

Pearl Perch (2018)

Glaucosoma scapulare



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Queensland, New South Wales	Eastern Australia	N/A, OTF, OTLF, RRRFF	Depleted	Biomass, Standardised Catch Rate, Fishery-Dependent Length and Age Frequency, Estimates of Total Mortality Rate, Catch and Effort

N/A Not Applicable (NSW), OTF Ocean Trawl Fishery (NSW), OTLF Ocean Trap and Line Fishery (NSW), RRRFF Rocky Reef Fin Fish Fishery (QLD)

STOCK STRUCTURE

The Pearl Perch (*Glaucosoma scapulare*) is a relatively common demersal fish endemic to the central east coast of Australia. Pearl Perch generally form small schools around submerged reefs, pinnacles and rough rocky seabed in moderately deep water (up to 150 m) but may also move into shallow coastal waters throughout the day [McKay 1997]. Pearl Perch have a limited distribution from Rockhampton in Queensland (23°20'S) south to Port Jackson in New South Wales (33°50'S), but rarely occur south of Coffs Harbour (30°18'S) [Stewart et al. 2013]. Due to this limited distribution and influence of the prevailing southerly flowing Eastern Australian Current in distributing larvae across this area [Ridgway and Dunn 2003], Pearl Perch are considered to be a single biological stock [Stewart et al. 2015].

Here the assessment of stock status is presented at the biological stock level—Eastern Australia.

STOCK STATUS

Eastern Australia

The 2017 combined Queensland and New South Wales integrated statistical stock assessment (using catch, effort, length and age frequency data up until 2014) of the Eastern Australia stock estimated exploitable biomass at between 15 and 40 per cent of virgin (pre 1938) levels [Sumpton et al. 2017]. Four of the seven model scenarios estimated median biomass in 2014 to be at or below 20 per cent of virgin levels. Since 2014 standardised catch rates in Queensland have declined by a further 30 per cent and nominal catch rates in the New South Wales line fishery have declined by a further 25 per cent since that assessment [NSWDPI Unpublished]. Fishery-dependent monitoring in Queensland and New

South Wales show truncated commercial and recreational age frequencies with absence of larger fish [QDAF 2018, Stewart 2011, Stewart et al. 2013]. An eleven year time series of age frequencies shows no clear signs of strong recruitment in Queensland waters. In New South Wales, length-based monitoring of commercial landings showed a steady increase in average lengths of the moderate sized fish between 2004–05 and 2014–15, with a lack of small fish observed in landings, indicative of poor recruitment during the decade [NSWDPI Unpublished]. The stock is considered to be recruitment impaired.

Fishing mortality on the Eastern Australia stock of Pearl Perch was assessed as exceeding sustainable levels during the most recent stock assessment [Sumpton et al. 2017]. Historical landings greatly exceeded the estimated maximum sustainable yield from the stock, and fishing mortality was estimated to be above or near to natural mortality. Since that time the combined harvest from Queensland and New South Wales has been at historically low levels. Harvest levels from the southern component of the Queensland fishery (Fraser Offshore south) continue to decline and this area now contributes less than 60 per cent of the total catch. The commercial fishery appears to have shifted north, with the few older fish observed in monitoring coming from this region. This spatial shift may be an indication that biomass has been subject to depletion in the main fishing area. Estimates of the recreational harvest in Queensland from 2013–14 (9 963 fish) decreased by 42 per cent from the 2010–11 estimate [Taylor et al. 2012, Webley et al. 2015]. The reported effort between surveys was similar, indicating a declining recreational catch rate. The most recent estimate of the recreational harvest of Pearl Perch in New South Wales was 4 434 fish during 2013–14 [West et al. 2015].

In Queensland, active commercial fishing licences and fishing effort days in 2017 were similar to the previous three years [QDAF 2018]. In New South Wales the number of days reported when Pearl Perch were landed in both trap and line fisheries are at or near historically low levels [NSWDPI Unpublished]. Each jurisdiction has minimum legal lengths for Pearl Perch (350 mm total length in Queensland and 300 mm total length in New South Wales) that afford limited protection to juveniles. Despite these reductions in fishing effort, the stock has shown no evidence of recovery.

This level of fishing mortality is expected to prevent the stock from recovering from its recruitment impaired state.

On the basis of the evidence provided above, the Eastern Australia biological stock is classified as a **depleted stock**.

