Tonga - Ha'apai (TOHA27)

surveyed 2013-09-20



0 — 5

Coral Health Index: TBD

What was done. Coral cover here was measured on in-situ benthic transects run by divers on the Living Oceans Foundation Global Reef Expedition over 8 transects — a diver measurement, not an estimate read off photographs. The written account of the site is a review of its photographs, the author's sampling sheet, and the expedition's survey records, not a second survey.

HARD CORAL COVER

31%

Benthic transects+photo-quadrats

MOST RECENT HEAT LOAD RECORD

24.3°C **0.0°C-weeks**

26 Oct 2026 · -2.5°C vs the past-365-day mean (26.8°C) · NOAA No heat stress

HEAT STRESS (5-YR MEAN ANNUAL MAX. DHW)

8.1°C-weeks

NOAA annual peaks averaging 8–12°C-weeks

MAX. DEPTH

30.5 m

dive-log maximum

WATER TEMP. (SURVEY)

25.7°C

CTD-cast midpoint of 25.7–25.8°C

-1.0°C vs the 2013 mean sea temperature (26.7°C)

PHOTOGRAPHS

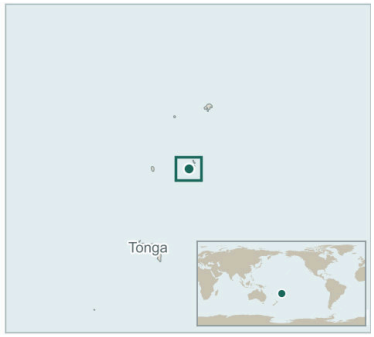
17 in the gallery · 17 on file

POSITION

-19.7457, -174.3773

Coordinate from the supporting data of Mayfield et al. (2017, PLoS ONE).

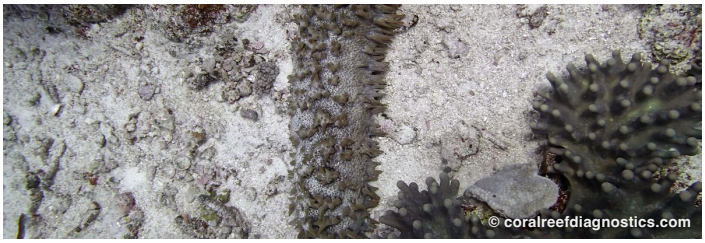




A submerged offshore patch reef with spurs 20-30 m wide and hundreds of meters long, topped with bottlebrush and staghorn *Acropora*, with some very large *Porites* in the channels and many meter-wide *Turbinaria* plates. About 10% of the deeper staghorn was dead or mostly dead under thick turf and damselfish, and thickets at the base of the slope were about 30% dead. Surveyed on the Living Oceans Foundation's Global Reef Expedition.

lea faka-Tonga. Ko ha ki'i hakau 'i tahi kuo melemo (submerged offshore patch reef) mo e ngaahi spurs 'oku 20-30 m hono fālahi pea loloa 'aki 'a e mita 'e ngaahi teau, 'oku 'i honau funga 'a e *Acropora* fakapulumu (bottlebrush) mo e staghorn, mo ha *Porites* lalahi 'aupito 'e ni'ihi 'i he ngaahi hala vai pea mo e ngaahi papa *Turbinaria* lahi 'oku mita 'e taha hono fālahi. Na'e mate pe meimei mate 'a e meimei 10% 'o e staghorn loloto ange 'i lalo 'i he limu nounou (turf) matolu mo e damselfish, pea ko e ngaahi vao 'i he takele 'o e tafa'aki na'e meimei 30% mate. *AI translation of this summary; the English is authoritative. (low confidence)*





CV model comparison (hard coral cover, %): Transect mean (all transects) 30.8 · CoralSCOP unedited 39.2* · Claude (edited photos) 25.1* The two computer-vision methods disagree by 14.1 pp (25.1–39.2%) and read on both sides of the in-water transect (30.8%); the headline is the in-water transect because a diver transect is independent of the photographs. *Based on only 13 reef-habitat photos; this estimate is less certain.

Photographs: Anderson Mayfield/Coral Reef Diagnostics — 3 on this card; 17 in the gallery · 17 on file; watermarked · Full site record: https://api.coralreefdiagnostics.com/site-pages/gre-tonga-ha-apai-toha27.html · Heat stress is the mean of the latest five annual maxima of NOAA Coral Reef Watch degree-heating weeks for this reef's NOAA CRW virtual station (Southern Tonga) — a five-year heat history for the station's waters, not a measurement at this site on the dive date.