



Australian Government  
Department of Agriculture,  
Water and the Environment

# SPREP - Regional Marine Species Program and Action Plans Dugong Workshop



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28 July 2021



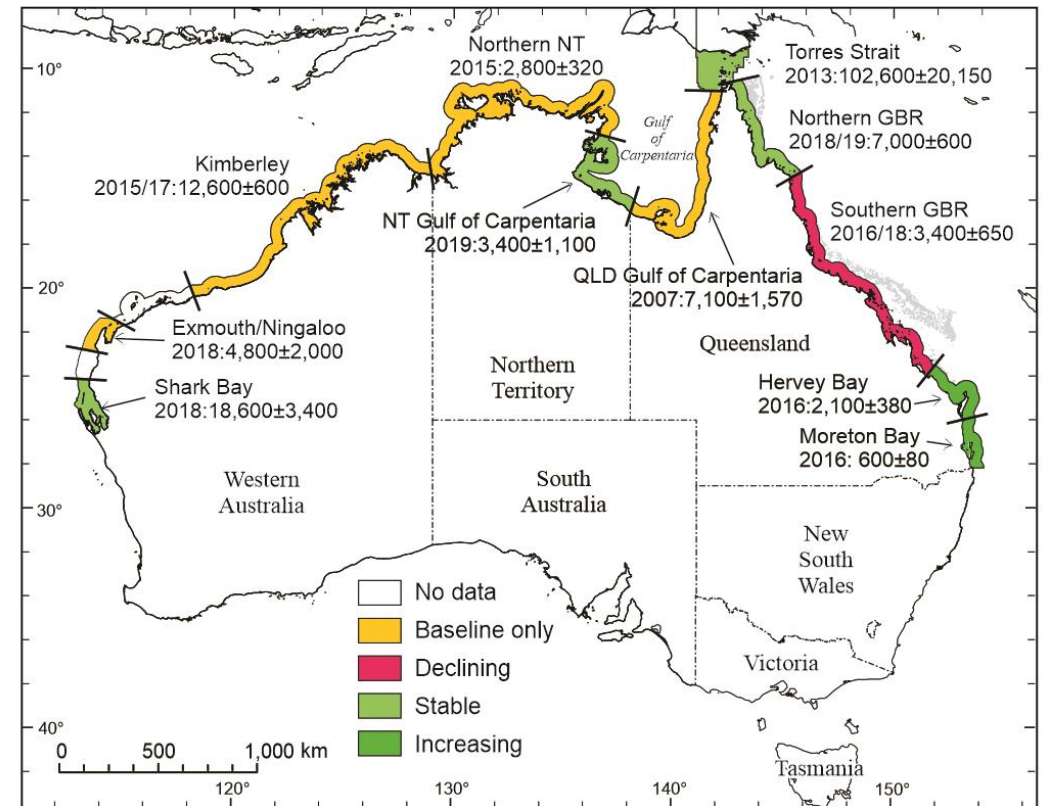
# Dugong in Australia



# Dugong range in Australian waters

## Population size and trends

- Coastal waters of northern Australia
- Standardised aerial surveys
- Most abundant mammal waters northern Australia
- Largest population in the world – Torres Strait
- Southern Great Barrier Reef likely declining due to seagrass loss and threats that cause adult mortality



Marsh (In Press)

# Dugong protection and management

## Law

*Environment Protection and Biodiversity Conservation Act 1999*

(listed Migratory and Marine)

*Great Barrier Reef Marine Park Act 1975*  
(Protected species and a heritage value)

Various State and Territory legislation  
(Protected in coastal waters)

*Native Title Act 1993*

*Torres Strait Fisheries Act 1984*

## Lore

Traditional Use of Marine Resources Agreements (TUMRAs)

Community based management plans

Indigenous Protected Areas (IPAs) – Sea Country



# Cultural Significance and Value

## **TUMRAs**

Traditional Use of Marine Resources Agreements in the Great Barrier Reef.

Agreements made under legislation to jointly manage sea country, including traditional take, based on cultural lore and contemporary science.

## **Community Based Management Plans**

In the Torres Strait community based plans integrate traditional use and contemporary science and management approaches.



# Indigenous Ranger Program

## Land and Sea Management

Indigenous Rangers involved in implementing Sea Country Management Plans.

Incorporates traditional knowledge in a comprehensive ecosystem approach to Sea Country Management.

## Compliance and Enforcement

Eyes and Ears - Indigenous Ranger compliance training to improve the skills and capabilities of our Indigenous rangers.

