Australian Government
Great Barrier Reef Marine Park Authority

Queensland Government

FIELD MANAGEMENT FACT FILE

Subtidal Seagrass Monitoring Program

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Halophila ovalis Image by Dieter Tracey

About this fact file edition

Seagrass meadows are important for many reasons; they provide critical habitat and a nursery for fish and prawns, food for dugongs and green sea turtles, stabilise the seafloor, and play a crucial role in nutrient cycling and carbon capture.

The Reef Joint Field Management Program (RJFMP) monitors seagrass at six locations across the northern Great Barrier Reef. Drop-cameras are used to assess subtidal seagrass abundance (per cent cover) and samples are collected for analysis, often in partnership with Indigenous Rangers.

Queensland Parks and Wildlife Service (QPWS) and Girringun Land and Sea rangers monitor seagrass around Hinchinbrook Island. Image QPWS

OBJECTIVE

RJFMP's seagrass monitoring data feeds into the Great Barrier Reef Marine Monitoring Program, which is managed by the Authority. The seagrass component is delivered in partnership with James Cook University and Seagrass-Watch.

The condition and long-term trend of inshore seagrass meadows is assessed using health and resilience indicators. The program also evaluates impacts from cyclones, storms, other environmental pressures, such as catchment run-off on seagrass.

Results are published each year on the Authority's website, and are included in regional report cards and the Reef Water Quality Report Card. They inform the five-yearly Outlook Report for the Great Barrier Reef, and help us track whether we are meeting the Reef 2050 Plan objective to have '*resilient seagrass meadows that maintain condition*'.

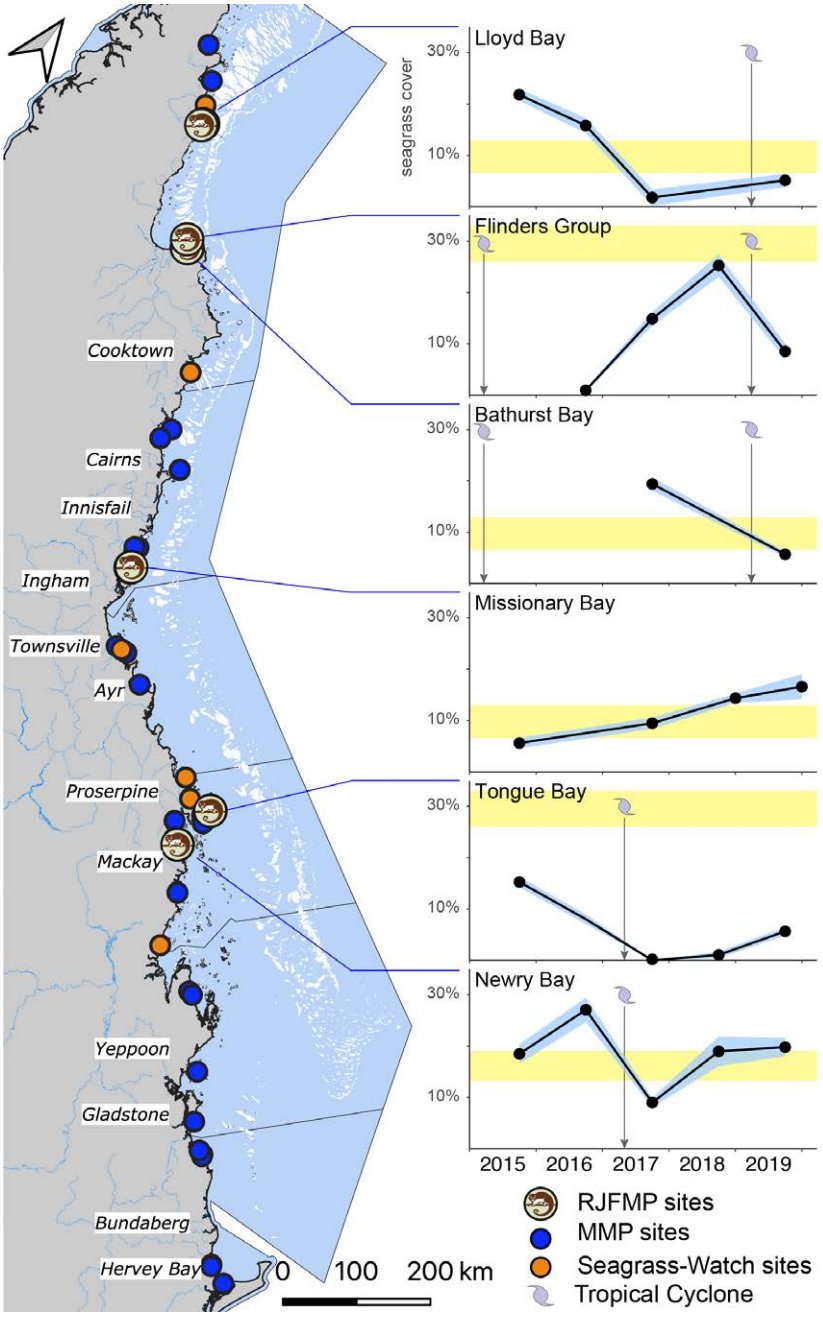
Key results

The RJFMP monitors six subtidal seagrass meadows (see locations on right). Year to year abundance is shown in the adjacent graphs to each site. The y-axis indicates seagrass percent cover (10% and 30% shown). The yellow bands indicate an expected range for seagrass abundance at each location when in a fair state.

The main seagrass species that occur in the subtidal meadows include *Halodule uninervis*, *Halophila spinulosa* (pictured below) and *Halophila ovalis* (front page image). The graphs show abundance is highly variable. It can be 'normal' for them to change this much.

The surveys complement sites monitored by the Marine Monitoring Program and Seagrass-Watch (blue and orange dots) and inform a reef-wide condition report.

Seagrass sampling using drop cameras. Image QPWS



Location of long-term seagrass monitoring sites in the GBR, with trends in seagrass percent cover (y-axis) for each subtidal RJFMP monitoring location. Yellow band is fair seagrass cover state (above which seagrass cover is good, below is poor). Grey line indicates occurrence of cyclones

Learn more

The GBR Marine Monitoring Program publishes technical reports and information on its webpage.

James Cook University TropWATER website has information about seagrass ecology and Seagrass-Watch provides a range of information about seagrasses.

Our data is combined with information collected by others from seagrass meadows and published annually in the Reef 2050 Water Quality Report Card.

Halophila spinulosa Image by Dieter Tracey

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The Reef Joint Field Management Program Fact File is an information sharing bulletin for the Queensland Parks and Wildlife Service and the Great Barrier Reef Marine Park Authority field staff. Provide feedback on content via email to Isabel.Ender@des.qld.gov.au or call (07) 4722 5314.