

Blue Warehou (2023)

Seriolella brama



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Stock status	Indicators
Commonwealth, New South Wales, Victoria, Tasmania	Eastern	Depleted	CPUE, catch
Commonwealth, Western Australia, Victoria, Tasmania, South Australia	Western	Depleted	CPUE, catch

STOCK STRUCTURE

Blue Warehou is highly mobile with a patchy distribution and a wide range of spawning areas [Knuckey and Sivakumaran 2001]. Genetic studies have indicated that there are two separate stocks east and west of Bass Strait [Punt 2006; Talman et al. 2004]. The eastern stock extends offshore from southern New South Wales to southern Tasmania and the western stock extends offshore from western Tasmania northward to western Victoria. Stock structuring between eastern and western stocks has also been reported based on mitochondrial DNA, otolith microchemistry, spawning location and timing, size, age, and growth [Bessell-Browne et al. 2021]. Eastern and western stocks are assessed separately.

Here, stock status is presented at the biological stock level—Eastern and Western.

STOCK STATUS

Eastern This cross jurisdictional stock has components in the Commonwealth, New South Wales, Victoria, and Tasmania.

The Australian Bureau of Agricultural and Resource Economics and Sciences has

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classified both stocks of Blue Warehou in Commonwealth waters as overfished since 1999 and the species is currently subject to a stock rebuilding strategy [AFMA 2014; AFMA 2022]. In February 2015, the species was listed as conservation dependent under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) [Department of the Environment 2015].

Both stocks of Blue Warehou in Commonwealth fisheries (east and west) were each previously managed as a tier 4 stock under the Southern and Eastern Scalefish and Shark Fishery (SESSF) Harvest Strategy Framework [AFMA 2021] but are now managed under a rebuilding strategy [AFMA 2014; AFMA 2022]. An incidental bycatch total catch allowance of 50 tonnes (t) was applied Blue Warehou (east and west) in 2021–22 [Emery et al. 2022].

Blue Warehou (east and west) landings in the SESSF peaked in 1991 at nearly 2,500 tonnes (t). Catches then declined rapidly to below 500 t through the early 2000s.

The last tier 4 analysis for the eastern stock was conducted in 2013. This analysis included state catches and found that the standardised catch-per-unit-effort (CPUE) had been below the limit reference point (LRP) since 1998 [Haddon 2013]. There has been no subsequent tier 4 analysis because CPUE is no longer considered to be a reliable indicator of abundance for this species due to active avoidance by fishers.

Commonwealth-landed catch for the eastern stock is estimated to be 2.3 t in 2021–22 [Emery et al. 2022], calculated by splitting the catch recorded in catch disposal records based on the logbook apportionment east and west. The weighted average of the previous four calendar years (2017 to 2020) was calculated and used to estimate discards and state catches of 30.8 and 2.3 t, respectively, for the eastern stock in 2021–22 [Althaus et al. 2021]. For the 2021–22 fishing season, total catch and discards were estimated to be 35.4 t. More recently, total commercial catch and discards were estimated to be higher at 58.8 t in the 2022–23 fishing season [Emery et al. 2023]. In the absence of any evidence to the contrary, ABARES considers it unlikely that the level of commercial mortality applied in 2022–23 will allow the stock to rebuild to the LRP in a time frame consistent with the requirements of the Commonwealth Harvest Strategy Policy or in the time frame currently used within the 2022 rebuilding strategy (2024) [AFMA 2022].

In New South Wales, commercial fishery data, including catch of Blue Warehou are available from 1997–98, although in many years the data are classified as confidential. In 1998–99 and 1999–2000, Blue Warehou catches of 21.7 t and 10.2 t were reported across all New South Wales commercial fisheries, respectively. From 2000–01 to 2021–22, the total reported commercial catch of Blue Warehou was < 2.5 t per year, with < 1 t p.a. being reported since at least 2013. Recreational and Indigenous catches of warehou species in New South Wales are unknown. Surveys of recreational and Indigenous catches have either not specified catches of Warehou species [West et al. 2015, Murphy et al. 2022] or reported them into a broader 'finfish - other' category [Henry and Lyle 2003]. Total reported catches in NSW are not considered a major source of mortality to the stock as a whole.

