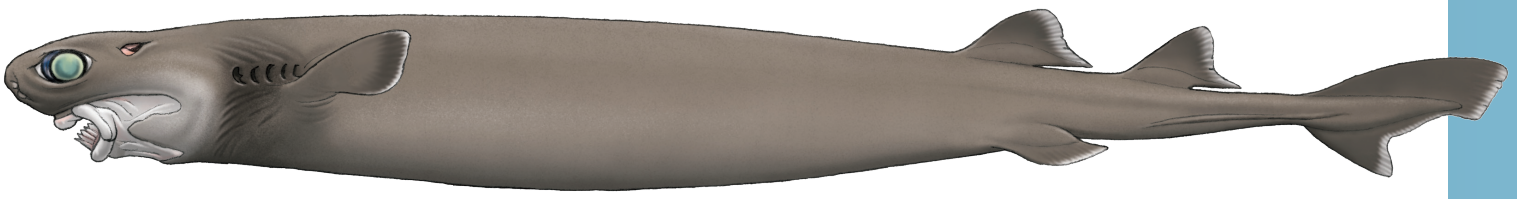
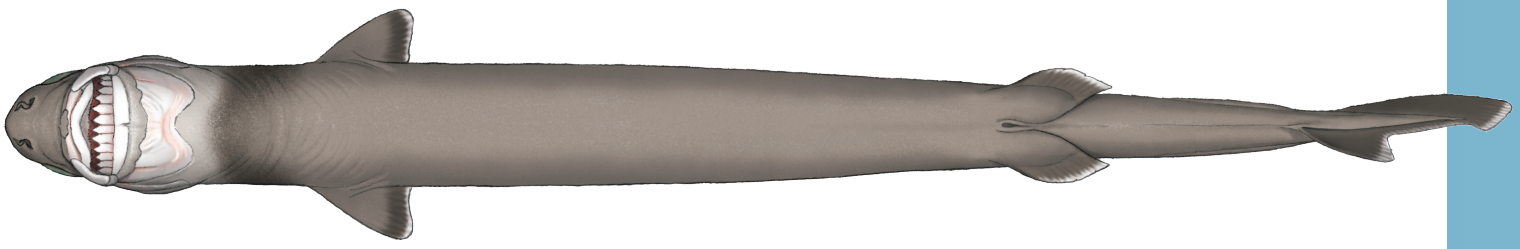
Bigtooth Cookiecutter Shark

Isistius plutodus

Lateral View (♀)





Ventral View (♀)

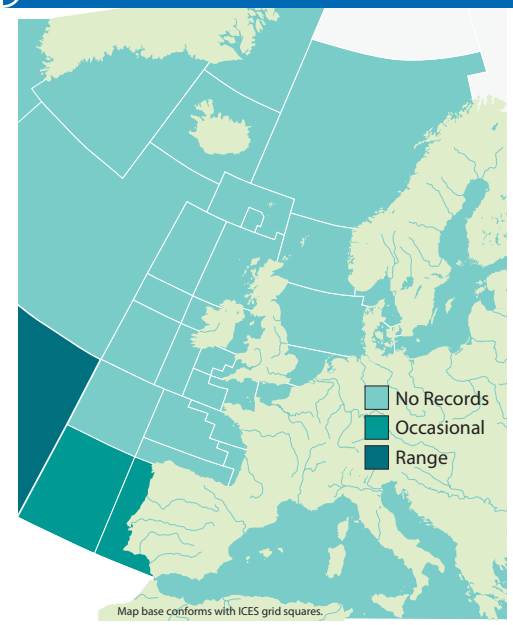
COMMON NAMES

Bigtooth Cookiecutter Shark, Largetooth Cookiecutter Shark, Longtooth Cookiecutter Shark, Gulf Dogfish, Squalelet Dentu (Fr), Tollo Cigarro Dentón (Es).

SYNONYMS

None.

DISTRIBUTION



Until recently, the Bigtooth Cookiecutter Shark was known only from the western North Atlantic (Gulf of Mexico) and western North Pacific (Okinawa) (Compagno, 1984). Specimens have now been described from Western Sahara, Brazil, Australia and north of the Azores (Zidowitz *et al*., 2004).

APPEARANCE

- Small, cigar shaped body.
- Spineless, equal-sized dorsal fins set well back on the body.
- No anal fin.
- Heterocercal caudal fin with short ventral lobe.
- Very short, bulbous snout.
- Huge, triangular lower teeth.
- Uniform brownish colouration with no dark collar.

