

Silver Trevally (2016)

Pseudocaranx georgianus, *Pseudocaranx* sp. "dentex" & *Pseudocaranx wrighti*



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Commonwealth	Commonwealth	SESSF (CTS)	Sustainable	Catch, <u>CPUE</u>
Western Australia	Western Australia	CSFNMF, WL (WC), GDSMF, JASDGDMF, SCEMF, WCDSIMF, WCEMF, WL (SC)	Sustainable	Catch
Queensland	Queensland	CRFFF, ECIFFF, RRFFF	Undefined	Catch
New South Wales	New South Wales	EGF, OTF, OTLF	Transitional-depleting	Catch, <u>CPUE</u> , size/age composition
Victoria	Victoria	CIF, GLF, OF, PPBF	Undefined	Catch, <u>CPUE</u>
Tasmania	Tasmania	SF	Undefined	Catch, Effort

SESSF (CTS) Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector) (CTH), EGF Estuary General Fishery (NSW), OTF Ocean Trawl Fishery (NSW), OTLF Ocean Trap and Line (NSW), CRFFF Coral Reef Fin Fish Fishery (QLD), ECIFFF East Coast Inshore Fin Fish Fishery (QLD), RRFFF Rocky Reef Fin Fish Fishery (QLD), SF Scalefish Fishery (TAS), CIF Corner Inlet Fishery (VIC), GLF Gippsland Lakes Fishery (VIC), OF Ocean Fishery (VIC), PPBF Port Phillip Bay Fishery (VIC), CSFNMF, WL (WC) Cockburn Sound Crab Managed Fishery, Open access in the West Coast (WA), GDSMF Gascoyne Demersal Scalefish Managed Fishery (WA), JASDGDMF Joint Authority Southern Demersal Gillnet and Demersal Longline Managed Fishery (Zone 1 & Zone 2) (WA), SCEMF South Coast Estuarine Managed Fishery (WA), WCDSIMF West Coast Demersal Scalefish (Interim) Managed Fishery (WA), WCEMF West Coast Estuarine Managed Fishery (WA), WL (SC) Open Access in the South Coast (WA)

STOCK STRUCTURE

Silver Trevally contains a complex of species that inhabits estuarine and coastal waters (depths of 10–230 m), throughout southern temperate Australia, from southern Queensland, south through New South Wales, Tasmania, South Australia and southern and central Western Australia[1].

The biological stock structure of Silver Trevally is uncertain. Defining stock structure is complicated by the fact that stock assessments of Silver Trevally apply to a species complex in the Commonwealth, Western Australia, Queensland, New South Wales, Victoria and Tasmania jurisdictions. This complex comprises *Pseudocaranx georgianus* (in all jurisdictions, excluding Queensland), *P. dinjerra* (Western Australia), *P. wrighti* (Western Australia) and *P. sp. 'dentex'* (Queensland)[1].

Here, assessment of stock status is presented at the jurisdictional level—Commonwealth, Western Australia, Queensland, New South Wales, Victoria and Tasmania.

STOCK STATUS

Commonwealth A peak catch in 1990 of 1588 tonnes (t), and high catch rates between 1989 and 1991 resulted from highly efficient vessels using trawl gear entering the Commonwealth fishery in 1989. The Commonwealth fishery extends beyond state jurisdictional waters. These initial catch rates were apparently not sustainable[2] and catch has since declined.

Before 2010, most of the Silver Trevally catch was taken in state waters outside the Southern and Eastern Scalefish and Shark Fishery[3]. The closure of Silver Trevally trawling grounds within the Batemans Marine Park in 2007, and the buy-out of New South Wales fishing businesses before 2007, have reduced overall fishing effort, contributing to a reduction in recent catches[3]. Catch in the Commonwealth Trawl and Scalefish Hook sectors decreased from 93 t in 2014–15 to 72 t in 2015–16. All of the catch in 2015–16 was taken in the trawl sector.

The 2013 tier 4 (catch per unit effort [CPUE]) assessment[4] used the reference period 1992–2001. CPUE declined rapidly from 1993, to be near the limit reference point of 20 per cent of unfished biomass by 2002. CPUE then increased to 2010, when it was above the target, but has since declined[4]. The 2013 tier 4 assessment[4] showed 4-year average CPUE to be near the target level. The above evidence indicates that the stock is unlikely to be recruitment overfished.

