

Stout Whiting (2023)

Sillago robusta



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Stock status	Indicators
Queensland, New South Wales	Eastern Australia	Sustainable	Stock Assessment (age-structured model), Standardised CPUE, Age Composition, Spawning Biomass Depletion

STOCK STRUCTURE

The geographic distribution of the east coast Stout Whiting biological stock is restricted to southern Queensland and northern New South Wales. Genetic analysis of Stout Whiting catches from southern Queensland locations indicate that biological sub-stocks are unlikely to exist [Ovenden and Butcher 1999].

Here, assessment of stock status is presented at the biological stock level—Eastern Australia.

STOCK STATUS

Eastern Australia On average, 80% of the annual commercial catch of Stout Whiting is taken in Queensland in the Finfish (Stout Whiting) Trawl Fishery, between K'gari (formerly known as Fraser Island) and the New South Wales (NSW) border, and 20% in northern and central NSW in the Ocean Trawl Fishery [Wortmann and Hall 2021].

The most recent stock assessment (using data from 1945–2020 from Queensland and NSW) did not detect any trend in Stout Whiting abundance that might indicate overfishing or evidence to advocate against the 2022 total allowable commercial catch (TACC) of 1,281 tonnes (t) in Queensland

[Wortmann and Hall 2021; Sumpter 2022]. Results indicate that the spawning stock recovered from a minimum of 20–30% in the early 2000s to 42% of unfished biomass in 2020. Current harvest levels (946 t) are below the equilibrium MSY level and that required for the longer-term target of 48% of unfished biomass for this stock.

Annual landings of Stout Whiting in Queensland averaged about 715 t for the fishing years 2014–16, increasing to an average 1,065 t from 2017–19 [Wortman 2020]. Maximum harvest in the past 10 fishing years reached a peak of 1,213 t in 2019–20. In Queensland, the annual TACC limit for Stout Whiting was 1,106 t from 2017–20 and was increased to 1,281 t for the 2021 fishing season, although in 2021–22 catch decreased slightly to 964 t. The annual TACC is reassessed before the start of each fishing year using both commercial catch-rate and age-and-length data in a decision-support model developed in 2002 [O'Neill et al. 2002].

Over the same period, annual commercial catches in NSW (after adjustment for species misreporting in northern NSW) have fluctuated between 170 and 290 t per year, with a catch of 182 t in 2021–22. The southern extremity of the Stout Whiting distribution overlaps with the northern end of the Eastern School Whiting (*Sillago flindersi*) distribution and reported landings from northern NSW are adjusted to account for estimated levels of species misreporting [Hall 2018]. An annual basket TACC (for combined Stout Whiting and Eastern School Whiting) was introduced in NSW in May 2019 and was initially set at 1,189 t [Hall 2018]. The TACC was reduced to 898 t for the 2020–21 fishing season, in response to some sustainability concerns for the co-caught Eastern School Whiting but was re-adjusted to 1,066 t for all subsequent seasons [Hall 2023].

The most recent estimate of the recreational harvest of combined trawl whiting (Eastern School Whiting and Stout Whiting) in NSW was approximately 9,882 fish or around 1.4 t during 2019–20 [Murphy et al. 2022]. This estimate was based on a survey of Recreational Fishing Licence (RFL) Households, comprised of at least one fisher possessing a long-term (1 or 3 years duration) fishing licence and any other fishers resident within their household, excluding other long-term licence holders. Relative to the commercial catch, recreational catches are clearly negligible. Statewide Aboriginal harvests are unknown but are also assumed to be small.

Standardised commercial catch rates for Stout Whiting in Queensland have increased since 2016 (by about 50%) and are well above the long-term average [Wortmann 2020; Sumpter 2022]. Similarly, standardised commercial catch rates of Stout Whiting for the ocean prawn trawl fleet in northern and central NSW have remained stable and above the long-term average (2019–21) [Hall 2023]. The above evidence indicates that the biomass of this stock is unlikely to be depleted and that recruitment is unlikely to be impaired.

