# WHOI 2017 Summer Student Fellows Research Projects

# Shavonna Bent, Johnson State College

Reactive Oxygen Species production in the holobiont of the Northern Star Coral (Astrangia poculata) Advisors: Amy Apprill and Colleen Hansel, Marine Chemistry & Geochemistry

# Luka Catipovic, University of Massachusetts, Amherst

Advancing Marine Chemical Sensing Technology for Deep Sea and Shallow Estuary Applications Advisor: Anna Michel, Applied Ocean Physics & Engineering

# Abigayle Clabaugh, University of Colorado, Boulder

Departures in the Surface Meteorology and Air-Sea Fluxes at the WHOTS

Advisor: Robert Weller, Physical Oceanography

# Samuel Coakley, Rutgers University

Southeast Asian monsoon variability in the CESM-Last Millennium Ensemble Advisors: Caroline Ummenhofer and Hyodae Seo, Physical Oceanography

#### Jason Dinh, Duke University

Listen up! Harnessing passive acoustic recorders to monitor boat activity trends in U.S. Virgin Island coral reefs

Advisor: Aran Mooney, Biology

## Zachary Duguid, Massachusetts Institute of Technology

Intelligent Endurance for AUV Gliders

Advisor: Richard Camilli, Applied Ocean Physics and Engineering

#### Noah Gluschankoff, University of California, Santa Barbara

Investigating reaction kinetics, products and isotope signatures during abiotic reduction of nitrate and nitrite by amorphous iron sulfide

Advisor: Scott Wankel, Marine Chemistry & Geochemistry

## Jeanette Gray, Unity College

Two invasive invertebrates: understanding their range limits in Northeast North America with relative thermal tolerance

Advisor: Carolyn Tepolt, Biology

# James Hawsey, College of Charleston

Navigational Adjustment to Optimize Multibeam Bathymetry of the Mid-Atlantic Ridge "Popping Rocks Site"

Advisor: Adam Soule, Geology & Geophysics

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# Taylor Hough, Brown University

Timing of melt percolation and pyroxenite formation in a supra-subduction zone: Constraints from the

Josephine Ophiolite, Oregon USA

Advisor: Veronique Le Roux, Geology & Geophysics

#### Mia Infante, University of Texas, Rio Grande Valley

Variability and Trends of the Southern New England Shelfbreak

Advisor: Benjamin Harden and Glen Gawarkiewicz, Physical Oceanography

# Stephanie Lim, Scripps College

Assessing loss rates of a developing red tide at a population level

Advisor: Don Anderson & Michael Brosnahan, Biology

#### Meghan Maciejewski, Stonehill College

Swimming behavior of Crassostrea virginica larvae in response to waterborne settlement cue and food

availability

Advisor: Lauren Mullineaux, Biology

#### Kanieka Neal, University of Maryland, Eastern Shore

Biophysical and Thermal Influences on Surface pCO2 in the North Atlantic from 2014-2016

Advisor: David Nicholson and Hilary Palevsky, Marine Chemistry and Geochemistry

## Lan Nguyen, Hollins University

Ecological and Economic Trade-offs of Allocating Coastal Space to Shellfish Aquaculture

Advisor: Hauke Kite-Powell, Marine Policy Center

#### Jacob Partida, Humboldt State University

Subsurface transport of shelf water at the Mid-Atlantic Bight shelf-break

Advisor: Gordon Zhang, Applied Ocean Physics and Engineering

#### Brooke Rasina, University of California, San Diego

Nitrogen Concentration and Isotopic Changes over the Past 250 Years in a Red Sea Coral

Advisors: Konrad Hughen and Scott Wankel, Marine Chemistry and Geochemistry

## Kathryn Rawson, Mount Holyoke College

Sea Cucumbers in a Pickle: The Economic Geography of the Serial Exploitation of Sea Cucumbers

Advisor: Porter Hoagland, Marine Policy Center

# Julianna Renzi, University of Arizona

Are all algae created equal? Determining the Ability of Compound-Specific Stable Isotope Analysis to

Identify Different Phyla of Macroalgae for Use in Trophic Ecology

Advisor: Simon Thorrold, Biology

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# **Sophie Ruehr**, Yale University

Newfound Aspects of Ancient Hurricanes: Reconstructing storm intensity and sediment deposition

dynamics in northeastern coastal ponds

Advisor: Jeff Donnelly, Geology and Geophysics

#### Cara Scalpone, Pitzer College

Modeling Seagrass Habitat Vulnerability to Climate Change

Advisor: Neil Ganju, USGS - Woods Hole Coastal and Marine Science Center

# Rowena Schenck, Amherst College

Sediment respiration and sulfur cycling in salt marsh ponds Advisor: Amanda Spivak, Marine Chemistry & Geochemistry

# Celina Scott-Buechler, Cornell University

The role of anthropogenic warming in the decline of Caribbean reefs

Advisor: Anne Cohen, Geology and Geophysics

#### Madison Shankle, Yale University

The Influence of Ocean Warming on Extreme Precipitation Events around the Indian Ocean in 2010/11

Advisor: Caroline Ummenhofer, Physical Oceanography

#### James Stadler, Haverford College

Submesoscale Restratification of the Arctic Mixed Layer

Advisor: Sylvia Cole, Physical Oceanography

#### **Logan Tegler**, Arizona State University

Osmium- and Iron- isotope chronostratigraphy of deep sea pelagic clays

Advisor: Tristan Horner, Marine Chemistry & Geochemistry

#### Rosa Vargas-Martes, University of Puerto Rico-Mayaguez

The Role of Ocean and Atmosphere Heat Transport in the Arctic Amplification

Advisor: Young-Oh Kwon, Physical Oceanography

#### Ciara Willis, Dalhousie University

Tuna in the Phoenix Islands Protected Area: Identification of probable spawning sites using larval

movement

Advisor: Joel Llopiz, Biology

#### Samuel Walkes, Bowdoin College

Signature whistles as indicators of mass stranding events in common dolphins (Delphinus delphis) and Atlantic white sided dolphins (Lagenorhynchus acutus)

Advisor: Laela Sayigh, Biology