

# Ocean Sand Crab (2023)

*Ovalipes australiensis*



**Daniel Johnson:** New South Wales Department of Primary Industries, **Roshan Hanamseth:** South Australian Research and Development Institute, **David Harris:** Department of Primary Industries and Regional Development, Western Australia, **Danielle Johnston:** Department of Primary Industries and Regional Development, Western Australia

## STOCK STATUS OVERVIEW

| Jurisdiction      | Stock             | Stock status | Indicators                          |
|-------------------|-------------------|--------------|-------------------------------------|
| Western Australia | Western Australia | Sustainable  | Catch, nominal catch rates          |
| New South Wales   | New South Wales   | Undefined    | Catch, standardised catch rates     |
| South Australia   | South Australia   | Sustainable  | Catch, targeted nominal catch rates |

## STOCK STRUCTURE

Ocean Sand Crab is distributed in Australia from Wide Bay in Queensland around the south and east coasts to Rottnest Island in Western Australia, including Tasmanian Waters [Kailola et al. 1993].

The biological stock delineation of Ocean Sand Crab remains unclear. Here, assessment of stock status is presented at the jurisdictional level—South Australia, Western Australia, and New South Wales.

## STOCK STATUS

**New South Wales** In NSW, Ocean Sand Crab is caught as by-product in the Ocean Trawl Fishery (OTF), mainly from waters north of Coffs Harbour. This fishery has produced > 90% of the catch of the catch of Ocean Sand Crab in NSW since 2009–10. Reported landings declined from 10.5 tonnes (t) (2013–14) to 3.4 t (2017–18)

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and the 1.2 t landed in 2021–22 was well below the 10-year average landings of 4.2 t. While standardised commercial catch rates (in mean CPUE kg.day<sup>-1</sup>) are likely to be the most reliable index of relative abundance for Sand Crab, with these having declined and being below the 10-year average over the last four years, the high standard error estimates limit comparisons of temporal differences in abundance. Recreational catch is unknown [Murphy et al. 2020; Murphy et al. 2022].

There is no published assessment of this species, and there are no data available to estimate biomass or exploitation rates. In addition, there is no knowledge on recruitment or harvestable biomass, and there are no defined target or limit reference levels. This prevents assessment of current stock size or fishing pressure. Consequently, there is insufficient information available to confidently classify the status of this stock.

On the basis of the evidence provided above, Ocean Sand Crab in NSW is classified as an **undefined stock**.

**South  
Australia**

In South Australia, access to take Ocean Sand Crab is provided via a Marine Scalefish Fishery (MSF) licence endorsed with Sand Crab entitlements [PIRSA 2013]. Commercial fishers are restricted to a nominated quantity of crab nets/pots. Recreational fishers also target Sand Crabs using hoop or drop nets, and have a combined Ocean Sand/Blue Swimmer Crab bag and boat limit of 20 and 60 crabs, respectively [PIRSA 2016]. Throughout South Australia, a minimum legal size of 100 mm carapace width (measured across the widest point) has been enforced since 1992 [Jones 1995]. The fishery is largely based on the capture of male crabs, as the majority of females captured are below the minimum legal size [Jones and Deakin 1997].

The most recent stock assessment [Smart et al. 2023] used data up to 30 June 2022. The primary measures of biomass and fishing mortality for the South Australian jurisdiction are the total commercial catch and targeted nominal CPUE. Comparisons between recent catch and CPUE trends and values in the past decade are considered to provide a reliable proxy for relative biomass and fishing mortality.

Trends in commercial catches of Sand Crab have generally declined since 2005. The total harvest in 2018 was 44.2 t, this was below the ten-year average (2008–17; 67.7 ± 5.9 t) and increased to 56 t in 2021–22. Recreational catch levels are considered to be relatively low, and the most recent estimate was 2 ± 1 t in 2021–22 [Smart et al. 2023]. Previously, the CPUE has remained relatively stable at higher levels, increasing to 151 kg.fisher-day<sup>-1</sup> in 2020. The total targeted effort was 277 fisher-days in 2021–22 which produced a CPUE (targeted crab net effort) of 177 kg.fisher-day<sup>-1</sup>. The CPUE in 2021–22 was the highest on record.

