

Bluethroat Wrasse (2020)

Notolabrus tetricus



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Stock status	Indicators
New South Wales	New South Wales	Negligible	Catch
Victoria	Victoria	Sustainable	Catch, effort, catch rates
Tasmania	Tasmania	Sustainable	Catch, effort, catch rates
South Australia	South Australia	Sustainable	Catch, effort, catch rates

STOCK STRUCTURE

Bluethroat Wrasse are found on rocky reefs around south-eastern Australia, including southern New South Wales, through Victorian and Tasmanian waters, to South Australia [Edgar 1997]. There is currently no information available regarding the biological stock structure of Bluethroat Wrasse in Australian waters. The species has a planktonic larval duration ranging from 44 to 66 days [Welsford 2003]. Once settled, Bluethroat Wrasse show a high degree of site fidelity [Edgar et al. 2004], suggesting that despite the potential for extensive dispersal of larvae by ocean currents exploited populations in each jurisdiction could represent different stocks. Thus, conservatively, assessment of stock status is presented at the jurisdictional level—New South Wales, Victoria, Tasmania and South Australia.

STOCK STATUS

New South Wales Stock status for the New South Wales stock is reported as **Negligible** due to historically low catches in this jurisdiction and the stock has generally not been subject to targeted fishing. The New South Wales commercial catch in 2012–19 averaged approximately 0.7 tonnes (t) per annum, and Bluethroat Wrasse is not a major component of recreational landings [West et al. 2015, Murphy et al. 2020]. Fishing is unlikely to be having a negative impact on the stock.

South In South Australia, the Bluethroat Wrasse (*Notolabrus tetricus*) is considered a

Australia tertiary species of South Australia's commercial multi-species, multi-gear and multi-sectoral Marine Scalefish Fishery (MSF). The species is also taken by recreational fishers. For the commercial sector, there is a small targeted fishery for which the captured fish are sold either as fresh, ice-slurried product or for the live fish market [Steer et al. 2020]. In both sectors, they are also taken as by-product when other, more valuable species are targeted. For the commercial sector, numerous species of wrasse are reported under the single species name of Bluethroat Wrasse. Since the Bluethroat Wrasse is the largest and most abundant species, it is likely that it has historically dominated the catches. The most recent assessment for the Bluethroat Wrasse considered data up to December 2018 [Steer et al. 2020].

The primary indicators of biomass and fishing mortality for the Bluethroat Wrasse are from the commercial fishery statistics, which include time series of estimates of total catch, total line fishing effort and total line catches rates [Steer et al. 2020]. Between 1997 and 2011, commercial annual catches were generally consistent at >20 t per year. However, since 2011, total catches have declined. This has corresponded to a general decline in both handline and longline fishing effort. Through this period, the annual catch rates remained relatively stable at the medium level of around 20 kg fisherday⁻¹. However, in 2018, there were considerable declines in total catch to 8 t and average catch rate to 13.5 kg fisherday⁻¹. Whilst these values were both considerably lower than the values indicated above for the period of 1997 to 2011, they still remained higher than the low levels recorded during the 1980s and early 1990s. As such, no trigger reference points were breached that related to catch and catch rate (Steer et al. 2020). The downturns in 2018 for total catch and catch rate are not yet sufficient to indicate that the biomass of this stock is depleted and that recruitment has become impaired. As such, there is not sufficient evidence that a change in stock status is warranted.

On the basis of the evidence provided above, **Bluethroat Wrasse in South Australia** is classified as a **sustainable** stock.

Tasmania In Tasmania, Bluethroat Wrasse is targeted for live fish markets, for consumption and as bait for rock lobster (bait usage is likely to be under-reported). Catches of Bluethroat Wrasse have been differentiated to species level in commercial logbooks since 2007. Peak catches (all wrasse species combined) beyond 100 t were reported between the late 1990s and mid 2000s. The total reported catch of Bluethroat Wrasse in 2018–19 was 63 t [Krueck et al. 2020]. Commercial catches, effort and catch rates have been relatively stable for almost a decade [Krueck et al. 2020].

