

Leafscale Gulper Shark, *Centrophorus squamosus*

Report Card assessment	Undefined Stock		
IUCN Red List Australian Assessment	Refer to Global Assessment	IUCN Red List Global Assessment	Vulnerable
Assessors	White, W.T. & Graham, K.J.		
Report Card Remarks	Sensitive to fishing pressure with some catches in Australia but uncertainty over stock status		

Summary

The Leafscale Gulper Shark is a deepwater dogfish with a global distribution. Its flesh and livers are marketed in varying quantities over much of the species' range. Most targeted fishing pressure is in the northeast Atlantic where it is an important component of deepwater fisheries and declines of >80% have been reported. Catches of the species off Australia are relatively low and do not represent a significant component of deepwater catches. However, significant declines in closely related species in southeast Australia led to management measures to promote recovery of deepwater dogfish populations, such as catch limits and a ban on trawling below 700 m. The Leafscale Gulper Shark has intrinsically very low productivity, evident in significant population declines where it is heavily fished. Therefore, the species is assessed as globally Vulnerable (IUCN) and in Australia, Undefined Stock (SAFS) because the information is uncertain and insufficient to assess the Australian fish stock status.



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Distribution

The Leafscale Gulper Shark occurs sporadically in the eastern Atlantic (Iceland to South Africa), in the Indian Ocean (South Africa and the Aldabra Islands), and the western Pacific (Japan, Taiwan, Philippines, Indonesia, New Zealand and Australia); a recent capture off the Galapagos Island extended the range to the eastern central Pacific (Acuna-Marrero et al. 2013). In Australia, it is found in New South Wales, Victoria and Tasmania with the distribution probably more widespread (Last and Stevens 2009).

Stock structure and status

In Australia, population trends for the species are not known. There has been a decreasing trend in biomass of the Leafscale Gulper Shark in Scottish and Irish deepwater surveys in the Northeast Atlantic (ICES 2012). Gulper Shark (*Centrophorus granulosus*) has reportedly declined by 80-95% in the Northeast Atlantic, and so it can be assumed that Leafscale Gulper Shark has also undergone population decline in that region, given its similar life history, range and exposure to fisheries. Although evidence is still lacking, it seems that regional subpopulations of the species may be connected (Verissimo et al. 2012).

Fisheries

There are sporadic records of Leafscale Gulper Shark around southeast Australia where it is taken only occasionally as trawl bycatch. However, dramatic declines of >90% were observed in this area for other *Centrophorus* species, which suggests the Leafscale Gulper Shark may also have been impacted by the fishery (Graham et al. 2001). Catch limits and spatial and depth closures that included a ban on trawling below 700 m were implemented to promote recovery of the overfished dogfish populations (AFMA 2006, AFMA 2012). Some fishers off southern New South Wales target Leafscale Gulper Shark and Brier Shark with demersal longlines, landing 1 to 6 tonnes annually (NSW DPI catch data). Observed catch rates of Leafscale Gulper Shark by one of these fishers of ~7 per 100 hooks (K. Graham, unpub. data) suggests that the stock size off southern Australia may be greater than indicated by incidental trawl captures.

Habitat and ecology

The Leafscale Gulper Shark is demersal on the continental slopes at depths 230 to 2,400 m, and pelagic in the upper 1,250 m of oceanic waters (Compagno and Niem 1998). Maximum size is 160 cm total length (TL), with males mature at 100 cm TL and females at 124 cm TL (Compagno and Niem 1998, Parker and Francis 2012). Maximum age estimates vary between 42 and 70 years (Clarke et al. 2002, Parker and Francis (2012).

Longevity and maximum size	Longevity: estimated from 42-70 years Max size: 160 cm TL
Age and/or size at maturity (50%)	Males: 100 cm TL Females: 124 cm TL

Link to IUCN Page: <http://www.iucnredlist.org/details/41871/0>

Link to page at Shark References: <http://www.shark-references.com/species/view/Centrophorus-squamosus>

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