

Diagnostic Features : Head and body relatively deep, slender and narrow. Greatest width of head about 2/3 of head length; no nasoral grooves; anterior nasal flaps not expanded and falling just short of mouth. First dorsal origin opposite or somewhat behind pelvic insertions; second dorsal origin opposite or behind anal insertion; interdorsal space considerably greater than anal base; claspers without hooks on exorhipidion. Denticles small and flat, surface of skin relatively smooth. Colour pattern of 7 or 8 brown, obscure saddles on a light brown background and numerous large, regularly scattered white spots on dorsal surface; no black spots. Monospondylous precaudal centra 30 to 34. A dwarf species, adults 32 cm and below.

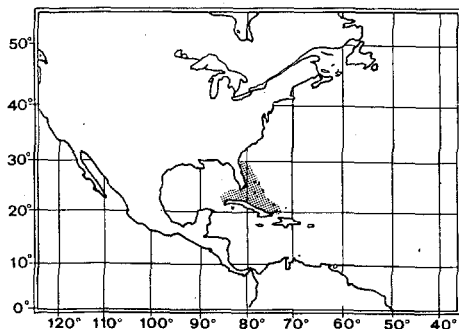
Geographical Distribution: Western North Atlantic: Southern Florida, USA, Bahamas, northern Cuba.

Habitat and Biology : An uncommon tropical, deepwater catshark, very localized in distribution, of the upper continental slope of the Florida Straits-Bahamas region; on or near the bottom at depths of 229 to 550 m, with most below 366 m. Biology little-known, eggs and hatchling young unknown.

Size : Maximum about 32 cm, adult males from 24 to 26 cm, adult females 26 cm.

Interest to Fisheries: None at present.

Literature : Bigelow & Schroder (1948); Springer (1966, 1979); Springer & Sadowsky (1970).



9.2 FAMILY PROSCYLLIIDAE Fowler, 1941

PROS

Subfamily Proscylliinae Fowler, 1941 (Family Scyliorhinidae).

Synonymy : None.

FAO Names: En - Finback catsharks; Fr - Requins chat; Sp - Tollos coludos.

Field Marks : Sharks with elongate, catlike eyes with nictitating eyelids, nostrils without barbels or nasoral grooves, mouth long and angular, arched and reaching past anterior ends of eyes, labial furrows very short or absent, small cuspidate teeth, two small, spineless dorsal fins and anal fin, the first dorsal base well ahead of pelvic bases, no precaudal pits, and the caudal fin without a strong ventral lobe or lateral undulations on its dorsal margin.

Diagnostic Features : Head without laterally expanded blades; eyes elongated and fusiform, oval, or slitlike, with lengths over 2 times height; nictitating eyelids rudimentary; spiracles present and moderately large; anterior nasal flaps broadly angular, not barbel-like; internarial width about 0.5 to 1.9 times nostril width; labial furrows absent or very short; teeth small, with acute narrow cusps, often lateral cusplets, and strong basal ledges and grooves, not bladeliike and similar in both jaws; posterior teeth comblike; tooth rows 46 to 99/49 to 114. Precaudal pits absent. First dorsal fin small and not keel-like, much shorter than caudal fin; first dorsal base well ahead of pelvic bases, but usually closer to pelvic bases than to pectorals; midpoint of first dorsal base always in front of pelvic origins; pectoral fins with radials confined to bases of fins; ventral caudal lobe absent or very weak; no undulations or ripples in dorsal caudal margin. Neurocranium with supraorbital crests; vertebral centra without strong, wedge-shaped intermedial calcifications. Valvular intestine with a spiral valve of 6 to 11 turns. Some species with variegated colour patterns, others without them. Development oviparous or ovoviviparous.

Habitat, Distribution and Biology : This is a small family of poorly-known, deepwater sharks with a disjunct distribution in tropical to warm temperate waters of the western North Atlantic and Indo-West Pacific. Finback catsharks live on the outer continental and insular shelves and upper slopes, on or near the bottom, at depths of 50 to 713 m. Their size is small; none exceed 1.2 m, and one species, *Eridacnis radcliffei*, is one of the two smallest sharks known. Most of the species are ovoviviparous, except for the oviparous *Proscyllum habereri*. Food of these harmless sharks consists of small fishes and invertebrates.

Interest to Fisheries : Minimal, a few species are taken by commercial bottom trawlers, but their small size makes them unsuitable for fisheries utilization other than for fishmeal.

Remarks : The arrangement of this family follows Compagno (1979).

