

School Shark, *Galeorhinus galeus*

Report Card assessment	Depleted		
IUCN Red List Australian Assessment	Endangered	IUCN Red List Global Assessment	Critically Endangered
Global Assessors	Walker, T.I., Rigby, C.L., Pacoureaux, N., Ellis, J., Kulka, D.W., Chiaramonte, G.E. & Herman, K.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan) and Woodhams, J., Braccini, M., Peddemors, V., Victorian Fisheries Authority & Lyle, J. (SAFS)		
Report Card Remarks	Population currently below limit reference point in Australia, restrictive Australian catch quotas introduced. Listed on EPBC Act (Conservation Dependent) and on CMS Appendix II.		

Summary

The School Shark is a medium-sized shark that is widespread across temperate coastal areas of the world. It is targeted and taken incidentally in all parts of its distribution. Globally, steep population declines have occurred mostly due to intensive fishing pressure. In southern Australia, where it was primarily fished for meat for fish and chips, the current mature biomass is estimated to be below 20% of the level before targeted commercial fishing began in the 1920s. As a result, it was listed as Conservation



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Dependent (EPBC Act) in 2009 and a rebuilding strategy developed. The species has very low biological productivity; maximum age is potentially 60 years, age at maturity in females exceeds 10 years and mature females breed only every third year. Fisheries for the species are managed by Individual Transferrable Quotas in Australia that should allow stocks to gradually rebuild. The School Shark is assessed as globally Critically Endangered (IUCN), and in Australia, as Endangered (IUCN) (Kyne et al. 2021) and Depleted (Woodhams et al. 2021). The species is listed on the EPBC Act (Conservation Dependent) and on CMS Appendix II (Australian reservation).

Distribution

The School Shark is distributed widely in temperate coastal regions of the world. Within Australasia, the species occurs around New Zealand and off southern Australia from Perth (Western Australia) to Moreton Bay (Queensland), including Lord Howe Island (uncertain) and Tasmania (Last and Stevens 2009).

Stock structure and status

The School Shark has six widely separated sub-populations that do not mix: Australasia, Northeast Pacific, Southeast Pacific, southern Africa, Southwest Atlantic, and Northeast Atlantic (Ward and Gardner 1997, Chabot and Allen 2009, Hernández et al. 2015). Genetic analysis indicates that there is a single stock that occurs in Australia and New Zealand (Devloo-Delva et al. 2018) and significant numbers of tagged individuals have moved between Australian and New Zealand waters. However, there is some evidence from other data that there are multiple stocks in Australian waters (McMillan et al. 2018, Thomson et al. 2020). Woodhams et al. (2021) provide a history of the results of assessments of School Shark in Australian waters since 2009, concluding that the biomass was reduced to below 20% and has yet to recover to above this level. The transition to a close-kin mark recapture (CKMR) assessment in 2018 (Thomson et al. 2020) meant that the most recent assessment does not have an estimate of population depletion relative to original biomass. The CKMR assessment estimated the adult population size was about 50,000 individuals in 2000, and that continued catches at current levels would possibly result in recovery.

Fisheries

School Shark is targeted and taken incidentally across the world in a wide variety of fishing gears and retained for its meat, fins, and liver oil (Walker et al. 2020). In Australia, it is primarily taken as incidental catch in Commonwealth-managed gillnet and longline fishing operations in southeast Australia that target Gummy Shark (*Mustelus antarcticus*). It is also taken in Commonwealth-managed trawl fishing in southeast Australia. Some catch also occurs in state-managed fisheries in Western Australia, South Australia, Tasmania, Victoria, and New South Wales. It is also taken by recreational fishers. In southeast Australia, the harvest of School Shark began in the mid-1920s. With establishment of the shark-meat market in 1964, production rose rapidly to peak during 1969 at 3,158 tonnes (t). Catches declined after the ban on the sale of large school sharks in 1972 because of their mercury content but increased again with relaxation of the mercury laws, reaching 3,060 t during 1986. After 1986, the total annual catch from the shark fishery declined to 170 t by 2001 as a result of management restrictions (Walker 1999, Walker and Gason 2009). The species was listed as Conservation Dependent under the *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act) in 2009 and a rebuilding strategy developed. This included a range of regulations and bycatch limits designed to promote population recovery.

Habitat and biology

The School Shark is primarily demersal and occurs from shallow water to well offshore (Compagno et al. 2005). In Australasia, the species is found to about 800 m depth (Walker et al. 2020). Life history characteristics vary regionally (Walker 1999). In Australasia, maximum size is 175 cm total length (TL) and males mature at 126–131 cm TL and 8–10 years and females at 142 cm TL and 10–15 years (Walker 1999, Ebert 2003, Walker 2005).

Longevity and maximum size	Longevity: potentially 60 years Max size: 175 cm TL
Age and/or size at maturity (50%)	Males: 8–10 years, 126–131 cm TL Females: 10–15 years, 142 cm TL

CAAB Code: 37 017008

Link to IUCN Page: <https://www.iucnredlist.org/species/39352/2907336>

Link to Status of Australian Fish Stocks Page: <https://fish.gov.au/report/302-School-Shark-2020>

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

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