Australian Government
Great Barrier Reef Marine Park Authority

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AUSTRALIAN INSTITUTE OF MARINE SCIENCE

NEWS RELEASE

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The facts on Great Barrier Reef coral mortality

Despite reported claims and counter claims over the last month about the 'death' of large swathes of the Great Barrier Reef, the true impact of this summer's major coral bleaching event is now emerging.

Preliminary findings from the Great Barrier Reef Marine Park Authority (GBRMPA) and the Australian Institute of Marine Science (AIMS) show approximately three quarters of coral on the Reef has survived to date.

The vast majority of the impact is in the northern third of the Reef, from Port Douglas to Cape York, with the central and southern regions escaping significant mortality.

GBRMPA Chairman Dr Russell Reichelt said the mortality assessment was based on hundreds of comprehensive in-water surveys conducted Reef-wide with the Australian Institute of Marine Science, the Queensland Parks and Wildlife Service and other partners since the beginning of March.

"Collaborative efforts by a large number of institutions and tourism industry volunteers allow us to say with confidence that while bleaching caused by heat stress affected most of the Reef, the most severe mass bleaching and the greatest mortality has been restricted to north of Port Douglas," Dr Reichelt said.

AIMS Chief Executive John Gunn said there was no doubt this was the most serious bleaching event to hit the Reef on record, and that it was related to a combination of warming of our planet's oceans and a major El Niño.

"However, it's important to note the biological impacts of bleaching stress are still playing out across the Reef.

"And while we know many corals in the northern sector will die, others will recover from bleaching over the coming months and we're hopeful that in areas where bleaching has been minor the Reef will bounce back well."

Based on the results of in-water surveys to date, the average coral loss within each management area is:

- 50 per cent in the Far Northern Management Area (from the tip of Cape York to just north of Lizard Island)
- 16 per cent in the Cairns–Cooktown Management Area (Lizard Island to Tully). (*Note: Surveys around Lizard Island were conducted in March. More recent reports indicate mortality levels are likely to be higher in this management area.)*
- 3 per cent in the Townsville/Whitsunday Management Area (Tully to Mackay)
- 0 per cent in the Mackay/Capricorn Management Area (Mackay to Bundaberg).

Dr Reichelt said GBRMPA and the Australian Institute of Marine Science have been responsible for monitoring Reef health for over 40 years, and are now working together to develop a comprehensive and authoritative picture of how this year's bleaching has impacted the ecosystem as a whole.

"We've opted to release results ahead of final completion of surveys because of widespread misinterpretation of how much of the Reef has died," he said.

"Our aim is to bring the information from all scientific monitoring into a single picture in the coming months.

"We've seen headlines stating that 93 per cent of the Reef is practically dead. We've also seen reports that 35 per cent, or even 50 per cent, of the entire Reef is now gone.

“However, based on our combined results so far, the overall mortality is 22 per cent — and about 85 per cent of that die-off has occurred in the far north between the tip of Cape York and just north of Lizard Island, 250 kilometres north of Cairns.

“Another round of surveys is scheduled for August to October to assess survivorship, before a final assessment is published.”

Dr Reichelt said the bleaching had resulted in varying mortality rates because some reefs had been under greater heat stress than others.

“Fortunately, the section of the Marine Park that’s had substantial increase in coral cover in recent years — the southern part of the Reef — has experienced little mortality,” he said.

“We know the Great Barrier Reef, which is larger than Italy, is still resilient with the ability to recover from major events, given enough time.

“The agency’s strong protective measures, including no-take green zones which make up 33 per cent of the Marine Park, play a critical role in maintaining the resilience of the wider ecosystem.

“This underlying resilience was on display recently when the Australian Institute of Marine Science found coral cover increased by 19 per cent across the Marine Park between 2012 and 2015, nearly doubling in the southern sector due to good early recovery from cyclones and floods.”

More information on coral bleaching is available at www.gbrmpa.gov.au and www.aims.gov.au.

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