

Southern Eagle Ray, *Myliobatis tenuicaudatus*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Least Concern
Global Assessors	Kyne, P.M.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T., Simpfendorfer, C.A. (Shark Action Plan) & Rigby, C.L.		
Report Card Remarks	Common and wide range, and significant refuge in lightly fished and unfished parts of its range.		

Summary

The Southern Eagle Ray is a large and common continental shelf ray that occurs in mostly temperate waters of southern Australia and New Zealand. It is an incidental catch of trawl, net, and line fisheries with some of the catch retained for its meat; post-release mortality is suspected to be relatively low. In Australia, it is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) and assessed as at low risk from the fishery. It is also caught in a range of state fisheries, though catch data is limited. It has been assessed as at medium risk in the Spencer Gulf Prawn Fishery, possibly due to potentially limited productivity. In Western Australia, it is a common incidental catch of the shark fisheries and in recent years has been increasingly retained for its meat. Its vulnerability was assessed as low for both fishing and climate change, and it has significant areas of refuge in unfished or lightly fished parts of its range. Therefore, the Southern Eagle Ray is assessed as Least Concern (IUCN) (Kyne et al. 2021) and Sustainable (SAFS).



Distribution

The Southern Eagle Ray occurs in subtropical and temperate waters of southern Australia and New Zealand (Last et al. 2016). In Australia, it has a wide range from Moreton Bay (Queensland) to Jurien Bay (Western Australia) (Last and Stevens 2009).

Stock structure and status

There is currently no information on population size or structure for the species. However, this is a common species and catches in the Southern and Eastern Scalefish Fishery were stable between 2000–2006 (Walker and Gason 2007, Kyne 2016).

Fisheries

The Southern Eagle Ray is an incidental catch of trawl, net, and line fisheries. In New Zealand, it has a relatively large population, is caught in a range of fisheries, and is considered at low risk and Not Threatened (Duffy et al. 2018, Ford et al. 2018). In Australia, it is caught in the Commonwealth Southern and Eastern Scalefish Fishery (SESSF) with an estimated average annual catch of 88 tonnes between 2000–2006 with half of the catch retained for its meat and the remainder released; post-release mortality is unknown but is likely high (Braccini et al. 2012, Walker and Gason 2007, Kyne 2016). Over that period there were fluctuations in catch-per-unit effort but no overall trend (Walker and Gason 2007). It is assessed as at low risk in all Sectors of the SESSF in which it is taken, that is, the Commonwealth Trawl, Great Australian Bight Trawl, and Danish Seine (Sporcic et al. 2021a, b, c). It is also caught in state commercial and recreational fisheries though catch data is limited. In South Australia, it is caught in demersal longlines and trawl and is targeted recreationally. Catches and retention are low but have not been quantified, and it is assessed as at medium risk in the Spencer Gulf Prawn Fishery, possibly due to potentially limited productivity (PIRSA 2014). In Western Australia, it is incidentally caught in the shark gill net and line fisheries with catches of approximately 5–20 t per year (Braccini et al. 2021). Over the past 10 years, a niche market has developed for the wings and some catch is landed by some fishers depending on market demand; it is still commonly released by other fishers not using the niche market (Braccini and Murua 2022, M. Braccini pers. comm. 2022). The Southern Eagle Ray has considerable refuge across its range in unfished or lightly fished areas (Kyne et al. 2021). The Southern Eagle Ray’s vulnerability was assessed as low for both fishing and climate change (Walker et al. 2021).

Habitat and biology

The Southern Eagle Ray is demersal and semi-pelagic on the continental shelf and upper slope at depths of 0–420 m although it is mostly inshore in estuaries, seagrass beds, sand flats, and off beaches (Kyne 2016, Last et al. 2016). Maximum size is at least 160 cm disc width (DW) and males mature at 65–69 cm DW and females at 80–100 cm DW (Last et al. 2016). Litter size is 2–20 (average 6) pups (Kyne 2016).

