Margaret Quinn Guyette

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EDUCATION

2008-2012	The University of Maine, Orono, PhD in Wildlife Ecology (October 2012) Dissertation: *Responses of Atlantic salmon stream communities to marine-derived nutrients*; Advisors: Cynthia Loftin & Joseph Zydlewski
2005-2006	Antioch New England Graduate School, PhD Student in Environmental Studies
2001-2002	Teton Science School, Environmental Education Professional Residency, credits earned through Utah State University
1999-2001	Dartmouth College, MS in Earth Sciences Thesis: *Using stable isotopes, community structure, and metal concentrations to examine aquatic communities*; Advisors: C. Page Chamberlain & Xiahong Feng
1995-1999	Dartmouth College, BA in Environmental Earth Sciences (Thesis: *Food web structure and copper contamination in an aquatic ecosystem in the New World Mining District*) and Environmental and Evolutionary Biology (including one semester studying Earth Sciences in Hawaii, Mexico and the Western United States and one semester with the National Outdoor Leadership School in Baja, Mexico)

WORK EXPERIENCE

2013-present	Post-doctoral Research Associate, Center for Limnology, University of Wisconsin, Madison, WI
2012-2013	Post-doctoral Research Associate, Department of Wildlife Ecology, University of Maine, Orono, ME
2008-2012	Graduate Assistant, Department of Wildlife Ecology, University of Maine, Orono, ME
2008	Teaching Assistant, Department of Wildlife Ecology, University of Maine, Orono, ME
2007	Science Tutor, Tutor.com, Online
2007	Science Tutor, Hutchinson Center, University of Maine, Belfast, ME
2004-2007	Physics and Chemistry Teacher, George Stevens Academy, Blue Hill, ME
2003-2004	Education Program Coordinator, Marine Environmental Research Institute, Blue Hill, ME
2002-2003	Lead Science Teacher, Burke Mountain Academy, East Burke, VT
2001-2002	Student Instructor, Teton Science School, Kelly, WY
2001	Environmental Educator, Montshire Museum of Science, Norwich, VT
1999-2001	Teaching Assistant, Earth Sciences Department, Dartmouth College, Hanover, NH

WORK EXPERIENCE *(continued)*

1998,2000	Teaching Assistant, Earth Sciences Off-Campus Program in Montana, the Southwest United States, and Mexico, Earth Sciences Department, Dartmouth College, Hanover, NH
1998-1999	Field Research Assistant, Lab Assistant, Dartmouth College Department of Biological Sciences, Hubbard Brook Experimental Forest, West Thornton, NH

TEACHING EXPERIENCE

Postsecondary Teaching Assistantships

University of Maine, Department of Wildlife Ecology, Orono, ME

- WLE 201: Ecology Laboratory (2008)
  Responsible for presenting material to small groups, explaining ecological concepts to introductory level students, facilitating experiential learning, assisting students with assignments, grading laboratories and homework assignments

Dartmouth College, Department of Earth Sciences, Hanover, NH

- EARS 117: Analysis of Environmental Data (Graduate level statistics; 2001), EARS 006: Environmental Change (2001), EARS 003: Introductory Oceanography (2000), EARS 062: Geochemistry (2000), EARS 005: Natural Disasters (2000), EARS 001: Introduction to Earth Sciences (1999)
  Responsible for leading undergraduate laboratories, presenting material to small groups, explaining concepts to introductory and advanced students, facilitating experiential learning, assisting students with assignments, and grading exams and homework assignments; teaching assignments at the request of the faculty
- EARS Off-campus Program – field oriented Earth Sciences classes in Cooke City, Montana, the Southwest United States and Jalisco, Guanajuato, and Zacatecas, Mexico
  Responsible for leading small groups on day geology trips, facilitating experiential learning, and organizing logistics for 18-36 students; teaching assignments at the request of the faculty

Postsecondary Student Supervision

University of Maine, Department of Wildlife Ecology, Orono, ME (2008-2012)

- Hired and supervised a total of 28 technicians working in the field and/or laboratory over the course of the project; supervised up to 14 undergraduate technicians at a time working on my dissertation research
- Hired and supervised one graduate student technician to act as a field crew leader during the final field season of my dissertation research

