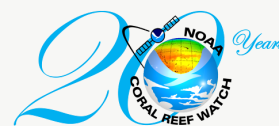




Oman



Regional summary of 7 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.



Coral Health Index: TBD

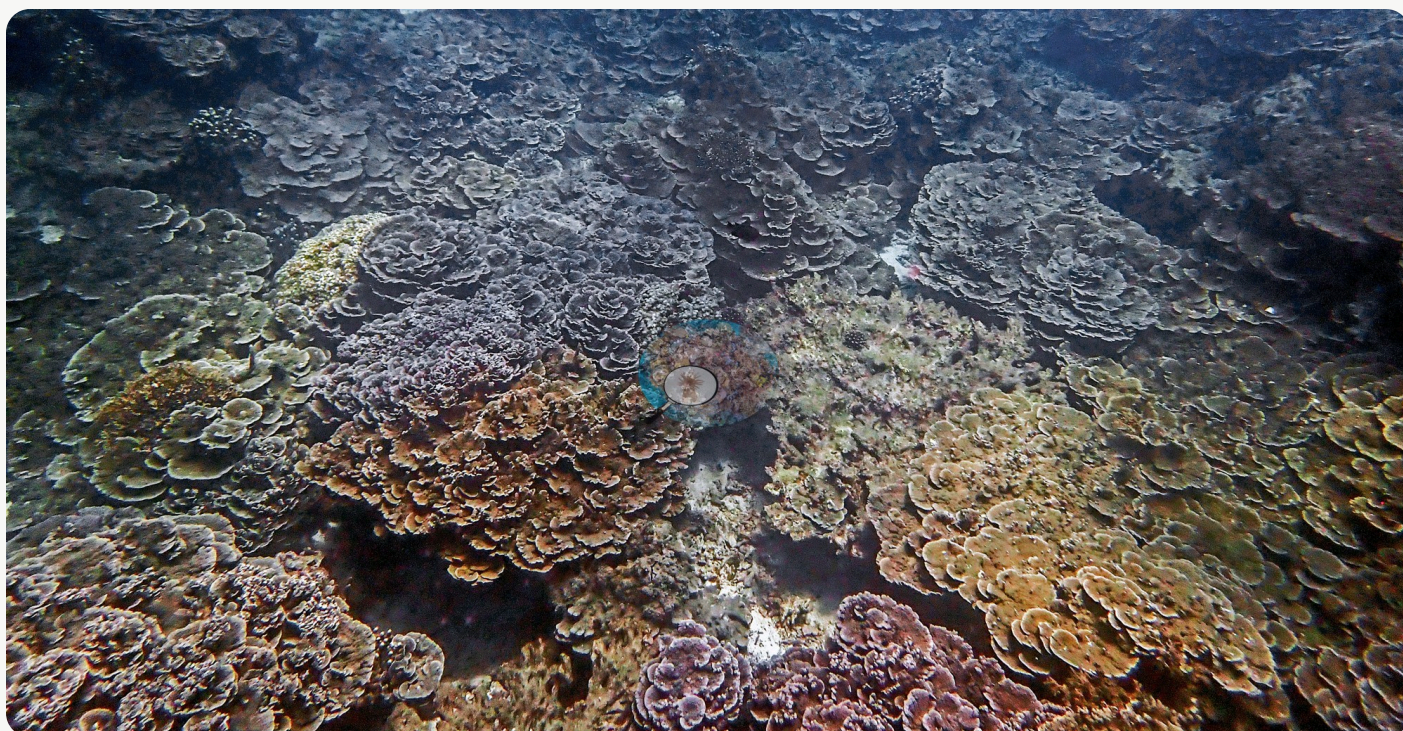


Photo: Anderson Mayfield/Coral Reef Diagnostics — [Oman](#) - Daymaniyat Site 2

COUNTRY

Oman

SITES

7

each linked below

HARD CORAL COVER
(REGIONAL MEAN)

37% ± 7.6% (std. dev.)

n=7. range 25–51%

WATER TEMP. DURING
SURVEYS (REGIONAL MEAN)

