

Black Bream (2018)

Acanthopagrus butcheri



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Western Australia	Western Australia South Coast Estuaries	SCEMF, SCEMF WL (SC), WL (SC)	Sustainable	Catch, estimated biomass, harvest rate
Western Australia	Western Australia West Coast Estuaries	FBLC84, FBLC84 WCEMF, WCEMF	Sustainable	Catch
New South Wales	Southern New South Wales	EGF, N/A	Sustainable	Catch, CPUE
Victoria	The Gippsland Lakes	GLF	Depleting	Catch, CPUE, size composition
Victoria	Victoria Eastern Estuaries	CIF	Sustainable	CPUE, size composition
Victoria	Victoria Western Estuaries	PPBWPF	Sustainable	CPUE, size composition
Tasmania	Tasmania Scalefish Fishery	SF	Sustainable	Catch
South Australia	Lakes and Coorong Fishery	LCF	Depleted	Catch, targeted effort, size composition, age composition
South Australia	South Australia Marine Scalefish Fishery	MSF	Sustainable	Catch, effort, CPUE

EGF Estuary General Fishery (NSW), N/A Not Applicable (NSW), LCF Lakes and Coorong Fishery (SA), MSF Marine Scalefish Fishery (SA), SF Scalefish Fishery (TAS), CIF Corner Inlet Fishery (VIC), GLF Gippsland Lakes Fishery (VIC), PPBWPF Port Phillip Bay and Western Port Bay Fishery (VIC), SCEMF South Coast Estuarine Managed Fishery (WA), WCEMF West Coast Estuarine Managed Fishery (WA), WL (SC) Open Access in the South Coast (WA), FBLC84 Fishing Boat Licence Conditions (WA), FBLC84 || WCEMF Various Fisheries combined due to 3 boat rule (WA), SCEMF || WL (SC) Various Fisheries combined due to 3 boat rule (WA)

STOCK STRUCTURE

Black Bream have a wide distribution in the estuaries of southern Australia from central New South Wales to central west coast Western Australia, including Tasmania [Kailola et al. 1993]. Various studies conclude that Black Bream are an estuarine-dependent species, completing much of their life-cycle within a single estuary [Chaplin et al. 1997, Conron et al. 2016, Earl et al. 2016]. Genetic studies of Black Bream in Victoria and Western Australia have indicated that, while there has been gene flow between adjacent estuaries, there is evidence of isolation by distance between populations [Burrige and Versace 2007, Burrige et al. 2004, Chaplin et al. 1997, Farrington et al. 2000].

The distribution of Black Bream in eastern Australia overlaps with the closely related Yellowfin Bream, *A. australis*, which occur from Wilson's Promontory in Victoria to northern Queensland. Where both Black Bream and Yellowfin Bream occur in the same area, hybridization is considerable [Farrington et al. 2000, Ochwada-Doyle et al. 2012, Roberts et al. 2009, 2010, 2011].

Results of tagging studies conducted in the Swan River [Norriss et al. 2002], Gippsland Lakes [Butcher and Ling 1962, Hindell et al. 2008] and the Coorong estuary [Hall 1984] indicated limited or no evidence of coastal migration or emigration between estuaries. This indicates that estuarine Black Bream populations should be managed as distinct biological stocks. However, for most fisheries management agencies this is not practical.

Furthermore, Black Bream growth, size- and age-at-maturity and recruitment are strongly influenced by environmental conditions, particularly fresh water influx into estuaries [Cottingham 2008, Norriss et al. 2002]. It is therefore likely that over local scales at least, annual recruitment strength is dependent on environmental conditions, with substantial inter-annual variation in recruitment affecting individual stock demographics and biomasses.

Here, assessment of stock status is presented at the management unit level—Western Australia West Coast Estuaries, Western Australia South Coast Estuaries (Western Australia); Southern New South Wales (New South Wales); Victoria Western Estuaries, The Gippsland Lakes, Victoria Eastern Estuaries (Victoria); Tasmania Scalefish Fishery (Tasmania); Lakes and Coorong Fishery and South Australia Marine Scalefish Fishery (South Australia).

