



DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT, FISHERIES

Cook Island Aquatic Reserve

*Jungarra Ngarrian – like to acknowledge
traditonal custodians of Bundjalung Country*

www.dpi.nsw.gov.au/aquatic-reserves

Presentation

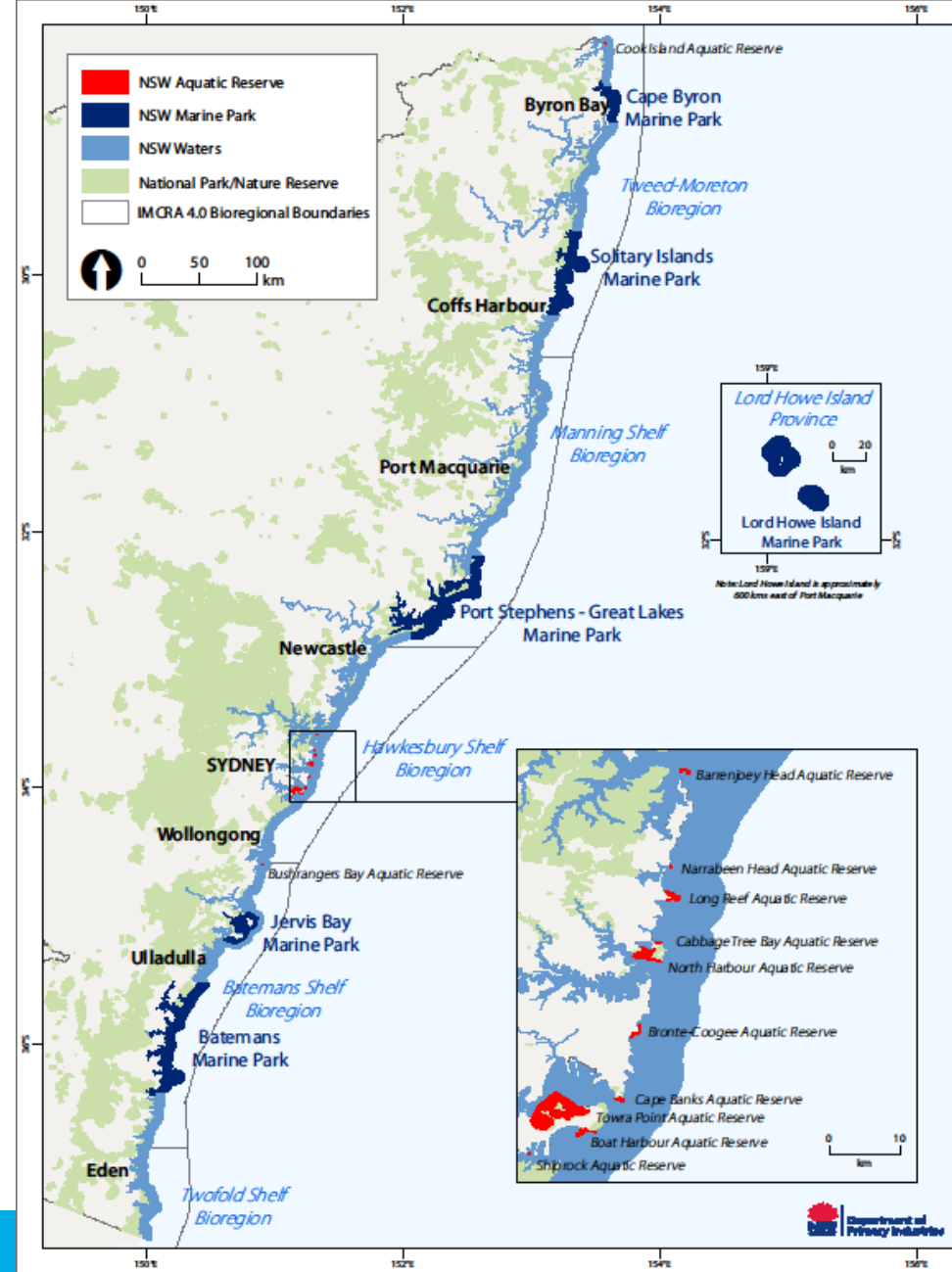
1. NSW aquatic reserves
2. Purpose and importance of CIAR
3. Habitats, species & threats
4. How tour operators are helping
5. How you can help
6. Monitoring



