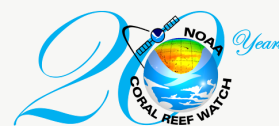




Indonesia - Komodo



Regional summary of 26 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.

0

5

Coral Health Index: 4.67/5



Photo: Anderson Mayfield/Coral Reef Diagnostics — [Indonesia](#) - Komodo NP: Police Corner

COUNTRY

Indonesia

SITES

26

each linked below

HARD CORAL COVER
(REGIONAL MEAN)

21% ± 12% (std. dev.)

n = 17 of 26 sites. range 3.3–53%

WATER TEMP. DURING
SURVEYS (REGIONAL MEAN)

26.0°C

n = 17 of 26 sites; surveyed Aug
2009–Jan 2019

CORAL HEALTH INDEX
(REGIONAL MEAN)

4.67 / 5

n = 3 of 26 sites; 2.5 = average
(above average)

MOST RECENT WATER
TEMPERATURE RECORD

27.0°C

16 Sep 2026 · [East Nusa Tenggara](#)

MOST RECENT HEAT
STRESS RECORD

0.0°C-weeks

16 Sep 2026 · below alert level



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

6.5°C-weeks

2021–2025 · regional mean of 26
sites, 2 stations

HIGHEST ANNUAL HEAT
STRESS

19.6°C-weeks 🔥

in 2016 · West Nusa Tenggara

SEVERE HEAT-STRESS YEARS

7

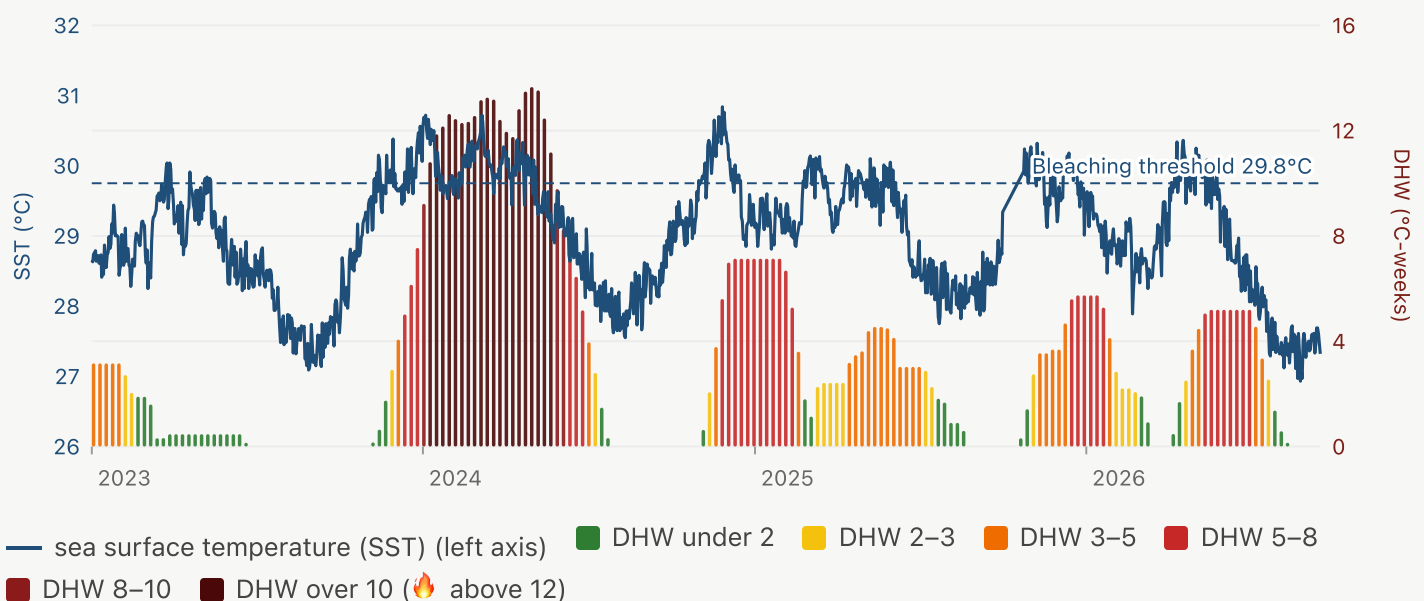
1985–2025 · 5 in the last 10 years

Heat-stress figures: [NOAA Coral Reef Watch](#) — [East Nusa Tenggara](#) and West Nusa Tenggara 5-km virtual stations. Each pill links its source record and carries the values behind it.

REGIONAL SUMMARY

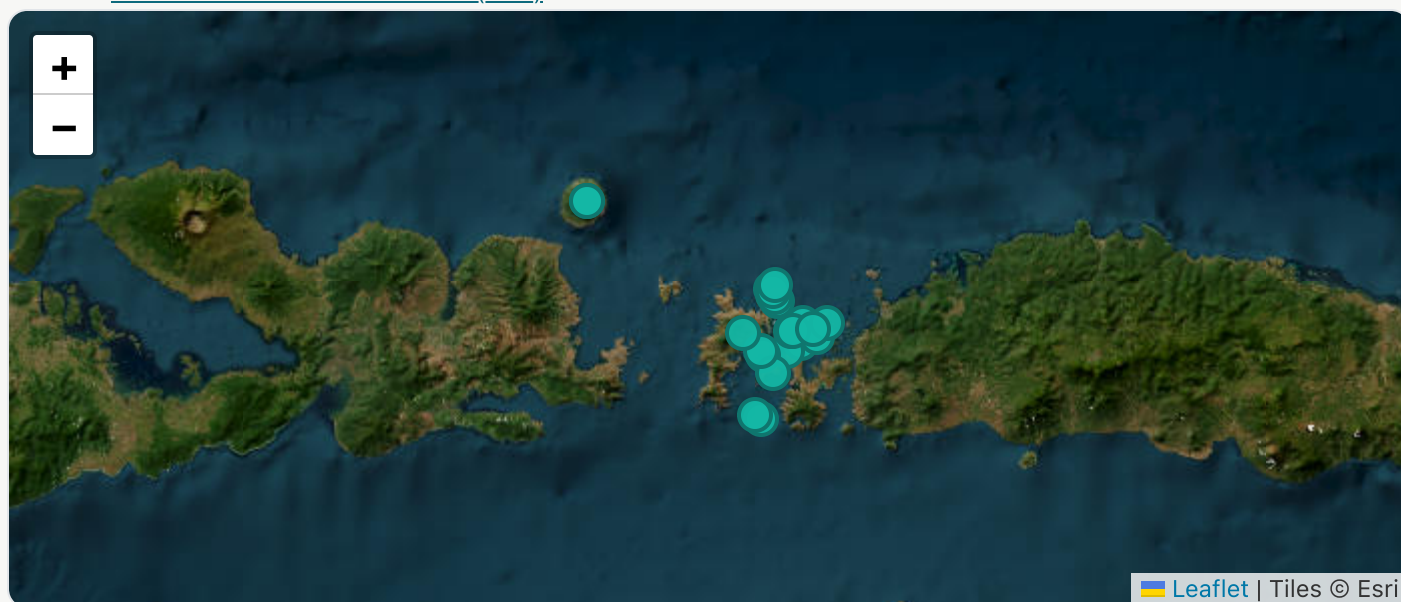
Komodo's current-swept pinnacles, channels, and island reefs, dived in 2009 and 2019, are often almost entirely covered in living coral, with [Acropora](#) dominant. [Manta](#) cleaning stations drew 20–30 mantas on one dive, while some sites showed partial [bleaching](#) or [crown-of-thorns starfish](#).

