

White Teatfish (Sea Cucumber) (2018)

Holothuria fuscogilva



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STOCK STATUS OVERVIEW

Jurisdiction	Stock	Fisheries	Stock status	Indicators
Commonwealth	Coral Sea Fishery	CSF	Undefined	Catch, effort
Commonwealth	Torres Strait Beche-de-mer Fishery	TSFF	Sustainable	Catch
Northern Territory	Trepang Fishery	TF	Undefined	
Queensland	East Coast Sea Cucumber Fishery	ECSCF	Sustainable	Catch, Effort, Catch rate, MSE

CSF Coral Sea Fishery (CTH), TSFF Torres Strait Finfish Fishery (CTH), TF Trepang Fishery (NT), ECSCF East Coast Sea Cucumber Fishery (QLD)

STOCK STRUCTURE

White Teatfish is broadly distributed throughout the tropical Indo-Pacific [Conand 1990]. There are likely to be populations in all Northern-Australian states and territories. However, there is very little information on the distribution, abundance and stock structure of White Teatfish in northern Australia. Current taxonomic records indicate that its distribution extends from Ningaloo in Western Australia to Brisbane, Queensland [ALA 2018]. The known depth range of this species is 0–40 m, but most animals are caught between 15 m and 30 m [Conand et al. 2013].

Here, assessment of stock status is reported at the management unit level—Torres Strait Beche-de-mer Fishery, Coral Sea Fishery (Commonwealth), Trepang Fishery (Northern Territory) and East Coast Sea Cucumber Fishery (Queensland).

STOCK STATUS

Coral Sea Fishery There are no reliable indicators of current White Teatfish biomass for the Coral Sea Fishery, nor are there any reliable indicators of the impact of recent and historical catches on the successful recruitment of the stock. There is therefore

insufficient information available to confidently classify the status of this stock.

On the basis of the evidence provided above, the Coral Sea Fishery (Commonwealth) management unit is classified as an **undefined stock**.

**East Coast
Sea
Cucumber
Fishery**

White Teatfish in Queensland is currently only harvested commercially. Nominal catch rates for White Teatfish have stabilised after a minor peak in 2010–11 and are now close to the average catch rate over the past 10 years [QDAF 2018]. Decreases in reported harvest over the past 15 years (from 131 t in 2003–04 to 49 t in 2016–17) are due to reductions in the quota for White Teatfish and do not reflect biomass declines. These voluntary reductions allowed the fishery participants to increase the take of other species within the constraints of the overall total allowable catch limit for the fishery. The above evidence indicates the biomass of this management unit is unlikely to be depleted and that recruitment is unlikely to be impaired.

White Teatfish are managed in Queensland under a rotational zoning scheme (RZS). Management strategy evaluation (MSE) of the RZS determined that the risk of the fishery depleting White Teatfish biomass to below 40 per cent of unfished biomass was very low under Queensland Sea Cucumber (East Coast) Fishery management arrangements [Skewes et al. 2014]. Spatial closures in the Great Barrier Reef Marine Park protect an estimated 30 per cent of the White Teatfish spawning biomass and commercial catch quotas are in place to restrict catches to sustainable levels. The above evidence indicates 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 East Coast Sea Cucumber Fishery (Queensland) management unit is classified as a **sustainable stock**.

**Torres
Strait
Beche-de-
mer Fishery**

The Torres Strait White Teatfish stock was last surveyed in 2009 [Skewes et al. 2010]. The results of this survey indicated that White Teatfish density was relatively stable, or had possibly increased between surveys in 1995, 2002 and 2005 [ABARES 2018]. Recent catches of the stock have been below the TAC for all years except one, with the average catch over that period being substantially below the TAC. The above evidence indicates that the biomass of this stock is unlikely to be depleted, that recruitment is unlikely to be impaired, and 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 Torres Strait Beche-de-mer Fishery (Commonwealth) management unit is classified as a **sustainable stock**.

