

Megachasma pelagios

Taylor, Compagno & Struhsaker, 1983

Megamouth Shark

Requin Grande Guele

DD

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● Snout extremely short, flattened and broadly rounded.

● First dorsal fin moderately high, semi-erect, angular.

● Caudal peduncle without lateral keels and small upper precaudal pit only.

● Mouth huge, terminal on head.

● Jaws protrusible.

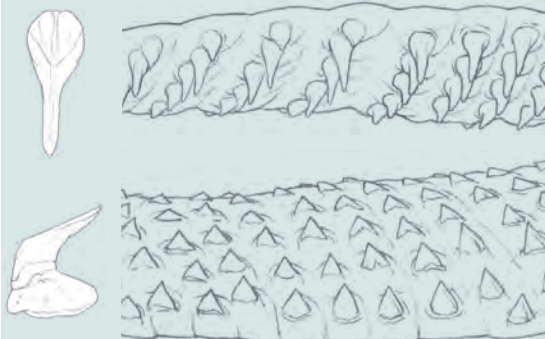
● Gill openings moderately long, not nearly encircling head.

● Large cylindrical, flabby body.

● Caudal fin lunate, dorsal lobe much longer than lower lobe.

● Anal fin smaller in size to second dorsal fin.

Dentition



Teeth approximately actual size.

Teeth very small, awl-shaped.

Tooth counts: upper jaw 55–115, lower jaw 75–121.

Description

Extremely short, broadly rounded snout, very long head, huge terminal mouth that extends behind eyes, moderately long gill openings, caudal peduncle without keels, caudal fin asymmetrical; 1 of 3 large filter-feeding sharks.



© Hua Hsun Hsu (National Taiwan Ocean University)

Colour

Grey to greyish-black above, without light spots, underside white, mouth dusky blackish with dark spotting on lower jaw; dorsal surfaces of pectoral and pelvic fins blackish with conspicuous light margins.

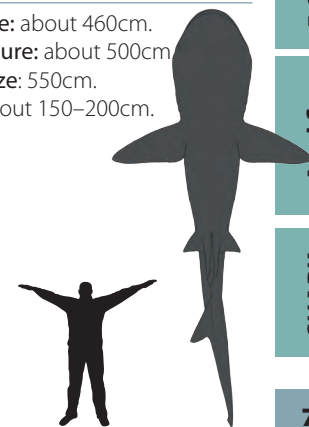
Size

Males mature: about 460cm.

Females mature: about 500cm

Maximum size: 550cm.

Birth size: about 150–200cm.

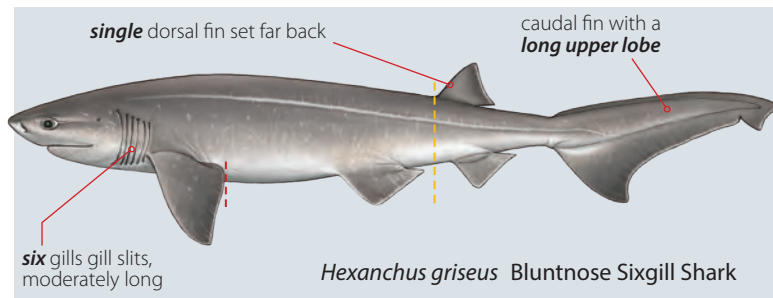
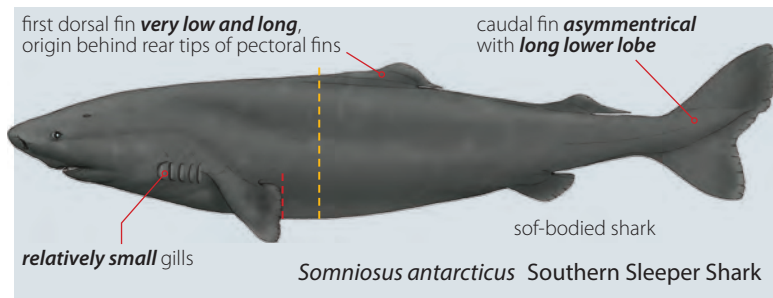
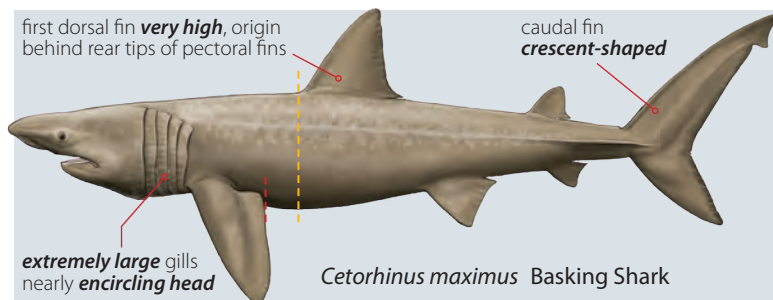
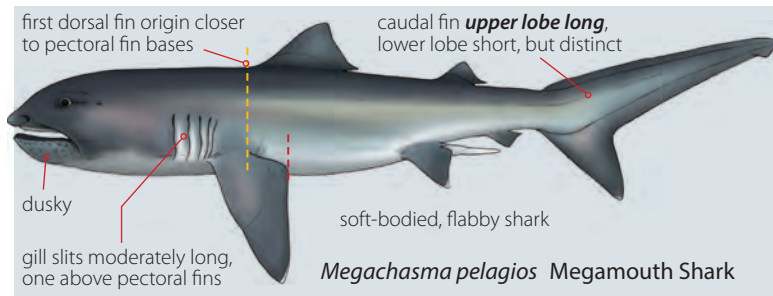


SIMILAR SPECIES

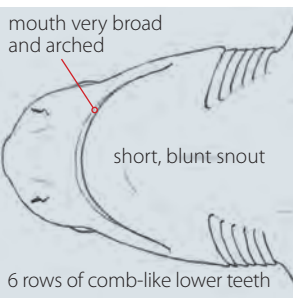
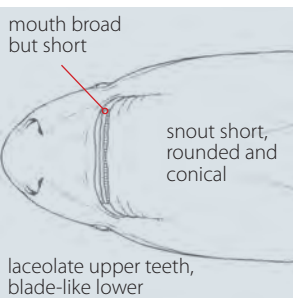
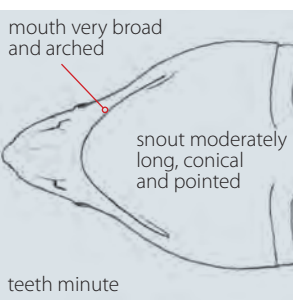
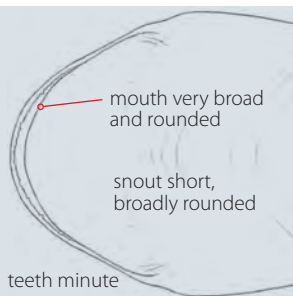
A large, to over 5m total length, soft-bodied shark; very short snout, huge terminal, protrusible mouth, moderate-sized gill openings that do not extend

to over head or throat; asymmetrical caudal fin; grey to grey-black above without spots except on lower jaw, inside of mouth dusky coloured.

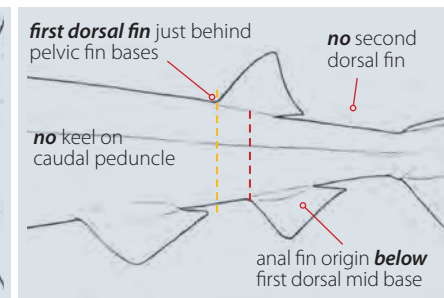
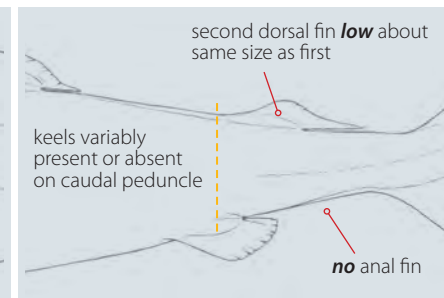
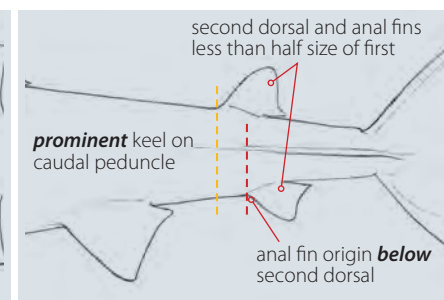
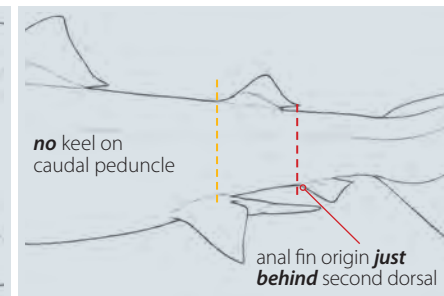
Gill slits, snout coloration, first dorsal and caudal fins



Ventral view of head



Second dorsal and anal fins



Cetorhinus maximus

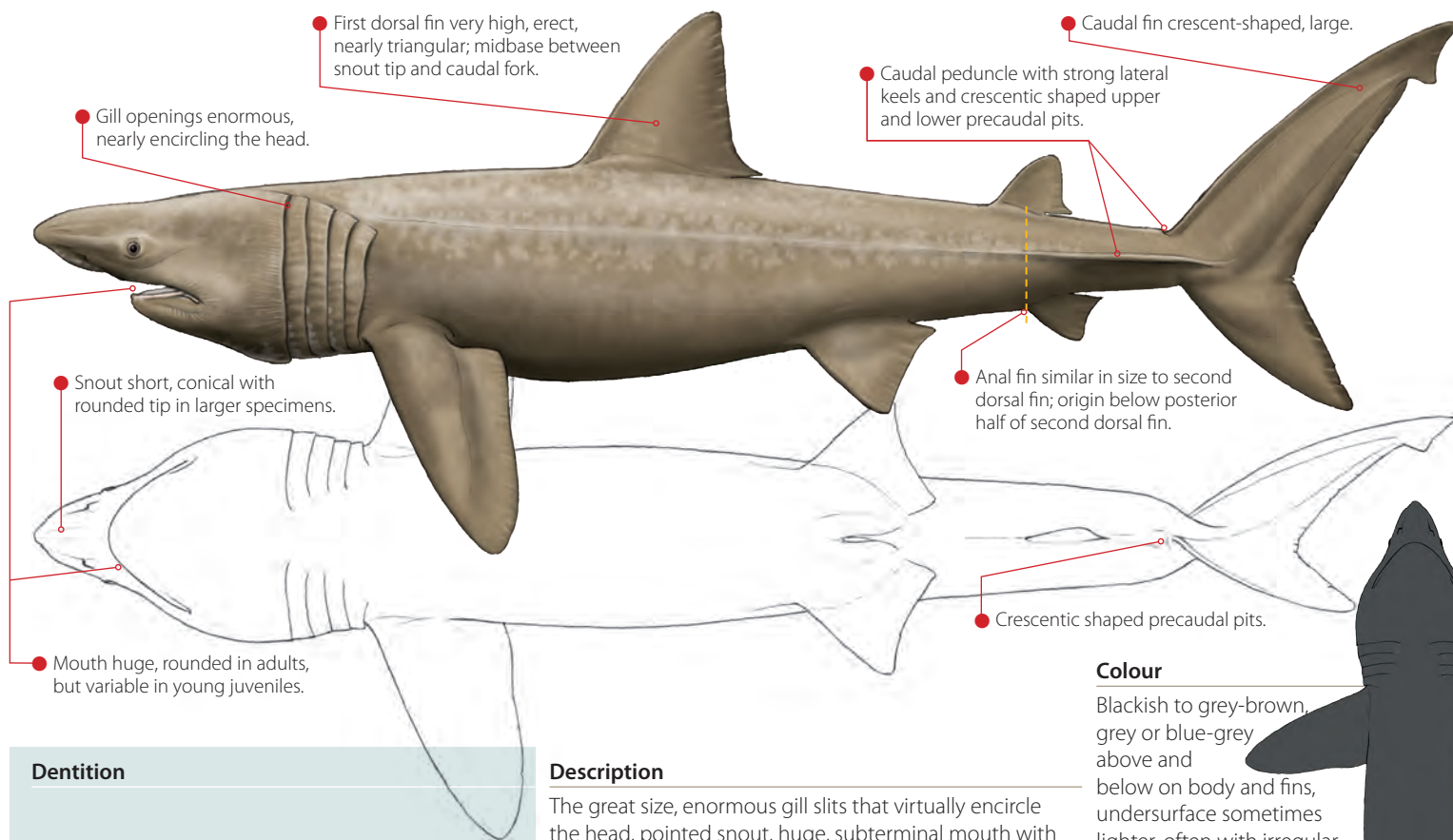
(Gunnerus 1765)

Basking Shark

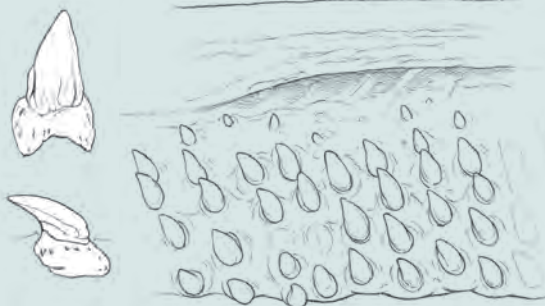
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Dentition



Teeth approximately actual size.

Teeth minute, with a single smooth-edged, hook-shaped cusp, similar shaped in both jaws.

Tooth counts: upper jaw & lower jaw over 200 rows.

Description

The great size, enormous gill slits that virtually encircle the head, pointed snout, huge, subterminal mouth with minute hooked teeth, caudal peduncle with strong lateral keels, and lunate caudal fin distinguish this shark from all others.



© Greg Skomal (Massachusetts Marine Fisheries)

Colour

Blackish to grey-brown, grey or blue-grey below on body and fins, undersurface sometimes lighter, often with irregular white blotches on the underside of the head and abdomen; flanks sometimes with lighter linear striping and spots.

Size

Males mature: 500–600cm.
Females mature: 800–900cm.
Maximum size: 1000–1200cm.
Birth size: 150–200cm.



