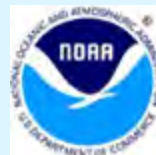




University-National Oceanographic
Laboratory System
~UNOLS~
**Deep Submergence Science
Committee Meeting
(DeSSC)**
December 13, 2015

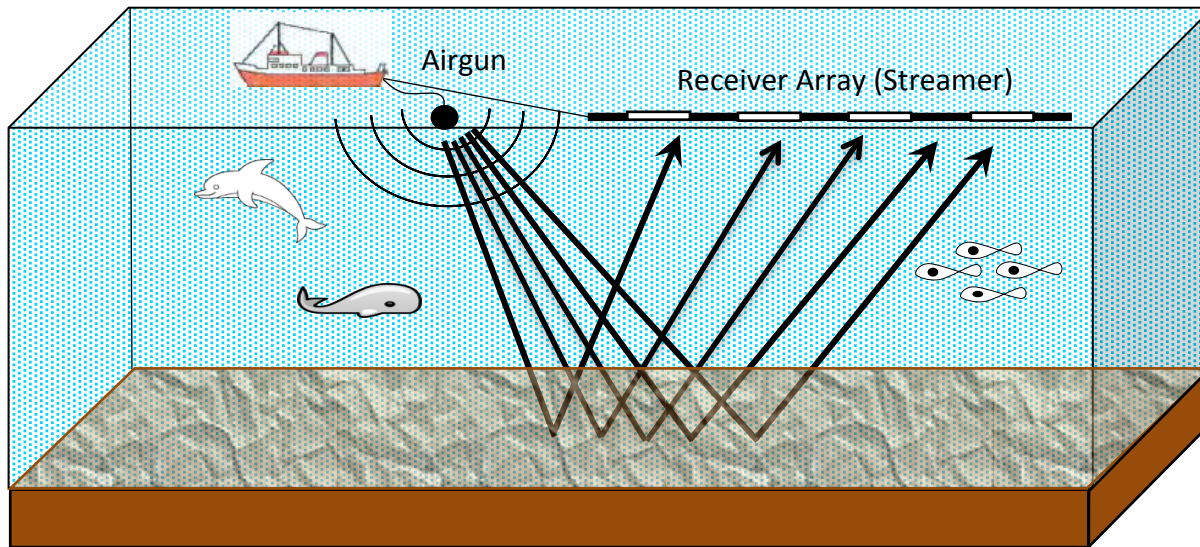
**New User Program Presentations
Part I**



Shima Abadi

Assistant Professor, University of Washington-Bothell, Mechanical Engineering

- Ph.D.: University of Michigan, Underwater Acoustics
- Post-doc: Lamont–Doherty Earth Observatory & University of Washington



Abadi, Wilcock, Tolstoy, Crone, Carbotte: "Sound source localization using data recorded by hydrophone streamers during seismic surveys", J. Acoust. Soc. Am., in review.

Looking for: collaboration/sharing data/research idea/suggestion

- Hydrophone data which has Baleen whale vocalization
- AUV Iver (APL-UW): hydrophone array to collect whale calls

Sajjad Abdu

Graduate Student

Marine Geology

Texas A&M University – Corpus Christi

Research Interest:

- Biogeochemistry at Cold Seeps
- Paleoceanography and Paleoclimatology
- Marine Methane Cycling

AGU Presentation: Methane Induced Carbonate Authigenesis at Peru Margin

Looking For:

- Graduate Opportunities
- Cruise/Expedition participation
- Geochemistry Collaborations for laboratory analysis (U/Th, Trace metals etc)