Wrasse are rarely targeted by recreational fishers, generally representing by-catch [Lyle et al. 2014]. The latest estimates of recreational catches (all species) were 6.4 t in 2012–13 and 9.6 t in 2017–18, representing about 10 per cent of the total commercial catch [Lyle et al. 2019].

Notably, state-wide analyses of catch and effort are insensitive to changes at the level of individual reefs at which the fishery has been shown to impact local population abundance [Stuart-Smith et al. 2008, Walsh et al. 2017]. Thus, it is possible that marked regional shifts in effort over the years have masked localised depletions. Monitoring of such potential localised depletions should be introduced, especially in areas where effort is known to be concentrated.

Based on current evidence, the biomass of Bluethroat Wrasse in Tasmania is unlikely to be depleted and recruitment is unlikely to be impaired. Furthermore, the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired. On this basis, Bluethroat Wrasse in Tasmania is classified as a **sustainable stock**.

Victoria Bluethroat Wrasse are the predominant species harvested by the Victorian

Ocean Wrasse (OW) Fishery, primarily to supply the live fish market. Bluethroat Wrasse were historically harvested commercially in Victorian waters under the general Victorian Ocean Fishery (OF) access licence, but in April 2017, a transferable Ocean Wrasse licence was created with 22 licences issued. Each licence can be operated throughout the State.

Harvests of Bluethroat Wrasse increased rapidly to around 90 t per year when a market for wrasse was established in the early 1990s. However, market preference for live fish saw many OF fishers cease to target them. By 2010 the state-wide harvest had declined to current levels of 20–30 t per year. The harvest in 2017–18 and 2018–19 has been around 29 t and the average annual catch of Bluethroat Wrasse for the past 5 years was 26 t (86 per cent of total wrasse landings) compared with 1 t recorded for Purple Wrasse and 3 t for other wrasse species [VFA 2019]. Over the last two years 9 per cent of the wrasse harvest has been by pots [Conron et al. 2020].

Most (i.e. approximately 80–90 per cent) Bluethroat Wrasse is now harvested in Victorian waters by the OW fishery using hook and line, although commercial rock lobster fishers who also hold an OW licence can harvest legal sized wrasse they catch in pots. Licence holders with entitlements in other Victorian fisheries, and rock lobster fishers without an OW licence, may only take up to eight wrasse (all species) per day. Recreational harvest of Bluethroat Wrasse is unknown but thought to be low relative to the current and historic commercial harvest. There is some indication of growing interest in recreational targeting of wrasse in Victoria.

Standardised CPUE in all three assessment zones for 2018–19 was below the 1979–2015 average, but it has mostly fluctuated around the average in the central and western zones since the early 2000s [Conron et al. 2020]. For the eastern zone, nominal and standardised CPUE have been consistently between average and minimum values since 2010 [Conron et al. 2020]. Overall, the pattern of variation and trends in CPUE would appear to indicate relative stability, rather than clear increases or decreases, of biomass. One caveat is that the relationship between CPUE and stock-wide biomass is unclear, as CPUE for this fishery may be prone to hyper-stability due to the highly resident behaviour of wrasse on reef areas and fishers regularly shifting their effort among different reef areas to maintain acceptable catch rates, which could potentially lead to serial depletion [Conron et al. 2020].

The major reduction in effort and catch since the late 1990s, and the recent stability of catches and catch rates indicate that the biomass of this stock is unlikely to be depleted and that recruitment is unlikely to be impaired. Further, the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired.

On the basis of the evidence provided above, Bluethroat Wrasse in Victoria is classified as a **sustainable stock**.

