

Order HEXANCHIFORMES

CHLAMYDOSELACHIDAE

Frimled sharks

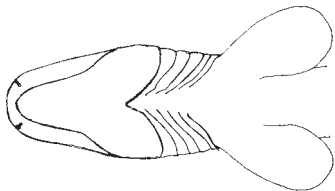
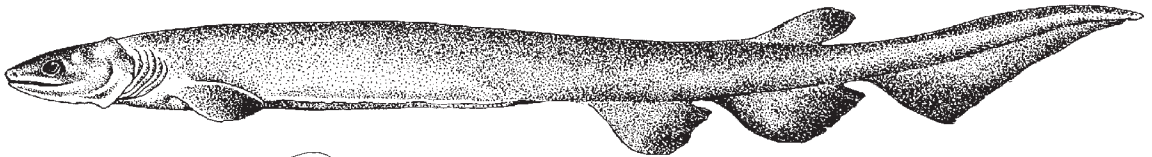
A single species in this family.

Chlamydoselachus anguineus Garman, 1884

HXC

Frequent synonyms / misidentifications: None / None.

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



ventral view of head



upper and lower teeth

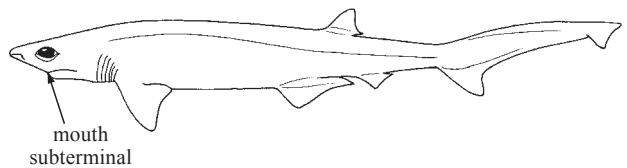
Diagnostic characters: A medium-sized shark with a long, eel-like body. Nostrils without barbels or nasoral grooves; no nictitating lower eyelids; snout very short, bluntly rounded; **mouth extremely long, extending far behind the eyes, and nearly terminal; teeth of upper and lower jaws alike, with 3 strong cusps and a pair of minute cusplets between them, not compressed or blade-like.** Head with 6 pairs of long and frilly gill slits, the last in front of pectoral-fin origins, **the first connected to each other across the throat by a flap of skin;** no gill rakers on inner gill slits. **A single low dorsal fin, posterior to pelvic fins;** anal fin present; caudal fin strongly asymmetrical, with subterminal notch vestigial or absent and without a ventral caudal lobe. Caudal peduncle compressed, without keels or precaudal pits. Intestinal valve of spiral type. **Colour:** grey-brown above, sometimes lighter below, fins dusky.

Similar families occurring in the area

Hexanchidae: Snout longer, mouth subterminal, body more stocky and cylindrical, comb-like cutting teeth in the lower jaw, first gill slits not connected across the throat, higher, more anterior dorsal fin, and strong subterminal notch on the caudal fin.

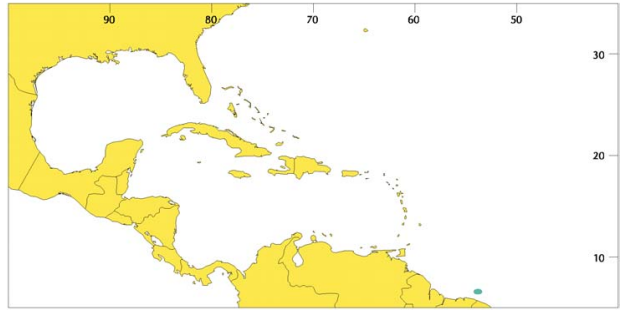
Size: Maximum about 196 cm; size at birth about 39 cm; adults common to 150 cm.

Habitat, biology, and fisheries: A relatively rare deep water, bottom-dwelling, and pelagic shark, with a depth range between 120 and 1 280 m on the continental slopes and well above them, but sometimes found at the surface and in shallow inshore waters. Ovoviviparous, number of young 8 to 12. Feeds on cephalopods, other sharks, and bony fishes. Incidentally caught offshore in deep water. Separate statistics are not reported for this species. Rarely taken in bottom trawls and other gear, not utilized in the area but used for fish meal elsewhere.



Hexanchidae

Distribution: A wide-ranging but sporadically distributed shark that occurs off Suriname, Guayana, and French Guiana in the area, but also the eastern North Atlantic and western and eastern Pacific. The southern African representative may be a distinct species.



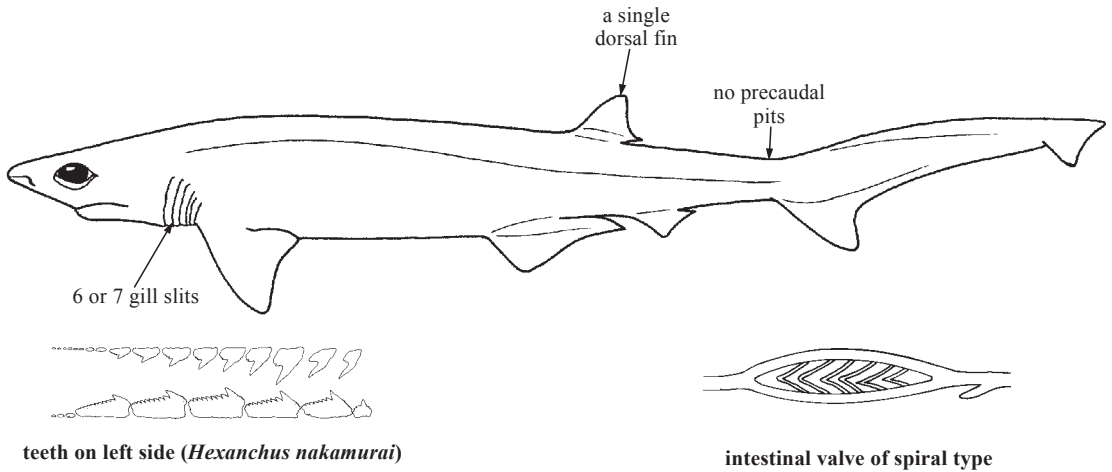
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- Gudger, E. W. and B. G. Smith. 1933. The natural history of the frilled shark, *Chlamydoselachus anguineus*. *Bashford Dean Memorial Volume: Archaic Fishes*, 6:245-319.