sajjada@tamucc.edu

Karen G. Bemis Rutgers University

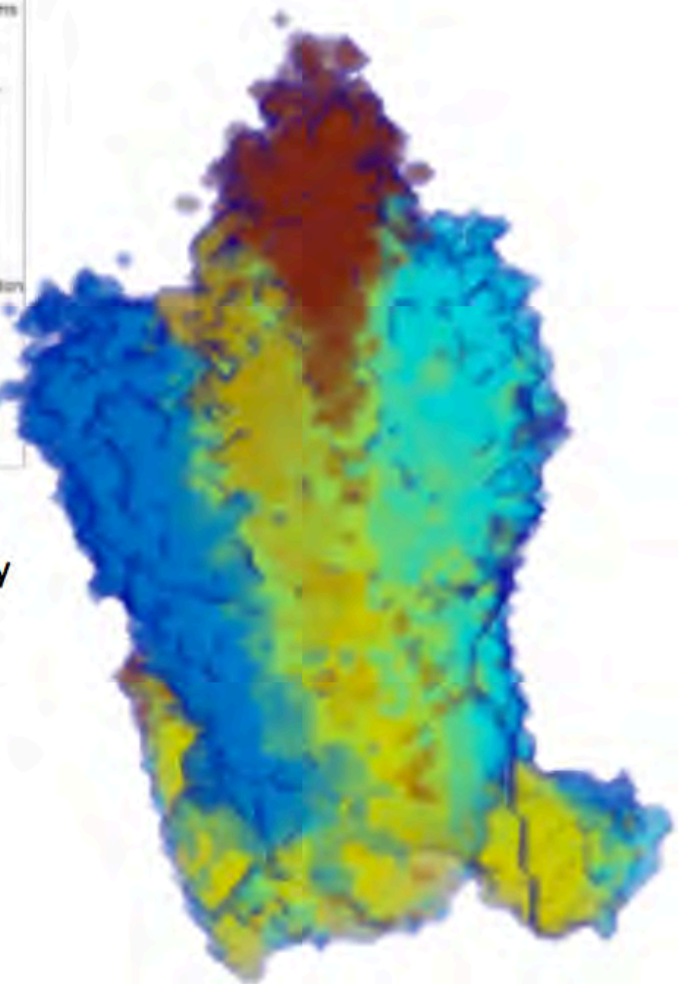
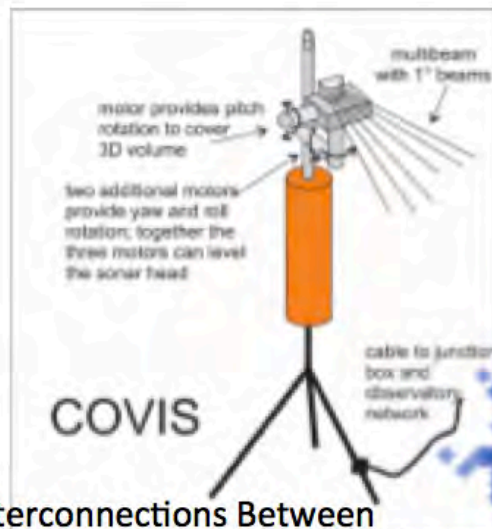
❖ *Research interests:*
hydrothermal systems, scoria cones,
and scientific visualization

❖ AGU posters:

- ❖ OS43A-1993 COVIS Detects Interconnections Between Atmospheric, Oceanic and Geologic systems at a Deep Sea Hydrothermal Vent. *Bemis, Xu, Lee*
- ❖ OS43A-1994 Integrated Data from the NEPTUNE Observatory Highlight the Role of Sub-seafloor Processes in Rapid Temperature, Salinity, and Heat spiking after Seismic Activity. *Larson, Xu, Lilley, Bemis, Butterfield*
- ❖ OS43A-1999 Remote characterizing diffuse hydrothermal flows using multi-beam sonar. *Ivakin, Jackson, Xu, Bemis*

All in session OS43A *"Follow the Fluids: Integrating Multidisciplinary Observations of Deep-Sea Hydrothermal Systems III Posters"*

Thursday, 17 December 2015, 13:40 - 18:00



Tarini Bhatnagar

PhD Candidate (4th Year), Marine Geophysics
Columbia University, New York

Research experience:

- Using seismology and borehole geophysical data to gain an understanding of cycles and layering beneath the seafloor in various tectonic environments.
- Passive source: Influence of fortnightly tides on microearthquake triggering at the East Pacific Rise.
- Active source: Morphology, origin and evolution of submarine canyons at New Jersey margin (AGU talk, Tuesday 15th Dec, 14:40, Moscone West – 3007).
- Reservoir assessment of ocean crustal sites at Reykjanes ridge, offshore Iceland for Carbon dioxide sequestration in deep-sea basalt.