STOCK STATUS

Lakes and Coorong Fishery

The multispecies and multi-gear Lakes and Coorong Fishery (LCF) has traditionally been the most important of South Australia's commercial fisheries for Black Bream, consistently accounting for around 85 per cent of the state's total commercial catch of the species since the 1980s. The Lakes and Coorong Black Bream stock encompasses the populations in the Coorong estuary and Lower Lakes at the end of the Murray River [Earl et al. 2016]. Black Bream is one of several premium species caught by the LCF that attracts a high price per unit weight for fishers [EconSearch 2017].

The most recent assessment of Black Bream in the LCF was completed in 2016 and used data to the end of June 2015 [Earl et al. 2016]. The primary measures for biomass and fishing mortality are total catch and total targeted effort from commercial gillnet fishers, and fishery age structures. Total catch in the LCF peaked at around 70 t in 1980 and remained above 40 t.yr⁻¹ until 1985. Catch abruptly declined in the late 1980s and averaged 4.2 t.yr⁻¹ from 1990 to 2016. The total catch of 1.6 t in 2017 was among the lowest on record. The low catches since the 1980s have been associated with low targeted effort. Given the high wholesale value of Black Bream, the low levels of targeted effort and catch since the 1980s likely reflects low fishable biomass. The state-wide recreational catch was estimated at approximately 4.5 t in 2013–14 [Giri and

Hall 2015], although the proportion of the catch taken from the Coorong estuary is not known.

Annual fishery age structures from 2007–08 to 2015–16 comprised fish between four and 17 years, although fish older than 10 years were rare [Earl et al. 2016, SARDI unpublished data] despite the potential for this species to reach 32 years of age [Ye et al. 2017]. Within any year, relatively few age classes contributed most to the catch, reflecting the relative strength of these year classes. This variation in year class strength relates to inter-annual variation in recruitment. Larger year classes appear to be linked to freshwater releases to the Coorong estuary in 1997–98, 2003–04, 2006–07, 2009–10 and 2012–13, confirming that environmental conditions associated with freshwater inflow are important for successful reproduction of Black Bream in the Coorong estuary. The recruitment of these good year classes to the fishable biomass since the mid-1990s indicates that environmental conditions in the Coorong estuary supported successful spawning in those years.

Despite this recruitment, fishery production has remained low compared to historical levels. Recruitment levels over the past 25 years have not been strong enough to support recovery of the stock following the decline in the 1980s. The above evidence indicates that the biomass of this stock is likely to be depleted, that recruitment is likely to be impaired, and that current fishing mortality levels are expected to prevent the stock recovering from a recruitment impaired state.

On the basis of the evidence provided above, the Lakes and Coorong Fishery management unit is classified as a **depleted stock**.

South Australia Marine Scalefish Fishery

Black Bream is considered a tertiary species within South Australia's commercial multispecies, multi-gear and multi-sectoral Marine Scalefish Fishery (MSF). The MSF Black Bream stock encompasses the populations in marine waters of South Australia, outside the Coorong Estuary and Lower Lakes [Earl et al. 2016].

The most recent assessment of Black Bream in the MSF was completed in 2018 [Steer et al. 2018] and used data to the end of December 2017. The primary measures for biomass and fishing mortality are total catch, total effort and nominal CPUE from commercial fishers. Total annual catch in the MSF was historically low (0.1–1.5 t.yr⁻¹) from 1984 to 2006, as a result of low targeted effort. Between 2013 and 2017, catches increased slightly to 0.7–2.9 t.yr⁻¹ and estimates of CPUE were > 80 per cent higher than the long-term average catch rate for the sector. The most recent estimate of total state-wide recreational catch of Black Bream in South Australia was 4.5 t in 2013–14 [Giri and Hall 2015]. The above evidence indicates that the biomass of this stock is unlikely to be depleted, that recruitment is unlikely to be impaired and that the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired.

On the basis of the evidence provide above, the South Australia Marine Scalefish Fishery management unit is classified as a **sustainable stock**.

Southern New South Wales

Black Bream are known to occur in estuaries and coastal lagoons in New South Wales south of ~32° latitude, but there is substantial hybridization with Yellowfin Bream [Ochwada-Doyle et al. 2012, Roberts et al. 2009, 2010, 2011]. Genetic analyses of 688 juvenile fish from five coastal lagoons in southern New South Wales by Roberts et al. [2010] found that 50 per cent were Yellowfin Bream, 45 per cent were Yellowfin/Black Bream hybrids and only 5 per cent were Black Bream. Ochwada-Doyle et al. [2012] observed no differences with hybrids in terms of their growth, population structure or maturity, but excessive introgression has negative implications for the persistence of Black Bream as a species in this region.