Longevity and maximum size	Longevity: unknown Max size: 160 cm DW
Age and/or size at maturity (50%)	Males: 65–69 cm DW Females: 80-100 cm DW

CAAB Code: 37 039001

Link to IUCN Page: <https://www.iucnredlist.org/species/70686656/70687032>

Link to page at Shark References: <https://shark-references.com/species/view/Myliobatis-tenuicaudatus>

References

- Braccini, M., Van Rijn, J. and Frick, L. 2012. High Post-Capture Survival for Sharks, Rays and Chimaeras Discarded in the Main Shark Fishery of Australia? PLOS ONE 7(2), e32547.
- Braccini, M., Kangas, M., Jaiteh, V. and Newman, S. 2021. Quantifying the unreported and unaccounted domestic and foreign commercial catch of sharks and rays in Western Australia. *Ambio* 50(7), 1337–1350.
- Braccini, M. and Murua, H. 2022. Quantifying shark and ray discards in Western Australia’s shark fisheries. *Marine and Freshwater Research* 73(3), 283–291. Duffy, C., Francis, M., Dunn, M., Finucci, B. Ford, R., Hitchmough, R. and Rolfe, J. 2018. *Conservation status of New Zealand chondrichthyans (chimaeras, sharks and rays) 2016*. Department of Conservation Te Papa Atawhai.
- Duffy, C., Francis, M., Dunn, M., Finucci, B. Ford, R., Hitchmough, R. and Rolfe, J. 2018. *Conservation status of New Zealand chondrichthyans (chimaeras, sharks and rays) 2016*. Department of Conservation Te Papa Atawhai.
- Ford, R.B., Francis, M.P., Holland, L., Clark, M.R., Duffy, C.A.J., Dunn, M.R., Jones, E. and Wells, R. 2018. *Qualitative (Level 1) Risk Assessment of the impact of commercial fishing on New Zealand chondrichthyans: an update for 2017*. New Zealand Aquatic Environment and Biodiversity Report No 201. Ministry for Primary Industries, Wellington.
- Kyne, P.M. 2016. *Myliobatis tenuicaudatus*. *The IUCN Red List of Threatened Species* 2016: e.T70686656A70687032.

- 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.
- Last, P., White, W., Carvalho, M.R. de, Séret, B., Stehmann, M. and Naylor, G.J.P. 2016. *Rays of the World*. CSIRO Publishing, Clayton, Victoria, Australia.
- PIRSA 2014. *Ecologically Sustainable Development Risk Assessment of South Australia's Spencer Gulf Prawn Fishery*. Government of South Australia.
- Sporcic, M., Bulman, C.M. and Fuller, M. 2021a. *Ecological Risk Assessment for the Effects of Fishing. Report for Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector): Otter trawl Sub-fishery 2012-2016*. Report for the Australian Fisheries Management Authority. 277 p.
- Sporcic, M., Bulman, C.M. and Fuller, M. 2021b. *Ecological Risk Assessment for the Effects of Fishing. Report for Southern and Eastern Scalefish and Shark Fishery, Great Australian Bight Sector: Otter trawl sub-fishery 2012-2016*. Report for the Australian Fisheries Management Authority. 174 p.
- Sporcic, M., Bulman, C.M. and Fuller, M. 2021c. *Ecological Risk Assessment for the Effects of Fishing. Report for Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector): Danish Seine Sub-fishery 2012-2016*. Report for the Australian Fisheries Management Authority. 197 p.
- Walker, T. I., and Gason, A. S. 2007. *Shark and other chondrichthyan byproduct and bycatch estimation in the Southern and Eastern Scalefish and Shark Fishery*. Final report to Fisheries Research and Development Corporation Project No. 2001/007. Primary Industries Research Victoria: Queenscliff, Victoria, Australia.
- Walker, T.I., Day, R.W., Awruch, C.A., Bell, J.D., Braccini, J.M., Dapp, D.R., Finotto, L., Frick, L.H., Garcés-García, K.C., Guida, L., Huveneers, C., Martins, C.L., Rochowski, B.E.A., Tovar-Ávila, J., Trinnie, F.I. and Reina, R.D. 2021. Ecological vulnerability of the chondrichthyan fauna of southern Australia to the stressors of climate change, fishing and other anthropogenic hazards. *Fish and Fisheries* 22(5), 1105–1135.