Blue Warehou is no longer targeted commercially in Victorian waters but is taken as byproduct from within the Inshore Trawl, Ocean, Port Phillip Bay and Corner Inlet-Nooramunga Fisheries. The commercial catch taken during the 2021–22 was around 5 t, more than the previous twenty years when it had remained under 3 t. The landings comprise individuals from both eastern and western

stocks, the proportion of which is unclear in inshore waters, particularly in central Victoria from where much of the catch comes, so total Blue Warehou landings are reported. Recreational fishers target Blue Warehou in bays and inlets and in coastal waters, particularly harbours, and although there is no recent estimate of landings, they are likely to be relatively low. Thus, the combined commercial and recreational landings in Victoria are unlikely to be a major source of mortality to the stock as a whole.

Blue Warehou landings in the Tasmanian Scalefish Fishery peaked in 1991–92 at 318 t and have decreased substantially being below 2 t per year for the last four seasons [Sharples et al. 2023], with around two thirds of this catch assumed to be from the eastern stock. Recreational catches in Tasmania are estimated periodically with estimates of 32.5 t in 2010, 15.4 t in 2012–13 and 0.8t in 2017–18 [Lyle et al. 2019], with the majority of catches assumed to be from the Eastern stock.

The above evidence indicates that the biomass of this stock is likely to be depleted and that recruitment is likely to be impaired.

On the basis of the evidence provided above the Blue Warehou Eastern biological stock is classified as a **depleted stock**.

Western

This cross jurisdictional stock has components in the Commonwealth, South Australia, Victoria, and Tasmania.

Comments provided above (for the eastern stock) in relation to exploitation and management also apply to the western stock.

The last tier 4 analysis for the western stock was conducted in 2013. This analysis included available state catches and determined that standardised CPUE had been below the LRP since 1995, with the exception of 1998 and 2005 [Haddon 2013]. There has been no subsequent tier 4 analysis because CPUE is no longer considered to be a reliable indicator of abundance for this species due to active avoidance by fishers.

Commonwealth-landed catch for the western stock was estimated to be 1.7 t in 2021–22 [Emery et al. 2022], calculated by splitting the catch disposal records based on the logbook apportionment east and west. The weighted average of the previous four calendar years (2017 to 2020) was calculated and used to estimate state catches of 2.3 t for the western stock (there were no estimated discards) [Althaus et al. 2021]. For the 2021–22 fishing season, total catch was estimated to be 4 t. However, there are no reliable indicators to determine if this level of fishing mortality will allow the stock to rebuild in the required timeframe.

Warehou species are not differentiated in South Australia's commercial multi-species, multi-gear, and multi-sectoral Marine Scalefish Fishery (MSF). No catches of Warehou species were reported in the MSF during 2021–22 [Smart et al. 2023]. There is no information available on the catch of Warehou species by Aboriginal and Torres Strait Islander people in South Australian waters. The most recent recreational fishing survey in South Australia in 2021–22 indicated that the annual catch of Blue Warehou was zero [Beckmann et al. 2023].

Blue Warehou landings in the Tasmanian Scalefish Fishery peaked in 1991–92 at 318 t and have decreased substantially since, being below 1 t per year for the last four seasons [Sharples et al. 2023], with about one-third of the catch assumed to be from the Western stock.

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Most of the commercial landings in Victoria are likely from the eastern stock but recreational landings from western Victoria are likely from the western stock, the combination of which is likely to be relatively low.

The above evidence indicates that the biomass of this stock is likely to be depleted and that recruitment is likely to be impaired.

