VOL VII | ISSUE VII

Announcement

CARIBBEAN WATERS HAVE RETURNED TO LOW OR NO HEAT STRESS LEVELS WITH THE ARRIVAL OF NORTHERN HEMISPHERE WINTER.



REPORT CORAL BLEACHING OBSERVATIONS



CORAL REEF RESTORATION METHODS IN THE CARIBBEAN AND FLORIDA KEYS



DISEASE RESISTANCE IN CORAL IS MEDIATED BY DISTINCT ADAPTIVE AND PLASTIC GENE EXPRESSION PROFILES



CARIBBEAN CORAL REEF WATCH

Notable Observations (as of Dec. 19)

- Despite temps. dropping below bleaching alert levels with the start of N. Hemisphere winter, S. Caribbean reefs may still be risk due to ongoing impacts from heat stress accumulated over the past three months.
- Heat accumulation of ≥ 5°Celsius-weeks most recently appeared in parts of the S. Caribbean (Leeward Antilles, Venezuela, Colombia, Panama Atlantic West, Costa Rica Atlantic, and Nicaragua).

Current Global Conditions

- Bleaching Alert Level 1 conditions exist around W.
 Papua, Solomon Islands, S.E. Sulawesi, W. Timor (Coral Triangle), Timor-leste (Coral Triangle), Torres Strait (Australia), and the Beagle Gulf (Australia).
- Papua New Guinea, Maluku (Indonesia), and Northern Territory (Australia) are at Alert Level 2.





Click here to track current conditions

Alert Level Guide

Alert Level	Interpretation
No Stress	No Thermal Stress
Watch	Low-level thermal stress
Warning	Thermal stress is accumulating
Alert level 1	Bleaching expected
Alert level 2	Widespread bleaching and some mortality expected

Current Outlook (December '22 - March '23)

▶ 4-Month Outlook (of December 20) indicates No Coral Bleaching Heat Stress from now until April 2023 in the Caribbean region.



Click here to track the 4-month bleaching outlook

Bleaching Alert Area and Outlook



Caribbean Bleaching Outlook

With the arrival of Northern Hemisphere winter, almost all areas of the Caribbean are at a level of No Heat Stress and are predicted to remain as such until April2023.

> View the Daily 5-km Satellite Regional Virtual Stations here

View a week-by-week progression of the Four-Month Coral Bleaching Heat Stress Outlook <u>here</u>

Click here for more information about the NOAA Coral Reef Watch <u>methodology</u>

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CARIBBEAN CORAL REEF WATCH