Marine Environmental Research Institute, Blue Hill, ME (2003-2004)

- Supervised undergraduate education interns; responsible for orientation, training, scheduling, and support throughout the length of the internships (typically 10+ weeks)

Teton Science School, Kelly, WY (2001-2002)

- Supervised environmental education interns during summer programs while teaching elementary students; guided intern training and instruction

Secondary Courses Taught

George Stevens Academy, Blue Hill, ME (2004-2007)

- Honors Modeling Physics, College Prep Modeling Physics, Conceptual Physics, Honors Chemistry, College Prep Modeling Physics, Chemistry of Foods (11th and 12th grades), Survey of Science (9th grade)

  Responsibilities included instructing students, following established school curricula, writing daily lesson plans, designing and implementing assessment

Burke Mountain Academy, East Burke, VT (2002-2003)

- 10th grade Biology, 11th grade Chemistry, 12th grade Physics

  Responsibilities included developing year-long curricula, selecting texts, writing daily curricula, designing and implementing assessment

Other Instructional Experience

George Stevens Academy, Blue Hill, ME (2004-2007)

- Served as academic advisor to 9th, 10th, and 12th grade students; advised 11th and 12th grade students for independent study projects

Marine Environmental Research Institute, Blue Hill, ME (2003-2004)

- Coordinated, implemented, and expanded education programs and community outreach, developed the organization's presence in the field, conducted educational programs, supervised naturalists and volunteers, created and published educational resource materials

Burke Mountain Academy, East Burke, VT (2002-2003)

- Supervised science tutorials in various science fields for 8th and 9th grade students; oversaw post-graduate instructional aides in tutorial settings

Teton Science School, Kelly, WY (2001-2002)

- Taught K-12th graders from all backgrounds, taught principles of ecology, geology, and environmental science through a student-driven, place-based, hands-on approach in field settings and in the classroom in the outreach program, participated in curriculum design and development, taught outdoor skills appropriate to season and terrain

Montshire Museum of Science, Norwich, VT (2001)

- Developed week-long curricula for participants in grades 3-7; led small (5-7) and large (15-20) groups of children in ecology, natural history, discovery, and sensory awareness activities specific to the natural environment; responsible for safety of participants

PUBLICATIONS

Guyette, M.Q., Loftin, C.S., Zydlewski, J., Cunjak, R. 2014. Carcass analogues provide marine subsidies for macroinvertebrates and juvenile Atlantic salmon in temperate oligotrophic streams. *Freshwater Biology*. 59: 392-406. doi: 10.1111/fwb.12272.

Guyette, M.Q., Loftin, C.S., Zydlewski, J. 2013. Carcass analog addition enhances juvenile Atlantic salmon (*Salmo salar*) growth and condition. *Canadian Journal of Fisheries and Aquatic Sciences* 70(6): 860-870. doi: 10.1139/cjfas-2012-0496.

Quinn, M.R., Feng, X., Folt, C.L., Chamberlain, C.P. 2003. Analyzing trophic transfer of metals in stream food webs using nitrogen isotopes. *The Science of the Total Environment* 317: 73-89. doi: 10.1016/S0048-9697(02)00615-0.

MANUSCRIPT IN REVIEW

Guyette, M.Q., Loftin, C.S., Zydlewski, J. Macroinvertebrate and periphyton response to carcass analog supplementation in Atlantic salmon nursery streams. Submitted to: *Freshwater Science*.

MANUSCRIPTS AND BOOK CHAPTERS IN PREPARATION

Guyette, M.Q., Loftin, C.S. Bayesian belief network prediction of vegetation change in the Okefenokee National Wildlife Refuge, Georgia, USA. Target journal: *Environmental Modelling & Software*.

Guyette, M.Q., Loftin, C.S. Fire in the Okefenokee National Wildlife Refuge, Georgia, USA: modeling vegetation change. Target journal: *Wetlands*.

Guyette, M.Q., Loftin, C.S., Zydlewski, J. Ecosystem resilience to disruption of nutrient dynamics in Atlantic salmon nursery stream communities. Target journal: *Restoration Ecology*.

