



## Local Marine Advisory Committee Meetings

**June 2023**

*Summary of discussion topics  
provided to the Reef Authority  
on Reef Health Terminology*

Cape York

Douglas

Cairns

Hinchinbrook -  
Cassowary Coast

Townsville

Bowen -  
Burdekin

Whitsunday

Mackay

Capricorn Coast

Gladstone

Burnett



# ***The following points are a summary of key items discussed through the LMAC network about Reef Health terminology***

**Dr Jessica Stella (Reef Authority) and Dr Neal Cantin (AIMS) presented at the June LMAC meetings about Reef Health Terminology.**

- Administration information
- Aerial surveys measure prevalence of reef community bleaching, not mortality
- Aerial surveys are only one tool that is used
- All criteria have to be met to be classified in each impact category
- Analysis done in situ opposed to it being recorded and watched later
- Any area/regions naturally more at risk
- Areas where RHIS surveys showed no bleaching compared to aerial survey results
- Basic information that can be given to tourists
- Bleaching terminology is very important, it is difficult to simplify
- Bleaching versus survival
- Color of a healthy coral
- Communication is a powerful tool
- Communicating the science behind bleaching
- Comparison to cyclone terminology
- Coral survival mechanisms
- Cut-off categories on the labels
- Data collected from aerial surveys versus in-water surveys/ results
- Definition of mass bleaching – the number of reefs as opposed to the size of the bleaching footprint
- Definitions of minor, major, severe, and extreme
- Difference between Bureau of Meteorology and National Oceanic and Atmospheric when forecasting bleaching risk
- Difference between local and regional bleaching
- Difference of influence the two ENSO cycles (El Nino and La Nina) have on the Reef
- Engaging with Tourism operators – using their photographs
- Eye on the Reef sightings data compared to RHIS data
- Eye on the Reef information is a very important tool
- Expanding on response efforts
- Extent of impact compared to severity of impact
- Fresh water bleaching
- Ground truthing
- Heat tolerant algal symbionts
- How wind affect coral bleaching
- Impacts of changes in currents
- Importance of local and regional weather in determining ultimate impacts of summer on the Reef
- Informing and providing interim reports before bleaching events happen
- Key indicators of Reef health

- Map of aerial survey results targeting average people not scientists
- Methods have been in place since 1998, and used in 1998,2002,2016,2017,2020, and 2022
- Measuring mortality in corals (not just the bleaching) can only be done in-water, not via aerial surveys
- Media uses emotive words
- Other impacts or disturbances
- Percentage of corals bleached often varies with depth, with the reef flats most affected and deeper slopes less affected
- Advice to prepare industries that may be affected by coral bleaching
- Preparation on ground for coral nurseries to be ready for upcoming summer
- Predictive models based on sea surface temperatures, but we also use real-time data loggers and IMOS gliders
- Possible cooling systems for intervention
- Potential of using drones for surveys
- Problem with lag time between when bleaching events occur and a detailed report on the overall impact
- Recovery since the last bleaching event
- Reporting is not just on aerial surveys
- Resilience of corals now compared to years ago
- Susceptibility of different species of coral to heat stress
- Time lag between coral bleaching and mortality
- Time frame for coral recovery and recolonization
- Using E-reefs for data sets
- Variation between corals in the shallows and deeper waters
- Variation between corals inshore and offshore

## **Their suggestions included:**

- Ask critics for their input
- Clear messages are needed, want people to be concerned and take action
- Coral cover compared to percentage cover – needs definitions, especially for media
- Education early before bleaching occurs
- Equate the narrative to other events (eg: bush fires)
- Fifth impact category
- Getting information to the right people in media – only mention the new terminology
- Incorporating photos
- Information sent to community to include what to look for and how to report it
- Interactive maps (eg: heat maps)
- Line separating the three regional divisions – why that location
- Map more visual – break it down to simple terms
- Provide education/infographic around what bleaching means for corals
- State caveats on map - information is based on shallow water depth (<5m)
- Terminology aligns with fire warnings that people are familiar with
- Terminology the same as other organizations
- Use a brochure with graphics
- Use black to show that dead corals and red to show they are bleached and could still recover
- Use both grades and descriptions
- Use class terminology, rather than the words
- Use classes 1-4 will make people investigate further what it means for the corals and requires educating people
- Use common language with visuals/pictures in brochures
- Use satellite images or other types of technology
- Use the word 'stages' as opposed to 'classes'
- What the models are predicting for next summer
- Working with traditional Owners and TUMRA groups