The 2013 assessment produced a 1-year recommended biological catch (RBC) of 858 t and a 3-year RBC of 791 t, which was endorsed by the Shelf Resource Assessment Group[5]. The Australian Fisheries Management Authority subsequently set a 3-year Commonwealth annual total allowable catch (TAC) of 615 t for the 2013–14 to 2015–16 fishing seasons. Considering estimated state catches and discards, the 2015–16 TAC for the Commonwealth sector was set at 602 t. Catches in the past seven fishing seasons have been well below the RBC.

The above evidence indicates that the current level of fishing pressure is unlikely to cause the stock to become recruitment overfished.

On the basis of the evidence provided above, Silver Trevally in the Commonwealth is classified as a **sustainable stock**.

New South Wales

Silver Trevally (*P. georgianus*) stocks supported historical commercial catches in excess of 1000 t per year in New South Wales waters during the 1980s, but the commercial catch has declined steadily since that time to 76 t

in 2015[9]. Interpreting this decline is complicated by changes in the historical reporting of catch between the state and Commonwealth. Within the state, reduction in the area available to commercial fisheries for Silver Trevally, through the implementation of recreational fishing havens and marine parks (particularly the Batemans Marine Park) has likely reduced catch and catch rates, and created difficulties in defining useful reference points to assess current stock status. A minimum legal length (MLL) of 300 mm was also introduced in late 2007, further impacting the quantity of landed catch.

Despite catch reductions, nominal catch rates in New South Wales have declined steadily in the fish trapping sector since 1997 (when the Ocean Trap and Line Fishery was established) and catch rates (kg per day) in 2015 were at about 20 per cent of the historical catch rate. Nominal catch rates in the Ocean Trawl (fish) Fishery (OTF) also declined to about 50 per cent of the 1997 level in 2007, but have since increased to near historical levels. While acknowledging difficulties in interpreting the change, landings by recreational fishers in New South Wales have substantially decreased, with the estimated landings declining from approximately 78 t in 2000–01 to 27 t in 2013–14[10].

Observer studies and monitoring of landed catches have shown that the size of Silver Trevally captured by the OTF declined substantially between the periods 1987–90, 1993–95 and 1997–99[11,12]. The proportion of larger sized Silver Trevally landed by New South Wales fisheries has continued to decline since 2007, when the MLL was introduced[9]. Although catch and CPUE have declined since the early-1990s, the stock is not yet considered to be recruitment overfished.

As a result of declines in catch and proportion of larger fish, Silver Trevally are assessed as being growth overfished in New South Wales, with yield from the stock being limited by harvesting them at too small a size and at an excessive rate. The only age based assessment of the Silver Trevally stock indicated that total mortality increased substantially between 1987–90 and 1997–99[11]. These analyses estimated that fishing mortality was greater than natural mortality by the 1997–99 period and that the fishery exhibited age class truncation. Given the ongoing decline in the proportion of larger sized Silver Trevally being observed in the fishery it is likely that the total mortality rate and degree of age class truncation has increased further. Due to the MLL in New South Wales waters, discarding in the OTF is at times substantial and may be greater than 50 per cent, by numbers. Discard mortality of Silver Trevally taken by trawling is likely to be substantial and possible mortality from discarding remains of concern to the status of the stock. Some protection to the Silver Trevally stock is afforded from marine parks in eastern Australia, but total mortality appears to be increasing. The above evidence indicates that the current level of fishing pressure is likely to cause the stock to become recruitment overfished.

The most recent estimate of the recreational harvest of Silver Trevally in New South Wales was around 49 000 fish in 2013–14[10]. This estimate is substantially lower than the previous estimate of around 140 000 fish, based on the results of the offsite National Recreational and Indigenous Fishing Survey[13].

On the basis of the evidence provided above, Silver Trevally in New South Wales is classified as a **transitional–depleting stock**.

Queensland

Catch and effort data for Silver Trevally (*P. sp. 'dentex'*) in Queensland are poor. Commercial and charter catches of Silver Trevally are not reported

specifically, and the species is included as part of a broader 'Trevally-
unspecified' category. Although species identification may be uncertain,
Silver Trevally is reported specifically in recreational fishing surveys and in
2013–14 approximately 2000 fish were landed[8]. It is unlikely that the
combined commercial and recreational catches exceeded 10 t in 2015. Silver
Trevally are not subject to size restrictions, although a combined recreational
possession limit of 20 applies to members of the Carangidae family. There is
insufficient evidence to confidently classify the status of the stock.

