

Banded Morwong (2023)

Cheilodactylus spectabilis



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Stock status	Indicators
Victoria	Victoria Banded Morwong Fishery	Undefined	Catch, CPUE
Tasmania	Tasmania Banded Morwong Fishery	Sustainable	Stock assessment, CPUE

STOCK STRUCTURE

Banded Morwong is large temperate reef fish species that is targeted by gillnets for the domestic live fish trade. The species is distributed around south-eastern Australia, including southern New South Wales, and eastern Victoria and Tasmania, as well as occurring off north eastern New Zealand. It is relatively common in depths of less than 50 m. There is currently no information available regarding the biological stock structure. However, once settled after a relatively long oceanic larval phase, the species shows a high degree of site fidelity [Murphy and Lyle 1999; Ziegler et al. 2006; Buxton et al. 2010], suggesting that the exploited Victorian and Tasmanian populations are likely to represent distinct populations. Here, assessment of stock status is presented at the management unit level—Tasmania Banded Morwong Fishery and Victoria Banded Morwong Fishery.

STOCK STATUS

**Tasmania
Banded
Morwong
Fishery**

In Tasmania, Banded Morwong are commercially harvested by a small-scale coastal gillnet fishery. In the early 1990s a targeted fishery for Banded Morwong started to supply domestic live fish markets. Effort directed at the species increased dramatically as a result, with catches peaking at 145 tonnes (t) in 1993–94. Catches fell sharply in the late 1990s, with 34.6 t landed in 1999–2000. Banded Morwong are a relatively minor component of the recreational fishery in Tasmania. The most recent survey in 2017–18 estimated the recreational landings of Banded Morwong at 2 t (1,522 fish), making up slightly more than 5% of the total catch (commercial + recreational) during that season [Lyle et al. 2019].

A quota management system with a Total Allowable Catch (TAC) was introduced in late 2008 to the east coast fishery. The TAC underwent a staged reduction, effectively declining from 38.8 t in 2012–13 to 31.0 t in 2018–19. Additionally, a temporal closure is in place for 1st March to 30th April each year, encompassing the species' peak spawning period. Uncaught quota over two consecutive years following the onset of the COVID pandemic and associated restaurant closures resulted in requests for compensational quota increases in 2021–22. Stock assessment modelling indicated that such quota increases were unlikely to result in concerning levels of biomass depletion which led to the approval of a single-year TAC increase to 35.8 t in 2021–22 [Stacy and Krueck 2022]. The TAC was agreed to be revised back to 31 t from 2022–23 onwards. The species is also subject to keyhole size limits, which are currently set at a minimum legal size of 360 mm and a maximum legal size of 460 mm.

A fishery-independent sampling program implemented early in the development of the fishery has revealed truncation in the length and age composition of the Banded Morwong stocks. In recent years, although age compositions appear to have stabilised, old fish (greater than 20 years) are now rarely observed. Relative proportions of fish older than 8 years have increased. Increases in mean length at age of individuals aged between 2–10 years, and declines in length at maturity, have also been observed. Overall, despite the demographic changes, in the most recent assessment spawning stock biomass (SSB) under current management was estimated to be at 39% of initial SSB in 2026 [Stacy and Krueck 2022]. An alternative version of the model, which is under development to address a recent external review, indicated that biomass could be lower (30% of initial SSB in 2026). This evidence indicates that the biomass of this stock is unlikely to be depleted and that recruitment is unlikely to be impaired. Evidence from stock assessment modelling further suggests 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 management unit is classified as a **sustainable stock**.