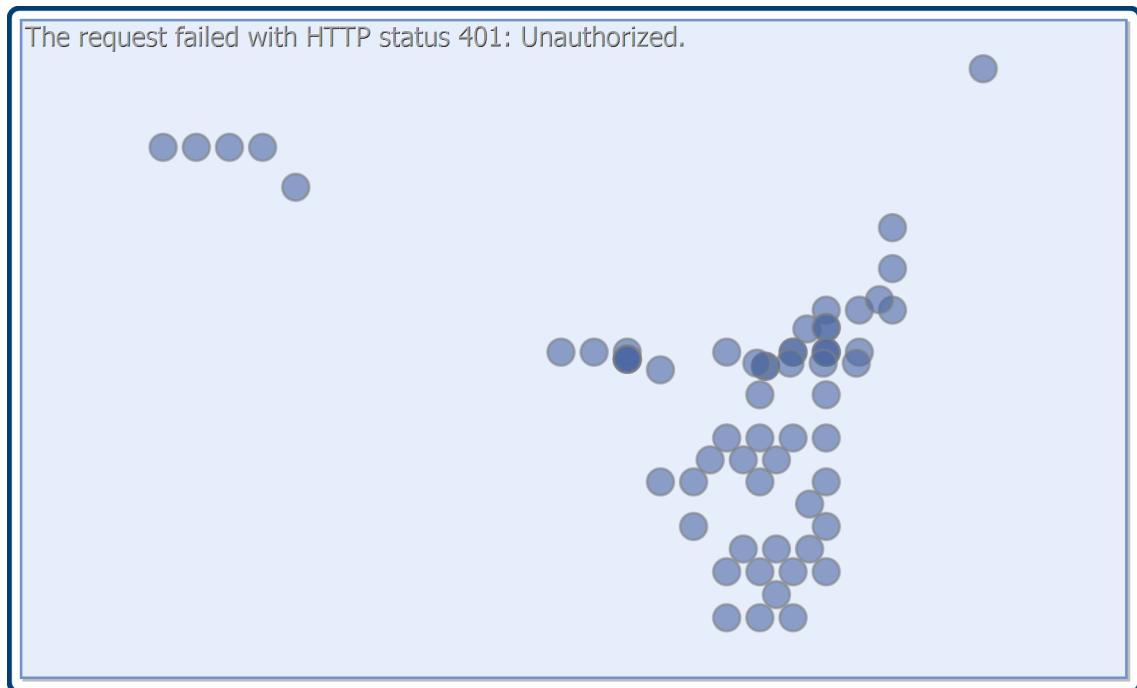
On the basis of the evidence provided above the Blue Warehou Western biological stock is classified as a **depleted stock**.

BIOLOGY

Blue Warehou biology [Knuckey and Sivakumaran 2001]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Blue Warehou	25 years, approximately 760 mm TL and 4 kg	3–4 years, mean length at female maturity is approximately 330 mm LCF

DISTRIBUTION



Distribution of reported commercial catch of Blue Warehou

TABLES

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Fishing methods					
	Commonwealth	New South Wales	South Australia	Tasmania	Victoria
Charter					
Handline			✓		✓
Hook and Line					✓
Commercial					
Danish Seine	✓				
Hook and Line		✓			✓
Net					✓
Otter Trawl	✓	✓			
Unspecified				✓	
Recreational					
Gillnet				✓	
Handline		✓	✓	✓	✓
Hook and Line		✓			✓

Management Methods					
	Commonwealth	New South Wales	South Australia	Tasmania	Victoria
Charter					
Gear restrictions			✓		
Limited entry			✓		
Commercial					
Gear restrictions	✓	✓	✓	✓	✓
Limited entry	✓	✓	✓	✓	✓
Marine park closures	✓	✓			
Quota	✓				
Size limit				✓	✓
Spatial closures	✓	✓	✓		✓
Total allowable catch (incidental)	✓				
Trip limits	✓				

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Vessel restrictions		✓			
Recreational					
Bag and possession limits		✓		✓	✓
Bag limits				✓	✓
Gear restrictions		✓	✓		✓
Licence		✓		✓	✓
Limited entry					✓
Marine park closures		✓			
Size limit				✓	✓
Spatial closures		✓	✓		✓

