

# Bigeye Ocean Perch (2018)

*Helicolenus barathri*



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## STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Commonwealth, New South Wales, South Australia	South East Australia	MSF, N/A, OTF, OTLF, SESSF (CTS), SESSF (GABTS), SESSF (GHTS)	Sustainable	Catch, 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), OTLF Ocean Trap and Line Fishery (NSW), MSF Marine Scalefish Fishery (SA)

## STOCK STRUCTURE

Ocean Perch is managed as a single stock that includes two species: the inshore Reef Ocean Perch (*Helicolenus percoides*) and the offshore Bigeye Ocean Perch (*H. barathri*). Ocean Perch stock structure is uncertain, but there is probably an east west structuring of stocks [Morison et al. 2013]. The Reef (inshore) Ocean Perch and the Bigeye (offshore) Ocean Perch have been assessed separately since 2009, but a single all-areas TAC is set for the two species. Based on the depth of capture and logbook records, most of the landed Ocean Perch taken in the Commonwealth fisheries is considered to be Bigeye Ocean Perch (offshore). This assessment specifically focusses on Bigeye Ocean Perch

Early genetic studies suggests separate stocks of Bigeye Ocean Perch within South East Australia [Park 1995, Paxton and Colgon 1993]. However the results are not definitive and there is merit in investigating the likelihood of differentiation over the latitude [Paxton and Colgon 1993].

Here, assessment of stock status is presented at the biological stock level—South East Australia.

## STOCK STATUS

**South East** In 2017, Bigeye Ocean Perch (offshore) was managed as a tier 4 stock under

**Australia** the Southern and Eastern Scalefish and Shark Fishery Harvest Strategy Framework [AFMA 2009] and assessed using a tier 4 analysis generated in 2013 by Haddon [2013]. The 2013 tier 4 analysis was updated in 2017 [Haddon and Sporric 2017]. In the Commonwealth, Bigeye Ocean Perch (offshore) and inshore Ocean Perch are combined and managed as a single management unit therefore in other published reports the stock status refers to both species combined. Separate assessments are carried out for each species making it is possible to assess the stock status for Bigeye Ocean Perch. Therefore, for the purpose of this report, only Bigeye Ocean Perch (offshore) is considered henceforth. The 2017 tier 4 analysis conducted on Bigeye Ocean Perch indicated that the four year average standardised catch per unit effort (2013–16) was above the target reference point. A recommended biological catch (RBC) of 344.74 tonnes (t) was generated from the 2017 tier 4 analysis, to apply to the 2018–19 fishing season). The RBC for the 2017–18 fishing season was 283 t for Bigeye Ocean Perch [AFMA 2013, Haddon 2013]. The 2017–18 RBC was an extension of the three year RBC initiated in 2014–15 [AFMA 2013], using a target biomass of 40 per cent of unfished biomass (B40). The 2017 tier 4 analysis for Bigeye Ocean Perch indicates that the stock biomass is above the target reference point (and therefore above the limit reference point). The above evidence indicates that the biomass of this stock is unlikely to be depleted and that recruitment is unlikely to be impaired.

The Commonwealth-landed catch for the 2017 fishing year was 173.3 t. Annual landings of Bigeye Ocean Perch by New South Wales State fishers have averaged about 16 t per year (range: 15–21 t) since 2009 [Chick and Johnson 2018] and were 14.22 t in 2017. When catches from relatively deep water are considered (so as to avoid the inshore species), there has been no catch of Bigeye Ocean Perch recorded in South Australian commercial Marine Scalefish Fishery since at least the 1980s. The weighted average discards of Bigeye Ocean Perch between 2013 and 2016 were 37.19 t [Castillo-Jordán et al. 2018]. This gives a combined total fishing related mortality of 224.72 t which is lower than the three year RBC of 283 t [AFMA 2013]. The above evidence indicates that the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired.

On the basis of the evidence provided above, the South East Australia biological stock for Bigeye Ocean Perch (offshore) is classified as a **sustainable stock**.

## BIOLOGY

**Bigeye Ocean Perch biology** [AFMA no date, Kailola et al. 1993, Withell and Wankowski 1998,]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Bigeye Ocean Perch	47–60 years, 440 mm FL	Females 5 years Males 5–7 years

## DISTRIBUTION



Distribution of reported commercial catch of Bigeye Ocean Perch

**TABLES**

<b>Commercial Catch Methods</b>	<b>Commonwealth</b>	<b>New South Wales</b>	<b>South Australia</b>
Danish Seine	✓		
Demersal Longline	✓	✓	
Demersal Pair Trawl	✓		
Dropline	✓	✓	
Midwater Trawl	✓		
N/A		✓	
Otter Trawl	✓		
Rod and reel	✓		
Trotline	✓		
Unspecified		✓	✓