**Trepang
Fishery**

Northern Territory Trepang Fishery licensees are permitted to harvest White Teatfish, but have not done so in the last 10 years. This is because much of the area of the fishery (from the high water mark to three nautical miles beyond the territorial sea baseline) is shallower than the apparent depth preference for this species (15–30 m), as well as lack of suitable reef habitat at this depth within the declared fishery. All six Northern Territory Trepang Fishery licenses are owned by a single entity, with only a subset of licenses being active in any given year. This being the case, catch data for the fishery are confidential.

White Teatfish have been caught in the Northern Territory outside of the Trepang Fishery under a single special research permit, but the resultant catch information is also confidential. Exploratory fishing undertaken through this permit was subject to stringent harvest and reporting conditions.

There are no accounts, formal or otherwise, of the harvest of White Teatfish by charter boat clients, Indigenous fishers or recreational fishers in the Northern Territory. The small, sporadic and exploratory commercial harvest of White

Teatfish in this jurisdiction means that there is insufficient information available to confidently classify the status of this stock.

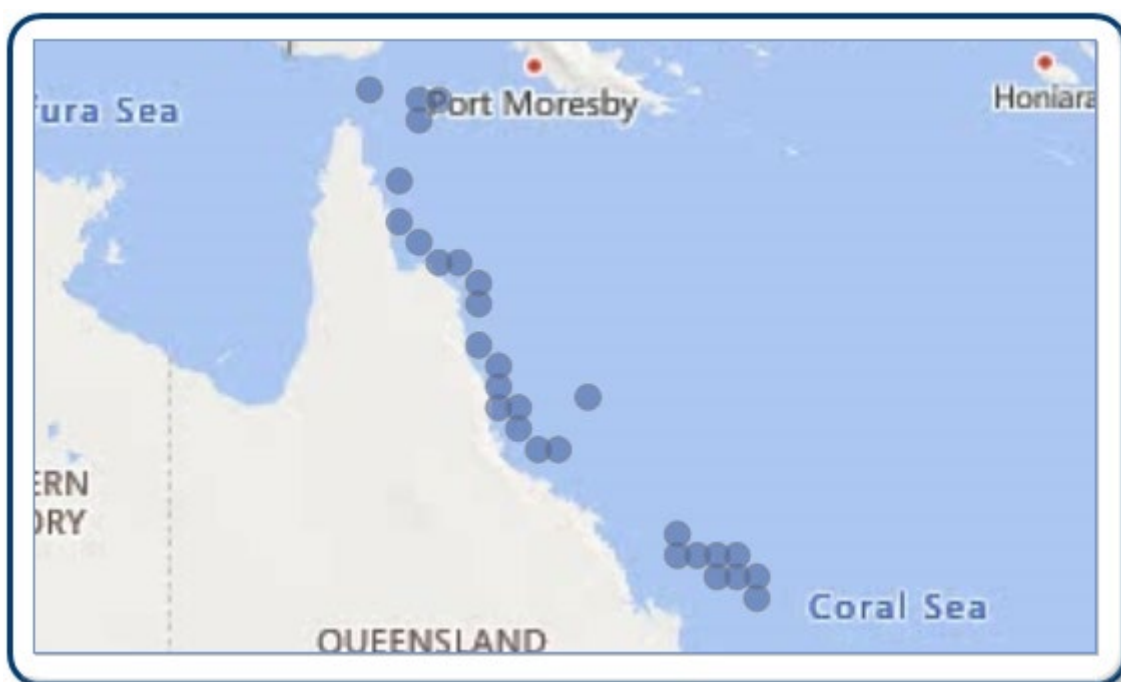
On the basis of the evidence provided above, the Trepang Fishery (Northern Territory) management unit is classified as an **undefined stock**.

BIOLOGY

White Teatfish (Sea Cucumber) biology [Purcell et al. 2012]

Species	Longevity / Maximum Size	Maturity (50 per cent)
White Teatfish (Sea Cucumber)	12+ years, 570 mm TL	320 mm TL, 4 years

DISTRIBUTION



Distribution of reported commercial catch of White Teatfish

TABLES

Commercial Catch Methods	Commonwealth	Northern Territory	Queensland
Diving	✓	✓	✓
Hand collection	✓		

Fishing methods	Commonwealth	Northern Territory	Queensland
Charter			
Diving		✓	
Commercial			
Diving	✓	✓	✓
Indigenous			
Diving		✓	✓

