Tonga - Niua (TONI55)

surveyed 2013-09-29



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 4 transects — a diver measurement, not an estimate read off photographs. The written account of the site is a review of its photographs and of the author's dive notes, not a second survey.

HARD CORAL COVER

33%

Benthic transects+photo-quadrats

MOST RECENT HEAT LOAD RECORD

26.2°C **0.0°C-weeks**

26 Oct 2026 · -2.2°C vs the past-365-day mean (28.4°C) · NOAA No heat stress

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

5.2°C-weeks

NOAA annual peaks averaging 4–8°C-weeks

MAX. DEPTH

23.5 m

dive-log maximum

WATER TEMP. (SURVEY)

27.7°C

CTD-cast midpoint of 27.7–27.8°C

-0.7°C vs the 2013 mean sea temperature (28.4°C)

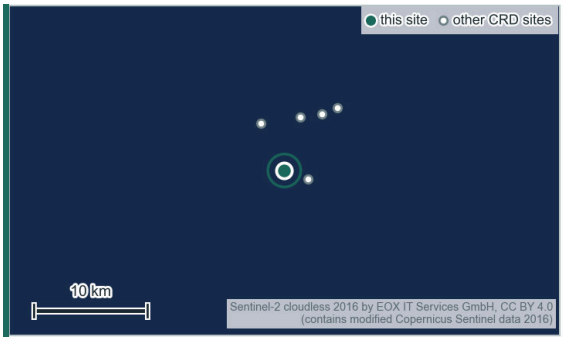
PHOTOGRAPHS

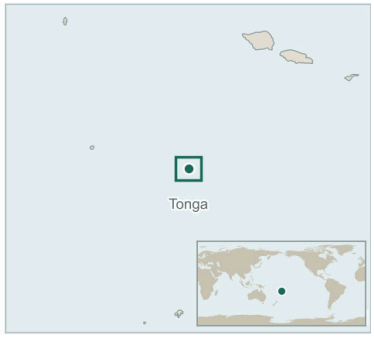
16 in the gallery · 16 on file

POSITION

-15.9751, -173.8108

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

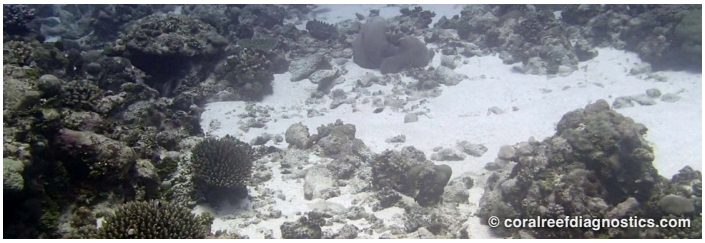




A broad, gently sloping platform off Niuatoputapu with spurs running hundreds of meters and the first extensive stands of blade-like fire coral on the expedition; the survey team's notes describe very little *Acropora*, but the point-count transect counted *Acropora* as the leading genus. About 20-30% of the *Pocillopora* showed recent mortality or old dead patches from disease. Surveyed on the Living Oceans Foundation's Global Reef Expedition.

lea faka-Tonga. Ko ha tu'unga fālahi 'oku hifo māmālie 'i Niuatoputapu mo e ngaahi spurs 'oku loloa 'aki 'a e mita 'e ngaahi teau pea mo e ngaahi vao lalahi 'uluaki 'o e feo afi fakala'ā (blade-like fire coral) 'i he 'ekisipeteni; 'oku fakamatala'i 'e he ngaahi nouti 'a e timi savea 'oku si'isi'i 'aupito 'a e *Acropora*, ka na'e lau 'e he transect lau-poini (point-count transect) 'a e *Acropora* ko e genus taki. Na'e hā 'i he meimei 20-30% 'o e *Pocillopora* 'a e mate fo'ou pe ngaahi konga mate motu'a mei he mahaki. *AI translation of this summary; the English is authoritative. (low confidence)*





CV model comparison (hard coral cover, %): Transect mean (all transects) 32.7 · CoralSCOP unedited 33.5* · Claude (edited photos) 34.6* The two computer-vision methods agree within 1.1 pp (33.5–34.6%) and read within 1.9 pp of the in-water transect (32.7%). *Based on only 15 reef-habitat photos; this estimate is less certain.

Photographs: Anderson Mayfield/Coral Reef Diagnostics — 3 on this card; 16 in the gallery · 16 on file; watermarked · Full site record: https://api.coralreefdiagnostics.com/site-pages/gre-tonga-niua-toni55.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 (Northern Tonga) — a five-year heat history for the station's waters, not a measurement at this site on the dive date.