The above evidence indicates that biomass of this stock is unlikely to be depleted and that recruitment is unlikely to be impaired. Furthermore, the above evidence indicates 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, Ocean Sand Crab in South Australia is classified as a **sustainable stock**.

**Western  
Australia**

A five-year Instrument of Exemption (issued in 2016) endorsing a single commercial fisher to target Ocean Sand Crab using purpose-designed hourglass traps in waters along the South Coast of WA (Cape Leeuwin to Hopetoun) was extended for a further 5 years in 2021. Commercial fishing between 2020 and 2022 continued to concentrate along coastal beaches in and around Albany, with annual catch and effort (approximately 1–2 t from 1–1.5x10<sup>3</sup> traplifts) constrained because of low market demand.

Ocean Sand Crab is not considered an important recreational species in WA, with negligible retention (Gascoyne Coast Bioregion: n=122 retained crabs; other Bioregions: nil) during the 2021/22 statewide integrated survey of boat-based recreational fishing [Ryan et al. 2022].

Thus, there is a small catch by commercial and recreational fishers and a wide distribution of the species throughout the region.

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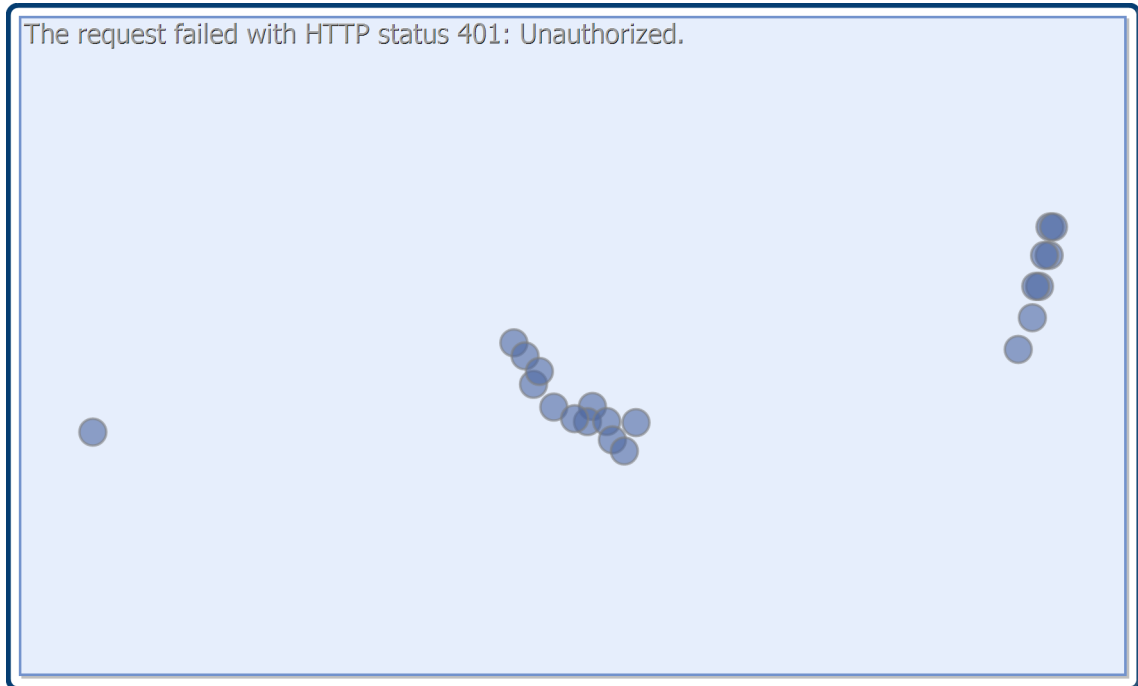
On the basis of the evidence provided above, Ocean Sand Crab in Western Australia is classified as a **sustainable stock**.

