

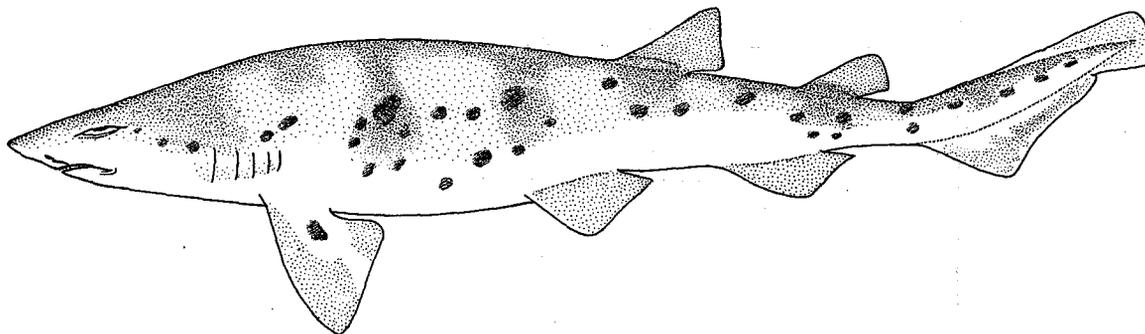
Scylliorhinus cervigoni Maurin & Bonnet, 1970

SCYL Scyl 6

Scylliorhinus cervigoni Maurin & Bonnet, 1970, Rev.Trav.ISTPM, Nantes, 34(2):5, fig. 3. Holotype: 380 mm female. Type Locality: Senegal, eastern North Atlantic.

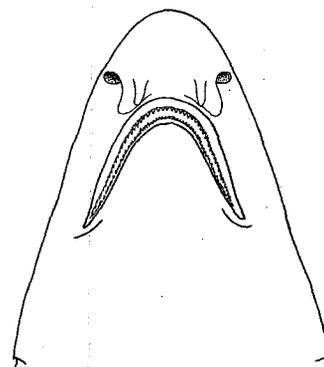
Synonymy : None.

FAO Names : En - West African catshark; Fr - Roussette thalassa; Sp - Alitán africano.



Field Marks: A fairly large, very stout catshark with relatively large, few, and scattered dark spots, dark saddles centred on dark spots on the midline of the back, and no white spots, small anterior nasal flaps that barely reach mouth, no nasoral grooves, labial furrows on lower jaw only, interdorsal space slightly less than anal base, second dorsal fin much smaller than first.

Diagnostic Features : Body. very stout, head broad and fairly flat, greatest width of head at least 2/3 of head length; no nasoral grooves; anterior nasal flaps not expanded and just reaching mouth. First dorsal origin slightly behind pelvic insertions; second dorsal origin over last third of pelvic bases; interdorsal space somewhat less than anal base. Denticles fairly large and erect, skin relatively rough. Colour pattern of scattered large and some small dark spots along body, 8 or 9 dusky saddle marks centred on dark spots on midback; no light spots. Size large, probably over 80 cm.



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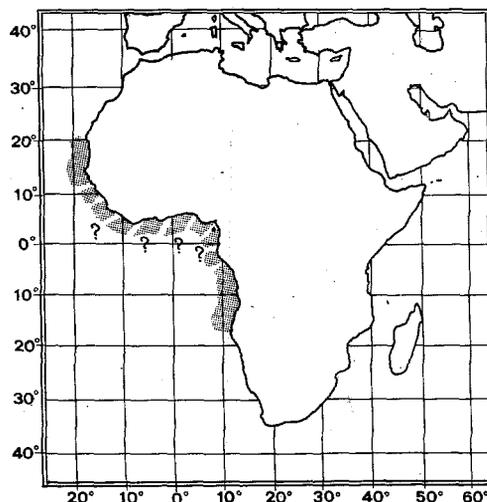
Geographical Distribution : Eastern Atlantic: Probably wide-ranging off tropical West Africa, from Mauritania to Angola; records include Mauritania, Senegal, possibly Gambia to Guinea, possibly Liberia, possibly Gabon to Zaire, and Angola.

Habitat and Biology : A little-known tropical bottom-dwelling catshark of the continental shelf and upper slope, at depths of 45 to 500 m, on rocky and mud bottom; observed temperatures where caught, 11 to 16°C; salinity, 36‰; oxygen, 1.0 to 1.6 ml/l. Probably oviparous, egg-cases thought to be from this species were about 7 to 8 cm long by about 3 cm wide. Eats bony fish. May replace *S. stellaris* off tropical West Africa.