Looking for: Internship, Job

tarinib@ldeo.columbia.edu

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Katlin L. Bowman

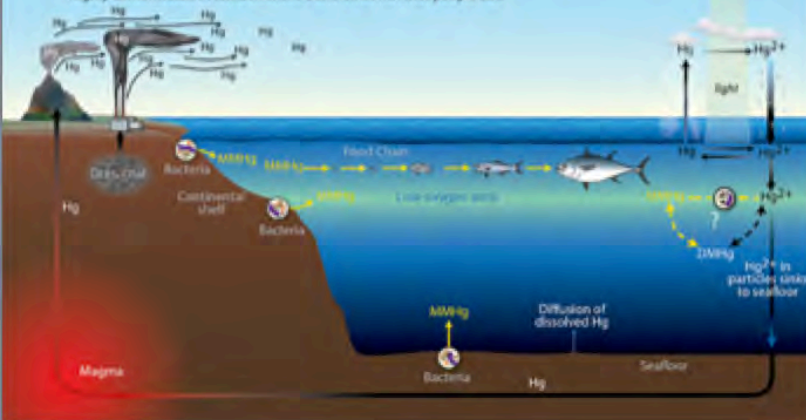
Postdoctoral Research Scholar
University of California, Santa Cruz
B.S. Environmental Sciences, 2010
Ph.D. Environmental Sciences, 2014
Wright State University, Dayton OH



The Mercury Cycle

Image source: www.whoi.edu

Mercury (Hg) cycles from Earth to atmosphere to oceans and back to Earth. In the ocean, mercury is converted to monomethyl mercury (MMHg), a neurotoxin that moves up the food chain and becomes highly concentrated in tuna, swordfish, and other fish that people eat.



Research Interests:

Mercury biogeochemistry in marine systems

Scientific Communication:

hginthesea.wordpress.com

www.huffingtonpost.com/katlin-bowman



Anaïs Cario



- Postdoc in Karyn Rogers ' lab at RPI (Troy, NY)
- Research interests :
 - High pressure microbiology
 - Eco-physiology of deep-sea vent microbes
 - 🌸 Gina's poster at AGU on 12/15 (Abstract B21C-0462)
- Involved in the DCO deep-sea sampler project :
 - Pressurized Underwater Sample Handler (PUSH)

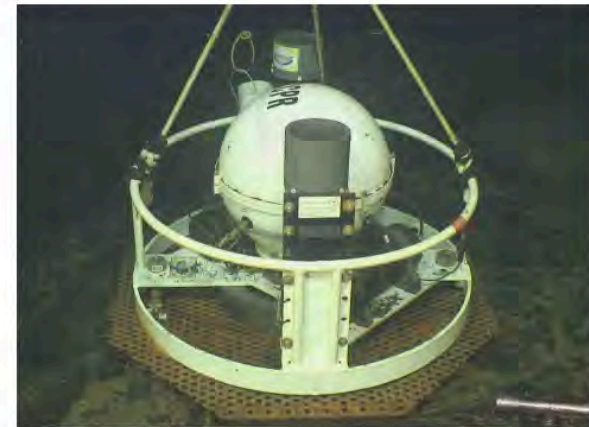
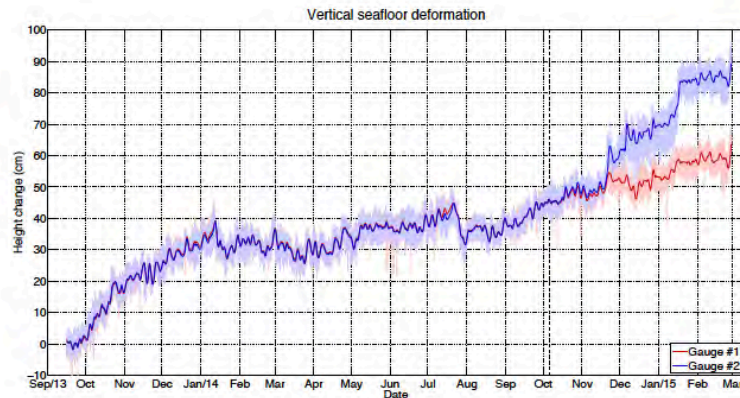
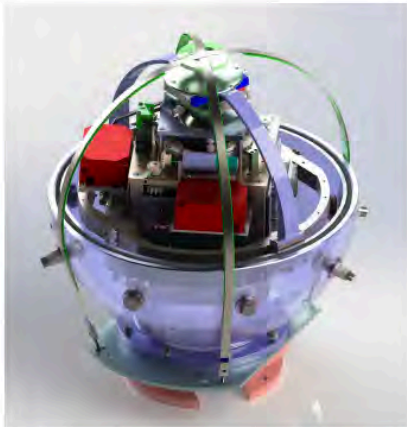