Cetorhinus maximus

Distinguishing feature or features

5 Gills

Anal fin

SHARK

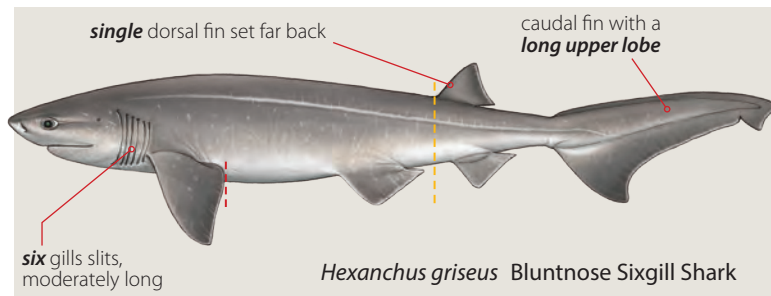
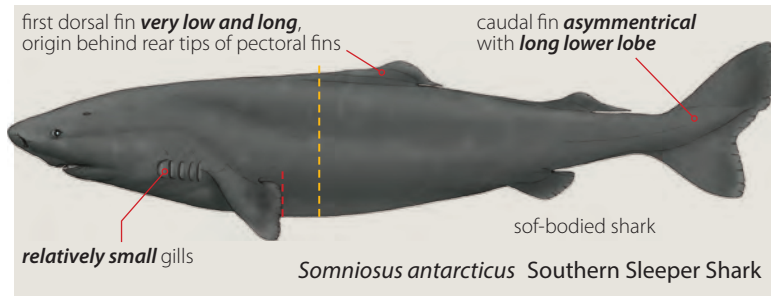
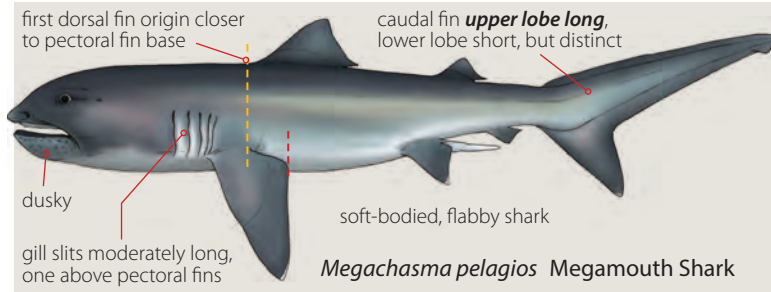
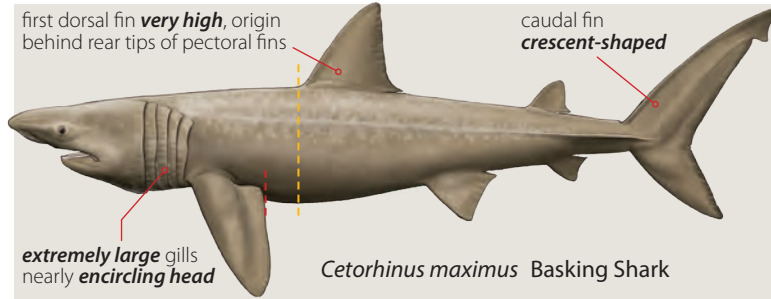
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SIMILAR SPECIES

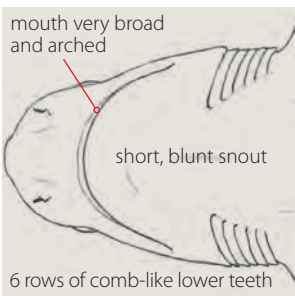
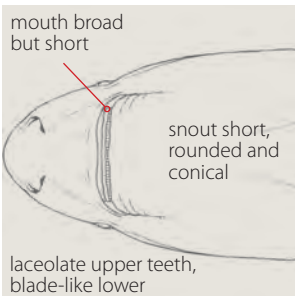
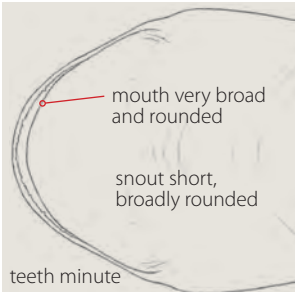
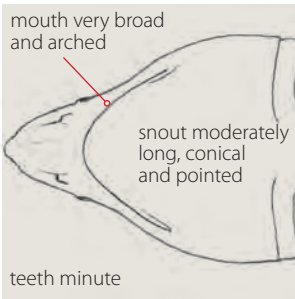
A very large, to over 10m total length, shark; short conical snout, huge subterminal mouth, very large gill openings that extend to over head and

under throat nearly encircling the head; crescent-shaped caudal fin; blackish to grey-brown or grey often with irregular blotches spots.

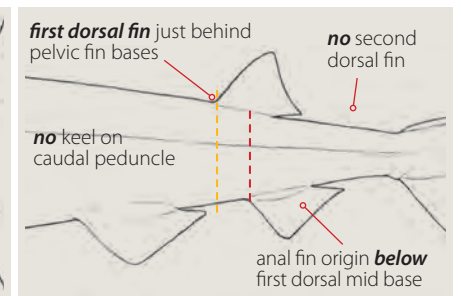
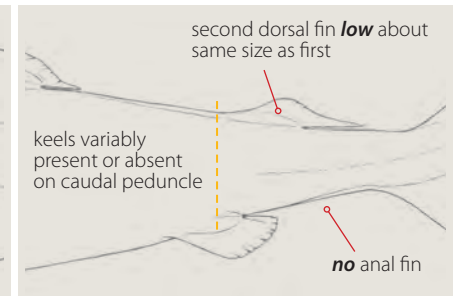
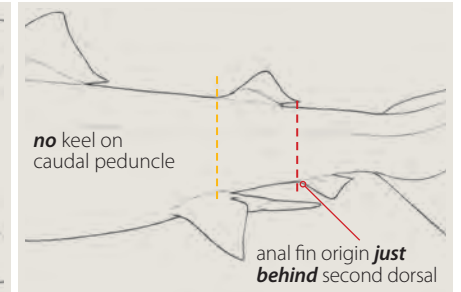
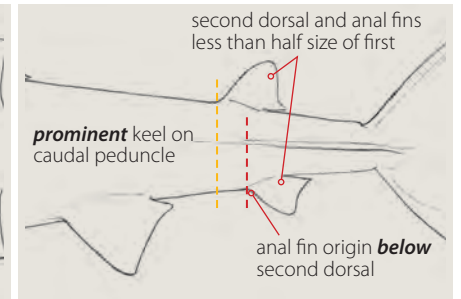
Gill slits, snout coloration, first dorsal and caudal fins



Ventral view of head



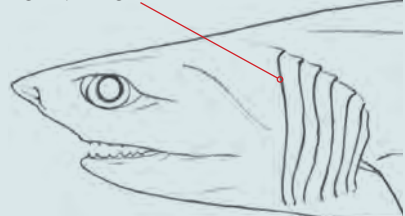
Second dorsal and anal fins



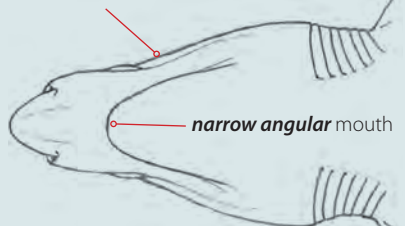
1a Seven gill openings. Narrow head with narrow angular mouth. Five rows of large comb-shaped teeth on each side of lower jaw
 ➔ *Heptranchius perlo*, p.77

1b Six gill openings. Broad head with very wide mouth. Six rows of large comb-shaped teeth on each side of lower jaw
 ➔ *Hexanchus griseus*, p.79

7 gill openings on either side of head



narrow head



narrow angular mouth

Heptranchias perlo, p.77

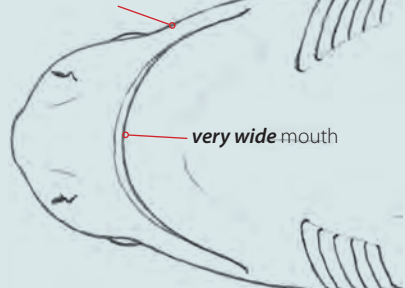


symphiseal tooth

five rows of comb-shaped teeth either side of the symphiseal tooth

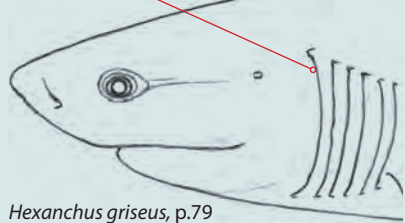
Heptranchias perlo, p.77

broad head



very wide mouth

6 gill openings on either side of head



Hexanchus griseus, p.79



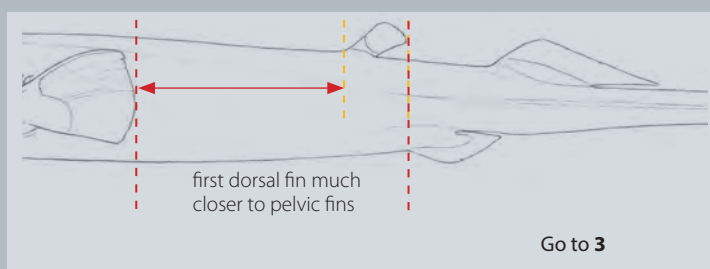
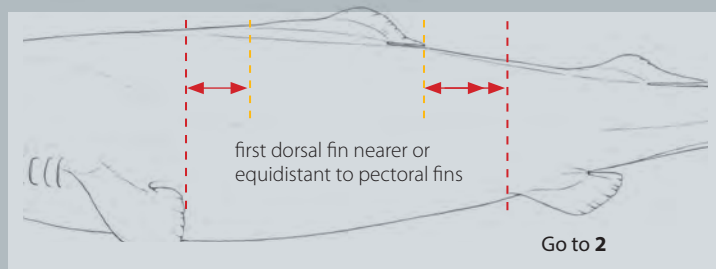
symphiseal tooth

six rows of comb-shaped teeth either side of the symphiseal tooth

Hexanchus griseus, p.79

1a First dorsal fin equidistance or closer to pectoral fins → 2

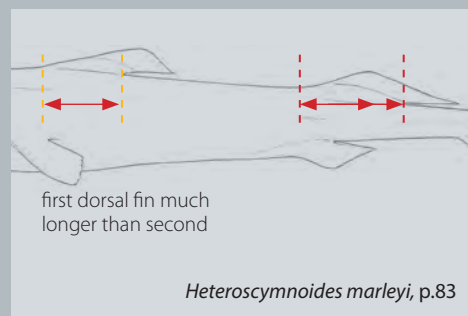
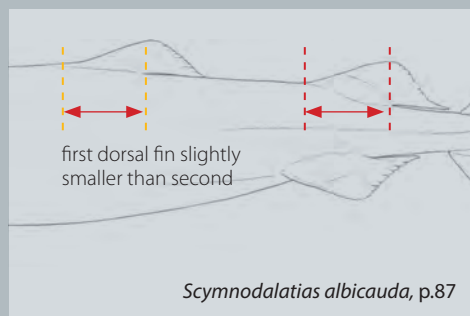
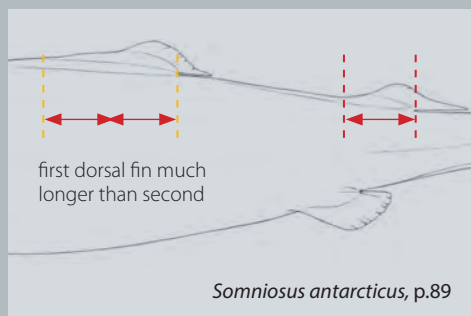
1b First dorsal fin much closer to pelvic fins → 3



2a First dorsal fin much longer than second. Body colour uniform dark brown, grey to black → *Somniosus antarcticus* p.89

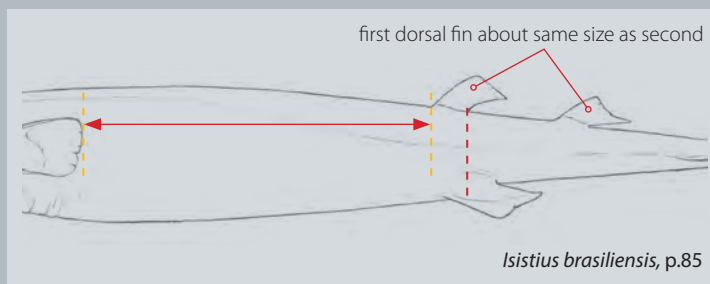
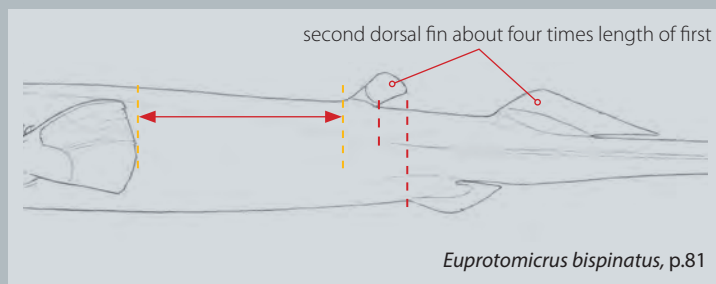
2b First dorsal fin slightly smaller than second. Body colour mottled with light /dark blotches and spots → *Scymnodalatias albicauda* p.87

2c First dorsal fin smaller than second. Body colour uniform dark brown. Small, no more than 40cm → *Heteroscymnoides marleyi* p.83



3a First dorsal fin set far back, but distinctly in front of pelvic fins, second dorsal fin about 4 times length of first → *Euprotomicrus bispinatus* p.81

3b First dorsal fin set far back, insertion over pelvic fins, second dorsal fin about equal in size to first → *Isistius brasiliensis* p.85



Heptranchias perlo

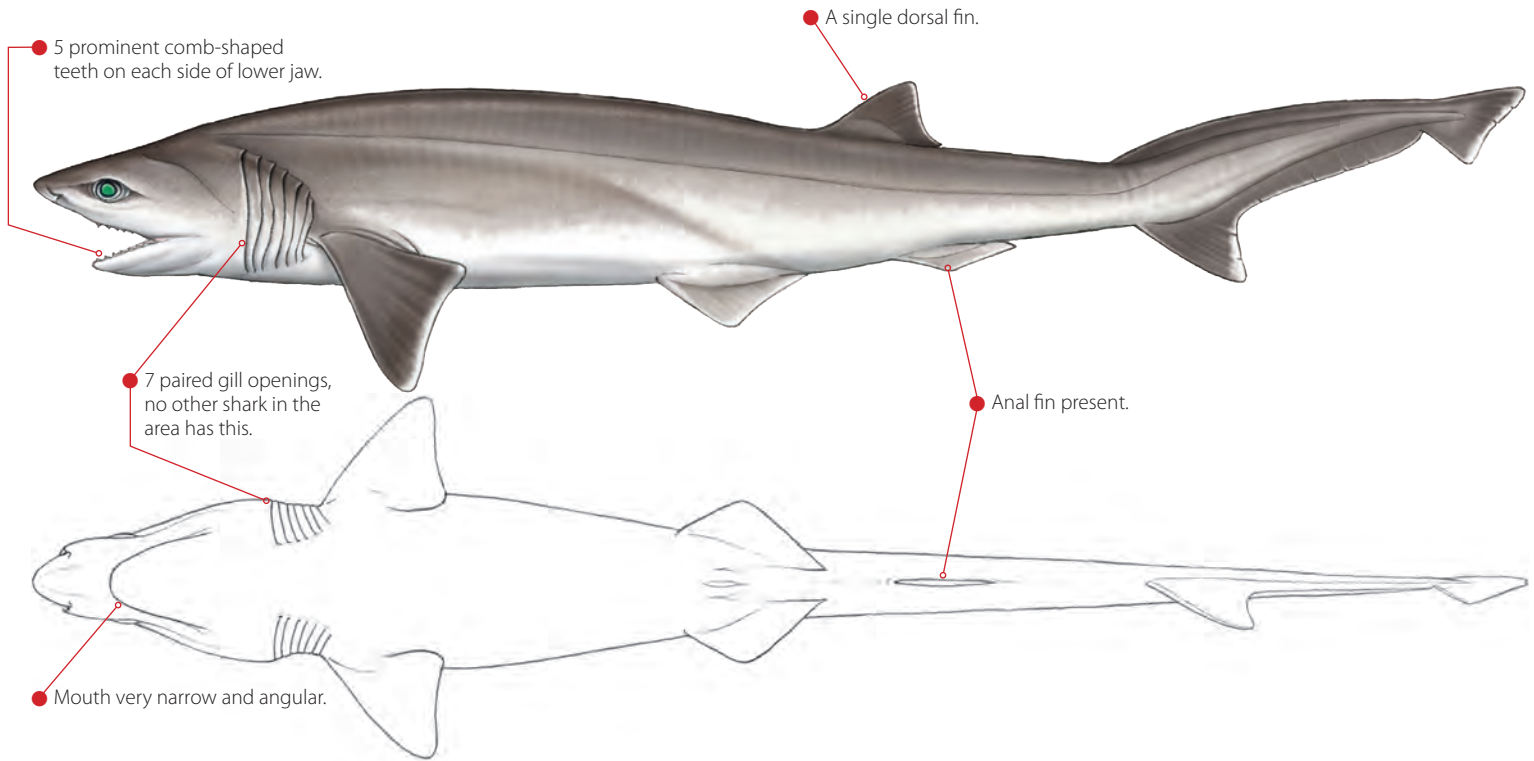
(Bonnaterre, 1788)

Sharpnose Sevengill Shark

Requin perlon

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Dentition



Teeth approximately actual size.