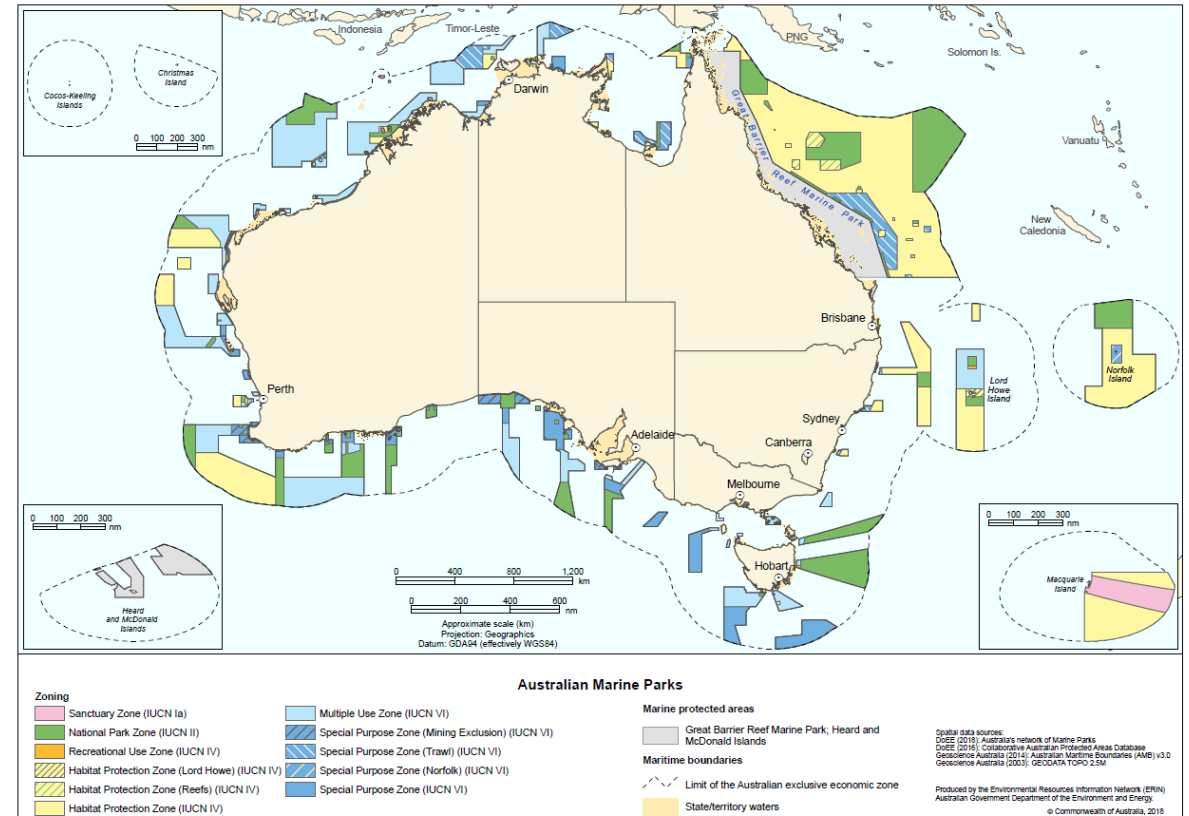


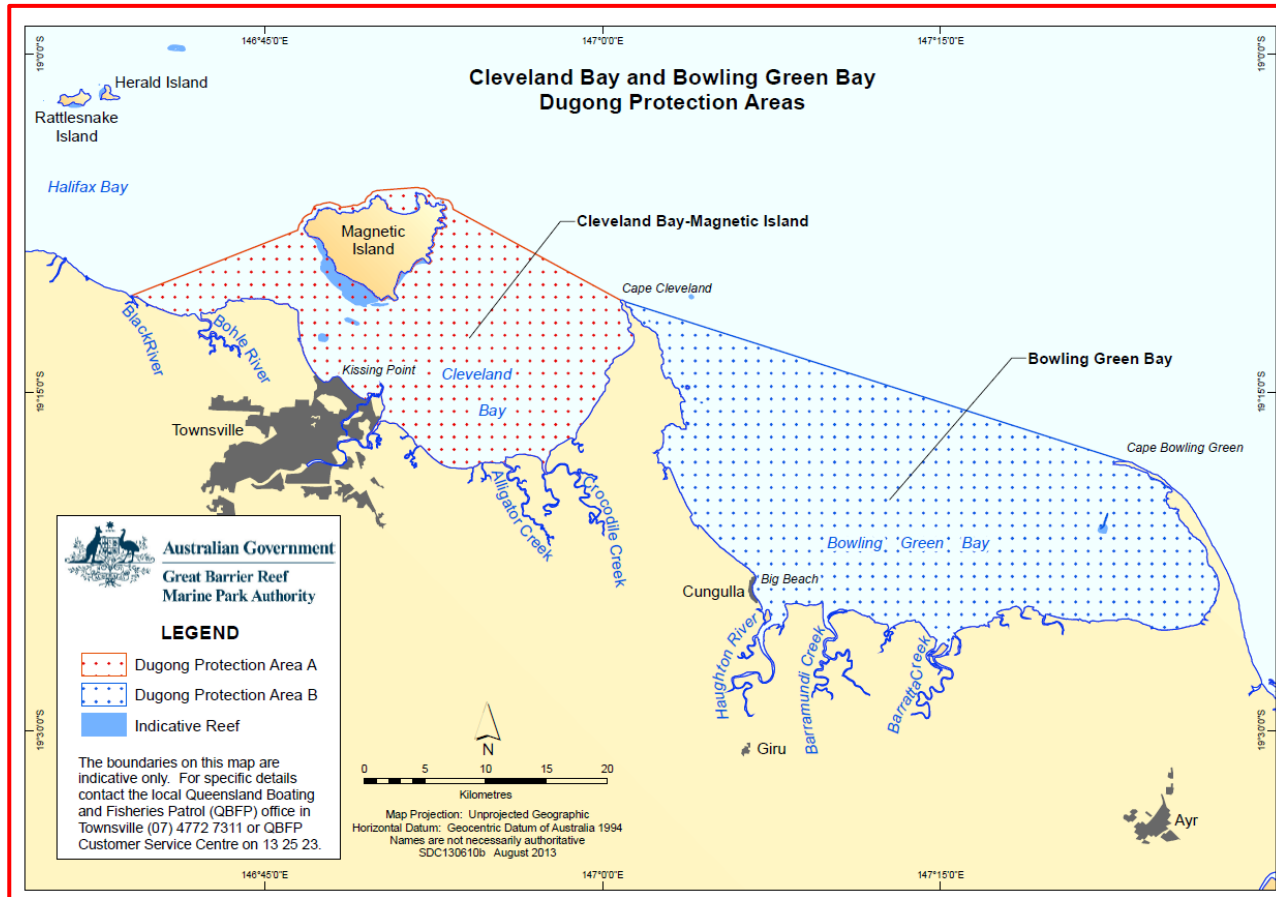


# Habitat Protection

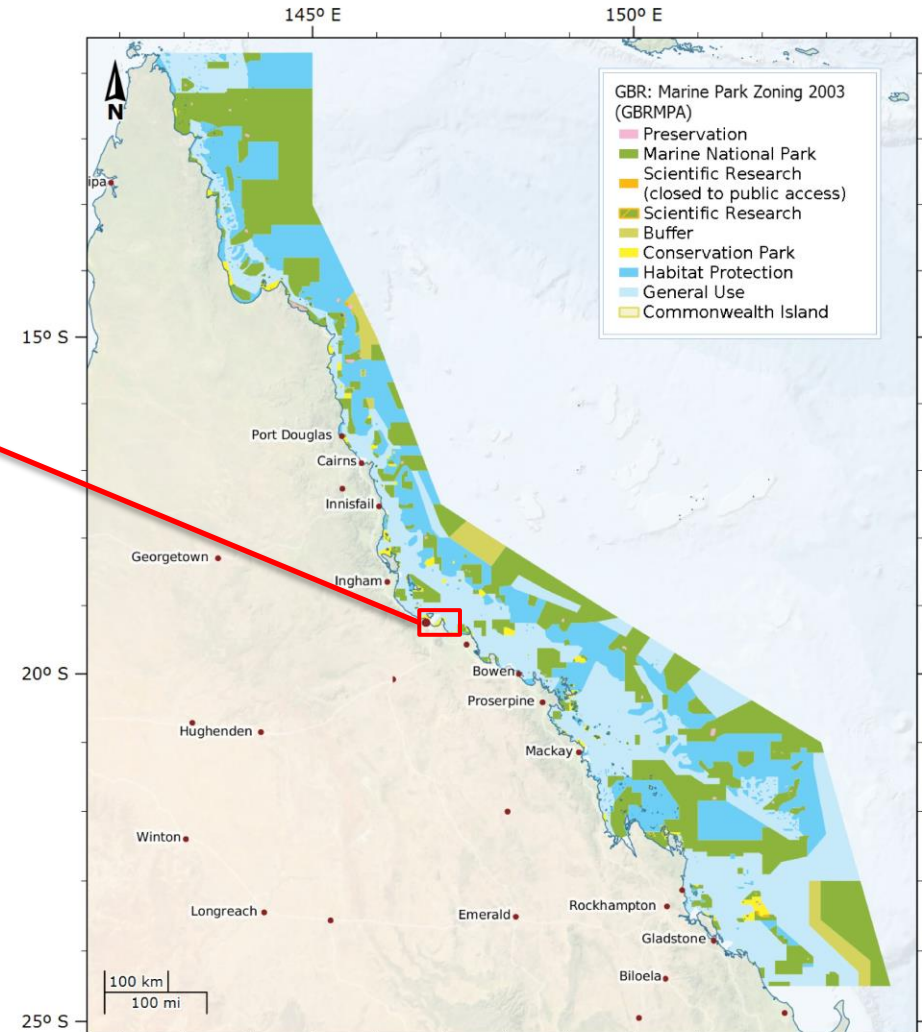
## Designated protected areas

- Australian marine park estate: 3.3 million km<sup>2</sup>





