



Gladstone
Healthy Harbour
Partnership

MUD CRABS



FIVE FAST FACTS

1. Mud Crabs are an indicator under the environmental component of the Gladstone Harbour Report Card.
2. Two rounds of Mud Crab monitoring were conducted in 2018, a summer survey and a winter survey was conducted.
3. Mud Crabs are one of Gladstone Harbour's 'iconic species' and are important to Gladstone Region's commercial and recreational fishers.
4. Assessments of Mud Crabs were based on a catch and release approach.
5. The overall Mud Crab grade for 2018 is **D**.

THE GRADE

2017



2018



Grading system

- A** Very good (0.85 - 1.00)
- B** Good (0.65 - 0.84)
- C** Satisfactory (0.50 - 0.64)
- D** Poor (0.25 - 0.49)
- E** Very poor (0.00 - 0.24)

HOW ARE MUD CRABS MEASURED?

Mud crabs are monitored in seven zones using collapsible crab pots.

Three mud crab indicators are measured to calculate scores:

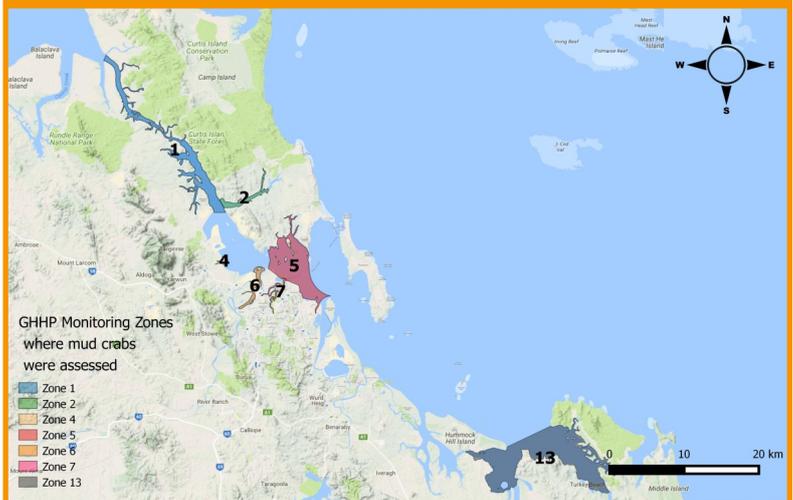
1. **Size (sex-ratio):** In Queensland mud crab fisheries, it is illegal to take female crabs. This measure assesses the ratio of legal size male crabs (>15cm spine width) to female crabs (>15cm spine width).
2. **Abundance (catch per unit effort):** indicates changes to external pressures (e.g. fishing and/or changes to habitats) or changes in recruitment levels.
3. **Prevalence of rust lesions** – rust spots (shell lesions) were first reported in Gladstone harbour by commercial fishers in 1994. This disease is not infectious and while it has been suggested that it may be related to exposure to copper and zinc, which inhibit calcium uptake, this relationship has not been demonstrated experimentally. The prevalence of rust spot is assessed by a visual inspection.

WHAT DO THE GRADES MEAN?

While the overall score in 2018 (0.49) was similar to the overall score in 2017 (0.55), it did result in a grade change from a C to a D. Abundance scores ranged from very good in The Narrows to very poor in Auckland Inlet and Rodds Bay.

There was a low prevalence of rust spot lesions across the harbour, similar to the previous year. The average incidence of rust spots across the seven monitored zones was 2.4%, substantially lower than the 37% incidence recorded in the Gladstone Harbour in 2012.

MUD CRAB SITES MONITORED BY GHHP



Mud crabs are monitored in seven GHHP zones: The Narrows, Graham Creek, Boat Creek, Inner Harbour, Calliope Estuary, Auckland Inlet and Rodds Bay