Key to Genera

1a. Head and snout bell-shaped in dorso-ventral view (Fig. 1a). No oral papillae or gillrakers in mouth (Fig. 2)

Gollum

1b. Head and snout narrowly rounded in dorsoventral view (Fig. 1b,c). Oral papillae and gillrakers present in mouth

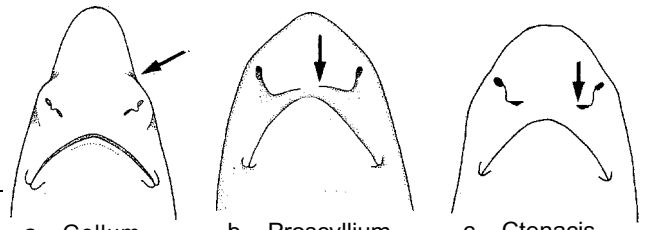


Fig. 1

2a. Caudal fin narrow and ribbon-like. No colour pattern (Fig. 3)

Eridacnis

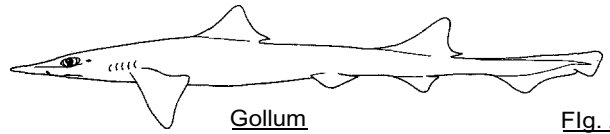


Fig. 2

2b. Caudal fin broad and not ribbonlike. A colour pattern of spots, saddles and bars present (Figs 4,5)

3a. Anterior nasal flaps large, with posterior ends nearly reaching upper symphysis (Fig. 1b). Body very slender. First dorsal origin behind pectorals. Colour pattern of round dark brown spots and indistinct saddles (Fig. 4)

Proscyllium

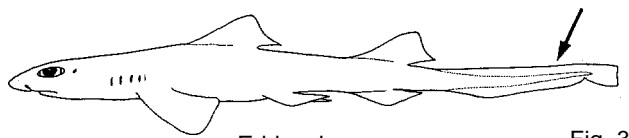


Fig. 3

3b. Anterior nasal flaps smaller, with posterior ends falling well in front of mouth (Fig. 1c). Body rather stout. First dorsal origin in front of pectoral rear tips. Colour pattern a unique combination of large red undulating blotches, spots, and lines (Fig. 5)

Ctenacis

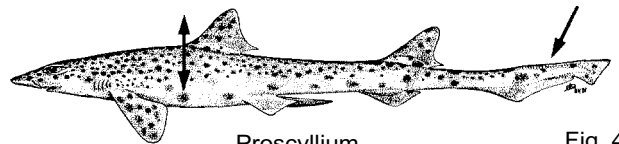


Fig. 4

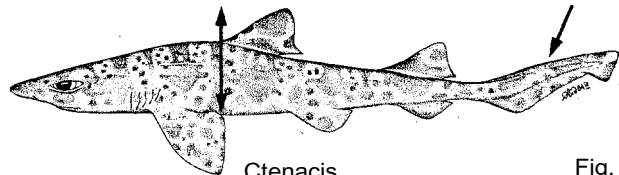


Fig. 5

Ctenacis Compagno, 1973

PROS Cten

Genus : Ctenacis Compagno, 1973, Proc.Calif.Acad.Sci., Ser. 4, 39(14):258.

Type Species : Triakis fehlmanni Springer, 1968, by original designation.

Synonymy : None.

Diagnostic Features: Body rather stocky. Head and snout not bell-shaped in dorsoventral view; preoral snout length about 2/3 of mouth width; anterior nasal flaps small, with rear edges well in front of mouth; internarial space 1.2 times in nostril width; inside of mouth and edges of gill bars with papillae. First dorsal origin slightly anterior to free rear tips of pectorals, base closer to pelvic bases than pectoral bases; anal origin slightly posterior to second dorsal origin; caudal fin broad, not tapelike, and short, dorsal margin about 23% of total length. A unique colour pattern of large, reddish-brown, irregular dorsal saddle blotches on body, interspersed with smaller round spots and vertical bars, as well as spots on fins.

Remarks : Treatment of this genus follows Compagno (1973, 1979).

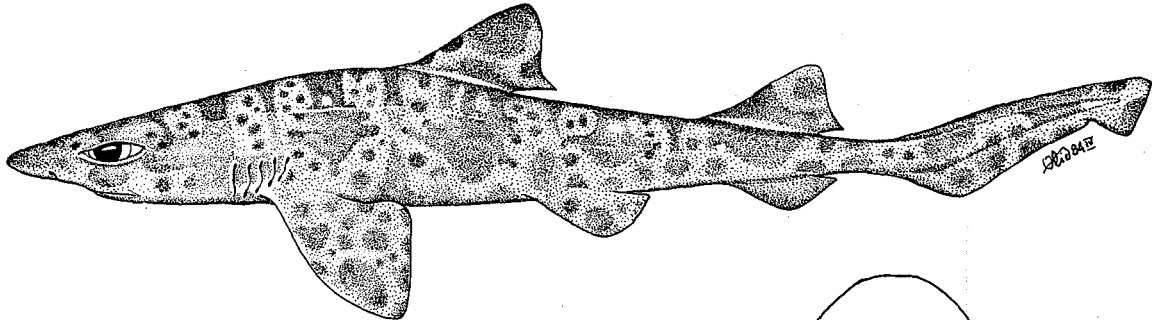
Ctenacis fehlmanni (Springer, 1968)

PROS Cten 1

Triakis fehlmanni Springer, 1968, Proc.Biol.Soc.Wash., 81:614, fig. 1-4, 5C. Holotype: U.S. National Museum of Natural History, USNM-202969, 460 mm adult female. Type Locality: Southwest of Cape Guardafui, Somalia, 11°24'N, 51°35'E, from 70 to 170 m depth.

