



RSD-002-Reef Check and Bathymetry

Join WFCRC

The World Federation for Coral Reef Conservation
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On September 9, 2015, Drs. Gregor Hodgson (Reef Check) and Mark Eakin of the National Oceanic and Atmospheric Organization (NOAA) organized a meeting in Washington, DC to bring together senior staff from international NGOs, government and funding agencies to present the evidence and to ask them to form a Coral Reef Coalition to oversee the emergency response to the third Global Coral Bleaching Event (GCBE3). The group agreed to work together on the following goals:

1. Seek additional funding for standard monitoring and checking accuracy of NOAA satellite model predictions quickly.
2. Use GCBE3 as a lever in climate change debate (COP21).
3. Track management success because resilience-based protections may be ineffectual.
4. Make data on bleaching and management immediately available via a rebranded/multi-branded Coalition Global Reef Tracker database now at: data.reefcheck.org/
5. Track coral/algal adaptation trajectory so that we know where adaptation is helping protect corals.
6. Increase PR on coral reef loss via all media.
7. Support the creation of an X-prize approach to test solutions to bleaching.

On October 8th, the Reef Check Foundation teamed up with NOAA, Catlin and University of Queensland to formally announce that the ongoing coral bleaching event was indeed global, and that immediate action was required by environmental groups worldwide. This announcement was picked up by hundreds of media throughout the world such as [the Guardian](#) in the UK and CNN.

Coral reefs endangered by bleaching in global event, researchers say

Beginning in 2014 and predicted to continue into mid-2016, the El Niño along with global warming has caused ocean temperatures to rise and "bleach" large portions of the world's coral reefs. When the water heats up above the normal seasonal temperature range, coral bleaching occurs, which can eventually lead to coral death. If NOAA long-range predictions are correct, by the end of 2016, this bleaching event could result in the biggest loss of biodiversity in recorded history of reef ecosystems. It threatens icons such as the Great Barrier Reef of Australia.

Reef Check's Dr. Hodgson also requested and helped to co-author a [Consensus Statement](#) from the International Society for Reef Studies, the distinguished scientific group comprised of coral reef scientists.

During the emergency meetings of the new Coral Reef Coalition, members from NOAA, The Nature Conservancy, Conservation International and World Wildlife Fund have pledged to bring this emergency to the forefront of their respective organizations' climate change agendas. It is integral that the public be aware of this ongoing and impending crisis, and that steps are taken to increase monitoring of reef health in order to assess damage as well as to seek potential solutions.

Reef Check, with 19 years of standardized global reef data, has offered to co-brand its Google Earth based Global Reef Tracker database to include data from other organizations.

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The 3rd Global Coral Bleaching event since 1997 has already bleached and killed large areas of coral reef in many parts of the world, including Hawaii, American Samoa and Florida. Based on satellite data and climate models, NOAA's Coral Watch Program predicts this to be the worst event in history. Parts of the Pacific and Caribbean are bleaching now and will experience peak bleaching in October/November. During the early parts of 2016, Australia and the Western Indian Ocean will be threatened with the hottest water on record.

"This is a global biodiversity emergency," says Dr. Hodgson, "because coral reefs are the second most diverse ecosystem on earth after rainforests. They are found throughout the tropics and they are invaluable because they supply fish and shellfish, protect the coast from wave erosion, are a focus of coastal tourism, and have immense genetic diversity that has only just been tapped for drugs such as Ara-C, a potent drug used to fight childhood leukemia."



Bleached coral in Haiti. Photo: Helen Brierley
[Click here for video of the bleached corals in Haiti](#)

There is an urgent need to improve field tracking of the 3rd Global Coral Bleaching Event and quickly deploy more teams and more frequently to measure the actual damage to the reefs. NOAA models predict more severe damage to coral reefs in many parts of the world during the remainder of 2015 and into 2016. The 1998 event killed at least 11% of the world's coral reefs and in areas such as the Maldives, some 90% of the corals were killed. Many reefs in the Caribbean were damaged during a regional bleaching event in 2005 and over 70% of corals were killed on reefs in parts of Thailand during GCBE2 in 2010.

For more information about the Coalition or GCBE3 please contact: [Elena Johannsen](#), Assistant Program Manager.

