



Monitoring coastal ecosystems

Pacific BioScapes Programme - Tonga

The Pacific BioScapes Programme is supporting **local community monitoring of coastal ecosystem resilience** on the islands of Maninita, Taula, Fangasito, Fonua'one'one, Mu'omu'a and Fua'amotu in the Vava'u group. This aims to assess the benefits for biodiversity that occur following the eradication of invasive species.

Birds are great contributors to the health of coral reefs, while rats are one of the most invasive species in the Pacific, especially on small island ecosystems. Rats feed both on birds and their eggs. On these six Tongan islands, the rat population has been eradicated. This provides a unique opportunity to assess the benefits to the local ecosystem as the resulting increased local bird populations can help the flow of bird poo from land to sea, providing more nutrients and a healthier ecosystem in both environments.

Through BioScapes, the **University of Newcastle** is providing technical support to enable **local communities** to participate in monitoring, raising local awareness and generating new regional guidance to enable similar studies across the Pacific.

Birds feed from the ocean

Birds roost on land

Nutrients enriches island soils

Nutrients enriches coral reefs

CENTRAL ISSUES:

- Limited scientific study of Pacific island ecosystems following removal of invasive species
- Community awareness of monitoring and potential benefits is lacking
- Regional environmental monitoring protocols are not currently available

PROGRAMME ACTIVITY SUMMARY:

- Provide scientific support for community environmental monitoring
- Raise local community awareness of invasive species
- Produce science-based regional environmental monitoring protocol for Pacific regional use

The Pacific BioScapes Programme is a European Union (EU) funded action, managed and implemented by the Secretariat of the Pacific Regional Environment Programme (SPREP) www.sprep.org/bioscapes