Synonymy : None.

FAO Names : En - Harlequin catshark; Fr - Requin chat arlequin; Sp - Tollo coludo arlequin.



Field Marks: The reddish-brown blotched, spotted and barred colour pattern of this shark is unique; also, an anal fin and two equal-sized, spineless dorsal fins, the first over abdomen slightly closer to pelvic fins than pectorals, nictitating eyelids, a triangular mouth, very short labial furrows, comblike posterior teeth, short anterior nasal flaps that do not reach mouth, and a stout body and tail.

Diagnostic Features: See genus.

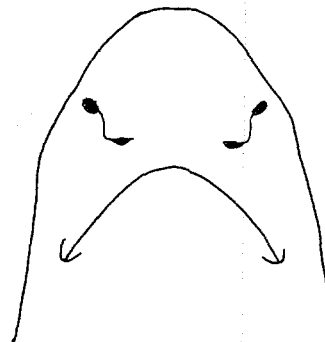
Geographical Distribution : As presently known, confined to the northwestern Indian Ocean, off Somalia.

Habitat and Biology : A poorly known tropical bottom-dwelling shark from the outer continental shelf off Somalia, known only from the holotype. Mode of development uncertain, though the presence of a very thin-walled (rather than thick-walled) large egg-case in each uterus of the holotype suggests that the species may be ovoviviparous rather than oviparous like Proscyllium habereri; if ovoviviparous, presumably the holotype would have had two young in a litter. An unidentified crustacean was found in the stomach of the holotype, and the describer of this shark (S. Springer) speculated that its large mouth, small teeth, and large pharynx with gillraker papillae might allow it to feed on very small invertebrates.

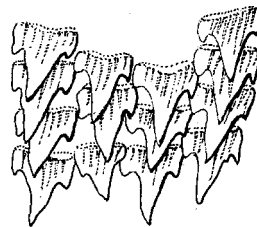
Size : Maximum 46 cm (adult female).

Interest to Fisheries : None at present.

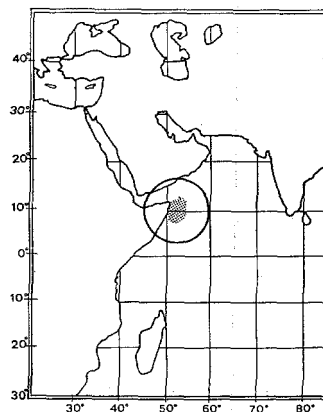
Literature : Springer (1968); Compagno (1973, 1979); Bass, D'Aubrey & Kistanasamy (1975).



underside of head



upper teeth



Eridacnis Smith, 1913

PROS Erid

Genus: Eridacnis Smith, 1913, Proc.U.S.Natl.Mus., 45(2003):599.

Type Species: Eridacnis radcliffei Smith, 1913, by original designation.

Synonymy : Genus Neotriakis Smith, 1957.

Diagnostic Features: Body rather slender. Head and snout not bell-shaped in dorsoventral view; preoral snout length subequal to about 2/3 of mouth width; anterior nasal flaps small, with rear edges well in front of mouth; internarial space 0.7 to 1.3 times in nostril width; inside of mouth and edges of gill bars with papillae. First dorsal origin varying from well anterior to slightly posterior to free rear tips of pectorals, base closer to pelvic bases than pectoral bases; anal origin slightly anterior, under or slightly posterior to second dorsal origin; caudal fin very narrow, tapelike, and long, dorsal margin 25 to 30% of total length. No colour pattern, except vertical barring on caudal fin.

Remarks: Treatment of this genus follows Compagno (1970, 1979). Members of this genus had been previously placed in four genera, Eridacnis (for E. radcliffei), Neotriakis (for E. sinuans), Proscyllium (for P. alcocki, a synonym of E. radcliffei), and Triakis (for T. barbouri) by various writers.

Key to Species

- 1a. Preoral snout over twice mouth length. Lateral dermal denticles broad and with short, wide cusps **E. sinuans**
- 1b. Preoral snout less than 1.5 times mouth length. Lateral dermal denticles narrow and with narrow, long cusps
 - 2a. Labial furrows rudimentary or absent. Anal fin less than half height of dorsal fins. Colour dark brown with blackish markings on dorsal fins **E. radcliffei**
 - 2b. Labial furrows short but well-developed. Anal fin about two-thirds of dorsal fin heights. Colour greyish brown with light edges on dorsal fins **E. barbouri**

