

Common Thresher, *Alopias vulpinus*

Report Card assessment	Sustainable		
IUCN Red List Australian Assessment	Least Concern	IUCN Red List Global Assessment	Vulnerable
Assessors	Goldman, K.J., Baum, J.K., Cailliet, G.M., Cortés, E., Kohin, S., Macias, D., Megalofonou, P., Perez, M., Soldo, A., Trejo, T., Sherman, S. & Dulvy, N.		
Report Card Remarks	Australian fishing pressure is low; needs reassessment once regional connectivity is better understood		

Summary

The Common Thresher is a large bodied species that is globally distributed throughout tropical and temperate pelagic waters. It has a notable tolerance for cold waters in contrast to other Thresher Shark species. Life history characteristics make it highly susceptible to fishing pressure. Due to its pelagic distribution, fishing pressure is high throughout much of its range. Globally, significant declines have been recorded throughout much of its distribution.



In Australia, the species is occasionally taken in tuna longline fisheries and usually returned to the sea alive. However, stability of the species is dependent on levels of connectivity and migration of Common Thresher Sharks across Australia's exclusive economic zone (EEZ) with regional neighbours. Therefore, the Common Thresher is assessed as globally Vulnerable (IUCN) and in Australia is suspected to be Least Concern (IUCN) and Sustainable (SAFS). The levels of connectivity within the region could affect the species stability in Australia; once connectivity is better understood the population status needs to be reassessed.

Distribution

The Common Thresher is circumglobal throughout tropical and temperate pelagic waters (Compagno 2001). It is more common in temperate waters. It occurs in pelagic and outer shelf waters surrounding Australia and is common in southern waters from Brisbane (Queensland) to North West Shelf in Western Australia (Last and Stevens 2009).

Stock structure and status

The Common Thresher is not as migratory as other Thresher species. Numerous isolated subpopulations likely exist globally with different growth and maturity parameters recorded between regions (Gubanov 1972, Moreno et al. 1989, Bedford 1992). The Atlantic and Pacific Oceans contain genetically discrete populations of Common Thresher (Trejo 2004). As a species, it is undergoing declines due to high levels of pelagic fishing pressure throughout much of its distribution.

Fisheries

The Common Thresher is occasionally caught by the Eastern Tuna and Billfish Fishery and the Western Tuna and Billfish Fishery in Australian waters, few are retained (Commonwealth of Australia 2014). It's more coastal distribution means it is also occasionally caught in gillnet and longline fisheries that operate on the outer continental shelf, such as the gillnet sector of the Southern and Eastern Scale Fish Fishery and Western Australia's Southern Demersal Gillnet and Demersal Longline Fishery (McAuley and Simpfendorfer 2003). Due to its life history characteristics, it is highly susceptible to fishing pressure (Cortes et al. 2010). It is far less migratory than other Thresher species making it susceptible to localised depletion. It is targeted and taken as bycatch in pelagic fisheries, including longline, gillnet and purse seine where it is highly prized for both its meat and fins (Compagno 1990). Little is known on abundance levels in the Indo-Pacific due to poor reporting but fishing pressure is high in pelagic waters. Within the northwest Atlantic, catch rates of Threshers as a collective declined by 80% from 1986-2000 (Baum et al. 2003).

Habitat and biology

The Common Thresher is circumglobal with a preference for temperate pelagic and outer shelf waters (Compagno 1984). It occurs from the surface to depths of at least 366 m (Compagno 1984). Maximum size ranges vary with sex and location from 415-570 cm total length (TL) (Gubanov 1972, Cailliet et al. 1983, Compagno 1984, Moreno et al. 1989). Maximum recorded age is 24 years and it is estimated to reach up to 50 years (Cailliet et al. 1983).

Longevity and maximum size	Longevity: observed 24 years, estimated 50 years Max size: 415-570 cm TL
Age and/or size at maturity (50%)	Males: 340 cm TL Females: 350 cm TL

Link to IUCN Page: <http://www.iucnredlist.org/details/39339/0>

Link to page at Shark References: <http://shark-references.com/species/view/Alopias-vulpinus>

References

- Baum, J.K., Myers, R.A., Kehler, D.G., Worm, B., Harley, S.J. and Doherty, P.A. 2003. Collapse and conservation of shark populations in the Northwest Atlantic. *Science* 299: 389-392.
- Bedford, D.W. 1992. Thresher sharks. In: W.S. Leet, C.M. Dewees and C.W. Haugen (eds), *California's living marine resources and their utilization*, pp. 49-51. California Sea Grant Extension Publication.
- Cailliet, G.M., Martin, L.K. Harvey, J.T., Kusher, D. and Welden, B.A. 1983. Preliminary studies on the age and growth of blue (*Prionace glauca*), common thresher (*Alopias vulpinus*), and shortfin mako (*Isurus oxyrinchus*) sharks from California waters. In: E.D. Prince and M. Pulos (eds), *Proceedings, international workshop on age determination of oceanic pelagic fishes-tunas, billfishes, sharks*, pp. 179-188.
- Commonwealth of Australia. 2014. Assessment of the Eastern Tuna and Billfish Fishery. Department of the Environment, Canberra, Australia.
- 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. Part 1. Hexanchiformes to Lamniformes.* FAO, Rome.
- Compagno, L.J.V. 1990. Shark exploitation and conservation. In: H.L. Pratt, Jr., S.H. Gruber and T. Taniuchi (eds), *Elasmobranchs as living resources: Advances in the biology, ecology, systematics and the status of the fisheries.* NOAA Technical Report. NMFS.
- Compagno, L.J.V. 2001. *Sharks of the world. An annotated and illustrated catalogue of shark species known to date. Volume 2. Bullhead, Mackerel and Carpet Sharks (Heterodontiformes, Lamniformes and Orectolobiformes).* FAO, Rome.
- Gubanov, Y.P. 1972. On the biology of thresher shark (*Alopias vulpinus*) in the North-west Indian Ocean. *Journal of Ichthyology* 12: 591-600.
- Last, P.R. and Stevens, J.D. 2009. *Sharks and Rays of Australia.* Second Edition. CSIRO Publishing, Collingwood, Australia.
- McAuley, R., and Simpfendorfer, C. (2003). Catch composition of the Western Australian temperate demersal gillnet and demersal longline fisheries, 1994 to 1999. Fisheries Research Report (Western Australia) No. 146, 78 pp.
- Maguire, J.-J., Sissenwine, M.P., Csirke, J., Grainger, R.J.R. and Garcia, S.M. 2006. The state of world highly migratory, straddling and other high seas fisheries resources and associated species. Fisheries Technical Report. FAO, Rome.

- Moreno, J.A., Parajúa, J.I. and Morón, J. 1989. Biología reproductiva y fenología de *Alopias vulpinus* (Bonnatere, 1788) (Squaliformes: Alopiidae) en el Atlántico nororiental y Mediterráneo occidental. *Scientia Marina* 53(1): 37-46.
- Smith, S.E., Au, D.W. and Show, C. 1998. Intrinsic rebound potentials of 26 species of Pacific sharks. *Marine and Freshwater Research* 49(7): 663-678.
- Trejo, T. 2004. Global population structure of thresher sharks (*Alopias* spp.) based upon mitochondrial DNA control region sequences. M.Sc. Thesis, Moss Landing Marine Laboratories.