HEXANCHIDAE

Cowsharks, sixgill, and sevengill sharks

Diagnostic characters: Small to large sharks with slender to stout bodies, not eel-shaped. Head with **6 or 7 pairs of long gill slits**, the last in front of pectoral-fin origins, **the first pair not connected across throat**; no nictitating lower eyelids; snout short, acutely to bluntly pointed; nostrils without barbels or nasal grooves; mouth very long and extending far behind the eyes; **teeth of upper and lower jaws unlike at sides of mouth**, uppers small, narrow, with a main cusp and often smaller cusplets, **lowers very large, broad, compressed, and saw-like**, with a series of cusps or large cusplets; short dermal gill rakers present on inner gill slits; spiracles present, small. **A single dorsal fin, posterior to pelvic fins**; anal fin present; caudal fin much less than half the total length, strongly asymmetrical, with a pronounced subterminal notch but the lower lobe very short. Caudal peduncle not depressed, without keels; no precaudal pits. Intestinal valve of spiral type. **Colour:** grey, blackish, or brown above, lighter below.

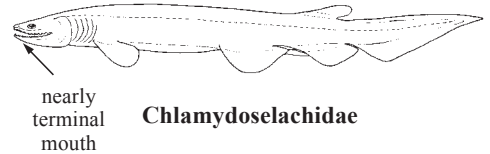


Habitat, biology, and fisheries: These are moderately abundant, inshore to deep-water sharks, found in shallow bays down to the continental slopes and submarine canyons, near the bottom or well above it. They eat a wide variety of bony fishes, other sharks, batoid fishes, marine mammals, cephalopods, and crustaceans. They are taken in deep-water line fisheries for sharks off Cuba in the area and elsewhere, and are incidentally caught in trawls. Cow sharks are relatively unimportant but regular components of targeted shark fisheries and bycatches of other fisheries. They may snap during capture or when provoked. Divers encountering the larger species underwater have found them to be docile, and at least one species is the subject of ecotouristic dive trips.

Similar families occurring in the area

Chlamydoselachidae: the wide-ranging, deep-water frill shark (*Chlamydoselachus anguineus*) has a single dorsal fin and 6 gill slits, but is distinguished by a nearly terminal mouth, first pair of gill slits connected across the throat, small, 3-cusped teeth in both jaws, and a long, almost eel-like body.

No other sharks in the area have a single dorsal fin and 6 or 7 gill slits.



Chlamydoselachidae

Key to the species of Hexanchidae occurring in the area

- 1a. Seven gill slits (Fig. 1) . . . *Hepranchias perlo*
 1b. Six gill slits (*Hexanchus*) → 2



Fig. 1 *Hepranchias perlo*

- 2a. Lower jaw with 6 rows of large comb-like teeth on each side; dorsal-fin base separated from upper caudal-fin origin by a distance about equal to or slightly greater than its length; size very large, up to 4.8 m (Fig. 2) *Hexanchus griseus*
 2b. Lower jaw with 5 rows of large comb-like teeth on each side; dorsal-fin base separated from upper caudal-fin origin by a distance much greater than its length; size smaller, up to 1.8 m (Fig. 3) *Hexanchus nakamurai*

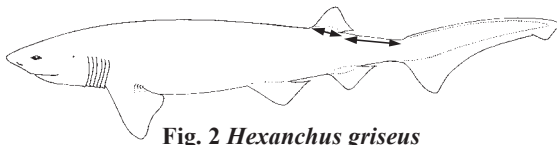


Fig. 2 *Hexanchus griseus*

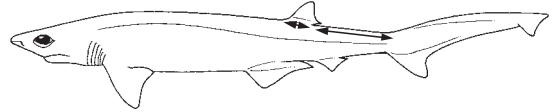



Fig. 3 *Hexanchus nakamurai*

List of species occurring in the area

The symbol  is given when species accounts are included.

 *Hepranchias perlo* (Bonnaterre, 1788).

 *Hexanchus griseus* (Bonnaterre, 1788).

 *Hexanchus nakamurai* Teng, 1962.

References

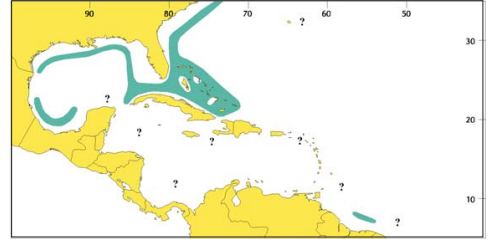
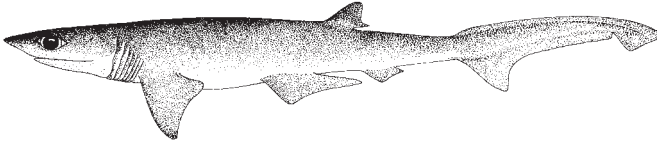
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- Ebert, D.A. 1990. *The taxonomy, biogeography and biology of cow and frilled sharks (Chondrichthyes: Hexanchiformes)*. Unpub. Ph.D. thesis, Grahamstown, Rhodes University, 308 p.
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Hepranchias perlo (Bonnaterre, 1788)

HXT

En - Sharpnose sevengill shark; **Fr** - Requin perlon; **Sp** - Cañabota bocadulce.

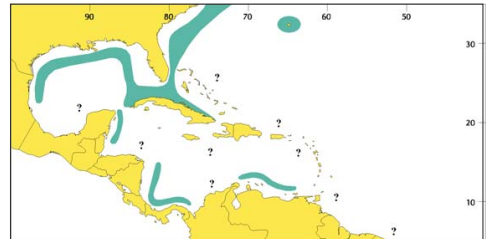
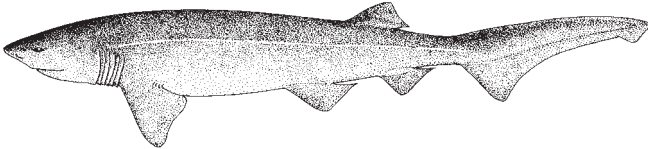
Maximum total length to about 137 cm. On bottom of outer continental and insular shelves and upper slopes in depths of 100 to 400 m, also inshore and down to 1 000 m. Feeds on wide variety of bony fishes, small elasmobranchs, crustaceans, and cephalopods. Caught as bycatch in bottom trawls, and of minor importance to fisheries. Almost circumglobal in tropical and temperate seas, except for the eastern North Pacific, with a primarily continental distribution. Sometimes placed in its own family, Hepranchidae.

***Hexanchus griseus*** (Bonnaterre, 1788)

SBL

En - Bluntnose sixgill shark; **Fr** - Requin grise; **Sp** - Cañabota gris (Cañabota).