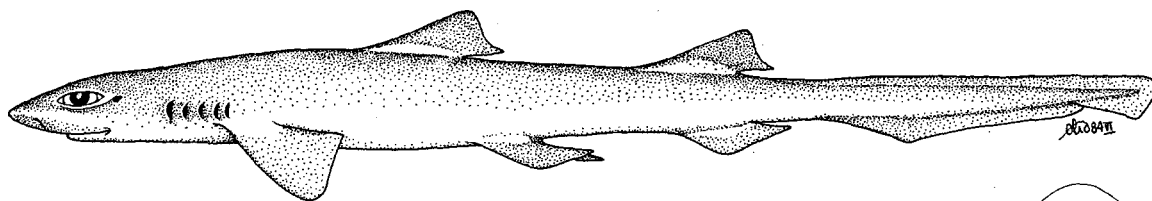
Eridacnis barbouri (Bigelow & Schroeder, 1944)

PROS Erid 1

Triakis barbouri Bigelow & Schroeder, 1944, Proc.New England Zool.Club, 23:27, pl. 8. Holotype: Museum of Comparative Zoology, Harvard, MCZ-36099, 283 mm adult male. Type Locality: Off Santa Clara Province, north coast of Cuba.

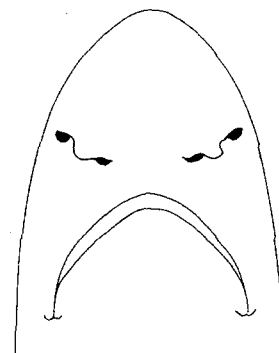
Synonymy : None.

FAO Names : En - Cuban ribbontail catshark; Fr - Requin chat cubain; Sp - Tollo coludo cubano.



Field Marks: A dwarf, slender sharklet with an anal fin and two equal-sized, spineless dorsal fins, first dorsal fin over abdomen and slightly closer to pelvic fins than pectorals, preoral snout less than 1.5 times the mouth length, nictitating eyelids, a triangular mouth, very short labial furrows, comblike posterior teeth, short anterior nasal flaps that do not reach mouth, no nasoral grooves or barbels, a long, narrow, ribbonlike caudal fin with faint dark banding, and light grey coloration.

Diagnostic Features: Preoral snout less than 1.5 times mouth length; labial furrows very short. Dorsal fins small and low, with anterior margin of first dorsal at a low angle to body axis; anal fin height over half dorsal heights; junction of preventral and postventral caudal margins angular. Lateral trunk denticles narrow-crowned and with long, narrow cusps. Colour light grey.



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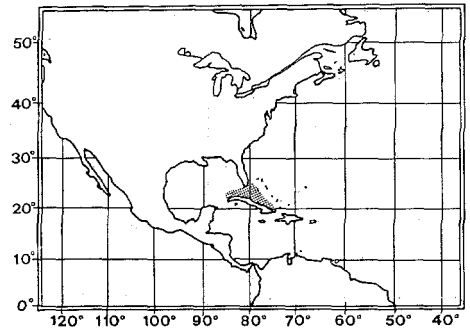
Geographical Distribution : Apparently confined to a limited area in the western North Atlantic in the Florida Straits and off the north coast of Cuba.

Habitat and Biology : A common, small subtropical bottom shark of the upper continental and insular slopes at depths of 430 to 613 m. Ovoviviparous, number of young two in a litter. Food habits not reported, but probably feeds on small fishes, crustaceans and cephalopods.

Size: Maximum about 34 cm; males mature at about 27 cm and females 28 cm; size at birth over 10 cm.

Interest to Fisheries: None at present.

Literature : Bigelow & Schroeder (1948); Compagno (1978, 1979).



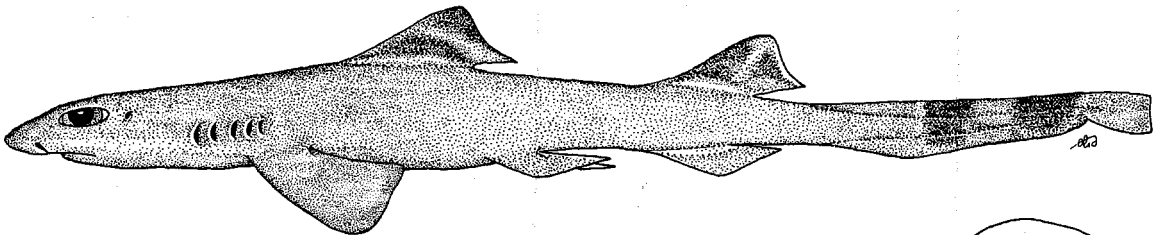
Eridacnis radcliffei Smith, 1913

PROS Erid 2

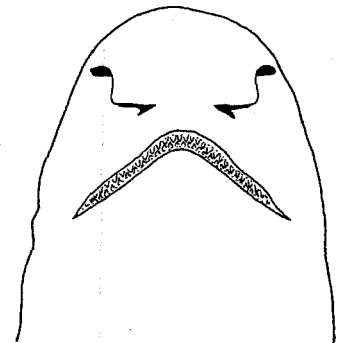
Eridacnis radcliffei Smith, 1913, *Proc.U.S.Natl.Mus.*, 45(2003):599, figs 1-3, pl. 47. Holotype: U.S. National Museum of Natural History, USNM-74604, 230 mm adult female. Type Locality: Off Jolo Light, Jolo Island, Sulu Archipelago, The Philippines, 6°11.8'N, 121°08.3'E, 295 m depth.

