

SAWSHARKS (2018)

Pristiophorus spp.



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Commonwealth, New South Wales, Tasmania, South Australia	Southern Australia	MSF, N/A, OTF, SESSF (CTS), SESSF (GABTS), SESSF (GHTS), SF	Sustainable	Catch, effort, standardised CPUE

SESSF (CTS) Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector) (CTH), SESSF (GABTS) Southern and Eastern Scalefish and Shark Fishery (Great Australian Bight Trawl Sector) (CTH), SESSF (GHTS) Southern and Eastern Scalefish and Shark Fishery (Gillnet Hook and Trap Sector) (CTH), N/A Not Applicable (NSW), OTF Ocean Trawl Fishery (NSW), MSF Marine Scalefish Fishery (SA), SF Scalefish Fishery (TAS)

STOCK STRUCTURE

This is a multispecies stock comprising three endemic species (Common Sawshark—*Pristiophorus cirratus*, Southern Sawshark—*P. nudipinnis*, and Eastern Sawshark—*P. peroniensis*). Common Sawshark (*P. cirratus*) range from Jurien Bay in Western Australia to southern New South Wales and Tasmania to depths of 310 m; Southern Sawshark (*P. nudipinnis*) ranges from the western Great Australian Bight to Bass Strait to depths of 70 m; and Eastern Sawshark (*Pristiophorus sp.*, *P. peroniensis*) ranges from Bass Strait to central New South Wales at depths of 100–630 m [Last and Stevens 1994].

Biological stock structure is unknown for any of these species.

Sawsharks located to the south of the Victoria–New South Wales border are generally Common Sawshark and the Southern Sawshark, whereas the Eastern Sawshark is considered to be the predominant species found off NSW [Walker and Hudson 2005]. The majority of the historical catch has been taken in Bass Strait [Walker and Hudson 2005] and these species are primarily assessed and managed in the Commonwealth Southeast Scalefish and Shark fishery (SESSF).

Here, assessment of stock status is presented at the management unit level—Southern Australia.

STOCK STATUS

**Southern
Australia**

Most of the reported commercial catch of Sawsharks is taken in the Commonwealth Trawl Sector (CTS) Great Australia Bight Trawl Sector (GABTS) and Gillnet Hook and Trap Sector (GHTS) of the Southeast Scalefish and Shark Fishery (SESSF). Total catch across all SESSF sectors in the 2017–18 fishing season was 205 tonnes (t). This is slightly below, but consistent with the average annual catch of the previous 10 years of around 210 t.

Minor catches of Sawsharks are taken in State waters by local commercial and recreational fishers. Sawshark catches in Western Australia are Negligible (< 10 t per year) [McAuley et al. 2015]. Sawshark catches in New South Wales were less than 13 t during 2017, which is a similar harvest for the past three years. The ten year average catch of around 19 t is driven by higher catches in the first half of the decade. The majority of New South Wales catch, around 10 t during 2017, are reported as Common Sawshark. No recreational or indigenous catches are reported for this species in New South Wales.

Within Tasmanian State waters, Sawsharks are taken in the multi-gear, multi-species Tasmanian Scalefish Fishery. Total commercial landings are low, with an average annual harvest of just 0.1 t over the last 10 years, with 0.02 t landed in 2017. Low numbers of Sawsharks are taken by recreational fishers using gillnets and setlines [Lyle and Tracey 2012a, Lyle and Tracey 2012b].

Sawsharks are rarely landed by South Australian State managed fisheries, which is partly a function of reductions in the use of demersal gillnets to target School and Gummy sharks, and the Offshore Constitutional Settlement that transferred management of fisheries operating in waters outside 3 nautical miles to the Commonwealth. No recreational or indigenous catches have been reported for Sawsharks in South Australia. Hence, stock status for this stock is informed by the standardised catch per unit effort (CPUE) analyses undertaken by the SESSF.

Historically, this stock has been assessed by the Commonwealth using commercial catch, effort and standardised CPUE data for the SESSF sectors. The most recent assessment of Sawshark was conducted in 2017 using data from the Commonwealth trawl sector up to 2016 [Haddon and Sporcic 2018]. The results indicate that current CPUE is above the target level and therefore well above the limit reference level. The tier 4 harvest control rule for the stock estimated an overall RBC (for all sectors) of 519 t. Known catches (commercial and recreational) in neighbouring states are deducted from the RBC in the calculation of the TAC for the Commonwealth fleet, resulting in a TAC for 2017–18 of 481 t. The landed catch of Sawshark in the 2017–18 season was 205 t, below the established TAC.

