Elephantfish (2018)

Callorhinchus milii

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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Commonwealth, New South Wales, Victoria, Tasmania	Southern Australia	CIF, ITF, OF, OTF, OTLF, SESSF (CTS), SESSF (GABTS), SESSF (GHTS), SF	Sustainable	Standardised CPUE, catch, effort

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), OTF Ocean Trawl Fishery (NSW), OTLF Ocean Trap and Line Fishery (NSW), SF Scalefish Fishery (TAS), CIF Corner Inlet Fishery (VIC), OF Ocean Fishery (VIC), ITF Inshore Trawl Fishery (VIC)

STOCK STRUCTURE

The species has a broad distribution across much of southern-Australia, but actual biological stock structure is unknown. The species is understood to occur in cool, temperate waters around Australia and New Zealand in depths to at least 200m [Last and Stevens 2009]. Noting the high degree of overlap in the distribution of Commonwealth and State catches of Elephantfish, and that the Commonwealth stock assessments for the Shark Gillnet and Shark Hook Sector (SGSHS) of the Southern and Eastern Scalefish and Shark Fishery (SESSF) take account of State catches, this stock is reported as a single management unit.

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

STOCK STATUS

Southern Australia

Elephantfish are caught in Commonwealth fisheries and in the State fisheries in New South Wales, Victoria and Tasmania. Information is provided for fisheries in each of these jurisdictions. However, given that much of the catch is taken by the Commonwealth fisheries, and that stock status assessments for these fisheries include State catches, stock status is assessed here primarily using evidence from Commonwealth stock assessments for the Shark Gillnet and Shark

Hook Sector (SGSHS) of the Southern and Eastern Scalefish and Shark Fishery (SESSF).

Commonwealth catches (all SESSF combined) were around 61 tonnes (t) in the 2017–18 fishing season. This is slightly below the average of the previous five seasons, at around 77 t. Effort in the gillnet sector of the SESSF GHTS peaked in 1987 at 99 000 km of gillnet hauled but has decreased to around one-third of this level in recent years. Hook effort has been variable in recent years, ranging between 1.1 million and 2.3 million hooks per season.

Minor catches of Elephantfish are taken in State waters by commercial and recreational fishers. Within Tasmanian State waters, Elephantfish are taken in the multi-gear, multi-species Tasmanian Scalefish Fishery. Total landings are low, with an average total annual harvest of 1.6 t over the last 10 years. Total landings for 2017 were 1.8 t. Effort and catch rates (measured in days fished) have been relatively stable over the last 10 years. Recreational catches in Tasmania are unknown, but presumed to be low, with little reference to this species made in recent surveys of recreational fishing in State waters [Lyle et al. 2009, Lyle et al. 2014].

Minor catches of Elephantfish are taken in Victoria State waters by local commercial fishers. Total landings are low, with an average total annual harvest of 2.0 t over the last 10 years. Total landings for 2017 were 0.4 t. Total recreational state-wide catches are unknown. In previous years, the recreational fishery in Western Port, the second largest marine recreational fishery in Victoria, was identified has an important fishery with an estimated retained catch of Elephantfish by recreational anglers from March–May 2008 of 45 t, the majority being mature females. Increases in recreational fishing pressure on breeding Elephantfish in Western Port are of concern, as this is the main nursery area for this species in Victorian waters. Adding these recreational catches to the commercial harvest from Bass Strait, there was a high risk that the current harvest levels were not sustainable [Braccini et al. 2008]. Elephantfish catch rates for the boat ramp surveys have declined continuously since 2007 and were at the lowest recorded level in 2014–15 [Conron et al. 2016]. Interpreting this data is, however, challenging because the daily bag limit was reduced from three to one in 2008. This evidence indicates a significant decline in the Elephantfish fishery in Western Port both in terms of catch rates and fishing popularity [Conron et al. 2016]. Prior to the 1980s there were also very low abundances of Elephantfish in Western Port which could be linked to environmental/habitat changes that influence the egg laying grounds in the eastern region of the embayment. There has been no assessment of Elephantfish in Victoria since 2008.

Historically, catches of Elephantfish in New South Wales have been extremely low, with less than one tonne reported per annum. Total recreational state-wide catches are unknown, but presumed to be insignificant. Due to such low historical catches there has been no assessment of Elephantfish in New South Wales.

This stock is managed by the Commonwealth as a Tier 4 stock under the Southern and Eastern Scalefish and Shark Fishery Harvest Strategy Framework using standardised CPUE [Haddon and Sporcic 2018]. Two CPUE standardisations performed for the stock (including and excluding discards) show relative stability in recent CPUE and similar levels when compared with CPUE at the start of the series. The recent average CPUE was above the target for the series including discards, and slightly below the target but above the limit excluding discards. The above evidence indicates that the biomass of this stock is unlikely to be depleted, that recent fishing pressure is unlikely to have been too high and that recruitment is unlikely to be impaired.