Synonymy : *Proscyllium alcocki* Misra, 1950.

FAO Names : En - Pygmy ribbontail catshark; Fr - Requin chat pygmé; Sp - Tollo coludo pigmeo.



Field Marks : One of the smallest living sharks, not exceeding 24 cm, with anal fin and two equal-sized, spineless dorsal fins, first dorsal fin over abdomen and slightly closer to pelvic fins than pectorals, preoral snout less than 1.5 times mouth length, nictitating eyelids, a triangular mouth, labial furrows rudimentary or absent, comblike posterior teeth, short anterior nasal flaps that do not reach mouth, no nasoral grooves or barbels, a long, narrow, ribbonlike caudal fin with prominent dark banding, and brown coloration.

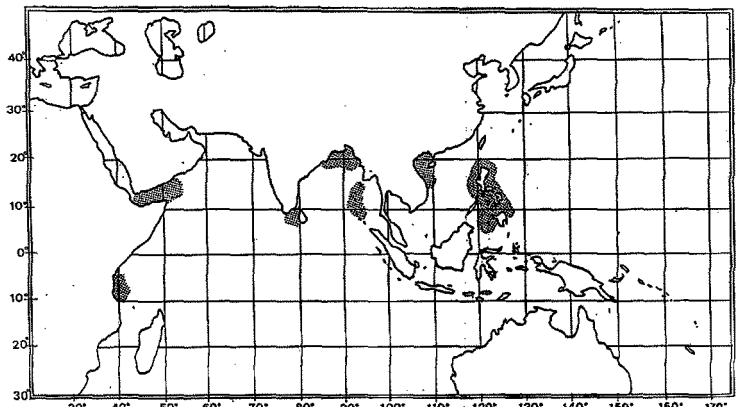


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Diagnostic Features : Preoral snout less than 1.5 times mouth length; labial furrows rudimentary or absent. Dorsal fins fairly large and high, with anterior margin of first dorsal at a low angle to body axis; anal fin height less than half dorsal heights; junction of preventral and postventral caudal margins broadly rounded. Lateral trunk denticles narrow-crowned and with long, narrow cusps. Colour brown, with prominent dark banding on tail and dark markings on dorsal fins.

Geographical Distribution : Wide-ranging in the Indo-West Pacific, but with spotty records from Tanzania, the Gulf of Aden, India (Gulf of Mannar, Bay of Bengal), the Andaman Islands, Viet Nam, and the Philippines. The immense range of this species is striking compared to the limited ranges of other members of the genus *Eridacnis*.

Habitat and Biology : A deepwater tropical benthic shark that often occurs on mud bottoms, on the upper continental and insular slopes and the outer shelves at depths



from 71 to 766 m. In some areas where it occurs (particularly southern India and the Philippines), the pygmy ribbontail shark is very common.

Ovoviviparous, number of young 1 or 2 in a litter. Fetuses resorb their yolk sacs and are ready for birth at about 10.1 to 10.7 cm length. This shark is extraordinary in the great size of full-term young compared to their mothers, and the small size of females at maturity. Examination of females in Indian waters show that these may become pregnant at 16.6 cm length or less (large eggs appear at about 15 cm). It is possible that females grow considerably while pregnant, as only the larger females above 18 cm have large, near or full-term young, while small females below 17 cm only have embryos in earlier stages.

Feeds primarily on small bony fishes and crustaceans, with squid a lesser component of its diet. In the stomachs of over 300 specimens from Indian waters bony fishes, particularly lanternfishes but also bristlemouths (Gonostomatidae), small eels and digested fish remains formed about 55% of this shark's diet by volume; crustaceans, primarily deepwater shrimp but also stomatopods and crab larvae occurred at 28% by volume; squid occurred at about 14% by volume, but few other items were recorded (bivalves in one stomach).

Size : Maximum 24 cm; males mature at 18 to 19 cm or less, and reach 23 cm; females mature at about 15 to 16 cm and reach 24 cm; size at birth about 11 cm. This is one of the two smallest living sharks known at present, and is only rivalled in size by the squaloid Squaliolus laticaudus.

Interest to Fisheries : Minimal, taken in commercial bottom trawls in the Philippines, but utilization there is not known.

Literature : Smith (1913); Norman (1939); Fowler (1941); Misra (1950); Bessednov (1969); Compagno (1970, 1979); Nair & Appukuttan (1973, 1974); Nair & Lal Mohan (1973); G. Bianchi (pers.comm.).

Remarks : The writer examined the holotype of Proscyllium alcocki Misra, 1947 (ZSI F 229/1, a 208 mm adult male) in the collections of the Zoological Survey of India, Calcutta, and was able to confirm the synonymy of Misra's species with Eridacnis radcliffei.