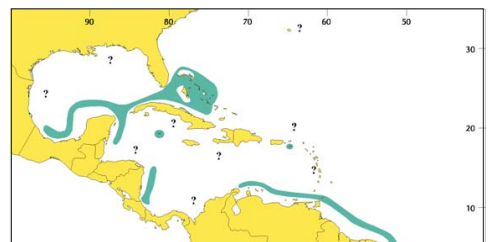
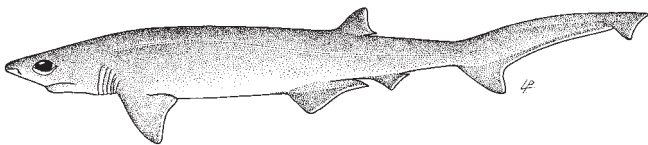
Maximum total length to about 480 cm. On outer continental and insular shelves and upper slopes down to at least 1 875 m, most common between 500 and 1 100 m, occasionally at surface and close inshore. Benthic or pelagic, sluggish, bottom-dwelling; feeds on a wide range of marine organisms. Caught in bottom trawls and hook-and-line; utilized fresh, frozen, and dried salted, also for fish meal and oil. In tropical and temperate areas of western Atlantic, eastern Atlantic, Mediterranean, southern Africa, western Pacific, including Hawaii, and eastern Pacific. Almost circumglobal in tropical and temperate seas, found off continents, oceanic islands, and on seamounts.

***Hexanchus nakamurai*** Teng, 1962

HXN

En - Bigeye sixgill shark; **Fr** - Requin vache; **Sp** - Cañabota ojigrande.

Maximum total length to about 180 cm. On continental and insular shelves and upper slopes, usually near the bottom at depths from 90 to 600 m. Feeds on bony fishes and crustaceans. Western North Atlantic: Off Florida, USA and the Bahamas, northern Cuba, Cayman and Virgin Islands, Yucatán and Gulf coast of Mexico, Nicaragua, Costa Rica, Venezuela, and the Guyanas; eastern Atlantic from France to Morocco, including the Mediterranean, Indo-West Pacific off eastern and southern Africa and Japan, Taiwan Province of China, Philippines, New Caledonia, Tahiti, and Australia. *Hexanchus vitulus* Springer and Waller, 1969 is a junior synonym of this species and was used in its place by Compagno (1978, 1984).



Order SQUALIFORMES

ECHINORHINIDAE

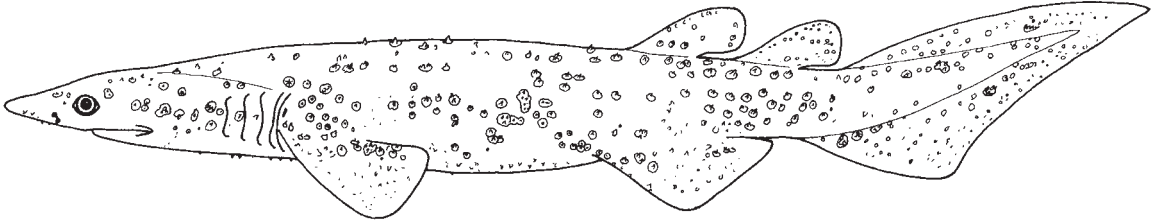
Bramble sharks

A single species occurring in the area.

Echinorhinus brucus (Bonnaterre, 1788)

Frequent synonyms / misidentifications: None / None.

FAO names: **En** - Bramble shark; **Fr** - Squale bouclé; **Sp** - Tiburón de clavos.



Diagnostic characters: Large sharks with stout cylindrical bodies and no abdominal ridges. Head moderately depressed; last (fifth) gill slits abruptly expanded in width; spiracles present, very small, well behind eyes; nostrils far apart from each other; snout short; mouth broadly arched, **with very short labial furrows** that do not encircle mouth, lips not papillose; **teeth alike in both jaws, strongly compressed and blade-like, with a cusp and up to three side cusplets in adults**, but with a cusp only in young. **Two small spineless posterior dorsal fins, both smaller than the pelvic fins, situated close together, the origin of the first dorsal fin behind the pelvic-fin origins; anal fin absent; caudal fin without a subterminal notch. Dermal denticles very large and thorn-like.** Intestinal valve of spiral type. **Colour:** blackish to greyish brown above and below.

Similar families occurring in the area

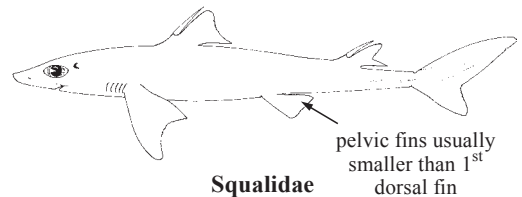
Squalidae, Centrophoridae, Somniosidae, Etmopteridae, Dalatiidae and Pristiophoridae: fifth gill slits not abruptly larger than first to fourth; spiracles larger; first dorsal-fin origin well anterior to pelvic-fin origins; pelvic fins usually about as large as second dorsal fin or smaller; Pristiophoridae also with rostral saw and barbels.

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

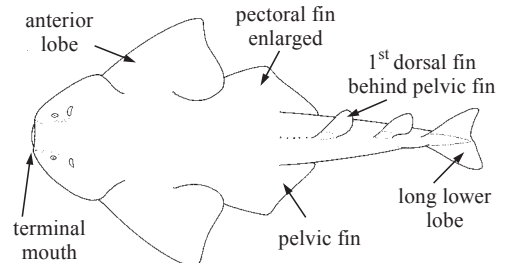
All other shark families: anal fin present.

Size: Maximum total length about 3.1 m; size at birth about 45 to 48 cm; size at maturity about 220 to 220 cm for females and near 150 cm for males.

Habitat, biology, and fisheries: Bottom-living on the continental shelves and slopes from close inshore to 900 m. Feeds on small bony fishes, other sharks and crabs. Not fished commercially in the area but utilized elsewhere; possibly caught as discarded bycatch of offshore demersal fishing fleets.

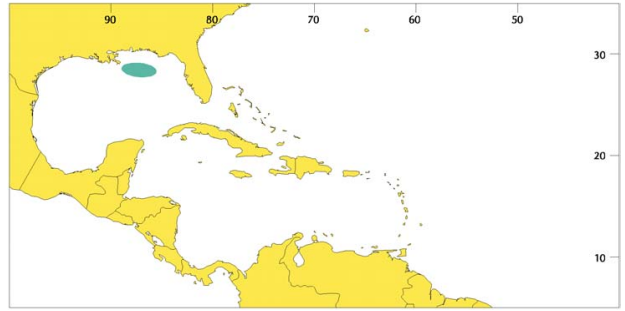


Squalidae



Squatinae

Distribution: Wide-ranging in tropical and temperate areas in the Atlantic, Mediterranean Sea, Indian Ocean, and western Pacific. In the area in the northern Gulf of Mexico and possibly the Atlantic coast of the USA (definitely known from Massachusetts to Virginia).



