

Pacific Climate Update

Coral Bleaching Heat Stress Analysis and Seasonal Guidance through August 2018

(Released May 7, 2018)

Current conditions:

NOAA Coral Reef Watch's (CRW) near-real-time satellite monitoring shows mildly above-average sea surface temperatures (SSTs) in much of the western tropical Pacific Ocean, especially surrounding the eastern Federated States of Micronesia (FSM) and the Marshall Islands (Figure 1). Below-average SSTs are predominantly in the central equatorial Pacific Ocean around the Phoenix Islands, Kiribati, reaching eastward to the Marquesas Islands. In the northern Pacific Ocean around the Hawaiian Archipelago, above-average SSTs are currently influencing the southern Main Hawaiian Islands, while bands of spatially alternating above- and below-average SSTs are affecting the Northwestern Hawaiian Islands along its axis (Figure 1). During March 2018, the La Niña weakened but was still reflected by below-average SST across the east-central and east equatorial Pacific. The NOAA National Centers for Environmental Prediction's El Niño-Southern Oscillation (ENSO) Alert System, currently at a [La Niña Advisory](#), predicts conditions to return to ENSO-neutral during April-May and continue through Northern Hemisphere summer 2018.

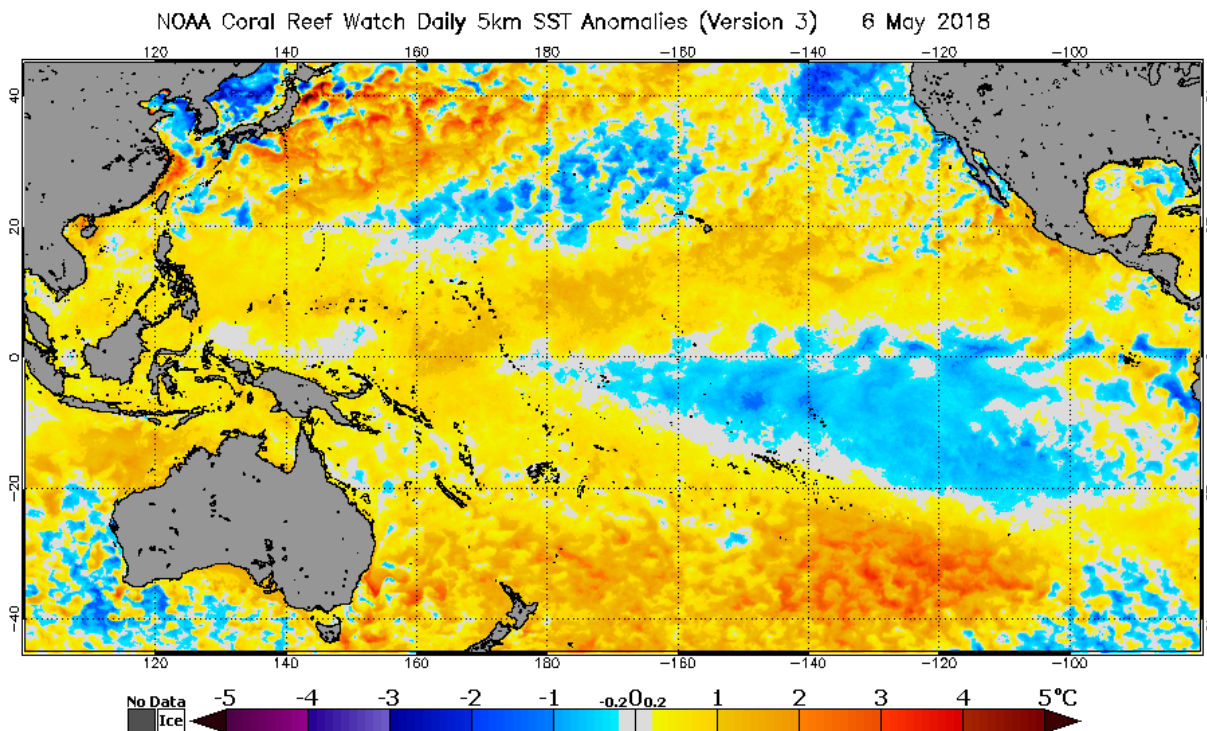


Figure 1. NOAA Coral Reef Watch's Satellite Sea Surface Temperature Anomaly product for the Pacific region.

In recent months, HotSpots rarely surpassed 1°C in most of the Pacific Ocean, with the exception of Clipperton Island, France (Figure 2); as a result, the current bleaching status for much of the Pacific remains at a Bleaching Watch or No Stress (Figure 3).

