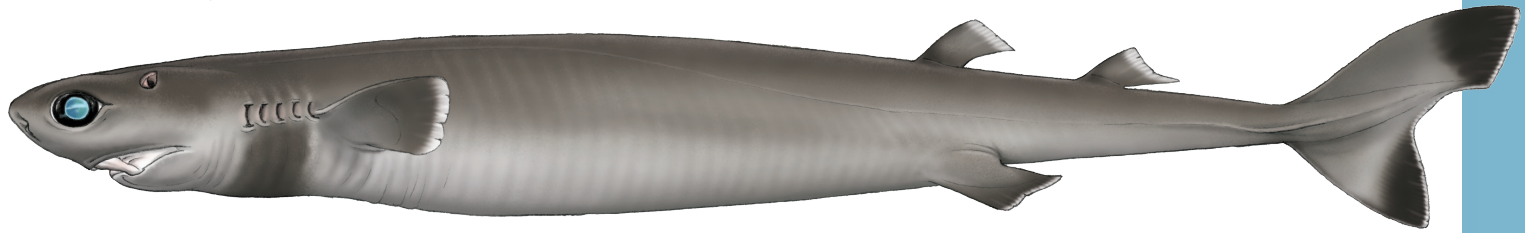
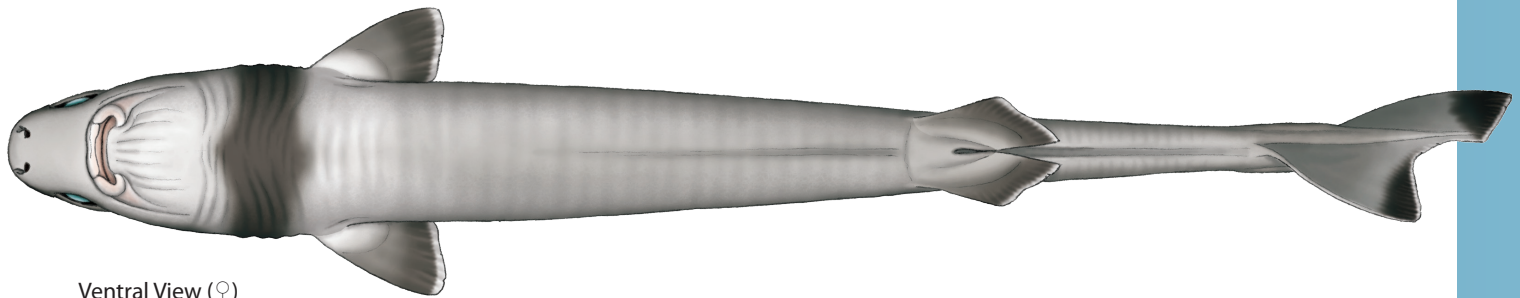


Lateral View (♀)



Ventral View (♀)



COMMON NAMES

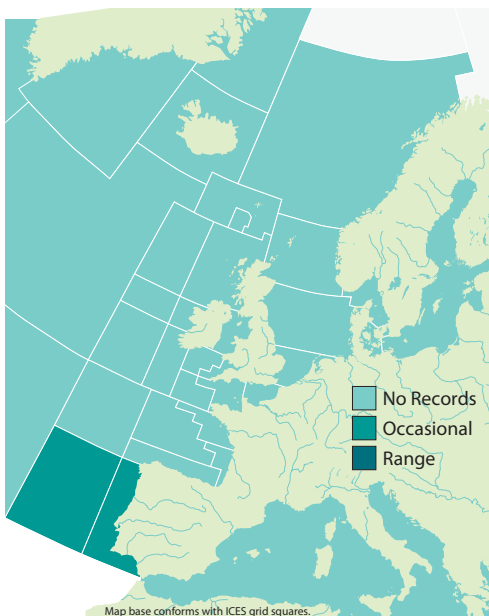
Cookiecutter Shark, Cigar Shark, Luminous Shark, Squalolet Féroce (Fr), Tollo Cigaro (Es).

SYNONYMS

Scymnus brasiliensis (Quoy & Gaimard, 1824), *Squalus fulgens* (Bennett, 1840), *Scymnus torquatus* (Valenciennes, in Müller & Henle, 1839), *Scymnus unicolor* (Valenciennes, in Müller & Henle, 1839), *Leius ferox* (Kner, 1865).

DISTRIBUTION

Primarily an oceanic species, the Cookiecutter Shark is found throughout the tropical Atlantic, Pacific and Indian Oceans. It has been found in temperate regions of the South Atlantic and South Pacific Oceans and its occurrence in the temperate North Atlantic has been inferred from fresh wounds on pelagic catches (primarily *Xiphias gladius*) off northwest Africa. There is a single record from Madeira (Muñoz-Chápuli et al., 1988).



Map base conforms with ICES grid squares.