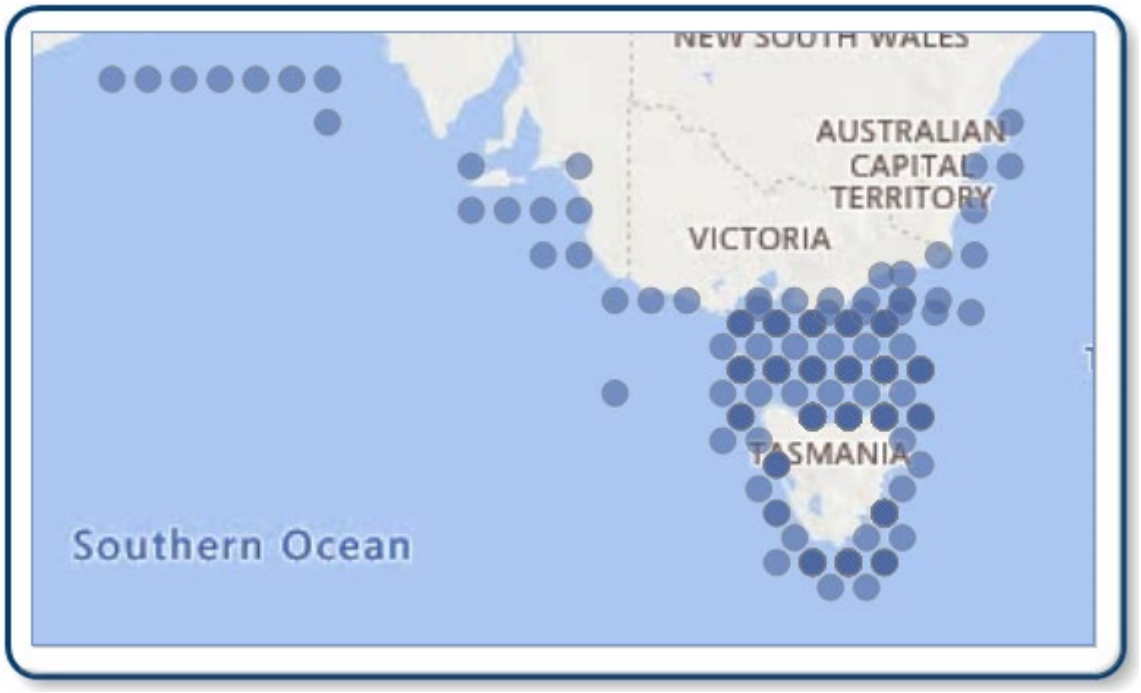
On the basis of the evidence provided above, the Southern Australia management unit is classified as a **sustainable stock**.

BIOLOGY

Elephantfish biology [Last and Stevens 2009**]**

Species	Longevity / Maximum Size	Maturity (50 per cent)
Elephantfish	6 years, Females ~1050 mm TL Males ~770 mm TL, 7.2 kg	Age 2–3 years Size 700 mm

DISTRIBUTION



Distribution of reported commercial catch of Elephantfish

TABLES

Commercial Catch Methods	Commonwealth	New South Wales	Tasmania	Victoria
Danish Seine	✓			
Demersal Gillnet	✓			
Demersal Longline	✓	✓		
Demersal Pair Trawl	✓			
Gillnet			✓	
Hook and Line				✓
Midwater Trawl	✓			
Net				✓
Otter Trawl	✓	✓		
Unspecified		✓	✓	✓

Fishing methods				
	Commonwealth	New South Wales	Tasmania	Victoria
Commercial				

Danish Seine	✓			
Demersal Gillnet	✓			
Demersal Longline	✓	✓		
Gillnet			✓	
Hook and Line				✓
Net				✓
Otter Trawl	✓	✓		
Unspecified			✓	
Indigenous				
Gillnet			✓	
Hook and Line			✓	
Recreational				
Gillnet			✓	
Hook and Line		✓	✓	

Management Methods				
	Commonwealth	**New South Wales**	**Tasmania**	**Victoria**
Commercial				
Area restrictions	✓		✓	
Catch limits			✓	
Gear restrictions			✓	
Individual transferable quota	✓			
Limited entry	✓		✓	
Possession restrictions		✓	✓	
Total allowable catch	✓			
Indigenous				
Bag and possession limits			✓	
Bag limits		✓	✓	
Customary fishing permits				✓
Native Title		✓		
Section 37 (1d)(3)(9), Aboriginal cultural fishing		✓		

authority				
Recreational				
Bag and possession limits		✓	✓	
Bag limits		✓	✓	
Licence		✓	✓	