BIOLOGY

Pearl Perch biology [McKay 1997, Sumpton et al. 2013]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Pearl Perch	22–25 years, 700 mm TL, 7.3 kg	Females 2–4 years, 250–450 mm TL

DISTRIBUTION



Distribution of reported commercial catch of Pearl Perch

TABLES

Commercial Catch Methods	New South Wales	Queensland
Dropline	✓	
Fish Trap	✓	
Hook and Line	✓	✓
Otter Trawl	✓	
Unspecified	✓	

Fishing methods	New South Wales	Queensland
Charter		
Hook and Line	✓	✓
Commercial		
Dropline	✓	
Fish Trap	✓	
Hook and Line	✓	✓
Otter Trawl	✓	
Unspecified	✓	
Indigenous		
Hook and Line	✓	
Spearfishing	✓	
Recreational		
Hook and Line	✓	✓
Spearfishing	✓	✓
Management		

Methods		
	New South Wales	Queensland
Charter		
Bag and possession limits	✓	
Bag limits	✓	
Gear restrictions	✓	✓
Licence	✓	
Marine park closures	✓	
Possession limit		✓
Size limit	✓	✓
Spatial closures	✓	✓
Commercial		
Gear restrictions	✓	✓
Licence		✓
Limited entry	✓	✓
Marine park closures	✓	
Size limit	✓	✓
Spatial closures	✓	✓
Vessel restrictions	✓	✓
Indigenous		
Bag limits	✓	
Native Title	✓	
Section 37 (1d)(3)(9), Aboriginal cultural fishing authority	✓	
Recreational		
Bag and possession limits	✓	
Bag limits	✓	
Gear restrictions	✓	✓
Licence	✓	
Marine park closures	✓	

Possession limit		✓
Size limit	✓	✓
Spatial closures	✓	✓

Active Vessels	New South Wales	Queensland
	14 Fishing Business in OTF, 90 Fishing Business in OTLF,	102 Fisher in RRFFF,

OTF Ocean Trawl Fishery(NSW)

OTLF Ocean Trap and Line Fishery(NSW)

RRFFF Rocky Reef Fin Fish Fishery(QLD)

Catch	New South Wales	Queensland
Commercial	0.093t in N/A, 0.045t in OTF, 6.091t in OTLF,	16.7521t in RRFFF,
Indigenous	Unknown	Unknown
Recreational	4 434 fish retained in 2013/14	9 963 fish retained in 2013/14

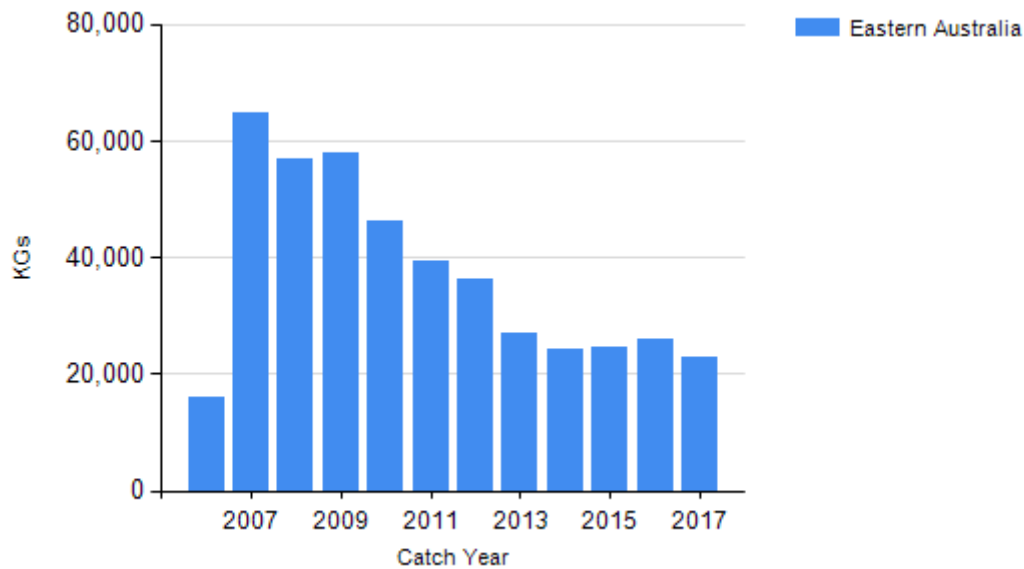
N/A Not Applicable (NSW), OTF Ocean Trawl Fishery (NSW), OTLF Ocean Trap and Line Fishery (NSW), RRFFF Rocky Reef Fin Fish Fishery (QLD),

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 bag limits and seasonal closures do not apply to Indigenous fishers. Further exemptions to fishery regulations can be obtained through permits.

New South Wales – Recreational (Catch) [West et al. 2015].

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

CATCH CHART



Commercial catch of Pearl Perch - note confidential catch not shown

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

ENVIRONMENTAL EFFECTS on Pearl Perch

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