

# Joshua M. Helgoe

6397 Barrie Road, Edina, MN 55435

(304) 380-5680; jmhelgoe@gmail.com; Skype: josh.helgoe

## Education

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**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

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- **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

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**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 Sequencer 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**

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

**Skills**

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- 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