The above evidence indicates that the biomass of this stock is unlikely to be depleted, recruitment is unlikely to be impaired, and the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired.

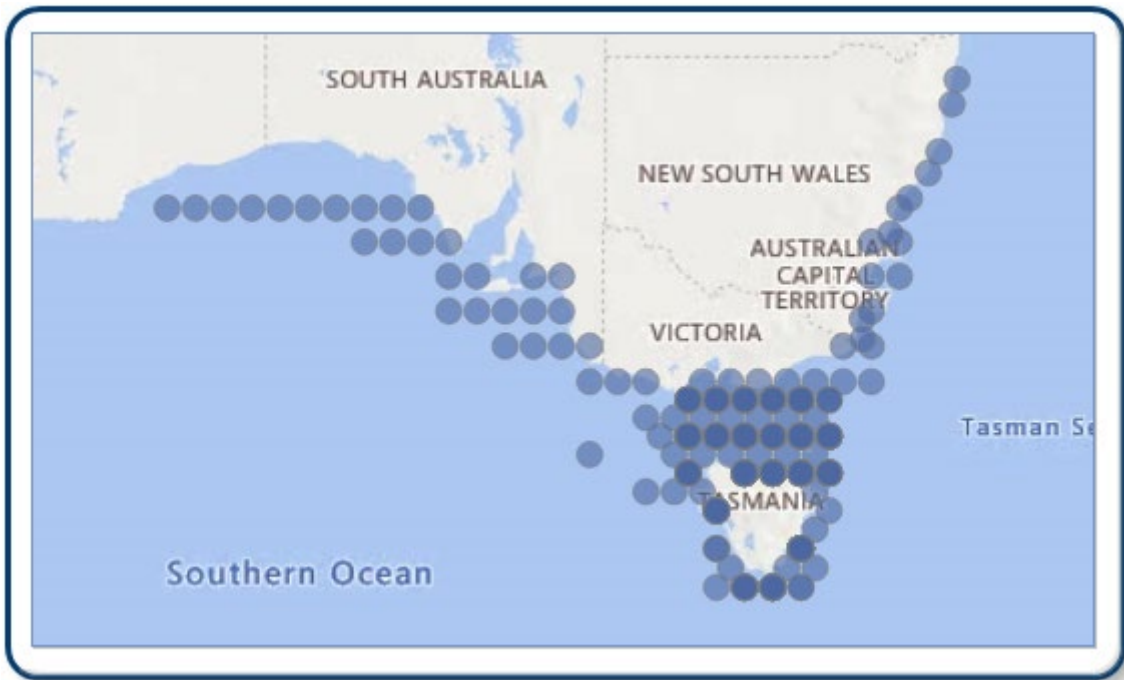
On the basis of the evidence above, the Southern Australia management unit is classified as a **sustainable stock**.

BIOLOGY

Sawshark biology [Last and Stevens 2009, Raoult et al. 2016]

Species	Longevity / Maximum Size	Maturity (50 per cent)
SAWSHARKS	15 years, ~1 500 mm TL for Female common Sawshark, 1 180 mm for males 1 050 mm for female Southern Sawshark, 970 mm for males.	900 mm TL Common Sawshark mature around 800–900 mm TL Southern Sawshark mature around 700–900 mm TL

DISTRIBUTION



Distribution of reported commercial catch of SAWSHARKS

TABLES

Commercial Catch Methods	Commonwealth	New South Wales	South Australia	Tasmania	Western Australia
Danish Seine	✓				
Demersal Gillnet	✓			✓	
Demersal Longline	✓				
Demersal Pair Trawl	✓				
Dropline	✓				
Gillnet					✓
Midwater Trawl	✓				
Otter Trawl	✓	✓			
Trawl	✓				
Trotline	✓				
Unspecified		✓	✓	✓	

Fishing methods	Commonwealth	New South Wales	South Australia	Tasmania
Charter				
Hook and Line			✓	
Commercial				
Danish Seine	✓			
Demersal Gillnet	✓			
Demersal Longline	✓			

