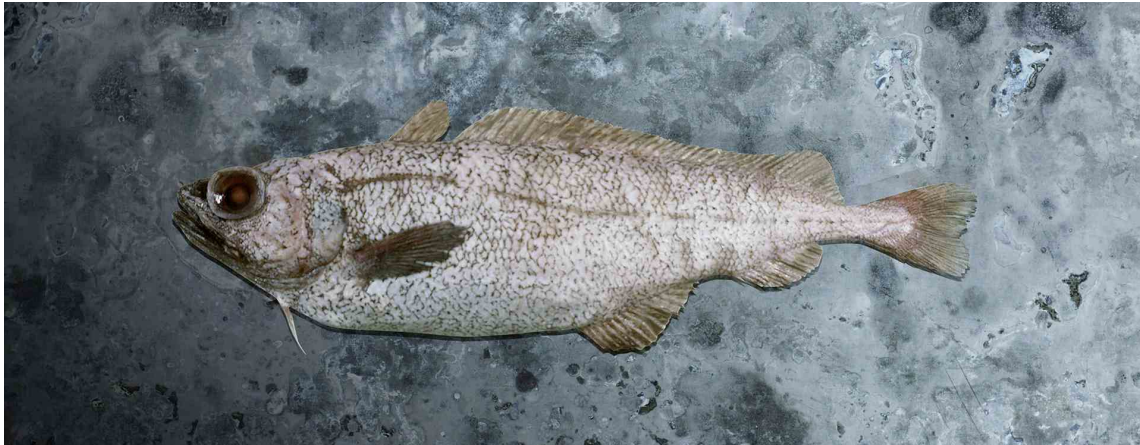


# Ribaldo (2020)

*Mora moro*



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## STOCK STATUS OVERVIEW

Jurisdiction	Stock	Stock status	Indicators
Commonwealth, New South Wales	South Eastern Australia	Sustainable	Catch, CPUE

## STOCK STRUCTURE

Ribaldo inhabit temperate deepwater areas on the continental shelf. They occur close to the seabed at depths of 450–2 500 metres and are most commonly found at depths of 500–1 000 metres. Ribaldo are associated with sea mounts and rough sea beds. Juveniles may be pelagic. One stock of Ribaldo is assumed for assessment and management purposes in the Southern and Eastern Scalefish and Shark Fishery [Morison et al. 2013].

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

## STOCK STATUS

### South Eastern Australia

Ribaldo in Commonwealth fisheries is managed as a Tier 4 stock under the Southern and Eastern Scalefish and Shark Fishery (SESSF) Harvest Strategy Framework [AFMA, 2019]. The 2017 Tier 4 analysis [Haddon and Sporcic 2017] informed the management of the stock for the 2019–20 fishing season. Ribaldo is managed to a target reference point that aims to maintain the exploitable biomass at 40 per cent (0.40B0) of the unfished level (B0).

The Tier 4 analysis in 2017 (using data to 2016) estimated that the standardised CPUE was above the target reference point of 0.40B0 and had remained relatively stable since the mid–2000s [Haddon and Sporcic 2017]. Calculations used the period 1995 to 2004 as the reference period (when catches first approached 100 t) and include both Commonwealth and New South Wales catches. Given the lightly exploited nature of the fishery during the reference period, the target CPUE was calculated by halving the average reference period CPUE, to reflect the likely change in CPUE that would occur as the fishery became fully exploited [Haddon and Sporcic 2017]. The Tier 4 analysis produced an RBC of 430 t and AFMA set a TAC of 422 t for the 2019–20 fishing season,

which was the third year of a three-year Multi-Year Total Allowable Catch (MYTAC). An updated CPUE standardisation in 2018 (with data to 2017) showed that CPUE had remained stable [Sporcic and Haddon 2018].

Commonwealth landed catch in the trawl and scalefish hook sectors of the SESSF was 129 t in the 2019–20 fishing season (107.3 t in 2018–19 fishing season). Discards have been estimated to be 5.1 t based on the weighted average of the previous four fishing seasons (2015–16 to 2018–19) [Burch et al., 2019]. In New South Wales, commercial fishery data, including catch of Ribaldo, is available from 2009–10, although in many years the data are classified as confidential. The total reported annual commercial catch of Ribaldo has been < 5 t, with < 3 t being reported in six of those 10 years, including in both 2017–18 and 2018–19. Recreational and Indigenous catches of Ribaldo in New South Wales are unknown. Surveys of recreational and Indigenous catches have either not specified catches of Ribaldo [West et al. 2015, Murphy et al. 2020] or reported them into a broader ‘finfish - other’ category [Henry and Lyle 2003].

