

Ningaloo

WAMSI Node 3

Local and regional migratory patterns of whale sharks at Ningaloo Marine Park

This study is part of a larger research effort to improve our understanding of whale shark populations, movement and distribution throughout their life history.

Background

Whale sharks are the largest fish in the world and have a global distribution in warm temperate and tropical waters.

The species is listed as "Vulnerable" by the IUCN and there is a need for information on their migratory pathways and life history characteristics to assist in their conservation. The threats that whalesharks face globally include boat strike and fishing pressure (in international waters)

Whale sharks are present between March and July every year at Ningaloo Marine Park and a tourism industry has developed that allows visitors to see and swim near whale sharks in the marine park.

Background information on whale shark movement patterns and population dynamics is important to assist in managing the industry and visitor expectations.

Study findings

The study focussed on the presence and movement of whale sharks in Ningaloo Marine Park.

- whale sharks were found in most habitats within the Ningaloo Marine Park outside the fringing reef as well as offshore in deep waters beyond the Park
- individuals in this study were tracked travelling up to 1000 kilometres (to waters near Indonesia, Timor and Christmas Island)
- there is some evidence that the population that visits Ningaloo may be declining.

The study also:

- improved photo identification methods that can be used to identify individual animals

- developed genetic markers that can also be used to identify individuals from a small skin sample.

The monitoring of whale shark presence and interaction with the tourism industry is critical as it provides a record of individual migratory patterns and population dynamics over time.

Collaboration

As the whale sharks that visit Ningaloo are likely part of an Indian Ocean population there is a need for international approaches for the management and conservation of this species.

This means that there is a need to be sharing information and working with other management agencies to consider whale sharks across the Indian Ocean.

Monitoring will continue at Ningaloo so that changes can be tracked and inform the management processes of the Park, including management of whale shark interaction and eco-tourism.



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