Fiji - Moala

Island 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 Fiji - Moala Group (Moala / Totoya / Matuku) regional summary.

0 — 5

Coral Health Index: TBD

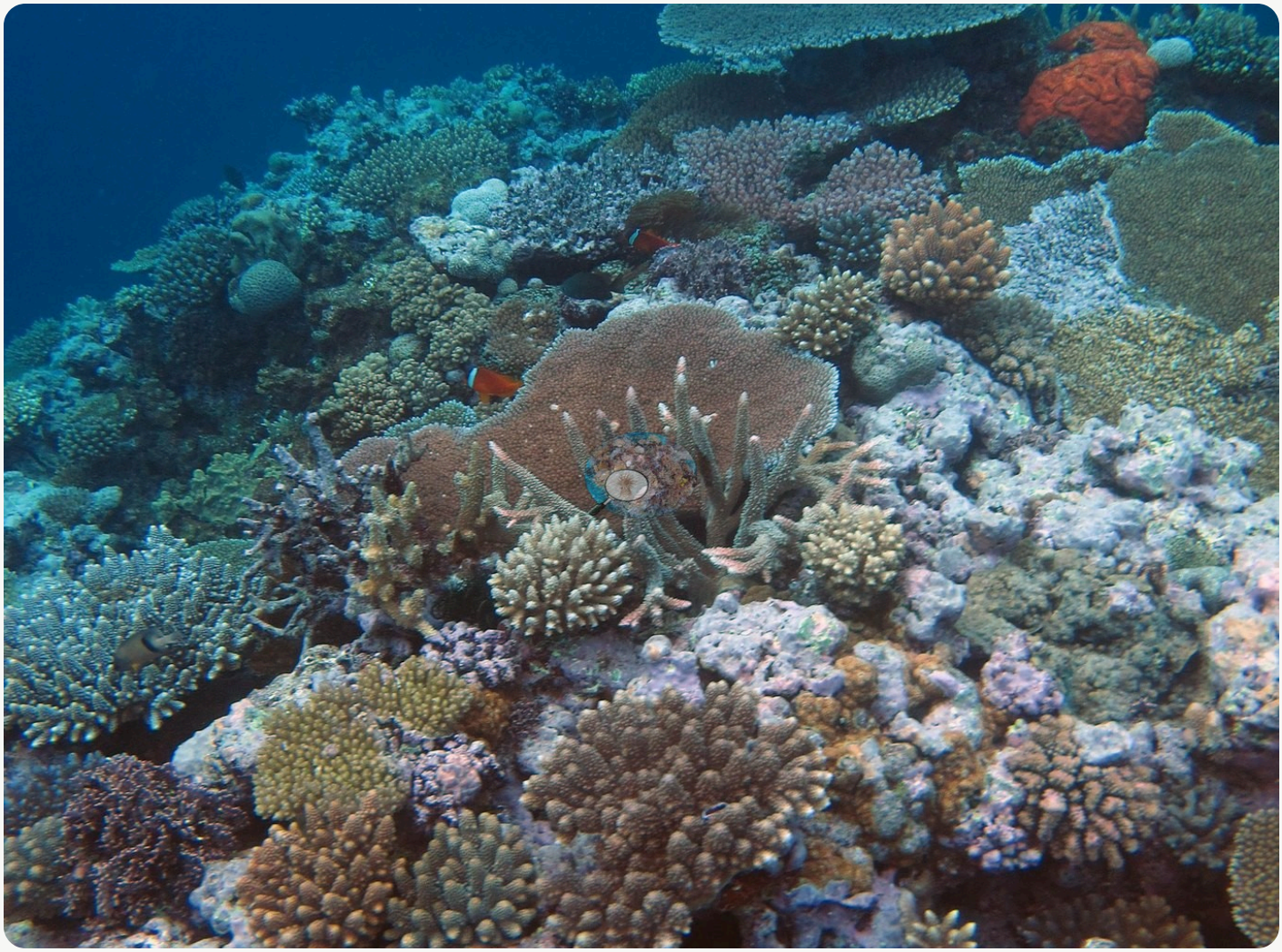


Photo: Anderson Mayfield/Coral Reef Diagnostics — Fiji - Moala (FJML17)