Size : Maximum about 76 cm; adolescent male 64 cm, adult male 67 cm; females to at least 76 cm.

Interest to Fisheries : Uncertain, probably taken by off-shore trawling fleets off West Africa, but because this species has been confused with *S. stellaris* in the past fisheries data for it has probably been reported under *stellaris*.

Literature : Poll (1951); Maurin & Bonnet (1970); Springer (1979).



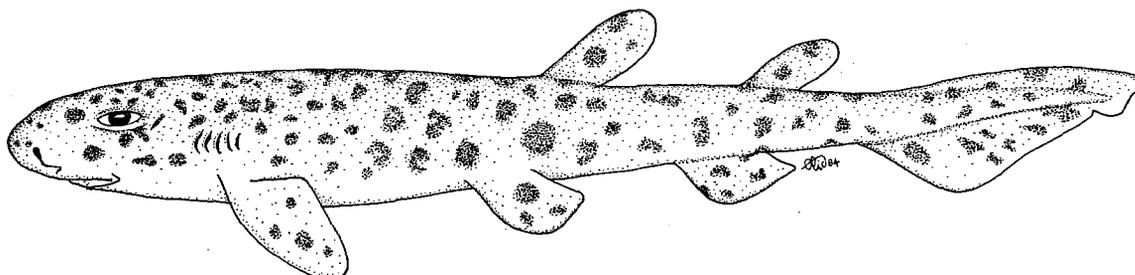
Scyliorhinus garmani (Fowler, 1934)

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Halaelurus garmani Fowler, 1934, Proc.Acad.Nat.Sci.Philad., 85:235, fig. 1. Holotype: U.S. National Museum USNM 43749, 240 mm female. Type Locality: "East Indies".

Synonymy : None.

FAO Names : En - Brownspotted catshark; Fr - Roussette à taches brunes; Sp - Alitán manchado.



Field Marks : A stocky catshark with large round brown spots scattered on body, indistinct saddle markings, no white spots, anterior nasal flaps not reaching mouth, no nasoral grooves, labial furrows on lower jaw only, second dorsal fin much smaller than first.

Diagnostic Features: Body relatively stout but head deep and narrow. Greatest width of head less than 2/3 of head length; no nasoral grooves; anterior nasal flaps moderately expanded medially and posteriorly, well separated medially but extending to the mouth. First dorsal origin about opposite pelvic insertions; second dorsal origin over last third of pelvic bases; interdorsal space somewhat greater than anal base. Denticles rather large and erect crowned, skin fairly rough. Colour pattern of large scattered brown spots as large or larger than eye pupil; 7 dusky saddle marks obscure or obsolete; no white spots. Adult size unknown, maximum size over 24 to 36 cm.

Geographical Distribution : Indo-West Pacific: "East Indies" (Fowler, 1934), possibly the Philippines (Herre, 1953).

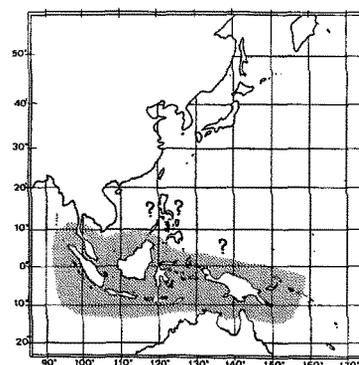
Habitat and Biology : Unknown.

Size: Maximum 24 or 36+ cm; adult size unknown.

Interest to Fisheries: None.

Literature: Fowler (1934, 1941); Herre (1953); Talwar (1974); Springer (1979).

Remarks: Fowler (1934, 1941) placed this species in Halaelurus, but reexamination of its holotype by Springer (1979) indicated that it belongs in the genus Scyliorhinus (confirmed by the writer, who also examined the holotype).



Scyliorhinus haeckeli (Ribeiro, 1907)