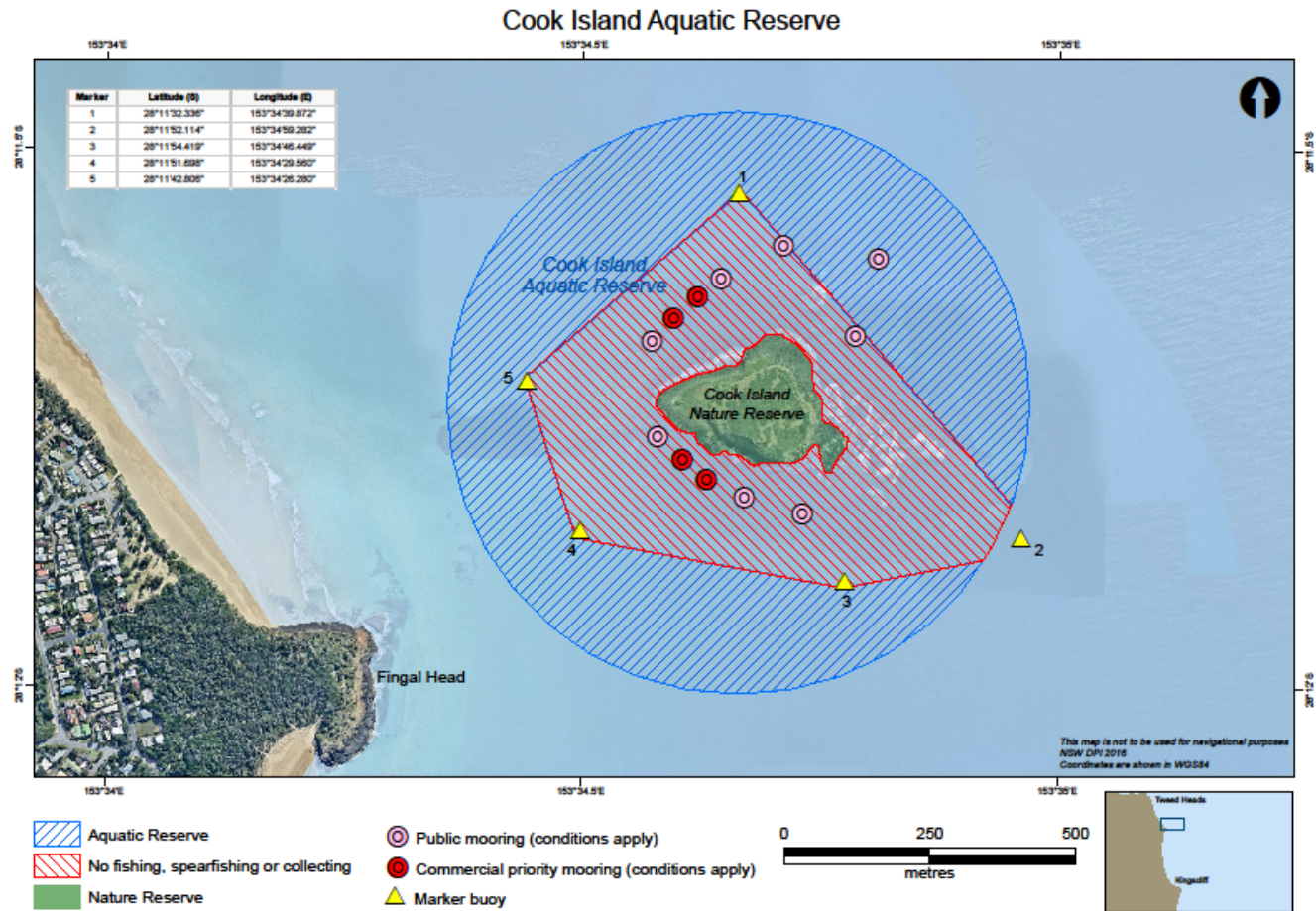
Hamish Malcolm – black coral

Purposes of aquatic reserves

1. To conserve marine biodiversity
2. To support:
 - research
 - education
 - recreation
 - cultural use
 - sustainable use



Cook Island Aquatic Reserve since 1998



Objectives for the Aquatic Reserve

- conserve the diversity of marine life
- protect fish habitat
- protect threatened species and manage protected species
- facilitate scientific research
- facilitate educational activities.



Hamish Malcolm

Key features of CIAR

Mix of temperate, subtropical and tropical species

Rocky reef system with hard and soft corals.

