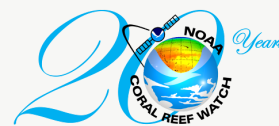




Australia ([GBR](#)) - Central (Whitsundays / Townsville / Cairns)



Regional summary of 9 dive sites. Figures are averages across the sites that report them (n = sites with a value); each site's own page has its individual values. Part of the [Australia \(GBR\)](#) overview.



Coral Health Index: TBD

COUNTRY

[Australia](#)

SITES

9

each linked below

HARD CORAL COVER
(REGIONAL MEAN)

—

n = 0 of 9 sites

WATER TEMP. DURING
SURVEYS (REGIONAL MEAN)

—

n = 0 of 9 sites

CORAL HEALTH INDEX
(REGIONAL MEAN)

not yet scored

n = 0 of 9 sites

MOST RECENT WATER
TEMPERATURE RECORD

24.1°C

3 Oct 2026 · [Central GBR](#)

MOST RECENT HEAT
STRESS RECORD



0.0°C-weeks

3 Oct 2026 · below alert level

MEAN ANNUAL MAX DEGREE
HEATING WEEKS (DHW), LAST
5 YEARS

7.1°C-weeks

2021–2025 · Central GBR

HIGHEST ANNUAL HEAT
STRESS

12.0°C-weeks

in 2024 · Central GBR

SEVERE HEAT-STRESS YEARS

5

1985–2025 · 4 in the last 10 years

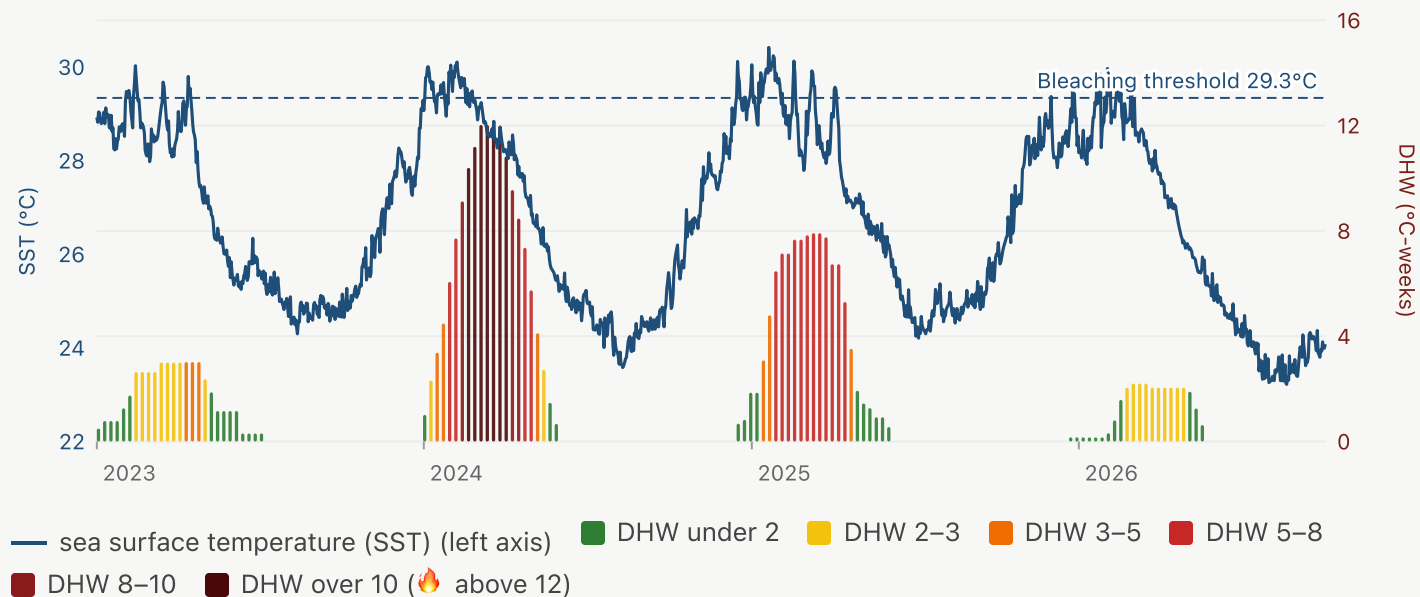
Heat-stress figures: [NOAA Coral Reef Watch](#) — [Central GBR](#) 5-km virtual station. Each pill links its source record and carries the values behind it.