On the basis of the evidence provided above, Silver Trevally in Queensland is
classified as an **undefined stock**.

Tasmania

In Tasmanian waters, Silver Trevally is a by-product species of the
Tasmanian Scalefish Fishery, caught predominately using gillnet and beach
seine gears. Historical commercial catches have been negligible, with an
average annual landed catch of 3.7 t over the past 5 years. Effort has
fluctuated through time as the species is not actively targeted, so catch rates
are not considered to provide a reliable index of relative abundance.
Estimated recreational catch using line and gillnet methods was also low at
1.9 t in 2012–13. Given the low levels of commercial and recreational catch
and effort in Tasmania, it is unlikely that the biomass of this stock is
recruitment overfished, or that that the current level of fishing pressure is
likely to cause the stock to become recruitment overfished. However, there
is currently insufficient evidence to confidently classify the status of this
stock.

On the basis of the evidence provided above, Silver Trevally in Tasmania is
classified as an **undefined stock**.

Victoria

In Victoria, Silver Trevally are predominantly caught using seines and gill
nets in the Gippsland Lake, Corner Inlet, Port Phillip Bay and Ocean
Fisheries. In 2015, most Silver Trevally (13.1 t) were caught in the Corner
Inlet Fishery (CIF). Silver Trevally constituted six per cent and three per cent
(by weight) of the entire catch (all species) from for the Corner Inlet and
Gippsland Lakes Fisheries, respectively[14,15].

For the CIF, Silver Trevally catch declined from 46 t in 2001 to 13 t in 2015.
Catch rates of Silver Trevally caught using haul seines have shown a long-
term increasing trend in CPUE since 1979–80, but with high variability[15]. A
peak in catch rates occurred in 2008–09 (23 kg per haul); however, catch
rates declined to 7.6 kg per haul in 2014–15. Despite catch rates declining
over the past 5 years, current catch rates are more than half of the long-
term (35-year) average. For the Gippsland Lakes Fishery, Silver Trevally
catch has declined from 29 t in 2005 to 5 t in 2015. Catch rates have
historically been highly variable but in recent years have declined from the
most recent peak in 2009–10 (64.6 kg per haul) to an historic low in 2013–
14 (2.7 kg per haul)[14]. Despite a catch rate increasing in 2014–15, it
remains below the long-term average. Silver Trevally are also a target
species for recreational fishers in Victoria, where they are commonly taken
from the shore and from boats; however, there are no estimates of the
current recreational catch[14].

There appear to be conflicting trends in CPUE for the main fisheries in
Victoria. Consequently, there is insufficient information available to
confidently classify the status of this stock.

On the basis of the evidence provided above, Silver Trevally in Victoria is
classified as an **undefined stock**.

**Western
Australia**

Commercial catches of Silver Trevally (likely to be mostly *P. georgianus*) in Western Australia have remained small (4–13 t) between 1999 and 2015. Most of the catch is landed by commercial line fisheries, including the West Coast Demersal Scalefish (Interim) Managed Fishery, Gascoyne Demersal Scalefish Managed Fishery and open access fishing in the South Coast Bioregion (east of longitude 115°30'E). Management regulation of effort and quota in the former two fisheries, respectively, limit fishing pressure and catches of Silver Trevally (along with state-wide recreational regulations such as a minimum legal length and bag limit)[6]. The open access fishery on the south coast is undergoing review to progress it to formal management.

Boat-based recreational retained catches of Silver Trevally were lower across the whole state in 2013–14 (around 17 t) than in 2011–12 (33 t)[7], with the majority (more than 83 per cent) occurring in the West Coast Bioregion (WCB). The catch reductions may reflect changes in species retained by recreational fishers in the WCB away from trevally and onto demersal species, such as West Australian Dhufish. This may be a result of stocks of such demersal species in the WCB commencing recovery, after introduction of management regulations in the WCB, between 2008 and 2010[6]. These changes have significantly reduced overall retained catches (exploitation levels) of the commercial and recreational boat-based sectors by more than 50 per cent of their levels in 2005–06 and thus reduced fishing mortality. The above evidence indicates that the current level of fishing pressure is unlikely to cause the stock to become recruitment overfished.

On the basis of the evidence provided above, Silver Trevally in Western Australia is classified as a **sustainable stock**.