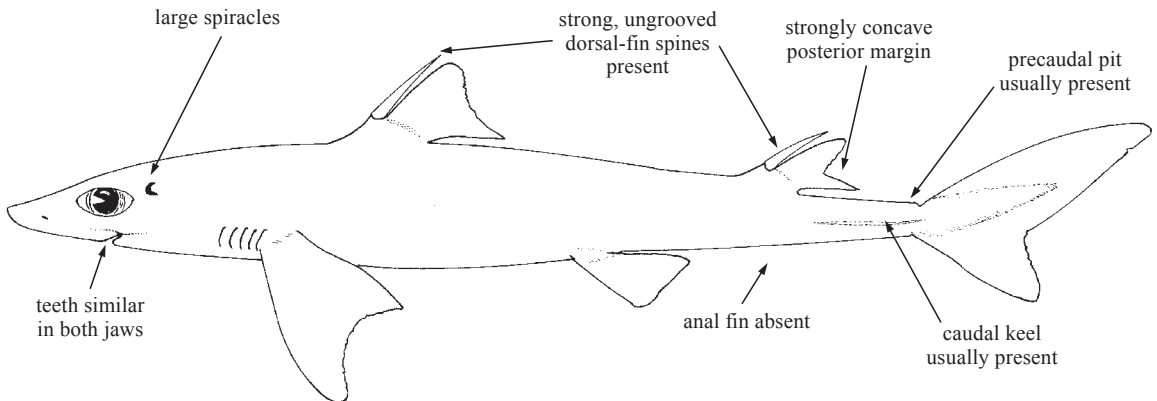
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SQUALIDAE

Dogfish sharks

Diagnostic characters: Small to moderately large sharks, with cylindrical bodies; no ridges between pectoral and pelvic fins, caudal keels and usually precaudal pits present on caudal peduncle. **Head with 5 gill slits, all anterior to pectoral fins**, the fifth not abruptly longer than the others; **spiracles always present, large and just behind eyes**; **eyes on sides of head, without nictitating eyelids**. Snout short to moderately elongated, broad, flattened, not formed as a rostral saw; no barbels on snout; nostrils wide-spaced, internarial width greater than nostril width; mouth short and nearly transverse, lips smooth; **teeth strong-cusped, similar in both jaws, compressed, broad, blade-like and without cusplets, adjacent teeth imbricated, upper teeth nearly as large as lowers**. **Two dorsal fins with a long strong ungrooved spine present** on their anterior margins; dorsal fins large, angular, broad, and with **strongly concave posterior margins**; first dorsal fin larger or subequal in area to second dorsal fin; origin of first dorsal fin far in front of pelvic-fin origins, over or behind pectoral-fin insertion, and in front of or just behind pectoral-fin free rear tip; pelvic fins subequal to or smaller than second dorsal fin; **no anal fin**; caudal fin strongly asymmetrical, with subterminal notch present and with a ventral lobe varying from virtually absent to strong. Dermal denticles close-set, not greatly enlarged and plate-like. **Colour:** body and fins greyish or brownish, without conspicuous black marks and luminescent organs.

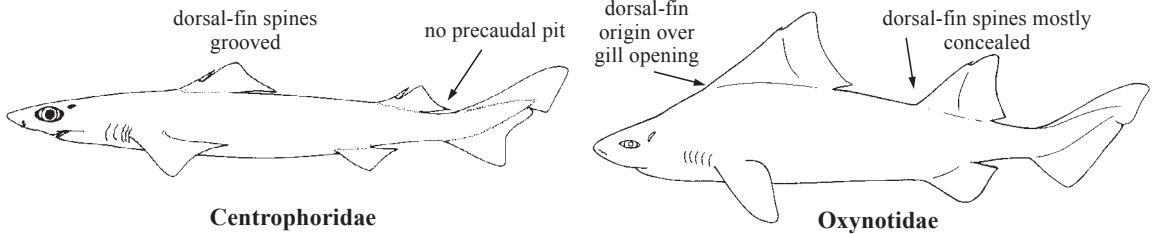


Habitat, biology, and fisheries: Spiny dogfishes mostly occur in deeper water (50 m and more) on outer shelves and uppermost slopes in warm-temperate and tropical seas such as those of Area 31; those occurring in cold-temperate and boreal water (to the north of Area 31) range close inshore and enter the intertidal zone. Spiny dogfishes often form schools and may be among the most abundant of living sharks; they feed mainly on fishes and small marine invertebrates and may cause damage to fishing gear when preying on the catch. Some species are highly appreciated as food. The family has importance as a major fishery resource for food and for liver oil and has been fished intensively in many areas both as target fisheries and as utilized and discarded bycatch. Some species have conservation problems due to overfishing despite their present (or former) abundance, because they are very long-lived, have long maturation periods, and low fecundity.

Similar families occurring in the area

Centrophoridae, Etmopteridae, Somniosidae and Dalatiidae: upper teeth conspicuously smaller than lower teeth, dorsal fin spines either absent or grooved, no precaudal pits, most species without strong precaudal keels.

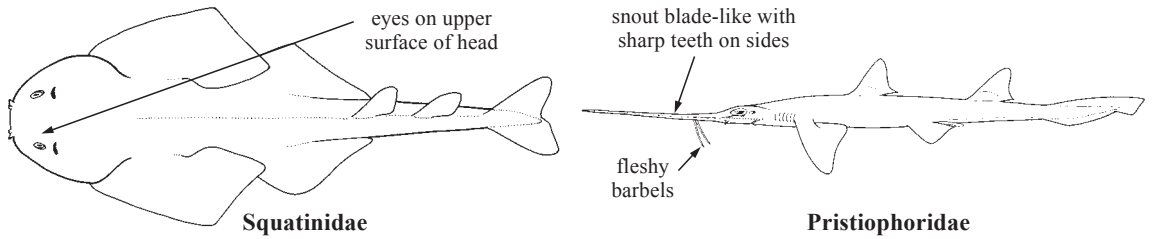
Oxynotidae: body strongly compressed, very high, and triangular in cross-section; with lateral ridges between the pectoral and pelvic-fin bases; dorsal fins broad-based, triangular, sail-like, and with large spines mostly concealed within them; first dorsal fin with its origin extending far forward over gill openings.