Cook Island, as well as Julian Rocks and Solitary Islands, provide 'stepping stones' for coral species dispersing southwards.



Hamish Malcolm

Social, cultural & economic importance

- snorkelling & scuba diving
- underwater photography
- boating
- **outer zone** – fishing
- important to Traditional Custodians



Hamish Malcolm



- intrinsic and bequest values
- tourism
 - 10 snorkel/dive tour operators accessing inner zone
 - Are there other businesses e.g. boat rentals?

Marine habitats of Cook Island

- rocky shores
- rocky reef with boulders
- invertebrate communities:
 - corals
 - sponges
- algae
- seagrass
- sandy seabed
- open water



Corals

Unique assemblages:

- southern range limit of some species
- northern range limit for subtropical *Pocillopora alicae*
- Plate, table, branching, encrusting



Photos: Brigitte Sommer

Threatened and protected fish CIAR (FM Act)

Threatened:

- black rockcod
- grey nurse shark
- White's seahorse – first offshore record that we know about

Protected:

- giant Queensland groper
- goldspotted rockcod
- Syngnathids.



Leigh Edwards

Species of interest to NP&WS at CIAR

Mammals:

- Indo-Pacific Bottlenose Dolphin (R)
- Australian Humpback Dolphin (R)
- Humpback whale
- Dugong

Turtles

- Loggerhead Turtle (R)
- Hawksbill Turtle(R)
- Green Turtle (R)

Seabirds/Shorebirds breeding site:

- Wedge-tailed shearwater
- Crested tern
- Another 12 species under BC Act



Potential threats

- poor water quality from Tweed river particularly in floods
- marine debris
- illegal fishing
- boating
- tours
- climate change
- cumulative negative impacts

Need to increase resilience to climate change by reducing other threats



Brigitte Sommer

How tour operators are helping care for Cook Island Aquatic Reserve

- Developed Code of Conduct and pre-dive briefing
- Following the rules and minimising accidental harm
- Reporting illegal activities and other issues
- Educating clients and peers
- Will develop communication information with us

Code of Conduct

- Aquatic reserve rules
- Best practice developed with, and agreed by tour operators

Tour operator must

- Comply with rules and ensure clients do as well
- Moorings, anchoring, vessel speed, distance off swimmers etc
- Not land on the island
- Supervision in-water for snorkellers and beginner scuba divers
- No waste discharged
- Conduct pre-dive briefing
- Approach distances for turtles and marine mammals
- Respect Aboriginal cultural values

Pre-dive briefing

- Aquatic reserve rules and best practice
- Given to all clients for each tour
- Look but don't touch, feed, chase or herd marine life
- No standing, walking or resting on rocks or marine life
- Awareness of where you are, fins and other gear
- Advice for:
 - photography
 - sunscreen
 - marine debris
 - marine artefacts.

Be the eyes, ears and voice of the Aquatic Reserve and please report

- Illegal or suspect fishing, collecting and damage to aquatic habitats to the Fishers Watch Phonenumber on 1800 043 536 or online www.dpi.nsw.gov.au/report-illegal-activity
- Water pollution or fish kills to local council or the Environment Line 131 555
- Maritime and boating safety issues 13 12 36
- Suspected aquatic pests or diseases to the Emergency Animal Disease (EAD) Hotline: 1800 675 888 or email aquatic.biosecurity@dpi.nsw.gov.au
- Injured, sick or entangled marine mammals, reptiles, penguins or other seabirds to a licensed wildlife rehabilitation group or National Parks and Wildlife on 1300 072 757. This includes animals struck by your vessel
- Sightings of aquatic threatened species:
 - ✓ Fish and aquatic invertebrates online www.dpi.nsw.gov.au/report-it
 - ✓ marine mammals, marine reptiles and seabirds to [www.environment.nsw.gov.au/atlaspublicapp/ui_modules/atlas /atlassearch.aspx](http://www.environment.nsw.gov.au/atlaspublicapp/ui_modules/atlas/atlassearch.aspx)

Concerns – we need your help

Water quality improvements where possible

In water safety re boat speed and boat access

- only use moorings provided and adhere to the conditions of use.
- not anchor on reef, rocky reef or in seagrass. If necessary to anchor, only anchor in sand.
- keep to a vessel speed of **4 knots or less** in the aquatic reserve and **avoid motoring between Cook Island and the moorings**.
- maintain a safe distance from people in the water and do not motor over bubbles from scuba divers.