BOOK CHAPTER IN PREPARATION

Guyette, M.Q., Post, J.C. Beyond birds: A search for common ground in ecological and ethnomusicological sound landscapes. In: *Ecomusicology: A Field Guide*. A. Allen & K. Dawe eds. Routledge Press, 2014.

TECHNICAL REPORT

Guyette, M.Q., Loftin, C.S. 2013. Vegetation classification of the Okefenokee National Wildlife Refuge in 2012 and analyses of vegetation regrowth following the 2011 fire. Project Report for the Okefenokee National Wildlife Refuge, US Fish & Wildlife Service, Folkston, GA.

INVITED SEMINARS AND PRESENTATIONS

2013. University of Wisconsin, Center for Limnology Seminar Series, Madison, WI
Presentation for Refuge managers, Okefenokee National Wildlife Refuge, Folkston, GA
Coordinating Committee Meeting of the U.S. Geological Survey, Maine Cooperative Fish and Wildlife Research Unit, Orono, ME
Diadromous Species Restoration Science 2013: Migration, Habitat, Species Interactions, and Management, Diadromous Species Restoration Research Network 2013 Science Meeting, University of Maine, Orono, ME

2012. Coordinating Committee Meeting of the U.S. Geological Survey, Maine Cooperative Fish and Wildlife Research Unit, Orono, ME
Graduate Student Research Awards Competition, College of Natural Sciences, Forestry, & Agriculture, University of Maine, Orono, ME

2011. Symposium: Marine Derived Nutrients in Freshwater Systems – Anadromous Fishes and the Nutrient Cycle, American Fisheries Society, Annual Meeting, Seattle, WA
Project SHARE, Quarterly Meeting, Whitneyville, ME
University of Maine, GradExpo, Orono, ME
Coordinating Committee Meeting of the U.S. Geological Survey, Maine Cooperative Fish and Wildlife Research Unit, Orono, ME
Maine Bureau of Sea Run Fisheries and Habitat, Department of Marine Resources, Staff Meeting, Bangor, ME

2010. Cunjak Lab Meeting Seminar, University of New Brunswick, Fredericton, NB

INVITED SEMINARS AND PRESENTATIONS *(continued)*

2009. Maine Chapter of the Wildlife Society, Quarterly Meeting, Brewer, ME
Maine Bureau of Sea Run Fisheries and Habitat, Department of Marine Resources, Staff Meeting, Bangor, ME
2008. University of Maine, Department of Wildlife Ecology Seminar Series, Orono, ME
2003. Marine Environmental Research Institute, Seminar Series, Blue Hill, ME (as M. Quinn)

PROFESSIONAL PRESENTATIONS

2013. Ecological Society of America, Annual Meeting, Minneapolis, MN
2012. Society for Freshwater Science, Annual Meeting, Louisville, KY
Biennial Research Forum: Atlantic Salmon and Their Ecosystems, Bangor, ME
2011. North American Benthological Society, Annual Meeting, Providence, RI
Maine Water Conference, Augusta, ME
2010. North American Benthological Society, Annual Meeting, Santa Fe, NM
2009. American Fisheries Society, Annual Meeting, Nashville, TN
2004. Maine Environmental Education Association, Annual Meeting, Wiscasset, ME (as M. Quinn)
2000. Geological Society of America, Annual Meeting, Reno, NV (as M. Quinn)

