

Whitespotted Spurdog, *Squalus acanthias*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Vulnerable
Assessors	Finucci, B., Cheok, J., Chiamonte, G.E., Cotton, C.F., Dulvy, N.K., Kulka, D.W., Neat, F.C., Pacoureaux, N., Rigby, C.L., Tanaka, S. & Walker, T.I.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan)		
Report Card Remarks	Australasia population is not under threat with limited and managed fishing pressure; globally the population is decreasing. Listed on CMS Appendix II.		

Summary

The Whitespotted Spurdog is a small demersal shark of temperate waters worldwide. There is only limited fishing pressure in Australia, with most catches discarded. Elsewhere, this is a highly valuable commercial species taken as target and bycatch. Most stocks are highly migratory and there is management in only a few range states, including New Zealand. Although naturally abundant, this is one of the shark species more vulnerable to fisheries over-



exploitation because of its late maturity, low reproductive capacity, and high longevity. Significant declines in biomass are reported in the Northeast Atlantic, South America, the Black Sea, and Japan. United States efforts to manage the stock are hampered by high bycatch and continued exploitation. European demand continues to fuel markets around the world. Therefore, the species is assessed globally as Vulnerable (IUCN). However, due to the limited catches of the Australasia subpopulation, it is assessed as Least Concern (IUCN) (Kyne et al. 2021) in Australia, and Sustainable (SAFS). The species is listed on CMS Appendix II.

Distribution

The Whitespotted Spurdog (also known as the Spiny Dogfish) is a boreal and temperate cosmopolitan species with the main populations found in the east and west North Atlantic, the eastern South Pacific,

the South Atlantic off South America, and the Cape coast of South Africa. The Australasia subpopulation occurs on the southern coasts of Australia and New Zealand (Compagno 1984).

Stock structure and status

There is no information on the status of the Australian subpopulation of this species. Little mixing occurs between global subpopulations. In New Zealand, catch rate analyses and trawl survey biomass indices show no sign of significant declines; one of the main stocks on the Chatham Rise has shown a 5-fold biomass increase since 1991 (Manning et al. 2004, Sullivan et al. 2005). Significant declines in biomass have been reported elsewhere around the world: >95% in the Northeast Atlantic (Hammond and Ellis 2004), >60% in the Black Sea (Prodanov et al. 1997), and approximately 80% in Japan (Taniuchi 1990). A decline in biomass of mature females of 75% in just 10 years has occurred in the Northwest Atlantic (NEFSC 2003).

Fisheries

The Australasian subpopulation is not under serious threat and is managed. In Australia, the Whitespotted Spurdog flesh is considered coarse and of little value (Last and Stevens 2009). Tasmanian recreational gillnet fisheries do, however, take substantial amounts (Simpfendorfer, pers. comm. in Fordham 2005).

Habitat and biology

The Whitespotted Spurdog is found from the intertidal zone to depths of 900 m, but mostly <200 m (Compagno 1984). The species is highly migratory, travelling in large, dense ‘packs’, segregated by size and sex. The size and life history traits vary considerably across regions. In Australia, maximum size is approximately 100 cm total length (TL) with males mature at approximately 55 cm TL and females at 70 cm TL. The 18 to 24 month gestation period is among the longest of any shark (Last and Stevens 2009). Maximum age is reported as 75 years (Cailliet et al. 2001) but varies regionally (Bubley et al. 012). This means a long generation time (25–40 years) and a very low intrinsic rate of population increase (2–7% per annum).

Longevity and maximum size	Longevity: estimated 75 years Max size: ~100 cm TL
Age and/or size at maturity (50%)	Males: ~55 cm TL Females: ~70 cm TL

CAAB Code: 37 020008

Link to IUCN Page: <https://www.iucnredlist.org/species/91209505/124551959>

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

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