Fishing pressure for Stout Whiting is effectively constrained by the TACCs in each jurisdiction. In Queensland, Stout Whiting is a target species managed under the Commercial trawl fishery (fin fish) Stout Whiting Harvest Strategy [QDAF 2021]. Although a draft of the Queensland harvest strategy originally outlined a target biomass reference point of 60% this has since been revised to 48% in the finalised harvest strategy in line with the NSW harvest strategy [QDAF 2021; NSW DPI 2023]. The 2021 stock assessment predicted that a recommended biological catch (RBC) of 2,018 t in 2021 would permit the spawning stock biomass to rebuild to 48% of unfished biomass within 3 years and 60% by 2032 with a 0.87 buffer [Wortmann and Hall 2021]. The current combined landings across the two jurisdictions are below the estimated RBC.

Therefore, the current level of fishing pressure is unlikely to cause the stock to become recruitment impaired.

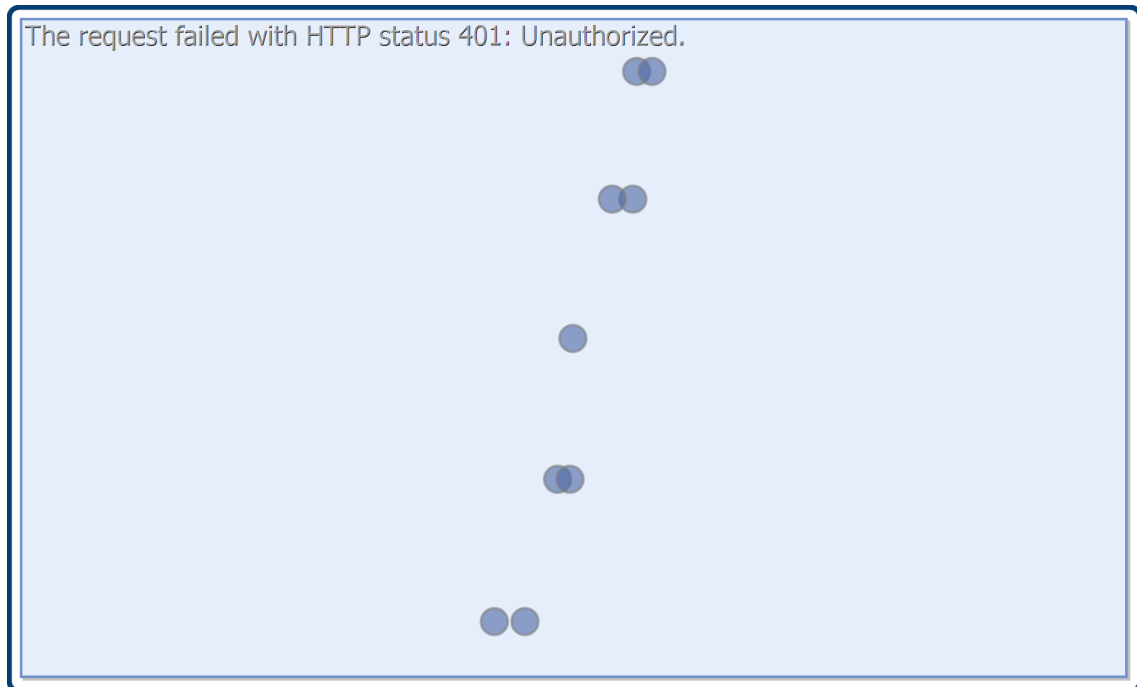
On the basis of the evidence provided above, the Eastern Australia biological stock is classified as a **sustainable stock**.

BIOLOGY

Stout Whiting biology [O'Neill et al. 2002]

Species	Longevity / Maximum Size	Maturity (50 per cent)
Stout Whiting	8 years, 230 mm FL	2–3 years, 14–180 mm FL

DISTRIBUTION



Distribution of reported commercial catch of Stout Whiting - Note confidential catch not shown

TABLES

Fishing methods	New South Wales	Queensland
Commercial		
Danish Seine	✓	✓
Midwater Trawl		✓
Otter Trawl	✓	

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Various	✓	
Recreational		
Hook and Line	✓	✓

