

Education

MS Oceanography May 2015
University of New Hampshire, Durham, N.H.
Thesis: *Millennial-scale Variability in the Indian Monsoon and Links to Ocean Circulation*

BS Environmental Geology May 2012
University of North Carolina, Chapel Hill, N.C.
Minors: Biology, Marine Science

Research Experience

Visiting Scientist June 2017 – Aug 2017
PI: Dr. Heather Stoll
Micropaleontology and Paleoclimatology
Dept of Earth Sciences, ETH Zurich

- Microfiltration of sediment samples for coccoliths
- Microscopic imaging and quantitative analysis

Research Scientist and Lab Manager May 2015 – Feb 2017
PI: Dr. Adrian Marchetti
Phytoplankton Molecular Biology
Dept of Marine Sciences, UNC-Chapel Hill

Research

- Investigate physiological and genetic response of phytoplankton to iron, vitamin and light growth conditions
- Characterizing biogeochemical regimes of marine environments with nutrient, chlorophyll, and isotopic analysis

Lab Manager Duties

- Oversee maintenance of equipment and supplies
- Enforce safety codes and train new personnel
- Manage undergraduate daily tasks and experiments
- Perform a variety of lab experiments related to phytoplankton, e.g., algal culturing, light microscopy, flow cytometry, nucleic acid extractions, PCRs
- Compile, organize, and present data sets (Excel)

Graduate Student Aug 2012 – Dec 2015
PI: Dr. Rosemarie Came
Paleoclimate and Paleoceanography
Dept of Earth Sciences, University of New Hampshire
Thesis: *Millennial-scale Variability in the Indian Monsoon and Links to Ocean Circulation*

- Reconstructing paleoenvironments and climate change using multiple proxies: stable isotopes, radioisotopes, and trace element composition

- Sampling sediment cores
- Picking foraminifera fossils based on species identification
- Wet chemistry sample preparation in trace-metal clean conditions
- Running samples on an ICP - mass spectrometer (Mg/Ca, Cd/Ca)
- Performing statistical and time-series analysis (Excel, MATLAB)
- Data interpretation of stable isotopes and trace elements

Undergraduate Researcher

June 2011 – July 2012

PI: Dr. Adrian Marchetti
Marine Molecular Biology,
Dept of Marine Sciences, UNC-Chapel Hill

- Culturing phytoplankton under varying light and iron conditions
- Performing kit-based DNA & RNA extractions
- Creating and testing primers
- Running PCRs and gel electrophoresis to test for presence of amplified genes

Undergraduate Lab Assistant

Oct 2009 – Aug 2011

PI: Dr. Carol Arnosti
Marine Carbon Chemistry
Dept of Marine Sciences, UNC-Chapel Hill

- General lab assistance such as cleaning glassware and preparing buffers
- Water sampling and fluorescence measurements
- Sample prep for running gel-permeation chromatography
- Data processing (Excel)

Cruise Experience

GeoMICs cruise on Line P

May 2012

R/V Thompson, University of Washington
6 Days in the North Pacific to establish a genomics, microbiology, and GEOTRACES gradient between coastal waters and iron-poor open ocean waters

- Deployment of the CTD/rosette
- Filtering water for RNA and DNA collection
- On-deck phytoplankton incubations

Cape Lookout to Chesapeake Bay transect

Nov 2011

R/V Cape Hatteras, University of North Carolina at Chapel Hill
3 Days in the coastal Atlantic to determine how microbial activity correlated to locality

- Deployment of the CTD/rosette
- Water collection and filtering
- On-board fluorescence measurements of microbial communities

Publications

DeLong, Kimberly, Rosemarie E. Came, Thomas C. Lippmann, Joel E. Johnson, Liviu Giosan.
In prep. **Suborbital scale variability in the Indian monsoon and links to Antarctic climate.**

Marchetti, Adrian, Carly Moreno, Natalie Cohen, Irina Oleinikov, Kimberly deLong, Ben Twining, E. Virginia Armbrust, and Rob H. Lampe. *Journal of Phycology* 2017. **Development of a molecular-based index for assessing iron status in bloom-forming pennate diatoms.**

Talk, AGU Fall Meeting 2014

DeLong, Kimberly, Rosemarie E. Came. **“Millennial-Scale Variability in the Indian Monsoon and Links to Ocean Circulation.”**

Poster, International Estuarine Biogeochemistry Symposium 2011

DeLong, Kimberly, Sherif Ghobrial, Kai Ziervogel, Avery Bullock, Shannon Smith, Lindsay D’Ambrosio, Benjamin Rhodes, and Carol Arnosti. **“Selective Processing of High Molecular Weight Organic Matter by Microbial Communities in the Tar and Neuse Rivers.”**