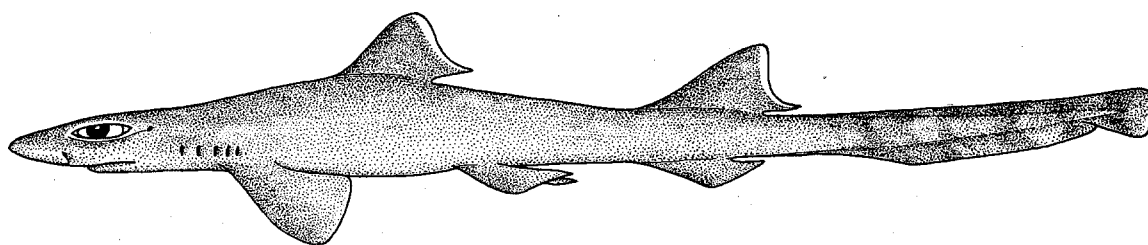
Eridacnis sinuans (Smith, 1957)

PROS Erid 3

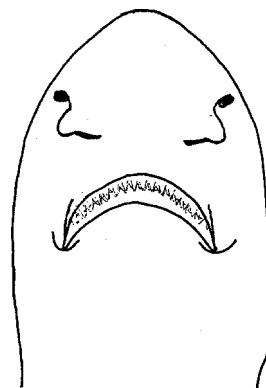
Neotriakis sinuans Smith, 1957, S.Afr.J.Sci., 53(10):262, fig. 2. Holotype: J.L.B. Smith Institute of Ichthyology, Grahamstown, South Africa, RUSI 31, 331 mm adult male. Type Locality: Off Durban, South Africa, at 329 m depth.

Synonymy : None.

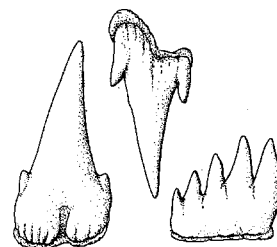
FAO Names : En - African ribbontail catshark; Fr - Requin chat à rubans; Sp - Tollo coludo africano.



Field Marks : A dwarf, slender sharklet with an anal fin and two equal-sized, spineless dorsal fins, first dorsal fin over abdomen slightly closer to pelvic fins than pectorals, preoral snout over two times mouth length, nictitating eyelids, a triangular mouth, very short labial furrows, comblike posterior teeth, short anterior nasal flaps that do not reach mouth, no nasoral grooves or barbels, a long, narrow, ribbonlike caudal fin with faint dark banding, and grey-brown coloration.



underside of head



teeth

Diagnostic Features : Preoral snout over two times mouth length; labial furrows very short. Dorsal fins moderately large and

high, with anterior margin of first dorsal at a high angle to body axis; anal fin height less than half dorsal heights; junction of preventral and postventral caudal margins broadly rounded. Lateral trunk denticles broad-crowned and with short, broad cusps. Colour brownish grey, with dark banding on caudal fin and light margins on dorsal fins.

Geographical Distribution : Confined to the southwestern Indian Ocean off South Africa, Mozambique and Tanzania.

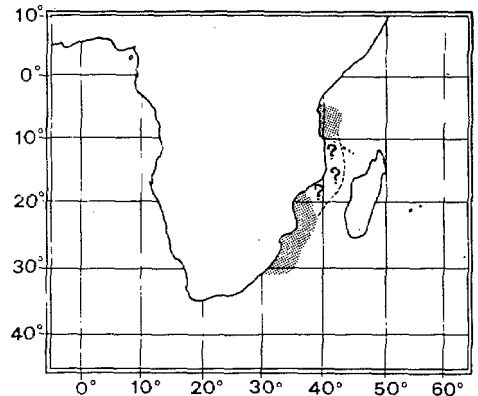
Habitat and Biology : A deepwater warm-temperate and tropical bottom-dwelling shark of the upper continental slope and outer shelf of east and southern Africa at depths of 180 to 480 m. Apparently geographic or bathymetric segregation of populations by sex occurs, as most specimens taken off Natal are male.

Oviparous, number of young in a litter two. A harmless small shark that feeds on small bony fishes, crustaceans, and cephalopods.

Size : Maximum 37 cm, males maturing at about 29 or 30 cm and reaching at least 30 cm, females mature at 37 cm; size at birth between 15 and 17 cm.

Interest to Fisheries : Minimal or nil.

Literature : Smith (1957); Bass, D'Aubrey & Kistnasamy (1975); G. Bianchi (pers.comm.).



Gollum Compagno, 1973

PROS Gol

Genus: Gollum Compagno, 1973, Proc.Calif.Acad.Sci., 39(14):264.

Type Species : Triakis attenuata Garrick, 1954, by original designation.

Synonymy : None.

Diagnostic Features : Body slender. Head and snout bell-shaped in dorsoventral view; preoral snout length about equal to mouth width; anterior nasal flaps small, ending well in front of mouth; internarial space 1.8 to 1.9 times the nostril width; inside of mouth and edges of gill bars without papillae. First dorsal origin slightly anterior to or over free rear tips of pectorals, base closer to pectoral bases than pelvic bases; anal origin posterior to second dorsal origin; caudal fin broad, not tapelike, and short, dorsal margin about 19 to 21% of total length. No colour pattern, brownish-grey above, light below.