## Great Barrier Reef Marine Park Zoning 2003

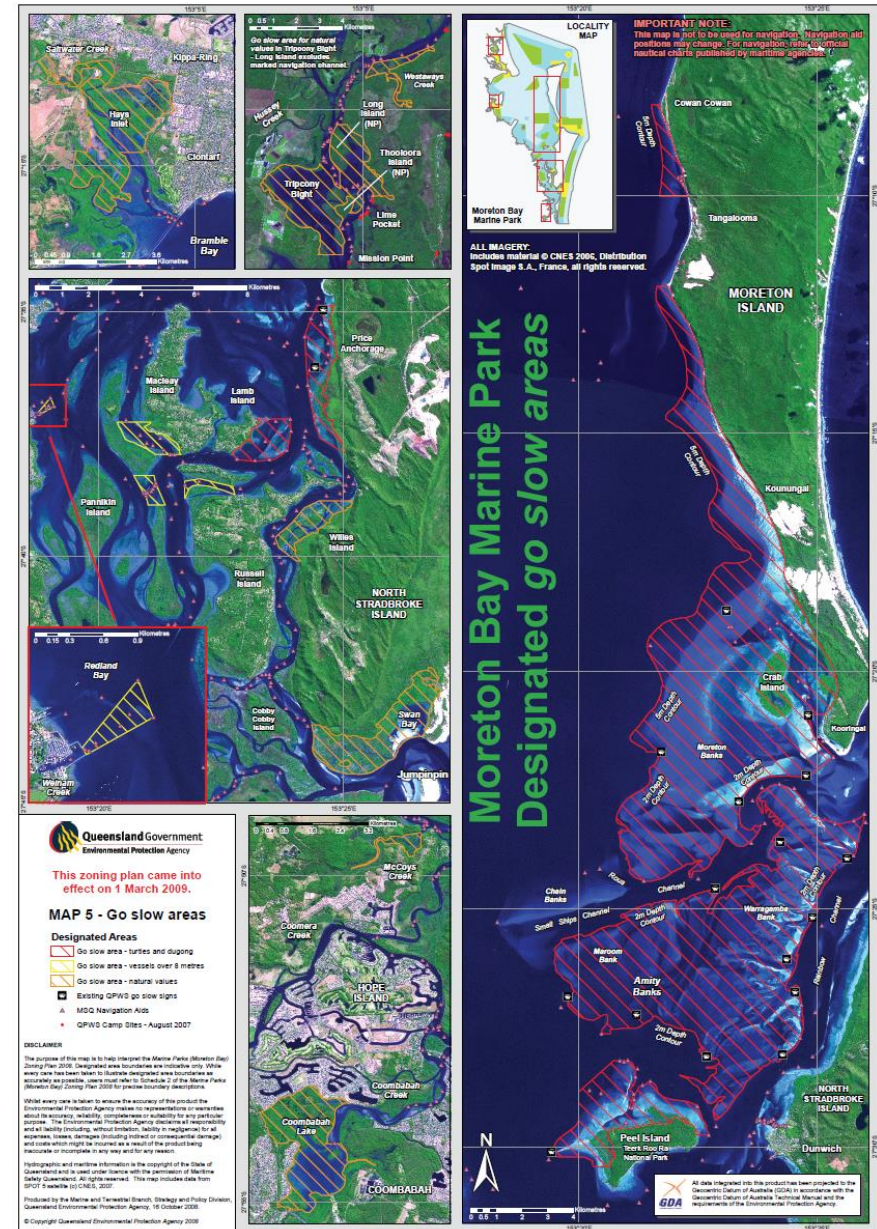




# Habitat Protection

## Designated protected areas

- Australian marine park estate: 3.3 million km<sup>2</sup>
- Great Barrier Reef:
  - Special management areas (Dugong protection areas – fisheries restrictions)
- Queensland:
  - Marine Parks – Go Slow Zones



# Habitat Protection

## **Biologically Important Areas (BIAs)**

Areas where aggregations of dugong are known to display biologically important behaviour such as breeding, foraging, resting or migration.

