

# Champagne Crab (2023)

*Hypothalassia acerba*



**Simon de Lestang:** Department of Primary Industries and Regional Development, Western Australia

## STOCK STATUS OVERVIEW

Jurisdiction	Stock	Stock status	Indicators
Western Australia	Western Australia	Sustainable	Catch MSY

## STOCK STRUCTURE

There is little information on the stock structure of Champagne Crab (*Hypothalassia acerba*). Populations on the west and south coast of Western Australia differ in their reproductive characteristics, which may suggest some degree of separation [Smith et al. 2004a]. An FRDC project has commenced examining the genetic stock structure of Champagne Crab from the two coasts. Here the assessment is presented at the jurisdictional level—Western Australia.

## STOCK STATUS

### Western Australia

The stock status for Champagne Crab is based on a weight of evidence approach using a range of empirical and modelled estimates of catch, catch rate and biomass in both the West Coast Deep Sea Crab Managed Fishery (WCDSC) and South Coast Crustacean Managed Fishery (SCC). Annual assessments for the WCDSC are reviewed by the Marine Stewardship Council (MSC).

Catches of Champagne Crab in both fisheries are limited by individual transferrable quotas. For the WCDSC a latitude-specific surplus production model has been developed that estimates percentage depletion from virgin levels for this species across the 10 latitudinal bands that span the active fishery. The combination of latitudinal assessments indicate that the mature biomass is approximately 97% of the unfished level, well above the provisional target level (60% of unfished biomass) with a high degree of certainty. In the SCC, Champagne Crab is assessed on a zonal basis, with most of the catch being

STATUS OF AUSTRALIAN FISH STOCKS REPORT  
Champagne Crab (2023)

taken from Zone 2. This component of the stock is assessed using Catch MSY modelling which indicates that it is likely that the level of stock depletion is adequate, noting that the stock has sustained low catches of less than 5 t over the last 10+ seasons. However, it is important to recognise that Catch-MSY is a data-limited technique with strong assumptions, dependent on user inputs. For this assessment, these included specified ranges for initial depletion, final depletion and resilience. Projected catches of Champagne crab in Zone 2 at current TACs is considered sustainable in the long-term based on current model predictions.

The above evidence indicates that the biomass of this stock is unlikely to be depleted and that recruitment is unlikely to be impaired. Furthermore, the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired.

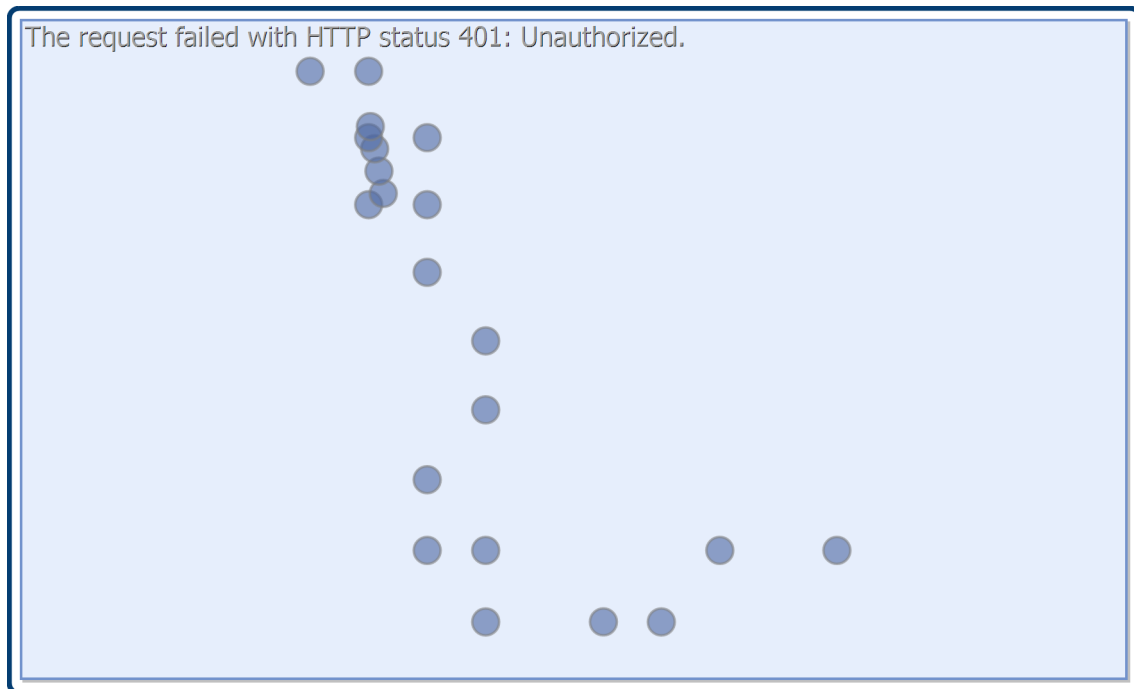
On the basis of the evidence provided above, the Champagne Crab is classified as a **sustainable stock**.