BIOLOGY

Silver Trevally biology[11,16,17]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Silver Trevally	13-18 years; 690-938 mm <u>TL</u>	190-200 mm <u>TL</u>

DISTRIBUTION



Distribution of reported commercial catch of Silver Trevally

TABLES

Commercial Catch Methods	Commonwealth	New South Wales	Queensland	Tasmania	Victoria	Western Australia
Beach Seine				✓		
Coastal, Estuary and River Set Nets				✓		
Danish Seine	✓					
Demersal Pair Trawl	✓					
Fish Trap		✓				
Gillnet				✓		
Haul Seine					✓	
Line					✓	
Mesh Net					✓	
Midwater Trawl	✓					
Otter Trawl	✓	✓			✓	
Traps and Pots					✓	
Unspecified			✓		✓	
Unspecified - Seine					✓	
Various		✓		✓		✓
Fishing methods						
	Commonwealth	New South Wales	Queensland	Tasmania	Victoria	Western Australia
Commercial						

STATUS OF AUSTRALIAN FISH STOCKS REPORT
Silver Trevally (2016)

Coastal, Estuary and River Set Nets				✓		
Danish Seine	✓					
Fish Trap		✓				
Gillnet				✓		
Haul Seine					✓	
Line					✓	
Mesh Net					✓	
Otter Trawl	✓	✓				
Unspecified			✓			
Unspecified - Seine					✓	
Various		✓		✓		✓
Indigenous						
Hand Line, Hand Reel or Powered Reels		✓	✓		✓	
Recreational						
Beach Seine				✓		
Gillnet				✓		
Hand Line, Hand Reel or Powered Reels		✓	✓	✓	✓	✓
Spearfishing						✓
Management Methods						
	Commonwealth	New South Wales	Queensland	Tasmania	Victoria	Western Australia
Commercial						
Fishing gear and method restrictions	✓	✓	✓	✓	✓	✓
Limited entry	✓	✓	✓	✓	✓	✓
Size limit		✓		✓	✓	✓
Spatial closures	✓	✓	✓		✓	✓
Total allowable catch	✓					
Indigenous						
Bag limits		✓			✓	✓
Possession		✓			✓	✓

STATUS OF AUSTRALIAN FISH STOCKS REPORT
Silver Trevally (2016)

limit						
Size limit		✓			✓	✓
Spatial closures		✓			✓	✓
Recreational						
Bag limits		✓		✓	✓	✓
Licence		✓		✓	✓	✓
Passenger restrictions		✓				✓
Possession limit		✓	✓	✓	✓	✓
Size limit		✓		✓	✓	✓
Spatial closures		✓	✓		✓	✓
Spatial zoning						✓

Active Vessels	Commonwealth	New South Wales	Tasmania	Victoria	Western Australia
	31 License in SESSF (CTS),	107 License in EGF, 32 License in OTF, 91 License in OTLF,	17 Vessel in SF,	17 Fisher in CIF, 10 Fisher in GLF, 20 Fisher in PPBF,	16 License in GDSMF, 21 License in JASDGLMF, 27 License in SCEMF, 37 License in WCDSCMF, 11 License in WCEMF, 69 License in WL (SC), 15 License in WL (WC),

SESSF (CTS) Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector)(CTH)

EGF Estuary General Fishery(NSW)

OTF Ocean Trawl Fishery(NSW)

OTLF Ocean Trap and Line(NSW)

SF Scalefish Fishery(TAS)

CIF Corner Inlet Fishery(VIC)

GLF Gippsland Lakes Fishery(VIC)

PPBF Port Phillip Bay Fishery(VIC)

GDSMF Gascoyne Demersal Scalefish Managed Fishery(WA)

JASDGLMF Joint Authority Southern Demersal Gillnet and Demersal Longline Managed Fishery (Zone 1 & Zone 2)(WA)

SCEMF South Coast Estuarine Managed Fishery(WA)

WCDSCMF West Coast Deep Sea Crustacean Managed Fishery(WA)

WCEMF West Coast Estuarine Managed Fishery(WA)

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

WL (WC) Open Access in the West Coast(WA)

Catch	Commonwealth	New South Wales	Queensland	Tasmania	Victoria	Western Australia
Commercial	80.2041t in SESSF (CTS),	8.79871t in EGF, 52.5704t in OTF, 12.272t in OTLF,		6.6023t in SF,	13.182t in CIF, 5.369t in GLF, 4.416t in OF, 5.764t in PPBF,	0.015t in CSFNMF, WL (WC), 2.7603t in GDSMF, 0.00275t in JASDGDMF, 0.215t in SCEMF, 0.8228t in WCDSIMF, 0.075t in WCEMF, 0.442t in WL (SC),
Indigenous		Unknown	Unknown	Unknown	Unknown	Unknown
Recreational		27 t (2013-14)	~2 t	1.9 t (in 2012/13)	37t (2003)	1t

