

Progress Report SP 2015-015

Establishing long-term monitoring in the proposed Dampier Archipelago marine reserves

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Project Team

granted

Program Leader

granted

Directorate

granted

Establishing long-term monitoring in the proposed Dampier Archipelago marine reserves

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Context

The Pluto LNG Project Offset D program includes the requirement to establish long-term monitoring reference sites in the proposed Dampier Archipelago Marine Park and Regnard Marine Management Area in accordance with the State Government's indicative management plan for the area. This task will require a prioritisation of ecological assets, the establishment of long-term monitoring sites to assess spatial and temporal distribution of key assets, and the provision of quantitative evidence on the status of these assets. This work will also help develop best practice monitoring techniques for assets and pressures where knowledge is lacking, and provide valuable information to Parks and Wildlife's marine planning and conservation initiatives.

Aims

Develop and implement a monitoring, evaluation and reporting program of key biodiversity asset condition and their major pressures at key sites in the proposed Dampier Archipelago Marine Park and Regnard Marine Management Area

Progress

- All project planning requirements, including Science Concept and Project Plans, were completed.
- A monitoring prioritisation assessment for the study area was completed.
- Permanent survey sites were established and the first surveys of coral communities and fishes were completed.
- Collaborative fieldwork was undertaken with CSIRO to measure coral recruitment at long-term monitoring sites.
- Historical satellite imagery was purchased to develop time-series data on mangrove communities in the study area.
- A *Landscape* article on this study was published.

Management implications

- This project will produce baseline data on various key ecological assets and the pressures acting on them, as well as several recurrent surveys to detect trends in key asset condition. An established monitoring program will inform Parks and Wildlife managers of trends in asset condition to facilitate long-term adaptive management for the proposed reserves, and promote environmental understanding for a range of stakeholders and the community.
- This project will also develop new marine monitoring indicators and methods for key ecological assets and habitats that are largely novel to northern Western Australia.

Future directions

In the coming financial year the aim is to:

- Establish monitoring sites for mangrove communities, undertake remote and in-situ monitoring surveys, and ground truth the findings of remote imagery analysis.
- Establish monitoring sites of seagrass and macroalgae, including the trial of multiple techniques to determine a best practice, Standard Operating Procedure to be implemented across Western Australia's tropical marine parks and reserves.

- Undertake a second monitoring survey of coral and finfish communities at sites established in 2015.