



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 2019, a summer survey (wet season) and a winter survey (dry season).
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 2019 is **D**.

THE GRADE

2017	2018	2019	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.

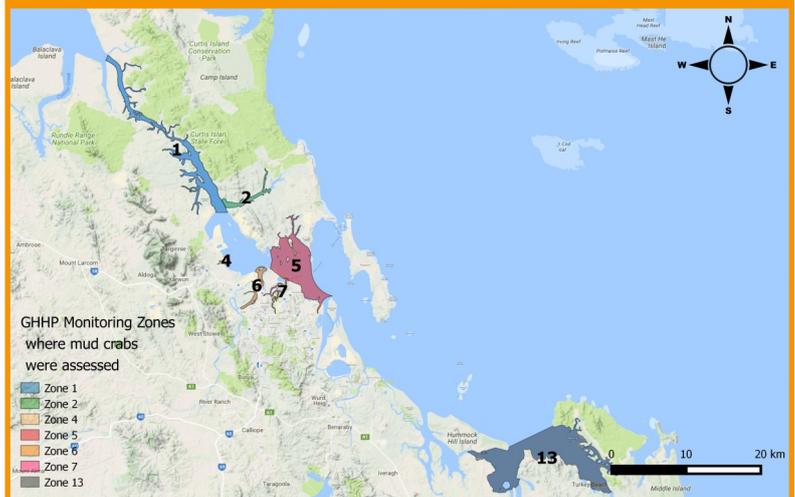
THREE mud crab sub-indicators were measured to calculate scores included in the 2019 report card:

1. **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 of the same size.
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?

The overall score for mud crabs in Gladstone Harbour was 0.47 (D) indicating a poor condition. This was a similar score to 2018. Abundance scores ranged from very poor in Graham Creek to very good in The Narrows, resulting in an overall poor score. Sex ratio had consistently very poor scores, indicating a higher ratio of female to male crabs. As in previous years, prevalence of rust lesions was low across the harbour—about 7% of sampled crabs—and resulted in an overall very good score.

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