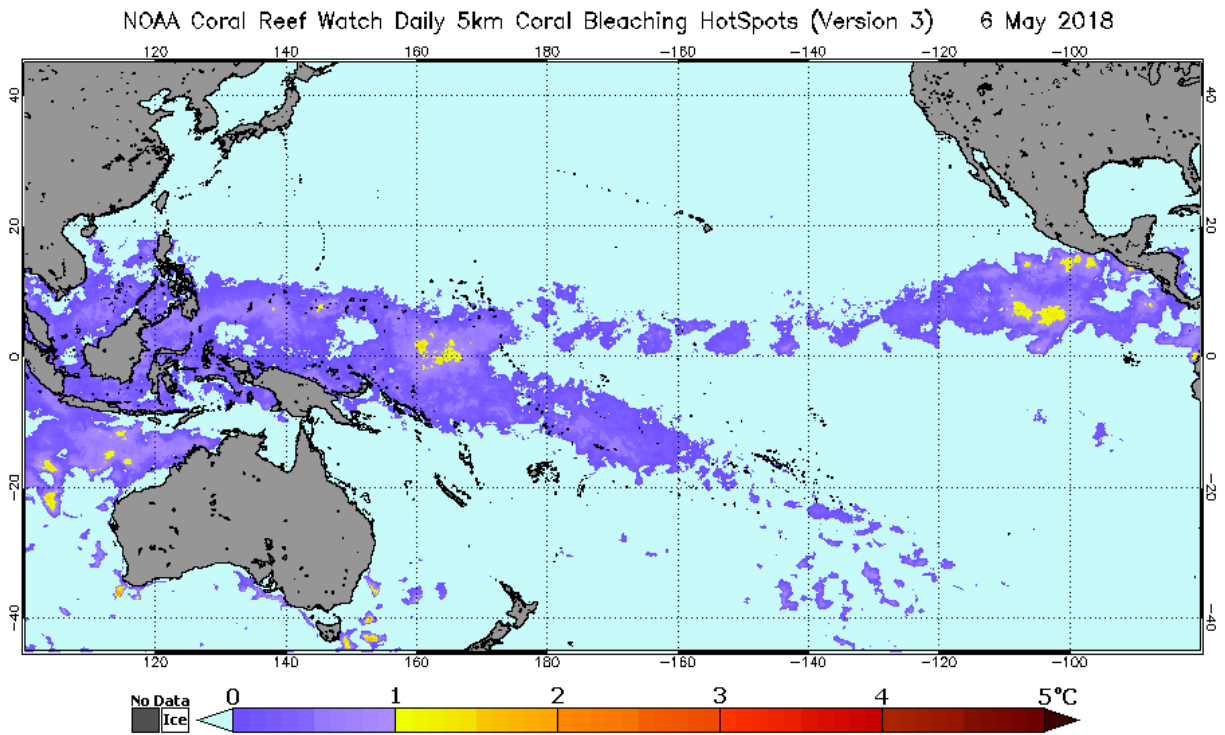


Figure 2. NOAA Coral Reef Watch's Satellite Coral Bleaching HotSpot product for the Pacific region.

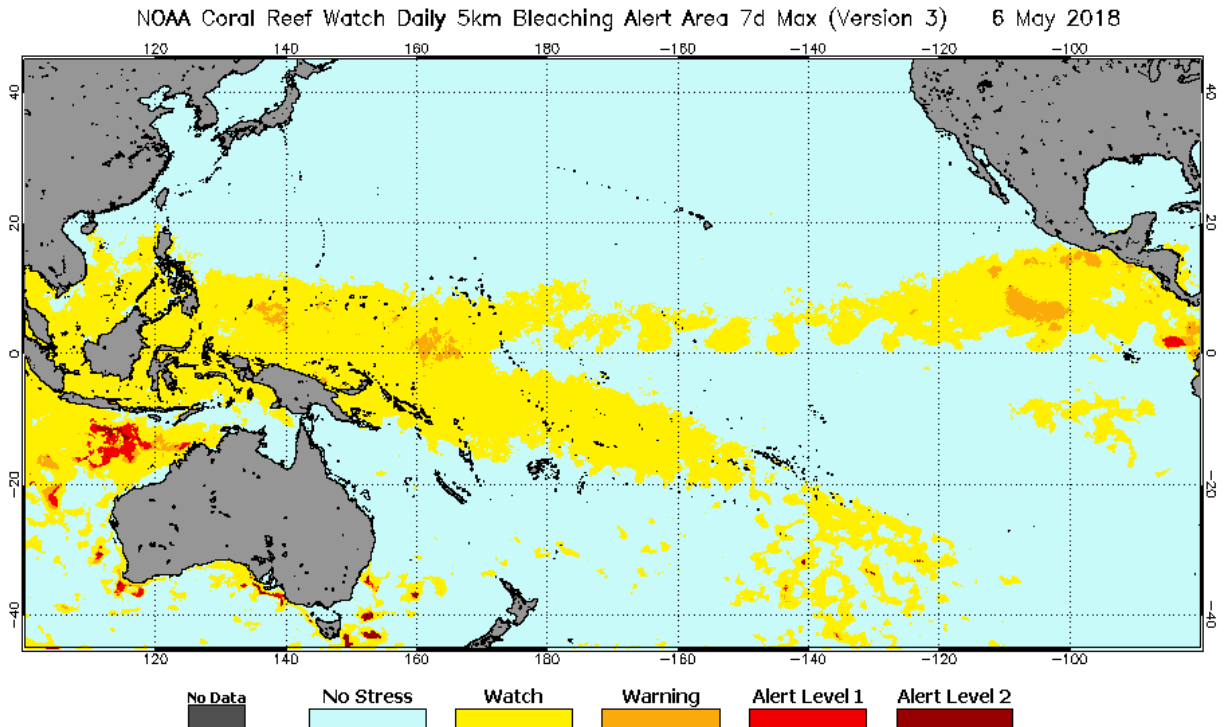


Figure 3. NOAA Coral Reef Watch's Satellite Bleaching Alert Area (7-day maximum) product for the Pacific region.