Heat stress



Daily SST (line) and weekly maximum Degree Heating Weeks (bars), Jan 2023–Sep 2026, [NOAA Coral Reef Watch](#) 5-km West Nusa Tenggara virtual station. Dashed line: bleaching threshold (maximum monthly mean $28.8^{\circ}\text{C} + 1^{\circ}\text{C}$). $\text{DHW} \geq 4$: 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: 7 years since 1985 reached 8 or more $^{\circ}\text{C}$ -weeks at [NOAA](#)'s East Nusa Tenggara, West Nusa Tenggara stations. [Download the annual DHW data \(CSV\)](#).



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

Read this summary in:

English

Bahasa Indonesia

Regional setting

[Spalding et al. \(2001\)](#) treat Komodo within Wallacea, their sub-region spanning Sulawesi and the Nusa Tenggara Islands. They describe mountainous islands with a very complex geological history, active volcanoes along the southern chain, narrow shelves, and deep water between many of the islands. Currents between Sulawesi and the Nusa Tenggara run east in the Northeast Monsoon and reverse in the Southeast Monsoon, while in the Timor Sea to the south they flow west all year. The authors consider conditions here ideal for reef growth: fringing reefs are widespread through the Nusa Tenggara, though their communities were little studied, and well-developed barrier reefs are reported northwest of Sumbawa and north of Flores. They also note that the 1998 bleaching event did relatively little damage over much of the sub-region. Komodo appears in their protected-area list three times, as a 1,733 km² national park (1980), a [UNESCO](#) Biosphere Reserve (1977), and a World Heritage Site (1991). Nationally, they estimate about 51,020 km² of coral reef in Indonesia, 18% of the global total, with 443 coral species recorded. [Souter et al. \(2021\)](#) group the Lesser Sunda ecoregion with Southern Java in an East Asian Seas subregion of 4,279 km², 5.5% of the region's reef area.

For that subregion, [Souter et al. \(2021\)](#) report that modeled hard coral cover fluctuated considerably while algal cover declined steadily, but none of its 310 survey sites had a record longer than 15 years, so trends there are uncertain. Region-wide, they link drops in coral cover to the 2010 and 2016 mass bleaching events and list overfishing, coastal aquaculture, siltation, eutrophication, and marine plastic litter as the main pressures. In its 2004 summary for Southeast Asia, [Wilkinson \(2006\)](#) described continuing reef decline, with some signs of recovery in Indonesia, and found that only 10-20% of the region's more than 630 marine protected areas were managed effectively.

Overview

The Komodo sites were dived on an August 2009 trip and a January 2019 liveaboard. They range from current-swept pinnacles and channels (Batu Bolong, The Cauldron, Pengah Kecil) and island reefs (Siaba Besar, Siaba Kecil, Tatawa Besar) to rubble-floored manta cleaning stations (Makassar Reef, Mawan). Sand slopes and critter sites (Secret Garden, Wainilu) and the volcanic base of Sangeang (Hot Rocks, Deep Purple) complete the set. Current shapes much of it: Siaba Kecil and Police Corner are low-relief reefs, flattened by flow yet almost entirely covered in living coral.

Acropora dominates the hard coral. Anderson estimated patches at Siaba Kecil and Tatawa Kecil at 80-90% cover, which are best-patch figures rather than site means, and Bonsai Rock has a near-monospecific lavender stand at 5 m. Pocilloporids are common throughout, especially *Seriatopora caliendrum* and *Stylophora pistillata*, often fluorescent green. Siaba Besar carries enormous old sheets of *Pachyseris* at 15-20 m. Elsewhere soft coral takes over, notably in the 5-10 m band at Padar Kecil and across most of Secret Garden. Photo-derived indices ranged from 10.7% on the Makassar Reef rubble to 50.4% at Police Corner. The Cauldron and Bonsai Rock both scored 4.75 on the coral health index, far above the 2.5 average.

