

**WHOI 2018 Summer Student Fellows  
Research Projects**

**Anna Black**, Williams College

*Testing ENSO's Driving Role in Southwestern US Megadroughts*

Advisor: Sloan Coats, Geology & Geophysics

**David Brinkley**, Amherst College

*Thermal Acclimation in the Anemone *Nematostella vectensis**

Advisor: Ann Tarrant, Biology

**Ella Cedarholm**, University of New Hampshire

*Investigating the Mysterious Deep Cesium from Fukushima Oceanography*

Advisors: Alison Macdonald, Irina Rypina and Sachiko Yoshida, Physical Oceanography

**Jinshi Chen**, Cornell University

*Surfzone Setup and Alongshore Currents during Hurricane Matthew*

Advisor: Britt Raubenheimer, Applied Ocean Physics & Engineering

**Maya Chung**, Harvard University

*Quantifying isopycnal heave using Dynamic Depth Warping*

Advisor: Geoffrey Gebbie, Physical Oceanography

**Kyle Conner**, University of California, San Diego

*Assessing Ecosystem Calcification and Production in Benthic Environments Using Gradient Exchange Systems*

Advisor: Matthew Long, Marine Chemistry & Geochemistry

**Julia Cox**, University of Massachusetts Amherst

*Zooplankton Regime Shifts and Spatial Variability on the Southern New England Shelf*

Advisor: Joel Llopiz, Biology

**Ashley Davis**, University of South Carolina

*Last Interglacial Sea Surface Temperatures and Variability in the Atlantic Warm Pool*

Advisor: Anne Cohen and Dan McCorkle, Geology & Geophysics

**David Davis**, Georgia State University

*Constraints on Vanadium Isotope Composition of Vesta*

Advisor: Sune Nielsen, Geology & Geophysics

**Holly Francis**, Stanford University

*Design and Construction of a Surf-Capable Autonomous Surface Vessel*

Advisor: Peter Traykovski, Applied Ocean Physics & Engineering

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**Maxwell Furigay**, Trinity College

*Changes in the Carbonate System of Red Sea Water due to Dust*

Advisor: Aleck Wang, Marine Chemistry & Geochemistry

**Devon Gaynes**, SUNY Stony Brook

*Hurricane-Driven Export of Mid-Atlantic Bight Shelf Waters near Cape Hatteras in September 2017*

Advisors: Robert Todd and Magdalena Andres, Physical Oceanography

**Rachel Gold**, Brown University

*Dating the opening of the St. Lawrence Valley as a conduit for glacial meltwater and potential trigger of the Younger Dryas*

Advisor: Jeff Donnelly, Geology & Geophysics

**Samantha Kenah**, Skidmore College

*Evolution of small-scale horizontal variability in the coastal ocean*

Advisor: Anthony Kirincich, Physical Oceanography

**James Kershaw**, University of Cambridge

*Proxy Wars: Mg/Li as an Alternative to Mg/Ca in the Calcitic Foraminifera *U. peregrina**

Advisor: Delia Oppo, Geology & Geophysics

**Muriel Leung**, University of Pennsylvania

*Quantifying the Impact of Ocean Acidification on Coral Growth: Combining Experimental Observations with a Skeletal Growth Model*

Advisors: Weifu Guo and Anne Cohen, Geology & Geophysics

**Emily Maness**, The University of Tampa

*Invasion of the body snatchers: Investigation of Syndiniales (MALV II) parasites in Salt Pond*

Advisor: Virginia Edgcomb, Geology & Geophysics

**Claire Mayorga**, University of Texas at Austin

*The Effect of Ditching on Carbon Cycling in Salt Marshes*

Advisors: Meagan Gonnea, U.S. Geological Survey, and Amanda Spivak, Marine Chemistry & Geochemistry

**Adriane McDonald**, Spelman College

*Exposure to PCB153 affects circadian rhythm behavior and gene expression in zebrafish*

Advisor: Neel Aluru, Biology

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**Samuel McNichol**, Oberlin College

*Development and Assessment of a Novel LED-Based Approach to Quantify the Wavelength Dependence of the Coupled Photochemical and Biological Degradation of Dissolved Organic Matter in Sunlit Surface Waters*

Advisor: Collin Ward, Marine Chemistry & Geochemistry

**William Pardis**, Montana State University

*Miniature Low-Cost Gas Sensor Development - Aquatic and Volcanic*

Advisors: Anna Michel, Applied Ocean Physics & Engineering, and David Nicholson, Marine Chemistry & Geochemistry

**Edwin Rainville**, California Polytechnic State University

*Comparison of Surface Turbulent Heat Fluxes between CMIP5 Analyses and Satellite Estimations*

Advisor: Carol Anne Clayson, Physical Oceanography

**Noa Randall**, Smith College

*Effect of tributary creeks on estuarine dispersion*

Advisor: Rocky Geyer, Applied Ocean Physics & Engineering

**Miraflor Santos**, New York University, Abu Dhabi

*A Gradient in Phytoplankton Size Distribution across the Northeast U.S. Shelf*

Advisors: Heidi Sosik and Stace Beaulieu, Biology

**Elizabeth Scheibe**, Yale University

*Effect of Group Composition on Whistle Production in Free-Ranging Bottlenose Dolphins*

Advisor: Laela Sayigh, Biology

**Patrick Scordato**, University of Massachusetts Amherst

*Evaluating the reconstruction of intertidal beach morphology from a web camera*

Advisor: Chris Sherwood, U.S. Geological Survey

**Jane Sedlak**, Oberlin College

*Solving the Marine Methane Paradox: Isolation, Quantification and Isotopic Analysis of Methylphosphonic Acid*

Advisor: Daniel Repeta, Marine Chemistry & Geochemistry

**Ankur Shah**, University of Alabama in Huntsville

*Estimating the Expected Value of Research on the Biological Carbon Pump*

Advisor: Di Jin, Marine Policy Center

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**Iulia Streanga**, University of Edinburgh

*Calibrating Sr/Ca ratios and  $\delta^{18}O$  to sea surface temperature and salinity in the West Pacific Warm Pool*

Advisor: Konrad Hughen, Marine Chemistry & Geochemistry

**Nicole Suren**, University of Miami

*Fish on Defense: How xenobiotic chemical exposures affect *Fundulus heteroclitus* PXR expression*

Advisor: Jed Goldstone, Biology

**Brooke Torjman**, Muhlenberg College

*Food affects swimming behavior of larval *Crepidula fornicata**

Advisor: Lauren Mullineaux, Biology

**Peter Ventola**, United States Naval Academy

*Improving Sonar Data Collection on the Slocum Glider*

Advisor: Richard Camilli, Applied Ocean Physics & Engineering

**Peidong Wang**, University of Wisconsin-Madison

*Synthesis of Tree-Ring Records and Coupled Climate Model Simulations to Understand North Atlantic Regional Climate Response to Volcanic Eruptions in the Last Millennium*

Advisor: Caroline Ummenhofer, Physical Oceanography