Difficulty in visually separating both species of bream and hybrids means that all

have been historically amalgamated with Yellowfin Bream for reporting purposes, confounding inter-specific estimates of commercial and recreational catches. Despite such difficulties, since 2009, commercial fishers have recorded Black Bream as a separate species (mostly south of 31[°] S), where approximately 80 per cent of their catches are landed using meshing and 17 per cent using hauling nets. Estimated total Black Bream catches have remained fairly stable at approximately 20 t each year from 2010 to 2015 but did decrease to 16 t in 2016 and 14 t in 2017, although with a simultaneous reduction in effort, resulting in fairly stable nominal catch rates. The above evidence indicates that the biomass of the southern New South Wales stock is unlikely to be depleted, that recruitment is unlikely to be impaired, and 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 Southern New South Wales management unit is classified as a **sustainable stock**.

Tasmania Scalefish Fishery

The sale of Black Bream in Tasmanian State waters has been prohibited since 1998, essentially resulting in a cessation of the harvest of the species for commercial purposes. Prior to 1998, Black Bream were harvested commercially using seine nets (including beach seine) and gillnets and, to a lesser extent, handlines. When operating, commercial catches in State waters were low, with a total annual catch of 2.5 t reported in 1996 and 1.9 t reported in 1997. In contrast, Black Bream are a popular target for recreational fishers, who target the species primarily using lines with bait or lures. Recreational catches of Black Bream have remained stable over time, while fishing effort (days fished) has declined in estuarine waters and in the recreational sector as a whole [Lyle et al. 2009, Lyle et al. 2014]. Release rates have increased markedly since 2001, reflecting a documented change in fishing motivations to catch-and-release sports fishing [Lyle et al. 2009, Lyle et al. 2014]. Of the estimated 59 000 fish caught by recreational fishers in 2012–13, an estimated 40 000 were released [Lyle et al. 2014]. Post-release survival of Black Bream is generally high, though varies with hooking depth, with shallow-hooked fish having higher survival rates (94 per cent) than deep-hooked fish (74 per cent) [Conron et al. 2010]. The above evidence indicates that the biomass of this stock is unlikely to be depleted, that recruitment is unlikely to be impaired, and 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 Tasmania Scalefish Fishery management unit is classified as a **sustainable stock**.

The Gippsland Lakes

The Gippsland Lakes are a series of temperate coastal lagoons in eastern Victoria that are connected to the sea by a single permanent narrow entrance at Lakes Entrance. Three main river systems, the Mitchell, Nicholson and Tambo, discharge into the Gippsland Lakes system, which is almost 70 km long and is the largest navigable network of inland waterways in Australia. The Gippsland Lakes commercial net fishery is restricted to the Lakes area and fishing is not permitted in the rivers or within 400 m from any part of the mouth of any river flowing into the Gippsland Lakes, which limits access of the fishery to Black Bream. Size limits and limited entry are also used to manage effort by the commercial sector, with size limits and bag limits applied to the recreational sector.

The majority of the commercial Black Bream harvest from the Gippsland Lakes is by mesh nets. Because the fishery includes multiple-target species and fishing activities that are spatially restricted there is some uncertainty in the reliability of mesh net catch rate data as an indicator of relative abundance for Black Bream.

Shore- and boat-based recreational anglers frequent the Gippsland Lakes and the estuarine reaches of the inflowing rivers where they target Black Bream.

Recreational fishery catch rates and size composition monitoring programs for Black Bream have been in place for the last 20 years, but these do not provide estimates of total recreational catch.

Periodic assessments of the status of Black Bream and the fisheries they support are conducted. These assessments compile relevant data from commercial fishery catch and effort reporting, recreational fishery and angler fishing diary monitoring programs, fishery independent surveys and other data, such as age and length/weight composition to support a review of indicators of stock or fishery status [Conron et al. 2016, Kemp et al. 2013, VFA 2017].

The commercial catch of Black Bream in 2017 was 15.4 t, having declined from a catch of 36.6 t in 2016. An assessment in 2017 found that catch rates for the commercial mesh-net fishery had decreased since the most recent peak around 2010–12, and in 2015 were below the long term average (1978–2015) [VFA 2017]. Since 2015, mesh net catch rates have declined further, consistent with a continued decline in the abundance of legal-sized Black Bream in the accessible Lake component of the population [VFA unpublished data]. In 2017, mesh net catch rates had dropped to lower levels than the previously low levels recorded in the early 1990s and 2000s [VFA unpublished data].