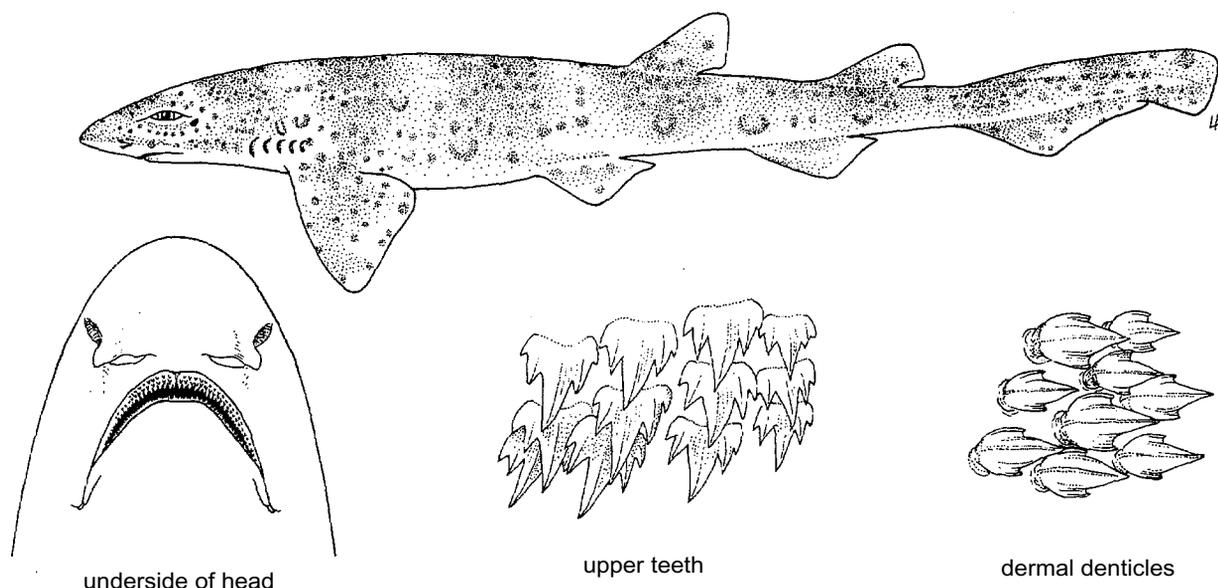
SCYL Scyl 8

Catulus haeckelii Ribeiro, 1907, Arch.Mus.Nac.Rio de Janeiro, 14:163, pl. 8. Holotype: Museo Nacional, Rio de Janeiro, Brazil, MNB 494, 316 mm immature male. Type Locality: Western South Atlantic, off Ilha Rasa, near Rio de Janeiro, Brazil, 80 m depth.

Synonymy : Scyliorhinus fernandezi Weibezahn, 1953.

Other Scientific Names Recently in Use : Scyliorhinus retifer haeckelii (Ribeiro, 1907) (see Springer & Sadowsky, 1970).

FAO Names : En - Freckled catshark; Fr - Roussette taches de son; Sp - Alitán pecoso.



Field Marks : A small, slender, dark-saddled catshark with very small black spots outlining saddles and generally covering dorsal surface, small anterior nasal flaps that do not reach mouth, no nasoral grooves, labial furrows on lower jaw only, second dorsal fin much smaller than first.

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 somewhat behind pelvic insertions; second dorsal origin somewhat anterior to anal insertion; interdorsal space slightly greater than anal base. Denticles small and flat, surface of skin relatively smooth. Colour pattern of 7 or 8 dusky and sometimes obscure saddles, outlined by very small black spots which are also generally scattered over the dorsal surface; no light spots. Size small, adults below 40 cm.

Geographical Distribution : Western Atlantic: Western Venezuela, Surinam, Brazil, Uruguay.

Habitat and Biology : A little-known tropical Atlantic South American catshark of the continental shelf and upper slope, on or near bottom, at depths of 37 to 402 m. Oviparous, deposits eggs in cases 6 to 7 cm long and 2 to 3 cm wide, which have been trawled on coral and sea-fan covered bottom.

Size : To at least 35 cm (adult male); hatchling young 10 to 13 cm long

Interest to Fisheries : None at present.

Literature : Bigelow & Schroeder (1948); Springer & Sadowsky (1970); Springer (1979).

Remarks : This catshark was synonymized with *S. boa* by Bigelow & Schroeder (1948), considered a subspecies of *S. retifer* by Springer & Sadowsky (1970), but later resurrected as a full species by Springer (1979).