Coral bleaching in Haiti, October 2015; Photos: Gregor Hodgson (top left, bottom); Helen Brierley (top right)



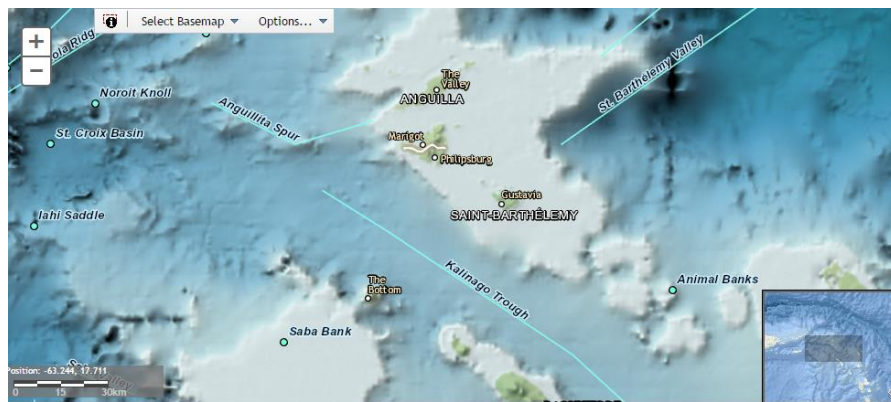
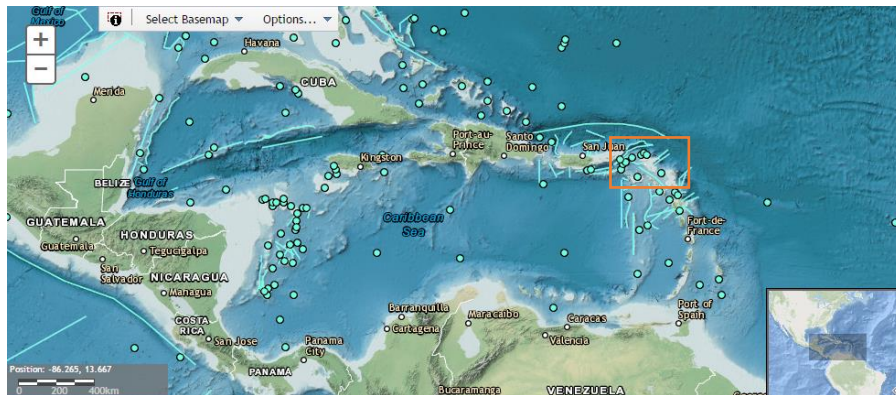
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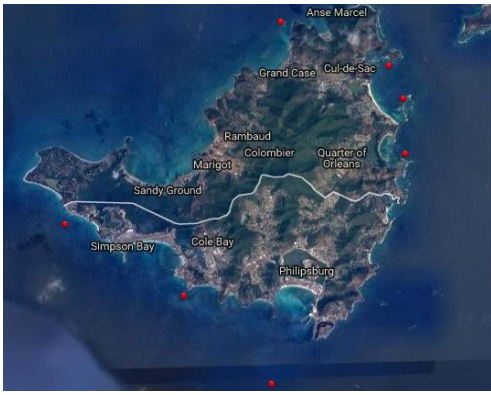




See more at: <http://www.reefcheck.org/reef-news/reef-check-leads-response-to-3rd-global-coral-bleaching-event#sthash.O3DhOglV.dpuf>