Recent recreational catch rates have varied around the long term average reference level but are currently lower (currently about one fish per five angler hours) than the levels recorded in 1996–2000, causing concern for many fishers [VFA unpublished data]. Independent trawl surveys of pre-recruit (0+ age fish) abundance suggest there have only been two moderately abundant year-classes in the past 10 years [VFA unpublished data]. While these year classes will support the fishery over the coming years, they are unlikely to be large enough to result in a significant increase in stock biomass without the occurrence of highly abundant year classes. Length-composition indicators for the recreational and commercial fisheries and from the 'Bream Classic Fishing Competition' have been relatively stable [VFA 2017] and in recent years show that a consistent component of larger fish (> 350 mm) have remained in the stock [VFA unpublished data].

The above evidence indicates that the stock is unlikely to be depleted, and that the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired in the short term. However, the continuing decline in mesh net catch rates, continuing low recreational catch rates and lack of evidence of recent strong recruitment events means a short-term recovery of the fishery remains unlikely.

On the basis of the evidence provided above, the Gippsland Lakes management unit is classified as a **depleting stock**.

Victoria Eastern Estuaries

The main indicators used for the assessment of the western estuaries management unit stocks are nominal catch per unit effort (catch rates) and length composition of catches taken by the recreational sector. Information on recruitment is also obtained from size composition data of undersize fish measured by anglers participating in an ongoing angler fishing diary program [Conron and Oliveiro 2016].

The most recent stock assessments were in 2016 and 2017 [Ingram et al. 2016b, VFA 2017], in which the status of Black Bream stocks was evaluated using CPUE and size composition from fishers participating in the angler fishing diary program for the Lake Tyers, Snowy River, Sydenham Inlet and Mallacoota Inlet estuaries.

In 2016, Black Bream stocks were assessed to be sustainable in the Lake Tyers, Snowy River, and Mallacoota Inlet estuaries [Ingram et al. 2016b]. With the exception of Sydenham Inlet, stock biomass, as indicated by catch rates, was generally stable or increasing, and there was a wide range of size classes

present in all estuaries, including larger adults, indicative of spawning success and recruitment. In Sydenham Inlet there was insufficient data to assess the status of the stock [Ingram et al. 2016]. In 2017 Black Bream stocks were assessed as being sustainable in Lake Tyers based on updated catch rate and size composition data [VFA 2017]. The above evidence indicates that the biomass of this stock is unlikely to be depleted, that recruitment is unlikely to be impaired and 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 Victoria Eastern Estuaries management unit is classified as a **sustainable stock**.

Victoria Western Estuaries

Black Bream predominantly occur in the estuarine reaches of rivers in western Victoria and Port Phillip Bay. The main indicators used for assessment of the western estuaries management unit are nominal catch per unit effort (CPUE) of harvests by the recreational and commercial sectors. Information on recruitment and fishing pressure is also obtained from size composition data measured by anglers participating in an ongoing angler fishing diary program [Conron and Oliveiro 2016], but these data do not provide estimates of total recreational catch. Commercial fishery catch data is also available for the Port Phillip Bay fishery.

The most recent stock assessments were in 2016 and 2017 [Hamer and Giri 2016, Ingram et al. 2016a, VFA 2017]. Here, the status of Black Bream stocks was evaluated using recreational catch rates and size composition from fishers participating in the angler fishing diary program for the Glenelg River, Hopkins River and Curdies River estuaries, and the commercial haul seine fishery catch rate data for Port Phillip Bay.

In 2016, Black Bream stocks were assessed to be sustainable in the Curdies, Glenelg and Hopkins rivers [Ingram et al. 2016a]. Stock abundance, as indicated by catch rates, was generally stable or increasing and there was a wide range of size classes present in all estuaries, indicative of regularly successful spawning and recruitment [Ingram et al. 2016a]. In 2017, Black Bream stocks were assessed as sustainable in the Glenelg River based on updated catch rates and size-composition data [VFA 2017].