Lower jaw with five rows of distinctly comb-shaped anterolateral teeth on each side of jaw; a high cusp followed by up to 7 or 8 distal cusplets in adults.

Tooth counts (excluding smaller posteriorlateral teeth): upper jaw 7–9, lower jaw 10.

Description

A narrow-headed, big-eyed shark with seven gill openings on each side of head; five rows of lower comb-shaped teeth on each side of jaw; one dorsal fin and an anal fin.



© David A. Ebert

Colour

Uniform pale grey to olive above, lighter to white below; spots absent from body, dorsal fin and upper caudal lobe with black tips, faded or absent in adults but prominent in young.

Size

Males mature: 75–100cm.

Females mature: about 100cm.

Maximum size: 140cm.

Birth size: 26–27cm.



Heptranchias perlo

Single dorsal fin

7 Gills

Anal fin

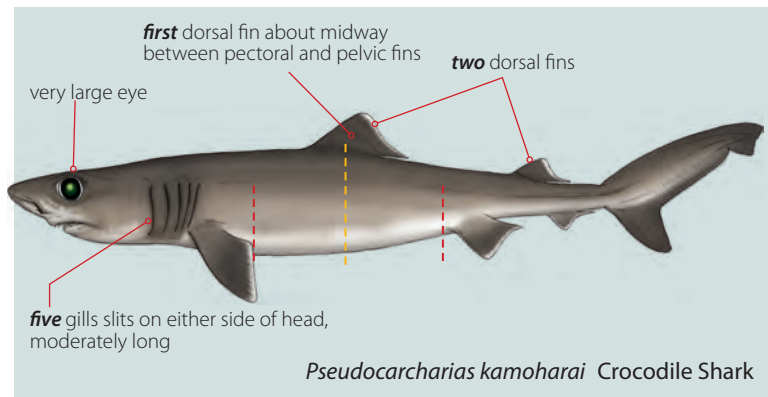
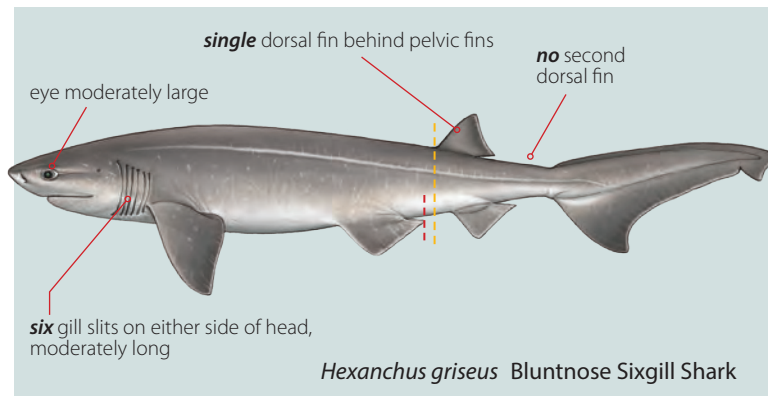
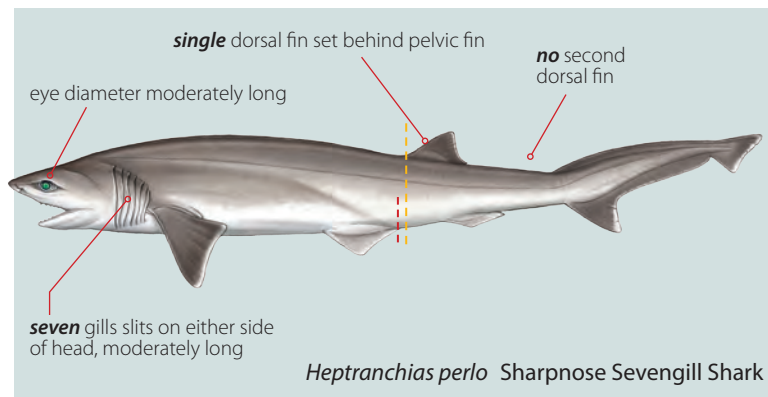
SHARK

77

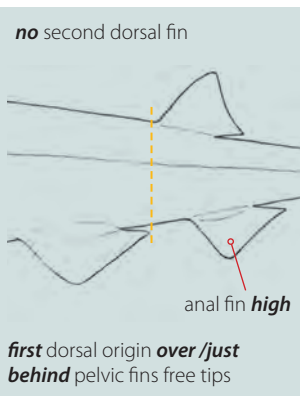
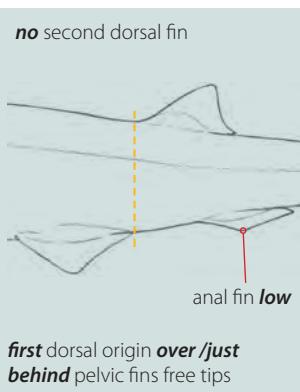
SIMILAR SPECIES

A moderate-sized shark up to 1.4m total length; one dorsal fin, an anal fin and seven paired gill openings separates this shark from all others.

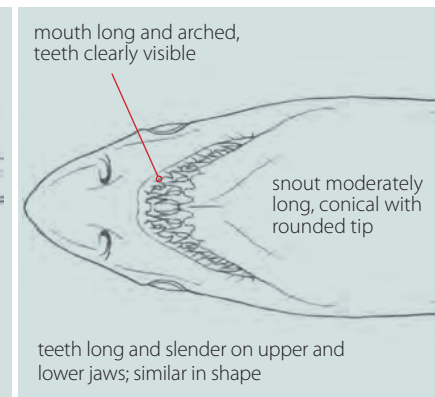
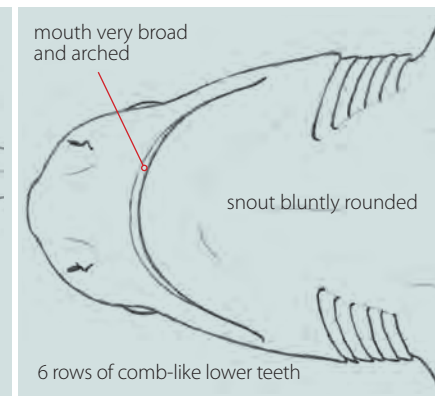
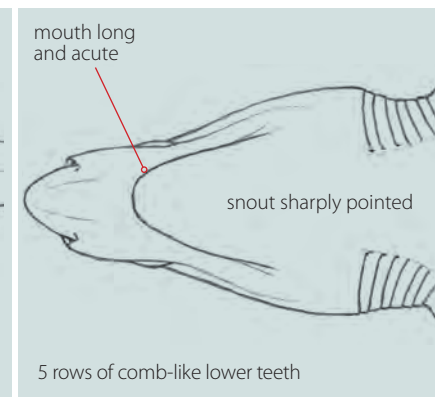
Gill slits, snout coloration, first dorsal and caudal fins



Second dorsal & anal fins



Ventral view of head



Hexanchus griseus

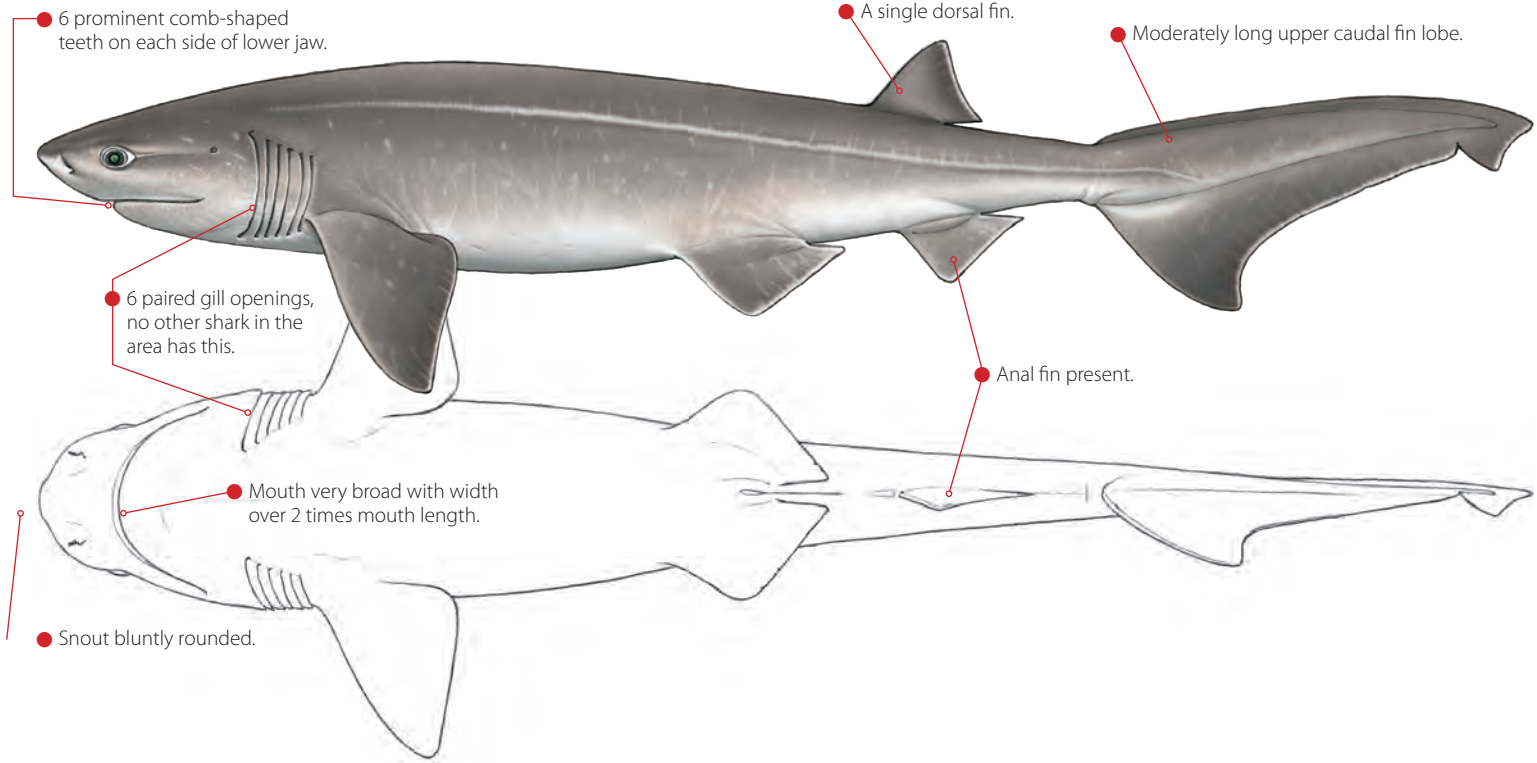
(Bonnaterre, 1788)

Bluntnose Sixgill Shark

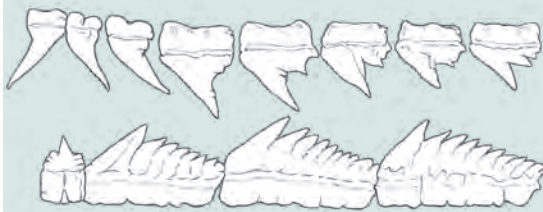
Requin griset

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Dentition



Teeth approximately actual size.

Six rows of lower distinctly comb-shaped anterolateral teeth on each side of jaw; a high cusp followed by numerous distal cusplets in adults.

Tooth counts (excluding smaller posteriorlateral teeth): upper jaw 7–9, lower jaw 12.

Description

A large, heavy-bodied, broad-headed shark with six gill openings on each side of head; six rows of lower comb-shaped teeth on each side of jaw; one dorsal fin and an anal fin.



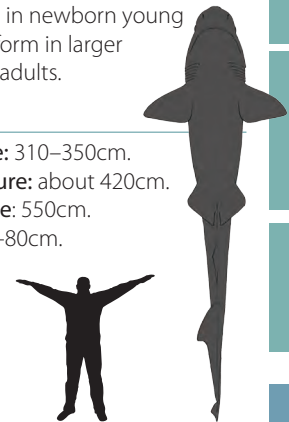
Courtesy of R. Dean Grubbs, Deep-C Consortium

Colour

Grey or tan to blackish with a conspicuous lighter lateral line and sometimes with darker spots on the sides. Underside often lighter than the dorsal surface in newborn young but more uniform in larger juveniles and adults.

Size

Males mature: 310–350cm.
 Females mature: about 420cm.
 Maximum size: 550cm.
 Birth size: 65–80cm.



Hexanchus griseus

Single dorsal fin

6 Gills

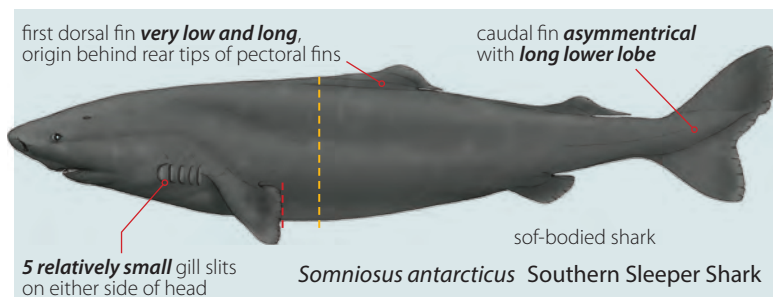
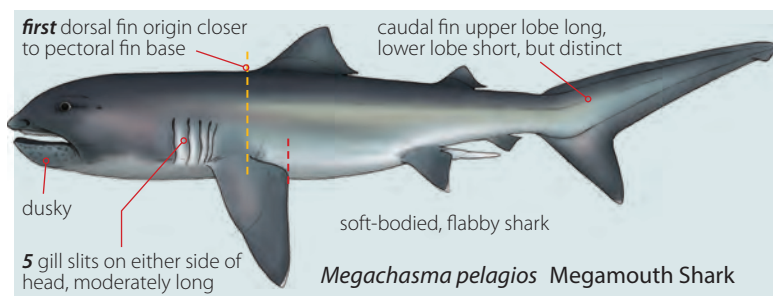
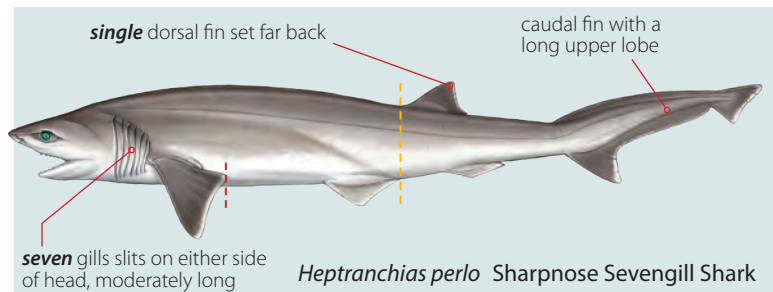
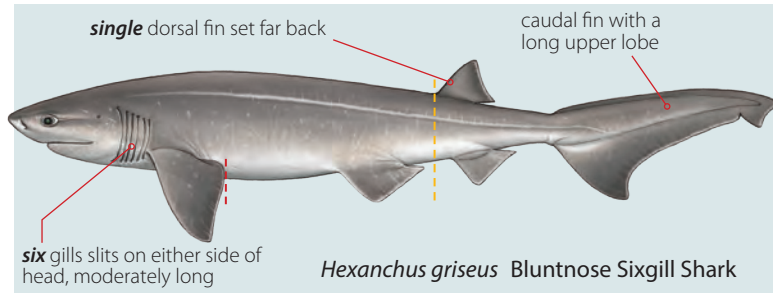
Anal fin

SHARK

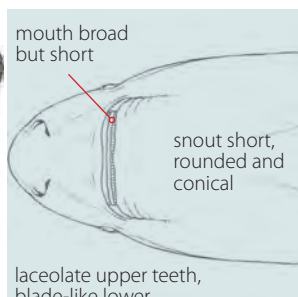
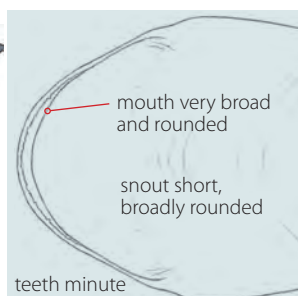
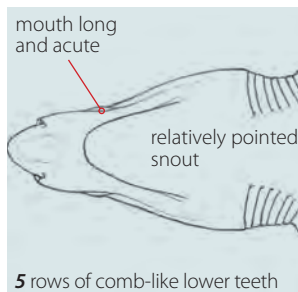
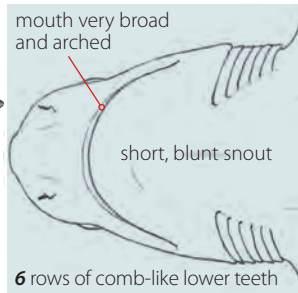
SIMILAR SPECIES

A large shark up to over 5m total length, one dorsal fin, an anal fin and six paired gill openings separates this shark from all others.