Squatinae: trunk much flattened dorsoventrally; eyes on upper side of head; anterior margins of pectoral fins extending forward past gill openings and partly concealing them; pelvic fins also very broad, wing-like.

Pristiophoridae: dorsal fins without spines; snout greatly elongated, blade-like, armed on either side with sharp teeth and with a long, fleshy barbel.

All other shark families: anal fin present.



Key to the species of Squalidae occurring in the area

- 1a. Snout and head very broad; anterior nasal flap broad (Fig. 1a); first dorsal fin about as large as second; pectoral fins broad and not strongly falcate; precaudal pit absent (Fig. 1b) *Cirrhigaleus asper*
- 1b. Snout and head narrower; anterior nasal flap narrow (Fig. 2a); second dorsal fin much smaller than first; pectoral fins narrow and falcate; precaudal pits well developed → 2

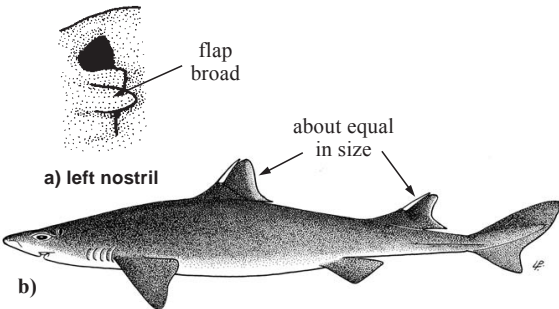


Fig. 1 *Cirrhigaleus asper*

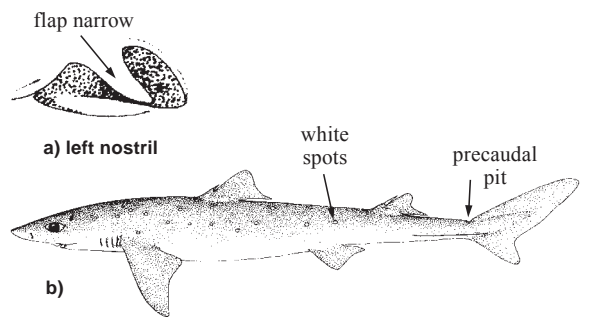
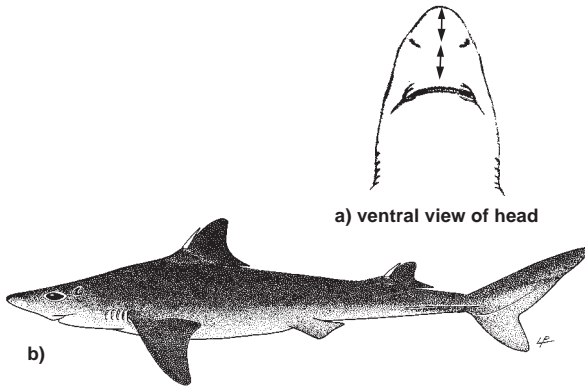
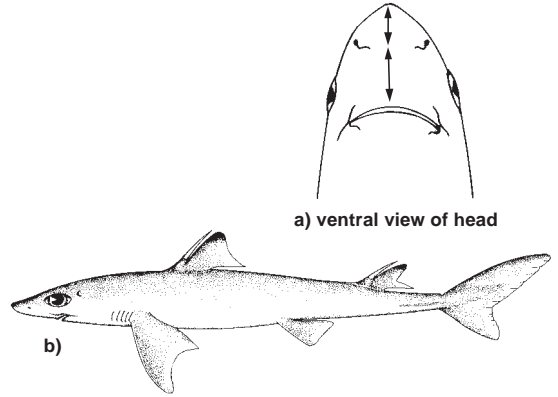



Fig. 2 *Squalus acanthias*


- 2a. First dorsal-fin spine well posterior to free rear tips of pectoral fins; white spots present on sides (occasionally absent in adults) (Fig. 2b) *Squalus acanthias*
- 2b. First dorsal-fin spine anterior to or over free rear tips of pectoral fins; no white spots → 3

- 3a. Distance from tip of snout to inner corner of nostril greater than that from inner corner of nostril to upper labial furrow; posterior margins of pectoral fins weakly concave, their free rear tips rounded; denticles broad and tricuspidate on sides of body; dorsal fins without conspicuous black apical blotches *Squalus mitsukurii*
- 3b. Distance from tip of snout to inner corners of nostrils less than that from inner corners of nostrils to upper labial furrows; posterior margins of pectoral fins deeply concave and free rear tips acutely pointed; denticles from sides of body narrow and unicuspidate; dorsal fins with conspicuous black apical blotches *Squalus cubensis*

Fig. 3 *Squalus mitsukurii*Fig. 4 *Squalus cubensis*


List of species occurring in the area

The symbol  is given when species accounts are included.

 *Cirrhigaleus asper* (Merrett, 1973).

 *Squalus acanthias* Linnaeus, 1758.

 *Squalus cubensis* Howell-Rivero, 1936.

 *Squalus mitsukurii* Jordan and Snyder, In Jordan and Fowler, 1903.

References

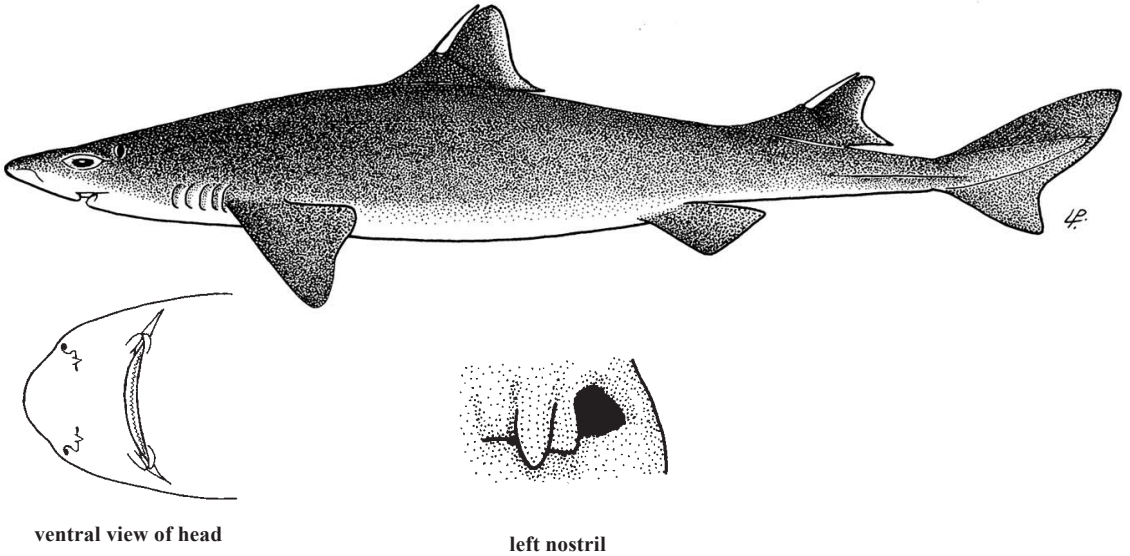
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Cirrhigaleus asper (Merrett, 1973)

CHZ

Frequent synonyms / misidentifications: *Squalus asper* Merrett, 1973 / None.