Matthew Cook

m2cook@ucsd.edu

Scripps Institution of Oceanography

- Graduate student working with Mark Zumberge & Glenn Sasagawa
- Research interests:
 - pressure instrumentation; Self-Calibrating Pressure Recorder (SCPR)
 - vertical seafloor deformation at Axial volcano and in the Cascadia subduction zone



[OS43A-1998] Observations of Seafloor Vertical Deformation on Axial Seamount with the Self-Calibrating Pressure Recorder

13:40 12/17 @ Moscone South Poster Hall

Emmanuel Soli Garcia (esg006@ucsd.edu)

Geophysics student at Scripps Institution of Oceanography
(Ph.D. expected in early 2016 – **now looking for a postdoc**)

Cruise experience: multibeam sonar, sediment coring, basket dredging

Research interests: - mapping **marine gravity** using satellite altimetry
- numerical modeling of **plate flexure** at trenches
and its effect on **trench outer slope fractures**

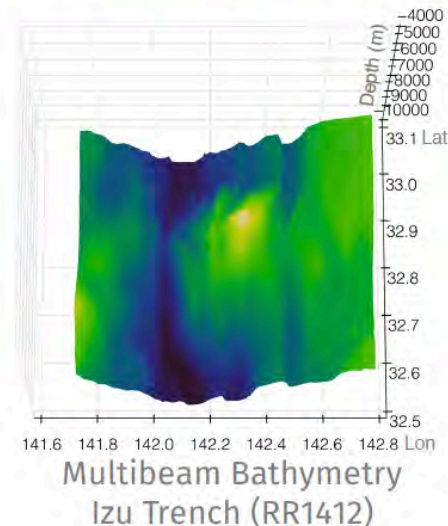
My AGU FM15 talk:

(T31D-08)

09:45 Wed. 12/16

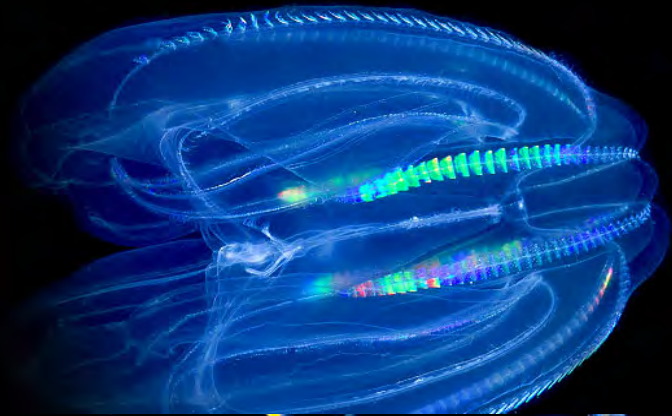
Moscone South 306

*"Trench Outer Rise Flexure Models
with Laterally Variable Plate Rigidity
derived from
Oceanic Lithosphere Strength Profiles"*