Scyliorhinus hesperius Springer, 1966

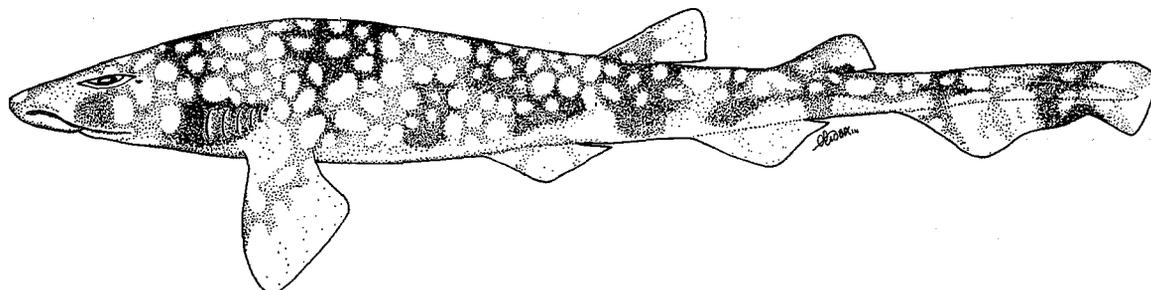
SCYL Scyl 9

Scyliorhinus hesperius Springer, 1966, *Fish.Bull.U.S.Fish Wildl.Serv.*, 65(3):603, figs 7D, 9A, 15A, 27D. Holotype: U.S. National Museum, USNM 187732, 415 mm immature female. Type Locality: Western North Atlantic, Caribbean coast of Panama, 09°03'N, 81°22'W, from 360 to 400 m depth.

Synonymy : None.

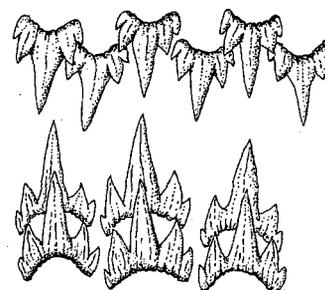
Other Scientific Names Recently in Use : *Scyliorhinus retifer boa* Goode & Bean, 1896 (see Springer & Sadowsky, 1970).

FAO Names : En - Whitesaddled catshark; Fr - Roussette selle blanche; Sp - Alitán ensillado.



Field Marks: A fairly small, slender, dark-saddled catshark with large, white spots covering saddles but usually with light spaces between saddles, no black spots, small anterior nasal flaps that end in front of mouth, no nasoral grooves, labial furrows on lower jaw only, second dorsal fin much smaller than first.

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 somewhat behind pelvic insertion; second dorsal origin somewhat anterior to anal insertion; interdorsal space slightly greater or slightly less than anal base. Denticles small and flat, surface of skin relatively smooth. Colour pattern of 7 or 8 dusky saddles densely covered with large light spots at least as large as eye pupil, these sometimes extending to spaces between saddles; no black spots. Size moderate, adults below 50 cm.



upper and lower teeth

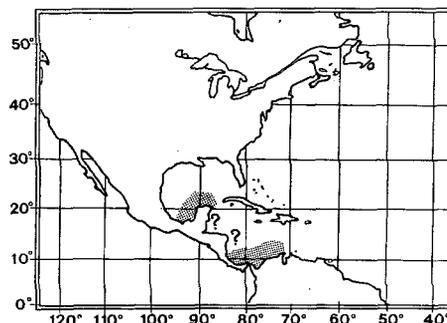
Geographical Distribution : Western North, Atlantic: Honduras, ?Panama, Colombia.

Habitat and Biology : An uncommon deepwater tropical catshark of the upper continental slope of Atlantic Central America, on or near bottom, at depths of 274 to 457 m.

Size : Maximum at least 47 cm (adult female).

Interest to Fisheries : None at present.

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



Remarks : This species was synonymized with S. retifer by Springer & Sadowsky (1970), and included under S. retifer boa, but was resurrected as a full species by Springer (1979).

Scyliorhinus meadi Springer, 1966

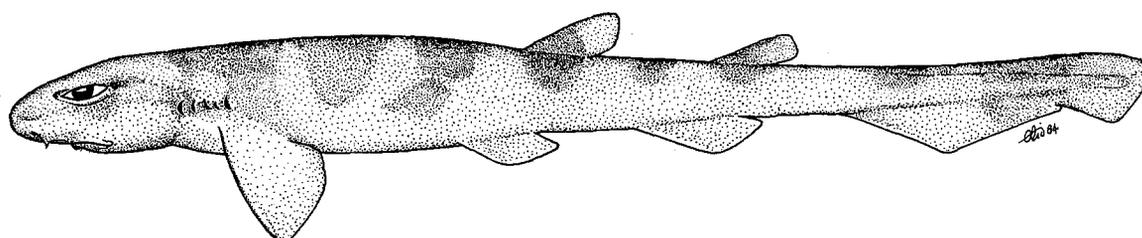
SCYL Scyl 10

Scyliorhinus meadi Springer, 1966, Fish. Bull.U.S.Fish Wildl.Serv., 65(3):600, figs 3, 7A, 14B, 27C. Holotype: U.S. National Museum, USNM 188049 247 mm immature male. Type Locality: Western North Atlantic, off Cape Canaveral, Florida, USA, 28°21'N, 78°51'W, 329 m depth.