FAO names: **En** - Roughskin spurdog (AFS: Roughskin dogfish) ; **Fr** - Aiguillat à peau rugueuse; **Sp** - Galludo raspa.

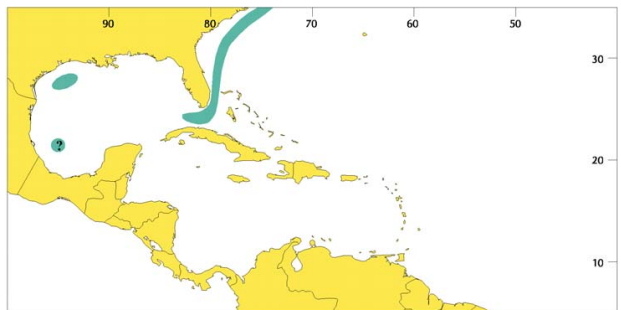


Diagnostic characters: Body stocky and spindle-shaped. **Snout and head very broad, snout bluntly rounded; anterior nasal flap broad;** distance from tip of snout to inner corner of nostril about equal to that from inner corner of nostril to upper labial furrow; spiracle large, halfmoon-shaped; mouth only very slightly arched. **Teeth alike in both jaws, small, compressed and with a single cusp deeply notched outward end strongly oblique.** Skin very rough, denticles very broad and tricuspidate on sides of body. A strong, long spine without lateral grooves on anterior margin of both dorsal fins; origin of first dorsal-fin spine behind pectoral-fin rear tips; second dorsal fin about as large as first; pectoral fins broad and not falcate, free rear tips of pectoral fins bluntly rounded, posterior margins of fins nearly straight; midbases of pelvic fins much closer to origin of second dorsal fin than to insertion of first dorsal fin. Caudal peduncle flattened below, with an obscure longitudinal keel low down on each side; **upper precaudal pit weakly developed or absent, no lower precaudal pit. Caudal fin without a subterminal notch. Colour:** uniform light brown, grey, or brownish grey above, **no white spots on sides**, whitish below and sometimes with dark mottling; dorsal fins without black markings or with a black patch on the second dorsal-fin apex, **posterior margins of fins conspicuously whitish;** iris greyish blue.

Size: Maximum total length about 118 cm; size at birth about 25 to 28 cm; adults 85 to 118 cm.

Habitat, biology, and fisheries: Relatively common on the upper continental and insular slopes at depths of 73 to 600 m, in the area at 324 m. Ovoviviparous with large litters of 10 to 22 young. Feeds on bony fishes and cephalopods. Little known, apparently without great importance to fisheries in Area 31 but probably caught as bycatch of trawl and line fisheries off the USA.

Distribution: In Area 31, this species occurs off the eastern Atlantic coast of the USA from North Carolina to Florida, and off the Gulf of Mexico coast of the USA (Texas) and Mexico; also off southern Brazil. Otherwise widely but sporadically distributed in the South Atlantic, west-central Indian Ocean, and central Pacific (Hawaiian Islands).

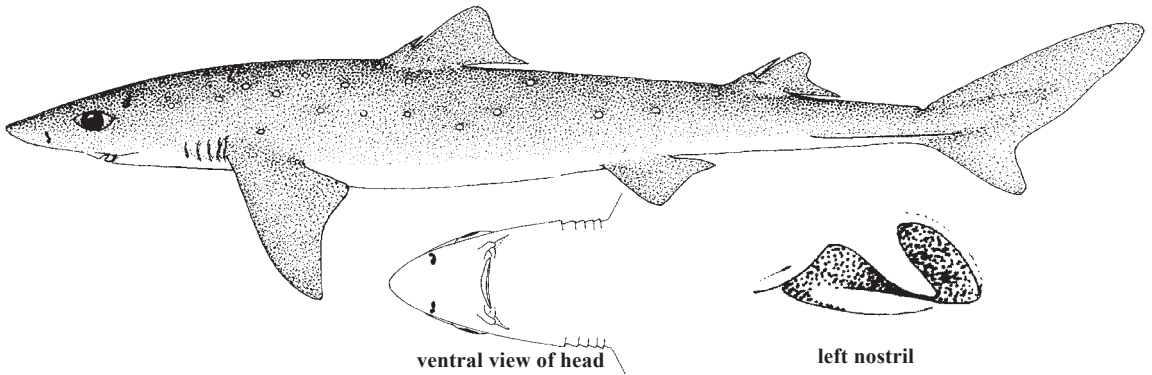


Squalus acanthias Jordan and Snyder, 1903

DGS

Frequent synonyms / misidentifications: None / None.

FAO names: En - Piked dogfish (AFS: Spiny dogfish); Fr - Aiguillat commun; Sp - Mielga.