IHO-IOC GEBCO Gazetteer of Undersea Feature Names, www.gebco.net





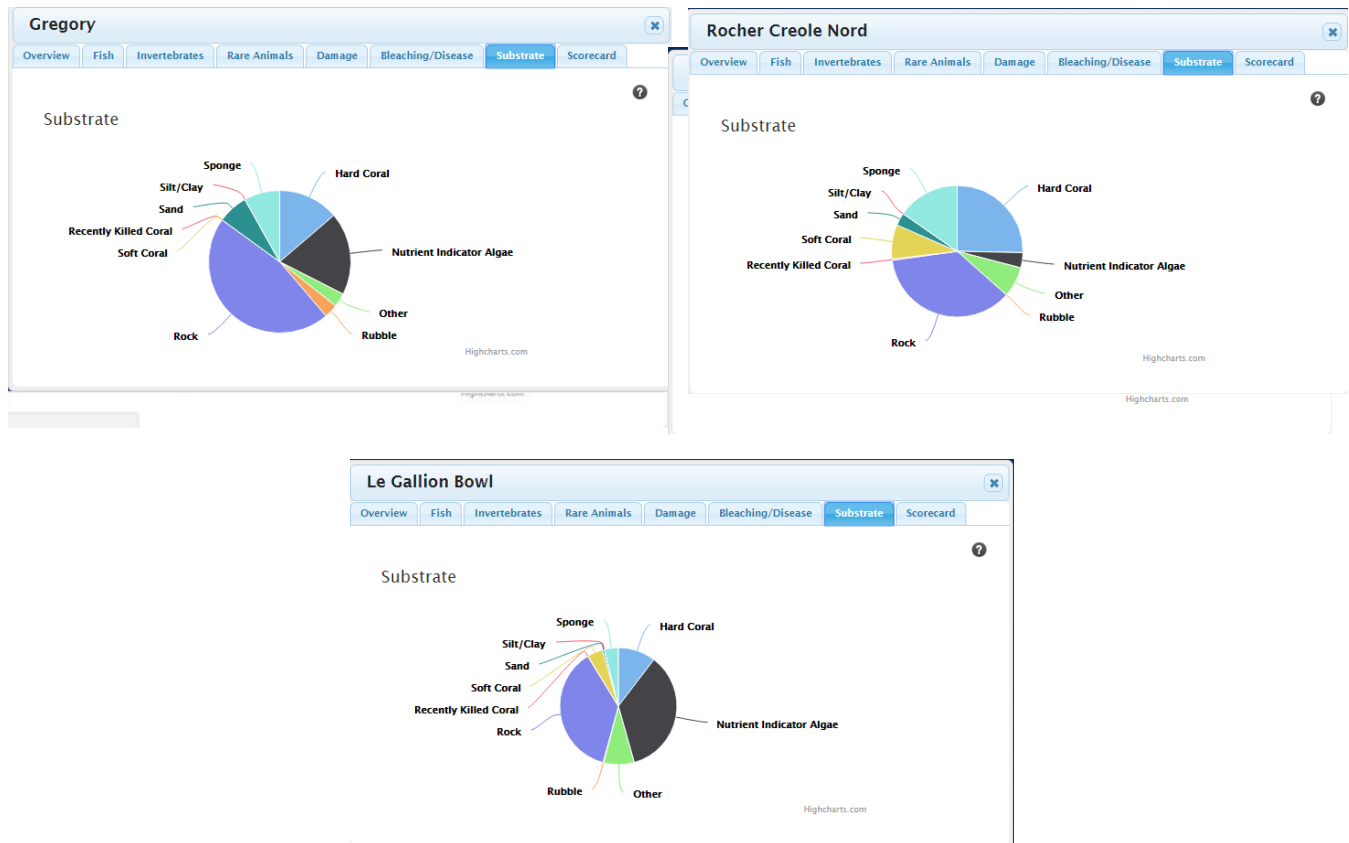
The reefcheck data below suggest that the sample locations around the island have sufficient hard rock strata for the promotion of planting coral. The presence of hard coral in each location is an indication of the health of the reef and that it could sustain a healthy position for the long term, given no land or marine based threats to the reef. It is paramount to maintain a protective posture to prevent decline.

We feel that to address the real time issues are where the "rubber meets the road". If we wait for the Global issues to be resolved, the damage may not be reversible. Our mission is clearly defined and our goals are obtainable. Our

programs provide an operational monitoring plan that allows for a complete real time operational picture of entire coastal areas using unmanned aerial vehicle imagery and high res satellite imagery and GIS to track and monitor land based and marine based threats to environmentally sensitive ecosystems.

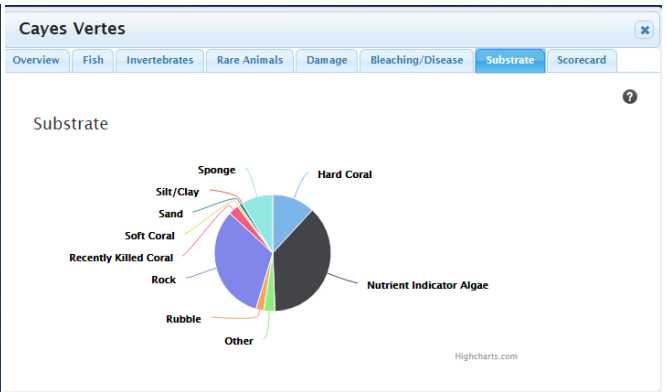
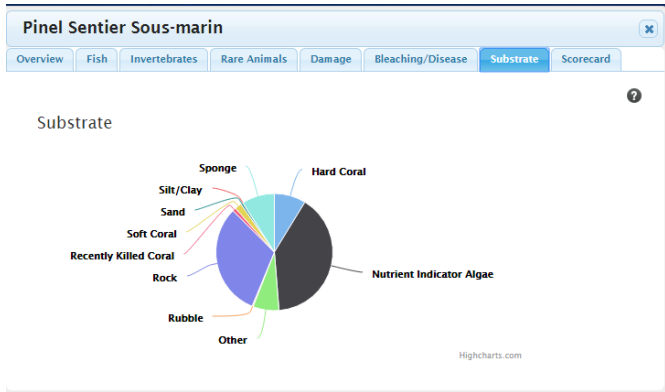
By creating a visual and searchable digital record of coastal events, a base line is created to be used over time to compare successful operations and where more effort is needed.....Vic Ferguson

Data source: <http://data.reefcheck.us/>



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