<b>Fishing methods</b>	<b>Commonwealth</b>	<b>New South Wales</b>	<b>South Australia</b>
<b>Charter</b>			
Handline		✓	
<b>Commercial</b>			
Danish Seine	✓		
Demersal Longline	✓	✓	
Dropline	✓	✓	
Otter Trawl	✓		
Unspecified		✓	✓
<b>Indigenous</b>			

Handline		✓	
<b>Recreational</b>			
Handline		✓	
<b>Management Methods</b>			
	<b>Commonwealth</b>	<b>New South Wales</b>	<b>South Australia</b>
<b>Charter</b>			
Licence		✓	
Spatial closures		✓	
<b>Commercial</b>			
Gear restrictions	✓	✓	✓
Individual transferable quota	✓		
Limited entry	✓	✓	✓
Quota	✓		
Spatial closures		✓	✓
Total allowable catch	✓		
<b>Indigenous</b>			
Native Title		✓	
Section 37 (1d)(3)(9), Aboriginal cultural fishing authority		✓	
<b>Recreational</b>			
Licence		✓	
Spatial closures		✓	
<b>Active Vessels</b>			
	<b>New South Wales</b>	<b>South Australia</b>	
	11 Fishing Business in OTLF,	0 in MSF,	

OTLF Ocean Trap and Line Fishery(NSW)

MSF Marine Scalefish Fishery(SA)

<b>Catch</b>	<b>Commonwealth</b>	<b>New South Wales</b>	<b>South Australia</b>
<b>Commercial</b>	150.111t in SESSF (CTS).	14.219t in N/A,	0t in MSF,

	1.86984t in SESSF (GABTS), 21.3146t in SESSF (GHTS),		
<b>Indigenous</b>	Unknown	Unknown	Unknown
<b>Recreational</b>	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), N/A Not Applicable (NSW), OTF Ocean Trawl Fishery (NSW), OTLF Ocean Trap and Line Fishery (NSW), MSF Marine Scalefish Fishery (SA),

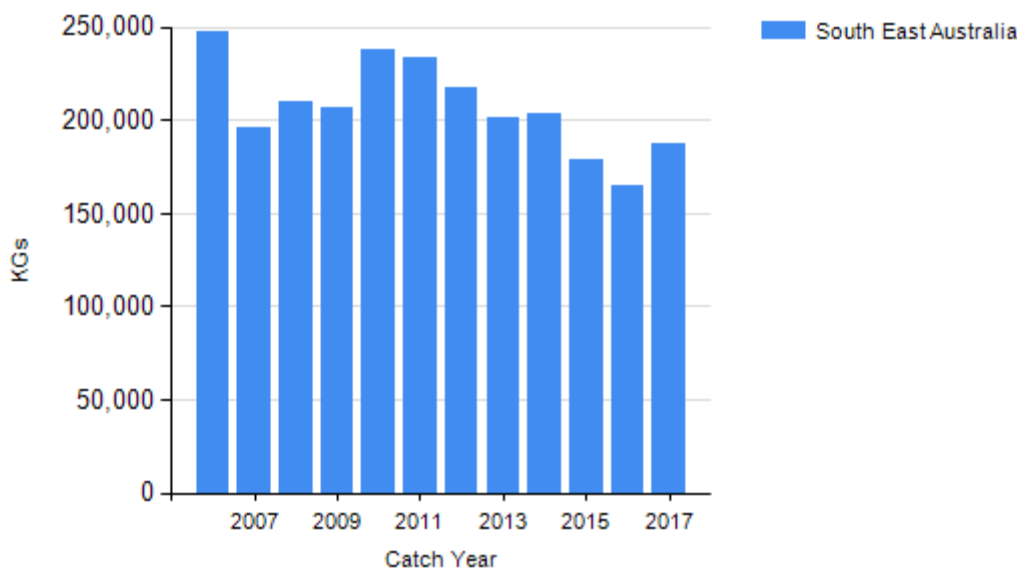
**Commonwealth – Commercial (Management Methods/Catch)** Data provided for the Commonwealth align with the Commonwealth Southern and Eastern Scalefish and Shark Fishery for the 2017 calendar year.

**Commonwealth – Recreational** The Commonwealth 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 Torres Strait. In general, non-commercial Indigenous fishing in Commonwealth waters is managed by the state or territory immediately adjacent to those waters.

**New South Wales – Indigenous (Management Methods)** (a) 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 (b) 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.

**CATCH CHART**



Commercial catch of Bigeye Ocean Perch - note confidential catch not shown

**EFFECTS OF FISHING ON THE MARINE ENVIRONMENT**

**ENVIRONMENTAL EFFECTS on Bigeye Ocean Perch**

<b>References</b>	
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81	Biochemical genetics and Stock assessment of Common Gemfish and Ocean Perch. Final Report, FRDC project 91/34. Australian Museum
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