APPEARANCE

- Cigar-shaped body.
- Two equal-sized, spineless dorsal fins set well back on the body.
- No anal fin.
- Short, bulbous snout with suckorial lips.
- Nearly symmetrical caudal fin with long ventral lobe.
- Huge, triangular-cusped lower teeth in 25–31 rows.
- Dark brown dorsally, lighter ventrally.
- Distinct dark collar around the gill region.
- Ventral surface covered in photophores.

A relatively small, cigar-shaped species, the Cookiecutter Shark has two small, spineless dorsal fins set well posterior on the back and no anal fin. The caudal fin is almost homocercal with a long ventral lobe. The snout is short and bulbous with obvious suckorial lips. The lower teeth are huge, single-cusped, triangular and arranged into 25–31 rows (Compagno, 1984).

The dorsal surface is dark brown, fading ventrally. While there may be a dark patch under the gills on the Bigtooth Cookiecutter Shark, *Isistius plutodus*, the Cookiecutter Shark has a distinct dark collar all around the gill region. With the exception of this collar, the entire ventral surface is covered in photophores which reportedly produce light for up to three hours after death (Bester, Unknown).

SIMILAR SPECIES

Isistius plutodus, Bigtooth Cookiecutter Shark

Etmopterus princeps, Great Lanternshark

Etmopterus pusillus, Smooth Lanternshark

Etmopterus spinax, Velvet Belly Lanternshark

Centroscyllium fabricii, Black Dogfish

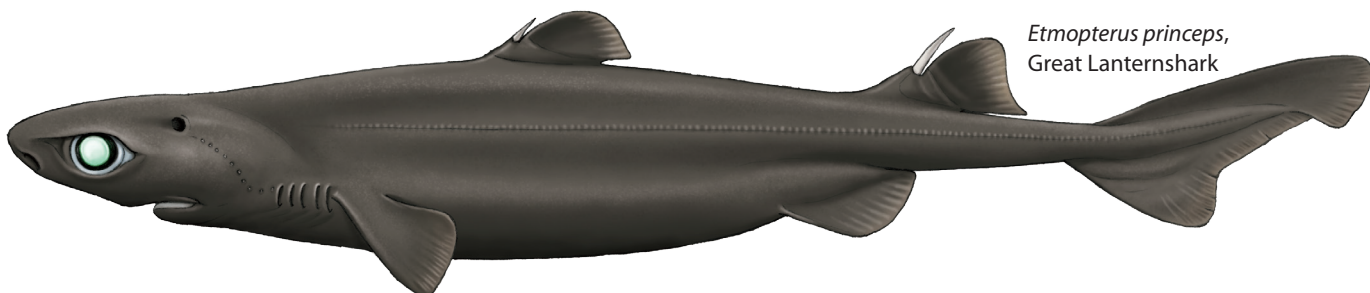
Isistius brasiliensis,
Cookiecutter Shark



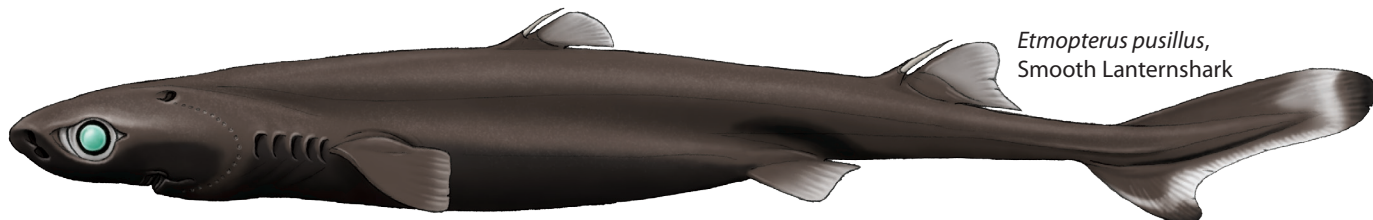
Isistius plutodus,
Largetooth Cookiecutter Shark



