

# Ecosystems

our related AT 18, 10 Hydrate Ridge; 31 August - 8 September 2011

Victoria Orphan

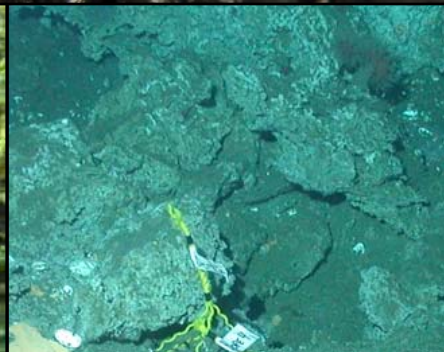
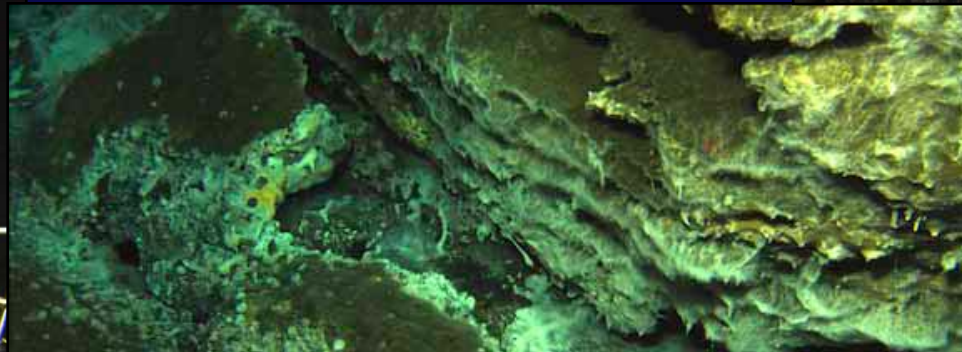
cruises funded by NSF Biological Oceanography, 1 by a RAPID response

thogenic carbonates as unique ecosystems, though often overlooked by biologists

st HR cruise in August 2010 with *Alvin* objectives of the project

characterize diversity, colonization, evolutionary affinities, and ecosystem interactions of and among metazoans, sponges, and microbes associated with

PIs: Lisa Levin, SIO Tech  
Greg Rouse, SIO Tony Rathburn



The Jason dive with a  
bottom time of 137  
hours.

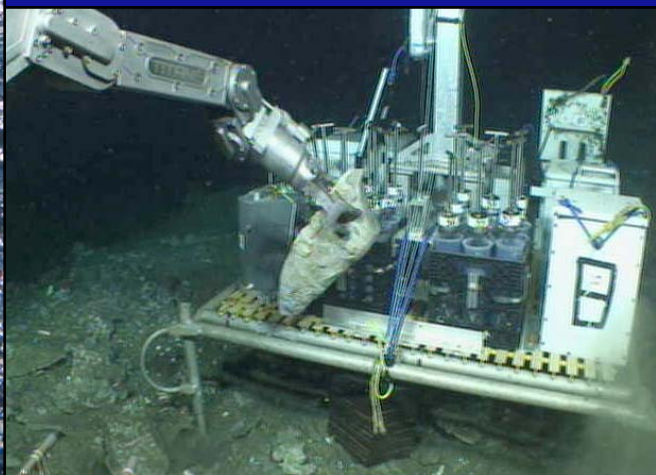


Jason launched 31 August 20:25



Jason recovered  
September

12 gear elevators  
launched and  
recovered



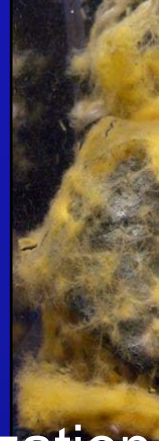
Experiments and  
retrieved using gear  
rigged with many  
tubecore racks, and  
bottles.

From 12 sites, we recovered 56 colonization substrates, 17 carbonate  
experiments, and 12 microbial colonization experiments, in addition  
to collections of *in situ* carbonates and sediment cores

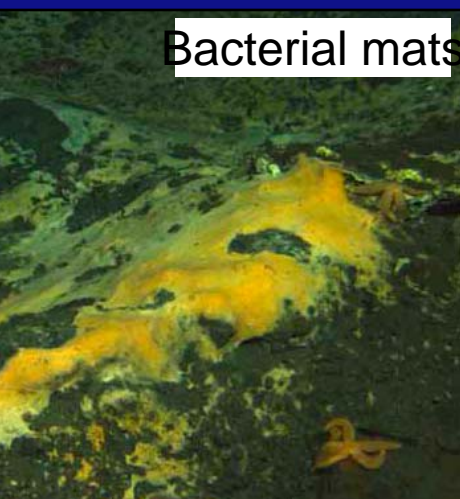




sampled for microbiology, elements, endolithic



High rates of microbial and metazoan colonization



Bacterial mats



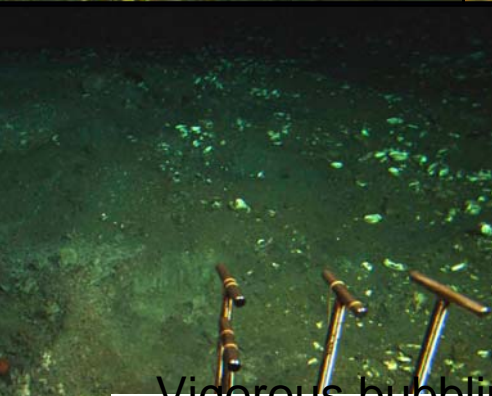
Clam beds



Marked forams in cage experiments



"Peepers" deployed to compare microbial colonization across sediment depths



Vigorous bubbling from



Ampharetid beds



Inactive