SESSF (CTS) Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector) (CTH), EGF Estuary General Fishery (NSW), OTF Ocean Trawl Fishery (NSW), OTLF Ocean Trap and Line (NSW), CRFFF Coral Reef Fin Fish Fishery (QLD), ECIFFF East Coast Inshore Fin Fish Fishery (QLD), RRFFF Rocky Reef Fin Fish Fishery (QLD), SF Scalefish Fishery (TAS), CIF Corner Inlet Fishery (VIC), GLF Gippsland Lakes Fishery (VIC), OF Ocean Fishery (VIC), PPBF Port Phillip Bay Fishery (VIC), CSFNMF, WL (WC) Cockburn Sound Crab Managed Fishery, Open access in the West Coast (WA), GDSMF Gascoyne Demersal Scalefish Managed Fishery (WA), JASDGDMF Joint Authority Southern Demersal Gillnet and Demersal Longline Managed Fishery (Zone 1 & Zone 2) (WA), SCEMF South Coast Estuarine Managed Fishery (WA), WCDSIMF West Coast Demersal Scalefish (Interim) Managed Fishery (WA), WCEMF West Coast Estuarine Managed Fishery (WA), WL (SC) Open Access in the South Coast (WA),

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.

c 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.

d Western Australia – Recreational (management methods) In Western Australia, a licence is required to recreationally fish from a powered vessel.

e New South Wales – Recreational (management methods) In New South Wales there are four charter boat endorsement categories (Estuarine Fishing, Nearshore Bottom Fishing and Sportfishing, Gamefishing and Deep Sea Bottom Fishing). The different categories have limitations on the species of fish they can access.

f 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 themselves.

g New South Wales – Indigenous (management methods) Aboriginal cultural fishing authority - the authority that Indigenous persons can apply to take catches outside the recreational limits under the Fisheries Management Act 1994 (NSW), Section 37 (1)(c1), Aboriginal cultural fishing authority.

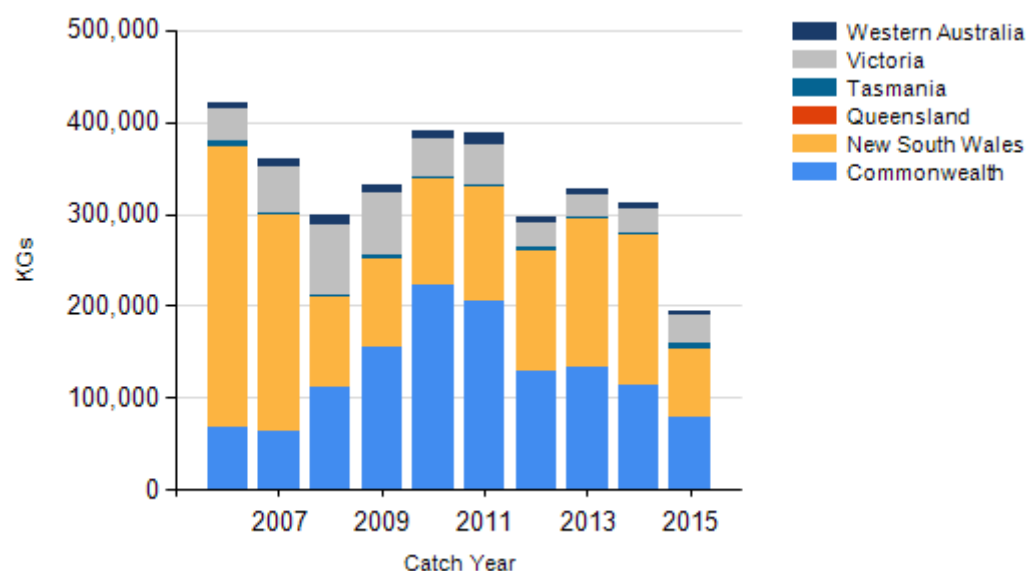
h Queensland – Indigenous (management methods) In Queensland, under the Fisheries Act 1994 (Qld), Indigenous fishers are able to use prescribed traditional and non-commercial fishing apparatus in waters open to fishing. Size and possession limits, and seasonal closures do not apply to Indigenous fishers. Further exemptions to fishery regulations may be applied for through permits.