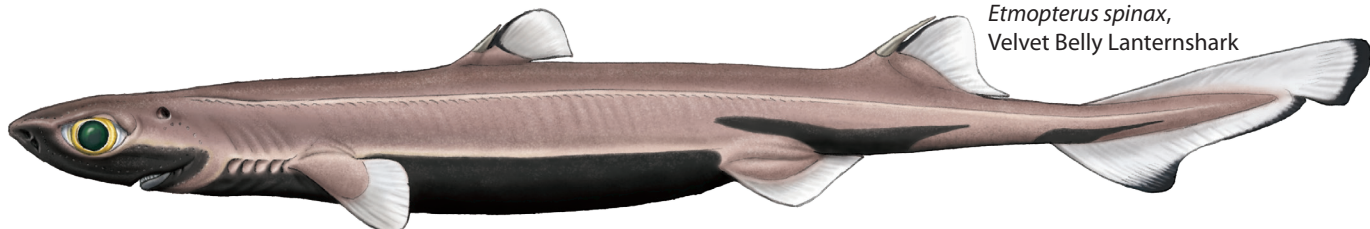
Etmopterus princeps,
Great Lanternshark



Etmopterus pusillus,
Smooth Lanternshark



Etmopterus spinax,
Velvet Belly Lanternshark



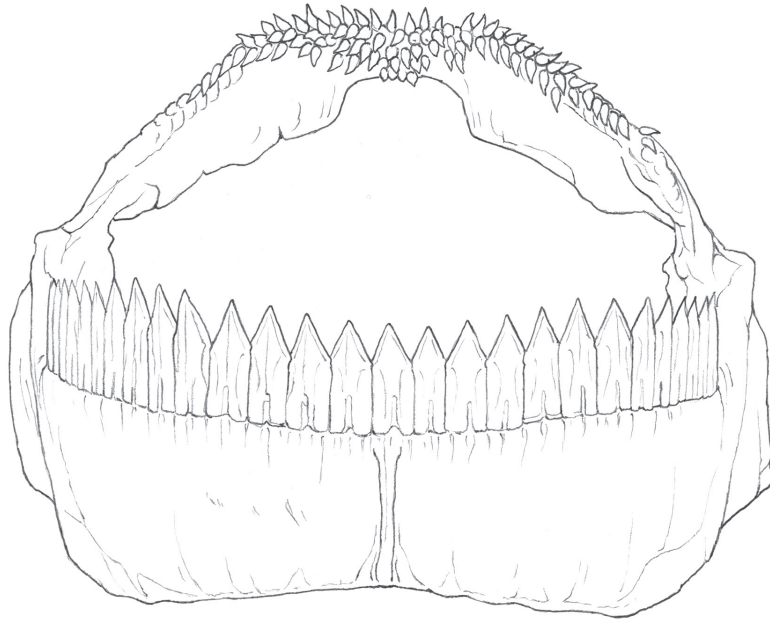
Centroscyllium fabricii,
Black Dogfish



(Not to scale)

TEETH

There are 30–37 small, erect teeth in the upper jaw and 25–31 triangular cusped teeth in the lower jaw (Bester, Unknown).



ECOLOGY AND BIOLOGY

HABITAT

An epipelagic to bathypelagic species, the Cookiecutter Shark is generally caught at night, sometimes at the surface but most usually between 85 and 3,500m. Its preferred depth range and maximum depth are unknown. Like many deep sea species it is a vertical migrator, moving towards the surface at night to feed and dropping back down during the day. It may travel 2,000-3,000m a day in this manner (Compagno, 1984).

EGGCASE

N/A

DIET

The Cookiecutter Shark is an ectoparasite which uses its bioluminescence to lure large pelagic species before carving a conical plug of flesh from them with its highly specialised dentition and suctional lips. Known victims of this method of feeding include marlin, albacore, wahoo, dolphinfishes, cetaceans and the Megamouth Shark, *Megachasma pelagios*. More conventional prey include squid, gonostomatids and crustaceans (Compagno, 1984).

REPRODUCTION

Female Cookiecutter Sharks mature at around 40cm in length, males at around 35cm in length. It is an ovoviparous species giving birth to litters of 6–12 pups. Nothing more is known of the reproductive biology of the species. It is thought that oceanic islands are used as nursery areas (Bester, Unknown).

COMMERCIAL IMPORTANCE

Due to its small size and naturally low abundance, the Cookiecutter Shark is rarely taken by fisheries and is generally discarded if caught (Stevens, 2003).

THREATS, CONSERVATION, LEGISLATION

A widespread but patchily distributed species, the Cookiecutter Shark is too small to be regularly taken by fisheries and there are no significant threats to the species at present. The lack of knowledge of its biology and its presumed low fecundity mean that catches should be carefully monitored to detect any population changes (Stevens, 2003).

IUCN RED LIST ASSESSMENT

Least Concern (2003).

HANDLING AND THORN ARRANGEMENT

- Handle with care.
- Large, sharp teeth.
- Abrasive skin.

REFERENCES

- BESTER, C. Unknown. Cookiecutter Shark. Florida Museum of Natural History. www.flmnh.ufl.edu/fish/.
- COMPAGNO, L. J. V. 1984. FAO Species Catalogue, Vol. 4, Part 1: Sharks of the World. An Annotated and Illustrated Catalogue of Shark Species Known to Date. FAO. Rome, Italy.
- COMPAGNO, L., DANDO, M., FOWLER, S. 2005. Sharks of the World. HarperCollins Publishers Ltd. London, UK.
- MUÑOZ-CHÁPULI, R., REY SALGADO, J. C., DE LA SERNA, J. M. 1988. Biogeography of *Isistius brasiliensis* in the North-Eastern Atlantic, Inferred from Crater Wounds on Swordfish (*Xiphias gladius*). *J. Mar. Biol. Assn. UK*. 68: 315-321.
- STEVENS, J. 2003. *Isistius brasiliensis*. In: IUCN 2009. IUCN Red List of Threatened Species. Version 2009.1. www.iucnredlist.org.

Text: Richard Hurst.
Illustrations: Marc Dando.

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