CRW's most recent [Four-Month Coral Bleaching Outlook](#) (Figure 4) projects continued heating (to Alert Level 1) in the eastern Pacific around Clipperton Island, France as well as in the western Pacific around the FSM and Marshall Islands (Alert Level 2) through July and August. Minimal bleaching is expected throughout the rest of the Pacific, however, due to the continued absence of heat stress since Northern Hemisphere winter.

2018 May 1 NOAA Coral Reef Watch 60% Probability Coral Bleaching Heat Stress for May–Aug 2018
Experimental, v5.0, CFSv2-based, 28 to 112 Ensemble Members

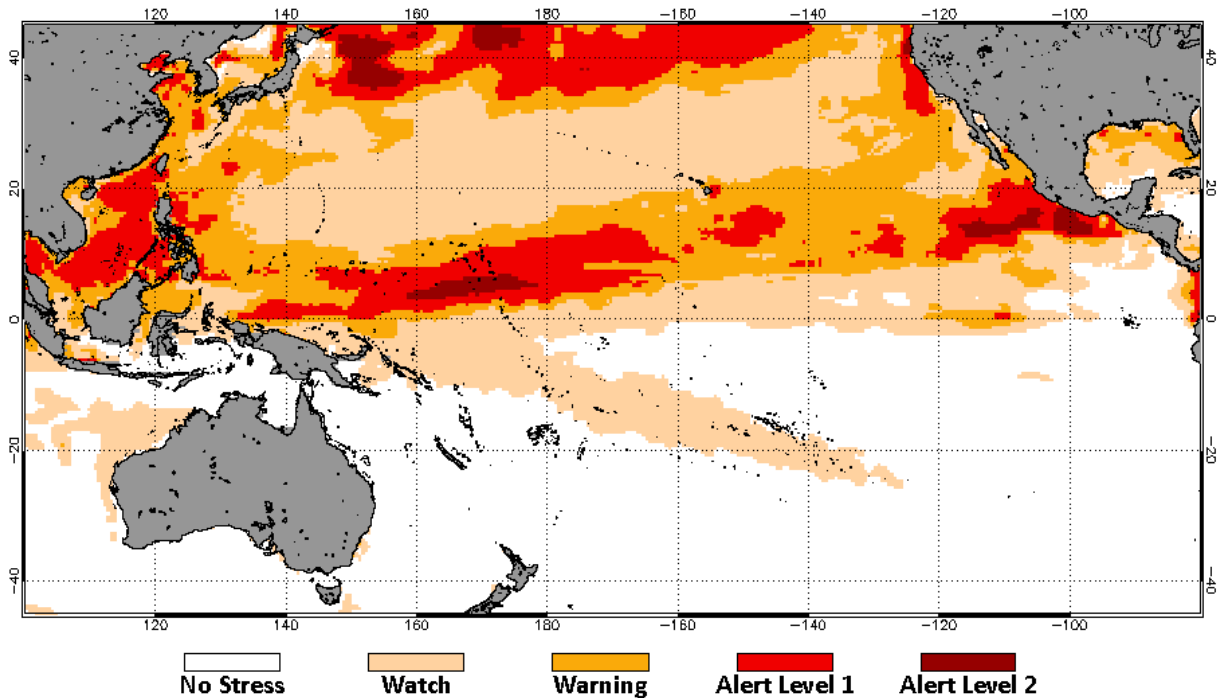


Figure 4. NOAA Coral Reef Watch's Four-Month Coral Bleaching Heat Stress Outlook of May 1, 2018 for the period May-August 2018 for the Pacific region.

NOTE: This report focuses on NOAA Coral Reef Watch's Version 3.0 (or v3) [5km satellite-based coral bleaching heat stress products](#) and v4 [Four-Month Coral Bleaching Heat Stress Outlook](#). The 5km satellite products presented here use CRW's new color scales, which are implemented in the images posted on the [CRW website](#).

To monitor the intensity and location of bleaching heat stress in your coral reef region of interest, please follow NOAA Coral Reef Watch's satellite monitoring and outlooks closely in the coming weeks: <https://coralreefwatch.noaa.gov/satellite/bleaching5km/index.php> and https://coralreefwatch.noaa.gov/satellite/bleachingoutlook_cfs/outlook_cfs.php.

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