**BIOLOGY**

Champagne Crab biology [Smith et al. 2004 a,b].

Species	Longevity / Maximum Size	Maturity (50 per cent)
Champagne Crab	138 mm CL	69.7 mm (♀); 68.1 mm (♂)

**DISTRIBUTION**



Distribution of reported commercial catch of champagne crab.

**TABLES**

<b>Fishing methods</b>	
	<b>Western Australia</b>
<b>Commercial</b>	
Octopus Traps And Pots	✓
Traps and Pots	✓

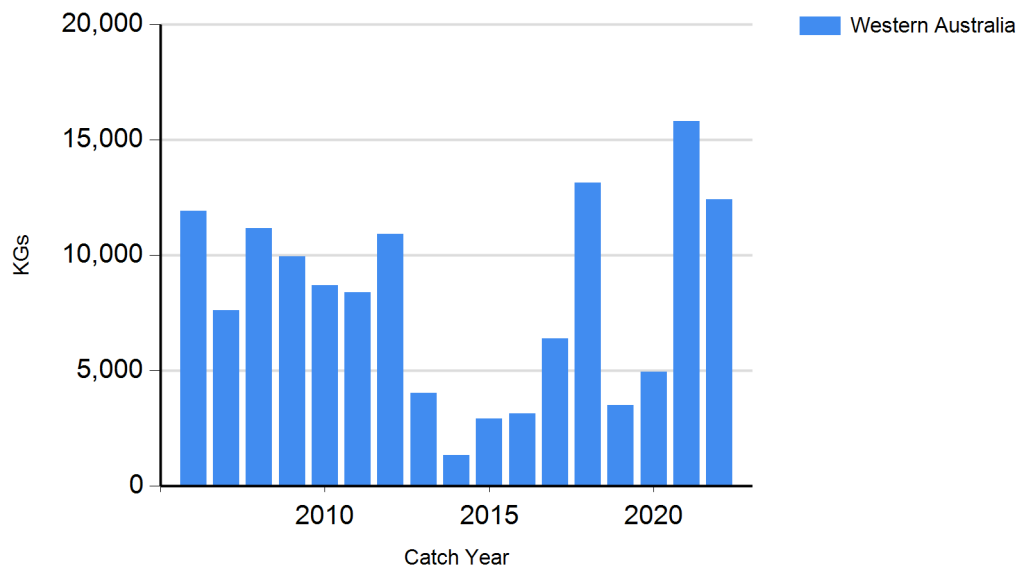
<b>Management Methods</b>	
	<b>Western Australia</b>
<b>Commercial</b>	
Boat limits	✓
Egg bearing females protected	✓
Limited entry	✓
Quota	✓
Size limit	✓
Temporal closures	✓

<b>Catch</b>	
	<b>Western Australia</b>
<b>Commercial</b>	12.4125 t

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**CATCH CHART**

STATUS OF AUSTRALIAN FISH STOCKS REPORT  
Champagne Crab (2023)



Commercial catch of Champagne Crab.

**References**

Smith et al. 2004a	Smith, KD, Hall, NG and Potter, IC 2004a, Relative abundances and size composition of champagne crabs, <i>Hypothalassia acerba</i> , on two coasts and in different water depths and seasons, <i>Mar Freshw Res</i> 55:653-661.
Smith et al. 2004b	Smith, KD, Hall, NG, de Lestang, S and Potter, I 2004b, Potential bias in estimates of the size of maturity of crabs derived from trap samples, <i>ICES J Mar Sci</i> 61:906-912.