

Joshua M. Helgoe

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Education

Florida International University, Miami, FL

2020-Present

Ph.D. in Biology

University of South Carolina, Columbia, SC

2014 - 2016

M.S. in Marine Science; GPA: 3.82

University of South Carolina, Columbia, SC

2011 - 2015

B.S. in Marine Science (double focus in biological and chemical oceanography), Spanish minor
GPA: 3.85; *magna cum laude*

Publications

- **Helgoe, J.**, Oswald, K., & Quattro, J. (2019). A comprehensive analysis of the mislabeling of Atlantic cod (*Gadus morhua*) products in Spain. *Fisheries Research*. Advance online publication. doi:10.1016/j.fishres.2019.105400
- John, S. G., **Helgoe, J.**, et al. (2018). Biogeochemical cycling of Fe and Fe stable isotopes in the Eastern Tropical South Pacific. *Marine Chemistry*, 201, 66-76.
- John, S. G., **Helgoe, J.**, & Townsend, E. (2018). Biogeochemical cycling of Zn and Cd and their stable isotopes in the Eastern Tropical South Pacific. *Marine Chemistry*, 201, 256–262.
- Schlitzer, R., et al. [293 GEOTRACES collaborators, including **Helgoe, J.**]. (2018). The GEOTRACES intermediate data product 2017. *Chemical Geology*, 493, 210-223.

Professional Experience

Dive Apprentice, Barbados & Bonaire

May 2019 - Jul 2019

- Intensively apprenticed one-on-one with an experienced NAUI Course Director in Barbados
- Successfully completed a 100+ hour AAUS scientific diving training course in Bonaire
- Attained qualification as the following:
 - AAUS Scientific Diver
 - NAUI Divemaster
 - NAUI Rescue Diver; NAUI EANx Diver; NAUI DEMP; Nitrox Gas Blending Technician; Resort Regulator Repair Technician; PSI-PCI Valve Repair Technician; PSI-PCI Visual Cylinder Inspector

QA Specialist (contractor), Sunopta, Inc., Edina, MN

Aug 2018 - Apr 2019

- Acquired and standardized product data across 18 company manufacturing plants
- Successfully transferred all product data to Siemens Interspec alongside a small team

North Pacific Groundfish Observer, Alaskan Observers, Dutch Harbor, AK **Apr 2017 - May 2018**

- Acquired catch data while living on a diversity of commercial fishing vessels (200+ sea days)
 - Designed random sampling procedures for every haul
 - Collected species composition, sex, length, weight, otolith, and genetic data
 - Gathered marine mammal and seabird data
 - Identified every sampled marine species using dichotomous keys

- Accomplished NOAA observer mission objectives under dangerous operating conditions
- Operated as the lead observer overseeing data quality

Genetics Researcher, USC, Columbia, SC

Jul 2013 - Aug 2016

- Designed, acquired funding, and implemented master's thesis project as a sophomore
- Independently collected over 600 samples of commercially sold Atlantic cod from markets and restaurants across eight cities in Spain
- Conducted DNA extraction, PCR, gel electrophoresis, ethanol precipitation, and sequencing
- Used Sequencher and BioEdit to prepare chromatograms, and used BOLD and GenBank to assign each DNA sequence to species to determine instances of market mislabeling

Teaching Assistant, USC, Columbia, SC

Aug 2015 - Jul 2016

- Led and taught five lab sections (over 80 students) of Oceans and Society (MSCI 210)

Chemical Oceanography Lab Technician, USC, Columbia, SC

Apr 2014 - Feb 2016

- Developed the highest ever resolution profiles of Fe, Zn, and Cd concentration and stable isotopes in the Eastern Tropical South Pacific
 - Extracted stable isotopes with extreme care from seawater samples in a trace metal, sterile clean lab (quantities were in parts per billion)

Aquatics Intern, Newport Aquarium, Newport, KY

Jun 2013 - Jul 2013

- Maintained the Jellyfish Gallery (i.e. husbandry, water changes, brine shrimp cultivation, etc.)

Population and Community Biology Lab Technician, USC, Columbia, SC

Jan 2013 - May 2013

- Dissected and analyzed fiddler crab metabolic capacity in response to climate change

Paleoceanographic Geochemistry Lab Technician, USC, Columbia, SC

Aug 2012 - Dec 2012

- Prepared seafloor sediment for neodymium isotope mass spectrometry analysis
- Picked and cleaned fossilized fish teeth and forams
- Ran chromatography columns in clean lab

Awards and Honors

- Phi Beta Kappa
- Graduate with Leadership Distinction in research
- Magellan Scholar (received \$2500 grant for research)
- Ceney Walker Undergraduate Fellowship recipient (received \$2500 grant for research)
- Prepared and presented research at the 2014 American Geophysical Union (AGU) conference
- Won 2nd place for best oral presentation at the 2016 USC graduate Baruch Retreat

Skills

- Spanish language proficiency (ACTFL intermediate-mid)
- Laboratory management and equipment use (e.g., PrepFAST sampling robot, microgram balance, fluorimeter, flow cytometer, pipetting, mass spectrometer) (6 years)
- Data analysis and management (8 years)
- Grant writing (1 year)
- DNA preservation, extraction, amplification, purification, and analysis (3 years)
- Clean lab (2 years)
- ArcGIS (basics); C++ (basics); HTML (basics); Python 3 (basics); R (basics); Excel (advanced)

- Multiple dive certs (listed above); NAUI Divermaster; AAUS Scientific Diver
- SOLO Wilderness First Responder