

CAN-117-St. Maarten Damaged Reefs-SXM Join WFCRC

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70-95% of Some Coral Species on Sint Maarten Reefs Suffered Extreme Hurricane Damage





Photo Credit:

An Elkhorn (Acropora palmata) coral damaged over 80% due to Hurricane Irma at the islands Hen and Chicks

The St. Maarten Nature Foundation has been continuously monitoring coral reefs both inside and outside of the Man of War Shoal Marine Protected Area in order to determine the impact of Hurricane Irma. Intense impacts have been recorded on certain coral species and on the reef, however also some reef recovering has already been recorded.

Acropora coral (Elkhorn and Staghorn) were hit the hardest by Hurricane Irma: this particular group of species is very prone to intensive water movement and has caused large pieces to break off. Besides the major break-off of coral fragments, also large die-offs have been recorded in those particular coral colonies. Many parts of especially Elkhorn coral colonies (*A. palmata*) died, due to direct impacts of the swell or sediment cover, light reduction or water quality reduction.

About 80% of Elkhorn (*A. palmata*) coral colonies are affected by and have died off directly and indirectly due to Hurricane Irma on St Maarten Reefs. Staghorn (*A. cervicornis*) coral colonies have shown even more damage due to the storm surge; hardly any coral fragment have been found back and entire colonies have been wiped out. 95% of the Staghorn coral colonies have been destroyed by Hurricane Irma. No colonies have been found or only small fragments remain.

The loss of these Acropora species will have large negative impacts on our reefs due to their importance as reef builders. Acropora corals decreased tremendously in the 1980's and are currently already listed as 'Critically Endangered' on the IUCN Red List of Ecosystems and Species. Until the 1980's Acropora coral species dominated the near shore zone of many Caribbean islands, including Sint Maarten. Even before Hurricane Irma these coral reef zones have almost disappeared from most islands in the region due to diseases, climate change, pollution and habitat destruction. The increased loss of these Acropora corals due to Hurricane Irma will have even larger negative effects on biodiversity, biomass of fishes, coastal protection and tourism.

Also Pillar coral (*Dendrogyra cylindrus*) colonies have been significantly affected by Hurricane Irma. Pillar colonies have been reduced with about 70% due to Irma. Colonies at the dive sites Mikes Maze and Hen and Chicks which were known to reach up to five feet are now reduced to not much more than a foot.

In order to qualitatively assess the reefs and the Man of War Shoal Marine Park, the Nature Foundation will start up reef monitoring according to the Global Coral Reef Monitoring Protocol (GCRMN) in the coming month. Data from before Hurricane Irma and data from last year will be used to determine the detailed impacts and damages on St. Maarten reefs.

For additional reading see <u>The WFCRC Document Gallery</u> for articles about:

- Public Service Announcements (PSA)
- Coral Alert Network (CAN)
- Emergency Reporting Reports (ERR)
- Call to Action (CTA)
- Marine Protected Areas (MPA)

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- Marine Life Alert (MLA)
- Seismic and Oil Production Threats
- Natural Science Reports (NSR)
- Oil Spill Alerts (OSA)
- And other miscellaneous documents

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