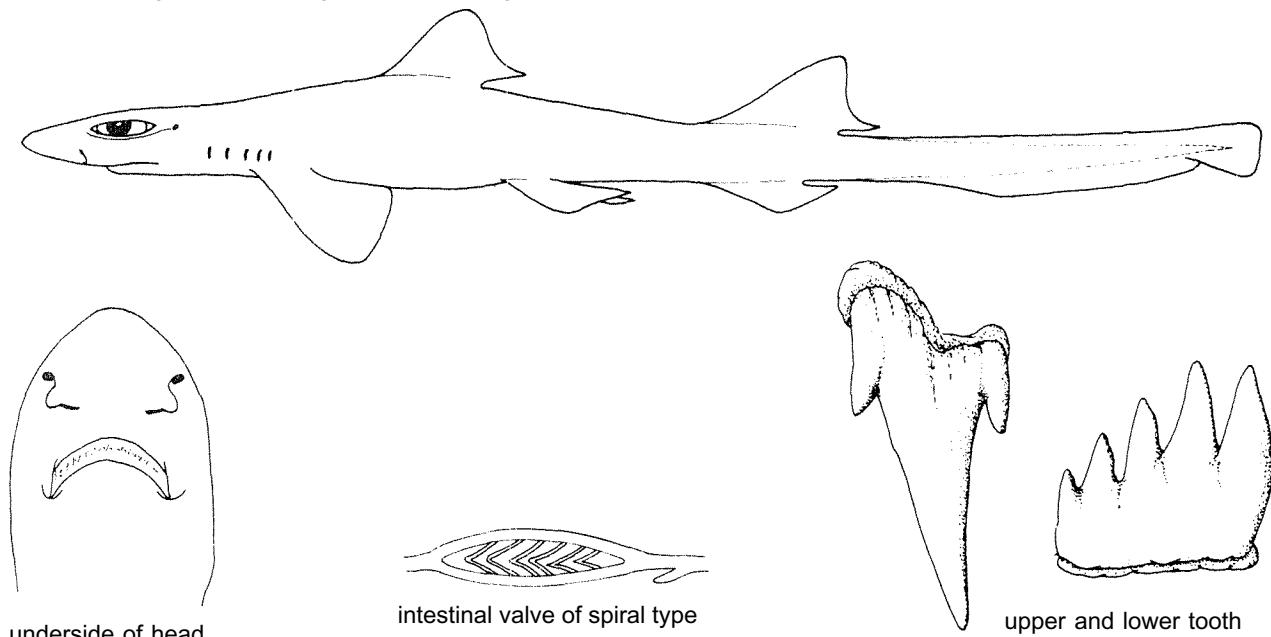
## PROSCYLLIIDAE

## Finback catsharks

Small sharks. Trunk and precaudal tail cylindrical or somewhat compressed, not depressed and without lateral ridges; precaudal tail much shorter than head and trunk. Head not expanded laterally, moderately depressed; 5 small gill slits present, the last 2 or 3 over the pectoral fin bases, their upper ends not expanded onto upper surface of head small gillraker papillae on internal gill slits; spiracles moderately large and behind eyes; nostrils without barbels, rasoral grooves, or circumnarial grooves, well separated from mouth; eyes dorsolateral on head, with weakly differentiated nictitating lower eyelids; snout short to moderately long, depressed and parabolic or narrowly rounded, not greatly flattened and bladelike and without lateral teeth and barbels; mouth moderately large, arched and elongated, and extending behind front margins of eyes; very short labial furrows present on both jaws or absent; teeth similar in upper and lower jaws, not enlarged toward front of mouth, small, with a sharp primary cusp and one or more cusplets on either side of it, posterior teeth comb-shaped. Two dorsal fins, without spines, small, moderately high and angular or subangular, much shorter than the caudal fin, and with its base located over the interspace between pectoral and pelvic fin bases, but closer to the pelvic bases than to the pectorals; second dorsal fin about at large as first dorsal; anal fin moderately large, with its origin slightly in front or slightly behind second dorsal origin but well in front of midpoint of second dorsal fin base; caudal fin asymmetrical, much less than half of total length, without a rippled dorsal margin a ventral lobe but with a strong subterminal notch; vertebral axis of caudal fin little raised above body axis. Caudal peduncle cylindrical or compressed, without keels or precaudal pits. Intestinal valve of spiral type.

Colour: grey or brown above, white or lighter below, either plain, with dark stripes on the caudal fin, or with a spotted or blotched colour pattern.