COUNTRY

Fiji

SITES

9

each linked below

HARD CORAL COVER (ISLAND MEAN)

33% ± 9.1% (std. dev.)

n=9. range 22–51%

WATER TEMP. DURING SURVEYS (ISLAND MEAN)

27.1°C

n = 9 of 9 sites; surveyed Jun 2013; all are station CTD-cast midpoints, not dive readings

CORAL HEALTH INDEX (ISLAND MEAN)

not yet scored

n = 0 of 9 sites

MOST RECENT WATER TEMPERATURE RECORD

25.8°C

26 Oct 2026 · Fiji

MOST RECENT HEAT STRESS RECORD

0.0°C-weeks

26 Oct 2026 · No heat stress

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

8.9°C-weeks

2021–2025 · Fiji

HIGHEST ANNUAL HEAT STRESS

16.7°C-weeks 🔥

in 2026 (to date, 26 Oct) · Fiji

SEVERE HEAT-STRESS YEARS

11

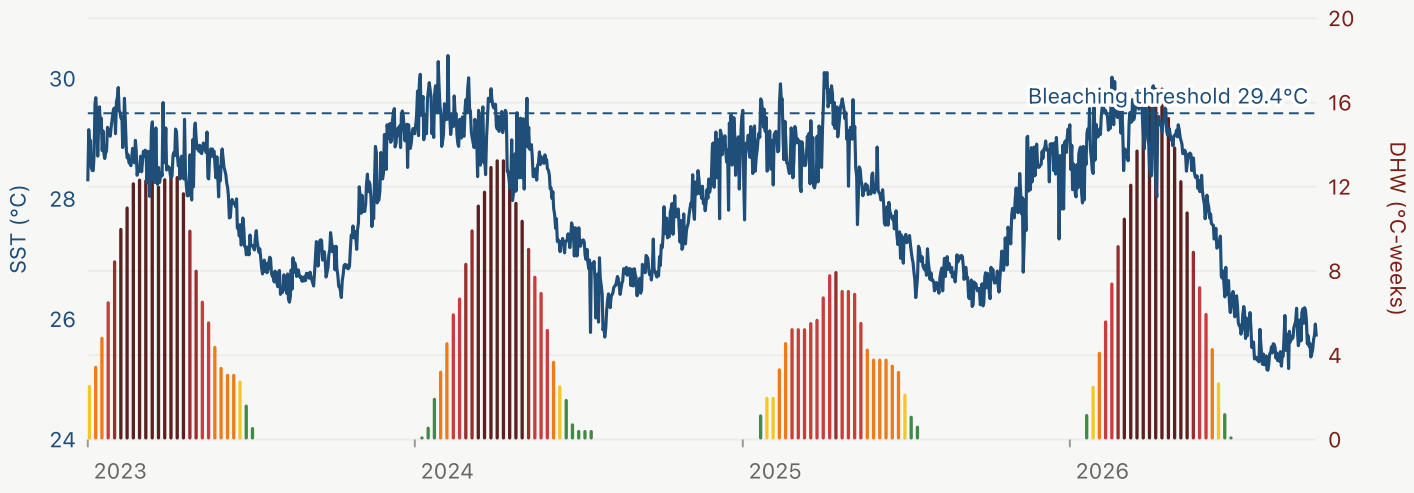
1985–2025 · 6 in the last 10 years

Heat-stress figures: NOAA Coral Reef Watch — Fiji 5-km virtual station. Each pill links its source record and carries the values behind it.

ISLAND SUMMARY

Moala's terraces, slopes, lagoon pinnacle, and coral canyon, surveyed in June 2013, held 22-51% coral, with cushion-star feeding scars on table corals and coral continuing past 40 m on the west side.