—

n = 0 of 7 sites

CORAL HEALTH INDEX
(REGIONAL MEAN)

not yet scored

n = 0 of 7 sites

MOST RECENT WATER
TEMPERATURE RECORD

30.4°C

16 Sep 2026 · [Gulf of Oman](#)

MOST RECENT HEAT
STRESS RECORD



4.6°C-weeks

16 Sep 2026 · Alert Level 1

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

11.0°C-weeks

2021–2025 · Gulf of Oman

HIGHEST ANNUAL HEAT
STRESS

18.7°C-weeks 🔥

in 2024 · Gulf of Oman

SEVERE HEAT-STRESS YEARS

7

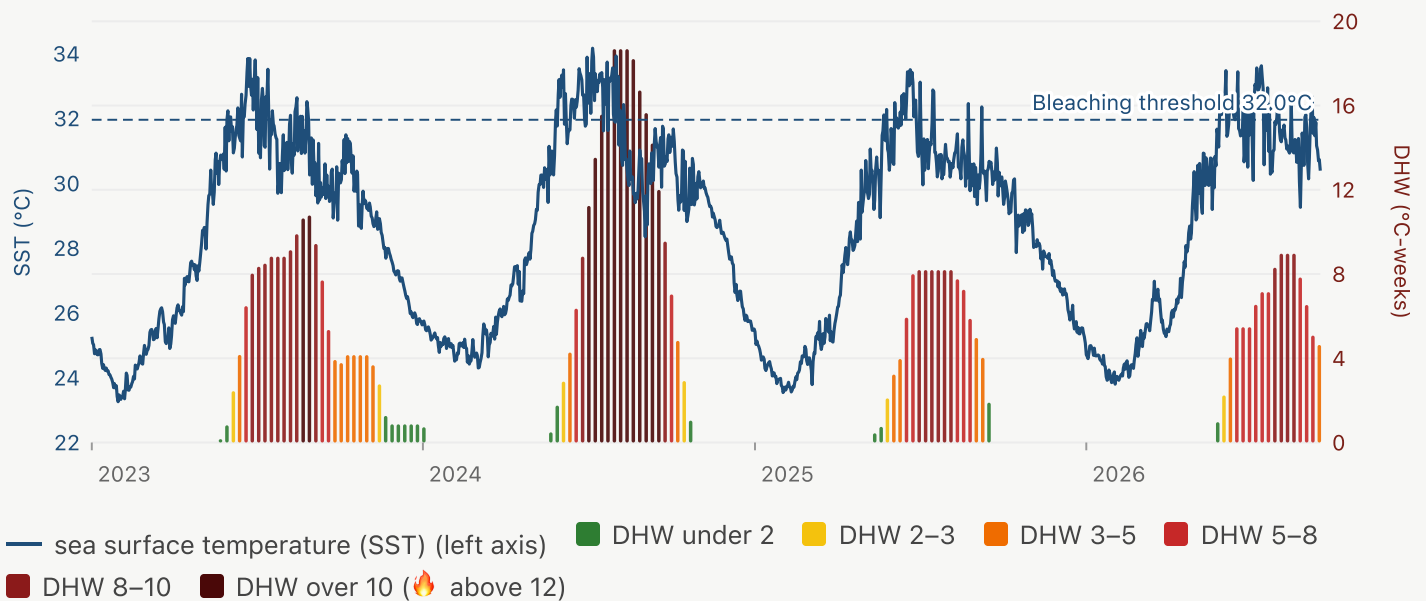
1985–2025 · 4 in the last 10 years

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

REGIONAL SUMMARY

Oman's rocky, strongly zoned Muscat reefs and the shallow Daymaniyat island reefs, surveyed in May 2024, held 32.9% to 62.7% hard coral. With only a trace of bleaching, they stand as a record taken weeks before heat stress struck that summer.

Heat stress



Daily SST (line) and weekly maximum Degree Heating Weeks (bars), Jan 2023–Sep 2026, [NOAA Coral Reef Watch](#) 5-km Gulf of Oman virtual station. Dashed line: bleaching threshold (maximum monthly mean 31.0°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: 7 years since 1985 reached 8 or more °C-weeks at [NOAA's](#) Gulf of Oman station. [Download the annual DHW data \(CSV\)](#).





