Using Microarrays to Compare Bacterial Community Changes Between Healthy & Diseased Corals

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FL Keys Marine Ecosystem
Short version:

Microbial communities on corals (too small to see in this photo)

Using microarrays to study them

Wow! I’m out of time, email me if you have questions
Coral disease sucks
Distinguishing diseases based on macroscopic lesions can be difficult

Bleaching?
Predation?
White pox?
White plague?
White syndrome?
We aren’t sure if most coral diseases are caused by a single pathogen or multiple opportunistic pathogens.
We need to understand microbial community shifts as coral goes from healthy to diseased.
PhyloChip G3 can show you an overview of the coral micro community

- 1.1 million DNA probes
- ~60,000 operational taxonomic units (family to strain)
I sampled healthy & white plague-affected *Montastraea annularis*.

VIIS
July 2009

DRTO
Aug 2009
There is a distinction btw healthy & diseased corals but not btw sites
Evidence of *Aurantimonas coralicida* was found in 3/9 diseased corals
It’s impossible to discuss the remaining 59,999 OTUs in the time remaining + I’m still working on it
Short version, the recap:

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Thanks to Ginger Garrison, Peter Richardson, & Tracy McDole for assistance sampling

Any Questions?

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