

Largetooth Cookiecutter Shark, *Isistius plutodus*

| | | | |
|---|---|---------------------------------------|---------------|
| Report Card assessment | Negligible | | |
| IUCN Red List Australian Assessment | Least Concern | IUCN Red List Global Assessment | Least Concern |
| Assessors | Kyne, P., Gerber, L. & Sherrill-Mix, S. | | |
| Australian Assessors | Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan) | | |
| Report Card Remarks | Rarely caught in Australia. | | |

Summary

The Largetooth Cookiecutter Shark is a rare shark that is only known from approximately 10 specimens. It has been found in scattered locations close to land in the Pacific and Atlantic Oceans. The largest specimen is just over 42 cm total length. Very little is known about its biology. It is probably uncommon bycatch of trawl and longline fisheries, either taken by the hook itself or attached to its captured host. Although little is known about the species, it is likely widely distributed. There is no apparent significant threat to the species. Therefore, the Largetooth Cookie-cutter Shark is assessed as Least Concern (IUCN) in Australia (Kyne et al. 2021), and Negligible (SAFS) due to its rarity in fishery catches.



Distribution

The Largetooth Cookiecutter Shark is possibly found around the world, but is currently only known from scattered locations in the western Pacific and the northern and southern Atlantic Oceans (Zidowitz et al. 2004, Last and Stevens 2009, Ebert et al. 2013). In Australia, it is only known from two localities; Newcastle (New South Wales) and Cooktown (Queensland) (Last and Stevens 2009).

Stock structure and status

There is currently no information on population size, structure, or trend for the species. The species is rarely encountered. This may be due to its more localized or limited distribution, its occurrence in deeper water, or its lower abundance.

Fisheries

There are no apparent significant threats to the Largetooth Cookiecutter Shark. It is rarely caught in trawl (pelagic and benthic) and longline fisheries. The New South Wales specimen was probably taken by otter trawl targeting prawns (McGrouther 2001).

Habitat and biology

Little information is available on the biology of the Largetooth Cookiecutter Shark as it is known from only approximately 10 specimens. Like other cookie-cutter sharks, the Largetooth Cookiecutter Shark has a highly specialised mouth and teeth for gouging out pieces of flesh from larger marine species. It has been collected at approximately 100 m depth over the continental shelf, at 60–120 m depth over continental slopes, and 200 m depth over the Riu-Kyu Trench (near Taiwan). Most specimens have been collected close to land (Zidowitz et al. 2004, Ebert et al. 2013). It reaches a maximum size of at least 42 cm total length (TL) (Garrick and Springer 1964, Zidowitz et al. 2004).

| | |
|-----------------------------------|---|
| Longevity and maximum size | Longevity: unknown Max size: at least 42 cm TL |
| Age and/or size at maturity (50%) | Unknown |

CAAB Code: 37 020043

Link to IUCN Page: <https://www.iucnredlist.org/species/60212/3093223>

Link to page at Shark References: <http://shark-references.com/species/view/Isistius-plutodus>

References

- Ebert, D.A., Fowler, S. and Compagno, L. 2013. *Sharks of the World. A Fully Illustrated Guide*. Wild Nature Press, Plymouth, United Kingdom.
- Garrick, J.A.F. and Springer, S. 1964. *Isistius plutodus*, a new squaloid shark from the Gulf of Mexico. *Copeia* 1964:678–682.
- Kyne, P.M., Heupel, M.R., White, W.T. and Simpfendorfer, C.A. 2021. *The Action Plan for Australian Sharks and Rays 2021*. National Environmental Science Program, Marine Biodiversity Hub, Hobart
- Last, P.R. and Stevens, J.D. 2009. *Sharks and Rays of Australia*. Second Edition. CSIRO Publishing, Collingwood.
- McGrouther, M.A. 2001. First record of the large-tooth cookie-cutter shark *Isistius plutodus* from Australian waters. *Memoirs of the Australian Museum* 46(2): 442.
- Zidowitz, H., Fock, H.O., Pusch, C. and von Westernhagen, H. 2004. A first record of *Isistius plutodus* in the north-eastern Atlantic. *Journal of Fish Biology* 64:1430–1434.