

Progress Report SP 2007-001

Kimberley islands biological survey

Biogeography

Project Core Team

Supervising Scientist

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Data Custodian

Site Custodian

Project status as of June 14, 2017, 1:50 p.m.

Final update requested

Document endorsements and approvals as of June 14, 2017, 1:50 p.m.

Project Team

granted

Program Leader

required

Directorate

required

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Context

Archipelagos along the Kimberley coast present an opportunity to conserve intact examples of ecosystems that have been modified or affected by various threatening processes on the Kimberley mainland. Knowledge is rudimentary about the distributions of species and ecological communities on the islands, including those species that are endemic to the Kimberley and those that are threatened on the mainland. Consequently, a comprehensive biological survey of the islands off the north Kimberley coast is required. This survey focuses on sampling vertebrate and selected groups of invertebrate fauna that are most likely to be affected by the cane toad, as well as by changes to other mainland selection processes. It will also sample the terrestrial flora, soil and other environmental attributes that are indicators of biogeographical patterning and environmental health, and that provide a basis for condition monitoring of the targeted survey islands.

Aims

- Build on existing knowledge of targeted components of biodiversity and determine the conservation status of islands off the north Kimberley coast.
- Identify locations of species that are susceptible to mainland threats, including cane toads, and identify the potential of islands as natural refuges.
- Provide baseline information for future ecological monitoring, evaluation and survey.
- Provide the knowledge base to underpin decisions involving conservation and development, including nature-based tourism, non-renewable resource extraction and infrastructure development.

Progress

- Invited presentation given at a seminar series hosted by the Kimberley Society titled *Treasures revealed: a biodiversity survey of the Kimberley islands*.
- Book chapter accepted for publication in “Nature of the Kimberley” resulting from a seminar series hosted by the Kimberley Society.
- Paper describing biogeographic patterns in a multi-taxon framework on Kimberley islands accepted for publication in Biological Conservation.

Management implications

- Survey information provides a systematic foundation to support nature conservation planning for reserve system design, development and management, and for understanding the distribution and conservation status of species (indigenous and introduced) and ecological communities as a basis for their management.
- Survey information provides a baseline for long-term ecological monitoring.

Future directions

- Finalise data ingestion to NatureMap and lodgement of plant specimens into the Western Australian Herbarium.
- Project completed and closed.