REGIONAL SUMMARY

Fringing reefs in sheltered Whitsunday bays, plus Davies Reef and the outer Cairns reefs, known here from only three logged dives in 2007, one noting "great coral canyons." Other organizations'

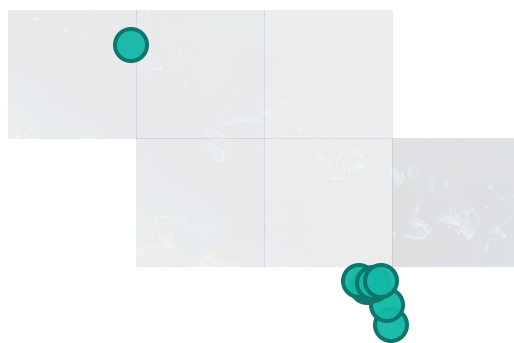
surveys since 1992 show hard coral repeatedly declining and recovering.

Heat stress



Daily SST (line) and weekly maximum Degree Heating Weeks (bars), Jan 2023–Oct 2026, [NOAA Coral Reef Watch](#) 5-km Central GBR virtual station. Dashed line: bleaching threshold (maximum monthly mean $28.3^{\circ}\text{C} + 1^{\circ}\text{C}$). $\text{DHW} \geq 4$: bleaching likely; ≥ 8 : severe bleaching and mortality likely. A bar is drawn only where DHW exceeds zero, so a stretch with no bar is accumulated heat stress of zero, not missing data — the SST line runs the full period.

Long-term record: 5 years since 1985 reached 8 or more $^{\circ}\text{C}$ -weeks at [NOAA's](#) Central GBR station. [Download the annual DHW data \(CSV\)](#).



 Leaflet | Tiles © Esri

9 sites in this region — click a marker to open that site.

Regional setting

The Great Barrier Reef stretches for well over 2,000 km along Australia's northeastern coast, from the Torres Strait's Warrior Reefs to the Capricorn-Bunker group, and [Spalding et al. \(2001\)](#) describe it as a complex system of nearly 3,000 reefs and shoals plus high islands with their own fringing reefs. The same account credits Captain James Cook as the first to navigate these waters, running aground there in 1770. The central section, from Mossman south to the barrier off the Whitsunday and Lindeman Islands, sits on a gradually widening shelf where most reef growth is confined to the outer third, and nearshore waters swing in turbidity and salinity when rivers flood. Its reefs are geologically younger than the northern ones, with smaller reef flats, few cays, and a looser barrier set back from the shelf edge, while the Palm, Whitsunday, and Lindeman island groups carry important fringing reefs. [Spalding et al. \(2001\)](#) give Australia about 48,960 km² of reef nationally; [Souter et al. \(2021\)](#) give 35,487 km² for the GCRMN subregion formed by the Torres Strait–northern GBR, central–southern GBR, and Tweed–Moreton ecoregions. The first recorded mass outbreak of [crown-of-thorns starfish](#) was seen at Green Island, off Cairns, in 1962, and most outbreaks since have been in the central sections. In 1998, [bleaching](#) was also worst in the central GBR, where about a quarter of inner-shelf reefs showed 60% or more of corals bleached, though mortality was generally low ([Spalding et al. 2001](#)).