**Victoria
Banded
Morwong
Fishery**

In Victoria, the Banded Morwong fishery developed rapidly in the late 1990s and early 2000s, before being transferred to a specialised targeted fishery with two operators. While the fishery was likely fully exploited during early development, fishers were able to maintain relatively high catch rate by spreading their effort throughout the extensive inshore reef systems in eastern Victoria. Nevertheless, catch rates began to decline after 2006, falling below the reference period average [Bell et al. 2023], and reaching a low in 2010, which was associated with a voluntary decline in fishing effort [Bell et al. 2023]. Thereafter, the two active operators in the fishery maintained relatively low levels of fishing effort, resulting in an increase in catch rate from the low in 2010 until 2016 [Bell et al. 2023]. Around this time, both licenses were transferred simultaneously, which

adds uncertainty when using catch rate as a proxy for biomass, particularly given there is fewer than 50 days of fishing effort in most years, some with fewer than 20 days.

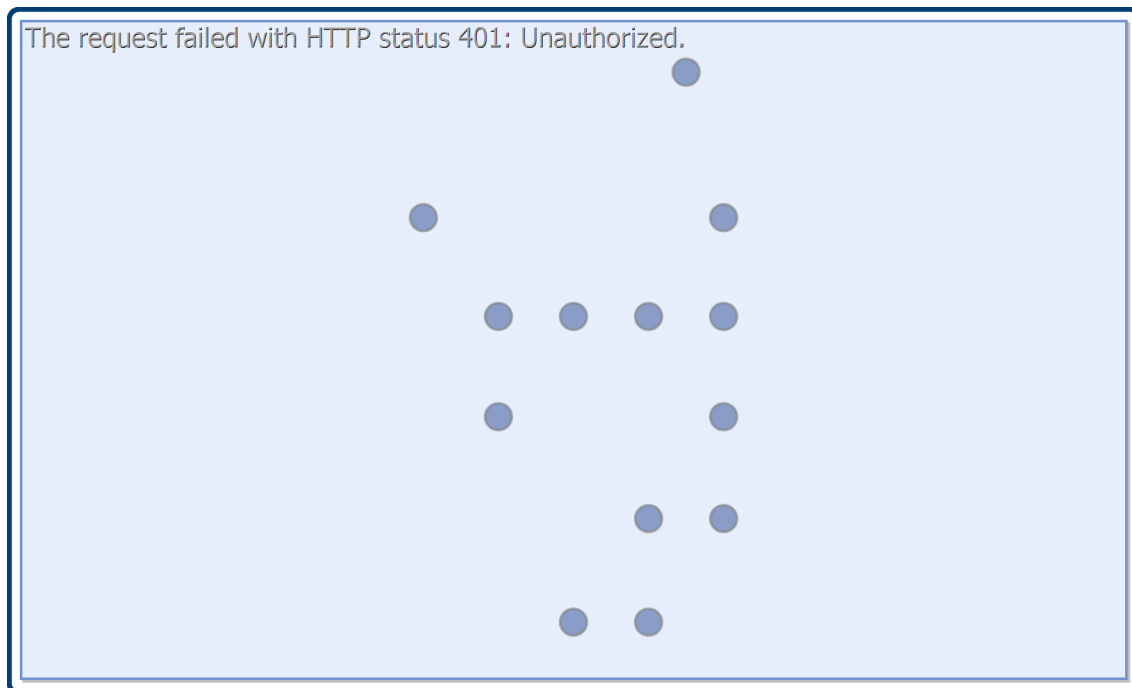
The available evidence indicates that the commercial Banded Morwong fishery in eastern Victoria is unlikely to be recruitment impaired. However, given the limited number of fishers, the complete transition of licenses and operators, and low amount of fishing effort, the use of catch rate as a proxy for biomass may be unreliable. On the basis of the evidence provided above, the Victoria Banded Morwong Fishery management unit is classified as an **undefined stock**.

