

**WHOI 2015 Summer Student Fellows
Research Projects**

Lloyd Anderson, Bowdoin College

Alkalinity export from salt marshes: evaluating the contribution of non-carbonate species to coastal buffering capacity

Advisor: Meagan Gonnee, USGS, and Aleck Wang, MC&G

Mariene Basiga, San Jose State University

Porous Flow and Focused Flow Experiments using Chloride Schist and Peridotite: An Experimental Analysis of Mélange Diapirs

Advisor: Veronique Le Roux, G&G

Benjamin Beaumont, North Carolina State University

Acoustic Quantification of Methane Bubble Rise Speeds

Advisor: Andone Lavery, AOP&E

Alicia Camacho, Valparaiso University

North Atlantic Oscillation, Jet and Blocking in CESM1 Large Ensemble Simulations

Advisors: Young-Oh Kwon and Hyodae Seo, PO

Margaret Capocci, University of Scranton

Biogeochemical Responses to Restoration of Tidal Connectivity in Cape Cod Marshes

Advisor: Amanda Spivak, MC&G

Miranda Cashman, University of Massachusetts Amherst

Bahamian Storm Sediment: Analyzing Hurricane Deposits in Marine Blue Holes of South Andros, Bahamas

Advisor: Jeffrey Donnelly, G&G

Amanda Chan, Swarthmore College

*Examining the circadian physiology behind chaperone cycling in *Nematostella vectensis**

Advisor: Ann Tarrant, BIO

Laura Crews, Stanford University

Nearshore Antarctic Phytoplankton Bloom Phenology

Advisor: Scott Doney, MC&G

Daniel Diaz-Etchevehere, University of Rochester

The Impact of Fe(II) on NO₂⁻ and N₂O Isotopic Composition During Denitrification by Natural Sediments

Advisor: Scott Wankel, MC&G

Ann Dunham, Dartmouth College

Habitat Damage and Marine Reserves in a Stage-Structured Bioeconomic Model

Advisor: Michael Neubert, BIO

Hazel Fargher, Worcester Polytechnic Institute

*Sea Surface Temperature Records Using Sr/Ca Ratios in a *Siderastrea siderea* Coral from Southern Cuba*

Advisor: Konrad Huguen, MC&G

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David Fertitta, Louisiana State University

Drifter-based Predictions of the Spread of Surface Contamination Using Iterative Statistics: A Local Example with Global Applications

Advisor: Alison Macdonald and Irina Rypina, PO

Jerry Fontus, Georgia Institute of Technology

The Design and Testing of a Thermal Regulator for an AUV Gravimeter

Advisor: James Kinsey, AOP&E

Chloe Fross, Georgetown University

A Partial Ecosystem Services Evaluation of the Boston Harbor: The Value of Cleanup

Advisor: Hauke Kite-Powell, MPC

Aditya Gupta, VIT University, Chennai

Design and Development of a Pixhawk based Robotic Vehicle for the Surf Zone and Morphological Image Processing of Sea Ice Imagery

Advisors: Hanumant Singh and Peter Traykovski, AOP&E

Sara Hamilton, Bowdoin College

Spatial and Temporal Variation in the Diets of Northwest Atlantic Forage Fish

Advisor: Joel Llopiz, BIO

Dana Johnson, Northwestern University

Exploring the potential for mineral-based protection of organic carbon in deep-sea sediments

Advisor: Colleen Hansel, MC&G

Siraput Jongaramrungruang, University of Cambridge

Intraseasonal SST-precipitation coupling during the Indian Summer Monsoon and its modulation by the Indian Ocean Dipole

Advisors: Hyodae Seo and Caroline Ummenhofer, PO

Sasha Kramer, Bowdoin College

A method for determining phytoplankton community structure from ocean color at the Martha's Vineyard Coastal Observatory

Advisor: Heidi Sosik, BIO

Julia Lanoue, Brown University

*Modeling Oyster (*Crassostrea virginica*) Productivity in Response to Channel Deepening in the Hudson River Estuary*

Advisor: Porter Hoagland, MPC

Ratnaksha Lele, VIT University

An Investigation into Arctic Sea-Ice Dynamics and Energetics

Advisor: John Toole, PO

Claudia Mazur, Mount Holyoke College

An analysis of denitrification and annamox processes in sediments underneath oysters

Advisor: Virginia Edgcomb, G&G

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Craig McLean, University of Arkansas

Isolation and Characterization of Iron Binding Ligands from Marine Bacteria

Advisor: Daniel Repeta, MC&G

Leah Middleton, Mount Holyoke College

Measuring the sensitivities of the Fundulus heteroclitus aryl hydrocarbon receptor variants to transactivation by dioxins

Advisor: Mark Hahn, BIO

Samuel Nadell, Cornell University

Age Tracers and Residence Time in the Hudson River Estuary

Advisor: Rockwell Geyer, AOP&E

Chadlin Ostrander, Arizona State University

Thallium isotopes tracking Mn-oxide burial: A proxy for deoxygenation during Oceanic Anoxic Event 2

Advisor: Sune Nielsen, G&G

Astrid Pacini, Yale University

Structure and Circulation of Pacific Winter Water on the Chukchi Sea Shelf in Late Spring

Advisor: Robert Pickart, PO

Zoraida Perez-Delgado, Universidad Metropolitana

Satellite and Model Analysis of Coral Reefs in the Western Indian Ocean: 2001 to 2007

Advisor: Caroline Ummenhofer, PO

Gilles Seropian, McGill University

Viscoelastic relaxation of the Greenland ice sheet

Jeffrey McGuire, G&G

Katherine Siegel, Georgia Institute of Technology

Physical Forcing on Hypoxic Water in Chesapeake Bay

Advisor: Malcolm Scully, AOP&E

Vishwajit Singh, Indian Institute of Technology Kharagpur

Automated Interval Velocity Picking for Atlantic Multi-Channel Seismic Data

Advisors: Nathan Miller and Deborah Hutchinson, USGS

Yuxin Zhou, University of Southern California

Magnitude of the Suess Effect in the North Atlantic - a Study of Foraminifera and Transient Tracer Simulations

Advisors: Delia Oppo, G&G, and Geoffrey Gebbie, PO