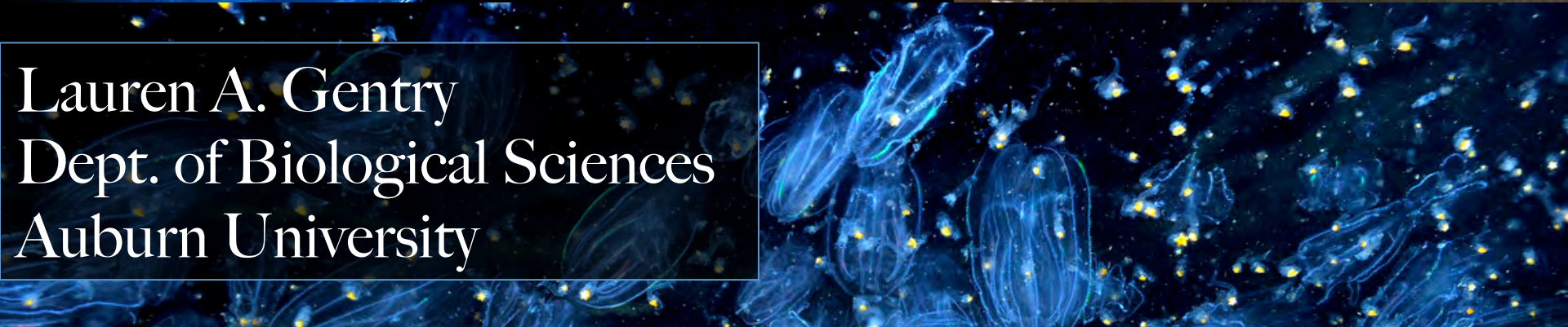


Master's research

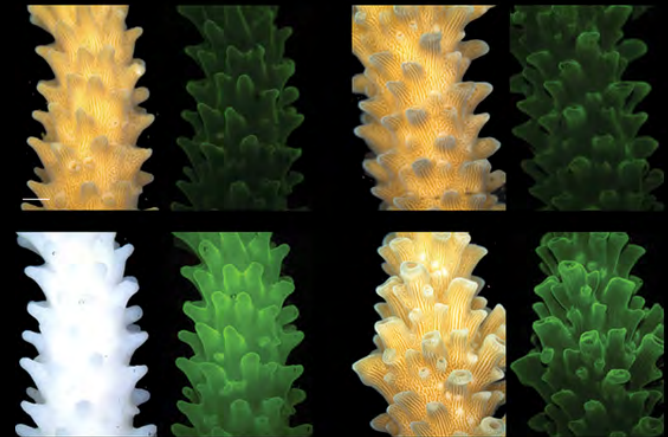
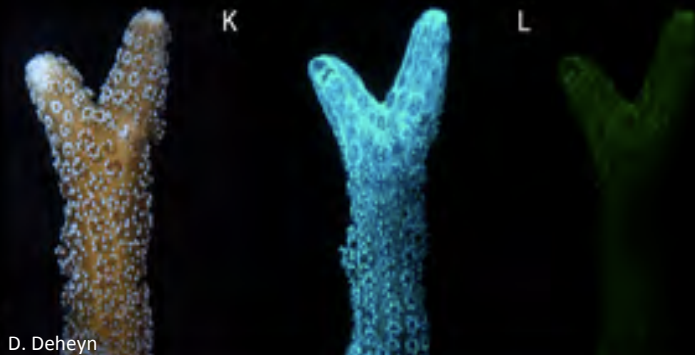
Ctenophore behavioral affinity for oxycines