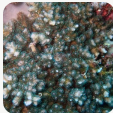
Tatawa Besar logged 23°C, possibly during an upwelling, while Hot Rocks had warm sand, hot water seeping from cracks, and young coral growing on lava. Stress was recorded at several sites. At Loh Sera nearly all *Seriatopora caliendrum* were partly bleached at the branch tips, and Pink Beach, dived the same day, had fewer bleached colonies. Deep Purple held at least two crown-of-thorns, one on a fresh white scar. Tatawa Kecil stands partly on bone-white *Acropora* rubble, and Siaba Besar showed minor *Culcita* damage. At Police Corner Anderson noted signs of overfishing, and at Siaba Kecil few large fish.

Large animals are a feature: 20-30 mantas on one Mawan dive and a mobula school at Secret Garden. Pygmy seahorses turned up at Hot Rocks, and ornate ghost pipefish at Wainilu.

Highlights

- Near-continuous *Acropora* at Siaba Kecil and Pengah Kecil; a monospecific lavender stand at 5 m on Bonsai Rock  photo: Indonesia - Komodo NP: Pengah Kecil
- Police Corner: a wall to 30 m rising to a high-diversity shallow zone, the highest photo-derived index in the set  photo: Indonesia - Komodo NP: Police Corner
- Enormous old *Pachyseris* sheets at 15-20 m on Siaba Besar  photo: Indonesia - Komodo NP: Siaba Besar
- Manta cleaning stations at Mawan and Makassar Reef  photo: Indonesia - Komodo NP: Makassar Reef / Manta Point
- Hot Rocks (Sangeang): volcanic seeps, warm sand, young coral community on lava  photo: Indonesia - Komodo NP: Hot Rocks (Sangeang)

