

Benjamin Ramcharitar

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EDUCATION

- 2013–17** **B.A Biology, Middlebury College** Middlebury, VT
- Posse Foundation Full-Tuition Leadership Scholarship (2013-17)
 - Senior Research Supplement Award (Sept 2016–June 2017): (1) Examined relationships between diet and the chemistry and mineralogy of their mouthparts and (2) experimented with dehydration, staining, and 3D reconstruction protocols for scanning electron microscopy of copepods to create a high-resolution guide.
- 2011–13** **A.A Liberal Arts, Bard College** (Bard High School Early College) Long Island City, NY

RESEARCH & PROFESSIONAL EXPERIENCE

March 2018–Present **Columbia University (LDEO), Palisades, NY**
Research Staff Assistant

PIs: Solange Duhamel, Andrew Juhl, and Ajit Subramaniam

Projects: (1) Development of low Nitrogen:Phosphorus ratios in the euphotic zone—the Phosphorus side of the story and (2) Impact of the Amazon River Plume on nitrogen availability and planktonic food web dynamics in the Western Tropical North Atlantic

- Primarily responsible for collecting, running, and analyzing oceanic flow cytometry samples (via BD Influx) and various fractions of nutrients samples.
- Assist with (1) elemental analysis of microplankton and single-celled cyanobacteria using X-ray microanalysis and (2) with phosphorous uptake and primary production measurements using radioisotopes and cell sorting.

August 2017–February 2018 **Davey Resource Group, Brooklyn, NY**
Technician

Projects: (1) USDA Asian Longhorned beetle and (2) NYC Parks Tree Inventory

- Inspected trees for common defects and diseases and managed data for the Department of Agriculture and NYC Parks Department.

July–September 2016 **Oregon State University, Corvallis, OR**
Field Technician

PI: Nathan Chelgren

Projects: (1) Trask Watershed Study and (2) Alsea Watershed Study

- Electroshocked waters to tag fish and amphibians as part of a long-term study quantifying the physical, chemical, and biological effects of logging practices on headwater streams.

May–September 2015 **University of Vermont, Burlington, VT**
Research Assistant *National Science Foundation Research Experience for Undergraduates*

PIs/Mentors: Jason Stockwell, DongJoo Joung, Andrew Schroth

- Developed research plan examining the contribution of internal nutrient loading to algal blooms.
- Collected and processed weekly soil and water samples for trace metal analysis.
- Analyzed data to show concentration fluxes of nutrients and metals into and out of lake sediments and water column.

January 2011– May 2013

Research Intern

American Museum of Natural History, New York, NY

National Science Foundation Science Research Mentoring Program

PIs/Mentors: Kate Hanson, Hilleary Osheroff

- Generated a species checklist and piloted an interactive, web-based taxonomic guide for zooplankton in the Hudson River estuary by performing confocal microscopy on samples using staining and autofluorescence.

PUBLICATIONS & PRESENTATIONS

Subramaniam, A., Juhl, A., Aleman, A., Klotz, V., **Ramcharitar, B.**, & Montoya, J. **2019.** (poster) Biogeography of Phytoplankton Community Structure in the Northern Gulf of Mexico. *Gulf of Mexico Oil Spill and Ecosystem Science Conference*, New Orleans, LA.

Joung, D., Leduc, M., **Ramcharitar, B.**, Xu, Y., Isles, P., Stockwell, J., Druschel, G., Manley, T., & Schroth, A. **2017.** The impact of winter weather and system configuration on phosphorus, iron and manganese dynamics in water and sediment of ice-covered lakes. *Limnology and Oceanography* **62**: 1620–1635.

Ramcharitar, B. & Root, T. **2017.** (poster) Next-Generation Taxonomic Guide to Freshwater Zooplankton Using Scanning Electron Microscopy. *Middlebury College Spring Symposium*, Middlebury, VT.

Joung, D., Xu, Y., Isles, P., Gearhart, T., Stockwell, J., O'Malley, B., Schroth, A., **Ramcharitar B.**, & Leduc, M. **2015.** (poster) Metal and Phosphorous behavior in the water and sediment underneath ice cover: a comparative study between hyper- and eutrophic lake systems. *American Geophysical Union Fall Meeting*, San Francisco, CA.

Ramcharitar, B., Leduc M., Joung, D., & Schroth, A. **2015.** (poster) Internal Nutrient Loading in Shelburne Pond Under Ice Cover and Open Water. *Summer Lake Champlain Research Experience for Undergraduates Symposium*, Burlington, VT.

Ramcharitar, B. **2015.** (public talk and presentation) Interactive Animation on Biogeochemical Cycles Causing Algal Blooms in Lake Champlain. ECHO, Leahy Center for Lake Champlain, Burlington, VT

Ramcharitar, B., Cepeda, J., & Hanson, K. **2013.** (poster) High Resolution Images of Copepods in the Hudson River: In Support of a “Next Generation” Regional Taxonomic Guide. *American Museum of Natural History Student Research Symposium*, New York, NY.

OCEANOGRAPHIC CRUISES

2019 M158 Equatorial Atlantic, R/V Meteor (Walvis Bay, Namibia–Recife, Brazil), 38 days (planned)
Chief Scientist: Peter Brandt

2019 EN6xx Gulf of Mexico, R/V Endeavor, (Gulfport, Mississippi), 15 days (planned)
Chief Scientist: Andrew Juhl

2019 EN6xx Amazon Plume, R/V Endeavor, (Bridgetown, Barbados), 14 days (planned)
Chief Scientist: Joseph P. Montoya

2018 EN620 Gulf of Mexico, R/V Endeavor, (Gulfport, Mississippi), 15 days
Chief Scientist: Andrew Juhl

2018 EN614 Amazon Plume, R/V Endeavor, (Bridgetown, Barbados–San Juan, Puerto Rico), 28 days
Chief Scientist: Joseph P. Montoya