Deepwater Flathead (2018)

Platycephalus conatus

Andy Moore: Australian Bureau of Agricultural and Resource Economics and Sciences

STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Commonwealth	Great Australian Bight	SESSF (CTS), SESSF (GABTS)	Sustainable	Spawning stock biomass, fishing mortality

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)

STOCK STRUCTURE

The biological stock structure of Deepwater Flathead is unknown; however, it is treated as a single biological stock or management purposes in the Southern and Eastern Scalefish and Shark Fishery (SESSF). Stock assessments for Deepwater Flathead have only been completed for the Great Australian Bight part of the biological stock [Haddon 2016].

Here, assessment of stock status is presented at the biological stock level—Great Australian Bight.

STOCK STATUS

Great Australian Bight

The most recent quantitative assessment [Haddon 2016] estimated that the spawning biomass at the start of the 2016–17 fishing season was 45 per cent of the unfished (1978) level. This assessment was generally consistent with previous assessments and fishery-independent surveys [Knuckey et al. 2009 and 2011], however the 2015 fishery-independent survey suggested a 45 per cent decrease in Deepwater Flathead catch rates compared to previous surveys [Knuckey et al. 2015]. There were uncertainties around the outputs of the survey due to seismic testing and unintentional changes to the trawl net used. The 2018 fishery-independent survey suggested a decrease in relative biomass of 33 per cent compared to 2015 and 63 per cent compared to 2011 [Knuckey et al. 2018]. This trend is concerning and an updated assessment is warranted.

Previous quantitative stock assessments estimated that the spawning biomass was progressively fished-down in the mid-2000s, but the biological stock had recovered to above the maximum economic yield target of 43 per cent by the start of 2010 [Klaer 2013, Haddon 2016]. The recovery was likely a result of lower fishing pressure, combined with at least one substantial recruitment event. As indicated above, the 2016 stock assessment suggests spawning biomass at

the start of 2016–17 to be 45 per cent of the unexploited biomass. The stock is not considered to be recruitment impaired [Moore and Mobsby 2018].

The biologically-derived [Haddon 2016] recommended biological catch (RBC) was used to set a total allowable catch (TAC) for the SESSF Great Australian Bight Trawl Sector (Commonwealth) for the 2017–18 fishing season at 1 128 tonnes (t). Landed catch of Deepwater Flathead from this fishery in the 2017–18 fishing season was 548 t [Moore and Mobsby 2018]. The SESSF Commonwealth Trawl Sector also landed 67 t, leading to a combined catch that was below the RBC. The level of discards for this species was low in 2017 [Castillo-Jordan et al. 2018]. This level of fishing mortality is unlikely to cause the stock to become recruitment impaired [Moore and Mobsby 2018].

On the basis of the evidence provided above, the Great Australian Bight biological stock is classified as a **sustainable stock**.

BIOLOGY

Deepwater Flathead biology [Kailola et al. 1993, Stokie and Krusic-Golub 2005, Stokie and Talman 2003]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Deepwater Flathead	Females ~26 years, 820 mm TL Males ~19 years, 590 mm TL	Females 5–6 years, 430 mm TL Males 4–5 years, 430 mm TL

DISTRIBUTION

Distribution of reported commercial catch of Deepwater Flathead

TABLES

Commercial Catch Methods	Commonwealth
Danish Seine	✓
Demersal Pair	✓

Trawl	
Midwater Trawl	✓
Otter Trawl	✓
Trawl	✓

Fishing methods	
	Commonwealth
Commercial	
Danish Seine	✓
Otter Trawl	✓

Management Methods	
	Commonwealth
Commercial	
Gear restrictions	✓
Limited entry	✓
Spatial closures	✓
Total allowable catch	✓

Active Vessels

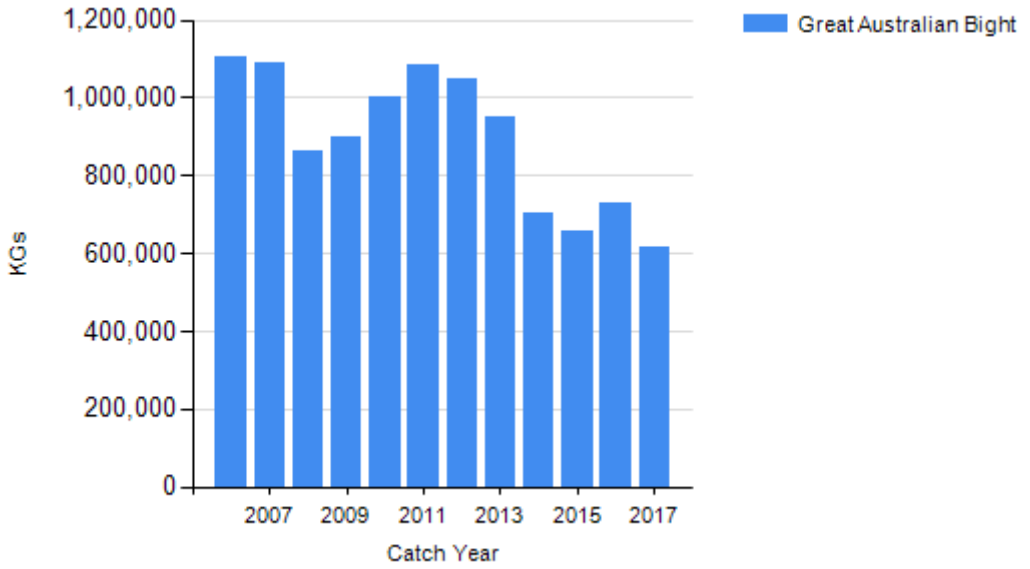
Catch	
	Commonwealth
Commercial	66.9176t in SESSF (CTS), 547.592t in SESSF (GABTS),
Indigenous	Unknown
Recreational	Unknown

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),

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.

CATCH CHART



Commercial catch of Deepwater Flathead — note confidential catch not shown

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

ENVIRONMENTAL EFFECTS on Deepwater Flathead

References	
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