

# Lindsey Potts

lindsey.potts@mail.mcgill.ca | 860-451-8374

---

## Education

### ***Bachelor's of Science in Marine Sciences, May 2017***

The University of Connecticut | Groton, CT

GPA: 3.17/4.00

---

## Research Experience

### **University of Connecticut Department of Marine Sciences | Research Technician**

*Nitrogen and Oxygen Isotope Composition of the Gulf Stream, Groton, CT.*

**May 2017- July 2019**

- Investigated N and O isotopic composition of nitrate in the Southwestern Gulf Stream to evaluate nitrogen fixation.
- Prepared standards for isotope analysis.
- Operated a modified Thermo-Scientific Gas Bench II and Delta V Advantage gas chromatograph isotope ratio mass spectrometer for N and O isotope analysis of nitrate.
- Actively managed lab by ordering supplies, writing standard operating procedures, and organizing facilities to improve productivity.

### **University of Connecticut Department of Marine Sciences | Research Technician**

*Best Practices for Nitrogen Fixation Incubations, Groton, CT.*

**August 2017- July 2019**

- Assessed the precision of bubble release methodology for nitrogen fixation incubations.
- Operated and maintained a Bay Instruments Membrane Inlet Mass Spectrometer equipped with Thermo-Scientific Lindenburg Blue M oxygen scrubbing furnace.
- Operated a Thermo-Scientific Gas Bench II with Delta V Plus gas chromatograph isotope ratio mass spectrometer for the analysis of N<sub>2</sub> isotopologues 28, 29 and 30.
- Prepared enriched samples and standards for evaluating the precision of instruments at high <sup>15</sup>N<sub>2</sub> values.
- Designed and performed experiments to test potential for <sup>15</sup>N adsorption onto filters.
- Collaborated with researchers from other institutions and was responsible for the storage, analysis and data processing of samples sent to the lab.

### **University of Connecticut Department of Marine Sciences | Undergraduate Study**

*Urea as a Potential Nitrogen Source for Macroalgae *Cladophora* spp.*

**January – May 2017**

- Designed and executed nutrient uptake incubation experiments using the macroalgae *Cladophora* spp.
- Prepared Urea and NO<sub>3</sub> standards for analysis.
- Gathered and maintained live macroalgae specimens for incubations.
- Analyzed nitrate and urea using a Unity Scientific Smartchem 200 Discrete Analyzer.

## Laboratory Techniques:

- Preparation and analysis of seawater samples of nitrate N and O isotope ratio analyses with the denitrifier method on a modified Thermo-Scientific Gas Bench II and Delta V Advantage gas chromatograph isotope ratio mass spectrometer.
- Analysis of N isotope ratios dissolved  $^{15}\text{N}_2$  gas tracer on a Membrane Inlet Mass Spectrometer (Bay Instruments) equipped with Thermo-Scientific Lindenburg Blue M oxygen scrubbing furnace.
- Analysis of N isotope ratios dissolved  $^{15}\text{N}_2$  gas tracer on a Thermo-Scientific Gas Bench II with a Delta V Plus gas chromatograph isotope ratio mass spectrometer;
- Analysis of nitrate and nitrite concentrations on a Chemiluminescent  $\text{NO}_x$  analysis with a T200 Teledyne Advanced Pollution Instrument.
- Benchtop and automated analysis of organic and inorganic water constituents using Unity Scientific Smartchem 200 Discrete Analyzer.
- Maintenance of bacterial cultures.
- Preparation of nutrient and isotope standards.
- Macroalgae incubations for nutrient uptake experiments.
- Field preparation and sampling of water quality parameters including chlorophyll- $\alpha$ , nutrients, and fecal coliform.
- Fluorometric determination of chlorophyll- $\alpha$ .
- Data quality control.
- Winkler titrations.

---

## Field Experience

### Coastal Water Quality Monitoring

*August – December 2015; August – December 2016*

*Wequetequoock Cove, Stonington, CT.*

- Collaborated with citizen scientists and peers to compile water quality sampling data in an estuarine cove experiencing eutrophication and inundation of the invasive macroalgae *Cladophora spp.*
- Recorded dissolved oxygen, density, and temperature parameters using a YSI meter and hand-held CTD.
- Gathered samples for the analysis of total suspended solids, chlorophyll- $\alpha$ , nutrient concentrations, and fecal coliform.
- Practiced proper storage and treatment techniques to preserve samples for lab analyses.

---

## Publications

- White, A., J. Granger, C. Selden, M.R. Gradoville, **L. Potts**, A. Bourbonnais, R.W. Fulweiler, A.N. Knapp, W. Mohr, P. Moisander, C. R. Tobias, S.T. Wilson, M. Benavides, S. Bonnet, M. Mulholland, and B.X. Chang. In review. A Review of the  $^{15}\text{N}_2$  Tracer Method to Measure Diazotrophic Production in Pelagic Ecosystems. *Limnology and Oceanography: Methods*.
-

## Presentations

- **Potts, L.J.**, Granger, J., Tobias, C., Benavides, M., Rollinson, V.R., Moisander, P., Palter, J., Watkins-Brant, K., and A.E. White. 2018. Assessing One-Point Calibrations of the MIMS and the 'Bubble Release' Method for N<sub>2</sub> Fixation Incubations. *Ocean Sciences Meeting 2018*. Poster.
- 

## Skills and Additional Experience

**Computer skills:** Microsoft Office (Excel, Word, Powerpoint), Mass spectrometry software (Isodat, Quikdata), Matlab

## Leadership:

### The Major Experience | Storrs, CT

*Mentor*

*August 2016 – May 2017*

- Coordinated with other mentors to help incoming, prospective, and undecided students choose their major.
- Participated in group events and corresponded with mentees.

## Volunteer work:

### Mystic Aquarium | Mystic, CT

*Pacific Northwest Volunteer*

*September 2015 – July 2016*

- Collaborated with trainers to provide support and care to Northern Fur Seals, Stellar Sea Lions, and Harbor Seals.
- Worked in a fast-paced environment to complete objectives in a timely manner.