

Benjamin Burpee
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EDUCATION

University of Maine, Orono, ME

- M.S. candidate, Ecology and Environmental Science, Fall 2013-present
Thesis: "Within-lake potential for microbial degradation of DOC in Arctic lakes of southwestern Greenland"
- B.S., Biology, B.A., Studio Art, with Honors College plan of study
Graduated May 2011 with 3.84 GPA

University of East Anglia, Norwich, England

- Concentrated in Biology and Art History, 2007-2008

Maine School of Science and Mathematics, Limestone, ME

- Diploma, 2005

EMPLOYMENT EXPERIENCE

UNIVERSITY OF MAINE, Orono, ME

Dr. Jasmine Saros's Research Lab

Research Assistant, June 2014-present

IN SOUTHWEST GREENLAND:

- Assisting with field research for an NSF-funded project investigating algal regime shifts in response to local nutrient dynamics and lake mixing depths, stationed at Kangerlussuaq International Science Station (KISS) for one-month intervals
- Installing large equipment such as buoys, a Solar Bee lake mixer, and weather stations in the field
- Helicoptering, boating, and hiking long distances with heavy equipment in order to access remote locations for lake sampling and monitoring
- Leading single-day field expeditions
- Implementing nutrient limitation experiments
- Designing and implementing DOC degradation experiments

AT THE UNIVERSITY OF MAINE:

- Analysis of bacterial ectoenzyme activity (EEA) using 96-well microplate assays with fluorophore-coupled substrates
- Analysis of DOC concentrations using NPOC on a Shimadzu TOC-LCSH instrument and DOC quality via UV-VIS spectrometry and fluorescence scanning for emission-excitation matrices
- Five-step Psenner extractions of lake sediments to determine fractionated phosphorus concentrations in LEA survey lakes

UNIVERSITY OF MAINE, Orono, ME

The School of Biology and Ecology

Teaching Assistant for Biology 100-200, September 2013-June 2014

- Teaching inquiry-based biology laboratories (up to 3 sections per semester)
- Leading class discussions, providing background lectures, giving technical demonstrations
- Assisting students to successfully design and implement self-directed research projects
- Grading and evaluating up to 60 students with weekly assignments
- Holding weekly office hours for individual meetings with students
- Attending STEM workshops

ALASKAN OBSERVERS, INC., Seattle, WA
Subcontracted to the National Marine Fisheries Service (NMFS) at the National Oceanic and Atmospheric Administration (NOAA)

Fisheries Field Biologist, June 2011-June 2012

- Collecting biological data for the management of the west and northwest coast fisheries including species identification, species composition, sex, length and maturity data, haul measurements, and fish density data
- Setting up and following random sample designs on different commercial sea vessels
- Performing physically demanding work for long hours in unfavorable conditions on the Bering Sea in Alaska, and off the Washington/Oregon coast
- Marine mammal monitoring for the National Marine Mammals Laboratory

UNIVERSITY OF MAINE, Orono, ME

Dr. Julie Gosse's Research Lab

Laboratory Research Assistant, Summer 2010

- General lab techniques (sterile methods, autoclaving, ordering, data processing in Excel and Prism software, MSDS and chemical inventory, keeping a good lab notebook)
- Tissue culture training, counting cells on a hemacytometer
- Responsible for bi-weekly cell passage (splitting) of the murine cell line RBL-2H3 (performed on behalf of the entire lab)
- Made pH-critical buffers and sterile cell culture media for use in assays
- Developed lab protocol for proper dissolution of the synthetic chemical Triclosan

UNIVERSITY OF MAINE, Orono, ME

Dr. Eleanor Groden's Research Lab

Laboratory and Field Assistant, Summer 2007

- Stationed in Acadia National Park, Bar Harbor, ME
- Assisted in the collection and investigation of an invasive species, the European fire ant, *Myrmica rubra*
- Observed and surveyed associations between *M. rubra* and other indigenous species of insects and plants
- Used GPS to map out and measure experimental sites
- Set up field experiments to determine the effectiveness of different insecticides on *M. rubra*

ARTICLES AND ABSTRACTS

- **Abstract** "Within-Lake Potential for Microbial Degradation of DOC in Arctic Lakes of Southwestern Greenland," **B T Burpee**, R M Northington, K S Simon, J E Saros (poster presentation at the 2015 Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting, Grenada, Spain)
- **Abstract** "Dissolved Organic Carbon Degradation in Response to Nutrient Amendments in Southwest Greenland Lakes," **Benjamin T. Burpee**, Robert Northington, Kevin S. Simon, Jasmine E. Saros (poster presentation at the 2014 American Geophysical Union Meeting, San Francisco, C.A.)
- **Article** "Antibacterial agent triclosan suppresses RBL-2H3 mast cell function," Rachel K. Palmer, Lee M. Hutchinson, **Benjamin T. Burpee**, Emily J. Tupper, Jonathan H. Pelletier, Zsolt Kormendy, Alexander Hopke, Ethan T. Malay, Julie A. Gosse, *Toxicology and Applied Pharmacology*, January 2012, Vol. 258, No. 1, pp. 99-108
- **Abstract** "Antibacterial Agent Triclosan Inhibits IgE Receptor-Mediated Mast Cell Degranulation," R.K. Palmer, **B. Burpee**, L. Hutchinson, Z. Kormendy, E. Tupper, J. Pelletier, E. Malay, J.A. Gosse, *The Toxicologist* (supplement to Toxicological Sciences), March 2011, Vol. 120, No. 2, p. 54 (poster presentation at 50th anniversary Society of Toxicology Meeting, Washington, D.C.)

HONORS AND AWARDS

- Goldwater Exploration Fund, 2013 and 2014
- Graduate School Government Grant, 2013 and 2014
- Ana Mendieta Fellowship, 2012 to 2013
- Phi Beta Kappa Inductee, 2010
- Goldwater Scholarship, 2007