BIOLOGY

Bluethroat Wrasse biology [May and Maxwell 1986, Barrett 1995, Smith et al., 2003]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Bluethroat Wrasse	11 years, 400 mm TL	8 years, 300 mm TL

DISTRIBUTION



Distribution of reported commercial catch of Bluethroat Wrasse

TABLES

Fishing methods	New South Wales	South Australia	Tasmania	Victoria
Commercial				
Fish Trap			✓	
Gillnet			✓	
Hand Line, Hand Reel or Powered Reels			✓	
Handline		✓		
Hook and Line				✓
Net				✓
Set longline		✓		
Traps and Pots				✓
Unspecified		✓	✓	
Various	✓			
Recreational				
Gillnet			✓	
Handline		✓	✓	✓
Rock Lobster And Crayfish Traps And Pots			✓	
Spearfishing				✓

Management Methods			
	South Australia	Tasmania	Victoria
Commercial			
Bag and possession limits		✓	
Fishing gear and method restrictions			✓
Gear restrictions		✓	
Limited entry	✓	✓	✓
Size limit	✓	✓	✓
Spatial closures		✓	✓
Recreational			
Bag and possession limits		✓	
Bag limits	✓	✓	✓
Gear restrictions		✓	
Licence		✓	✓
Size limit	✓	✓	✓
Spatial closures			✓

Catch				
	New South Wales	South Australia	Tasmania	Victoria
Commercial	0.393 t	6.57298 t	63.0457 t	29.4747 t
Indigenous	Unknown	Unknown	Unknown	Unknown (No catch under permit)
Recreational	Unknown	Unknown	9.6 t (all wrasse species in 2017/18)	Unknown

New South Wales – Recreational (Catch) Murphy et al. [2020]

New South Wales – Indigenous (management methods) <https://www.dpi.nsw.gov.au/fishing/aboriginal-fishing>

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*.

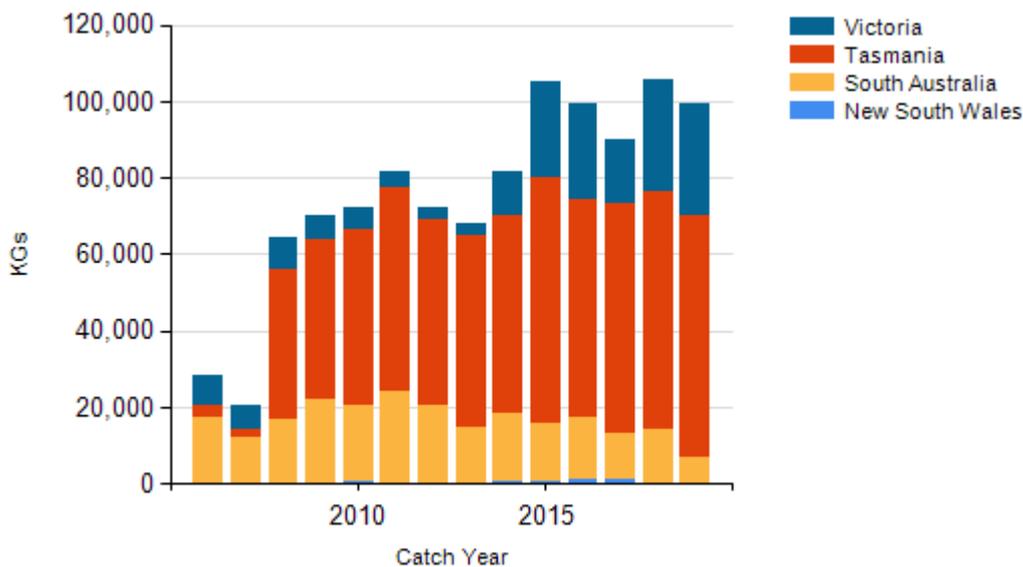
Tasmania – Commercial (catch) Catches reported for the Tasmanian Scalefish Fishery are for the period 1 July to 30 June the following year. The most recent assessment available is for 2018/19.

Tasmania – Commercial (catch) A trip limit of 30 kg for landed dead Wrasse is in place unless fishers hold a Wrasse licence.

Tasmania – Recreational (management methods) A recreational licence is required for fishers using dropline or longline gear, along with nets, such as gillnet or beach seine. A minimum size limit of 300 mm is in place for all Wrasse species in Tasmanian waters. A bag limit of five fish and a possession limit of ten fish (all Wrasse species) are also in place.

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://dpiwwe.tas.gov.au/Documents/Policy%20for%20Aboriginal%20tags%20and%20allotting%20an%20UIC.pdf>.

CATCH CHART



Commercial catch of Bluethroat Wrasse - note confidential catch not shown

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