

**FISHERIES
FACT SHEET** No. 3

Black Jewfish

Protonibea diacanthus



Both estuarine and coastal-associated, they can be found from 5m mudflats & headlands to 30m rubble patches & reef edges.



Image source: QDAF

Other names: Black-Spotted Croaker, Blotched Jewfish, Jewy, Two-spined Jewfish

STOCK STRUCTURE

East coast assessment currently underway; projected completion 2023.

Project will investigate stock structure, connectivity, age and growth, & spawning biology.

- Only investigated in NW Australia
- Spatial scale of some separate stocks were found to be as small as tens of kilometers.
- Aggregations may actually be indicative of different stocks

FISHERIES



East Coast Inshore Fin Fish Fishery
Charter operations
Recreational anglers
Indigenous fishers

GEAR



Hook and line Handline
Net Spearfishing

STATUS & TRENDS

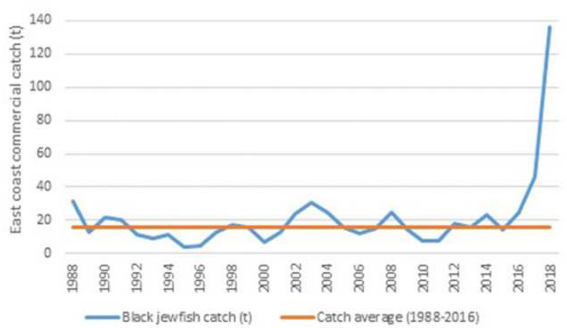


Figure 1: Commercial catch (t) of black jewfish in Queensland from 1988 to 2018. [Source: QDAF 2019]*

- Currently listed as **undefined** by the Status of Australian Fish Stocks due to **insufficient knowledge**.
- **Large size and aggregation behavior** leave them **vulnerable to exploitation**, with known aggregations temporally and spatially predictable.
- **Stocks are known to be slow to recover once depleted**. Multiple examples in scientific literature demonstrate **rapid stock decline** without proper management.
- Post-release mortality high due to **barotrauma** when caught in waters **deeper than 10m**.

Rise of the Swim Bladder Trade

**WILDLIFE TRADE
OPERATION EXPORT
LICENSE FOR ECIFFF
REVOKED AS OF
SEPTEMBER 2020.**

Until 2017, Black Jewfish catch was quite stable at less than 20t catch per year. The recent boom in price of swim bladder led to a huge increase in catch (see Figure 1). **Concerns over illegal trade** led to strict management controls on commercial catch. As a **high-priced luxury dried seafood product in China**, the resulting consequences from the loss of the ECIFFF export license will be critical to observe.

MOVEMENT & MIGRATION

- Past localised depletions and current science indicate that Black Jewfish stocks have **low dispersal rates and location-specific fidelity**.
- Movement of recruits among sites found to be **generally limited** with repopulation of depleted sites reliant on self-recruitment.
- Stock assessments should occur at biologically relevant spatial scales based on habitat availability.

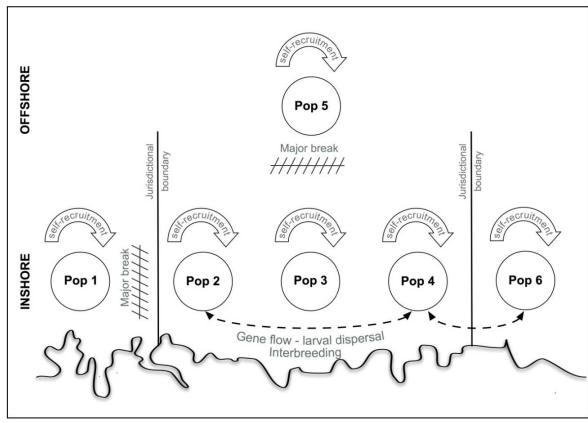


Figure 2: Conceptual model of Black Jewfish population connectivity across north-western Australia. [Source: Saunders 2017]

SPAWNING



Assumed to form aggregations for **spawning**, though they form aggregations year-round.

Direct evidence of **inshore seasonal breeding aggregations** is limited but thought to occur. Spawning occurs between November and February, peaking in December and January.

AGE & GROWTH

Size @ maturity	89 cm TL
Age @ maturity	2 years
Longevity	15 years; 170 cm TL
Fecundity	Unknown, under investigation

MANAGEMENT LINKS:

Fisheries Resource & Development Corp. website:
<http://www.fish.gov.au/report/234-Black-Jewfish-2018>

Queensland Government Species ID guide:
<https://www.daf.qld.gov.au/fish-identification-information/fish-species-guide/fish-species-id-info/profile?fish-id=black-jewfish>

Quick guide to reporting Black Jewfish:
<https://www.publications.qld.gov.au/dataset/fisheries-queensland-vms-forms-and-quick-guides/resource/8c050e8e-224d-483c-ba47-5110863a1d95>

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PENALTIES APPLIED TO ANYONE CAUGHT ILLEGALLY CATCHING OR SELLING BLACK JEWFISH DURING CLOSURES.

Reopens Jan 1, 2022

We acknowledge Australia's traditional owners and custodians of the lands and waters where we live and work, and recognise their roles, past and present, as custodians, scientists, and innovators in the care and wise use of country.

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