i Victoria – Indigenous (management methods) In Victoria, regulations for managing recreational fishing are also applied to fishing activities by Indigenous people. Recognised Traditional Owners (groups that hold native title or have agreements under the Traditional Owner Settlement Act 2010 [Vic]) are exempt (subject to conditions) from the requirement to hold a recreational fishing licence, and can apply for permits under the Fisheries Act 1995 (Vic) that authorise customary fishing (for example, different catch and size limits or equipment). The Indigenous category in Table 3 refers to customary fishing undertaken by recognised Traditional Owners. In 2015, there were no applications for customary fishing permits to access Silver Trevally.

j Victoria – Indigenous (management methods) Subject to the defence that applies under Section 211 of the Native Title Act 1993 (Cth), and the exemption from a requirement to hold a Victorian recreational fishing licence, the non-commercial take by indigenous fishers is covered by the same arrangements as that for recreational fishing.

k Tasmania – Indigenous (management methods) In Tasmania, aborigines 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, Aborigines must obtain a unique identifying code (UIC). The policy document Recognition of Aboriginal Fishing Activities for issuing a Unique Identifying Code (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 Silver Trevally - note confidential catch not shown

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

- There is bycatch in the fish trawl sector. 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[19].
- Interactions can occur with animals protected under the *Environment Protection and Biodiversity Conservation Act 1999*, including marine mammals (dolphins, seals and sea lions), seabirds, some shark species and seahorses and pipefish (syngnathids). These interactions are reported quarterly by the Australian Fisheries Management Authority (AFMA)[20] and on-board observer programs are used to validate the reporting in commercial logbooks.
- In 2007, the South East Trawl Fishing Industry Association released an industry code of practice that aims to minimise interactions with fur seals, as well as addressing the environmental impacts of the fishery more generally[21]. Operators have developed other mitigation protocols that have further reduced seal mortalities, including using

breakaway ties that keep the net closed until it is below depths that seals regularly inhabit, adopting techniques to close the trawl opening during recovery to minimise opportunities for seals to enter the net, switching off gantry lights that are not required during night trawling to avoid attracting bait species and seals, and dumping offal only when the boat is not engaged in deploying or hauling gear[21].

- The AFMA mandated individual vessel seabird management plans[22]. The seabird action plans are used in the Southern and Eastern Scalefish and Shark Fishery (Commonwealth Trawl Sector) (SESSF [CTS]) to mitigate the impacts of trawling on seabirds. From 1 May 2017, all vessels in the SESSF (CTS) and Southern and Eastern Scalefish and Shark Fishery (Great Australian Bight Trawl Sector) (SESSF [GABTS]) fisheries must use one of the following mitigation devices: sprayers; bird bafflers; or pinkies with zero discharge of fish waste[23].
- 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[24,25] in the SESSF (CTS) and SESSF (GABTS) fisheries.
- Silver Trevally are targeted by commercial fisheries in New South Wales, using hauling and gillnetting, otter trawl and fish trap and handline gear. These gears also catch other species and undersize individuals and have implications for the marine environment[26]–[30].
- Seabirds and other marine life often become entangled in discarded recreational fishing tackle[31].
- The Victorian Bays and Inlets commercial fishers have adopted responsible fishing practices[32]. It is likely that fishing activities have minimal impact on the environment.
- Silver Trevally are targeted in Western Australia by commercial and recreational fisheries using mainly line fishing. This activity is considered to pose a low risk to the environment, such as the habitats[6].

ENVIRONMENTAL EFFECTS on Silver Trevally

- Silver Trevally is a schooling species inhabiting estuarine and near-shore ocean waters[11], including structures on the continental shelf. Larger and older individuals more commonly caught in deeper waters (greater than 60 m) with juveniles more commonly inhabiting inshore waters (less than 20 m)[16,17]. Silver Trevally larvae have been found in greater numbers in deeper water (up to 100 m) in New South Wales waters[33].
- Changes in coastal currents and water temperatures associated with climate change have the potential to alter fish behaviours (for example, spawning activity and migration) and to affect the dispersal of eggs and larvae[34], which may influence the subsequent recruitment and distribution of Silver Trevally.

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STATUS OF AUSTRALIAN FISH STOCKS REPORT
Silver Trevally (2016)

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