# 2010 Summer Student Fellow Research Projects

## Isabella B. Arzeno, Stanford University

"Analysis of a 1999 Eulerian time series from the Georges Banks GLOBEC project" Advisor: Kenneth H. Brink, Physical Oceanography

# Spencer B. Backus, Franklin W. Olin College of Engineering

"Flip wing turbine"

Advisor: Richard Camilli, Applied Ocean Physics & Engineering

## Angela K. Boysen, Stanford University

"A preliminary analysis of water column samples from the Deepwater Horizon oil spill" Advisor: Elizabeth B. Kujawinski, Marine Chemistry & Geochemistry

#### Camrin D. Braun, The College of Idaho

"Identification and movement of whale sharks (*Rhincodon typus*) in the Red Sea" Advisor: Simon R. Thorrold, Biology

#### Michele E. Dufault, Yale University

"Measuring vertical velocity in the water column using autonomous underwater vehicles"

Advisor: David M. Fratantoni, Physical Oceanography

#### **Jonathan R. Fincke**, University of New Hampshire

"Calibration of the WHOI Broad Band Acoustic System for the characterization of scattering from microstructure generated by interfacing water masses" Advisor: Andone C. Lavery, Applied Ocean Physics & Engineering

#### **Alexis D. Fischer**, Wellesley College

"Physiological and transcriptional response of *Nematostella vectensis* to environmental contaminant exposures"

Advisor: Ann M. Tarrant, Biology

#### Rachel C. Harbeitner, Eckerd College

"Altered responsiveness to oxidative stress in killifish from a Superfund site" Advisor: Mark E. Hahn, Biology

# Katherine R. Heal, The Colorado College

"Concentration of dissolved organic phosphorus (DOP) in seawater using Mg(II)-Mn(III) layered double hydroxide"

Advisor: Daniel J. Repeta, Marine Chemistry & Geochemistry

#### Victoria R. Hore, Oxford University, UK

"Nonlinearity in the oceanic internal wavefield"

Advisor: Kurt L. Polzin, Physical Oceanography

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**Jacob S. Izraelevitz**, Franklin W. Olin College of Engineering "Optimal trajectory generation for draped AUV gravity surveys" Advisor: James C. Kinsey, Applied Ocean Physics & Engineering

#### **Kyle M. List**, Clarkson University

"Swash run-up observations and model comparison using terrestrial LIDAR" Advisor: Britt Raubenheimer, Applied Ocean Physics & Engineering

# Sarah A. Makenbach, University of Manitoba, Canada

"The effect of elevated carbon dioxide levels on benthic foraminiferal survival" Advisor: Joan M. Bernhard, Geology & Geophysics

## Cherie R. Meyer, Columbia University

"Studying shoreline dynamics of the U. S. Atlantic coast using directional wave data" Advisor: Andrew D. Ashton, Geology & Geophysics

## **Emily A. Moberg**, Massachusetts Institute of Technology

"Phytoplankton carbon to chlorophyll variation off the New England shelf" Advisor: Heidi M. Sosik, Biology

## Sujata A. Murty, Oberlin College

"A high-resolution calibration of Sr/Ca to SST from a coral in the Red Sea" Advisor: Konrad A. Hughen, Marine Chemistry & Geochemistry

## Diana Ponce- Morado, University of California, San Diego

"Studying the search patterns of a sperm whale from an acoustic recording tag" Advisor: Peter L. Tyack, Biology

## Eric A. Rozell, Rensselaer Polytechnic Institute

"A framework for integrating oceanographic data repositories" Advisors: Andrew Maffei, Ruth Curry and Stace E. Beaulieu Computer Information Services, Physical Oceanography and Biology

# **Alejandra Sanchez**, Universidad Autónoma de Baja California "Observations of inner shelf convergence processes"

Advisor: John C. Warner, U. S. Geological Survey

#### Sara C. Sanchez, University of Arizona

"A Brazilian response to Northern Hemispheric cooling" Advisor: William B. Curry and Delia W. Oppo, Geology & Geophysics

#### **Analissa F. Sarno**, California State University, San Marcos

"Cellular responses to phosphorus deficiency in the brown tide-forming alga, *Aureococcus anophagefferens*"

Advisor: Sonya T. Dyhrman, Biology

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#### Elizabeth C. Sibert, University of California, San Diego

"A new species of vesicomyid clam (*Bivalvia: Vesicomyidae*) at the Chile Margin as considered by the mitochondrial COI gene"

Advisor: Timothy M. Shank, Biology

#### Laura E. Sofen, Carleton College

"Increased phosphatase activity among *Trichodesmium* epibionts mediated by quorum sensing signaling molecules"

Advisor: Benjamin Van Mooy, Marine Chemistry & Geochemistry

# Laurel E. Stephenson Haskins, Reed College

"Sensitivity of ENSO to anthropogenic SST pattern formations"

Advisor: Kristopher B. Karnauskas, Geology & Geophysics

## Lillian K. Steponaitis, University of North Carolina, Chapel Hill

"Negotiating ocean space: The siting of offshore renewable energy facilities in Massachusetts and Rhode Island"

Advisors: Porter Hoagland and Hauke Kite-Powell, Marine Policy Center

#### John M. Swartz, University of Pittsburgh

"Controls on uranium isotope variability within central Chilean river waters"

Advisor: Laura F. Robinson, Marine Chemistry & Geochemistry

# **Jennifer A. Thomas**, Old Dominion University

"Hypoxia in Buzzards Bay: Determining physical processes responsible for the distribution of dissolved oxygen in Buzzards Bay"

Advisor: Neil Ganju, U. S. Geological Survey

#### **Julie van der Hoop**, Dalhousie University

"Estimating swimming paths of tagged baleen whales using an acoustic tracking system" Advisor: Mark F. Baumgartner, Biology

## Anna E. Wargula, Grove City College

"Oyster larvae behavioral response to turbulence"

Advisors: Karl R. Helfrich and Lauren S. Mullineaux, Physical Oceanography

## Eleina M. Zaitsev, Columbia University

"Investigating the role of nitric oxide and oxidative stress in *Symbiodinium spp.* heat sensitivity"

Sponsor: Matthew D. Johnson, Biology