Synonymy : None.

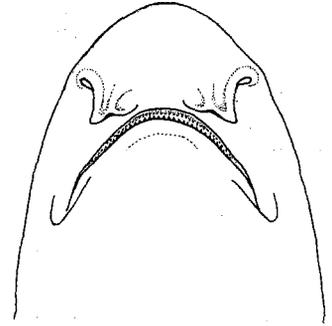
Other Scientific Names Recently in Use: Scyliorhinus retifer meadi Springer, 1966 (see Springer & Sadowsky, 1970).

FAO Names : En - Blotched catshark; Fr - Roussette cloquée; Sp - Alitán pintarrajo.



Field Marks: A fairly large, stocky dark-saddled catshark without spots, small anterior nasal flaps that end just in front of mouth, no nasoral grooves, labial furrows on lower jaw only, second dorsal fin much smaller than first.

Diagnostic Features: Head and body relatively broad and wide, greatest width of head about equal to head length; no nasoral grooves; anterior nasal flaps not expanded and falling just short of mouth. First dorsal origin opposite or somewhat anterior to pelvic insertions; second dorsal origin somewhat anterior to anal insertion; interdorsal space slightly greater than anal base. Denticles moderate-sized and flat, skin surface relatively smooth. Colour pattern of 7 or 8 dusky and- sometimes obscure saddles, without black or light spots. Size probably large, immature male 49 cm.



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Geographical Distribution : Western North Atlantic: North Carolina south to Florida, USA, and Santaren Channel between Cuba and Bahamas Bank.

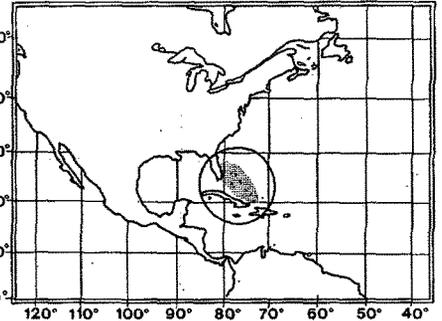
Habitat and Biology : A rare, heavy-bodied deepwater tropical-subtropical catshark of the continental slope, on or near the bottom at 329 to 548 m depth. Its biology is almost totally unknown.

Size : Maximum at least 49 cm (immature specimen).

Interest to Fisheries : None at present.

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

Remarks : This species was reduced to a subspecies of S. retifer by Springer & Sadowsky (1970), but later resurrected by Springer (1979) after new material suggested that his earlier action of considering it a full species (Springer, 1966) was correct.



Scyliorhinus retifer (Garman, 1881)

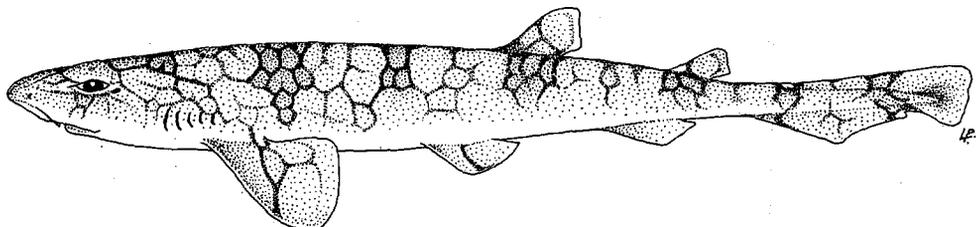
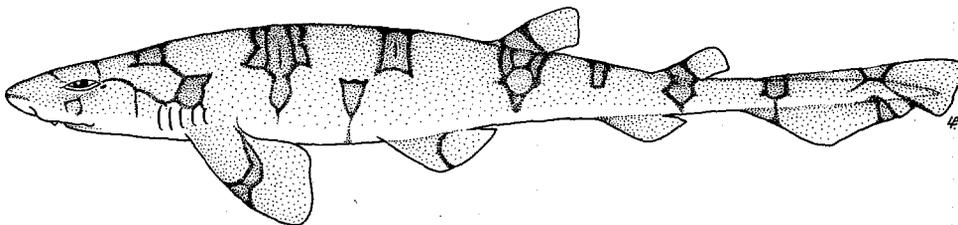
SCYL Scyl11

Scyllium retiferum Garman, 1881, Bull.Mus.Comp.Zool.Harv.Coll., 8(11):233. Holotype: Museum of Comparative Zoology, Harvard, MCZ-825, 307 mm immature male. Type Locality: Off Virginia, USA, 38°22.6'N, 73°33.7'W, 163 m depth.