This is a small family of deepwater sharks with a disjunct distribution in tropical to warm-temperate waters of the Western North Atlantic, Indian Ocean and Western Pacific. The species live on the outer continental and insular shelves and upper slopes on or near the bottom; food consists of small fishes and invertebrates. Some may be common in the area and are taken in trawls, but their small size makes these sharks unsuitable for fisheries utilization other than for fishmeal. Utilization in the area unknown; separate statistics are not reported for this family. One species, *Eridacnis radcliffei*, is one of the smallest known sharks, with females maturing at about 15 cm total length and reaching a maximum length of 24 cm.

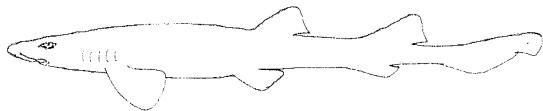


**SIMILAR FAMILIES OCCURRING IN THE AREA:**

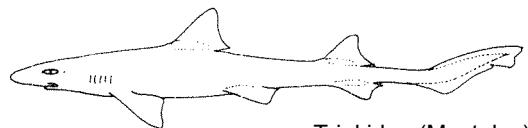
Scyliorhinidae: first dorsal fin over or behind pelvic fin bases.

Triakidae: no gillraker papillae on internal gill openings; nictitating lower eyelids better differentiated, with a deeper subocular pocket and a well-developed secondary lower eyelid edge, labial furrows long; teeth stouter, with heavier cusps or no cusps, posterior teeth not comblike; first dorsal fin base in species from the area more anterior, closer to the pectoral fin bases than to the pelvics or about equidistant between the two.

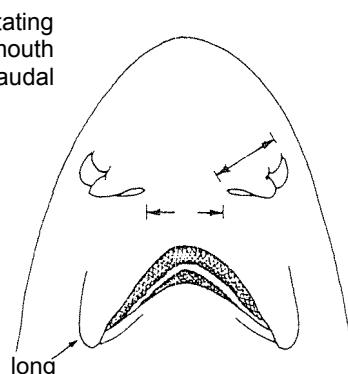
No other sharks in the area combine nictitating lower eyelids, small, cuspidate teeth in both jaws, mouth under eyes, intestinal valve or spiral type, no precaudal pits and no rippled dorsal caudal margin.



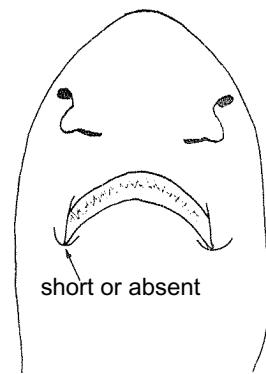
Scyliorhinidae (Atelomycterus)



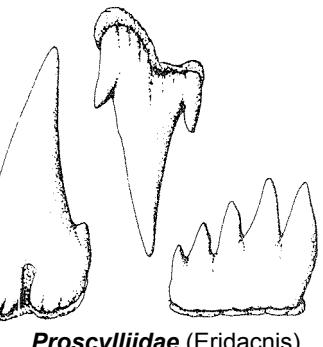
Triakidae (Mustelus)



Triakidae

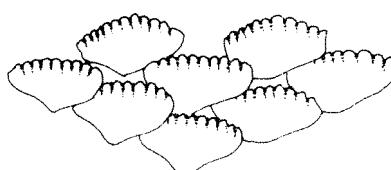


underside of head



Proscylliidae (Eridacnis)

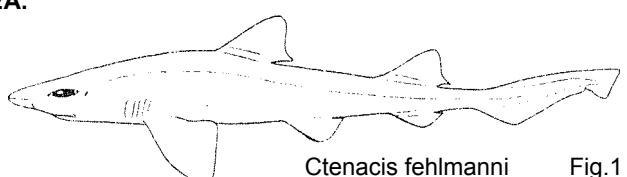
teeth



Triakidae (Mustelus)

**KEY TO GENERA AND SPECIES OCCURRING IN THE AREA:**

1a. Caudal fin broad, not tapelike, and relatively short, its dorsal margin about 23% of total length; body relatively stout; colour pattern of spots, blotches and saddles on body and fins (Fig.1 ..... Ctenacis fehlmanni