Catch rates of Black Bream by commercial seine net in Port Phillip Bay were low up until the 2000s, which may reflect low targeting during the 1980s and 90s. Since 1999–2000, catch rates have shown an increasing trend reaching a historical peak in 2010–11 [Hamer and Giri 2016]. Since 2010–11, catch rates have been variable but have remained well above the long-term average. The increase in catch rate during the 2000's may reflect increased targeting due to increased market/demand and value, but may also reflect increased abundance within the bay [Hamer and Giri 2016]. In recent years commercial catches from Port Phillip Bay increased to a peak of 15.2 t in 2014 and have since declined to 4.3 t in 2017. Commercial netting is being phased out in Port Phillip Bay and since 2016, 34 of the 43 licences have been bought out by the Victorian Government.

The above evidence indicates that the biomass of this stock is unlikely to be depleted, that recruitment is unlikely to be impaired, and 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 Victoria Western Estuaries management unit is classified as a **sustainable stock**.

Western Australia South Coast

Black Bream occur in most south coast estuaries and inlets. The majority (> 95 per cent) of Western Australian commercial landings (72 t in 2017) occur in south coast estuaries. The boat-based recreational catch in south coast estuaries

Estuaries in 2015–16 was estimated to be 3.3 t (\pm 1.4 se) [Ryan et al. 2017]. The shore-based recreational catch is unknown but expected to be larger than the boat-based catch [Smith et al. 2018]. The majority of the commercial catch comes from Beaufort Inlet, Wilson Inlet, Stokes Inlet and Oyster Harbour. Since the 1980s catches in Beaufort Inlet, Wilson Inlet and Oyster Harbour have generally increased, whilst in Stokes Inlet catches they have remained stable. Catch-MSY depletion analysis-based biomass estimates [Froese et al. 2016] for these estuaries are all above the limit reference level of 20 per cent of unfished biomass. Harvest rate estimates are highly uncertain, due to the environmentally-driven variation in recruitment. It is plausible that carrying capacity of the estuaries has changed with time due to variable fresh water and nutrient inputs.

On the basis of the evidence provided above, the Western Australia South Coast Estuaries management unit is classified as a **sustainable stock**.

Western Australia West Coast Estuaries Generally, less than 1 tonne (t) of Black Bream has been taken annually in the commercial West Coast Estuarine Managed Fishery [Smith et al. 2018]. The boat-based recreational catch in west coast estuaries in 2015–16 was estimated to be 1.4 t (\pm 0.5 se) [Ryan et al. 2017]. The shore based recreational catch is unknown but considered to be higher than the boat-based catch.

Given the low levels of catch, it is unlikely that Black Bream in west coast estuaries are recruitment overfished or experiencing recruitment overfishing.

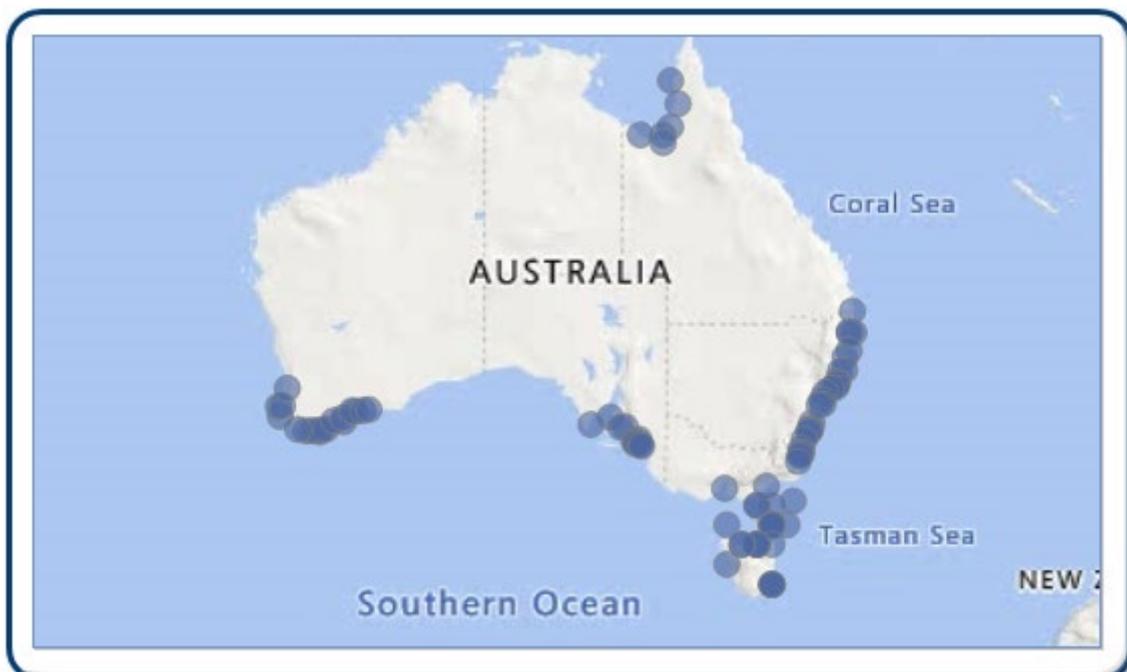
On the basis of the evidence provided above, the Western Australia West Coast Estuaries management unit is classified as a **sustainable stock**.