Remarks : Treatment of this genus follows Compagno (1973, 1979).

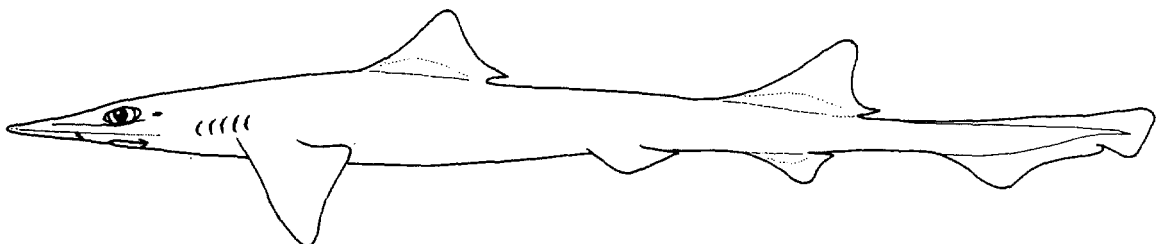
Gollum attenuatus (Garrick, 1954)

PROS Gol 1

Triakis attenuata Garrick, 1954, Trans.R.Soc.N.Z., 82(3):698, figs 1-2. Holotype: National Museum of New Zealand formerly Dominion Museum), DM or NMNZ 1509, 932 mm adult male. Type Locality: Cape Palliser, east coast of North Island, New Zealand, 220 m depth.

Synonymy : None.

FAO Names: En - Slender smooth-hound; Fr - Requin chat golloum; Sp - Tollo coludo elegante.



Field Marks: A moderately small shark with a very long and narrow snout, bell-shaped in dorsoventral view and laterally wedge-shaped, an anal fin and two equal-sized, spineless dorsal fins, the first over abdomen slightly closer to pectoral fins than to pelvics, nictitating eyelids, a large, triangular mouth with short labial furrows and small, numerous cuspidate teeth, the posteriors rather comblike, short anterior nasal flaps that do not reach mouth, a slender body and tail, and no colour pattern.

Diagnostic Features: See genus.

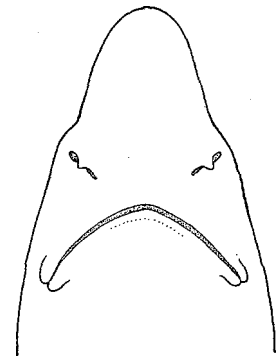
Geographical Distribution : Apparently confined to the western South Pacific, off New Zealand.

Habitat and Biology : A little-known, uncommon bottom-dwelling shark of the outermost continental shelf and upper slope of New Zealand temperate waters; found at depths of 200 to 439 m. Ovoviviparous, size of litters not recorded. Food habits not known, presumably eats small fishes and invertebrates.

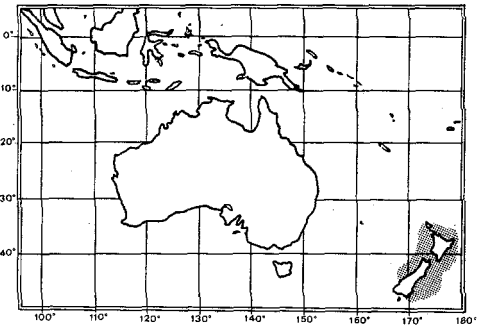
Size : Maximum size about 1 m; an adult female is 101 cm; mature males from 93 to 96 cm.

Interest to Fisheries : None at present as far as is known, although this shark is taken in small numbers by bottom trawlers fishing in deep water.

Literature : Garrick (1954); Springer (1968); Compagno (1973, 1979); Garrick & Paul (1975a); J.A.F. Garrick (pers.comm.).



underside of head



Proscyllium Hilgendorf, 1904

PROS Pros

Genus : Subgenus *Proscyllium* Hilgendorf, 1904 (Genus *Scyllium* Cuvier, 1817), Sonderaldr.Sitz.-Ber.Ges. Naturforsch.Freunde Jahrg., 1904(2):39.

Type Species: *Proscyllium habereri* Hilgendorf, 1904, by original designation under the usage formula "*Proscyllium habereri* nov. subgen., n.spec."

Synonymy : Genus *Calliscyllium* Tanaka, 1912.

Diagnostic Features: Body rather slender. Head and snout not bell-shaped in dorsoventral view; preoral snout length about 2/3 of mouth width; anterior nasal flaps large, with rear edges nearly reaching mouth; internarial space 0.4 to 0.6 times nostril width; inside of mouth and edges of gill bars with papillae. First dorsal origin well posterior to pectorals, its base closer to pelvic bases than pectoral bases; anal origin somewhat anterior to second dorsal origin; caudal fin broad, not tapelike, and short, dorsal margin about 17 to 21% of total length. A colour pattern of small to large dark brown spots and sometimes small white spots and indistinct dusky saddle blotches on body and fins.