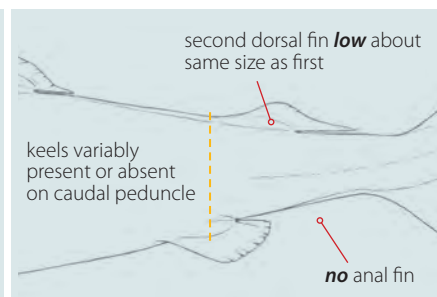
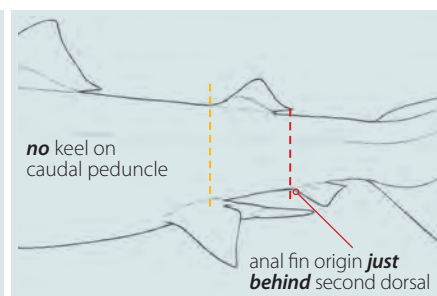
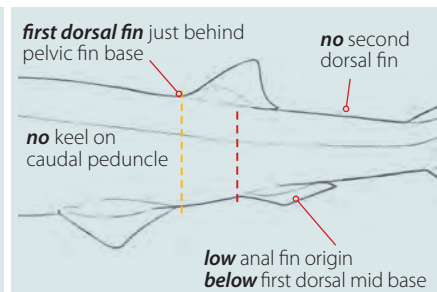
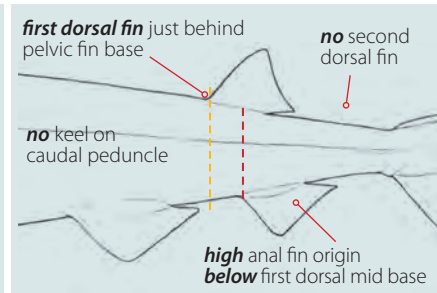
Gill slits, snout coloration, first dorsal and caudal fins



Ventral view of head



Second dorsal and anal fins



Euprotomicrus bispinatus

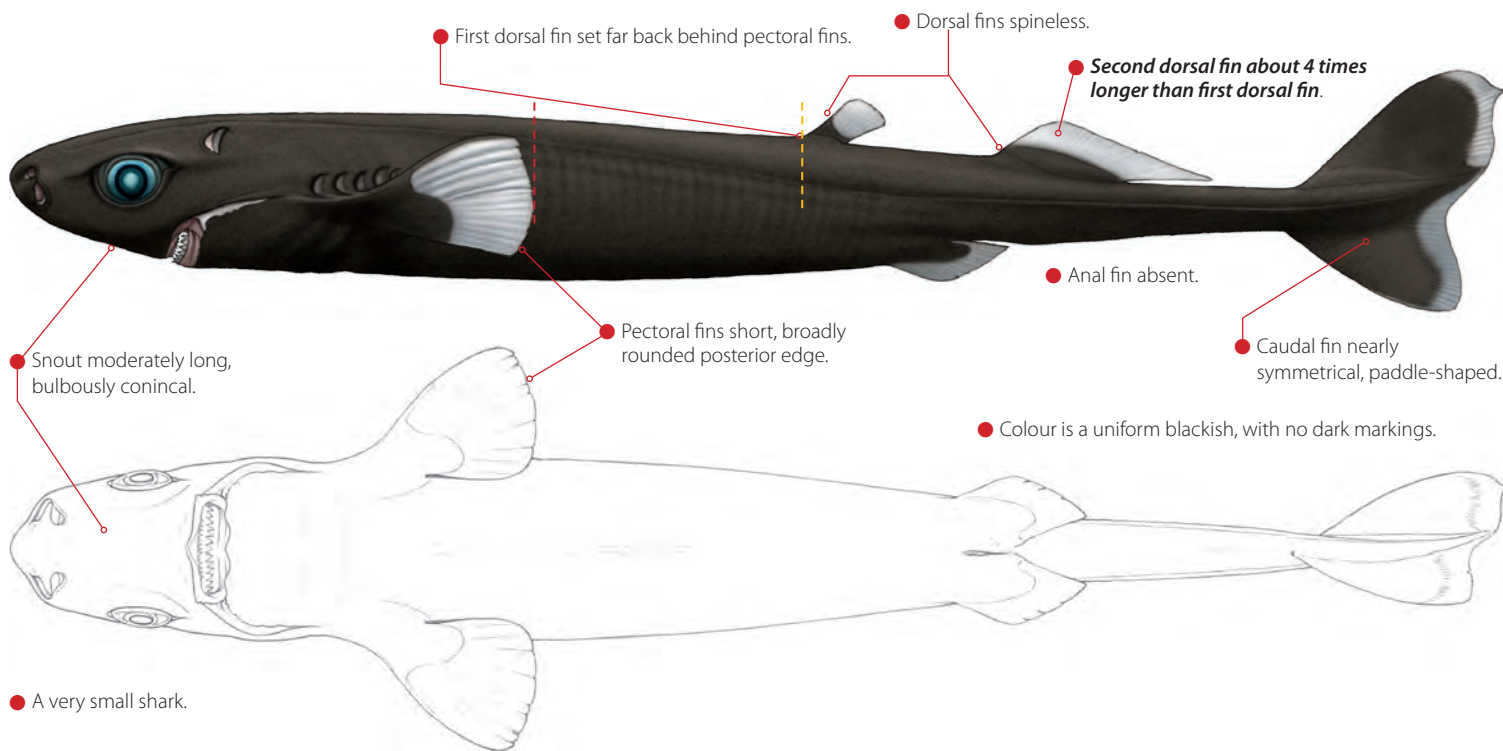
(Quoy & Gaimard, 1824)

Pygmy Shark

Squale pygmée

LC

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Dentition



Teeth approximately four times actual size.



Teeth approximately actual size.

Upper teeth small, with narrow, sharply pointed, erect cusps; lower teeth much larger, bladelike, interlocked, with a high, broad, nearly erect cusp and distal blade, edges not serrated.

Tooth counts: upper jaw 19–21, lower jaw 19–23.

Description

Small size, bulbous snout, cylindrical body, no dorsal fin spines, tiny flag-like first dorsal fin, this over abdomen and closer to pelvic fins than pectoral fins and well behind pectorals, second dorsal base about four times larger than first, no anal fin, blackish colour with conspicuous light-edged fins.



© SeaPics.

Colour

Blackish with conspicuously light-edged fins.

Size

Males mature: about 17–19cm.

Females mature: about 22–23cm.

Maximum size: 27cm.

Birth size: about 6–10cm.

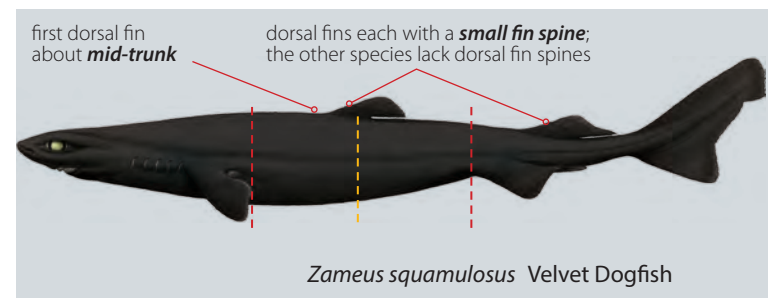
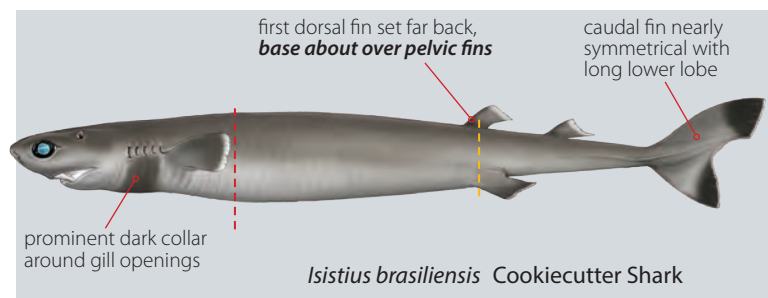
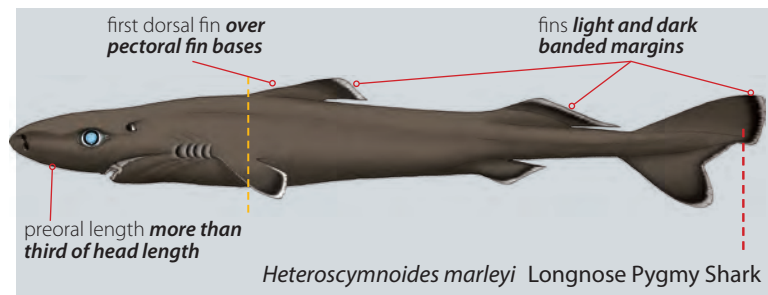
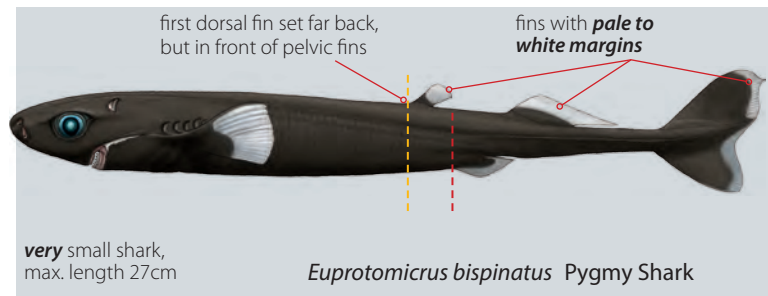


SIMILAR SPECIES

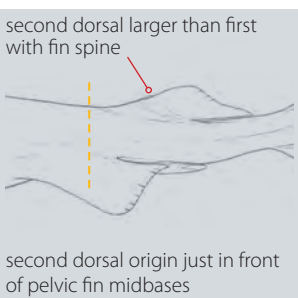
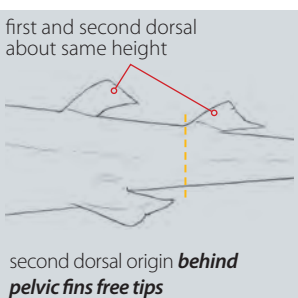
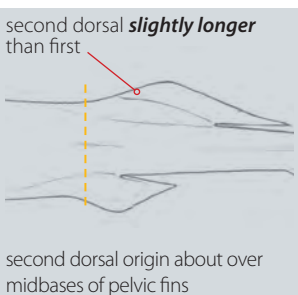
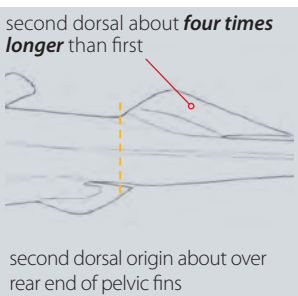
A tiny dogfish; moderately long bulbous snout, large round eyes and tiny equal-sized gill openings; dorsal fins without spines, first dorsal fin much

smaller than second fin, first dorsal fin set close to pelvic fins, caudal fin is paddle-shaped; black with conspicuous light-edged fins.

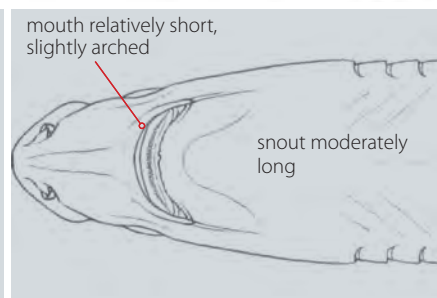
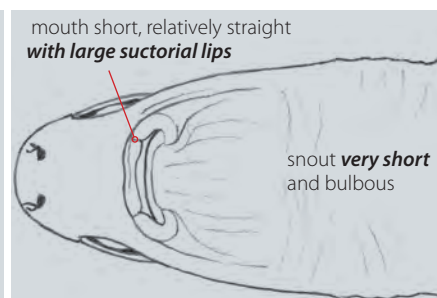
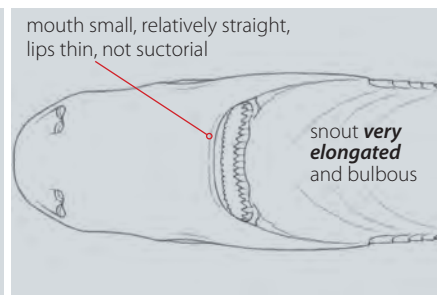
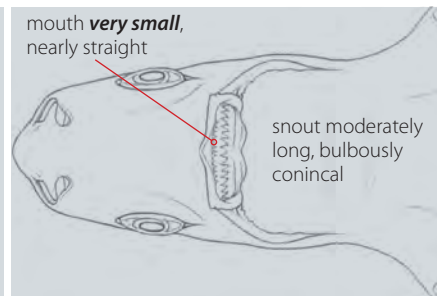
Colour, first dorsal fin position and first dorsal and caudal fins shape