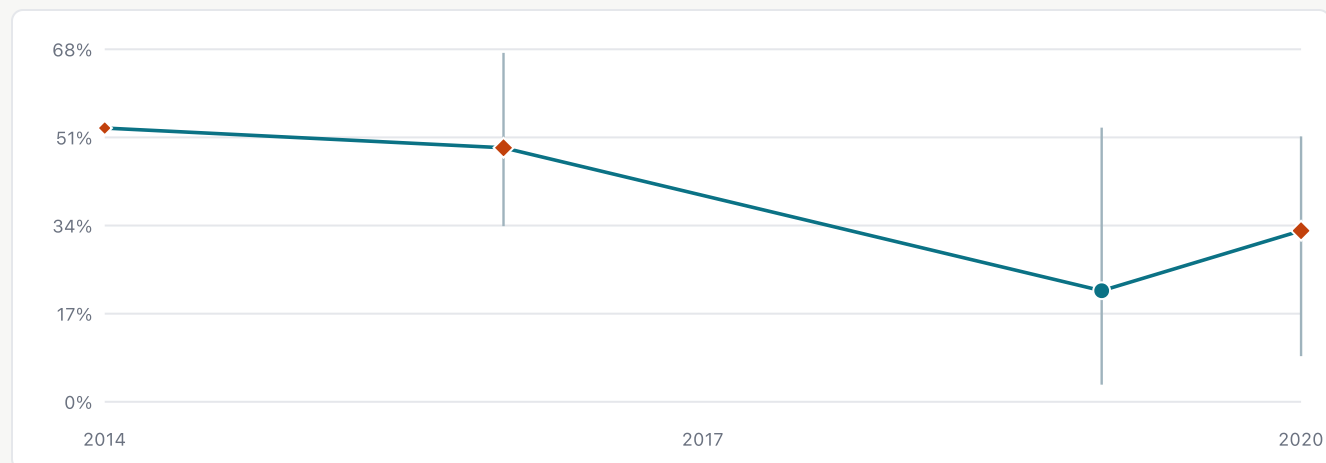
Notable observations

- Indonesia - Komodo NP: Loh Sera: Bleaching: numerous large *Seriatopora caliendrum* bleached but with live tissue; nearly all *S. caliendrum* partially bleached at the top (bottoms of branches pigmented), also on the wreck; Anderson unsure of cause 
- Indonesia - Komodo NP: Loh Sera: Garbage: surface was covered in garbage 
- Indonesia - Komodo NP: Pink Beach (Pantai Merah): Bleaching: some bleaching, but fewer bleached than at the previous site; several pocilloporid branch tips chalky white, unresolved whether pale growing tips or the start of tip bleaching. On the critter-section dive the few *Seriatopora caliendrum* seen were sickly looking 
- Indonesia - Komodo NP: Deep Purple: crown-of-thorns starfish (COTS): at least two crown-of-thorns imaged, a probable third; one large individual on a lavender plate with a freshly exposed white scar beneath it. A white lesion on a tan plate has feeding-scar morphology (disease or mechanical mortality not excluded); a few plate margins show paling of unresolved cause 

- [Indonesia - Komodo NP: Siaba Besar](#): Culcita damage, though not much; some [Acropora](#) mortality as branch-scale white skeleton within healthy thickets 
- [Indonesia - Komodo NP: Tatawa Kecil](#): Extensive bone-white broken Acropora rubble beneath and beside live colonies; cause and date not determinable from the photographs 
- [Indonesia - Komodo NP: Police Corner](#): Fishing: reef fish community still showed signs of overfishing (Anderson's log) 
- [Indonesia - Komodo NP: Siaba Kecil](#): Fishing: few large fish, suggesting overfishing 

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. Years resting on fewer than three values are drawn as smaller points (2014). Non-CRD points are from [Reef Check Foundation](#). Marker shape: ● his own dives, ◆ other organizations' surveys.



► Sites in this region (26)

Nearby external survey stations

10 independent survey records within 5 km of a site in this region (deduplicated across sites).

- [Reef Check](#) — Mawan (Sector 1) (2020): 10% hard coral cover, 0.91 km from Indonesia - Komodo NP: White Sands
- [Reef Check](#) — Mawan (Sector 2) (2020): 8.8% hard coral cover, 0.91 km from Indonesia - Komodo NP: White Sands

- [Reef Check](#) — Pengah Kecil (Sector 1) SW Side (2020): 48% hard coral cover, 1.73 km from Indonesia - Komodo NP: White Sands
- [Reef Check](#) — Sebayor Kecil (2014): 53% hard coral cover, 3.14 km from Indonesia - Komodo NP: Siaba Kecil
- [Reef Check](#) — Siaba Besar (Sector 1) (2020): 51% hard coral cover, 0.49 km from Indonesia - Komodo NP: Tatawa Kecil
- [Reef Check](#) — Siaba Besar (Sector 2) (2020): 47% hard coral cover, 0.49 km from Indonesia - Komodo NP: Tatawa Kecil
- [WWF-US](#) / [WWF-Indonesia](#) — TNK04 (2016): 55% hard coral cover, 3.21 km from Indonesia - Komodo NP: Nando Point
- [WWF-US](#) / [WWF-Indonesia](#) — TNK05 (2016): 67% hard coral cover, 2.25 km from Indonesia - Komodo NP: The Cauldron / Shotgun
- [WWF-US](#) / [WWF-Indonesia](#) — TNK06 (2016): 40% hard coral cover, 1.59 km from Indonesia - Komodo NP: Tatawa Besar
- [WWF-US](#) / [WWF-Indonesia](#) — TNK07 (2016): 34% hard coral cover, 2.14 km from Indonesia - Komodo NP: Wainilu

All images from [Coral Reef Diagnostics](#). Data are from Coral Reef Diagnostics and [Reef Check Foundation](#).



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- 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. [\[PDF\]](#)
- Wilkinson C (2006) Status of coral reefs of the world: summary of threats and remedial action. In: Côté IM, Reynolds JD (eds) *Coral Reef Conservation*. Cambridge University Press, Cambridge. [\[PDF\]](#)