

For 39 years the Australian Institute of Marine Science has surveyed the condition of numerous reefs across the Great Barrier Reef (the Reef). This program, called the [Long-Term Monitoring Program \(LTMP\)](#), is an essential resource for scientists, governments and agencies involved in the management and protection of the Reef.

Researchers use hard coral cover as one indicator of reef condition. The LTMP also estimates levels of coral bleaching, and numbers of crown-of-thorns starfish, coral trout and sharks. Each year hard coral cover results are published as a summary, providing an overview on the status, condition and trend of reefs across the Northern, Central, and Southern regions of the Reef. More detailed coral, fish and habitat data are collected, analysed and published by the program in peer-reviewed publications and on our [Reef Monitoring Dashboard](#).

[The 2024/2025 annual summary report is now available](#). For this report, the upper reef slope around the perimeter of 124 reefs (primarily on the mid to outer shelf) were surveyed between August 2024 and May 2025.

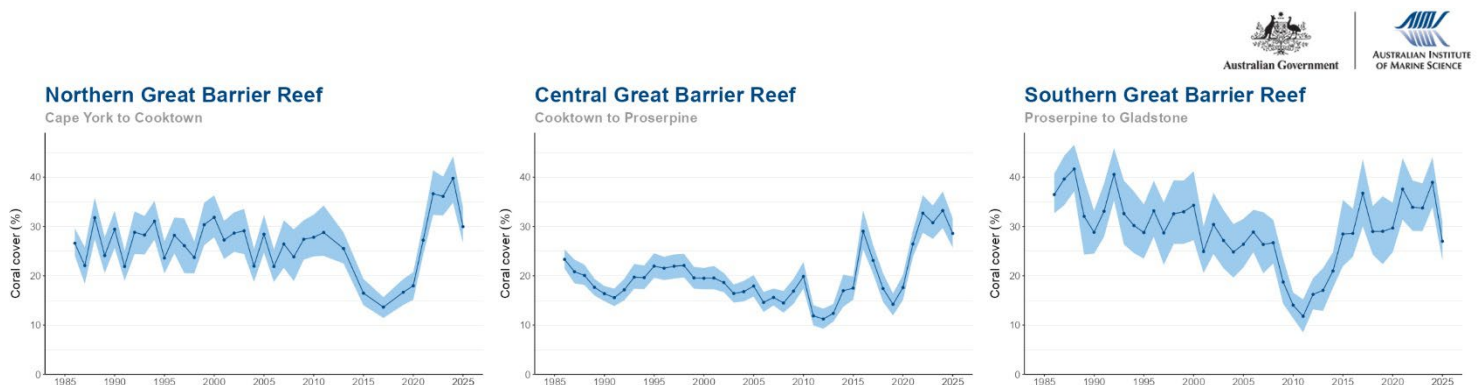
## Overall findings in 2024-2025

Substantial impacts from 2024 mass coral bleaching and cyclones reduce regional coral cover to near long-term average

Average hard coral cover has declined sharply from recent high levels, due to record heat stress leading to mass coral bleaching, along with cyclones and associated flooding during the 2024 summer and ongoing crown-of-thorns starfish outbreaks.

The northern and southern regions were most affected and had their largest annual decline in coral cover in 39 years of monitoring.

Average coral cover within each region has now declined to near the long-term average.

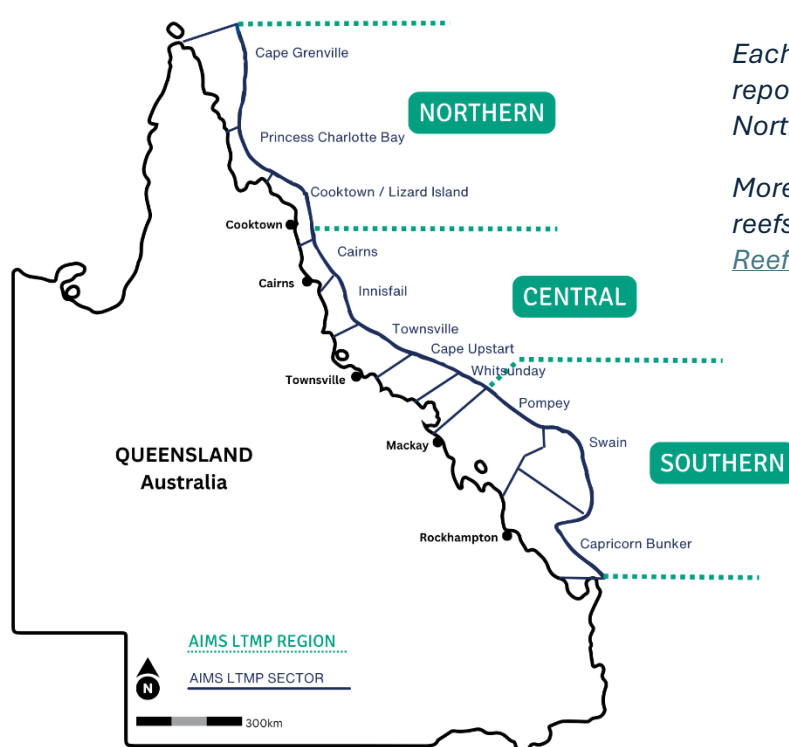


*Regional trends in the percentage of hard coral cover on the Northern, Central and Southern Great Barrier Reef from manta tow surveys by the AIMS Long-Term Monitoring Program up to the 2024/25 survey year. Data are modelled averages (dark blue points) with associated 95% credible intervals (light blue shading).*

Despite the regional losses, percentages of hard coral cover remained variable across individual reefs.