Second dorsal & anal fins



Ventral view of heads and teeth



Heteroscymnoides marleyi

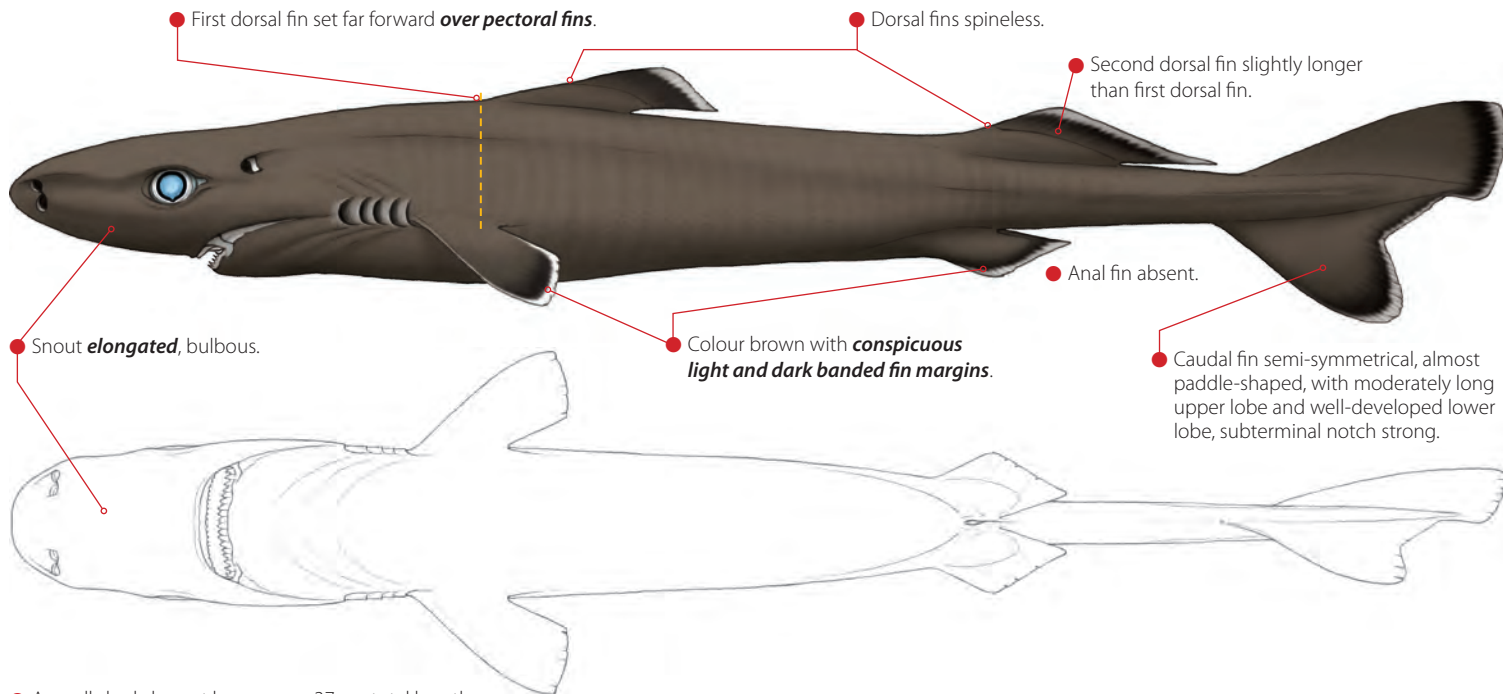
Fowler, 1934

Longnose Pygmy Shark

Squale mignon

LC

LL



● A small shark, largest known was 37 cm total length.

Dentition



Teeth approximately two times actual size.



Teeth approximately actual size.

Upper teeth small, with narrow, sharply pointed, erect cusps; lower teeth much larger, bladelike, interlocked, with a high, broad, nearly erect cusp and distal blade, edges not serrated.

Tooth counts: upper jaw 22, lower jaw 23.

Description

Small size, bulbous elongated snout, no dorsal fin spines; first dorsal fin far forward, with origin over pectoral bases, second dorsal only slightly larger than first, no anal fin, dark brown colour with light-edged fins.



© Matthias Stehmann

Colour

Brown with conspicuous light and dark banded fin margins.

Size

Males mature: about 36cm.

Females mature: about 33cm.

Maximum size: 37cm.

Birth size: about 12cm.

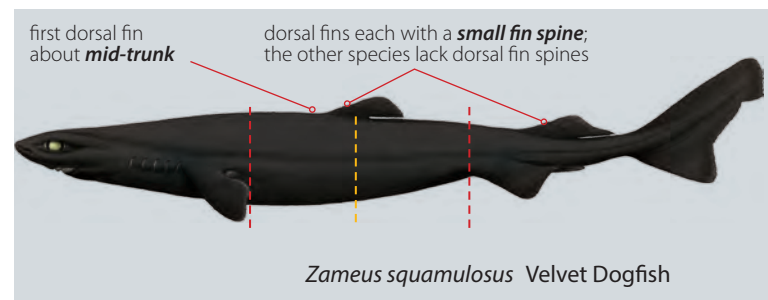
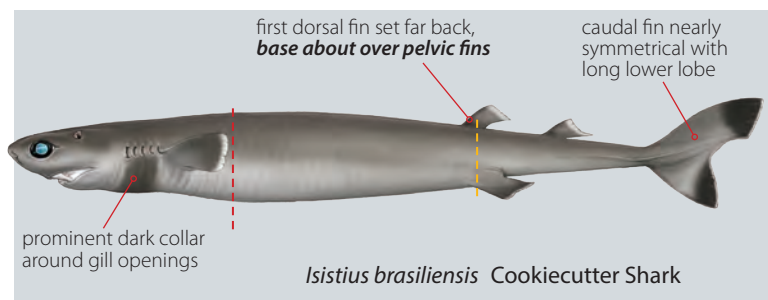
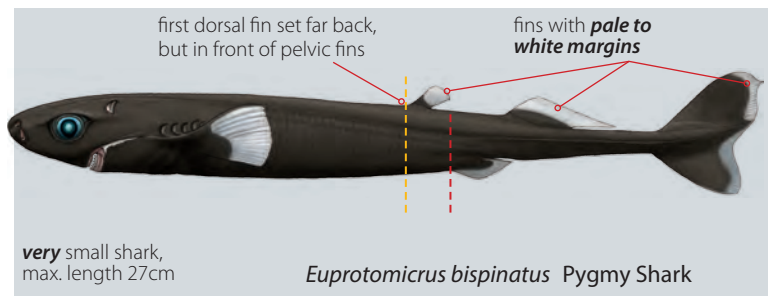
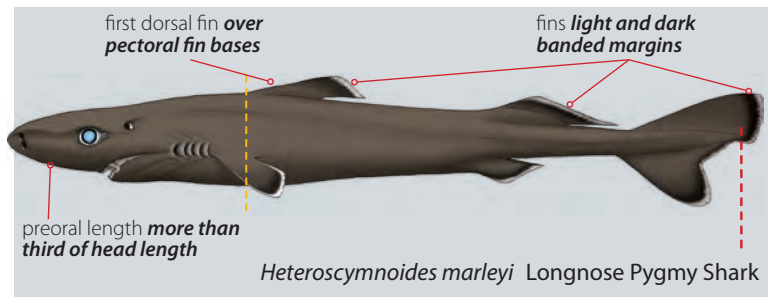


SIMILAR SPECIES

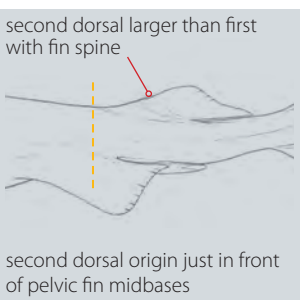
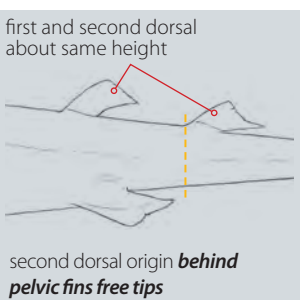
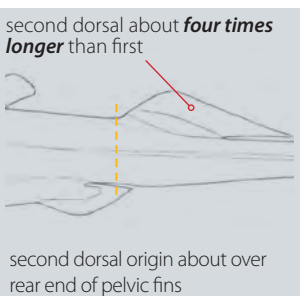
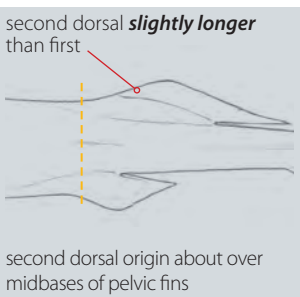
A small dogfish with a cylindrical body; long bulbous snout, small rounded eyes, small gill openings; dorsal fins without spines, first dorsal fin almost as

large as second and set over pectoral fins, caudal fin paddle-shaped; dark brown with conspicuous light-edged fins.

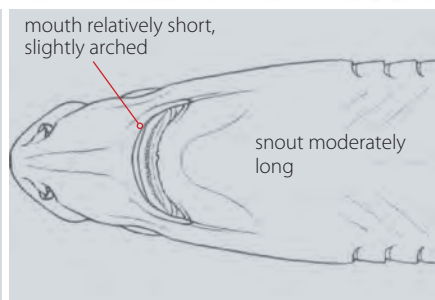
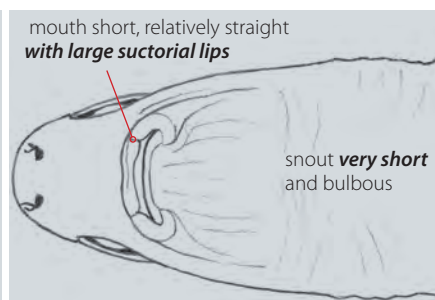
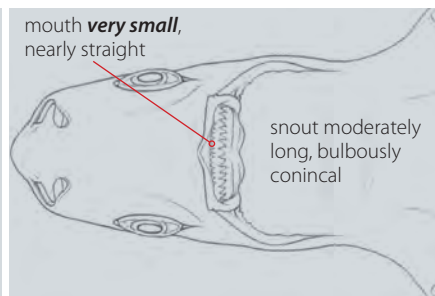
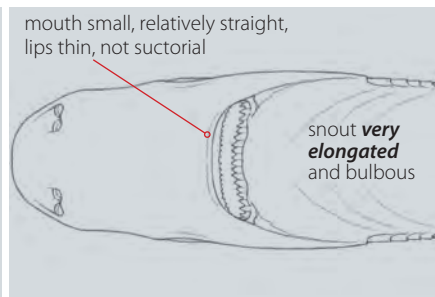
Colour, first dorsal fin position and first dorsal and caudal fins shape



Second dorsal & anal fins



Ventral view of heads and teeth

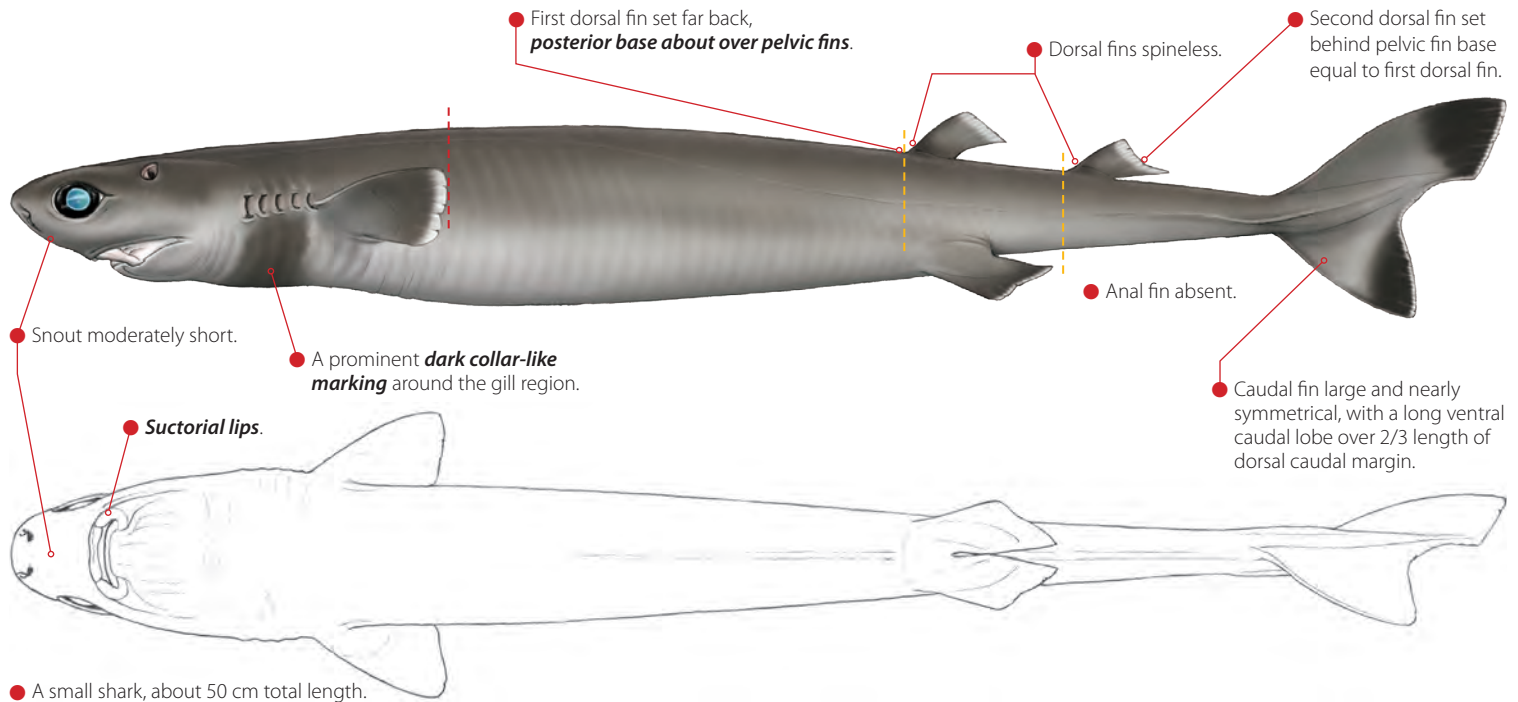


Isistius brasiliensis
(Quoy & Gaimard, 1824)

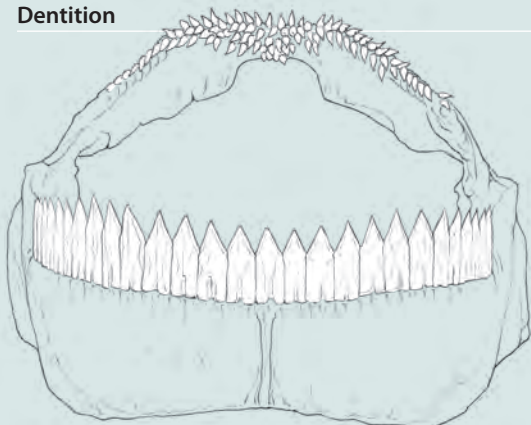
Cookiecutter Shark
Squalelet féroce

LC

LL



Dentition



Triangular-cusped lower teeth without blades.

Tooth counts: upper jaw 30–37, lower jaw 25–31.

Description

Small size, cigar-shaped body, small, spineless dorsal fins far posterior on back, no anal fin, suctorial lips, short, bulbous snout, and nearly symmetrical caudal fin with long lower lobe.



© Malcolm Francis (NIWA, New Zealand)

Colour

Pale brown above, becoming lighter below, with a conspicuous dark collar-like marking around the gill region; fins dark, but with pale to translucent edges.

Size

Males mature: about 31–37cm.

Females mature: about 38–44cm.

Maximum size: 50cm.

Birth size: about 14–15cm.

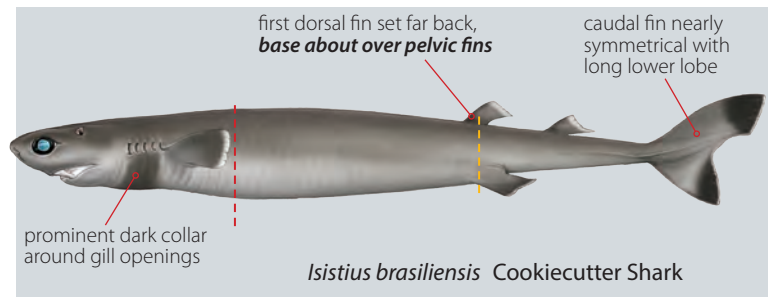


SIMILAR SPECIES

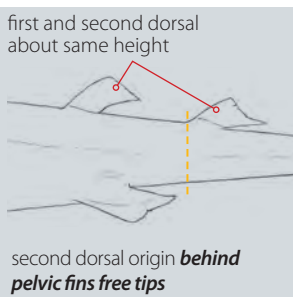
A small, cigar-shaped shark; short bulbous snout; dorsal fins set far back, first dorsal over pelvic fins, no dorsal fin spines, an asymmetrical paddle-shaped

caudal fin; grey to grey-brown with a prominent dark collar band around its gills and throat.