Otter Trawl	✓	✓			
Unspecified		✓	✓		✓
Indigenous					
Gillnet					✓
Hook and Line			✓		
Setline					✓
Various		✓			
Recreational					
Gillnet					✓
Hook and Line			✓		
Setline					✓
Various		✓			
Management Methods					
	Commonwealth	New South Wales	South Australia	Tasmania	Western Australia
Charter					
Gear restrictions			✓		
Commercial					
Effort limits		✓			✓
Gear restrictions		✓	✓	✓	✓
Individual transferable quota	✓				
Limited entry	✓	✓	✓	✓	✓
Processing restrictions		✓			✓
Spatial closures		✓	✓	✓	✓
Spatial restrictions	✓				
Vessel restrictions		✓			
Indigenous					
Area closures				✓	
Bag and possession limits				✓	
Bag limits		✓		✓	
Gear restrictions			✓		
Native Title		✓			
Section 37 (1d)(3)(9), Aboriginal		✓			

cultural fishing authority					
Recreational					
Area closures				✓	
Bag and possession limits				✓	✓
Bag limits		✓		✓	✓
Gear restrictions		✓	✓		
Licence				✓	✓
Spatial closures					✓

Active Vessels		
	New South Wales	South Australia
	37 Fishing Business in OTF,	0 Licences in MSF,

OTF Ocean Trawl Fishery(NSW)

MSF Marine Scalefish Fishery(SA)

Catch	Commonwealth	New South Wales	South Australia	Tasmania	Western Australia
Charter			Unknown		
Commercial	92.3095t in SESSF (CTS), 14.197t in SESSF (GABTS), 98.1005t in SESSF (GHTS),	1.461t in N/A, 11.243t in OTF,	0t in MSF,	0.0185t in SF,	
Indigenous		Unknown but considered low	Unknown	Unknown but considered low	Undetermined but likely to be negligible
Recreational		Unknown but considered low	Unknown	Unknown but considered low	No sawsharks caught from boats [Ryan et al. 2017], shore-based catches are undetermined

SESSF (CTS) Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector) (CTH), SESSF (GABTS) Southern and Eastern Scalefish and Shark Fishery (Great Australian Bight Trawl Sector) (CTH), SESSF (GHTS) Southern and Eastern Scalefish and Shark Fishery (Gillnet Hook and Trap Sector) (CTH), N/A Not Applicable (NSW), OTF Ocean Trawl Fishery (NSW), MSF Marine Scalefish Fishery (SA), SF Scalefish Fishery (TAS),

Commonwealth – Recreational The Australian Government does not manage recreational fishing in Commonwealth waters. Recreational fishing in Commonwealth waters is managed by the state or territory immediately adjacent to those waters, under its management regulations.
Commonwealth – Indigenous The Australian Government does not manage non-commercial

Indigenous fishing in Commonwealth waters, with the exception of the Torres Strait. In general, non-commercial Indigenous fishing in Commonwealth waters is managed by the state or territory immediately adjacent to those waters. **Western Australia – Recreational (Management methods)** A recreational fishing from boat licence is required for recreational fishing from a powered vessel in Western Australia.

New South Wales – no catch reported. Commercial fisheries with less than seven active fishers are not presented due to the Privacy Act.

