

Deepwater Flathead (2016)

Platycephalus conatus



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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 in the Southern and Eastern Scalefish and Shark Fishery for management purposes. Stock assessments for Deepwater Flathead have only been completed for the Great Australian Bight part of the biological stock[1].

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[1] estimated that the spawning biomass at the start of the 2014–15 fishing season was 45 per cent of the unfished (1978) level. This assessment was generally consistent with previous assessments and fishery-independent surveys[2,3]. A multi-year breakout analyses in 2015 suggested catch per unit effort (CPUE) has deviated from its expected model derived trajectory. Standardised CPUE was lower than the trajectory predicted by the quantitative assessment, but still within the 95 per cent confidence bounds produced by the assessment[4]. The most recent fishery-independent survey in 2015 suggested a dramatic decrease in Deepwater Flathead catch rates compared to previous surveys[5]. Relative biomass estimates derived from the fishery-independent survey decreased by 45–50 per cent from previous estimates. Industry also noted a decrease in catch rates during 2015. An updated stock assessment is scheduled for 2016 and should quantify the impact of these decreases in catch rates and abundance

measures.

The 2013 assessment 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 by the start of 2010. The recovery was likely a result of lower fishing pressure in recent years, combined with at least one substantial recruitment event. The stock is not considered to be recruitment overfished[6].

The biologically-derived[1] total allowable catch (TAC) for the Great Australian Bight Trawl Sector (Commonwealth) for the 2015–16 fishing season was 1150 tonnes (t), which was adjusted to 1265 t to account for undercatch and overcatch. Landed catch of Deepwater Flathead from this fishery in the 2015–16 fishing season was 604 t[6]. The Commonwealth Trawl Sector also landed 30 t, leading to a combined catch that was below the TAC. The level of discards for this species is low[7,8]. This level of fishing pressure is unlikely to cause the stock to become recruitment overfished[6].

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

BIOLOGY

Deepwater Flathead biology[9,10,11]

| Species | Longevity / Maximum Size | Maturity (50 per cent) |
|--------------------|---|---|
| Deepwater Flathead | Females: ~26 years; 820 mm <u>TL</u> Males: ~19 years; 590 mm <u>TL</u> | Females: 5–6 years; 430 mm <u>TL</u> Males: 4–5 years; 430 mm <u>TL</u> |

DISTRIBUTION



Distribution of reported commercial catch of Deepwater Flathead

TABLES

| Commercial Catch Methods | Commonwealth |
|---------------------------------|---------------------|
| Danish Seine | ✓ |
| Demersal Pair Trawl | ✓ |
| Midwater Trawl | ✓ |
| Otter Trawl | ✓ |

| Fishing methods | Commonwealth |
|------------------------|---------------------|
| Commercial | |
| Danish Seine | ✓ |
| Otter Trawl | ✓ |

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

| Active Vessels | Commonwealth |
|-----------------------|--|
| | 11 Vessel in SESSF (CTS), 4 Vessel in SESSF (GABTS), |

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)

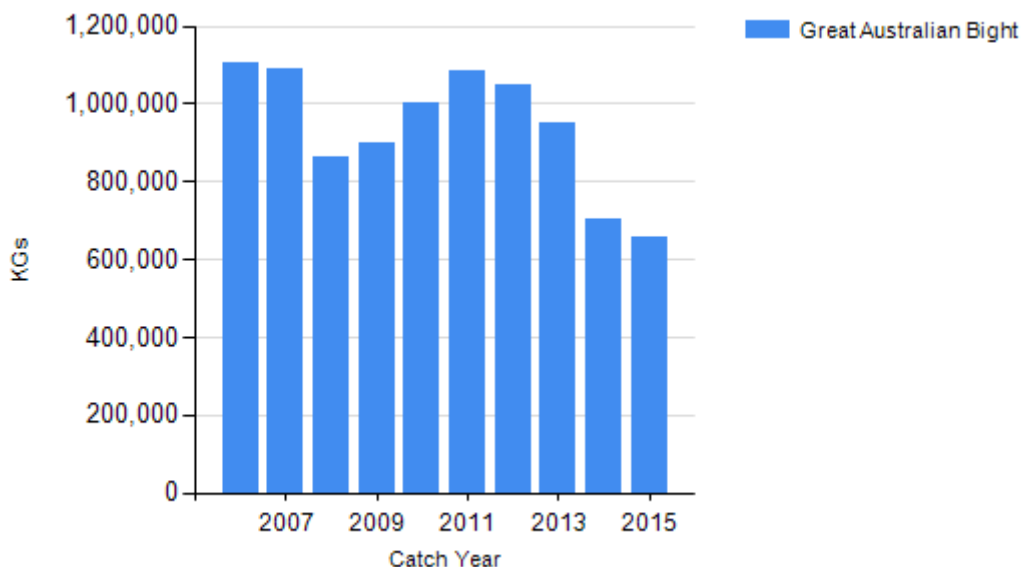
| Catch | Commonwealth |
|-------------------|---|
| Commercial | 30.6187t in SESSF (CTS), 626.618t in SESSF (GABTS), |

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),

a 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.

b 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

- The effects of trawl fishing on the marine environment are assessed through an environmental risk assessment and risk management framework and mitigated through spatial closures, and the implementation of bycatch and discard workplans[14,15] in the Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector) (SESSF [CTS]) and Southern and Eastern Scalefish and Shark Fishery (Great Australian Bight Trawl Sector) (SESSF [GABTS]) fisheries.
- There is bycatch in the both trawl sectors. In 2006, mandatory requirements for otter trawls to use 90 mm square-mesh codend panels were introduced in an effort to reduce the bycatch of small species and juvenile fish.
- The Australian Fisheries Management Authority mandated individual vessel seabird management plans. The seabird action plans are used in the SESSF (CTS) and SESSF (GABTS) to mitigate the impacts of trawling on seabirds. From 1 May 2017, all vessels in the SESSF (CTS) and SESSF (GABTS) fisheries must use one of the following mitigation devices: sprayers, bird bafflers or pinkies with zero discharge of fish waste[16].

ENVIRONMENTAL EFFECTS on Deepwater Flathead

- Changes in ecosystem structure and function associated with changes in the climate may affect larval recruitment of Deepwater Flathead[17].

| References | |
|------------|---|
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