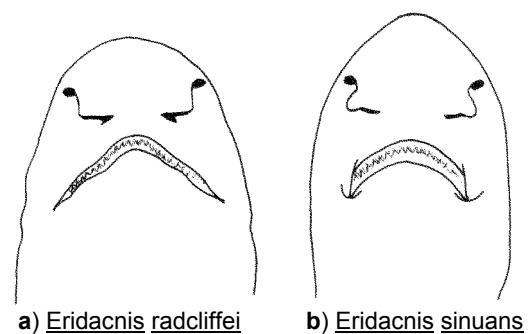
Ctenacis fehlmanni

Fig.1

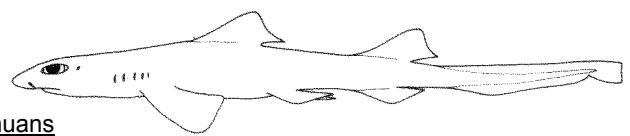
1b. Caudal fin narrow and tapelike, relatively long, its dorsal margin 25 to 30% of total length; body relatively slim; body and fins plain, except for dark or light edging on dorsal fins and dark and light barring on caudal fin (Figs 3,4) ..... Eridacnis

2a. Labial furrows vestigial or absent; snout length less than 1.5 times the mouth length (Fig.2a); anterior margin of first dorsal fin at a low angle to body axis (Fig.3) ..... Eridacnis radcliffei

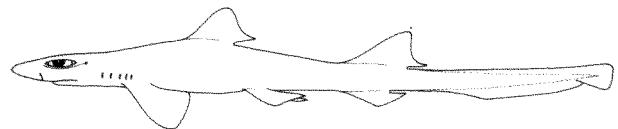
2b. Labial furrows extremely short but present on both jaws; preoral snout length over twice the mouth length (Fig.2b); anterior margin of first dorsal fin at a higher angle to body axis (Fig.4) ..... Eridacnis sinuans



underside of head Fig.2



Eridacnis radcliffei Fig.3



Eridacnis sinuans Fig.4

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

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

Ctenacnis fehlmanni (Springer, 1968)

Eridacnis radcliffei Smith, 1913

Eridacnis sinuans (Smith, 1957)

PSEUD

1983

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

PSEUDOCARCHARIIDAE

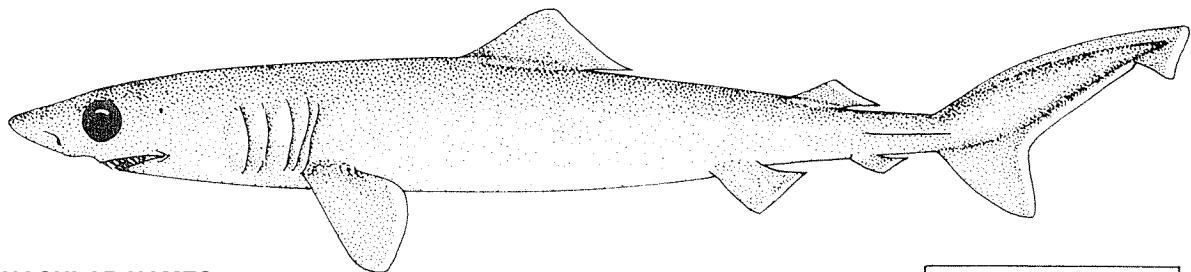
Crocodile sharks

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

Pseudocarcharias kamoharai (Matsubara, 1936) PSEUD Pseud 1

## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PSEUDOCARCHARIIDAE

FISHING AREA 51  
(W. Indian Ocean)**Pseudocarcharias kamoharai (Matsubara, 1936)**OTHER SCIENTIFIC NAMES STILL IN USE : Odontaspis kamoharai (Matsubara, 1936)

## VERNACULAR NAMES:

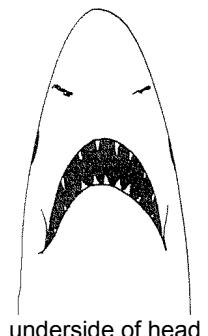
FAO : En - Crocodile shark  
 Fr - Requin crocodile  
 Sp - Tiburón cocodrilo

0 18 cm

## NATIONAL :

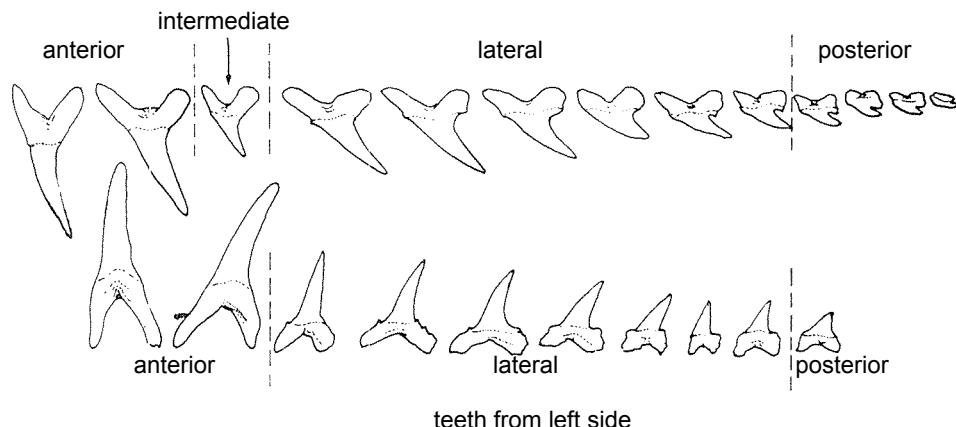
## DISTINCTIVE CHARACTERS:

A small relatively slender shark. Head with 5 large gill slits, all in front of pectoral fin bases, their upper ends extending onto dorsal surface of head; no gillrakers; spiracles usually present but very small; no nasal barbels or nasoral grooves; eyes very large, without nictitating eyelids; snout conical (not greatly elongated or flattened and blade-like); mouth very long and angular, extending well behind eyes; no true labial furrows; anterior teeth very large, with long, narrow, hooked, sharp-edged but unserrated cusps and no cusplets, set in 2 rows on either side of symphysis in both jaws, and not separated in front by small symphyseal teeth; upper anteriors separated from the smaller laterals by a gap and tiny intermediate teeth. Two low dorsal fins, the first about midway between the pectorals and the pelvics, and well in front of pelvic fin bases, the second somewhat smaller than the first, but larger than anal fin; caudal fin short, strongly asymmetrical, with a pronounced subterminal notch and a short ventral lobe. Caudal peduncle slightly depressed, with a low keel on each side and upper as well as lower precaudal pits. Intestinal valve of ring type, with close-set turns resembling a stack of washers.



underside of head

Colour: light or dark grey above, lighter below, fins white-edged, sometimes small white spots on body and a white blotch between the mouth and gill slits.



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

The combination of the characters described above separates this species from all other sharks in Fishing Area 51.

### SIZE:

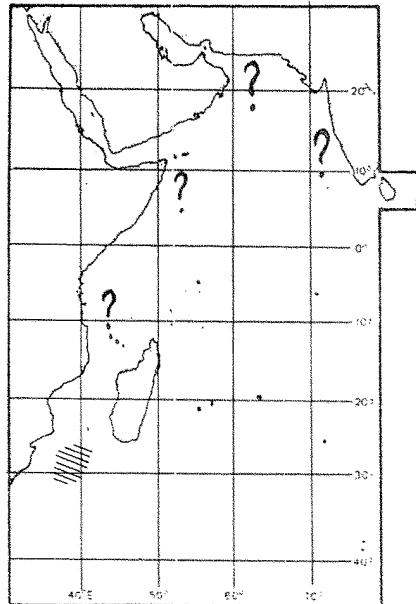
Maximum: about 110 cm, most adults between 75 to 100 cm.

### GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, known from southwest of Madagascar where it is reportedly common; probably more widespread in the area. An oceanic shark, possibly circumtropical in distribution, and otherwise known from the Eastern Atlantic, Northwestern, Central and Eastern Pacific.

Habits little known. Ovoviparous, with litters of 4 young recorded, size at birth between 41 and 59 cm.

Probably feeds on small oceanic fishes and squid. Jaws can be protruded to a considerable distance forward from mouth.



### PRESENT FISHING GROUNDS:

Primarily offshore.

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

Separate statistics are not reported for this species.

Caught on pelagic longlines.

PSEUDOT

1983

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

PSEUDOTRIAKIDAE

False catsharks

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

Pseudotriakis microdon Capello, 1868      PSEUDOT Pseu 1

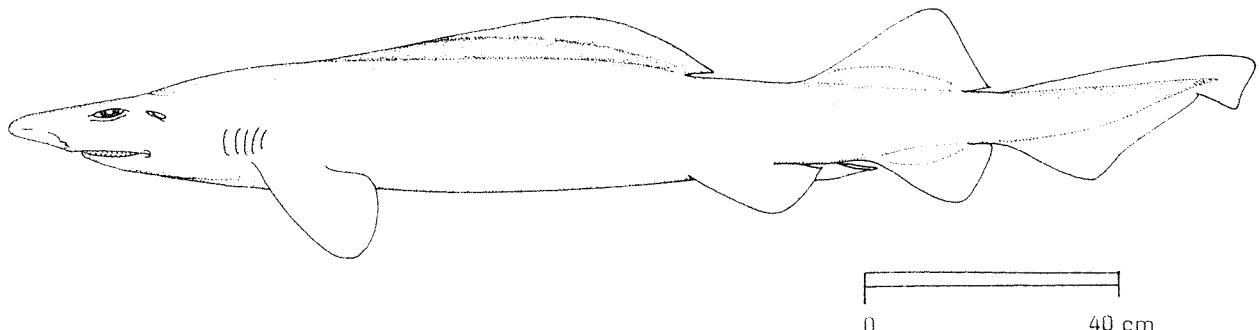
## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PSEUDOTRIAKIDAE