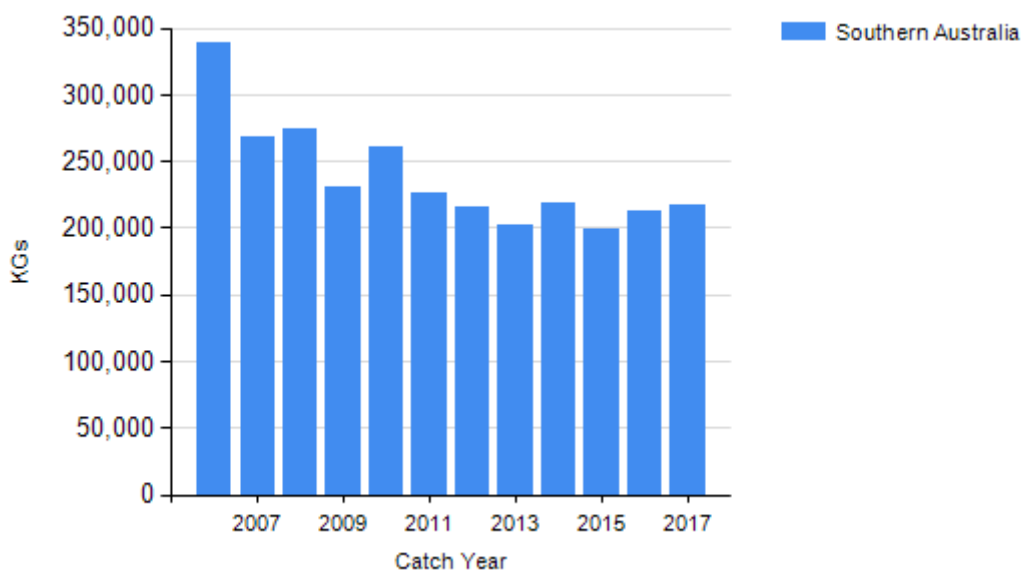
New South Wales – Indigenous (Management Methods) (a) Aboriginal Cultural Fishing Interim Access Arrangement—allows an Indigenous fisher in New South Wales to take in excess of a recreational bag limit in certain circumstances; for example, if they are doing so to provide fish to other community members who cannot harvest for themselves; (b) The Aboriginal cultural fishing authority is the authority that Indigenous persons can apply to take catches outside the recreational limits under the *Fisheries Management Act 1994* (NSW), Section 37 (1d)(3)(9), Aboriginal cultural fishing authority; and (c) In cases where the *Native Title Act 1993* (Cth) applies fishing activity can be undertaken by the person holding native title in line with S.211 of that Act, which provides for fishing activities for the purpose of satisfying their personal, domestic or non-commercial communal needs. In managing the resource where native title has been formally recognised, the native title holders are engaged with to ensure their native title rights are respected and inform management of the State's fisheries resources.

Tasmania – Commercial (catch) Catches reported for the Tasmanian Scalefish Fishery are for the period 1 July to 30 June the following year. The most recent assessment available is for 2016/17.

Tasmania – Recreational (management methods) In Tasmania, a recreational licence is required for fishers using dropline or longline gear, along with nets, such as gillnet or beach seine.

Tasmania – Indigenous (management methods) In Tasmania, Indigenous persons engaged in aboriginal fishing activities in marine waters are exempt from holding recreational fishing licences, but must comply with all other fisheries rules as if they were licensed. If using pots, rings, set lines or gillnets, Indigenous fishers must obtain a unique identifying code (UIC). The policy document Recognition of Aboriginal Fishing Activities for issuing a Unique Identifying Code (UIC) to a person for Aboriginal Fishing activity explains the steps to take in making an application for a UIC.

CATCH CHART



Commercial catch of SAWSHARKS - note confidential catch not shown

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

ENVIRONMENTAL EFFECTS on SAWSHARKS

References	
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480	Ryan K, Hall N, Lai E, Smallwood C, Taylor S and Wise B 2017, <i>Statewide survey of boat-based recreational fishing in Western Australia 2015/16</i> . Fisheries Research Report No. 287, Department of Primary Industries and Regional Development, Western Australia.
481	McAuley R, Braccini M, Newman SJ and O'Malley J 2015, <i>Temperate Demersal Gillnet and Demersal Longline Fisheries Status Report</i> . Pages 261–272 <i>Status reports of the fisheries and aquatic resources of Western Australia 2014/15: The State of Fisheries</i>
482	Lyle JM and Tracey SR 2012a, <i>Recreational gillnetting in Tasmania – an evaluation of fishing practices and catch and effort</i> . Institute for Marine and Antarctic Studies, University of Tasmania, Hobart.
483	Lyle JM and Tracey SR 2012b, <i>Preliminary survey of set-line usage in Tasmania</i> . Institute for Marine and Antarctic Studies, University of Tasmania, Hobart.
484	Walker TI and Hudson RJ 2005, <i>Saw shark and elephant fish assessment and bycatch evaluation in the Southern Shark Fishery</i> . Final Report to the FRDC. Project 1999/103. Primary Industries Research Victoria. 40 pp.
485	Raoult V, Peddemors VM and Williamson JE 2016, <i>Biology of angel sharks (Squatina sp.) and sawsharks (Pristiophorus sp.) caught in south-eastern Australian trawl fisheries</i> . <i>Marine & Freshwater Research</i> , 68: 207–212.