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

Read this summary in:

English

العربية

Regional setting

Oman's coasts face the Arabian Sea and the Gulf of Oman, and the Arabian Sea shores remained almost unstudied until the late 1980s ([Spalding et al. 2001](#)). Strong southwest monsoon winds in summer drive upwelling of cool, nutrient-rich water of about 16–17°C along southern Arabia, so that in southern Oman macroalgae such as *Sargassum*, with kelp in deeper water, often occupy hard ground where corals might otherwise grow. In the Gulf of Oman the cool-water influence is weaker and less constant. [Spalding et al. \(2001\)](#) name four main areas of well-developed coral communities and small reef formations: the Musandam Peninsula, the shores and bays around Muscat together with the Daymaniyat Islands, western Masirah Island and the facing mainland, and sheltered rocky coast around the Al Halaniyat Islands and Dhofar. Many of these communities combine high cover with low diversity, dominated by *Porites*, *Pocillopora damicornis*, or *Acropora*. Natural impacts included storm damage and some crown-of-thorns predation, and the 1998 bleaching killed shallow corals in Dhofar but did little harm elsewhere. The Daymaniyat Islands became a nature reserve in 1995. [Spalding et al. \(2001\)](#) estimate about 530 km² of coral reef for Oman; [Souter et al. \(2021\)](#) give 196 km² for the Sea of Oman subregion and 2,009 km² for the whole ROPME Sea Area.

As of 2001, Spalding et al. judged human impacts on Oman's reefs to be considerable. Overfishing was probably only local, but anchors, fishing gear, and discarded nets did far more harm: one 1996 survey found 25–100% of the coral damaged on the *Pocillopora damicornis* reefs it examined. In the Sea of Oman, [Souter et al. \(2021\)](#) report that reefs lost almost half their coral cover from 2005 to 2010 after super-cyclone Gonu in 2007, cyclone Phet in 2010, and a large algal bloom in 2008–09, before recovering. The subregion bleached again in 2015, and

algal cover there has roughly tripled since the early 2000s, a sign of a possible phase shift. The only records in the ROPME dataset spanning more than a decade come from around Muscat.

Overview

Oman's seven pins are Anderson's May 2024 survey sites, four on the Muscat coast (Novice Bay, Cave Site, Jissah Point, Cat Island) dived on 20-21 May and three in the Daymaniyat islands dived on 25 May. Published hard coral cover from manual point counts ranged from 32.9% at Cat Island to 62.7% at Cave Site. The Muscat reefs are rocky and strongly zoned. Novice Bay grades from a shallow flat of [brain corals](#) and [Pocillopora](#) thickets into leather-coral slopes and deep coralline buttresses, with [soft coral](#) at 29%. At Cave Site, where sand gullies and overhangs cut through the framework, colonies are packed so tightly that coral-on-coral contact is the norm. Jissah Point is the outlier, a low-relief pavement where algal turf (37.8%) nearly matches hard coral (39.5%) among leather-coral banks. Cat Island splits almost evenly between hard coral, soft coral, and turf, with compact branching colonies on boulder tops above leather corals and [corallimorph](#) carpets.

The Daymaniyat sites are shallow reefs rising from bright white sand. Site 1 holds near-monospecific meadows of tabular [Acropora](#) and dense [Pocillopora](#) fields separated by sand channels and [Porites](#) bommies, and Site 3 is covered almost wall to wall in fine-branched tabular and branching corals. At Site 2, a fringing reef off a low rocky islet, bommies are wrapped in knobby coral and tiered laminar plates, with turf down to 5.3%. Photo review found that tabular [Acropora](#) had been partly scored as soft coral at Sites 1 and 3, so the published hard coral values there (51.1% and 41.5%) likely understate living hard coral.

No bleaching was seen in May 2024 except a trace (0.2% of hard coral points) at Novice Bay. The surveys fell weeks before [NOAA Coral Reef Watch](#) recorded Alert Level 2 heat stress and bleaching was reported along this coast from July 2024, so they stand as a pre-stress record. Sea turtles were photographed repeatedly at the Daymaniyat sites, and a banded sea snake, honeycomb moray, and scorpionfish were recorded off Muscat.