Concerns – we need your help

- Boat strike of wildlife, e.g. turtles
- Private individuals doing the wrong thing
- Report issues to the correct authority
- Other businesses using the aquatic reserve?
- How best to communicate more broadly?



Sarah Jantos

Communications

Working with Green Heroes and tour operators

Any suggestions?



GREEN HEROES ALLIANCE

Code of Conduct for Cook Island Aquatic Reserve
The tour operator/vessel master must:

| | | | | |
|---|---|--|---|--|
| | | | | |
| 1.COMPLIANCE <small>Comply with the rules for the aquatic reserve.</small> | 2.MOORINGS <small>Only use moorings provided and adhere to the conditions of use (communicate with other tour operators when accessing dive locations/moorings to minimise conflict of use).</small> | 3.ANCHORS <small>Not anchor on reef, rocky reef or in seagrass. If necessary to anchor, only anchor in sand.</small> | 4.STANDING <small>Not land on Cook Island or allow snorkellers, swimmers, scuba divers or staff, to sit or stand on the surrounding reef.</small> | 5.TOUCHING <small>Ensure that snorkellers, swimmers, scuba divers or staff do not touch, interfere with, pursue/chase/herd or obstruct marine life, including turtles.</small> |
| | | | | |
| 6.DISTANCE <small>Ensure that snorkellers, swimmers, scuba divers, staff or vessels do not approach within 3 m of turtles. do not obstruct their path to the surface, and do not pursue/chase /herd turtles.*See QR code 2</small> | 7.SUPERVISION <small>Ensure all persons on a tour are under the direct supervision of the tour supervisor or a tour guide/instructor at all times. Snorkellers and beginner scuba divers must have in-water supervision.</small> | 8.SPEED <small>Keep to a vessel speed of 4 knots or less in the aquatic reserve and avoid motoring between Cook Island and the moorings.</small> | 9.SAFETY <small>Maintain a safe distance from people in the water and do not motor over bubbles from scuba divers.</small> | 10.WASTE <small>Not discharge waste, litter or sewage into the waters of the aquatic reserve, including waste from fish caught elsewhere.</small> |
| | | | | |
| 11.BRIEFING <small>Conduct a pre-dive briefing for snorkellers and scuba divers and ensure they and any tour guides/instructors comply with this Code of Conduct and with the National Code of Conduct for Diving with Grey Nurse Sharks.</small> | 12.APPROACH <small>Comply with the marine mammal approach distances for vessels, swimmers and aircraft which apply to all whales, dolphins, dugongs and seals as outlined in NSW Biodiversity Conservation Regulation (2017).*See QR code 6</small> | 13.CODE DISPLAY <small>Display this Code of Conduct and the National Code of Conduct for Diving with Grey Nurse Sharks in their place of business and, where practical, on board their vessel.</small> | 14.CULTURAL <small>Respect and protect Aboriginal cultural values.</small> | 15.OTHER USERS <small>Avoid interrupting the activities of other aquatic reserve users.</small> |

Guide to swimming with turtles

Developed by Green Heroes

www.greenheroes.org.au/turtle-code-of-conduct

Swimming with turtles

STAY CALM AND QUIET
Loud noises, splashing and fast movements can scare turtles away.

GIVE TURTLES SPACE (3M)
Approach from the side.
Allow the turtle free passage.
No more than 2 people per turtle.

ENSURE A CLEAR PATH TO THE SURFACE
Allow turtles to surface for breath.

3 metres

BE STILL
If a turtle is approaching you,
Observe and enjoy.

LOOK BUT DON'T TOUCH
Turtles may not enjoy physical contact
and can deliver a strong bite.

NO FEEDING
Feeding turtles is not permitted.

