Dr David Wachenfeld, acting GCRMN Global and Australia Coordinator
The Australian GCRMN region

- Total coral reef area: \( \sim 42,000 \text{ km}^2 \)
- Proportion of the world’s coral reefs: \( \sim 17 \% \)
- 2 World Heritage Areas
- 12 Marine Ecosystems of the World (MEOW) ecoregions

Map: J. Wicquart
In the AUS region, the GBR was exposed to the highest heat stress in the summer of 2023/24.
2024 GBR heat stress in context
GBR heat stress in 2024 in context
Aerial coral bleaching surveys
Variable in-water bleaching severity – shallow reefs

Coral Bleaching Severity Categories: □ Minor Partial  ■ Major Partial  ■ Fully Bleached  □□ Mortality
In-water surveys give detailed information on bleaching responses

JuxtaposeJS Embed (knightlab.com)

Photo: Nick Thake
Western Australia

- No bleaching yet observed at Ningaloo
- Surveys in April/May 2024 at WA oceanic reef systems: minor bleaching and mortality
- Surveys planned for May: Ningaloo, Kimberley, Cocos & Christmas Is

Photo: C. Grimaldi
The Coral Sea

- Surveys in Feb-Mar 2024- before heat peak
- Reefs in the southern and central Coral Sea Marine had mild to moderate bleaching (18% of corals), susceptible species
- Signs of recovery- many juveniles of taxa affected by 2020 bleaching event.
Norfolk Marine Park

- Surveys in late March 2024:
  - 15% of corals bleached, and 32% of corals signs of paling.
  - Most affected: *Pocillopora* and massives
    - *Acropora* ±ok
- Follow-up survey May 2024
- No data yet from Lord Howe MP

Photo: A. Cooper
Large coral bleaching field research effort

- Which corals are most sensitive to heat?
- Is sensitivity changing over time?
- Are corals adapting to marine heatwaves?
- Which corals recover the fastest?
- Identifying & collecting heat-tolerant corals and symbionts
- Tracking survival and recovery of corals bred for enhanced heat tolerance
An ICRI network to provide scientific information on the status and trends of coral reef ecosystems

A global partnership for the preservation of the world’s coral reefs and associated ecosystems

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