FISHING AREA 51  
(W. Indian Ocean)

Pseudotriakis microdon Capello, 1868

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

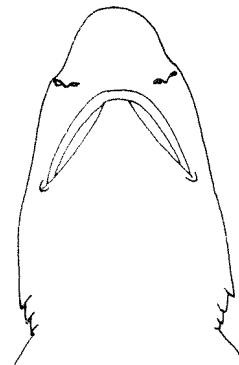
FAO : En - False catshark  
 Fr - Requin à longue dorsale  
 Sp - Musolón aleta larga

## NATIONAL:

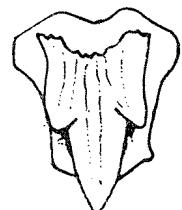
## DISTINCTIVE CHARACTERS:

A large, soft-bodied shark. Head with 5 small gill slits, the last two over the pectoral fin bases; no dermal gillrakers; spiracles very large, about as long as eyes; nostrils without barbels or nasoral grooves; eyes above sides of head, horizontally elongated, with weakly differentiated nictitating lower eyelids that are delimited below the eyes by shallow pouches; snout moderately long, narrowly rounded; mouth very wide and long, extending behind front of eyes, angular in shape; labial furrows present but short, not extending forward to front of mouth; teeth extremely small and numerous, similar in both jaws and not bladelike, with a small primary cusp and one or more cusplets, becoming comblike in the rear of mouth; upper anterior teeth small and grading into the laterals, not separated from these by small intermediate teeth. Two dorsal fins, the first greatly elongated, low, keel-like, and broadly rounded above, its base just ahead of pelvic fin origins and as long as caudal fin; second dorsal fin short but higher than the first and larger than the anal fin; anal fin base under second dorsal base; caudal fin greatly asymmetrical, its lower lobe hardly developed, its upper edge not rippled and a subterminal notch present. Caudal peduncle not depressed, without lateral keels or precaudal pits. Intestinal valve presumably of spiral type.

Colour: dark brownish grey above and below, darker on posterior edges of pelvic, dorsal, anal and caudal fins.



underside of head



upper anterior tooth

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

No other sharks in the area combine the presence of a low, keel-like first dorsal fin equal in length to the caudal fin and of an anal fin with the absence of fin spines.

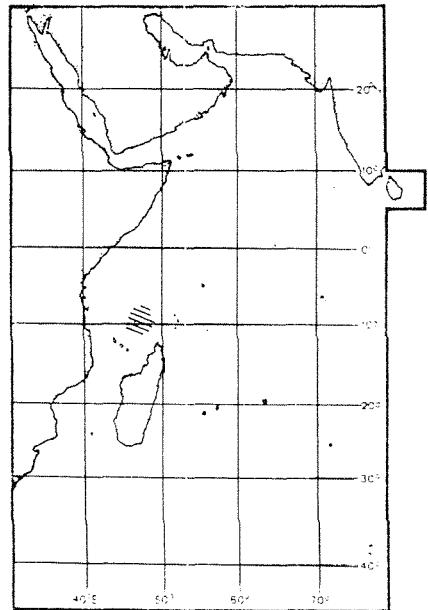
### SIZE:

Maximum: 295 cm; females mature at about 210 cm.

### GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area known only from the Aldabra Island group in the southwestern Indian Ocean, but likely to be more widespread in the area. Elsewhere, in the Eastern North Atlantic from Iceland to Senegal, in the Western North Atlantic from New York and New Jersey, and in the Western Central Pacific (provided *P. acrales* is in junior synonym of this species).

A deepwater shark, normally occurring on the upper continental and insular slopes at depths between 300 and 1 500 m, rarely occurring in shallower water. Ovoviparous, with litters of 2 young. Size at birth about 90 cm. Habits little known, once photographed in deep water eating a bony fish.



### PRESENT FISHING GROUNDS:

Probably taken incidentally offshore.

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

Separate statistics are not reported for this species.

Taken in bottom trawls and on deep-set longlines.

Utilization not recorded.