



# Kaua'i Coral Disease Research Update

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## Project

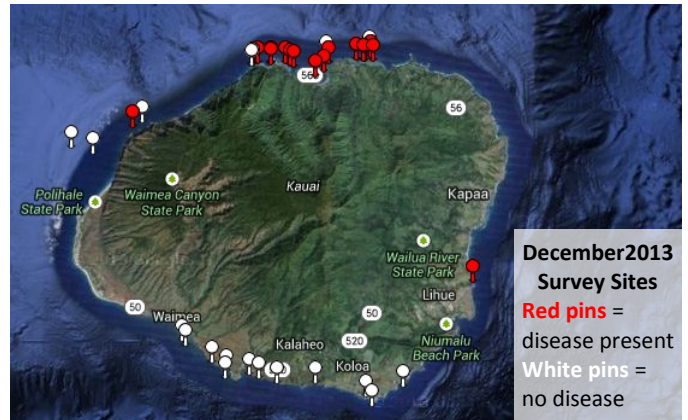
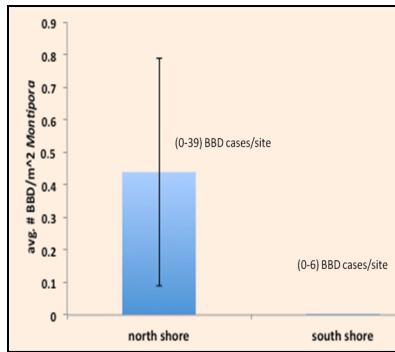
### Overview

The central focus of Christina Runyon's PhD dissertation at the University of Hawaii at Manoa will be looking at how widespread the disease is on Kaua'i's coral reefs, whether disease levels vary seasonally, how the infection spreads to other corals, and which pathogens and environmental factors are driving these outbreaks.

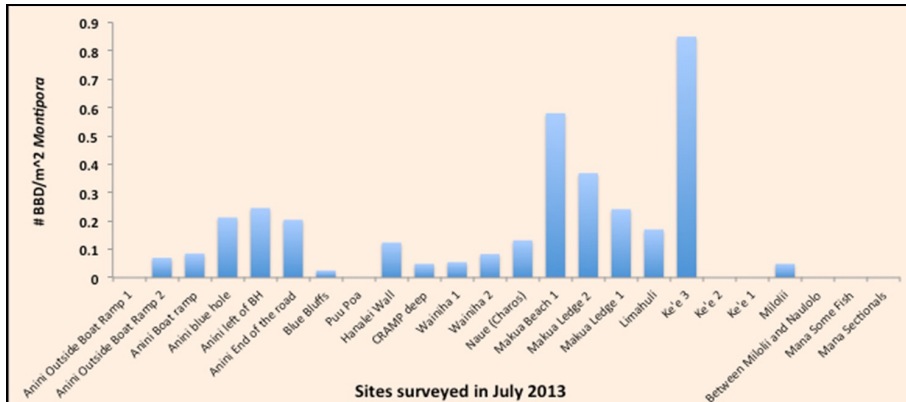
Christina's field research had the generous support of DAR, SOEST, DOBOR, Limahuli Gardens, and Bubbles Below SCUBA Charters.

## December 2013 Site Visit

- Surveyed 13 reef sites along Kaua'i 's south shore in December 2013
- Recorded coral community structure and disease levels
- Took measurements of environmental variables including turbidity, temperature, coral species richness, and fish community structure



Disease levels at North VS. South shore Kauai sites



Hotspots of disease occurrence at North shore Kauai sites



Results of coral disease trials with putty lesion treatment on affected coral

## Most Important Findings

- Disease predominantly affecting the north shore
- Hotspots of disease are present on the north shore - Ke'e and Makua Beach have highest disease levels
- Putty lesion treatment effective in 14 month trial

## Next Steps

- 2nd field trial of disease treatment
- GIS and modeling to examine relationship between disease occurrence and environmental factors
- Lab experiments to examine coral host susceptibility

## Final Report:

A final report of field findings and GIS analysis will be presented to DAR staff in July 2014.