



Southern Rock Lobster

Jasus edwardsii

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STOCK STATUS OVERVIEW

Stock status determination

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Western Australia, Victoria, Tasmania, South Australia	Southern Australia	ESRLF, SCCMF, WHRLF,SRLF, VRLF, TRLF, SASRLF	Sustainable	Percentage of egg production relative to unfished level

ESRLF Esperance Southern Rock Lobster Fishery (WA)

SASRLF South Australian Southern Rock Lobster Fishery (SA)

SCCMF South Coast Crustacean Managed Fishery (WA)

TRLF Tasmanian Rock Lobster Fishery (TAS)

VRLF Victorian Rock Lobster Fishery (VIC)

WHRLF,SRLF Windy Harbour Rock Lobster Fishery, Southern Rock Lobster Fishery (WA)

STOCK STRUCTURE

Southern Rock Lobster is considered to be a single biological stock across southern Australia because the species occurs in a continuous distribution across this range and has extensive and protracted pelagic larval dispersal phase. The pelagic phyllosoma larval phase lasts around 12–18 months. Larval release occurs across the southern continental shelf, which is a high-current area, facilitating dispersal. Oceanographic modelling has also indicated that Southern Rock Lobster dispersal occurs over large spatial scales, indicating that there is a single biological stock. Genetic analyses also indicate that it is a single stock ².

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

STOCK STATUS

Southern Australia

The stock status determination for Southern Rock Lobster is based on estimates of egg production from a combined stock assessment model [3](#) for South Australia, Victoria and Tasmania. A limit reference point for egg production is applied, which is 20 per cent of the unfished level. The most recent assessments for each jurisdiction estimate that combined egg production in 2014–15 was 21 per cent of the unfished level [4–7](#). The above evidence indicates that the biomass of this stock is unlikely to be recruitment overfished.

Based on stock assessment results, total allowable commercial catches (TACCs) have been reduced across south-eastern Australia over the past decade to reduce fishing mortality to levels predicted to result in increases in biomass and catch rates. 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, the Southern Australian biological stock is classified as a **sustainable stock**.

BIOLOGY

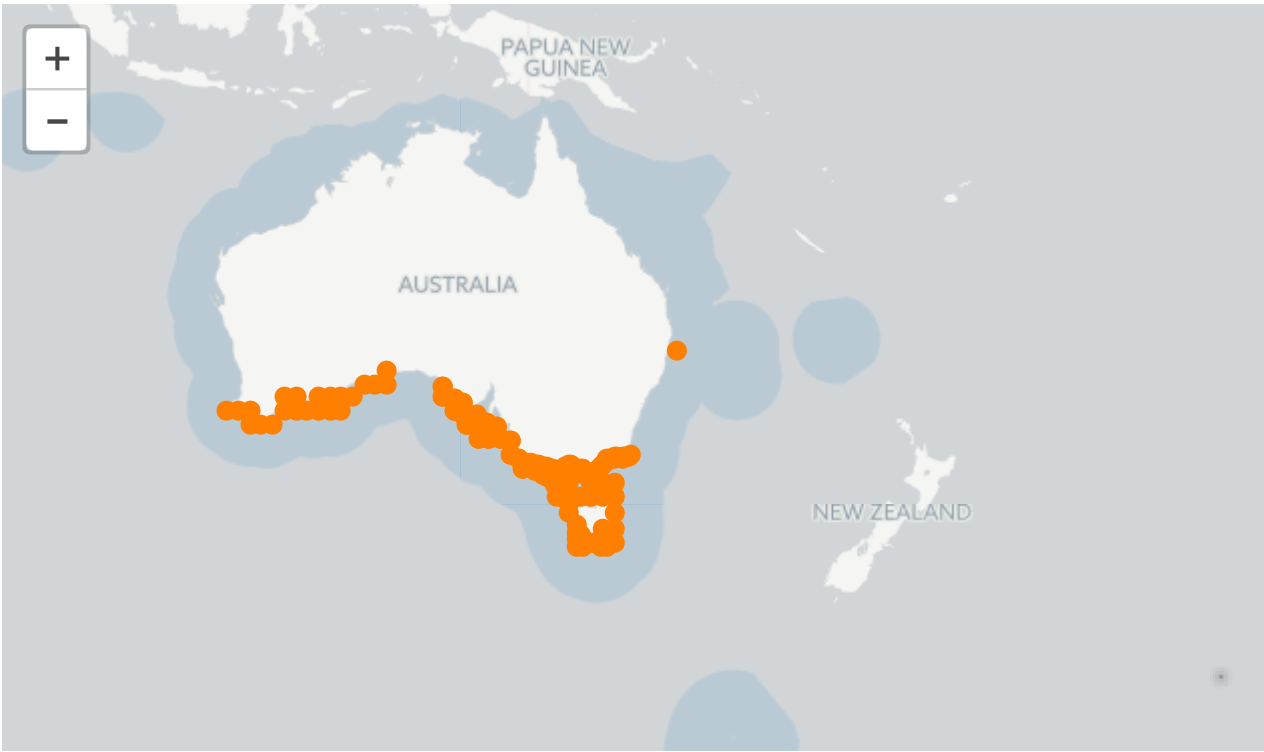
Southern Rock Lobster biology [8–10](#)