A small, cigar shaped shark, the Bigtooth Cookiecutter Shark grows to a maximum size of at least 42cm. Its most distinctive feature is its dentition; its lower teeth are proportionally the largest of any elasmobranch. Its snout is short and bulbous with its eyes set further forward than the Cookiecutter Shark, *Isistius brasiliensis*, giving it a binocular field of vision. Its dorsal fins are equal in size and set well back on the body, the first originating slightly anterior to the pelvic fins, and lack dorsal spines. There is no anal fin and the ventral lobe of the caudal fin is short (Compagno, 1984).

Like the Cookiecutter Shark the colouration is uniformly dark brown but there is no darker collar present. There may be darker colouration on the throat around the pectoral fins but this does not extend onto the flanks or back (Zidowitz *et al*., 2004).

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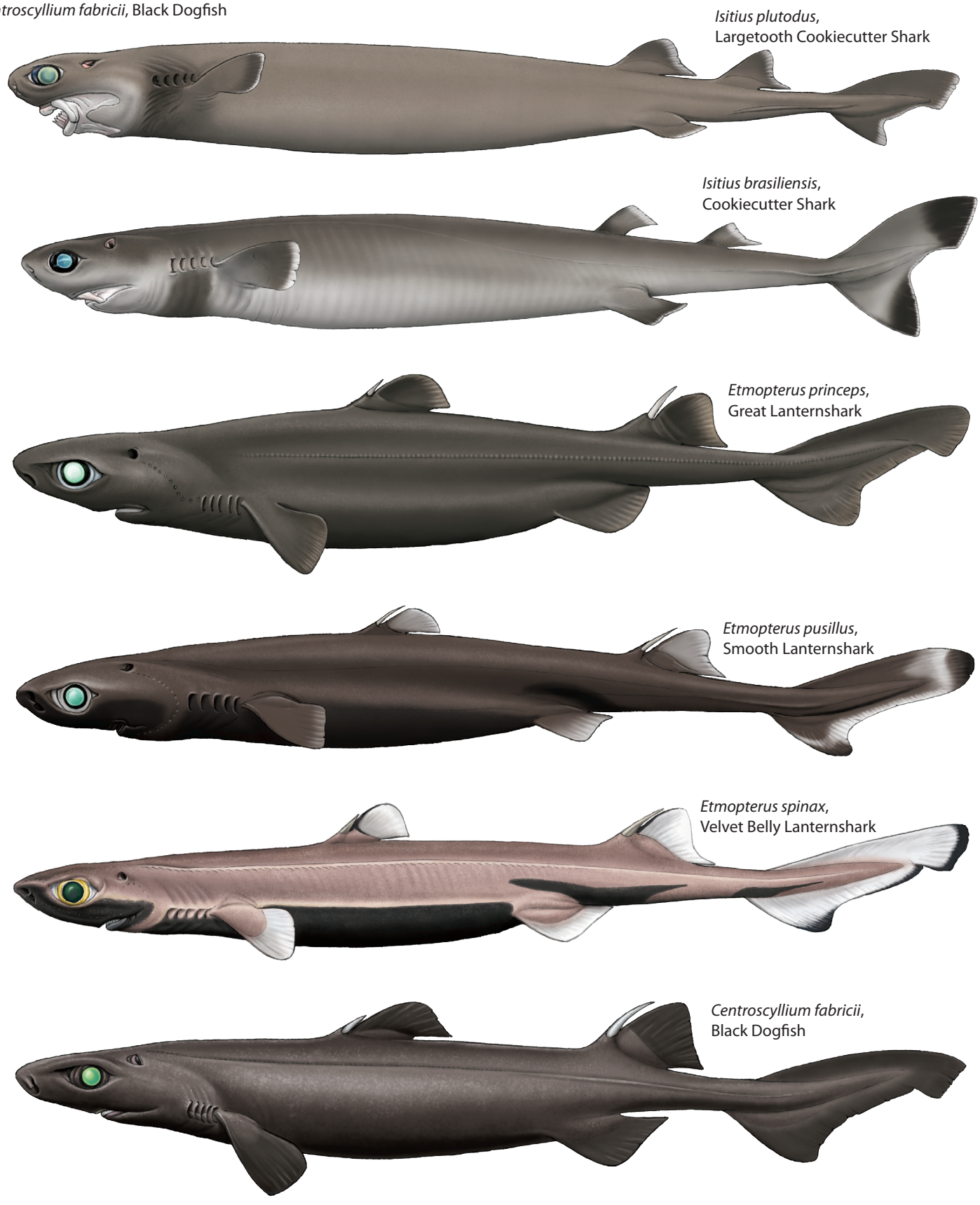
Bigtooth Cookiecutter Shark