Heat stress



sea surface temperature (SST) (left axis) DHW under 2 DHW 2–3 DHW 3–5 DHW 5–8 DHW 8–10 DHW over 10 (🔥 above 12)

Daily SST (line) and weekly maximum Degree Heating Weeks (bars), Jan 2023–Oct 2026, NOAA Coral Reef Watch 5-km Fiji virtual station. Dashed line: bleaching threshold (maximum monthly mean 28.4°C + 1°C). DHW ≥ 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: 11 years from 1985 through 2025 reached 8 or more °C-weeks at NOAA's Fiji station. Download the annual DHW data (CSV).



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

Overview

Moala lies in the Moala Group of Lau Province, in eastern Fiji. Nine Global Reef Expedition stations were surveyed around it between 8 and 10 June 2013, at maximum depths dived from 12.5 m (FJML17) to 30.8 m (FJML23). Survey notes describe fore-reef terraces and spur-and-groove channels on the northwest side, a west-side fore-reef slope where coral continues past 40 m, and exposed slopes on the east side lined with large *Porites* and *Diploastrea*.

Coral cover ranged from 22% at FJML21 to 51% at FJML19 on the west (FJML15, on the exposed east side, had 23%), and algae from 39% at FJML19 to 66% at FJML15. On the west side (FJML19, 51%, and FJML20, 37%), coral build-ups spaced 15-20 m apart on the terrace are topped with branching *Acropora*, with *Porites rus* plates and staghorn down the slope. FJML16 is a high-relief site of coral pillars and bommies with a very mixed, colorful community, FJML21 is a lagoon pinnacle crowned with large *Acropora* tables under clouds of electric-blue damselfish, and FJML23 has a narrow coral canyon between near-vertical walls, with a giant clam and a large olive-green *Porites* dome nearby. Old rubble at FJML17 and FJML18 may record a past storm surge, and cyanobacteria covered 13% of the transects at FJML15.

No Moala station carries a Coral Health Index. Feeding scars on table and plate corals at the west-side stations are attributed to an increase in cushion stars (*Culcita*). One *Pocillopora damicornis* at FJML21 was recorded by Anderson as bleaching and a tagged probe colony there (tag 097) is fully bleached, while the photographs at FJML16 and FJML23 show no bleaching, disease, or crown-of-thorns, though Anderson's sampling sheet records the one colony sampled at FJML16 as pale and about 50% bleached, and three of the five sampled at FJML17 as about 10% bleached (the frame of F35 shows its partly white branches; photo not shown). Island-level physiological screening (Mayfield et al. 2017, PLoS ONE) flagged 1 of the 10 Moala corals with an outlier score, one of the four such corals from FJML18.

Highlights

- 51% cover on a west-side slope where coral continues past 40 m, with build-ups topped by branching *Acropora* (FJML19). 
- A narrow coral canyon between near-vertical coral-crusted walls that divers can swim through (FJML23). 
- A lagoon pinnacle crowned by large *Acropora* tables, with clouds of electric-blue damselfish (FJML21). 
- A high-relief reef of coral pillars and bommies with a very mixed, colorful community and very little bare rock (FJML16). 
- Pale tables, plating acroporids, corymbose acroporids, and pocilloporid clusters over mauve-pink coralline pavement on Moala's northwest side (FJML17). 
- Cushion-star (*Culcita*) feeding scars on table and plate corals on the west side (FJML19, FJML20). 

Notable observations

- Fiji - Moala (FJML19): Corallivores: some evidence of feeding scars on table and plating corals, likely due to an increase in cushion stars (Culcita) at the two west-side stations, FJML19 and FJML20 (Moala survey note). 

- Fiji - Moala (FJML21): One Pocillopora damicornis recorded by Anderson as bleaching, a stark chalk-white colony beside pigmented neighbors; no extent inferred. A tagged probe colony (tag 097) is fully bleached. 
- Fiji - Moala (FJML18): Old coral rubble along the overhang edges; the survey note says it could be evidence of a storm surge event (same note on FJML17). Of the four colonies here with an outlier score, one was flagged as a physiological outlier (Mayfield et al. 2017); Anderson's sheet records all five colonies sampled as healthy, four with small pale spots or tips (5–10%). 
- Fiji - Moala (FJML15): Cyanobacteria covered 13% of the transects on this exposed east-side slope, alongside 66% total algae.