Biology

Species	Longevity / Maximum Size	Maturity (50 per cent)
Southern Rock Lobster	20+ years; >200 mm <u>CL</u>	59–122 mm <u>CL</u> ; depending on region

DISTRIBUTIONS





Distribution of reported commercial catch of Southern Rock Lobster

TABLES

Fishing methods

	Western Australia	Victoria	Tasmania	South Australia
Commercial				
Various	✓	✓		
Rock Lobster And Crayfish Traps And Pots			✓	✓
Indigenous				
Diving	✓		✓	
Rock Lobster And Crayfish Traps And Pots	✓		✓	✓
Coastal, Estuary and River Set Nets			✓	✓
Recreational				
Diving	✓	✓	✓	✓
Rock Lobster And Crayfish Traps And Pots	✓		✓	✓
Coastal, Estuary and River Set Nets		✓	✓	✓

Management methods

Method	Western Australia	Victoria	Tasmania	South Australia
Commercial				
Gear restrictions	✓	✓	✓	✓
Limited entry	✓	✓	✓	✓
Size limit	✓	✓	✓	✓
Spatial closures		✓	✓	✓
Temporal closures	✓	✓	✓	✓
Total allowable catch		✓	✓	✓
Indigenous				
Bag limits	✓		✓	✓
Size limit	✓		✓	✓
Recreational				
Bag limits	✓	✓	✓	✓
Gear restrictions	✓	✓	✓	✓
Size limit	✓	✓	✓	✓
Spatial closures		✓	✓	✓
Temporal closures	✓	✓	✓	✓

Active vessels

	Western Australia	Victoria	Tasmania	South Australia
	28 in WASCCF	70 in VRLF	209 in TRLF	203 in SASRLF

SASRLF South Australian Southern Rock Lobster Fishery (SA)
TRLF Tasmanian Rock Lobster Fishery (TAS)
VRLF Victorian Rock Lobster Fishery (VIC)
WASCCF Western Australian South Coast Crustacean Fisheries (WA)