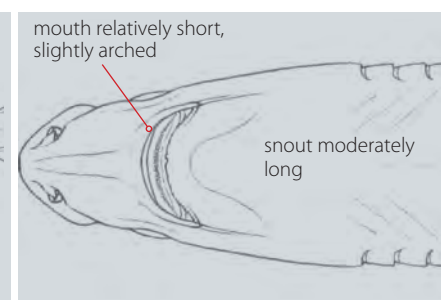
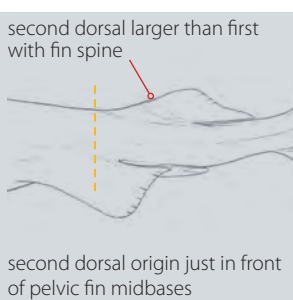
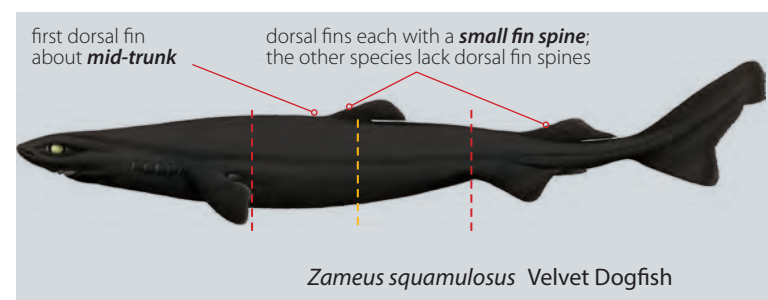
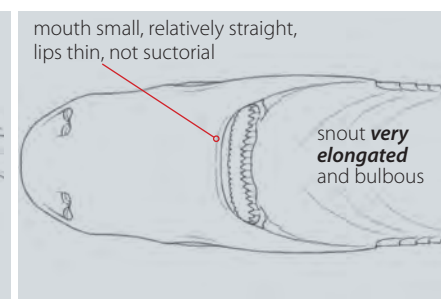
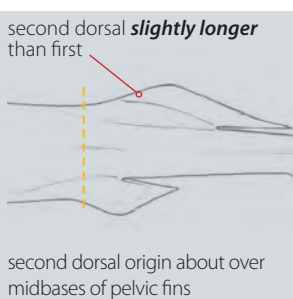
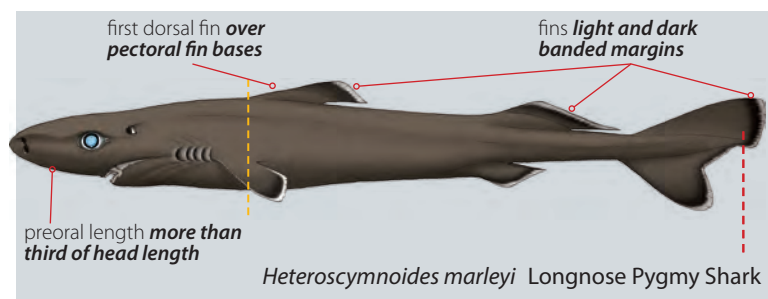
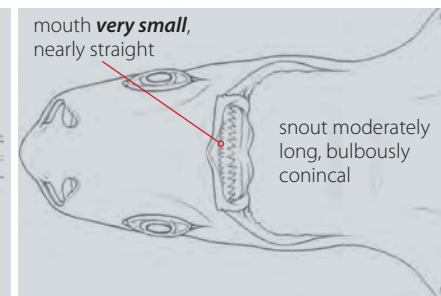
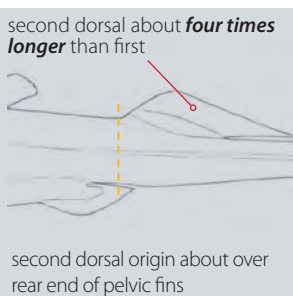
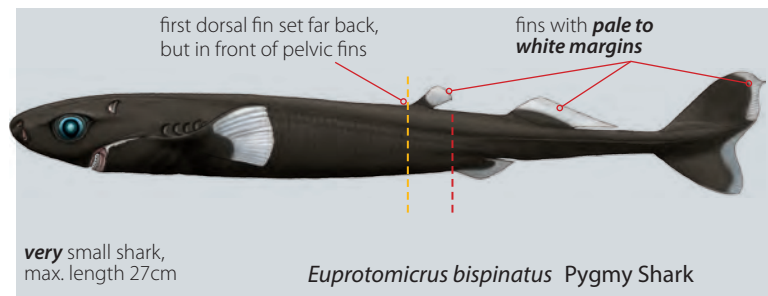
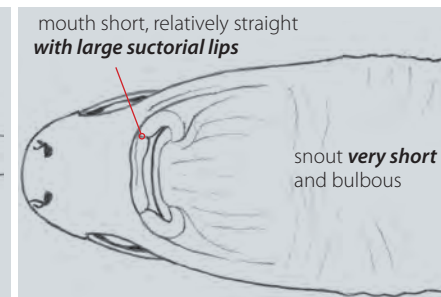
Colour, first dorsal fin position and first dorsal and caudal fins shape



Second dorsal & anal fins



Ventral view of heads and teeth



Scymnodalotias albicauda

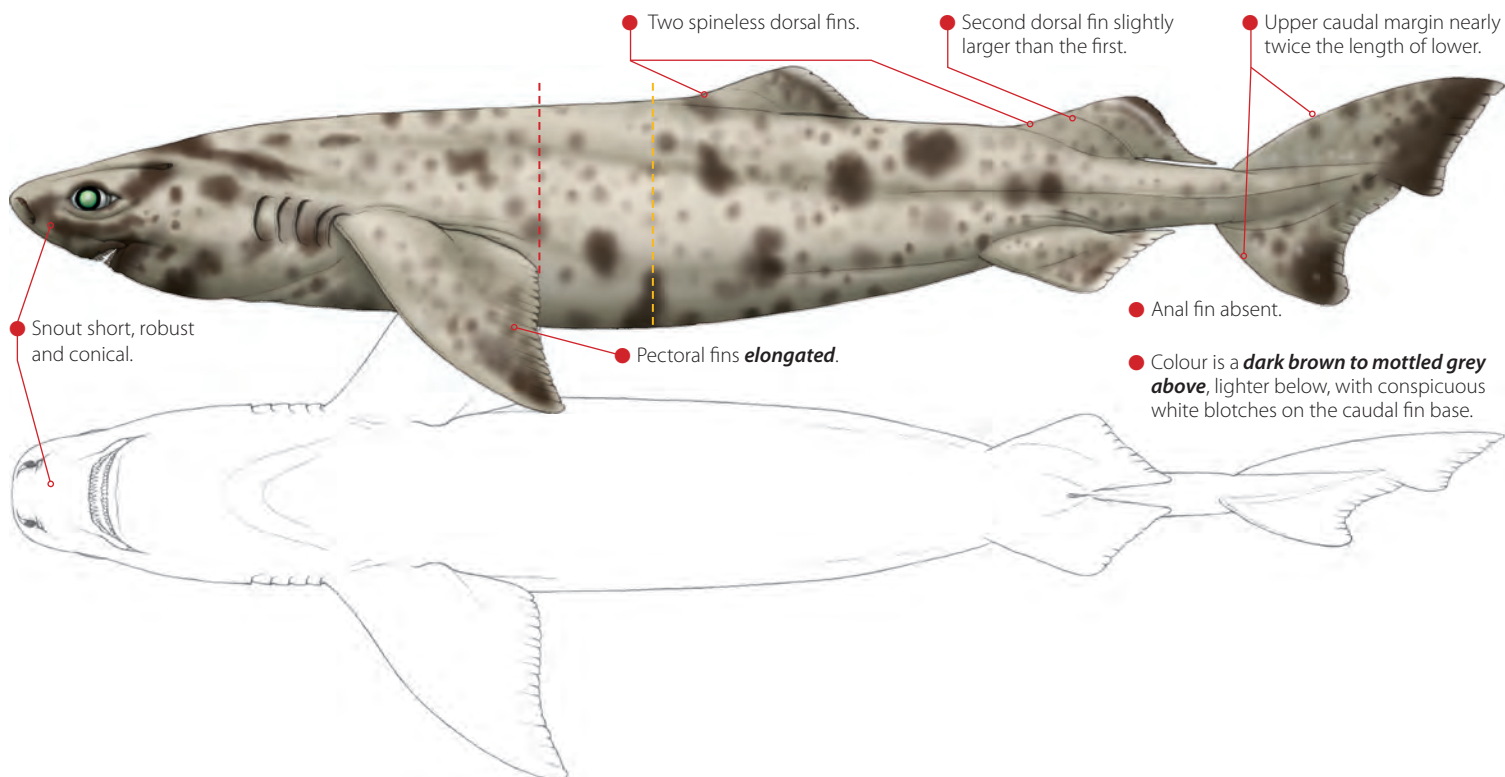
Taniuchi & Garrick, 1986

Whitefin Dogfish

Squale grogneur à queue blanche

DD

LL



● Snout short, robust and conical.

● Pectoral fins *elongated*.

● Two spineless dorsal fins.

● Second dorsal fin slightly larger than the first.

● Upper caudal margin nearly twice the length of lower.

● Anal fin absent.

● Colour is a *dark brown to mottled grey above*, lighter below, with conspicuous white blotches on the caudal fin base.

Dentition



Teeth approximately two times actual size.



Teeth approximately actual size.

Upper teeth small, narrow with acutely erect cusps; lowers large blade-like smooth-edged, imbricate lower teeth with high, erect cusps.

Tooth counts: upper jaw 57–62, lower jaw 35.

Description

Short, broadly rounded snout, eyes horizontally elongated, and a long broadly arched mouth. Pectoral fins elongated. Second dorsal slightly larger than the first. Caudal fin asymmetrical, with upper caudal margin nearly twice the length of the lower caudal margin.



© David A. Ebert

Colour

Dark brown or mottled greyish above, lighter brownish grey below, fins with whitish grey margins, conspicuous white blotches on caudal fin base and web except for dark terminal lobe.

Size

Males mature: unknown.
Females mature: 74–110cm.
Maximum size: 110cm.
Birth size: about 20cm.

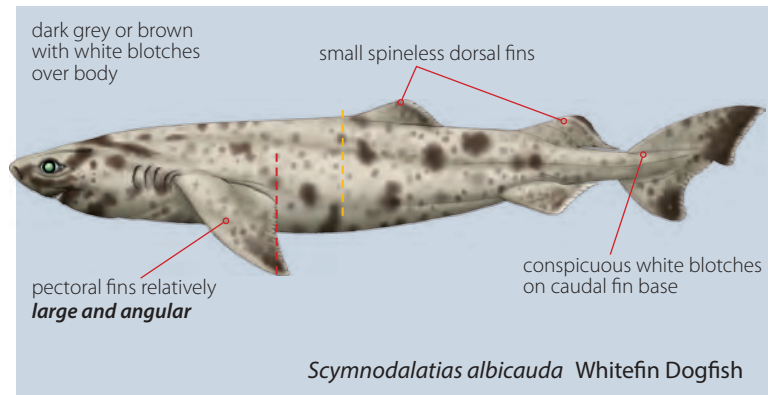


SIMILAR SPECIES

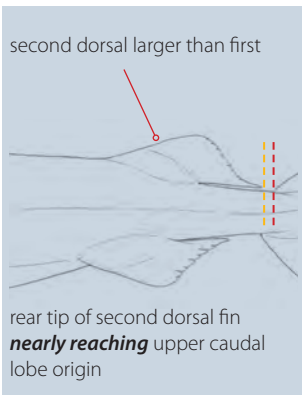
A moderate-sized dogfish; pectoral fins are very elongated, no dorsal fin spines, first dorsal fin about mid-body, second dorsal fin slightly larger than first;

dark brown and white to greyish mottling or blotches over body and a dark terminal lobe on caudal fin.

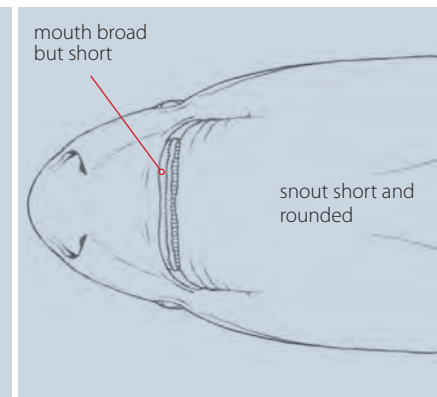
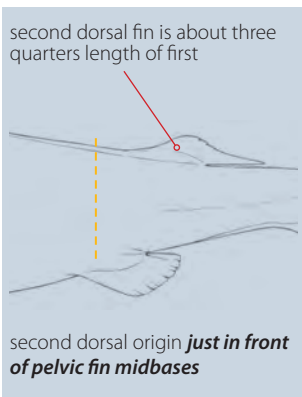
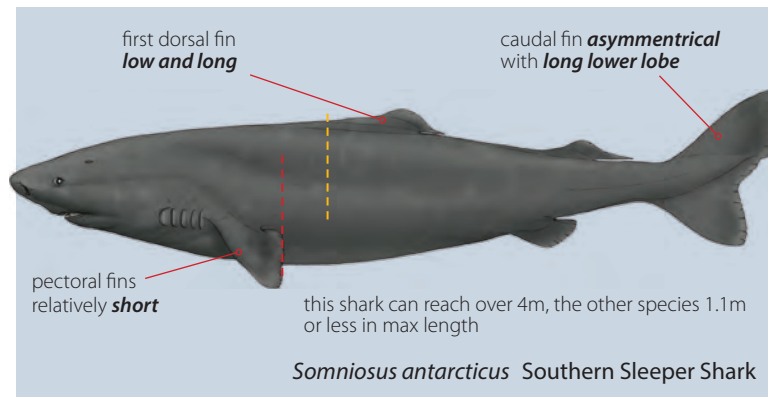
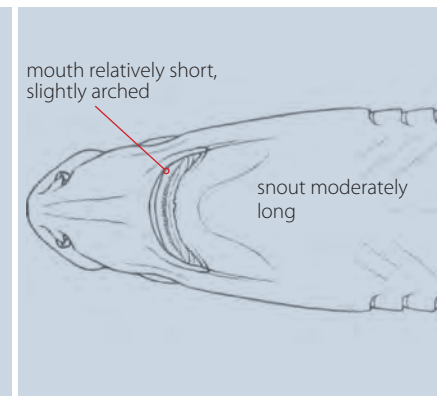
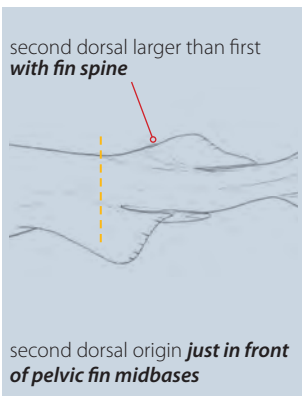
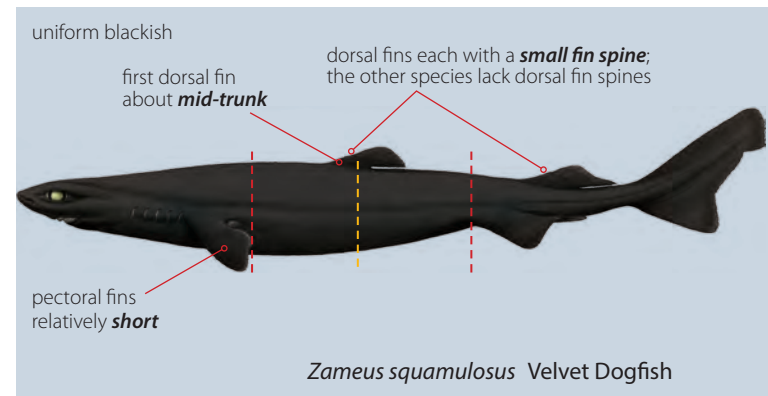
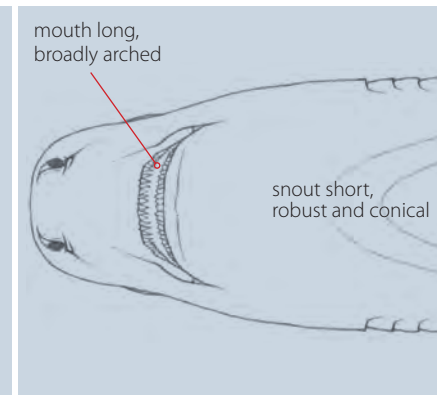
Colour, first dorsal fin position and first dorsal and caudal fins shape