Lauren A. Gentry
Dept. of Biological Sciences
Auburn University



Fluorescence as a proxy for coral health



Doctoral interest

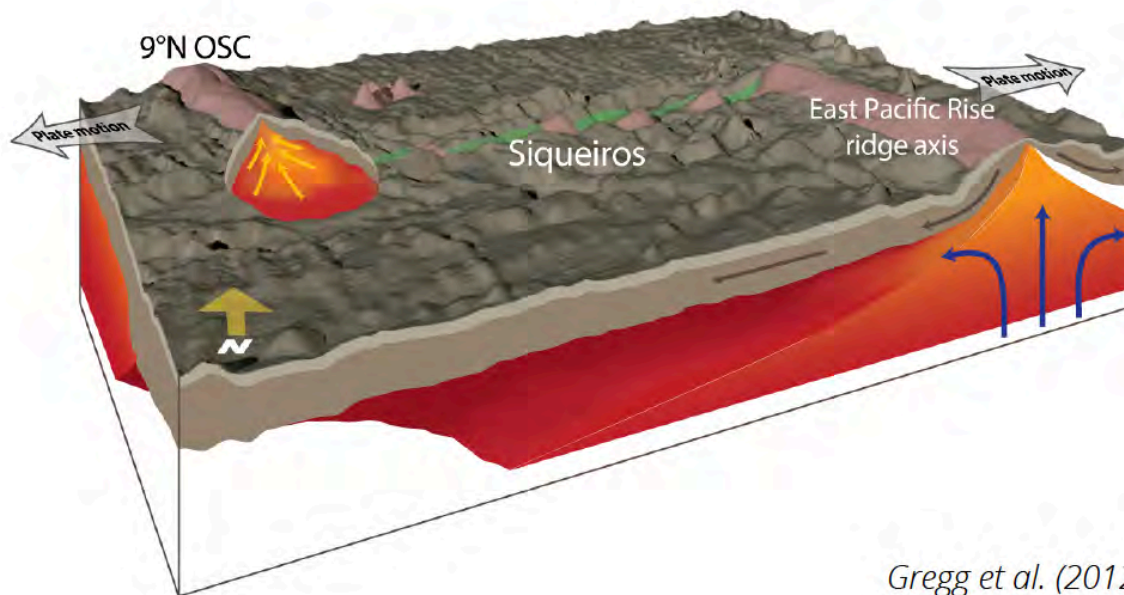
D. Deheyn

Trish Gregg

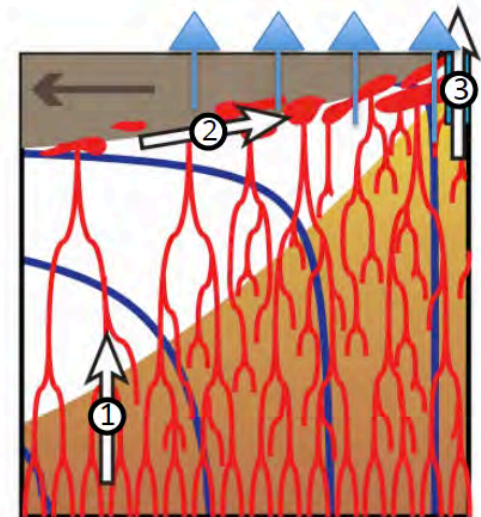


Assistant Professor of Geophysics – University of Illinois Urbana-Champaign

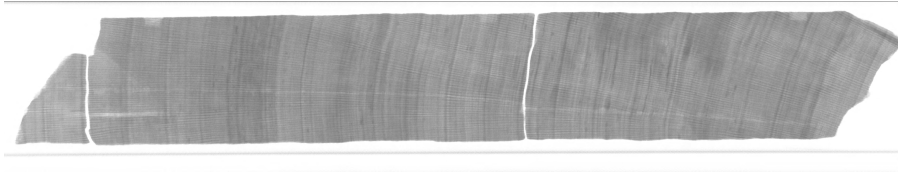
- 4D Melt migration and crustal accretion at mid-ocean ridges
- 2016 Field expedition to the 8° 20'N Seamount chain
→ *Feat. Alvin and Sentry*
- Looking for a Ph.D. Student to join our research group!



Gregg et al. (2012)



Alex Hangsterfer



- **Position:**
 - *Geological Collections Manager at Scripps Institution of Oceanography*
- **Proposals:**
 - Inter-institutional sea-going program for undergraduates and teachers
 - Update to full CT capabilities
- **Outreach:**
 - K-12 tours and workshops
 - STE[A]M outreach
 - Sally Ride



Santiago Herrera

Affiliation

PhD MIT-WHOI Joint Program in Biological Oceanography

Postdoc University of Toronto (current)



Research Interests

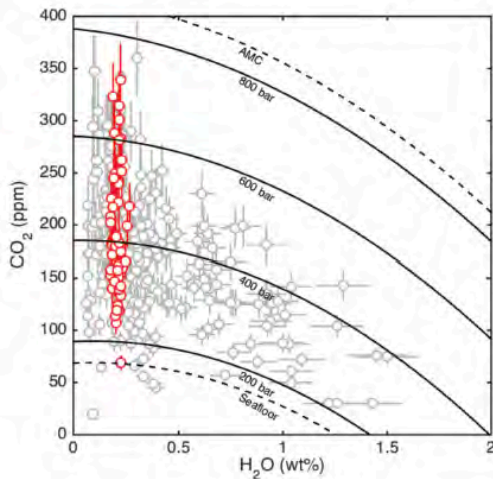
- Biodiversity in hard-ground and chemosynthetic ecosystems
- Evolution in the deep sea
- Population genomics and adaptation to environmental change