[Souter et al. \(2021\)](#) trace a run of heavier disturbances after 2000. The 2002 bleaching, like that of 1998, affected about half of the GBR's reefs, with the central section again hardest hit, and after the back-to-back bleaching of 2016 and 2017 the central third, also under attack from crown-of-thorns starfish, lost more than 30% of its coral. A fourth [starfish](#) outbreak started in the Cairns–Cooktown section in 2010 and moved south. Severe cyclones added to the losses: Hamish (2009) affected more than half of the GBR's reefs, Yasi (2011) damaged about 15%, mostly between Cairns and Townsville, and Debbie (2017) cut cover by up to 97% on some Whitsunday reefs. Agricultural sediments, nutrients, and pesticides remain problems for inshore reefs. Average GBR coral cover dropped from about 34% in the late 1990s to 24% in 2018.

Overview

This summary covers nine sites from the central Great Barrier Reef: seven [Whitsunday Islands](#) bays and points, a Whitsundays area marker, and Davies Reef off Townsville. Most of the Whitsunday sites are fringing reefs in north-facing bays on Hook, Hayman, and Border Islands; Pinnacle Point, at Hook Island's northeastern corner, is an exposed point. The exception is Hill Inlet at Whitehaven Beach, a tidal sand and seagrass system rather than a coral reef. Davies Reef is a mid-shelf platform reef and one of the longest-running monitoring reefs in the [AIMS](#) program.

First-hand records are thin. None of these sites has photographs or transect data, and only three logged dives, all from early 2007, are on record. At Luncheon Bay, Anderson reached 20.1 m and noted "murky but high coral cover." He dived at Hayman Island twice on 1 February 2007 (his log does not name the bay), noting "great coral canyons" at 16.8 m on the first dive and murky water on the second.

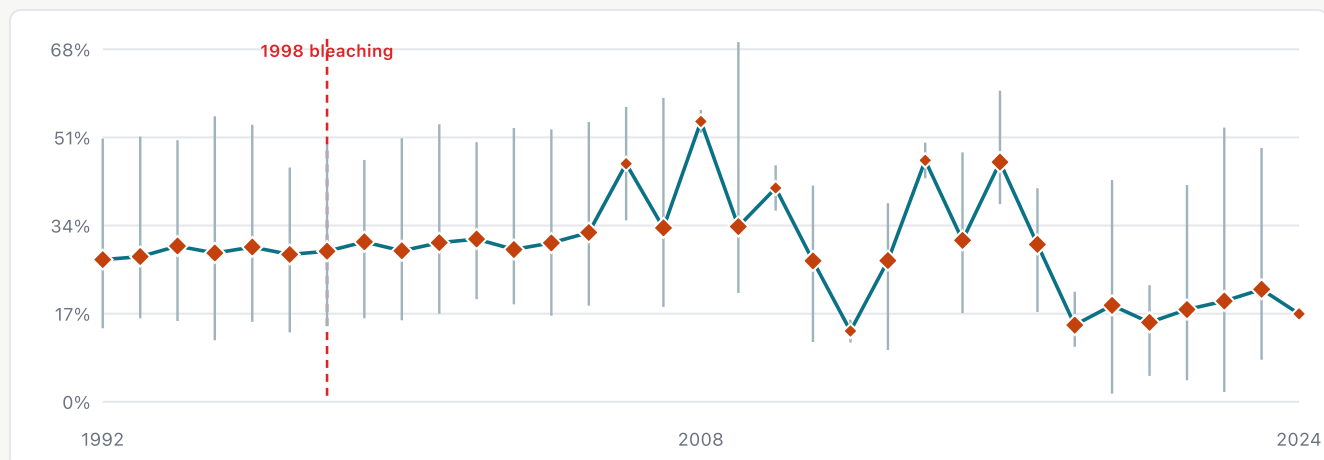
Everything known about reef condition comes from other organizations' surveys, and those surveys show large swings over time. Within 2 km of Butterfly Bay, six [Reef Check](#) surveys from 2018 to 2023 ranged from 13% to 32% hard coral. At Cateran Bay, 98 surveys from 1994 to 2023 ranged from 6.5% to 42%, and at Davies Reef 26 surveys from 1993 to 2023 ranged from 10% to 53%. That is a pattern of repeated decline and recovery rather than a steady slide. Severe Tropical Cyclone Debbie crossed directly over the Whitsundays in March 2017, so every Whitsunday survey since then describes reefs after that storm.