- 2 reefs had >0%-10% coral cover
- 77 reefs had >10%-30% coral cover
- 33 reefs had >30%-50% coral cover
- 10 reefs had >50%-75% coral cover
- 2 reefs had more than 75% coral cover.

## AIMS Long-Term Monitoring Program regions and sectors



*Each year, the Long-Term Monitoring Program reports on trends in hard coral cover across the Northern, Central and Southern regions (this report).*

*More comprehensive data and reports for individual reefs and sectors are regularly published via [AIMS' Reef Monitoring Dashboard](#).*

## Northern Great Barrier Reef – from Cape York to Cooktown

- 38 reefs were surveyed
- Average hard coral cover was 30.0%, a decline from the historic high of 39.8% reached in 2024.
- This is the largest single year decline in coral cover for the region on record, with close to a quarter (24.8%) of coral cover being lost from the previous year. However, the level of coral cover remains above the long-term average.

Coral loss in this region is due to widespread coral bleaching during the worst heat stress on record, as well as cyclones and associated freshwater inundation. Coral loss was greatest around Lizard Island, and generally reflective of the levels of heat stress.

Crown-of-thorns starfish numbers were generally low, but increased in some areas.

## Central Great Barrier Reef – from Cooktown to Proserpine

- 47 reefs were surveyed
- Average hard coral cover was 28.6%, down from the historic high of 33.2% reached in 2024.
- The central region remains the most stable with respect to coral cover, which remains above the long-term average.

While coral cover in the Central region remains relatively stable, reefs in the Cairns sector lost between 6 and 60% coral cover due to the impacts of high levels of coral bleaching combined with wave damage from Tropical Cyclone Jasper and its associated flood plume. The remaining reefs in the Central region largely escaped the heat stress of other areas in 2024.

## Southern Great Barrier Reef – from Proserpine to Gladstone

- 39 reefs were surveyed
- Coral cover has decreased to 26.9%, a decline from 39.1% in 2024.
- This is the largest single year decline for the southern region since monitoring began, with nearly a third of coral (30.6%) being lost from the high level recorded last year. Coral cover is now slightly below the long-term average.

Coral loss in the southern region is due to coral bleaching during the worst heat stress on record, particularly in the Capricorn-Bunker sector. Many reefs had their largest decline in coral cover since monitoring began. There was evidence of storm damage and a high incidence of coral disease, a common outcome in corals which survive bleaching.

Crown-of-thorns starfish outbreaks continue to cause coral loss in the Swains sector.

## What do our findings mean for the Great Barrier Reef?

Our findings show that the outcome of the 2024 mass bleaching event, combined with impacts from two cyclones and ongoing crown-of-thorns starfish outbreaks has caused sharp declines in coral cover across the Reef. These declines have come off a high base, and levels are now close to the long-term averages for each region.

This year's results are part of an emerging trend of volatility on the Reef; coral cover now swings between very low and very high levels, a shift from the patterns observed during the early years of this monitoring program.

The Great Barrier Reef is in comparatively better condition than many reef systems worldwide, which have been heavily impacted by the ongoing global bleaching event and other pressures. However, the increased frequency and extent of bleaching events in the last decade are unprecedented. Climate change remains the greatest threat to the Reef, and along with other pressures from more localised sources, pose a severe threat to its future.

## Background – coral cover on the Great Barrier Reef in recent years.

The LTMP is a 39-year-old program and has shown that regional coral cover on the Great Barrier Reef fluctuates in response to disturbances. The most dramatic changes have occurred over the past 15 years, where levels reached both historical lows and, most recently, highs.

Since 2018, hard coral cover increased in both the Northern and Central regions after almost a decade of disturbances including cyclones, predatory crown-of-thorns starfish outbreaks, and back-to-back mass bleaching events in 2016 and 2017; all of which caused widespread mortality. Towards the end of 2023, hard coral cover in the Northern and Central regions reached the highest levels since monitoring began,

The Southern region has generally had higher coral cover than the Northern or Central regions, but it has also experienced larger fluctuations. A rapid and substantial increase in hard coral cover occurred from an historic low in 2011 to 2017; however, ongoing outbreaks of crown-of-thorns starfish continued to stymie rises in coral cover in this region.

Recovery in the three regions had been primarily, but not exclusively, driven by fast-growing but vulnerable corals. It continued despite mass bleaching events in 2020 and 2022. These were less intense than the 2016 and 2017 events, showing that mass coral bleaching events do not always lead to widespread mortality.

Over the [2024 Australian summer, widespread, record heat stress caused the fifth mass bleaching event](#) since 2016, which together with wave damage and associated flooding from two severe tropical cyclones and ongoing crown-of-thorns outbreaks have caused these high levels to decline sharply.

Another [mass bleaching event occurred on the Great Barrier Reef during the summer of 2025](#). While less extensive than the 2024 event, it was the sixth since 2016 and the second time the Reef has experienced consecutive events. This year's survey results reflect coral cover before and during this most recent event, but not its final impacts.

## Further information

- [Watch on YouTube](#) – LTMP's Dr Mike Emslie and Dr Daniela Ceccarelli explain the results
- Learn more about the [AIMS Long-Term Monitoring Program](#) - what we survey and how we do it.
- View [individual reef survey data](#) and [sector reports](#), updated soon after each survey trip, via the AIMS Reef Dashboard.
- Visit our [Reef Report Hub](#) for more information on our monitoring of the Great Barrier Reef

## Stay up-to-date

Subscribe to the [Long-Term Monitoring Program's 'Back from the Reef' regular email updates](#).

## Media

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