SERVICE

2013	Session Organizer, Diadromous Species Restoration Research Network Science Meeting, Orono, ME
2012	Session Organizer, Society for Freshwater Science Annual Meeting, Louisville, KY
2011-present	Graduate Student Representative, Department of Wildlife Ecology Faculty meetings, University of Maine, Orono, ME
2011-present	Newsletter Committee, Graduate Student Government, University of Maine, Orono, ME
2011	Session Moderator, North American Benthological Society Annual Meeting, Providence, RI
2011	Wildlife Ecology Department Graduate Student Representative, Graduate Student Government Senate, University of Maine, Orono, ME
2009	Co-organizer, Wildlife Ecology Seminar Series, University of Maine, Orono, ME
2004-2009	Secretary, Publicity Contact, Board Member, Downeast Chapter of Maine Audubon, Blue Hill, ME
2007	Academic Progress Committee, George Stevens Academy, Blue Hill, ME
2007	Negotiations Committee, George Stevens Academy, Blue Hill, ME
2006-2007	National Honor Society Advisor, George Stevens Academy, Blue Hill, ME
2005-2006	Community Service and Service-Learning Development Committee, George Stevens Academy, Blue Hill, ME
2003-2005	Board Member, Gulf of Maine Marine Education Association
2003-2004	Member of Technical Assistance Grant (TAG) Steering Committee, Callahan Mine Superfund Site, Brooksville, Maine
2002	Volunteered field services for MAPS station at Teton Science School, Kelly, WY

AWARDS AND HONORS

2012	Outstanding Graduate Student Award 2012, Department of Wildlife Ecology, University of Maine, Orono, ME
2001-2002	The Frank and John Craighead Award for Wildlife Research and Management, Teton Science School, Kelly, WY
1999	Departmental Honors in Earth Sciences, Dartmouth College, Hanover, NH
1998-1999	Senior Scholar, Dartmouth College, Hanover, NH
1998-1999	Alumni Fund Scholarship, Dartmouth College, Hanover, NH

GRANTS

2011	Graduate Student Government Travel-to-Present Grant, University of Maine, $850
2010	Graduate Student Government Travel-to-Present Grant, University of Maine, $637
2004	Hunter Grubb Foundation (for Marine Environmental Research Institute), $5,000
2003-2004	Marpat Foundation (for Marine Environmental Research Institute), $30,000
1999-2000	Geological Society of America Graduate Student Research Grant, $1,500
1999-2000	Sigma Xi Grant-in-Aid of Research, $1,000
2000	Geological Society of America Student Travel Grant, $500
1998-1999	Richter Senior Honors Thesis Research Grant, $500
1998-1999	Dartmouth College Senior Scholar Research Grant, $500

JOB-RELATED SKILLS

- ***Sampling Design*** – Experienced with designing appropriate sampling protocols in aquatic environments to effectively address research and management questions, hypotheses, and objectives
- ***Project Management*** – Experienced coordinating projects and staying within predetermined budget and timelines including hiring, training, and supervising personnel; managing project budgets; purchasing, maintaining, and tracking field equipment; and maintaining field vehicles and associated records
- ***Lotic Systems*** – Experienced with sampling and identifying macroinvertebrates, sampling periphyton, sampling stream chemistry parameters and abiotics
- ***Lentic Systems*** – Experienced with sediment coring, diatom identification, water column profiles, secchi depth, plankton sampling and identification, water sampling
- ***Marine Systems*** – Experienced with sampling and identifying intertidal organisms, lobstering, Maine invertebrate identification, phytoplankton sampling and identification
- ***Fish*** – Experienced with electrofishing (completed U.S. FWS course Principles and Techniques of Electrofishing), passive integrated transponder (PIT) tagging, otolith extraction and microstructure analysis
- ***Birds and Mammals*** – Competent with mist-netting, bird banding, point counts, nest searching and monitoring, preparing study skins, winter tracking
- ***Laboratory*** – Experienced with laboratory protocol development, laboratory management, chlorophyll *a* analysis, fish total lipid analysis
- ***Plant Sampling*** – Experienced with sampling vegetation in forest, wetland, grassland, and alpine communities
- ***Species identification*** – Practiced using field observations, guide books, dichotomous keys, and museum and herbarium specimens to identify animal and plant species
- ***Data Analysis*** – Experienced with R, WinBUGS, JAGS, and JMP for statistical analyses and modeling; ArcGIS, ERDAS IMAGINE, Geospatial Modelling Environment, and FRAGSTATS for image analysis, manipulation and data extraction; Netica for Bayesian network modeling
- ***General Computer*** – Proficient with Microsoft Word, Excel, PowerPoint, Access, and Visual Basic, for word-processing, data management and sharing

PROFESSIONAL AFFILIATIONS

- Ecological Society of America
- American Association for the Advancement of Science
- American Fisheries Society
- Society for Freshwater Science