The sum of the landed catch (SESSF and New South Wales catch) and discards was well below the RBC of 430 t calculated in the 2017 analysis. 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 Eastern Australia biological stock is classified as a **sustainable stock**

## BIOLOGY

Ribaldo biology [AFMA website]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Ribaldo	30 years, 400–700 mm	Female 14 years Male 8 years

## DISTRIBUTION



Distribution of reported commercial catch of Ribaldo

TABLES

<b>Fishing methods</b>		
	<b>Commonwealth</b>	<b>New South Wales</b>
<b>Commercial</b>		
Demersal Longline	✓	✓
Dropline	✓	
Midwater Trawl	✓	
Otter Trawl	✓	
Pelagic Longline	✓	
<b>Recreational</b>		
Hook and Line		✓

<b>Management Methods</b>		
	<b>Commonwealth</b>	<b>New South Wales</b>
<b>Charter</b>		
Bag and possession limits		✓
Licence		✓
Spatial closures		✓
<b>Commercial</b>		
Gear restrictions	✓	✓
Limited entry	✓	✓
Marine park closures	✓	
Quota	✓	
Spatial closures	✓	✓
Total allowable catch	✓	
<b>Recreational</b>		
Bag and possession limits		✓
Licence		✓
Spatial closures		✓

Catch	Commonwealth	New South Wales
Commercial	119.534 t	1.17022 t
Indigenous		Unknown
Recreational		Unknown

**Commonwealth – Commercial (Management Methods/Catch)** Data provided for the Commonwealth align with the Commonwealth Southern and Eastern Scalefish and Shark Fishery for the 2018-19 financial year.

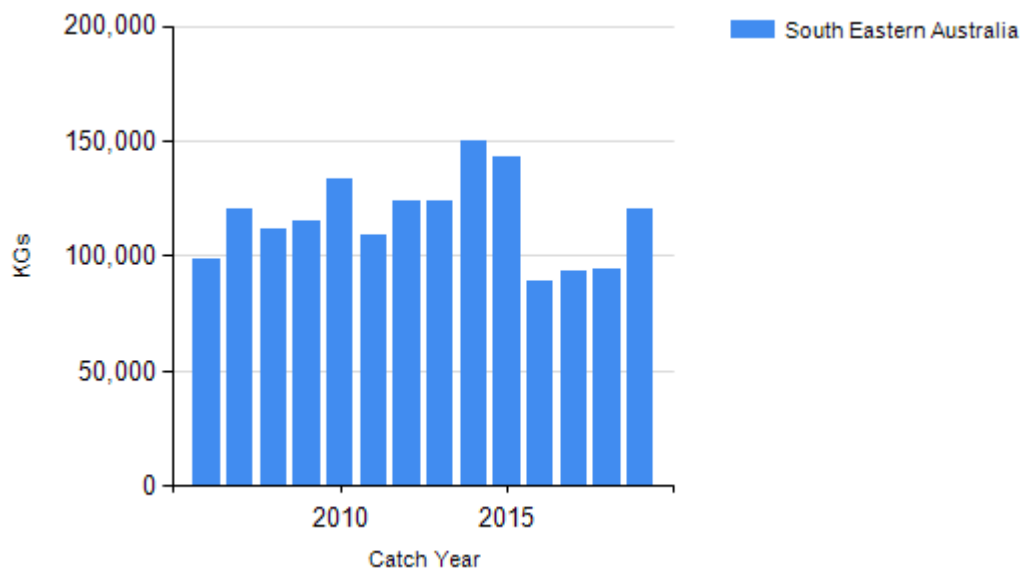
**Commonwealth – Recreational** The Commonwealth does not manage recreational fishing in Commonwealth waters. Recreational fishing in Commonwealth waters is managed by the state or territory immediately adjacent to those waters, under its management regulations.

**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 – Recreational (Catch)** Murphy et al. [2020].

**New South Wales – Indigenous** <https://www.dpi.nsw.gov.au/fishing/aboriginal-fishing>

#### CATCH CHART



Commercial catch of Ribaldo - note confidential catch not shown

References	
AFMA website	AFMA website
Haddon and Sporic 2017	Haddon, M. and Sporic, M. 2017, Tier 4 assessments for selected SESSF species (data to 2016). Hobart: CSIRO Oceans and Atmosphere.

Morison et al. 2013	Morison A, Knuckey IA, Simpfendorfer CA and Buckworth RC 2013, South East Scalefish and Shark Fishery: draft 2012 stock assessment summaries for species assessed by GABRAG, ShelfRAG and Slope/DeepRAG, report for AFMA, Canberra.
Burch et al. 2019	Burch, P., Althaus, F. and Thomson, R. 2019. Southern and Eastern Scalefish and Shark Fishery (SESSF) catches and discards for TAC purposes using data until 2018. CSIRO Oceans and Atmosphere. Hobart, Tasmania.
Sporcic and Haddon 2018	Sporcic, M. & Haddon, M. 2018. Draft statistical CPUE standardisations for selected SESSF species (data to 2017). Hobart: CSIRO Oceans and Atmosphere.
AFMA 2019	AFMA 2019, Harvest strategy framework for the Southern and Eastern Scalefish and Shark Fishery 2009 (amended 2019), Australian Fisheries Management Authority, Canberra.
Henry and Lyle 2003	Henry, GW and Lyle JM, 2003, The National Recreational and Indigenous Fishing Survey. Tasmanian Aquaculture and Fisheries Institute, Hobart. FRDC 99/158.
West et al. 2015	West, LD, Stark, KE, Murphy, JJ, Lyle JM and Doyle, FA 2015, Survey of recreational fishing in New South Wales and the ACT, 2013/14. Fisheries Final Report Series.
Murphy et al. 2020	Murphy, J.J., Ochwada-Doyle, F.A., West, L.D., Stark, K.E. and Hughes, J.M., 2020. The NSW Recreational Fisheries Monitoring Program - survey of recreational fishing, 2017/18. NSW DPI - Fisheries Final Report Series No. 158.