

Ningaloo

WAMSI Node 3

Linking animal communities to change

This project will provide an inventory of the invertebrate animals (such as molluscs starfish and urchins) that live in the rocky intertidal shores of Ningaloo Marine Park, and provide an estimate of their abundance.

Background

Researchers are working to assess the communities of animals that are found in the different areas within the Ningaloo Marine Park, both inside and outside the sanctuary zones.

These assessments will provide information about changes in species abundance and community composition over time (temporal) and over the length of the marine park (spatial), which will help to determine whether changes in species variability are related to human or natural pressures.

The study also provides the first quantitative description of distribution and abundance of the larger invertebrates that live on the rocky intertidal platforms where many visitors have easy access.

Sample results

Project sampling identified:

- approximately 250 kinds of invertebrates on the rocky intertidal platforms, with most being rare
- the species found on each rocky platform differed, sometimes drastically, from groups of species found on other rocky platforms
- the rocky platforms within sanctuary zones had representative communities of all species found throughout the marine park.

The samples provide a standard for future comparisons of changes over time both inside and outside sanctuary zones in Ningaloo Marine Park.

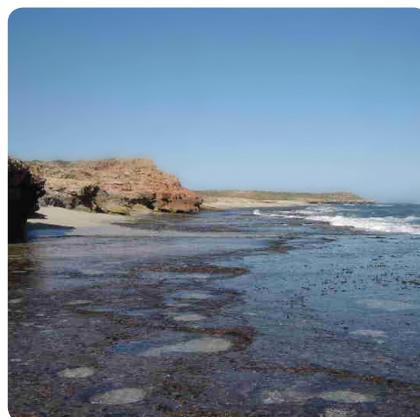
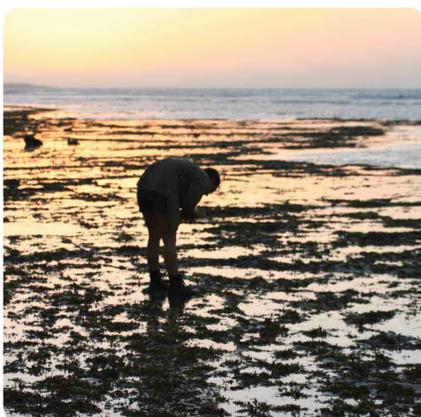


Data application

It is difficult and time consuming to survey for invertebrates in intertidal rocky areas and not all species can be found during these surveys.

The number and distribution of invertebrate species varies widely throughout the marine park and from year to year which will make it difficult to detect differences between management zones as well as changes over time.

The results of this study can be used to design future studies aimed at detecting changes in assemblages of intertidal invertebrates over time and detecting differences among areas that are managed differently.



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Ningaloo research is an initiative of the Western Australian Marine Science Institution, CSIRO's Ningaloo Collaboration Cluster and the Australian Institute of Marine Science, working in partnership with government, local communities and enterprises.



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