Highlights

- Cave Site (Muscat): 62.7% hard coral cover, the highest of the seven sites

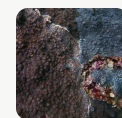


photo: Oman - Cave

Site (Muscat)

- Daymaniyat Site 2: near-unbroken coral on bommies and laminar plates, with turf at just 5.3%

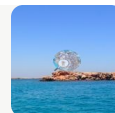


photo: Oman - Daymaniyat Site 2

- Jissah Point: turf-dominated pavement, the outlier of the survey

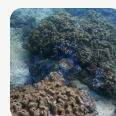


photo: Oman - Jissah Point

(Muscat)

- All seven sites surveyed 20-25 May 2024, weeks before the July 2024 heat stress

- Only trace bleaching recorded (0.2% of hard coral points at Novice Bay)

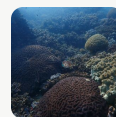
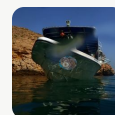


photo: Oman - Novice Bay

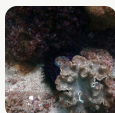
(Muscat)

Notable observations

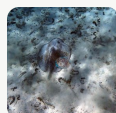
- [Oman - Novice Bay \(Muscat\)](#): Bleaching: the only site of the survey with any bleaching, a trace 0.2% of hard coral points; a photograph cannot separate bleached tissue from freshly dead skeleton



- [Oman - Cat Island \(Muscat\)](#): [Crown-of-thorns](#): a seastar is on record for this site from an earlier review, but it does not appear in the reviewed photographs (the spiny animal in frame 1 is a Diadema-type urchin)



- [Oman - Daymaniyat Site 1](#): Broken branch tips read as physical breakage and bare skeleton, not as a bleaching signal

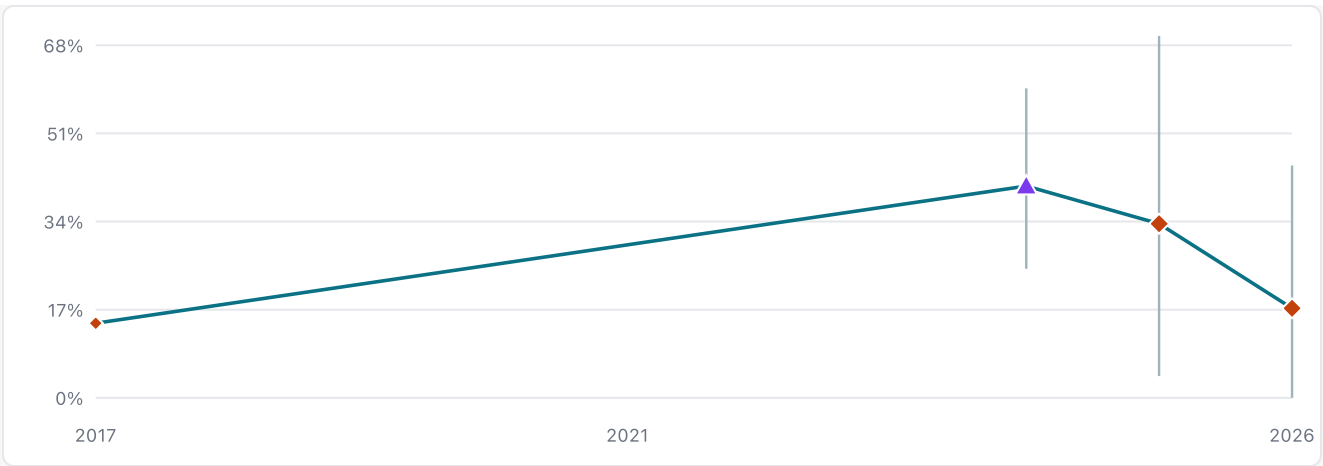


- [Oman - Daymaniyat Site 3](#): A patch of old, gray, turf-furred dead branching framework beside living tables, the one sign of past mortality



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 (2017). Non-CRD points are from [Reef Check Foundation](#). Marker shape: ● his own dives, ◆ other organizations' surveys, ▲ a mix of both, that year.