Synonymy : None.

Other Scientific Names Recently in Use: Scyliorhinus retifer retifer (Garman, 1881) (see Springer & Sadowsky, 1970).

FAO Names: En - Chain catshark; Fr - Roussette maille; Sp - Alitán mallero.

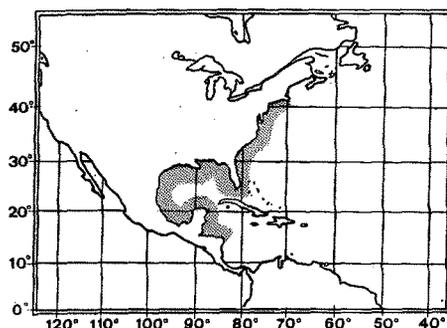


Field Marks: The bold chain colour pattern of black lines is unique to this shark and Cephaloscyllium fasciatum; but the latter species has no labial furrows and more anteriorly situated dorsal fins.

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 somewhat anterior to mouth. First dorsal origin somewhat behind pelvic insertions; second dorsal origin somewhat anterior to anal insertion; interdorsal space considerably greater than anal base. Denticles small and flat, surface of skin relatively smooth. Colour pattern of bold black lines, outlining obscure dusky saddles and sometimes extending over lateral surfaces and back as a reticular network; no light or dark spots. Size moderate, adults below 50 cm.

Geographical Distribution : Western North Atlantic: Southern New England to Florida, northern Gulf of Mexico to Nicaragua.

Habitat and Biology : A common deepwater catshark of the outer continental shelf and upper slope, found on or near the bottom, at depths of 73 to 550 m. At the northern end of its range it occurs on the outer continental shelf but southward it is a slope species generally found below 450 m. Its distribution is irregular, with areas where it is common being interspersed with those where it is rare or absent. There is some evidence that it is commonest on extremely rough, rocky bottom where trawl hauls are difficult or impossible to make. Water temperatures where it occurs range from 8.5 to 11.3^o C.



Oviparous. A trawl haul of numerous hatchlings off Cape Hatteras, North Carolina, USA, suggests that there is a limited 'nesting' and nursery area there.

Food habits are unknown. All of 38 adults and young examined by Springer (1979) were empty of food, but half of these had small pebbles in their stomachs; Springer hypothesized that these might be useful as ballast.

Size : Maximum 47 cm, adult males 37 to 41 cm, adult females 35 to 47 cm; size of hatchlings about 10 cm.

Interest to Fisheries: None at present.

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

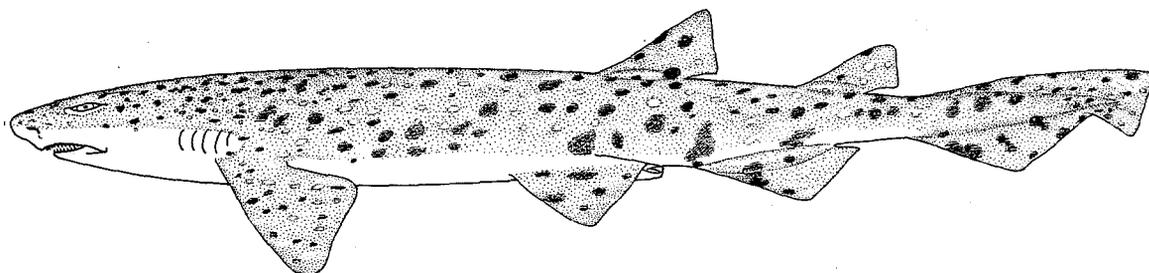
Scyliorhinus stellaris (Linnaeus, 1758)

SCYL Scyl 2

Squalus stellaris Linnaeus, 1758, Syst.Nat., ed. 10, 1:235. Holotype: None. Type Locality: European seas.

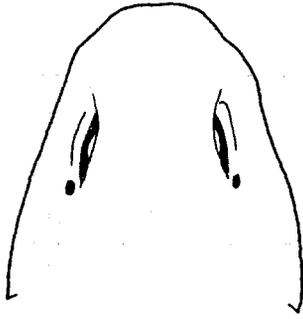
Synonymy : ? Scyllium acanthotum Filippi & Verany, 1853

FAO Names : En - Nursehound; Fr - Grande roussette; Sp - Alitán.