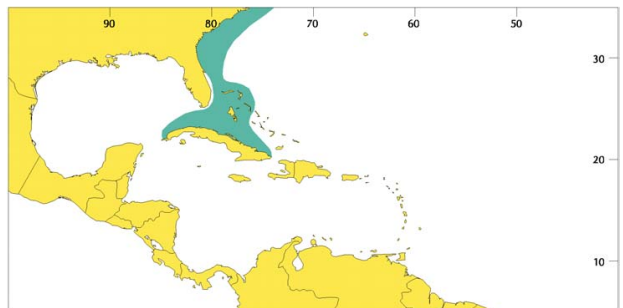


Diagnostic characters: Body elongate and spindle-shaped. **Snout and head narrow, snout pointed;** anterior nasal flap narrow; distance from tip of snout to inner corner of nostril slightly more, about equal, or slightly less than that from inner corner of nostril to upper labial furrow; spiracle large, halfmoon-shaped; mouth only very slightly arched. **Teeth alike in both jaws, small, compressed, and with a single cusp deeply notched outward end strongly oblique.** **Skin smooth, denticles on sides of body narrow and unicuspid in young but broad and tricuspidate in adults.** **A strong, long spine without lateral grooves on anterior margin of both dorsal fins; origin of first dorsal-fin spine behind pectoral-fin rear tips; second dorsal fin much smaller than first;** pectoral fins narrow and falcate or semifalcate, free rear tips of pectoral fins narrowly rounded, posterior margins of fins weakly to moderately concave; midbases of pelvic fins much closer to origin of second dorsal fin than to insertion of first dorsal fin. Caudal peduncle flattened below, with an obscure longitudinal keel low down on each side; **upper precaudal pit strongly developed,** no lower precaudal pit. **Caudal fin without a subterminal notch.** **Colour:** bluish grey or grey above and lighter grey to whitish below, **white spots or dashes often present on sides** (occasionally absent in adults); dorsal fins with black apical patches and white posterior markings in young but plain or with dusky tips in adults; iris green.

Size: Maximum total length exceptionally to about 200 cm but most adults smaller than 130 cm; size at birth 18 to 33 cm; size at maturity 52 to over 104 cm for males and 66 to over 120 cm for females, varying in different populations.

Habitat, biology, and fisheries: A common to abundant dogfish on the continental and insular shelves and upper and middle slopes of boreal to subtropical seas, at depths from the intertidal to possibly 1 446 m, with a tendency to occur close inshore in higher latitudes and in deep water closer to the equator; recorded depths in the area 8 to 619 m. Highly mobile and migratory, showing seasonal migrations along the Atlantic coast of North America. Ovoviviparous, number of young 1 to 32. Feeds primarily on bony fishes, both demersal and pelagic, but also eats small cartilaginous fishes, cephalopods, crustaceans, gastropods, bivalves, polychaete worms, sea cucumbers, jellyfish, and comb jellies. Caught in bottom trawls and with limited importance to fisheries in Area 31 compared to other areas of the North Atlantic where massive catches occur. Relatively small catches of dogfish (310 to 4 500 t per year, including this species) were reported by the USA to FAO during the past decade.

Distribution: In Area 31 this dogfish occurs off the Atlantic coast of the USA from North and South Carolina, Georgia, and Florida, with an important wintering ground in deep water; occasionally caught off Cuba and the Bahamas. In the western Atlantic it ranges from Greenland and Labrador, Canada to Florida, USA, the Bahamas, and Cuba, also off Uruguay and Argentina. Widely distributed in temperate and subtropical parts of most oceans.

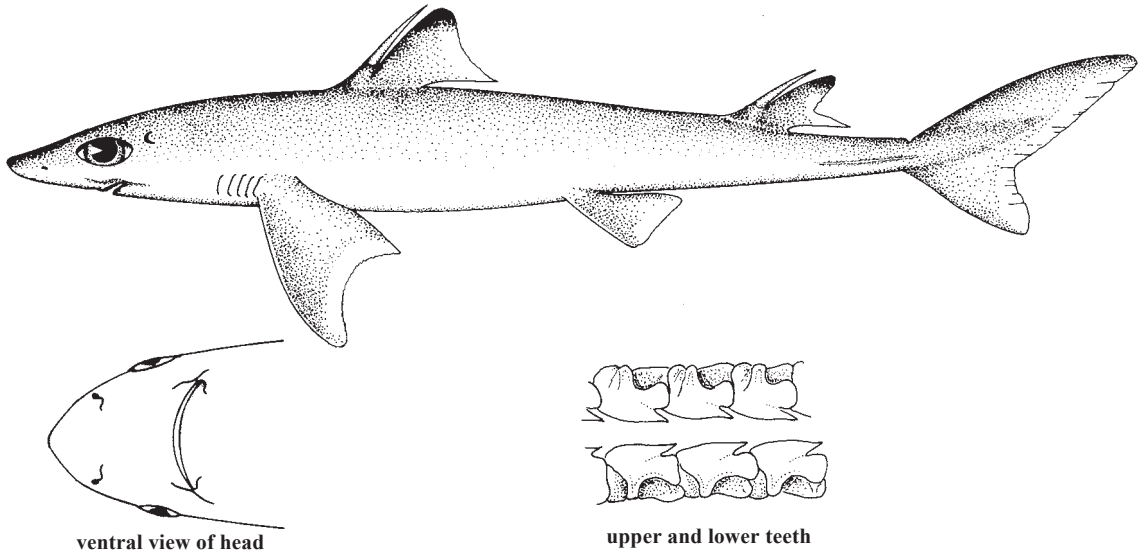


Squalus cubensis Howell Rivero, 1936

QUC

Frequent synonyms / misidentifications: None / *Squalus mitsukurii* (not Jordan and Snyder, 1903).

FAO names: En - Cuban dogfish; Fr - Aiguillat cubain; Sp - Galludo cubano.

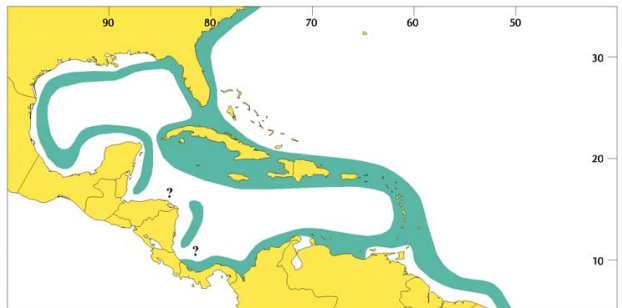


Diagnostic characters: Body elongate and spindle-shaped. Snout and head narrow, snout pointed; anterior nasal flap narrow; **distance from tip of snout to inner corner of nostril less than that from inner corner of nostril to upper labial furrow**; spiracle large, half-moon shaped; mouth only very slightly arched. **Teeth alike in both jaws, small, compressed, and with a single cusp deeply notched and outward end strongly oblique.** Skin smooth, denticles on sides of body narrow and unicuspid in young and adults. **A strong, long spine without lateral grooves on anterior margin of both dorsal fins; origin of first dorsal-fin spine over pectoral-fin inner margins and well in front of their rear tips; second dorsal fin much smaller than first; pectoral fins fairly broad but strongly falcate, free rear tips of pectoral fins angular and pointed, posterior margins of fins deeply concave; midbases of pelvic fins about equidistant between bases of dorsal fins or slightly closer to insertion of first dorsal fin than origin of second dorsal fin.** Caudal peduncle flattened below, with an obscure longitudinal keel low down on each side; **upper precaudal pit strongly developed, no lower precaudal pit. Caudal fin without a subterminal notch.** **Colour:** uniform dark grey above, paler grey to whitish below, **no white markings on sides; upper apices of both dorsal fins conspicuously black** with light posterior margins, the other fins edged with white; iris green.