Remarks: As noted in Compagno (1970, 1979), the taxonomic history of the genus *Proscyllium* and its synonym *Calliscyllium* has been extremely confused. *Proscyllium* was proposed by Hilgendorf (1904) as a subgenus for the new species *P. venustum* from Taiwan, while Tanaka (1912) described a congeneric and likely conspecific shark from Japan as *Calliscyllium venustum* without reference to Hilgendorf's earlier account. Various authors have recognized either or both of these genera or synonymized one or both of them with *Triakis*, and sometimes placed them in different families (*Calliscyllium* in the Triakidae and *Proscyllium* in the Scyliorhinidae), but Compagno (1970) synonymized these genera and recognized *Proscyllium* as a valid genus.

Proscyllium habereri Hilgendorf, 1904

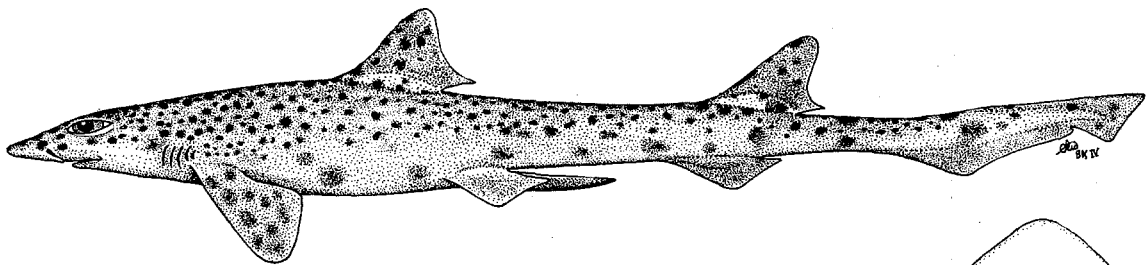
PROS Pros 1

Proscyllium habereri Hilgendorf, 1904, Sonderaldr.Sitz.-Ber.Ges.Naturforsch.Freunde Jahrg., 1904(2):39. Holotype: Zoologisches Museum für Naturkunde der Humboldt Universität, Berlin, ZMB 16201, 513 mm adult male. Type Locality: Takao, Formosa.

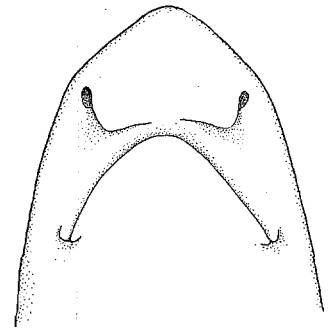
Synonymy : Calliscyllium venustum Tanaka, 1913.

Other Scientific Names Recently in Use : Triakis venusta (Tanaka, 1913).

FAO Names : En - Graceful catshark; Fr - Requin chat gracieux; Sp - Tollo coludo grácil.



Field Marks: A small shark with a spotted colour pattern, an anal fin and two equal-sized, spineless dorsal fins, the first over abdomen slightly closer to pelvic fins than pectorals, large eyes with nictitating eyelids, a triangular mouth that reaches past eyes, very short labial furrows, very small cuspidate teeth including comblike posteriors, large anterior nasal flaps that nearly reach mouth, no barbels or nasoral grooves, and a slender body and rather long tail.



underside of head

Diagnostic Features: See genus.

Geographical Distribution: Western Pacific: Northwestern Java, Viet Nam, China (including Taiwan Island), Korea, Riu-Kiu Islands, southeastern Japan.

Habitat and Biology : A little-known, uncommon bottom-dwelling shark of tropical and warm-temperate continental and insular waters, found on the shelves at depths from 50 to 100 m. Oviparous, probably depositing an egg per uterus. Food habits little-known; 6 specimens from the Taiwan Straits examined by the writer had digested remains of bony fishes, a crab, and an unidentified cephalopod (possibly an octopus) in their stomachs.

Size : Maximum 65 cm; adult males from 42 to 57 cm, adult females from 51 to 65 cm.

Interest to Fisheries : Probably small, taken by bottom trawlers in the Taiwan Straits and elsewhere in its range, utilization unknown.

Literature : Tanaka (1912, 1915); Schmidt (1928, 1930); White (1936, 1937); Fowler (1941); Bigelow & Schroeder (1948); Compagno (1970, 1979); Nakaya (1983).

Remarks: Calliscyllium venustum Tanaka, 1915, is tentatively included in synonymy of Proscyllium habereri, though there apparently were slight differences in coloration between the holotypes of the two species. Unfortunately the holotype of C. venustum is apparently lost (Nakaya, 1983), so direct comparison of these specimens is no longer possible. However, examination of a number of Proscyllium specimens from Okinawa, Taiwan Island, the South China Sea, and Java showed that these vary considerably in coloration, suggesting that one variable species may be involved (Compagno, 1979). Nakaya (1983) has given a detailed redescription of the holotype of Proscyllium habereri.

