

The effects of dugong + turtle grazing

on seagrass meadows in Torres Strait

Seagrass meadows

In 2019 and 2020, Torres Strait Seagrass Monitoring Program researchers became worried when there was less seagrass than usual at a number of locations.

They couldn't see any sign of disease, but they did see unusually large numbers of grazing green turtles and dugongs.

Let's find out...

Were these the cause?

Researchers designed a study to find out. To stop green turtles and dugongs from grazing some areas, 2m² cages were put over patches of seagrass where the meadows had declined near Mabuyag Island and atop Koey Maza (Kai Reef).

What we found

Over the next 7 months, comparison of measurements of seagrass inside and outside the cages showed that grazing made a very big difference. Inside the cages, seagrass was twice as tall and coverage was up to 5 times more!

We have a suspect!

This proved that grazing by animals was indeed strongly influencing seagrass meadows in Torres Strait. In this instance researchers believe it was green turtles, as there were no signs of characteristic dugong feeding trails in the sand.

But is it really a problem?

But is heavy grazing a problem for the Torres Strait? Maybe not... Seagrasses evolved under grazing pressures, so what might look to be a meadow in poor condition to the human eye, may actually be a seagrass-herbivore relationship that is completely in balance.

What's next?

A better understanding of the threshold where grazing becomes too intense for recovery is needed. Long-term data from the Torres Strait Seagrass Monitoring Program will assist in building this knowledge.



Scan the QR code and visit the NESP Marine and Coastal Hub website for more information.



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