Tropical Water Quality Hub

National Environmental Science Programme

Project 3.3.3 Characterising the values and connectivity of the northeast Australia marine area – Great Barrier Reef, Torres Strait, Coral Sea and Great Sandy Marine Park

Project Summary

The Great Barrier Reef World Heritage Area (GBRWHA) is globally recognised for its outstanding universal value. It is a connected part of a larger northeast Australia marine ecosystem, which includes Torres Strait, the Coral Sea and the Great Sandy Marine Park (Hervey Bay). Understanding the values of these connected systems, and especially the inter-dependencies, can inform effective and coordinated management. This project will map the values of the northeast Australian marine ecosystem, and characterise the processes and attributes that influence these values and their connectivity at a regional scale. The project will deliver a resource that can inform cross-jurisdictional planning and management.

Problem

Effective protection of biodiversity and maintenance of social, economic and cultural values requires a broad systems view that incorporates connections and cross-jurisdictional linkages. The need to understand values and manage for connections that span across boundaries in the broader Great Barrier Reef region has been recognised for some time. Some of the values and influencing processes in northeast Australia have been identified, however there has never been a holistic review of this knowledge and the connections that link the values across boundaries.

How Research Addresses Problem

This project will characterise and map values and drivers across the northeast Australian marine ecosystem to understand connections and interdependencies between areas. Results will be delivered via the eAtlas, an online tool accessible to agencies responsible for the management of the values of the region. The project will deliver a resource that can inform protected area management policy and planning in the GBRWHA as well as the Coral Sea, Torres Strait and Great Sandy Marine Park, and help coordinate cross-jurisdictional management in the region.

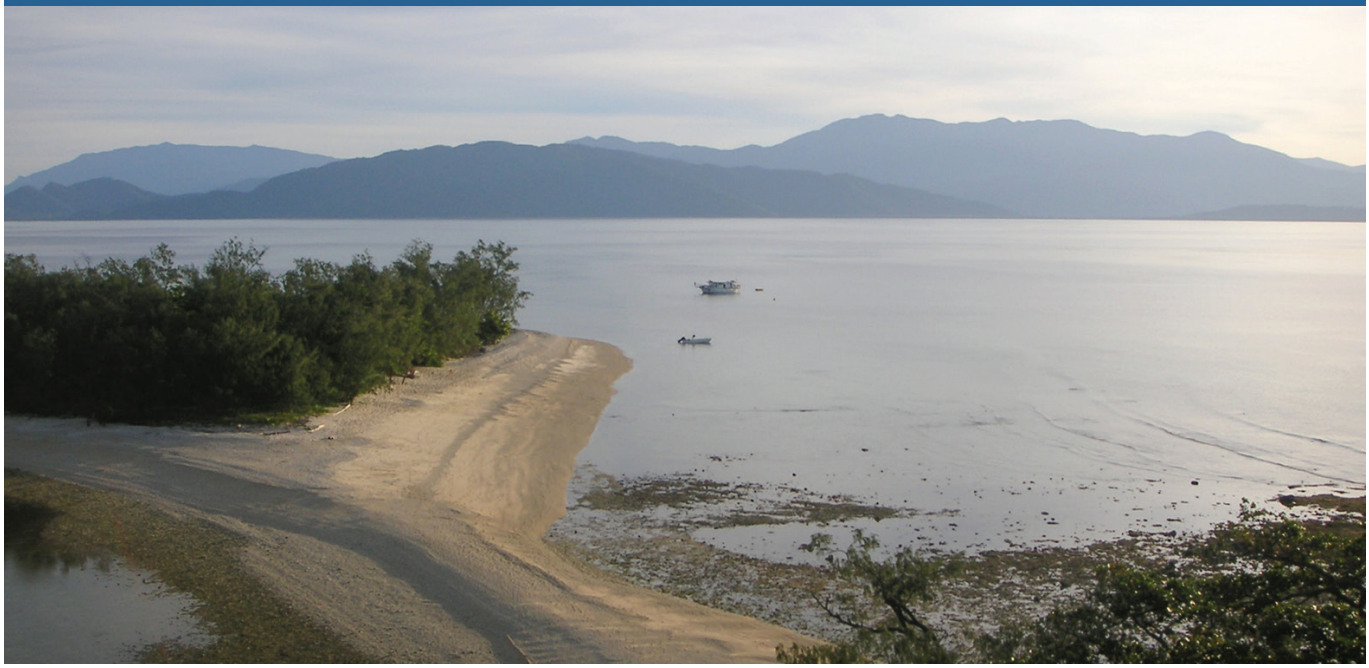

Photo: RRRC

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The project will draw on the extensive expertise in northeast Australia through synthesis of existing knowledge and expert workshops, to develop a comprehensive list of values. This information will be used to characterise the interdependencies and connections between and among jurisdictions that are important for maintaining and managing key values. The project will document the current status and management of the different jurisdictions in the broader northeast Australia marine area in relation to management of key conservation, fisheries, social and cultural values.

Ultimately, the project will identify opportunities and priorities for cross-jurisdictional cooperation in monitoring and management to maximise effectiveness and efficiency of efforts to protect key values, including World Heritage values, for northeast Australia.

Importantly, the project outputs will be driven by stakeholder needs and delivered using the eAtlas online platform. Interactive values maps using the latest data for the four marine jurisdictions will be available for decision-making and cross-jurisdictional management. The eAtlas will be able to display individual values, 'heat maps' or collective values as well as the direction and magnitude of connections. Interrogating the eAtlas will allow end-users to identify where there are values that cross borders, how they influence each other, and which other managers need to be involved in decision-making.

Further information

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