SIMILAR SPECIES

Isistius brasiliensis, Cookiecutter Shark
Etmopterus princeps, Great Lanternshark
Etmopterus pusillus, Smooth Lanternshark
Etmopterus spinax, Velvet Belly Lanternshark
Centroscyllium fabricii, Black Dogfish



(Not to scale)

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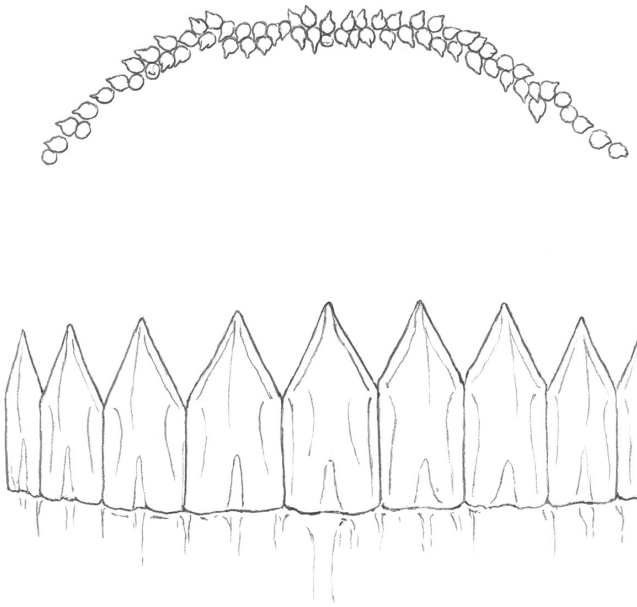
TEETH

The lower teeth are huge and triangular-cusped, arranged into 19 rows. These are proportionally the largest teeth of any shark. There are large suctorial lips (Compagno, 1984).



ECOLOGY AND BIOLOGY

HABITAT

As only 10 specimens of the Bigtooth Cookiecutter Shark have been recorded, its ecology and biology are poorly understood. All records so far are either epibenthic over continental shelves around 100m in depth or epipelagic over continental slopes (bottom depths 815–2,060m) from 60–120m. A specimen from the Riu-Kyu Trench was taken at 200m over a bottom depth of 6,440m (Kyne *et al*., 2006).

EGGCASE

N/A

DIET

Like the Cookiecutter Shark, *Isistius brasiliensis*, the Bigtooth Cookiecutter Shark is an ectoparasite which gouges conical chunks of flesh from large animals. Unlike the Cookiecutter Shark, it can apparently also gouge elongated plugs from its victims using a different, as yet unknown cutting action. It presumably also feeds on small epibenthic and epipelagic invertebrates and fish (Compagno, 1984).

REPRODUCTION

The reproductive cycle of the Bigtooth Cookiecutter Shark is unknown but it is presumably ovoviviparous (Kyne *et al*., 2006).

Supported by:

Bigtooth Cookiecutter Shark

COMMERCIAL IMPORTANCE

The Bigtooth Cookiecutter Shark is very rarely caught in trawl and longline fisheries and is of no commercial interest (Kyne *et al*., 2006).

IUCN RED LIST ASSESSMENT

Least Concern (2006).

THREATS, CONSERVATION, LEGISLATION

As the Bigtooth Cookiecutter Shark is so rarely caught it is assumed that that majority of the population exists beyond the current depth range of commercial fisheries, meaning there is very little threat to the species. However, inadequate reporting of deep sea sharks, confusion with other species and the species' apparently low abundance mean that future catches should be carefully monitored (Kyne *et al*., 2006).

HANDLING AND THORN ARRANGEMENT

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

REFERENCES

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.

KYNE, P. M., GERBER, L., SHERRILL-MIX, S. A. 2006. *Isistius plutodus*. In: IUCN 2009. IUCN Red List of Threatened Species. Version 2009.1. www.iucnredlist.org.

ZIDOWITZ, H., FOCK, H. O., PUSCH, C., VON WESTERNHAGEN, H. 2004. A first record of *Isistius plutodus* in the north-eastern Atlantic. *Journal of Fish Biology*, 64: 1430-1434.

Text: Richard Hurst.
Illustrations: Marc Dando.

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