

# Standard Presentation (15 mins) Australian Marine Sciences Association 2022

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## Days

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Sunday, 7th August (/days/2022-08-07)

Monday, 8th August (/days/2022-08-08)

Tuesday, 9th August (/days/2022-08-09)

Wednesday, 10th August (/days/2022-08-10)

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Speakers (/speakers)

### Megaherbivory is a major force driving seagrass structure on the Great Barrier Reef (#445) ^

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Herbivory is a key mechanism controlling ecosystem stability, function and diversity globally. Tropical seagrass ecosystems are susceptible to large scale grazing from megaherbivores (turtles and dugongs) but research on the impact of grazing on seagrass structure and function is only beginning to receive attention. We established a network of megaherbivore exclusion cages at ten sites across 1200 km of the Great Barrier Reef to assess broad scale patterns and impacts of megaherbivore grazing on seagrasses. Sites covered a range of seagrass habitat types (e.g. coastal, reef top, deep-water), species and latitudes that were monitored periodically for between 2 and 15 months. Grazing impacted seagrass meadows at seven of the ten sites and there as an overall reduction in above ground biomass and canopy height. A change in seagrass species composition was detected in exclusion cages at two sites. The duration and extent of grazing impacts on seagrass structure however varied across sites. These results demonstrate the broad impact of megaherbivores on regulating the structure, composition and potentially the function of seagrass meadows on the Great Barrier Reef.