Size: Maximum total length possibly to 110 cm; common to 75 cm; maturing at 50 cm or less.

Habitat, biology, and fisheries: A bottom-living species, occurring in dense schools at depths between 60 and 380 m, never found in surface waters. Ovoviviparous, number of embryos about 10. Mainly caught in the northern Gulf of Mexico. Separate statistics not reported for this species. Caught mainly with bottom trawls. Seldom used as food, although the flesh is edible. The liver is used in the preparation of oil and vitamins.

Distribution: Western Atlantic: USA (Atlantic coast from North Carolina to Florida, Gulf of Mexico coast of the USA (Florida, Alabama, Mississippi, Louisiana, and Texas), Mexico (Gulf and Atlantic coasts), Cuba, between Cuba, Florida and the Bahamas, Hispanola (Haiti and Dominican Republic), Puerto Rico, Jamaica, probably Belize, Honduras, Nicaragua, Panama, Colombia, Venezuela, Lesser Antilles off Barbados, St. Lucia, Curaçao, also possibly northern Brazil and definitely southern Brazil, Uruguay, and Argentina.

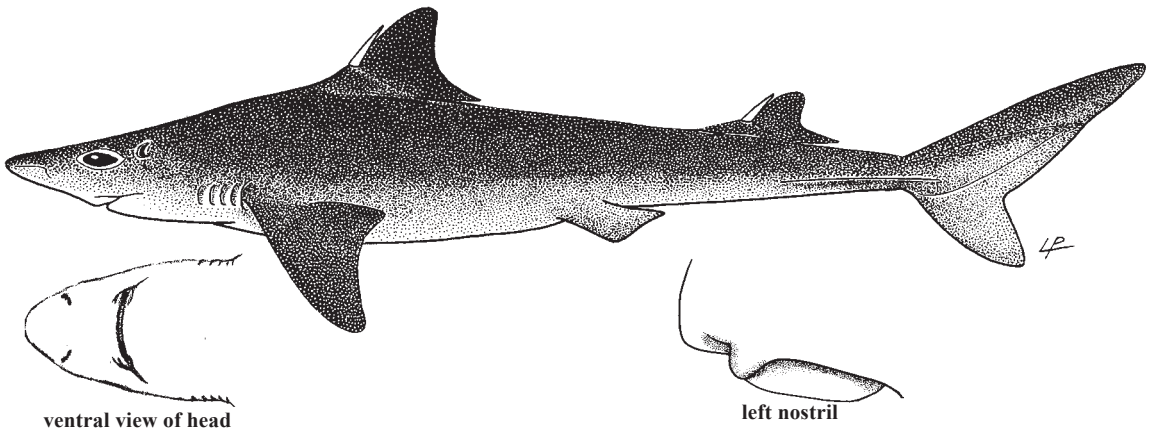


Squalus mitsukurii Jordan and Snyder, 1903

QUK

Frequent synonyms / misidentifications: None / None.

FAO names: **En** - Shortspine spurdog (AFS: Shortspine dogfish); **Fr** - Aiguillat épinette; **Sp** - Galludo espinilla.



Diagnostic characters: Body elongate and spindle-shaped. Snout and head broad, snout parabolic; anterior nasal flap moderately wide; **distance from tip of snout to inner corner of nostril slightly greater than that from inner corner of nostril to upper labial furrow**; spiracle large, halfmoon-shaped; mouth only very slightly arched. **Teeth alike in both jaws, small, compressed, and with a single cusp deeply notched and outward end strongly oblique. Skin smooth, denticles on sides of body broad and tricuspidate in young and adults. A strong, long spine without lateral grooves on anterior margin of both dorsal fins; origin of first dorsal-fin spine over pectoral-fin inner margins and well in front of their rear tips; second dorsal fin much smaller than first; pectoral fins fairly broad and semifalcate, free rear tips of pectoral fins narrowly rounded, posterior margins of fins slightly concave; midbases of pelvic fins closer to second dorsal fin insertion than first dorsal-fin insertion. Caudal peduncle flattened below, with an obscure longitudinal keel low down on each side; upper precaudal pit strongly developed, no lower precaudal pit. Caudal fin without a subterminal notch. Colour:** grey or grey-brown above, paler grey to whitish below, **no white markings on sides; webs of both dorsal fins dusky but without conspicuous black apices; irises green.**

Size: Maximum total length about 125 cm; size at birth about 21 to 30 cm; males mature between 47 and 85 cm and females between 50 and 100 cm, with size at maturity varying in different populations.

Habitat, biology, and fisheries: On the continental and insular slopes at depths of 137 to 750 m in Area 31, and 4 to 954 m elsewhere. Ovoviviparous, with 2 to 15 young per litter. Feeds primarily on bony fishes, cephalopods, and crustaceans, also tunicates and polychaete worms. Interest to fisheries uncertain in Area 31, probably caught along with *Squalus cubensis* in bottom trawls. This species is usually termed *Squalus fernandinus* Molina, 1782 or *Squalus blainville* (Risso, 1826) in the literature and has been misidentified as *S. cubensis*, but its taxonomic and nomenclatural status is problematical. *S. fernandinus* is a junior synonym of *Squalus acanthias*. *Squalus blainville* (originally described from the Mediterranean Sea), has been identified as a spurdog with long spines and short high dorsal fins from its original description, but may be similar to or possibly even a senior synonym of the short-spined low-finned *S. mitsukurii* (described from Japan but also present in the eastern Atlantic).

Distribution: In Area 31 this spurdog ranges from North Carolina to Florida, the northern Gulf of Mexico off Florida, Louisiana, and Texas (USA), Mexico (Yucatán), the western Caribbean off Nicaragua, Honduras and Panama, and the Antilles including Dominica, Netherlands Antilles, Martinique, and St. Kitts and Nevis; also the northeastern coast of Brazil and Argentina. Wide-ranging in the eastern Atlantic, the Indo-West Pacific, and the central Pacific.

