

Taxonomy, basic biology and feeding behaviour

There are at least 3 different species of thresher sharks (big eye, common and pelagic) world-wide in tropical and temperate waters³, with the common thresher found off the coast of Victoria. The common thresher shark can grow to 5 metres in length. The upper lobe of the caudal fin⁴ is elongated and used to round up schooling fishes and squid and stun them using a whip action.

Policy and legislative background

The recent listing of five species of shark (three thresher and two hammerhead species) under the Convention of Migratory Species (CMS) was due to come into effect on 8 February 2014, triggering their listing under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). However, in line with VRFish submissions prior to the meeting of CMS parties about the value of the common thresher to recreational fishers and low risk posed to this species by recreational fishing, the Australian Government sought a reservation from listing the species under the EPBC Act. The CMS and subsequent EPBC Act listing had the potential to disproportionately and inequitably impact on recreational fishing in Victoria and other jurisdictions. If listed, it would be an offence

³ Swainston, R. (2010) *Fishes of Australia*, The complete illustrated guide. Penguin Viking.

⁴ Aalbers, S., Bernal, D., and Sepulveda, C. (2010). The functional role of the caudal fin in the feeding ecology of the common thresher shark *Alopias vulpinus* J

for recreational fishers to harm or injure the listed species, even where the species are unintentionally caught when targeting other species.

The CMS has 3 levels of protection, while species listed on Appendix I require full protection, species listed on Appendix II (as the 5 species of sharks were), only require good fisheries management, which we already have here in Victoria. Unfortunately, the EPBC Act has no such equivalent, which means do nothing or list the species as a "migratory species", which then requires that the species must be fully protected. This deficiency in the EPBC Act has meant that fishers and their peak bodies have been unable to advocate or support species being listed on the CMS Appendix II or to compel other countries to adopt similar management practises as we have in Australia.

Addressing the real risk to thresher sharks

VRFish strongly supports cooperative action by countries to ensure they address the real risk to thresher and other shark species, which includes targeted commercial fishing, by-catch, illegal and unregulated shark finning operations and the trade in shark fins. Targeted commercial fishing and trade in shark fins overseas needs to be better managed and brought in line with Australian standards. Last year 5000kg of dried thresher shark fins were seized in Cebu in the Philippines⁵. This is the real risk to the sustainability of the fishery, rather than a small, well managed recreational fishery for thresher sharks.

⁵ <http://cebudailynews.inquirer.net/40304/5k-of-shark-fins-intercepted-by-capitol-task-force>

Changes to Australian environmental laws needed

VRFish and other state/national fishing bodies remain concerned with the inappropriate way in which the EPBC Act responds to CMS listings. As has been highlighted by past listings (Mako and Porbeagle sharks) and the Hawke review, the EPBC Act needs to be adjusted to remove its current inflexible approach to CMS listings.

Further information

Go to the VRFish website
www.vrfish.com.au/threshers

Acknowledgements

This work is funded by the Victorian Government using Recreational Fishing Licence fees. VRFish would like to acknowledge assistance provided by Fisheries Victoria and Hooked on Bait and Tackle. Scientific advice has been provided by Dr Sean Tracey. Fisheries expertise has been provided from a range of sources, including VRFish members. VRFish would also like to thank We Fish and RecFishing Research.

Photographs by Scott Sheehan - Aquablue.



Best practice catch, release and handling guidelines for

thresher sharks in Victoria



Introduction

Victoria has a highly valued recreational fishery for thresher sharks. Thresher sharks are one of the premier game fishing species in the State, contributing considerable socioeconomic benefits to regional locations from Portland to Mallacoota. Thresher sharks, like many other sharks are also highly regarded for their eating qualities. The common thresher shark is seasonally abundant at many coastal locations across the State. Victoria has conservative management controls in place for recreational fishing of thresher and other shark species.

Many game fishers choose to catch and release species such as thresher sharks and hence these guidelines are an important tool to maximise survival of released thresher sharks. Recent scientific research¹ for other closely related fast swimming sharks such as the short fin mako, found a 90% survival rate following their release.

These guidelines are designed to educate fishers about best practice catch, handling and release techniques to ensure recreational fishing for thresher sharks continues to be managed in a sustainable and responsible way. Remember that the most important aspect of catch and release fishing is how the shark is caught, handled and released.

¹ French, R., Lyle, J., Tracey, S., Currie, S., Semmens and Jayson, M. (2015) High survivorship after catch-and-release fishing suggests physiological resilience in the endothermic shortfin mako shark (*Isurus oxyrinchus*). Conservation Physiology Volume 3, Issue 1.

Best practice fishing for thresher sharks

Since thresher sharks use their long tail to stun prey before it is eaten, they are often hooked by the tail when caught on trolled lures. Foul-hooked thresher sharks have a reduced capacity for ram ventilation, which is likely to reduce the potential for survival of a released thresher shark. The following tips are recommended when targeting thresher sharks:

Use a baited circle hook

The likelihood of tail hooking is greatly reduced and threshers will not be reeled in backwards. J hooks, and especially treble hooks will result in a higher rate of tail or foul hook up. Keep in mind that thresher sharks need to move forward in order to have water run over their gills so that they can effectively breathe. **By allowing the shark to take the bait**, circle hooks usually embed in the corner of the jaw rather than in its throat or stomach, they are much less likely to cause serious injury. A mouth hooked thresher is also likely to result in a more exhilarating angling experience with acrobatic leaps and bursts of speed.

Use heavy line and gear

This will minimise fight times and in doing so, minimise stress to the shark. Thresher sharks are highly resilient but short fight times (eg 15-45 minutes) are best practice and will potentially improve the rate of survival when released.



Remove the circle hook or cut the line as close as possible to the sharks' mouth

This will reduce potential for future injury and potentially increase post release survival. Use a de-hooking device to remove hooks, unless they are deep set, in which case it may cause less injury to cut the trace as close to the mouth as possible. Ideally, use non-stainless steel hooks as they will breakdown quicker in the event that you are unable to remove the hook.

Keep the shark in the water

This will also minimise stress to the shark (and the fisher) given their strength and ability to thrash their tail and body if brought aboard. Never use a gaff if you intend to release the shark.

Ensure that the shark has recovered sufficiently before release

If the shark is unresponsive in the water, hold it facing into the current with its dorsal fin facing up whilst the boat is underway, to run seawater through its gills, until it has recovered sufficiently to swim off.

Know your limits

Fishers can do their bit to ensure fish for the future by abiding by the bag limit of 1 shark per person under the Victorian Fisheries Regulations 2009. Anglers are also encouraged to fish for other species once they have reached their catch limit - this is good way to increase the diversity of species targeted each trip.

Suggested best practice catching technique

Slow troll a live (or dead) mackerel rigged with a circle hook on a small piece of wire trace at the surface. When a strike is detected put the reel into free spool, put the boat in neutral and wait for the thresher to come back to eat the stunned bait. The shark may strike the bait several times with its tail before eating it. Once hooked, manoeuvre the boat to follow the shark and gain line wherever possible.

Rules and regulations for thresher shark fishing in Victoria

Thresher sharks are targeted by game fishers and are also taken as bycatch by fishers chasing other species such as southern bluefin tuna. A conservative bag limit of 1 shark per person applies to recreational thresher shark fishers. Shark finning is illegal in Victoria. A VRFish code of conduct² is in place to educate fishers about looking after our fisheries resources to ensure we have fish for the future.

² VRFish website. www.vrfish.com.au/Corporate_Documents