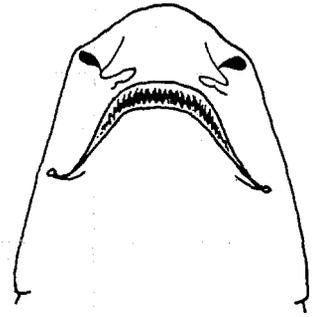


Field Marks : A large, fairly stocky, catshark with large and small black spots and sometimes white spots covering dorsal surface, saddle markings obsolete, small anterior nasal flaps that do not reach mouth, no nasoral grooves, labial furrows on lower jaw only, second dorsal fin much smaller than first.

Diagnostic Features : Head and body moderately broad. 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 pelvic insertions; second dorsal origin well anterior to anal insertion; interdorsal space subequal or less than anal base. Denticles fairly large and semierect, surface of skin relatively rough. Colour pattern of numerous small and large black spots sometimes interspersed with white spots, the large spots often irregular, subangular, and sometimes expanded into large blotches that may totally cover the body in some individuals; saddle markings indistinct or absent. Size large, adults to 1.6 m.



dorsal view of head

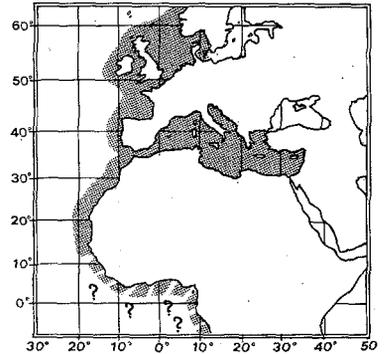


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Geographical Distribution: Eastern North Atlantic: Southern Scandinavia and British Isles to Mediterranean, Morocco, Senegal, ? Gambia to Guinea, ? Liberia, ? Gabon to Zaire (tropical West African records = S. cervigoni ?).

Habitat and Biology : A common inshore and offshore shark of the eastern Atlantic continental shelf, but less abundant than S. canicula; found at depths of 1 or 2 m to at least 125 m, but commonest in depths of 20 to 63 m. It often occurs on rough or even rocky bottom or that with algal cover. In the Mediterranean, it is apparently fond of coralline algal bottom.

Oviparous, with a single egg laid at a time per oviduct. The large thick-walled egg-cases, 10 to 13 cm long and with strong tendrils at each corner, are deposited on algae in the subtidal or extreme lower intertidal in spring and summer and may take 9 months to hatch.



Eats mostly crustaceans, including hermit crabs, swimming crabs, cancid crabs, and large shrimp, squid, octopi and other molluscs, a variety of bony fish including mackerel, epigonids, dragonets, gurnards, flatfish, herring, and small codfish and other bottom fishes, and other sharks (Scylliorhinus canicula).

Size : Maximum to 162 cm; adults common to 125 cm, size at hatching about 16 cm.

Interest to Fisheries: In European waters less important as a fisheries species than S. canicula, but regularly taken in bottom trawls and fixed bottom nets, and occasionally pelagic trawls. It is utilized fresh and dried salted for human consumption, and made into fishmeal.

Literature : Cadenat (1957); Tortonese (1963); Wheeler (1969, 1978); Springer (1979).

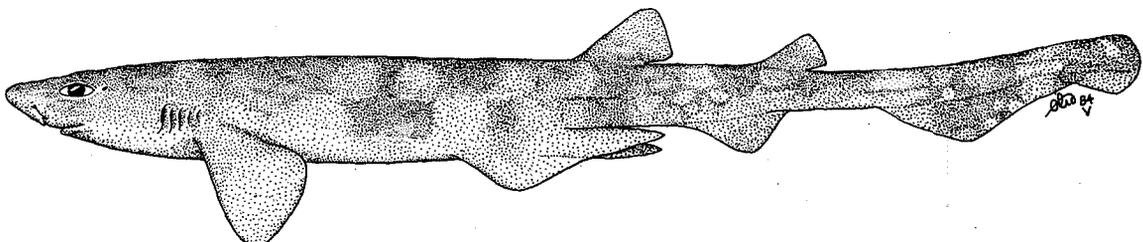
Scylliorhinus torazame (Tanaka, -1908)

SCYL Scyl 12

Catulus torazame Tanaka, 1908, J.Coll.Sci.Imp.Univ.Tokyo, 23(7):6, pl. 2, fig. 2. Holotype: Zoological Institute, Science College, Imperial University of Tokyo, no. 953, ca. 449 mm adult male. Type Locality: Misaki, Sagami Province, Japan.