Recreational			
Diving		✓	✓
Management Methods			
	Commonwealth	Northern Territory	Queensland
Charter			
Possession limit			✓
Spatial closures		✓	✓
Commercial			
Effort limits		✓	✓
Limited entry	✓	✓	✓
Quota	✓		✓
Size limit	✓	✓	✓
Spatial closures	✓	✓	✓
Vessel restrictions		✓	✓
Indigenous			
Possession limit	✓		
Recreational			
Possession limit			✓
Spatial closures		✓	✓

Active Vessels	Commonwealth	Queensland
	1 Fisher in CSF,	4 Fisher in ECSCF,

CSF Coral Sea Fishery(CTH)

ECSCF East Coast Sea Cucumber Fishery(QLD)

Catch	Commonwealth	Northern Territory	Queensland
Commercial	2.877t in CSF, 0.125517t in TSFF,	0t in TF,	49.1361t in ECSCF,
Indigenous	Unknown	Unknown	Unknown
Recreational	Unknown	Unknown	Unknown

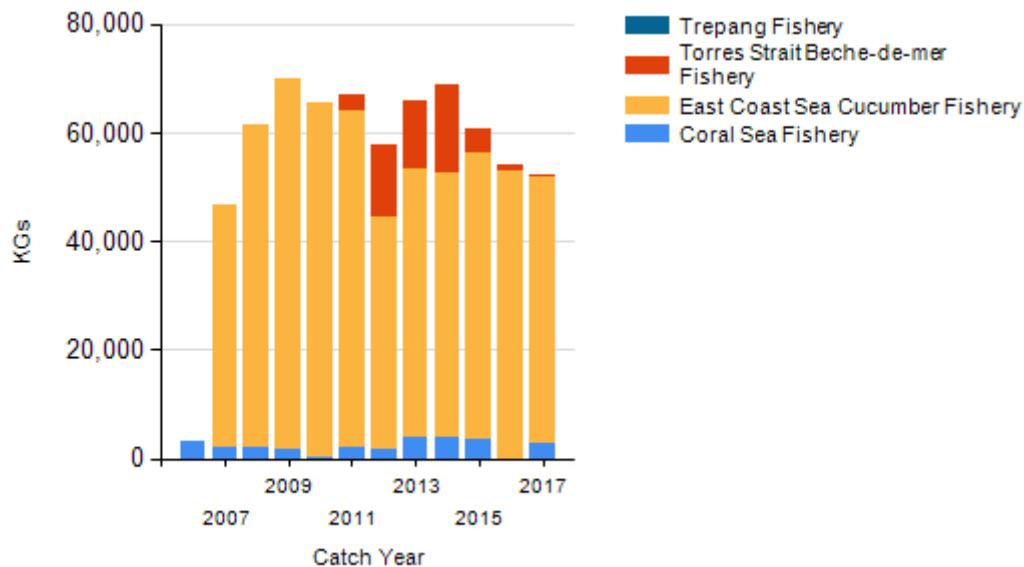
CSF Coral Sea Fishery (CTH), TSFF Torres Strait Finfish Fishery (CTH), TF Trepang Fishery (NT), ECSCF East Coast Sea Cucumber Fishery (QLD),

Northern Territory – Indigenous (Management methods) The Fisheries Act 1988 (NT),

specifies that “...without derogating from any other law in force in the Territory, nothing in a provision of this Act or an instrument of a judicial or administrative character made under it limits the right of Aboriginals who have traditionally used the resources of an area of land or water in a traditional manner from continuing to use those resources in that area in that manner”.

Queensland – Indigenous (Management methods) Under the *Fisheries Act 1994* (Qld), Indigenous fishers in Queensland are entitled to use prescribed traditional and non-commercial fishing apparatus in waters open to fishing. Size and possession limits, and seasonal closures do not apply to Indigenous fishers. Further exemptions to fishery regulations may be applied for through permits.

CATCH CHART



Commercial catch of White Teatfish - note confidential catch not shown

EFFECTS OF FISHING ON THE MARINE ENVIRONMENT

ENVIRONMENTAL EFFECTS on White Teatfish (Sea Cucumber)

References	
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