BIOLOGY

Banded Morwong biology [Ewing et al. 2007; Ziegler et al. 2007]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Banded Morwong	96 years, 578 mm FL	2.5 years, 320 mm FL

DISTRIBUTION



Distribution of reported commercial catch of Banded Morwong

TABLES

Fishing methods	Tasmania	Victoria
Commercial		
Gillnet	✓	

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Net		✓
Traps and Pots		✓
Recreational		
Gillnet	✓	
Spearfishing	✓	✓

Management Methods		
	Tasmania	Victoria
Commercial		
Effort limits	✓	✓
Limited entry	✓	✓
Seasonal closures	✓	✓
Size limit	✓	✓
Spatial closures		✓
Total allowable catch	✓	✓
Recreational		
Bag limits	✓	✓
Licence		✓
Possession limit		✓
Seasonal closures	✓	
Size limit	✓	✓
Spatial closures		✓

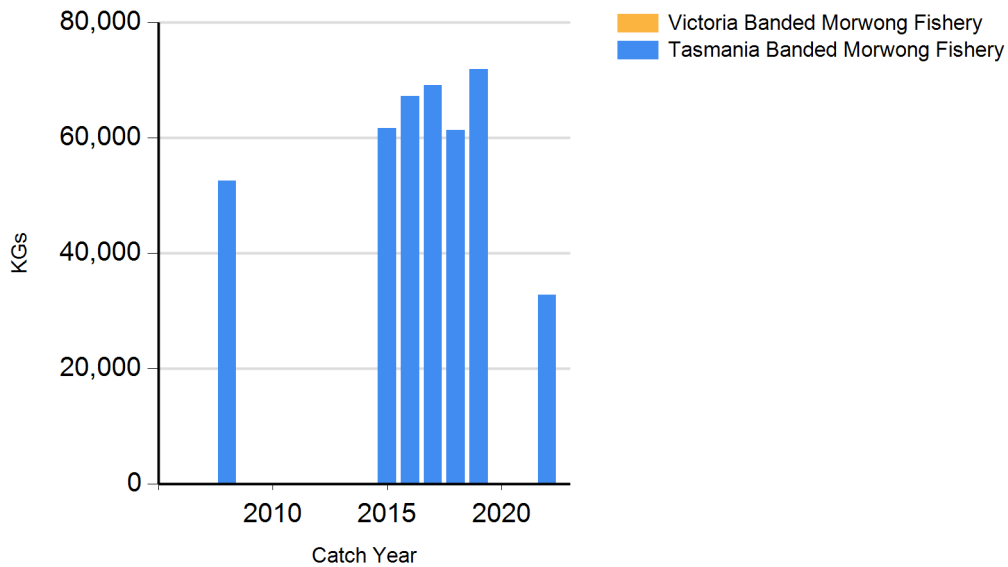
Catch		
	Tasmania	Victoria
Commercial	32.7444 t	unknown
Indigenous	No Catch	Unknown (No catch under permit)
Recreational	2.0 t (2017–18)	Unknown

Commercial catch of Banded Morwong - note confidential catch not shown

Victoria – Indigenous (Management Methods). A person who identifies as Aboriginal or Torres Strait Islander is exempt from the need to obtain a Victorian recreational fishing licence, provided they comply with all other rules that apply to recreational fishers, including rules on equipment, catch limits, size limits and restricted areas. Traditional (non-commercial) fishing activities that are carried out by members of a traditional owner group entity under an agreement pursuant to Victoria’s *Traditional Owner Settlement Act 2010* are also exempt from the need to hold a recreational fishing licence, subject to any conditions outlined in the agreement. Native title holders are also exempt from the need to obtain a recreational fishing licence under the provisions of the Commonwealth’s *Native Title Act 1993*

Tasmania - Indigenous (management methods). In Tasmania, Indigenous persons engaged in traditional fishing activities in marine waters are exempt from holding recreational fishing licences, but must comply with all other fisheries rules as if they were licensed. For details, see the policy document 'Recognition of Aboriginal Fishing Activities' (<https://fishing.tas.gov.au/Documents/Policy%20for%20Aboriginal%20tags%20and%20alloting%20an%20UIC.pdf>).

CATCH CHART



Commercial catch of Banded Morwong - note confidential catch (ie in Victoria) is not shown

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