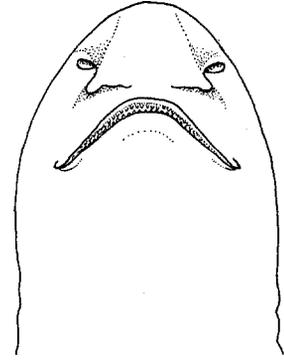
Synonymy : Scylliorhinus rudis Pietschmann, 1908.

FAO Names : En - Cloudy catshark; Fr - Roussette nuageuse; Sp - Alitán nubarrado.



Field Marks: A fairly small, slender, dark-saddled catshark with or without scattered large irregular dark and light spots, very rough skin, small anterior nasal flaps that do not reach mouth, no nasoral grooves, labial furrows on lower jaw only, second dorsal fin much smaller than first.

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 in front of mouth. First dorsal origin about opposite pelvic insertions; second dorsal origin well anterior to anal insertion; interdorsal space considerably greater than anal base; claspers with a row of strongly differentiated hooks on exorhipidion. Denticles large and erect, surface of skin very rough. Colour pattern of 6 to 9 obscure dusky saddles, interspersed in larger specimens by many irregular large dark and light spots. Monospondylous precaudal centra 33 to 38. Size moderate, adults below 50 cm.

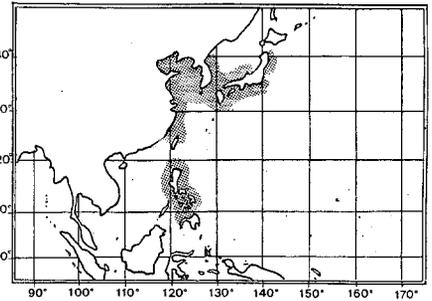


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Geographical Distribution : Western North Pacific: Japan, Korea, China, and the Philippines.

Habitat and Biology : A common catshark of the western Pacific continental shelf, from close inshore down to at least 100 m depth. In Japanese waters the species seems to be a year-round resident, with little seasonal migration.

Oviparous, with only one egg laid per oviduct at a time, and with most of the embryonic development occurring after the egg is laid. Egg-cases about 2 by 6 cm long, deposited in a definite nursery or hatching ground.



Size : Maximum about 48 cm, adult males 41 to 48 cm, adult females 39+ cm, size at hatching 8+ cm.

Interest to Fisheries : Unknown.

Literature : Fowler (1941); Nakaya (1975); Springer (1979).

Remarks: Springer (1979) questioned the validity of Nakaya's (1975) listing of this shark from the Philippines.

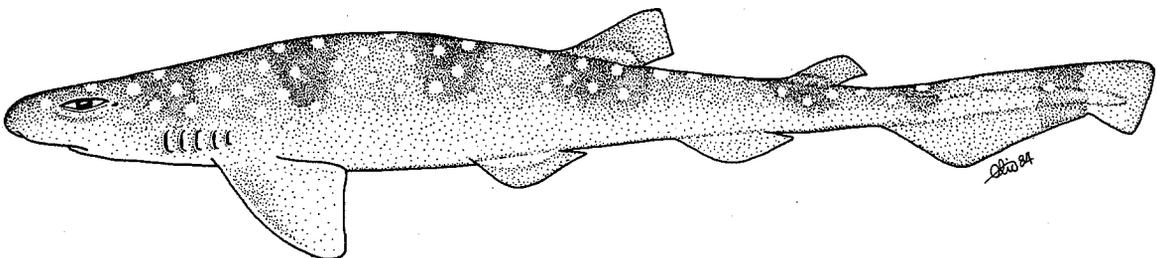
Scylliorhinus torrei Howell-Rivero, 1936

SCYL Scyl 13

Scylliorhinus torrei Howell-Rivero, 1936, Proc. Boston Soc. Nat. Hist., 41:43, pl 9. Holotype: Museum of Comparative Zoology, Harvard, MCZ 1457, 250 mm female. Type Locality: Off Havana, Cuba.

Synonymy : Catulus boae Sanchez-Roig, 1931 (not Scylliorhinus boae).

FAO Names : En - Dwarf catshark; Fr - Roussette naine; Sp - Alitán enano.



Field Marks : A dwarf, slender, brown and obscurely-saddled catshark with large white spots uniformly covering dorsal surface, small anterior nasal flaps that do not reach mouth, no nasoral grooves, labial furrows on lower jaw only, second dorsal fin much smaller than first.