Management Methods		
	New South Wales	Queensland
Commercial		
By-catch reduction devices		✓
Catch limits	✓	
Effort limits	✓	
Gear restrictions	✓	✓
Harvest Strategy	✓	✓
Individual transferable quota		✓
Limited entry	✓	✓
Seasonal or spatial closures		✓
Spatial closures	✓	
Vessel restrictions	✓	✓
Recreational		
Bag limits	✓	✓
Gear restrictions	✓	
Licence	✓	
Spatial closures	✓	

Catch		
	New South Wales	Queensland
Commercial	182.035 t	0 t
Indigenous	Unknown	Unknown
Recreational	Unknown	Unknown

Queensland – Indigenous (Management Methods). For more information see:
<https://www.daf.qld.gov.au/business-priorities/fisheries/traditional-fishing>

Queensland – Commercial (Catch). Queensland commercial and charter data have been sourced from the commercial fisheries logbook program. Further information available through the Queensland Fisheries Summary Report available at: <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-research/data/queensland-fisheries-summary-report>

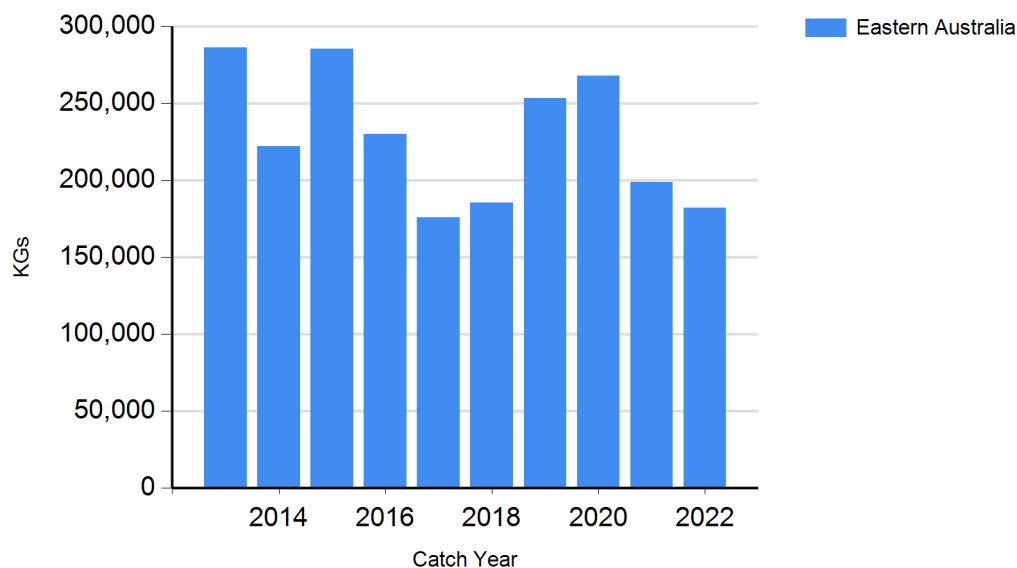
Queensland – Commercial (Management Methods). Harvest strategies available at:
<https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable/harvest-strategy>

New South Wales – Commercial (Catch). Data are provided in financial years. Reported landings from northern New South Wales have been adjusted to account for estimated species misreporting with Eastern School Whiting, *Sillago flindersi* [Hall 2021].

New South Wales – Recreational (Catch). Estimates from Murphy et al. [2020, 2022], based on a survey of Recreational Fishing Licence households. Note, estimates for trawl whiting are highly uncertain, with a relative standard error of greater than 30% and based on survey data from fewer than 20 households.

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

CATCH CHART



Commercial catch of Stout Whiting - note confidential catch not shown

References

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Wortmann and Hall 2021	Wortmann, J and Hall, KC 2021, Stock assessment of stout whiting (<i>Sillago robusta</i>) in eastern Australia. Fisheries Queensland, Department of Agriculture and Fisheries, Brisbane, QLD
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Hall 2018	Hall, KC 2018, Stock status summary and supplementary information 2018 – Ocean Trawl Fishery (Inshore Prawn, Offshore Prawn, Deepwater Prawn and Northern Fish Trawl) – Eastern School Whiting and Stout Whiting (<i>Sillago flindersi</i> and <i>Sillago robusta</i>). NSW Department of Primary Industries, Coffs Harbour, NSW
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