**BIOLOGY**

**Ocean Sand Crab Biology** [Jones and Morgan 1994; Deakin 1996]

| Species         | Longevity / Maximum Size   | Maturity (50 per cent)   |
|-----------------|--|--|
| Ocean Sand Crab | Ocean Sand Crabs grow to slightly more than 100 mm carapace width. Longevity of Ocean Sand Crabs is unknown. | Size and age at maturity are unknown for Ocean Sand Crabs. A study on the reproductive biology of Ocean Sand Crabs in Coffin Bay (SA) determined that they are winter spawners with reproductive activity peaking in July and berried females present until late August. |

**DISTRIBUTION**



**TABLES**

| <b>Fishing methods</b> | <b>New South Wales</b> | <b>South Australia</b> | <b>Western Australia</b> |
|------------------------|------------------------|------------------------|--------------------------|
| <b>Commercial</b>      |                        |                        |                          |
| Crab Trap              |                        |                        | ✓                        |
| Otter Trawl            | ✓                      |                        |                          |
| Pots and Traps         |                        | ✓                      |                          |
| Unspecified            |                        | ✓                      |                          |
| Various                | ✓                      |                        |                          |
| <b>Recreational</b>    |                        |                        |                          |
| Various                | ✓                      |                        |                          |

| <b>Management Methods</b>            | <b>New South Wales</b> | <b>Western Australia</b> |
|--------------------------------------|------------------------|--------------------------|
| <b>Commercial</b>                    |                        |                          |
| Egg bearing females protected        | ✓                      |                          |
| Fishing gear and method restrictions | ✓                      | ✓                        |

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|                           |   |   |
|---------------------------|---|---|
| Limited entry             | ✓ | ✓ |
| Spatial closures          | ✓ |   |
| Spatial restrictions      |   | ✓ |
| <b>Recreational</b>       |   |   |
| Bag and possession limits | ✓ | ✓ |

| Catch        | New South Wales   | South Australia   | Western Australia      |
|--------------|-------------------|---|------------------------|
| Commercial   | 0.8385 t          | 55.8135 t   | 0 t                    |
| Recreational | Unknown (2017–18) | 19,003 (SE 5,771) incl. retained and released (Beckmann et al. 2023)) | Nil recorded (2017–18) |

**New South Wales – Indigenous (Management Methods).**

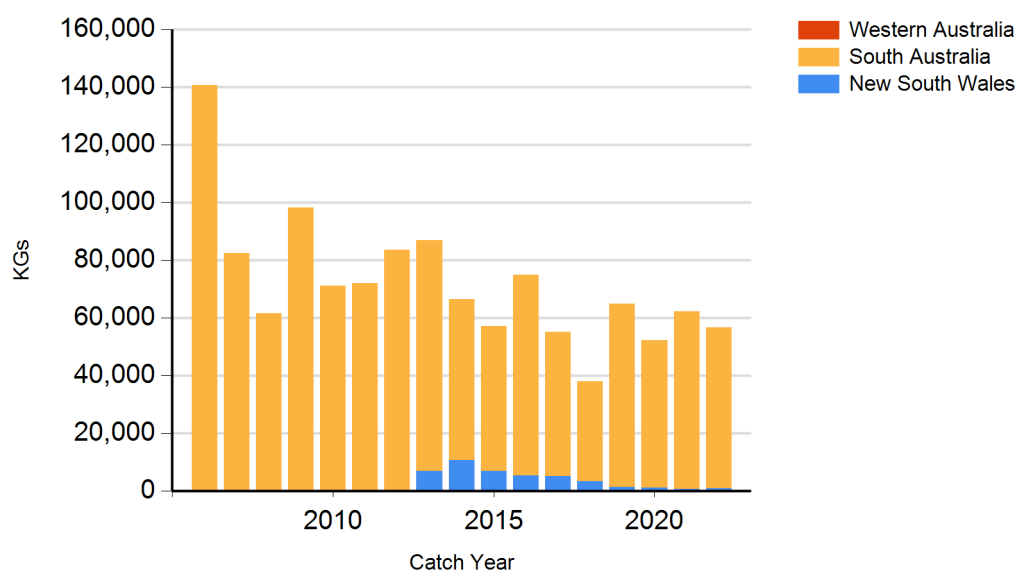
<https://www.dpi.nsw.gov.au/fishing/aboriginal-fishing>

**New South Wales – Recreational (Catch).** Murphy et al. [2022].

**Western Australia – Recreational (Catch).** 2017–18 boat based recreational catch nil [Ryan et al. 2019]

**CATCH CHART**

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|---------------------|---|
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