

NERP Tropical Ecosystems Hub Project Factsheet

Monitoring the ecological effects of GBR zoning plan on mid and outer shelf reefs

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Project summary

The rezoning of the Great Barrier Reef Marine Park (GBRMP) in 2004 increased the number and extent of 'no-take' areas within the Park. This project surveys pairs of reefs, one in a 'no-take' or green zone and the other a similar reef where fishing is allowed (blue zone), in five regions of the GBRMP. Green and blue zones will be surveyed for the abundance and size of fishery species, particularly coral trout, as well as wider effects on coral reef communities. Indirect or flow-on effects of protection from fishing on reef ecology may take one to two decades to develop, so surveys over the course of the NERP will track the longer-term effects of zoning as they develop.

Why this research is needed

No-take zones are the primary management tool for protecting marine biodiversity. Given that the GBRMP has one of the largest networks of no-take zones in the world, it is an appropriate place to assess the effectiveness of no-take zones for biodiversity conservation. This research will inform park managers and users on the effectiveness of the rezoning in conserving the marine biodiversity of the GBR, and the findings will be of interest to marine park managers and conservationists around Australia and across the world.

Research-user focus

This project will provide up-to-date information on the effectiveness of the rezoning and the current status of the GBR to the Great Barrier Reef Marine Park Authority (GBRMPA) and the Australian community. The outputs of the project will also contribute to the 2014 Great Barrier Reef Outlook Report produced by the GBRMPA and the Department of Sustainability, Environment, Water, Population and Communities.

Research Provider:



Australian Government



AUSTRALIAN INSTITUTE
OF MARINE SCIENCE

Find this project at www.nerptropical.edu.au

Theme 3: Managing for Resilient Tropical Systems

Program 8: Effectiveness of spatial management on the GBR

Project: 8.1



Divers record the abundance of fish on the reef slope.



The abundance and size of coral trout are compared on fished and 'no take' reefs.

Photos: AIMS reef monitoring.

Outcomes

This project will:

- Provide updates on trends in selected fish species targeted by fishers on fished and no-take reefs.
- Produce scientific publications on the effectiveness of a large network of marine protected areas.
- Produce scientific publications on the dynamics of coral and fish communities in relation to management and environmental drivers.