Inform EPBC Act decisions.

Currently under review.

## **International Marine Mammal Areas (IMMAs)**

IUCN - discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation.

Multi-species and broadscale.

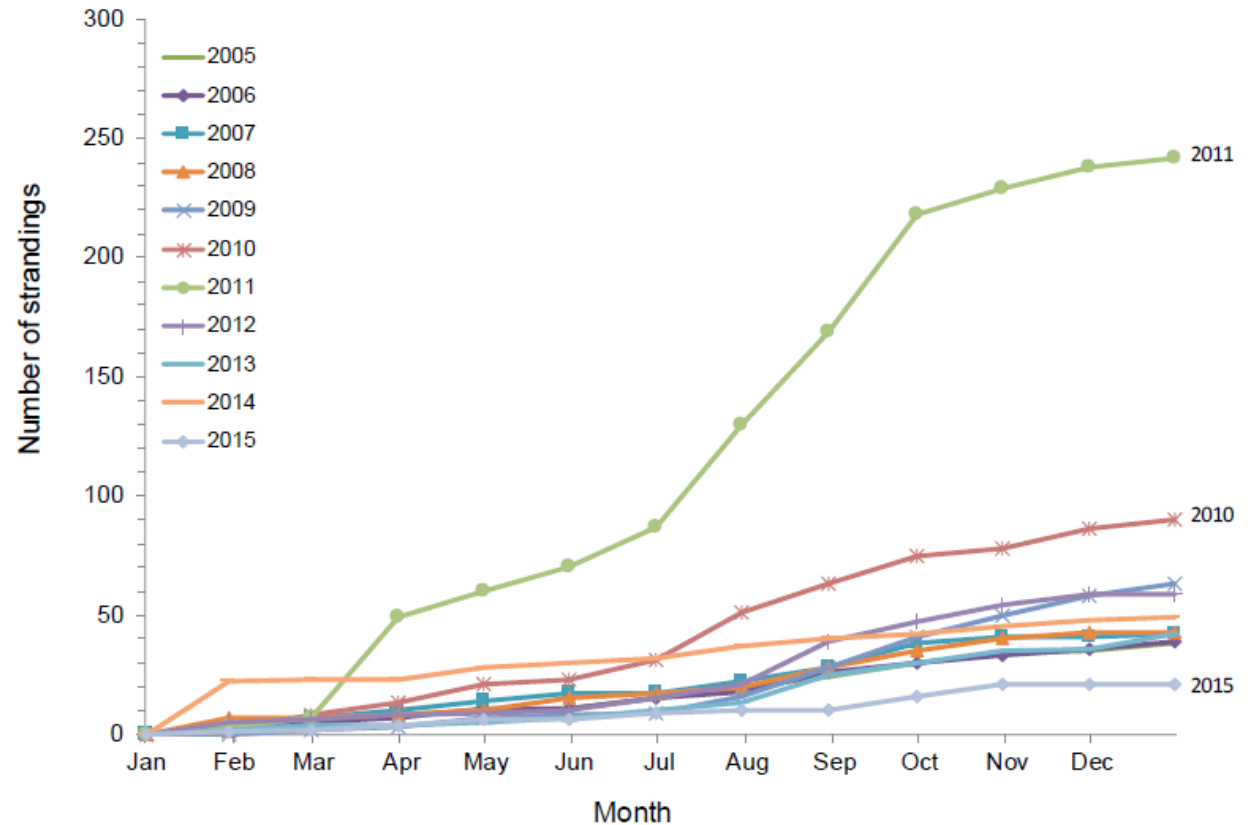


<https://www.marinemammalhabitat.org/imma-eatlas/>

# StrandNet

## Monitoring stranded dugong

- Public reporting of stranded animals
- Information about cause of death
- Identification of mass events



Queensland Department of Environment and Heritage (2016)



# Into the Future

## Climate change

Predicted that seagrass depth range likely to reduce under future climate change scenarios.

Understand the vulnerability of dugong to changes in seagrass abundance.

## Reef 2050 Plan

Australia's framework for protecting the Great Barrier Reef.

- 5 yearly aerial surveys
- Protect key dugong habitat
- Support and expand TUMRAs
- Reduce adult mortality due to boat strike and net entanglement





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