Champagne Crab (2020)

Hypothalassia acerba

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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. Populations on the west and south coast of Western Australia differ in their reproductive characteristics, which may be suggestive of 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 current assessment of Champagne Crabs is primarily based on estimates of biomass and fishing mortality from a data-limited Catch-MSY assessment model based on commercial catches from Western Australia, compared periodically to reference levels relating to estimates of Maximum Sustainable Yield (MSY). The point estimate for relative stock biomass in 2019 was high at 0.89 of the unfished level (95 per cent CLs = 0.59–0.97). As the current value of this performance indicator is above the threshold (0.5), the above evidence indicates that the biomass of this stock is unlikely to be depleted and that recruitment is unlikely to be impaired.

Increased catches of Champagne Crab in 2018–2019 resulted from targeted fishing by fishers who sought to develop a market for champagne crabs. Market development and capacity to access champagne crabs resulted in the subsequent decline in catch. Industry is still actively pursuing market development for this species. The estimated fishing mortality experienced by the stock in 2019 was 0.02 year[-1], with the 95 per cent CLs ranging from 0.01–0.03 year[-1.] The upper 95 per cent CL of this performance indicator is well below the level of FMSY (0.18 year[-1]). Additional protection for the breeding stock is conferred by measures including a prohibition on taking berried females, and a minimum legal size that is larger than the size at which both males and

females become mature. The above evidence indicates that the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired.

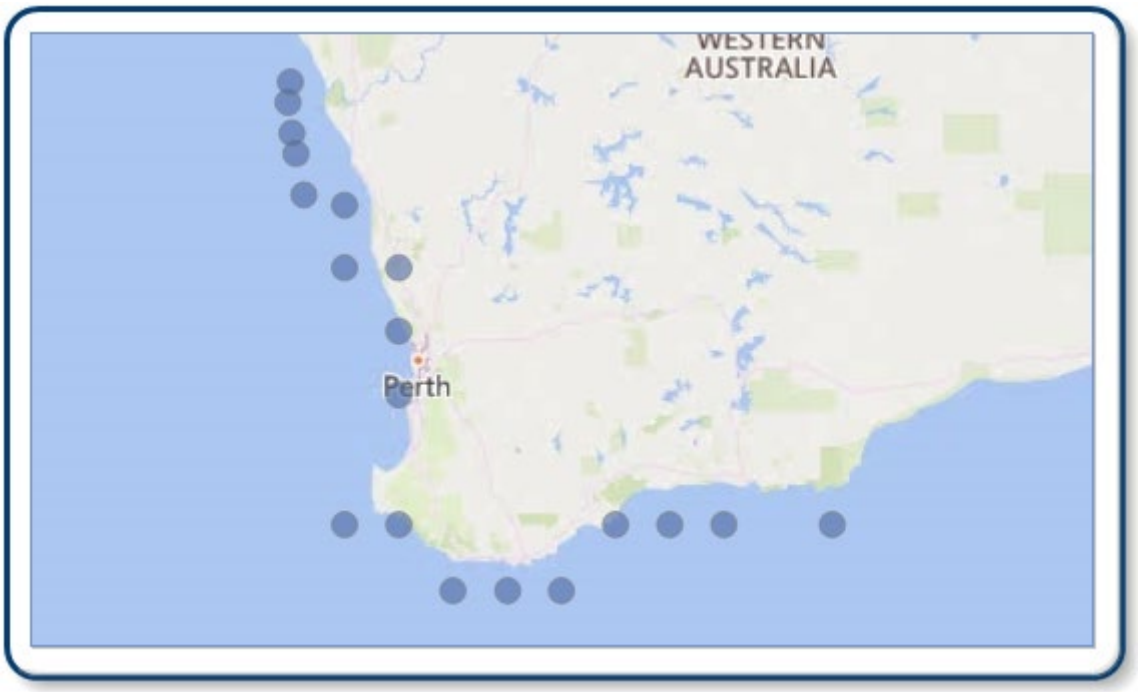
On the basis of the evidence provided above, Champagne Crab in Western Australia is classified as a **sustainable stock**.

BIOLOGY

Champagne Crab biology [Smith et al. 2004 ab].

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

Fishing methods	
	Western Australia
Commercial	
Traps and Pots	✓

Management Methods	
	Western Australia

Commercial	
Boat limits	✓
Egg bearing females protected	✓
Limited entry	✓
Quota	✓
Size limit	✓
Temporal closures	✓

Catch	
	Western Australia
Commercial	3.5247 t

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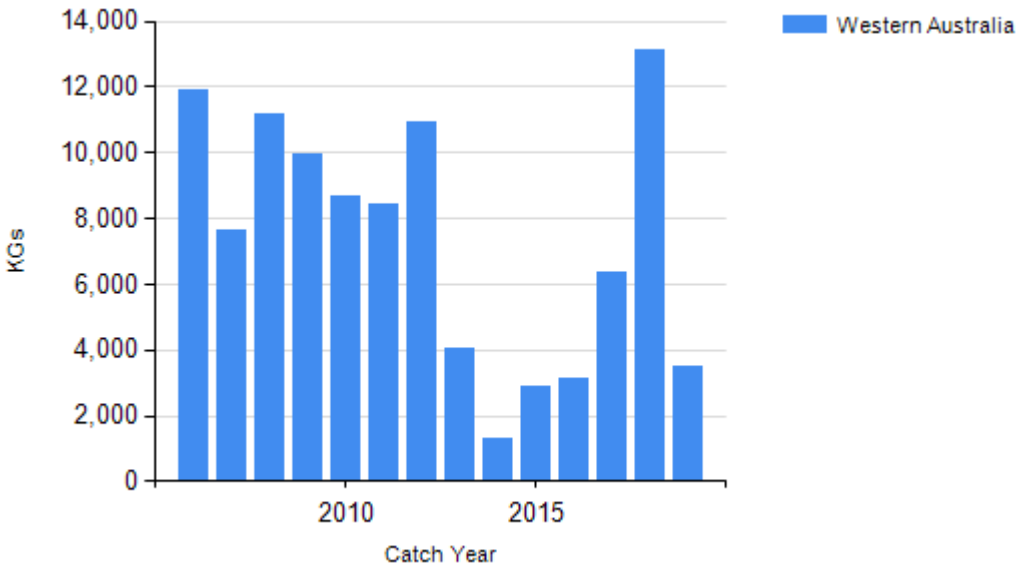
CATCH CHART



Commercial catch of Champagne Crab.

References	
Smith KD, Hall NG, Potter IC (2004a)	Relative abundances and size composition of champagne crabs, Hypothalassia acerba, on two coasts and in different water depths and seasons. Mar Freshw Res 55:653-661.
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. ICES J Mar Sci 61:906-912.