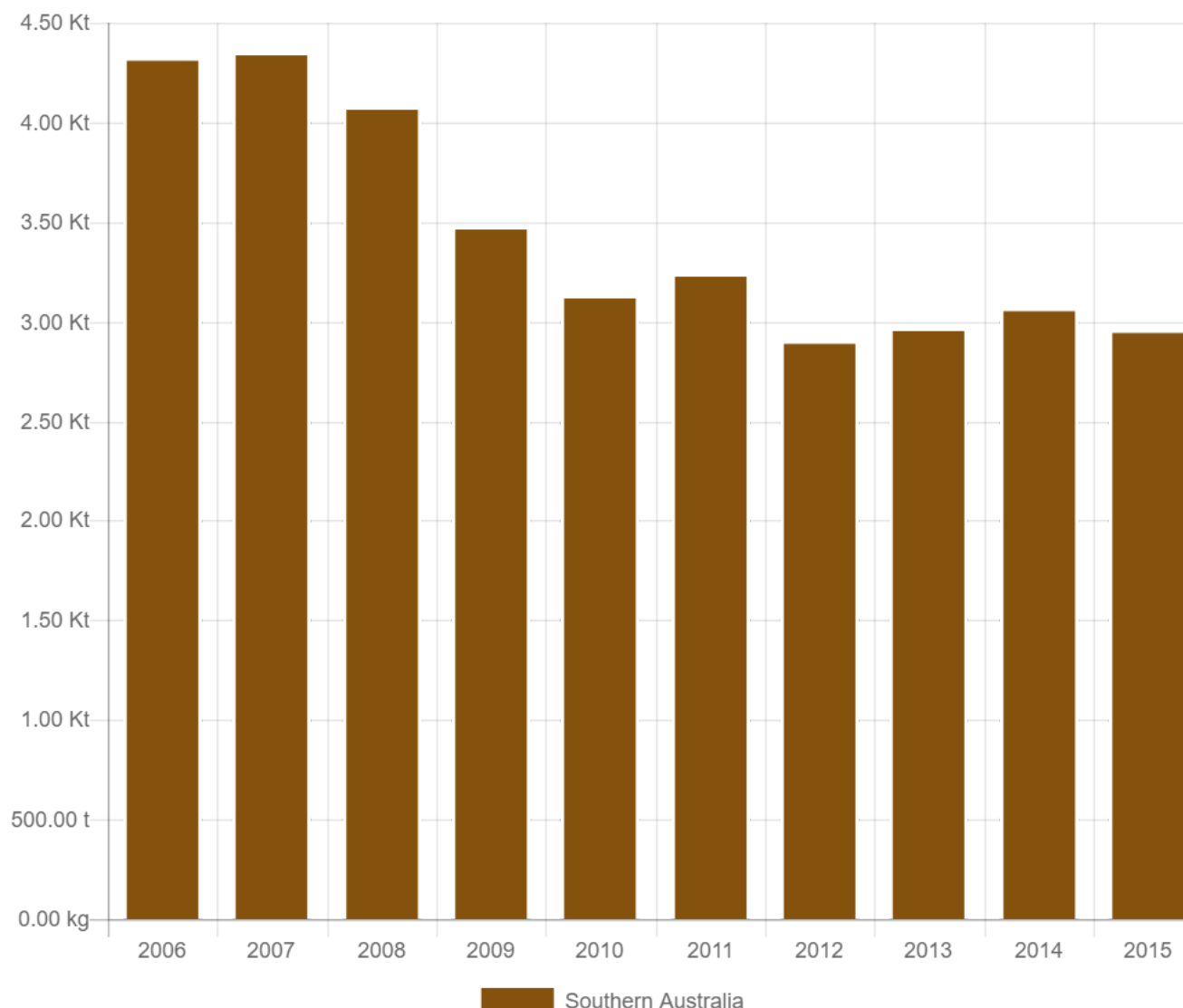
Catch

	Western Australia	Victoria	Tasmania	South Australia
Commercial	24.63t in ESRLF, 7.20t in SCCMF, 13.08t in WHRLF,SRLF	281.00t in VRLF	1.07Kt in TRLF	1.56Kt in SASRLF
Indigenous	Unknown	Unknown	Negligible	Unknown
Recreational	<5t	Unknown	Unknown	Unknown

ESRLF Esperance Southern Rock Lobster Fishery (WA)
SASRLF South Australian Southern Rock Lobster Fishery (SA)
SCCMF South Coast Crustacean Managed Fishery (WA)
TRLF Tasmanian Rock Lobster Fishery (TAS)
VRLF Victorian Rock Lobster Fishery (VIC)
WHRLF,SRLF Windy Harbour Rock Lobster Fishery, Southern Rock Lobster Fishery (WA)

a Victoria – Indigenous 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 2014–15, there were no applications for customary fishing permits to access Southern Rock Lobster.**b 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 recreational fishing licence, the non-commercial take by indigenous fishers is covered by the same arrangements as that for recreational fishing

CATCH CHART



Commercial catch of Southern Rock Lobster

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

- In South Australia, concern has been expressed about potential interactions with Australian Sea Lions (*Neophoca cinerea*) in the fishery, specifically the risk of juvenile pups entering pots ¹¹. Sea lion excluder devices are now mandatory in pots in areas where interactions are likely to occur, such as the Northern Zone fishery of South Australia.
- Whale entanglements are recognised as a management issue by the Victorian Southern Rock Lobster fishery management plan ¹². The fishery management plan responded with a fishery code of practice to prevent and respond to whale entanglements.
- The biomass of Southern Rock Lobster is being rebuilt off eastern Tasmania using a regional limit on catch from recreational and commercial fishers combined. This is intended to assist rock lobsters maintain their ecosystem role including through predation of urchins ¹³. Long Spined Urchins (*Centrostephanus* spp.) have extended their range southwards from New South Wales and can create barren patches of reef through overgrazing. Rebuilding of the Southern Rock Lobster biological stock may reduce barren formation.

- Habitat impacts of gear have been researched and assessed as negligible risk ¹⁴.

ENVIRONMENTAL EFFECTS ON SOUTHERN ROCK LOBSTER

- The potential impact of climate change on recruitment, growth and mortality has been identified as a risk across the range of the species ¹⁵. The wide distribution of the species provides resilience to climate change as environmental factors important to settlement of juveniles, such as current strength or temperature are not consistent from region to region ¹⁶.
- Recruitment, catchability and growth can vary substantially from year to year as a result of environmental changes, including changes in water temperature and movement of oceanic currents ¹⁷. Below-average recruitment is not necessarily associated with low egg production—it can also result from unusual oceanographic patterns, which can affect larval survival, development and growth.

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