Second dorsal & anal fins



Ventral view of heads and teeth



Somniosus antarcticus

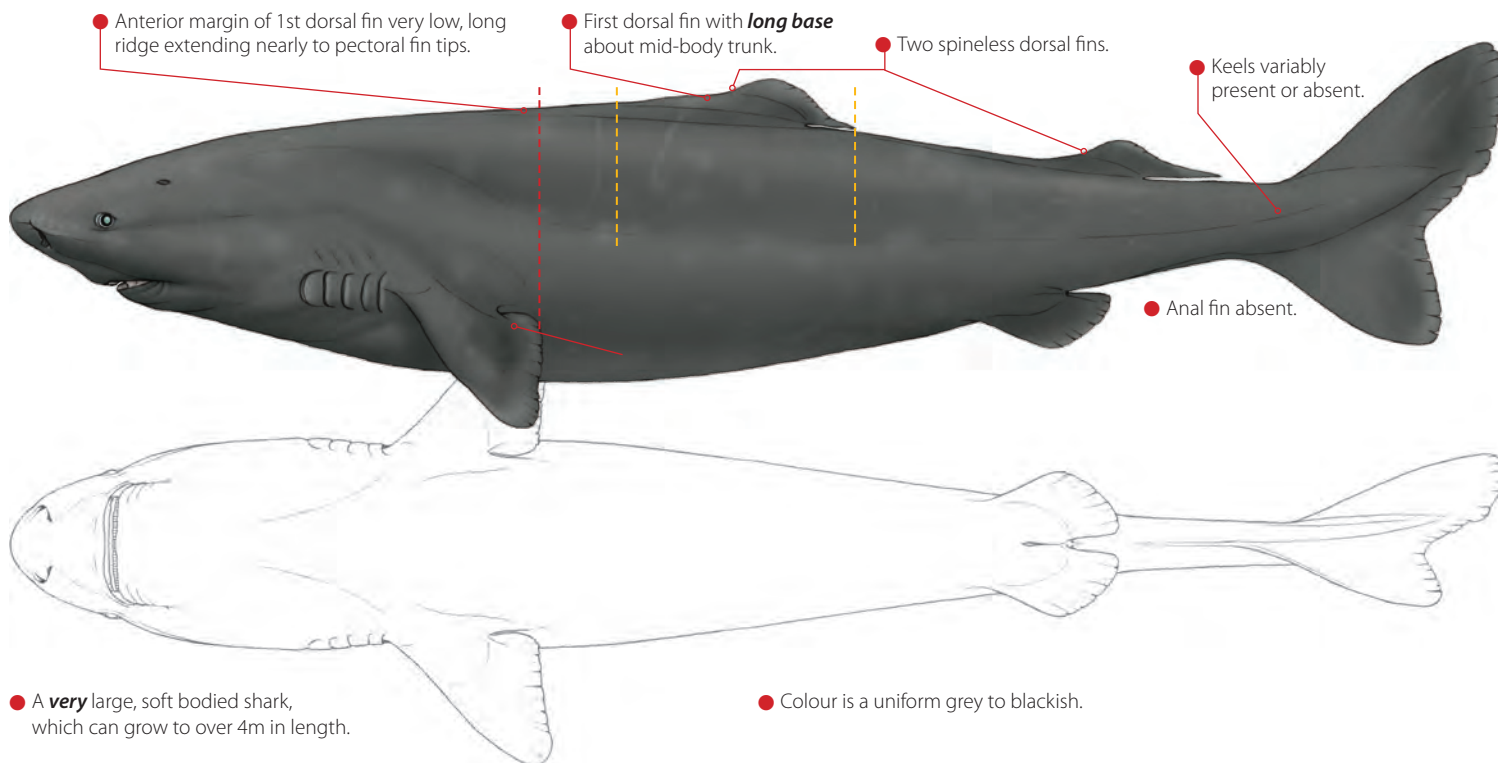
Whitley, 1939

Southern Sleeper Shark

Laimargue de l'Antarctique

DD

LL



Dentition



Teeth approximately actual size.

Upper teeth lanceolate, lower teeth with short, low, strongly oblique cusps and high, narrow roots.

Tooth counts: upper jaw 37–48, lower jaw 49–59.

Description

A large heavy, cylindrical bodied shark, with a short, rounded snout, two spineless, equal-sized dorsal fins, no anal fin, relatively small dorsal, pectoral, and pelvic fins, and a large asymmetrical tail fin with a long ventral caudal lobe.



© Malcolm Francis (NIWA, New Zealand)

Colour

Uniformly grey to blackish, without conspicuous light or dark fin edges.

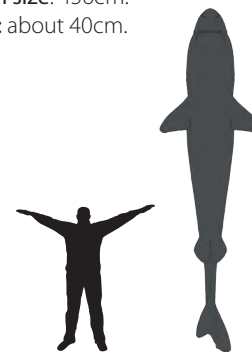
Size

Males mature: about 400cm.

Females mature: about 435cm.

Maximum size: 456cm.

Birth size: about 40cm.

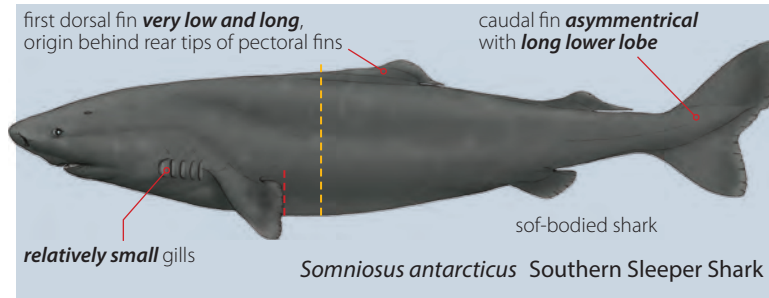


SIMILAR SPECIES

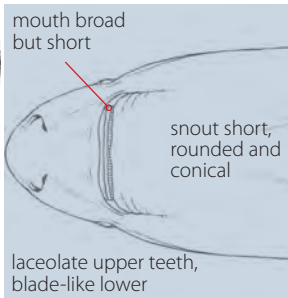
A very large, up to 5m total length, heavy-bodied dogfish; moderately long, rounded snout; small, low, spineless dorsal fins, dorsal fins relatively small, first

dorsal fin very low and long, lower lobe of caudal fin long; medium grey to brown or blackish.

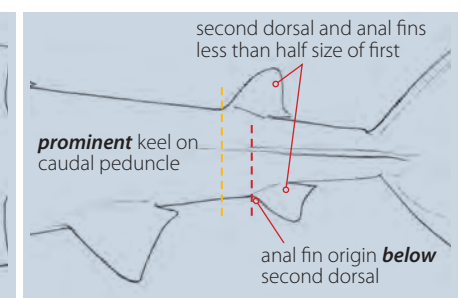
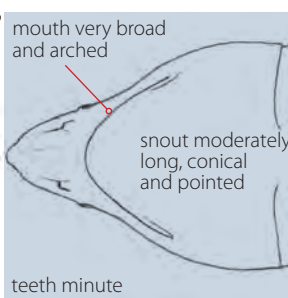
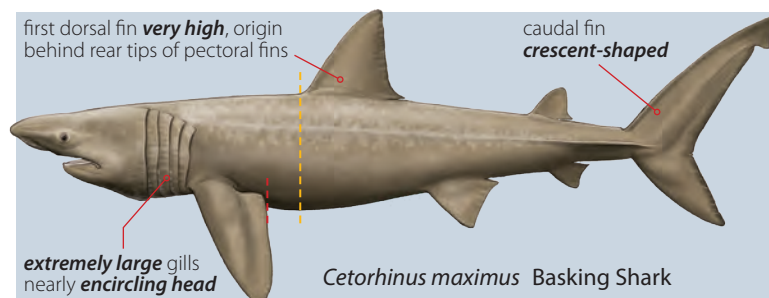
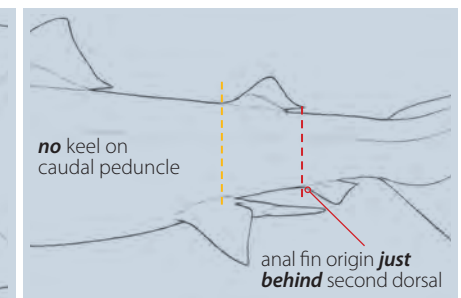
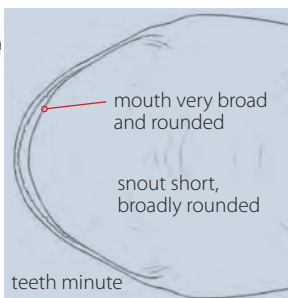
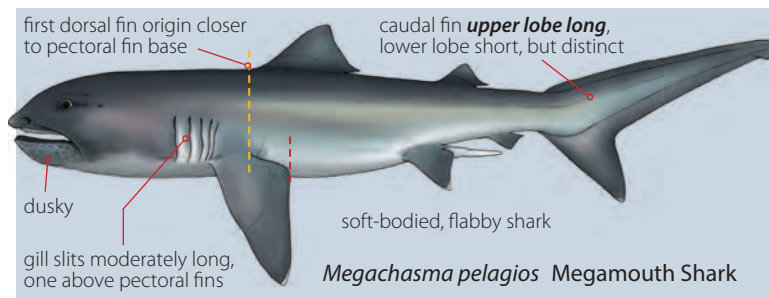
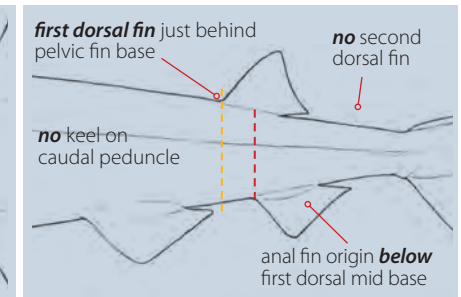
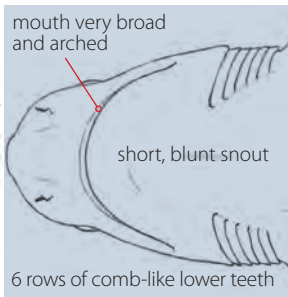
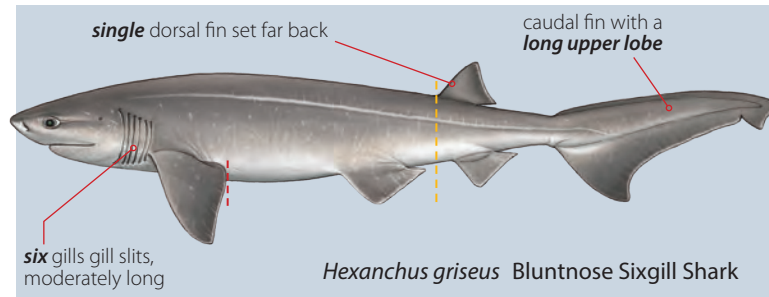
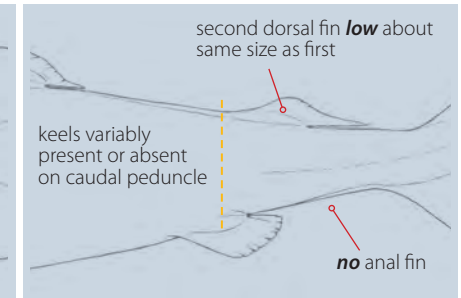
Gill slits, snout coloration, first dorsal and caudal fins



Ventral view of head



Second dorsal and anal fins



Zameus squamulosus

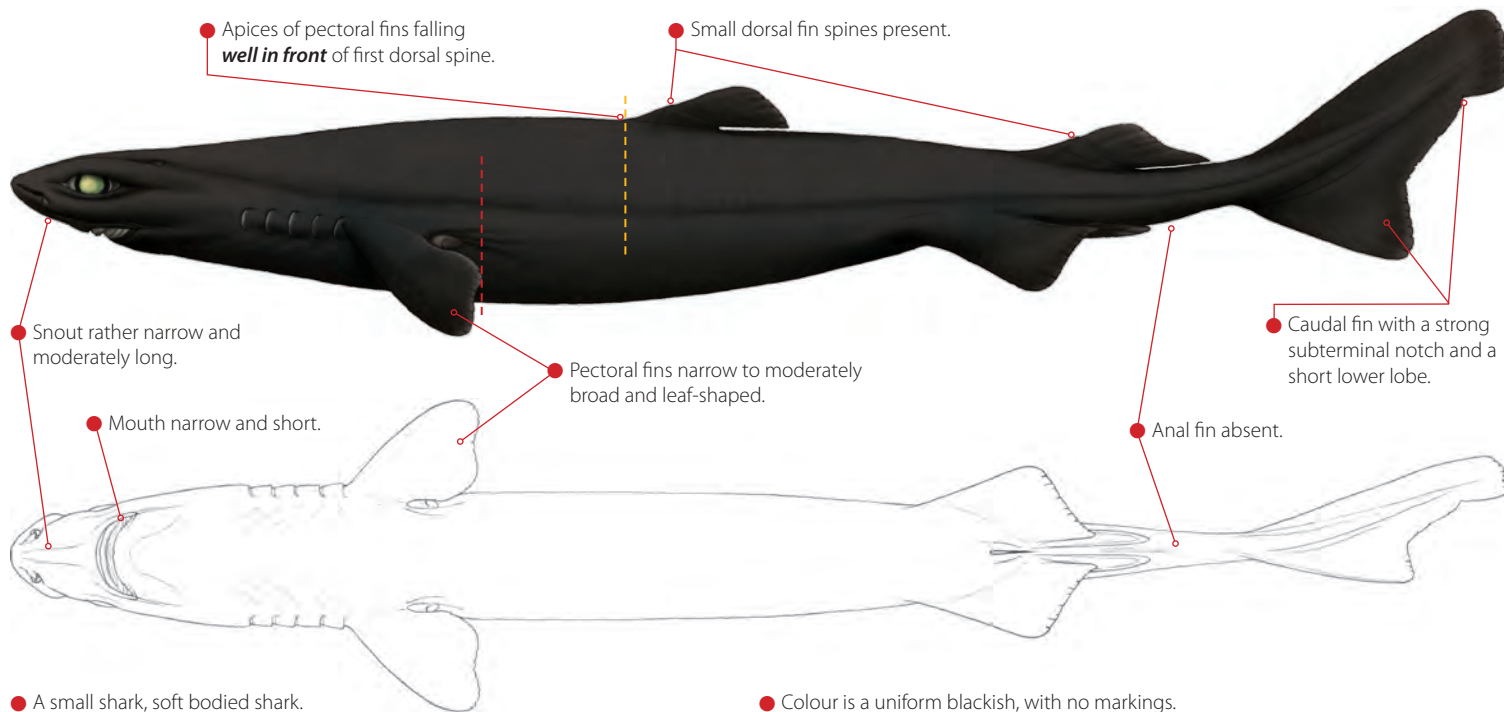
(Günther, 1877)

Velvet Dogfish

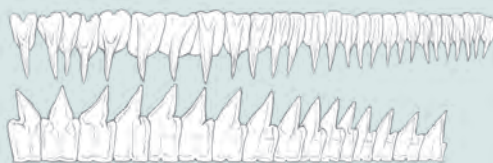
Squale-grogneur velouté

DD

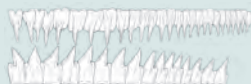
LL



Dentition



Teeth approximately two times actual size.