Sites in this region

- Fiji - Moala (FJML15) — 23% coral cover
- Fiji - Moala (FJML16) — 33% coral cover
- Fiji - Moala (FJML17) — 33% coral cover
- Fiji - Moala (FJML18) — 40% coral cover
- Fiji - Moala (FJML19) — 51% coral cover
- Fiji - Moala (FJML20) — 37% coral cover
- Fiji - Moala (FJML21) — 22% coral cover
- Fiji - Moala (FJML22) — 29% coral cover
- Fiji - Moala (FJML23) — 29% coral cover

% coral cover by method

Pooled across 3 dive sites

Method	Mean % coral cover	Std. dev. between dive sites	n dive sites	Note
CoralSCOP (SAM-based mask-sum), edited photos	44%	±8.6	3	3 of these 3 values rest on 10–19 photographs (*)
Claude (Anthropic), blind point count	36%	±14	3	3 of these 3 values rest on 10–19 photographs (*)
In-water diver transect (line/point intercept)	37%	±3.7	3	—

The mean is an UNWEIGHTED mean of the dive site values — each dive site counts once, whatever its photo count — which is the convention of the published tables and of every other figure on this page. Each value is the one printed

on that dive site's own page; a page that prints no value for a method (fewer than 10 photographs) is left out of that method's mean.

This table pools only the 3 dive sites in this unit that have a method comparison; the table for all 10 dive sites is on the Fiji - Lau page.

Deviation from the reference

Over the dive sites where an independent reference exists, Claude (Anthropic), blind point count has a mean absolute deviation of 10.7 pp from it across 3 dive sites. Not in this ranking: CoralSCOP (edited), which measures coral area rather than points. A mean absolute deviation is not an accuracy score: a model with a consistent offset is correctable, while one with the same deviation scattered in both directions is not.

By dive site

Dive site	CoralSCOP (edited)	Claude	Diver transect
FJML16	41%* n=19	35%* n=19	33%
FJML18	38%* n=10	24%* n=10	40%
FJML20	54%* n=13	51%* n=13	37%

n under each value is the number of photographs that method scored at that dive site. ⚠ marks a cell that is not an independent check. * marks a value resting on only 10–19 photographs, which is less certain.

Reference: Living Oceans Foundation (LOF) Global Reef Expedition in-water transects (mean of all the station's transects, Living Oceans Foundation per-transect benthic data). Denominator: line/point intercept along the transect; not a photo-point denominator. Source: LOF Global Reef Expedition 2013, per-transect benthic data ('GRE data-full benthic'): the mean of all of each station's transects For all 10 dive sites in the comparison: The transect is THE coral-cover value at every site; the Claude photo estimate is a methods comparison only, never averaged with the transect and never a headline. Site-level only: the photos come from the survey dives, not from the transect points. Few usable habitat photos exist for Fiji: only 10 sites have 10 or more, and 9 of them have fewer than 20 (low-n), so these are not confident site estimates. Accuracy, Claude vs transect, 10 sites: mean difference -5.4 pp (95% CI -12.7 to +1.9), mean absolute difference 10.3 pp, r 0.35. Claude reads lower than the transect at most sites and does not track it from site to site. This is a methods comparison, not a ranking.

All images from Coral Reef Diagnostics. Data are from the Khaled bin Sultan Living Oceans Foundation Global Reef Expedition and Coral Reef Diagnostics.

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References

- Global Reef Expedition: Lau Province, Fiji. Field Report (Khaled bin Sultan Living Oceans Foundation), survey notes 2013
- Mayfield AB, Chen CS, Dempsey AC (2017). Identifying corals displaying aberrant behavior in Fiji's Lau Archipelago. PLOS ONE 12:e0177267. PDF