Catch					
	Commonwealth	New South Wales	South Australia	Tasmania	Victoria
Commercial	2.05526 t	0.4527 t	0 t	0.87366 t	5.4187 t
Indigenous		Unknown	Unknown	Unknown	Unknown (no catch under permits)
Recreational		Unknown	Unknown	15.4 t (2012–13) 0.8t (2017–18)	Unknown

Western Australia
0 t

Commonwealth – Commercial (Management Methods/Catch). Data provided for the Commonwealth align with the Commonwealth Southern and Eastern Scalefish and Shark Fishery for the 2021–22 financial year.

Commonwealth – Recreational. The Australian government does not manage recreational fishing in Commonwealth waters. Recreational fishing in Commonwealth waters is managed by the state or territory immediately adjacent to those waters, under its management regulations.

Commonwealth – Indigenous. The Australian government does not manage non-commercial Indigenous fishing in Commonwealth waters, with the exception of Torres Strait. In general, non-commercial Indigenous fishing in Commonwealth waters is managed by the state or territory immediately adjacent to those waters

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

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 2021–22.

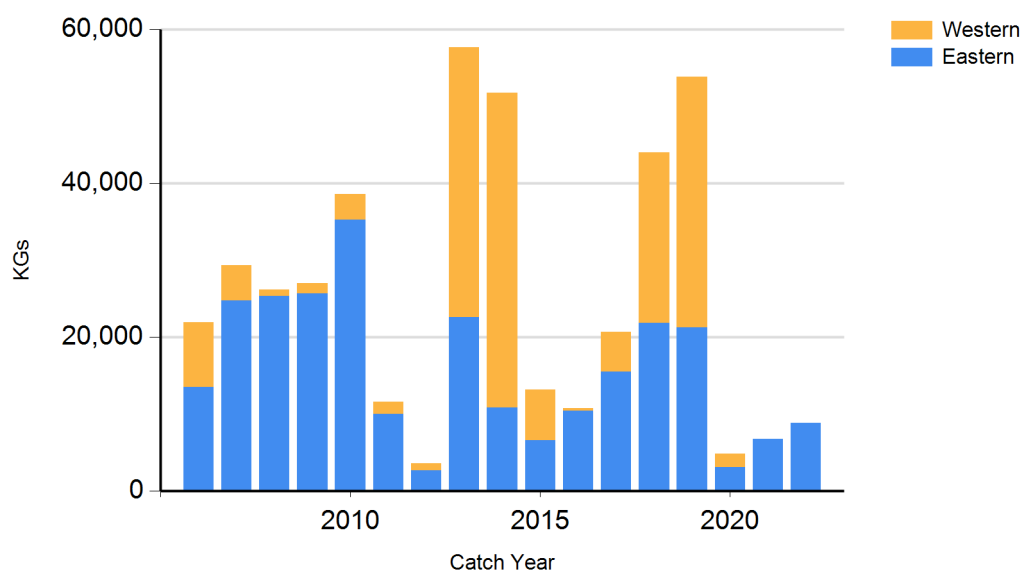
Tasmania – Recreational (Management Methods). In Tasmania, a recreational licence is required for fishers using dropline or longline gear, along with nets, such as gillnet or beach seine. The species is subject to a minimum size limit of 250 mm total length. A bag limit of 10 fish and a possession limit of 20 fish (all Warehou species) is in place for recreational fishers.

Tasmania – Indigenous (Management Methods). In Tasmania, Indigenous persons engaged in aboriginal 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. Additionally, recreational bag and possession limits also apply. If using pots, rings, set lines or gillnets, Indigenous persons must obtain a unique identifying code (UIC). The policy document Recognition of Aboriginal Fishing Activities for issuing a UIC to a person for Aboriginal Fishing activity explains the steps to take in making an application for a UIC.

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*.

CATCH CHART

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Commercial catch of Blue Warehou - note confidential catch not shown

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