

2018 Bleaching Season Summary

Monthly data from NOAA's Coral Reef Watch 5-kilometer Coral Bleaching Alert Area indicated that the US Virgin Islands (USVI) did not surpass a bleaching "watch" this season. Although the sea surface temperature (SST) surpassed the monthly maximum mean, the temperature remained below the bleaching threshold for the entire season (Figure 1). Corals experience thermal stress when the SST is 1°C greater than the warmest monthly mean temperature, known as the maximum monthly mean. Since local SST did not reach this level, known as the "bleaching threshold", our risk of coral bleaching remained relatively low. Furthermore, accumulated temperature stress did not threaten our corals this season and Degree Heating Weeks (DHW) remained below 0 throughout the entire bleaching season. One DHW is equal to one week with temperatures 1°C greater than the maximum monthly mean, so when the SST consistently remains below the maximum monthly mean corals do not experience significant accumulated heat stress.

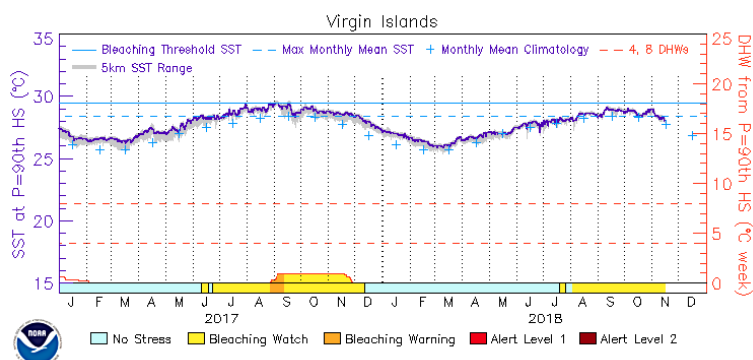


Figure 1 NOAA's Coral Reef Watch regional virtual stations data as of November 16, 2018 <https://coralreefwatch.noaa.gov/vs/data.php>

BleachWatch reports similarly reflected the trends shown by NOAA's Coral Reef Watch, indicating that corals in the USVI experienced a low level of thermal stress this season. BleachWatch received only isolated reports of coral bleaching from volunteers. In most instances, only a portion of the coral was bleached as opposed to bleaching recorded throughout the entire colony. The types of colonies that were most commonly observed bleaching included branching corals, boulder corals, plate corals, and brain corals. Reported bleaching prevalence remained in the low percentage category (1-10%) throughout the entire bleaching season, indicating that local SST did not reach a level high enough to cause widespread bleaching at surveyed locations in the USVI. Other reported impacts to reefs included coral disease and an abundance of *Ramircrusta* algae. Volunteer reports, including those showing an absence of coral bleaching and other impacts to reefs, provided valuable data that can be considered in future bleaching seasons.



Figure 2 BleachWatch volunteers completing reports during a snorkel survey (Photo: Lisa Terry)

What's New with BleachWatch?

BleachWatch VI hosted four training sessions this season: one in St. Croix, one in St. John, and two in St. Thomas. Over 30 new and returning volunteers attended these meetings. Training sessions covered the basics of coral bleaching, an introduction to the BleachWatch program, and an explanation of how to report bleaching and other impacts to reefs in the USVI. This year, BleachWatch introduced a new survey methodology and provided updated datasheets for volunteers. The updated BleachWatch methodology merged the "Quick Report" and "Full Report" into a single, simplified report that can be easily completed by volunteers. This new report format includes "Critical Data," which is listed on the front side of the datasheet and provides volunteers with a guideline for reporting coral bleaching and important site information. On the reverse side of the datasheet, the "Additional Data" guidelines provide volunteers with an opportunity to report other impacts to the reefs such as coral disease, marine debris, and coral mortality. In addition to the survey changes, BleachWatch now provides the public with monthly newsletters that summarize current coral bleaching risk in the USVI. These current conditions reports are published each month during the bleaching season and include sea surface temperature maps, monthly summaries of volunteer reports, and important program announcements. The BleachWatch app and the website have both been updated to reflect these new program changes. Check out www.reefconnect.org/bleachwatch for printable datasheets, BleachWatch current conditions newsletters, and a downloadable training presentation!

Looking Forward

Training sessions for the 2019 bleaching season will commence in the spring. In the meantime, BleachWatch will host a group snorkel event in collaboration with the University of the Virgin Island's Coastal Conservation club. This in-water practice session will allow volunteers to learn more about BleachWatch VI and see examples of healthy and impacted corals in the water. More details about the training sessions and group snorkel event will be announced after the holidays!

The BleachWatch VI App is here!
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 Features:
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