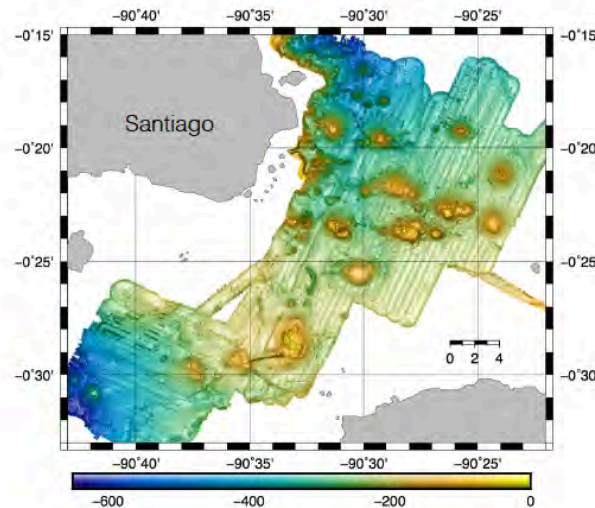
Meghan Jones

Graduate Student
Marine Geology and Geophysics
MIT/WHOI Joint Program in Oceanography

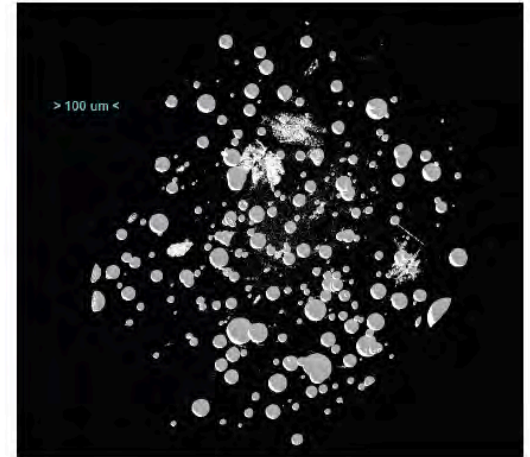
Degassing and Vesiculation



Seafloor Mapping



X-Ray Microtomography



V43C-3159 Degassing and Vesiculation during the 2011 Eruption of Axial Seamount, Juan de Fuca Ridge

13:40 - 16:00 Thursday, December 17 Moscone South Poster Hall

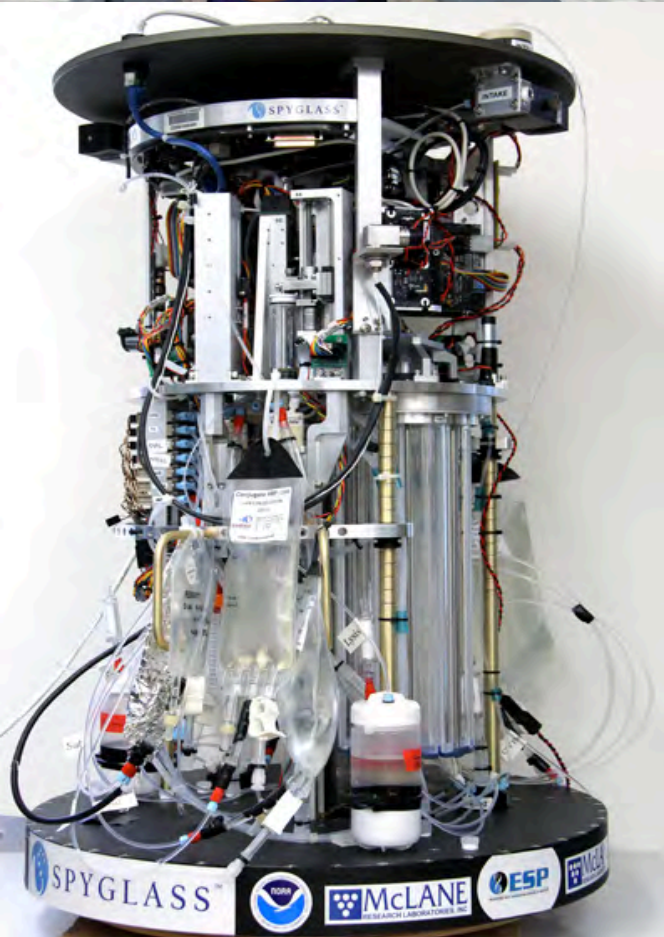


Bethany Kolody

2nd Year PhD Student ~ Scripps Institution of Oceanography

Using metatranscriptomics to understand oceanic microbial communities

California Coastal surface water ~ Mariana Trench



Jennifer Le

PhD Student at Scripps Institution of Oceanography



- deep-sea ecosystem services, particularly in chemosynthetic systems
- currently evaluating ISA mining exploration recommendations in the context of ES
- will soon be analyzing video data from the E/V Nautilus cruise of the California Borderlands (Ocean Exploration Trust)



