

Stock assessment of lobster and octopus populations at Ningaloo reef

It is important to have baseline information about lobster and octopus populations so that any changes can be monitored and management can react in a timely fashion to conserve and sustainably harvest these two groups.

Background

This is the first assessment of lobster and octopus populations for the Ningaloo Marine Park, and as such, provides baseline data for future comparisons.

Both lobster and octopus are harvested by recreational fishers in Ningaloo Marine Park. Populations of both groups have notably declined, however current pressure from humans remains. Because they play important roles in coral reef ecosystems, a detailed management strategy for these two groups needs to be generated with the aim to protect current stocks and provide the conditions necessary for future populations to increase to natural levels.

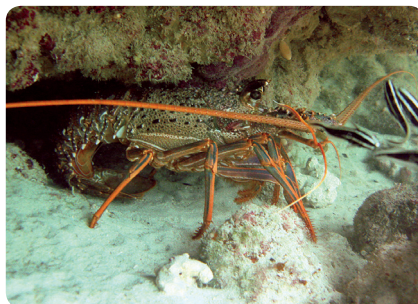


Courtesy of Jade Herwig (UWA)

Project findings

Major findings include:

- five species of lobsters and three of octopus are present in the Ningaloo Marine Park
- there has been a dramatic decline of Western Rock Lobsters in the last few decades
- both animal groups are extremely vulnerable to human pressure by virtue of their close association to very specific and restricted habitats, and their ease of capture
- past and present human activity appears to be the most likely cause of the dramatic decline in Western Rock Lobster populations and comparatively small octopus populations.



Courtesy of Martial Depczynski

Further research

Further research to monitor future population changes (e.g. population increases, expansion of existing territories and colonisation of new areas etc) is necessary for both groups.

For octopus, further details of their life cycles to assess their vulnerability are also needed.

Types of information from this study will include detailed maps of densities and their relationship to general visitor access to the marine park, analyses of habitats associated with higher densities and detailed interviews with past rock lobster fishers.

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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.