Sites in this region

- [Oman - Cat Island \(Muscat\)](#) — 25% coral cover
- [Oman - Cave Site \(Muscat\)](#) — 51% coral cover
- [Oman - Daymaniyat Site 1](#) — 42% coral cover
- [Oman - Daymaniyat Site 2](#) — 38% coral cover
- [Oman - Daymaniyat Site 3](#) — 33% coral cover
- [Oman - Jissah Point \(Muscat\)](#) — 33% coral cover
- [Oman - Novice Bay \(Muscat\)](#) — 39% coral cover

% coral cover by method

Pooled across 7 dive sites

Method	Mean % coral cover	Std. dev. between dive sites	n dive sites	Note
Manual point count (author)	37.3%	±8.3	7	frame-weighted 39.8% over 660 frames
CoralNet automated point classifier	36.6%	±8.2	6	frame-weighted 37.9% over 461 frames; 5 of these dive sites are the SAME MEASUREMENT as the reference and are excluded from the ranking
CoralSCOP (SAM-based mask-sum), edited photos	37.2%	±14	7	frame-weighted 42.8% over 540 frames
CoralSCOP (SAM-based mask-sum), unedited photos	35.2%	±12	7	frame-weighted 40.1% over 540 frames
Claude (Anthropic), blind point count	44.5%	±14	7	frame-weighted 44.6% over 103 frames

In-house DINOv3 point classifier	30.0%	±9.8	7	frame-weighted 29.9% over 554 frames
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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. The frame-weighted alternative is given per method in the Note column; where the two differ, the difference is a photo-count imbalance, not a coral-cover finding.

Closest to the reference

Over the dive sites where an independent reference exists, [CoralNet](#) automated point classifier sits closest to it — a mean absolute deviation of 2.7 pp across 1 dive site, then CoralSCOP (SAM-based mask-sum), edited photos 4.8 pp (n=2), CoralSCOP (SAM-based mask-sum), unedited photos 4.9 pp (n=2), In-house DINOv3 point classifier 17.9 pp (n=2). 5 dive sites are excluded from this calculation entirely — Cat Island, Daymaniyat-site 1, Daymaniyat-site 2, Daymaniyat-site 3, Jissah Point — because the reference there is itself machine output, so a model compared against it is only being compared with another model. 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	Manual point count	CoralNet	CoralSCOP (edited)	CoralSCOP (unedited)	Claude	DINOv3
Cave Site	51.4% n=170	48.7% n=106	50.5% n=149	49.0% n=149	69.3% n=15	31.2% n=151
Daymaniyat-site 1	41.7% n=79	41.7% [△] n=79	24.6% [△] n=56	23.2% [△] n=56	51.9% [△] n=15	34.4% [△] n=56
Novice Bay	38.5% n=135	—	47.3% n=111	45.9% n=111	41.9% n=15	23.0% n=120
Daymaniyat-site 2	38.1% n=106	38.1% [△] n=106	50.4% [△] n=81	42.2% [△] n=81	48.3% [△] n=15	46.5% [△] n=84
Jissah Point	33.3% n=61	33.3% [△] n=61	38.1% [△] n=54	34.9% [△] n=54	26.8% [△] n=15	16.0% [△] n=54
Daymaniyat-site 3	33.0% n=28	33.0% [△] n=28	13.3% [△] n=19	17.6% [△] n=19	35.9% [△] n=13	34.2% [△] n=18
Cat Island	24.9% n=81	24.9% [△] n=81	36.5% [△] n=70	33.3% [△] n=70	37.1% [△] n=15	24.9% [△] n=71

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.

Reference: point-count on the photographs (a human scoring the same pixels the models see). Denominator: coral points / (30 – WATER – FISH); `Unk` is IN the denominator (Mayfield 2025 convention). Source: published verbatim ([Mayfield 2025](#), Platax, Table 1) [△] Only 200 of the 661 frames behind the published Oman cover carry the author's

own points (Novice Bay 135 + 65 of Cave Site); the other 461 carry [CoralNet](#) robot labels. Cave Site is the ONLY real [CoralNet](#) comparison in this region. The two CoralSCOP columns are PAIRED — a frame counts only if the same stem was scored in both runs, so edited minus unedited is not a frame-selection artefact. CoralSCOP cover is a mask-sum AREA fraction; no point denominator applies to it. The Claude column is the edited-photo blind arm (15 frames/site, 13 at Daymaniyat site 3). The harder unedited fair test is a separate, non-interchangeable number.

Nearby external survey stations

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

► Show all 20 records

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



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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. [\[PDF\]](#)
- Mayfield AB (2025). High coral cover at “tourist reefs” of the Sultanate of Oman. *Platax* 22:27-44. [PDF](#)