BIOLOGY

Black Bream biology [Cheshire et al. 2013, Kuitert 1993, Morison et al. 1998, Sarre and Potter 2000, Walker and Neira 2001]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Black Bream	37 years, 600 mm TL	180–340 TL mm

DISTRIBUTION



Distribution of reported commercial catch of Black Bream

TABLES

Commercial Catch Methods	New South Wales	South Australia	Tasmania	Victoria	Western Australia
Beach Seine					✓
Demersal Longline		✓			
Fish Trap					✓
Gillnet		✓			✓
Hand Line, Hand Reel or Powered Reels					✓
Haul Seine					✓
Hook and Line		✓		✓	
Lift nets		✓			
Mesh Net	✓				
Net				✓	
Pole and Line		✓			
Seine Nets		✓			
Traps and Pots				✓	
Unspecified	✓		✓	✓	✓

Fishing methods	New South Wales	South Australia	Tasmania	Victoria	Western Australia
Charter					
Diving				✓	
Hook and Line				✓	
Commercial					
Fish Trap					✓
Gillnet		✓			✓
Haul Seine					✓
Hook and Line		✓		✓	
Lift nets		✓			
Mesh Net	✓				
Net				✓	
Pole and Line		✓			
Unspecified	✓		✓		✓
Indigenous					
Gillnet		✓			
Handline	✓	✓	✓		✓
Spearfishing	✓				
Traditional apparatus		✓			

Various				✓	
Recreational					
Diving				✓	
Gillnet		✓	✓		✓
Handline	✓	✓	✓		✓
Hook and Line				✓	
Spearfishing	✓				
Management Methods					
	New South Wales	South Australia	Tasmania	Victoria	Western Australia
Charter					
Bag limits				✓	
Gear restrictions				✓	
Licence				✓	
Size limit				✓	
Spatial restrictions				✓	
Commercial					
Effort limits		✓		✓	
Fishing gear and method restrictions	✓				
Gear restrictions		✓		✓	✓
Licence				✓	
Limited entry	✓	✓		✓	✓
Size limit	✓	✓		✓	✓
Spatial closures	✓	✓		✓	✓
Temporal closures	✓	✓			
Indigenous					
Bag and possession limits			✓		
Bag limits	✓	✓			✓
Customary fishing permits				✓	
Gear restrictions		✓	✓		✓
Native Title	✓				
Possession limit					✓
Section 37	✓				

(1d)(3)(9), Aboriginal cultural fishing authority					
Size limit		✓			✓
Spatial closures		✓			
Temporal closures		✓			
Recreational					
Bag and possession limits			✓		
Bag limits	✓	✓	✓	✓	✓
Gear restrictions		✓	✓	✓	✓
In possession limits	✓				
Licence	✓		✓	✓	
Licence (boat- based sector)					✓
Possession limit					✓
Size limit	✓	✓		✓	✓
Spatial closures	✓	✓		✓	✓
Temporal closures		✓			

Active Vessels	New South Wales	South Australia	Victoria	Western Australia
	42 Fishing Business in EGF,	14 Licences in LCF, 4 Licences in MSF,	1 Licence Holders in CIF, 10 Licence Holders in GLF, 5 Licence Holders in PPBWPF, 1 Licence Holders in EP,	22 in SCEMF, <3 in WCEMF, <3 in WL (SC), <3 in FBLC84,

EGF Estuary General Fishery(NSW)

LCF Lakes and Coorong Fishey (SA)

MSF Marine Scalefish Fishery(SA)

CIF Corner Inlet Fishery(VIC)

GLF Gippsland Lakes Fishery(VIC)