Highlights

- Hayman Island (the Blue Pearl Bay pin; his log names only the island): two 2007 dives, the first noted for "great coral canyons" at 16.8 m
- Luncheon Bay (Hook Island): logged to 20.1 m in January 2007, "murky but high coral cover"
- Davies Reef: 23 nearby surveys since 1993 ranged from 10% to 53% hard coral
- Hill Inlet (Whitehaven) is a sand and seagrass tidal system, not coral reef

Coral cover over time (pooled)

One point per year: the mean of every hard coral cover value available for this region that year — Anderson's own dives and every independent survey station within 5 km of them. The vertical bar is the full range behind that mean. Different programs use different methods at different stations, so this is a regional summary, not a single comparable series. One value above 70% was excluded as a best-patch figure rather than a site mean. Years resting on fewer than three values are drawn as smaller points (2006, 2008, 2010, 2012, 2014, 2024). Non-CRD points are from [Reef Check Foundation](#), [Australian Institute of Marine Science](#), and [XL Catlin Seaview Survey \(University of Queensland\)](#).



Sites in this region

- [Australia GBR - Whitsundays](#)
- [Great Barrier Reef - Townsville / Davies Reef](#) — 49% (nearest station surveyed in the last 10 years, not this site: [AIMS](#) manta tow, DAVIES REEF station, 2023, 1.52 km away)
- [Whitsundays - Blue Pearl Bay \(Hayman Island\)](#) — 23% (nearest station surveyed in the last 10 years, not this site: [Reef Check](#), Hayman Island Reefs - Blue Pearl Bay (Fringing reef leeward) Site 1 station, 2023-10-15, 0.90 km away)
- [Whitsundays - Butterfly Bay \(Hook Island\)](#) — 29% (nearest survey station, not this site: [Reef Check](#), Hook Island - Butterfly Bay Site 1 station, 2023-10-21, 0.64 km away)
- [Whitsundays - CATERAN BAY \(Border Island\)](#) — 13% (nearest survey station, not this site: [AIMS](#) LTMP, BORDER ISLAND REEF (NO 1) site 3 station, 2023, 0.60 km away)
- [Whitsundays - Hill Inlet / Whitehaven \(Whitsunday Island\)](#)
- [Whitsundays - Luncheon Bay \(Hook Island\)](#) — 8.1% (newest survey within 0.5 km, not this site: [Reef Check](#), Hook Island - Luncheon Bay (Fringing reef leeward) Site 1 station, 2023-10-21, 0.30 km away)
- [Whitsundays - Maureen's Cove \(Hook Island\)](#) — 29% (nearest survey station, not this site: [Reef Check](#), Hook Island - Butterfly Bay Site 1 station, 2023-10-21, 0.90 km away)
- [Whitsundays - Pinnacle Point \(Hook Island\)](#) — 8.1% (nearest survey station, not this site: [Reef Check](#), Hook Island - Luncheon Bay (Fringing reef leeward) Site 1 station, 2023-10-21, 0.92 km away)

Nearby external survey stations

435 independent survey records within 5 km of a site in this region (each record counted once).

► Show all 435 records

Data on this page are from [Reef Check Foundation](#), [Australian Institute of Marine Science](#), [Global Coral Reef Monitoring Network](#), and [XL Catlin Seaview Survey \(University of Queensland\)](#), not Coral Reef Diagnostics; Coral Reef Diagnostics has no coral cover estimate of its own in this region.



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References

- Souter D, et al. (eds) (2021) *Status of Coral Reefs of the World: 2020*. International Coral Reef Initiative / [Global Coral Reef Monitoring Network](#). [\[PDF\]](#)
- Spalding MD, et al. (2001) *World Atlas of Coral Reefs*. University of California Press, Berkeley. [\[PDF\]](#)