Teeth approximately actual size.

Teeth of upper jaw small, spear-like, lower jaw high-cusped, knife-like.

Tooth counts: upper jaw 47–60, lower jaw 32–38.

Description

A small slender bodied shark, with a low flat head, fairly long snout, short narrow mouth, post oral grooves much longer than the short upper labial furrows. A small fin spine preceding each dorsal fin, no anal fin, small lanceolate teeth without cusplets in upper jaw and large high, knife-cusped cutting teeth in lower jaw, mouth moderately wide and nearly transverse, caudal fin with strong subterminal notch and short lower lobe.



© David A. Ebert

Colour

Uniformly black to dark brownish with no conspicuous markings.

Size

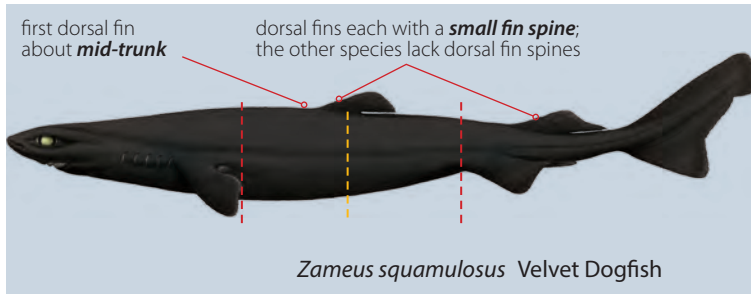
Males mature: about 47–51cm.
Females mature: about 59–69cm.
Maximum size: 84cm.
Birth size: about 20cm.



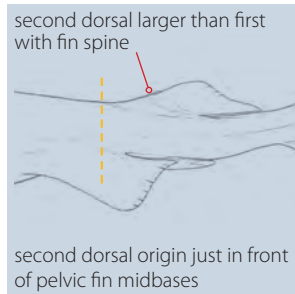
SIMILAR SPECIES

A small, slender dogfish with a moderately long snout, narrow mouth, and a small spine in front of each dorsal fin; second dorsal fin slightly larger than first; upper lobe of caudal fin longer than lower; uniformly black to blackish-brown.

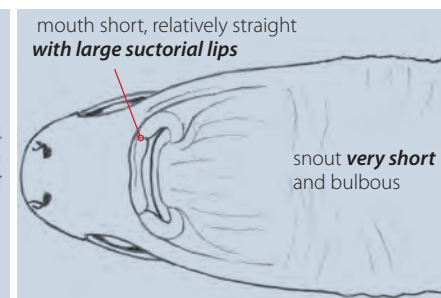
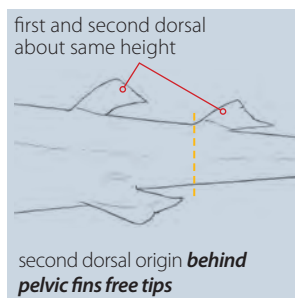
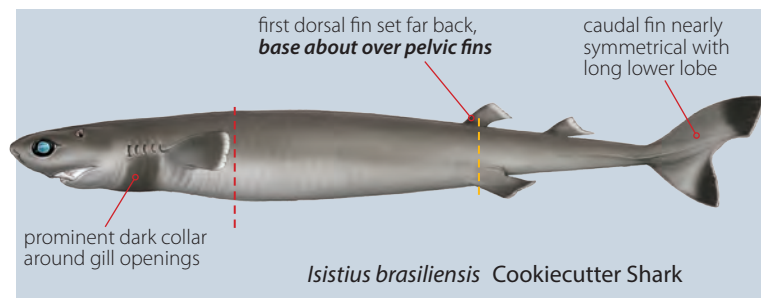
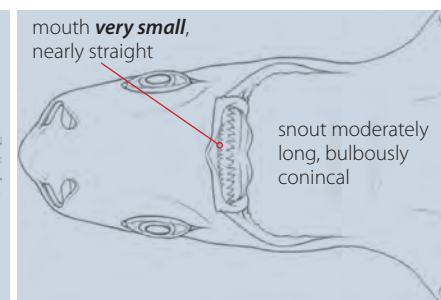
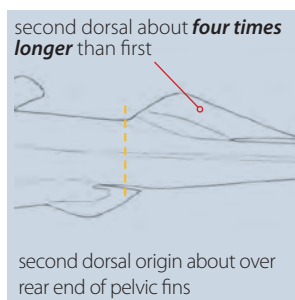
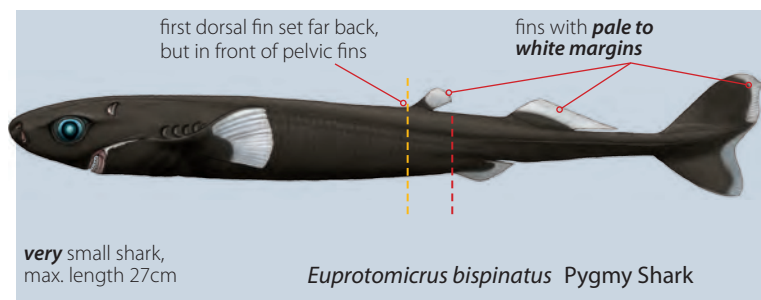
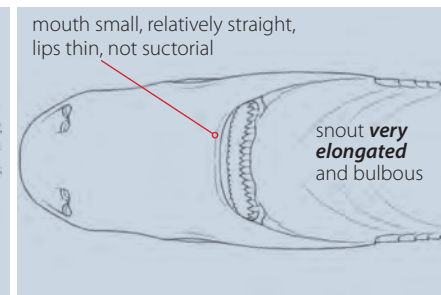
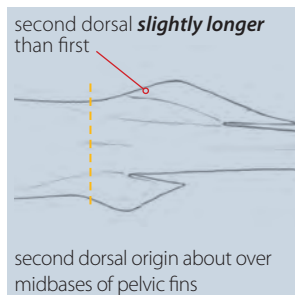
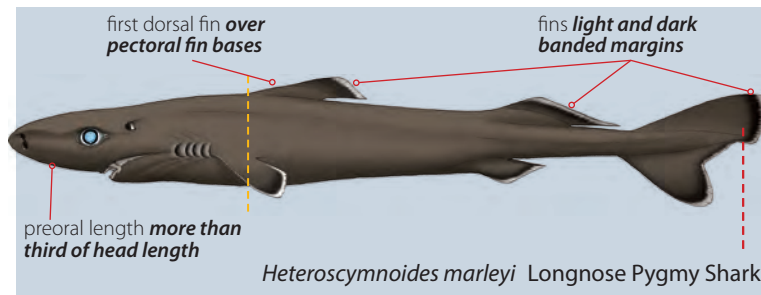
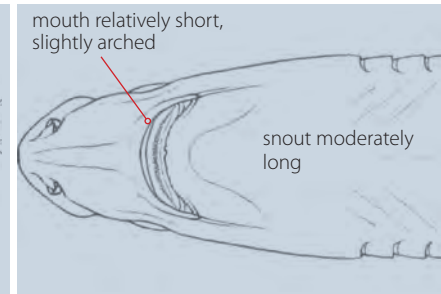
Colour, first dorsal fin position and first dorsal and caudal fins shape



Second dorsal & anal fins

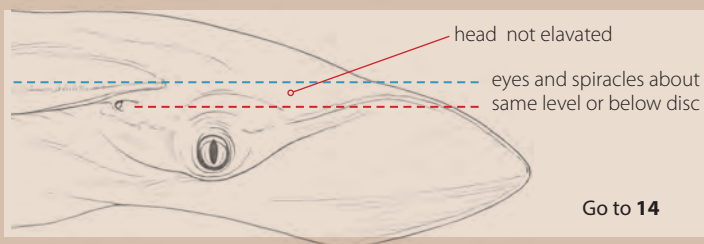
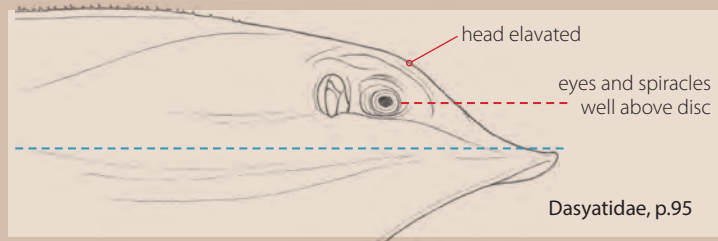


Ventral view of heads and teeth



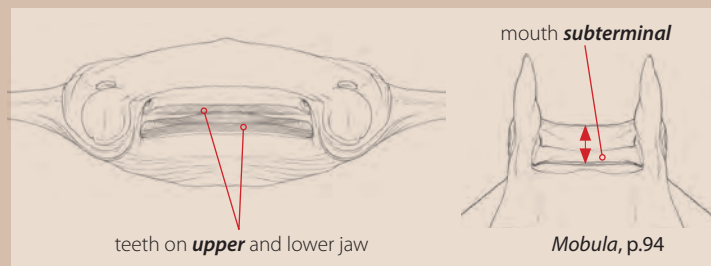
13 a Head elevated above disc; eyes and spiracles well above level of pectoral fins (disc) → **Dasyatidae**, p.95

13 b Head not elevated above disc; eyes and spiracles about same level or below level of pectoral fins (disc) → **Mobulidae** 14)



14 a Mouth terminal, teeth only on lower jaw → *Manta*

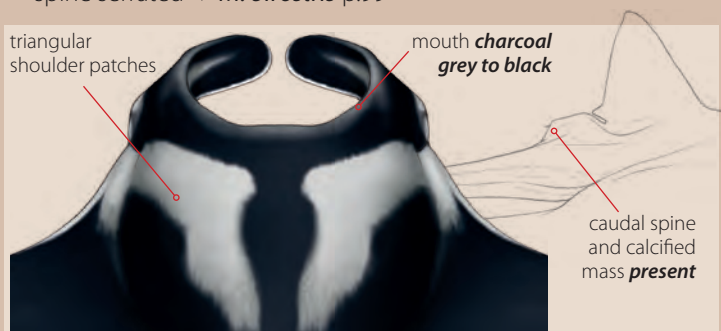
14 b Mouth subterminal, teeth on upper and lower jaw → *Mobula* p.94



Manta

a) **Shoulder patches** originate posterior from spiracle, with blurred posterior edges, not obviously triangular in shape; **distinct dark spots** on ventral surface of disc may be present across posterior half of body and medially between gill slits; **mouth** white to light grey in colour; **caudal spine absent**, calcified mass absent tail base → *M. alfredi* p.97

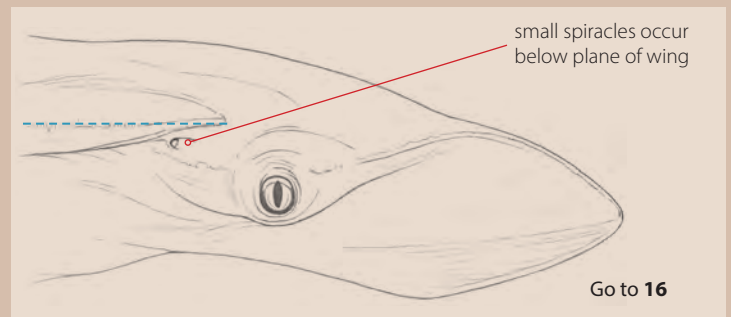
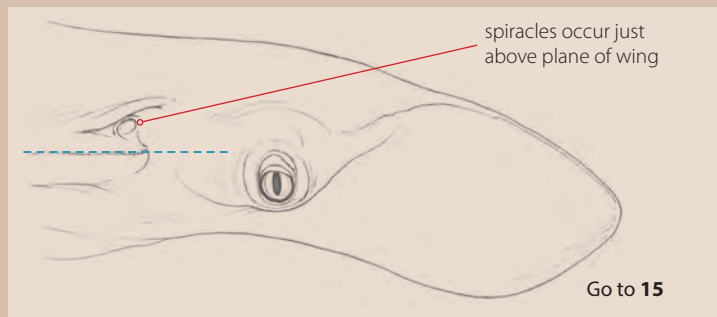
b) **Shoulder patches** very distinct and triangular in shape, anterior edge of shoulder patches extends medially from spiracle in about a straight line parallel to upper jaw; **distinct dark spots** on ventral surface of disc over abdominal region, no spots between gill slits; **mouth** black to charcoal grey in colour; **caudal spine present**, but mostly encased in calcified mass spine serrated → *M. birostris* p.99



Mobula

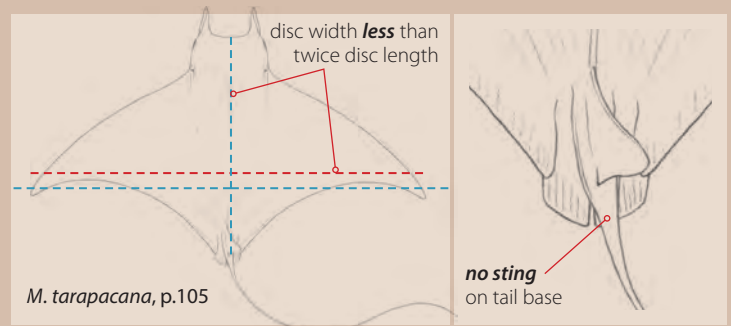
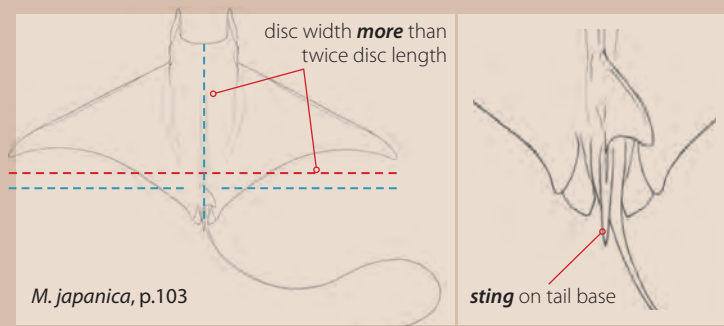
a) Spiracles slit-like (or elliptical), occur dorsal to plane of disc wings
Disc width maximum reaching 3.1 m or more →15)

b) Spiracles small, subcircular, occur slightly below plane of disc wings
Disc width maximum 1.8 m or less →16)



15a A sting on tail base, disc width 2x's or more than length, maximum disc width 3.1 m → *M. japonica* p.103

15b No sting on tail base, disc width less than 2x's length, maximum disc width 3.7 m → *M. tarapacana* p.105



16a Head relatively long, cephalic fin length >16% disc width, dorsal fin black, no white spot → *M. eregoodootenkee* p.101

16b Head relatively short, cephalic fin length < 16% disc width, dorsal fin with white spot at tip → *M. thurstoni* p.107