PPBWPF Port Phillip Bay and Western Port Bay Fishery (VIC)

SCEMF South Coast Estuarine Managed Fishery(WA)

WCEMF West Coast Estuarine Managed Fishery(WA)

WL (SC) Open Access in the South Coast(WA)

EP Eel Permit(VIC)

FBLC84 Fishing Boat Licence Conditions(WA)

Catch	New South Wales	South Australia	Tasmania	Victoria	Western Australia
Commercial	13.01t in EGF, 0.654t in N/A,	1.607t in LCF,		15.3674t in GLF, 4.3132t in PPBWPF,	0.799t in FBLC84 WCEMF, 76.762t in SCEMF WL (SC),
Indigenous	Unknown	Unknown	Unknown	Unknown (No catch under permit)	Unknown
Recreational	Unknown	4.5 t (in 2013–14)	16.7 t (in 2012–13)	Unknown	1–6 t (in 2015–16)

EGF Estuary General Fishery (NSW), N/A Not Applicable (NSW), LCF Lakes and Coorong Fishery (SA), MSF Marine Scalefish Fishery (SA), SF Scalefish Fishery (TAS), CIF Corner Inlet Fishery (VIC), GLF Gippsland Lakes Fishery (VIC), PPBWPF Port Phillip Bay and Western Port Bay Fishery (VIC), SCEMF South Coast Estuarine Managed Fishery (WA), WCEMF West Coast Estuarine Managed Fishery (WA), WL (SC) Open Access in the South Coast (WA), FBLC84 Fishing Boat Licence Conditions (WA), FBLC84 || WCEMF Various Fisheries combined due to 3 boat rule (WA), SCEMF || WL (SC) Various Fisheries combined due to 3 boat rule (WA),

New South Wales – Indigenous (Management Methods) (a) The 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 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.

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.

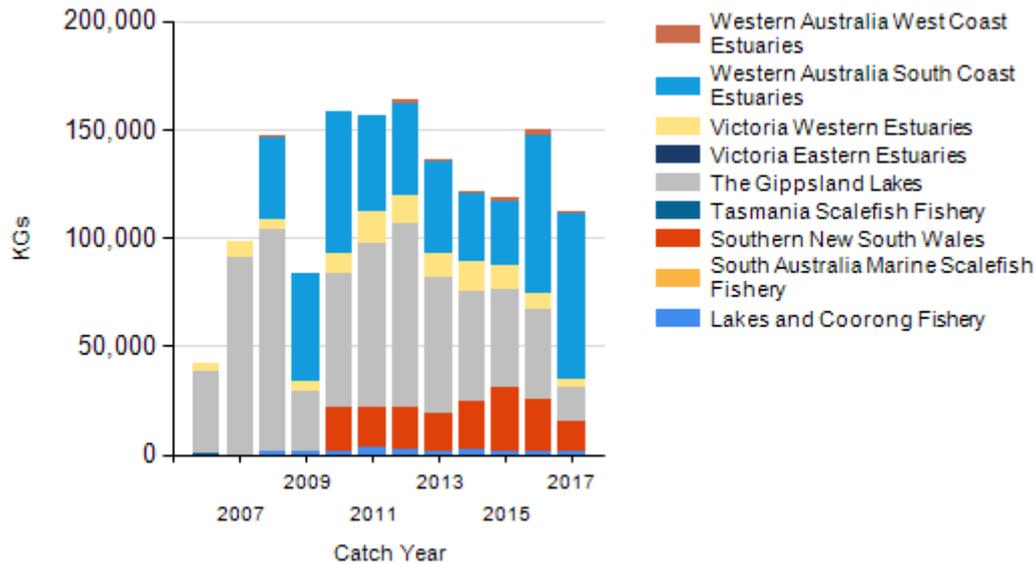
Tasmania – Recreational (management methods) In Tasmania, a recreational licence is required for fishers using dropline or longline gear, along with nets, such as gillnet or beach seine. The species is subject to a minimum size limit of 250 mm. A bag limit of five individuals and a possession limit of ten individuals is in place for recreational fishers fishing in marine waters.

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 persons 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.

Western Australia – Recreational (Management methods) In Western Australia a recreational fishing licence is only required for fishing from a boat

CATCH CHART



Commercial catch of Black Bream - note confidential catch not shown

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

ENVIRONMENTAL EFFECTS on Black Bream

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