Active Vessels			
	South Australia	Tasmania	Victoria
	0 Licences in MSF,	13 Vessels in SF,	10 Licence Holders in CIF, 1 Licence Holders in OF, 2 Licence Holders in ITF,

MSF Marine Scalefish Fishery(SA)

SF Scalefish Fishery(TAS)

CIF Corner Inlet Fishery(VIC)

OF Ocean Fishery(VIC)

ITF Inshore Trawl Fishery(VIC)

Catch				
	Commonwealth	New South Wales	Tasmania	Victoria
Commercial	31.225t in SESSF (CTS), 3.079t in SESSF (GABTS), 27.2183t in SESSF (GHTS),		1.8405t in SF,	0.3746t in CIF,
Indigenous	Unknown	Unknown	Unknown	Unknown (No catch under permit)
Recreational	Unknown	Unknown	Unknown	Unknown

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), OTF Ocean Trawl Fishery (NSW), OTLF Ocean Trap and Line Fishery (NSW), SF Scalefish Fishery (TAS), CIF Corner Inlet Fishery (VIC), OF Ocean Fishery (VIC), ITF Inshore Trawl Fishery (VIC),

New South Wales – Indigenous (Management Methods). 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.

New South Wales – Active vessels Cannot be specified due to the Privacy Act as fewer than

seven fishers have reported catch.

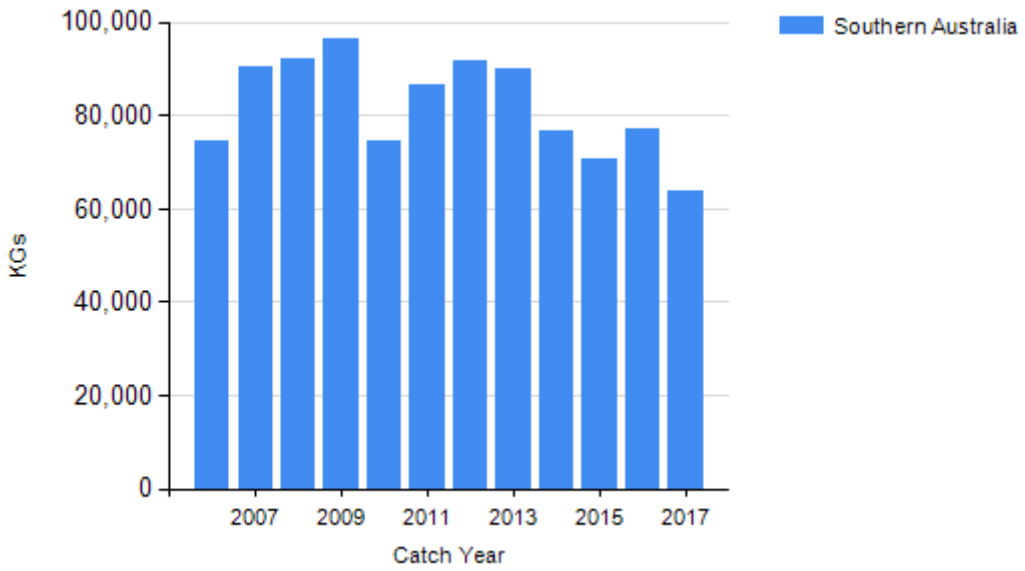
Victoria – Indigenous (Management Methods) In Victoria, regulations for managing recreational fishing may not apply to fishing activities by Indigenous people. Victorian traditional owners may have rights under the *Commonwealth's Native Title Act 1993* to hunt, fish, gather and conduct other cultural activities for their personal, domestic or non-commercial communal needs without the need to obtain a licence. Traditional Owners that have agreements under the *Traditional Owner Settlement Act 2010* (Vic) may also be authorised to fish without the requirement to hold a recreational fishing licence. Outside of these arrangements, indigenous Victorians can apply for permits under the *Fisheries Act 1995* (Vic) that authorise fishing for specific indigenous cultural ceremonies or events (for example, different catch and size limits or equipment). There were no indigenous permits granted in 2017 and hence no indigenous catch recorded.

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. A bag limit of two individuals and a possession limit of four individuals is in place for recreational fishers.

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. Additionally, recreational bag and possession limits also apply. 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 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 Elephantfish - note confidential catch not shown

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

ENVIRONMENTAL EFFECTS on Elephantfish

References	
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