

## Frill Shark, *Chlamydoselachus anguineus*

Report Card assessment	Negligible		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Assessors	Paul, L.J., Fowler, S.L. & Smart, J.J.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan)		
Report Card Remarks	Rarely encountered deepwater species.		

### Summary

The Frill Shark is a deepwater species that has a wide-ranging distribution. It is rarely encountered as bycatch in deepwater fisheries. Expansion of these fisheries both geographically and in depth, may increase the levels of bycatch of the Frill Shark. Although little is known of its life history, the long gestation and large size at maturity suggests it is likely to have very low resilience to exploitation. However, many of the countries where this species has been caught



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have effective fisheries management including depth restrictions on fishing (for e.g. Australia, New Zealand and Europe). Therefore, the species is assessed as Least Concern (IUCN) globally and in Australia (Kyne et al. 2021) and Negligible (SAFS) as it is rarely encountered in fisheries.

### Distribution

The Frill Shark has a wide ranging but patchy distribution. In Australia, it has been caught in New South Wales, Tasmania and Victoria. Elsewhere it is reported from eastern, central and western Pacific, including New Zealand and from various locations in the Atlantic (Last and Stevens 2009).

### Stock structure and status

There is currently no information on population size, structure, or trend for the species.

### Fisheries

The species is occasionally taken as bycatch in bottom and midwater trawls, deep-set longlines, and in deep-set gill nets. It is sometimes retained for meat or fishmeal. There is concern that if

deepwater fisheries continue to expand, bycatch for this species may also increase. However, in many of the countries where this species has been encountered (Australia, New Zealand, European waters and the United States), effective management and depth restrictions to fisheries are in place.

### Habitat and biology

The Frill Shark is demersal on the outer continental and insular shelves, and is reported as occasionally pelagic on the upper and middle continental slope. The species ranges in depths from 120–1,500 m (Compagno 1984, Ebert et al. 2013), but is most typically found between 500–1,000 m depth. Maximum size, known only for females, is approximately 196 cm total length (TL). Males mature at approximately 117 cm TL and females at 135 cm TL. The gestation period is likely 1–2 years (Last and Stevens 2009, Ebert et al. 2013).

Longevity and maximum size	Longevity: unknown Max size: ~196 cm TL
Age and/or size at maturity (50%)	Males: 117 cm TL Females: 135 cm TL

**CAAB Code:** 37 006001

**Link to IUCN Page:** <https://www.iucnredlist.org/species/41794/68617785>

**Link to page at Shark References:** <http://www.shark-references.com/species/view/Chlamydoselachus-anguineus>

#### References

- Compagno, L.J.V. 1984. *FAO species catalogue. Vol. 4. Sharks of the world. An annotated and illustrated catalogue of shark species known to date.* FAO Fisheries Synopsis No. 125, Volume 4, Part 1.
- Ebert, D.A., Fowler, S. and Compagno, L. 2013. *Sharks of the World.* Wild Nature Press, Plymouth.
- 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, Australia.