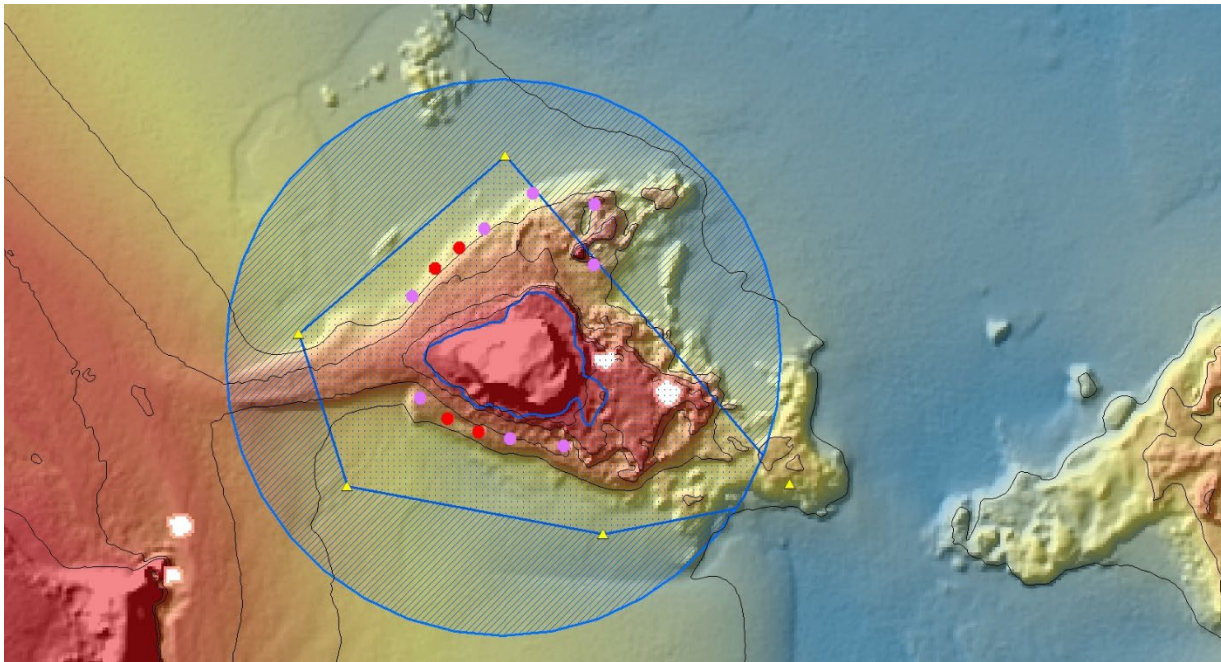
DO NOT DISTURB
Do not disturb sleeping turtles.

Turtles are a much loved, iconic marine species. Time spent in the water with these gentle animals is an exciting and rewarding experience. These recommendations are designed to preserve and protect local turtles – and the opportunity to encounter them for generations to come. For more information visit GREENHEROES.ORG.AU

NSW GOVERNMENT patagonia Wattenhall ENVIRONMENT TRUST

Monitoring

- Tweed Sand Bypass
- Developing community-based monitoring program with scientists and Green Heroes
- Letter of support for funding application?



THANK YOU

Hamish Malcolm

Rules for Cook Island Aquatic Reserve

Taking any fish (whether dead or alive) from the waters of Cook Island Aquatic Reserve that fall within the inner mapped area is prohibited.

This includes a prohibition on feeding fish or the use of berley to attract fish.

No harm to marine vegetation

Take fish includes: (a) catch or kill fish, or (b) gather or collect fish, or (c) remove fish from any rock or other matter, or attempt to do so.

fish means marine, estuarine or freshwater fish or other aquatic animal life at any stage of their life history (whether alive or dead), except marine mammals, reptiles, birds, amphibians



Hamish Malcolm

Mooring conditions

Commercial priority mooring



Suitable for vessels to 15 metres in winds less than 21 knots

Public mooring



Suitable for vessels to 12 metres in winds less than 21 knots.

1. Used at own risk. Appropriate seamanship should be applied at all times.
2. The tour operator/vessel master must ensure their vessel:
 - a. does not exceed the maximum capacity of the mooring, considering the vessel size and wind/sea conditions.
 - b. is secured to the mooring line with a painter line
 - c. is the only vessel on that mooring
 - d. is not left unattended or manoeuvred under power while attached to a mooring
 - e. does not occupy a mooring for more than **3 hours**
3. Commercial vessels (including tour operators) have priority at red moorings. Recreational vessels must vacate red moorings promptly if requested to do so.

Important websites

More information on aquatic reserves:

www.dpi.nsw.gov.au/aquatic-reserves

SharkSmart website for tips for divers, snorkellers, swimmers:

www.sharksmart.nsw.gov.au/staying-safe

Grey Nurse Shark guide: www.dpi.nsw.gov.au/gns-protection-guide

NSW Maritime website: www.rms.nsw.gov.au

Turtle Code of Conduct: www.greenheroes.org.au/turtle-code-of-conduct