

EMMI FELKER-QUINN

WORK EXPERIENCE

ORISE POST-DOCTORAL FELLOW

NOVEMBER 2012-NOVEMBER 2015

National Center for Environmental Assessment, United States Environmental Protection Agency | Research Triangle Park, NC

- Developed comprehensive assessments of nitrogen and sulfur oxides impacts on North American wetlands based on data from published literature for the 2016 Integrated Scientific Assessment for Oxides of Nitrogen and Sulfur for Ecological Effects (NOxSOx ISA)
- Wrote comprehensive reviews on wetland eutrophication, mercury methylation, and feedbacks between nitrogen deposition, cheatgrass invasion, and wildfires.
- Coordinated projects and communicated to management, team scientists, contractors, and technical staff while leading the literature collection effort for the NOxSOx ISA
- Organized and moderated 16 EPA-wide webinars where scientists informally presented their research for an interdisciplinary audience

GRADUATE TEACHING ASSISTANT

AUGUST 2007- AUGUST 2012

Department of Ecology and Evolution, University of Tennessee | Knoxville, TN

- Trained and managed a work crew of 5 students in field measurements and lab analyses from 2008-2011 in greenhouse and common garden experiments
- Worked cooperatively with faculty, graduate students, and undergraduates to conduct research, and to write and publish scientific manuscripts
- Taught Introduction to Biology, Botany, and Ecology labs to science and non-science majors. Teaching responsibilities included lecturing; demonstrating lab, computer, and field techniques; and instructing students in classrooms, state parks, laboratories, and greenhouses

ORISE INTERN

JUNE 2006- JULY 2007

Environmental Sciences Division, Oak Ridge National Laboratory | Oak Ridge, TN

- Performed daily monitoring and maintenance of the Oak Ridge Free Air CO₂ Enrichment (FACE) project
- Collected and processed soil and plant samples at the FACE as well as the Old-Field Community Climate and Atmospheric Manipulation (OCCAM) site
- Maintained databases for hourly data from both projects

STUDENT ASSISTANT

JANUARY 2006-MAY 2006

Smith College Botanic Garden | Northampton, MA

- Catalogued and mapped trees in the arboretum
- Prepared Index Seminum and fulfilled international orders for seeds

SMITH BOTANIC GARDEN INTERN

MAY 2004-AUGUST 2004

Jodrell Laboratory | Kew Gardens | London, United Kingdom

- Worked in Molecular Systematics and Conservation Genetics sections
- Contributed to phylogenetic projects for the plant genera *Conostylis* and *Dactylorhiza*.

STRIDE FELLOW

JANUARY 2003- MAY 2006

Department of Biological Sciences, Smith College | Northampton, MA

- Catalogued a historic plant collection and wrote a thesis on the flora of western Massachusetts
- Constructed a database of plant species present in western Massachusetts over 200 years

PEDAGOGICAL EXPERIENCE

- Wrote and taught 'Climate Change Affects Animals' and 'Carbon Storage in Trees' activities for EPA's summer Climate Change workshop for high schoolers, 2013, 2014, 2015; and middleschoolers, 2015
- Guest speaker on evolution and the ethics of environmental science, Watts Street Baptist Church Youth Group, Durham, 2015
- Developed and taught activities on ecosystems in the outdoor classroom at RN Harris Elementary School (Durham, NC), April 2015
- Developed a teaching module on plant-herbivore interactions (teaching materials, worksheets, plant versus herbivore game) for elementary and middle school students for the November 2014 Scientific Education and Research Network Event ([link](#))
- Assisted in DNA extractions for visitors as a Graduate Women in Science member, National Science Fair, Washington DC, April 2014
- Wrote and presented information on PTC tasting for Girl Scouts Technoquest, Meredith College, November 2013
- Wrote and presented 'Climate, Carbon, and Koalas' to high school students at Southern High School (Durham, NC) and the EPA's summer science program, April and June 2013

EDUCATION

DOCTORATE OF PHILOSOPHY IN ECOLOGY

2012

Department of Ecology and Evolutionary Biology | University of Tennessee | Knoxville, TN

Dissertation: Evolutionary interactions in invasive species: the importance of plant-soil feedbacks to local adaptation and rapid evolution ([link](#))

Department of Ecology and Evolutionary Biology Summer Research Award, 2008-2010.

University of Tennessee Office of Research Graduate Assistant Summer Research Award, 2010.

Department of Ecology and Evolutionary Biology Award for Outstanding Student Paper, 2011.

BACHELOR OF ARTS IN BIOLOGY

2006

Smith College | Northampton, MA

Senior Thesis: An historic plant collection: H.G. Jesup in western Massachusetts (1863-1876) and the role of non-native species in the flora

Graduated cum Laude with Highest Honors in Biological Sciences

Amey Randall Brown Prize for the best essay on a botanical subject, 2005

Amey Randall Brown Prize for the best essay on a botanical subject, 2006

Harriet R. Foote Memorial Prize for outstanding work in botany, 2006

SELECTED PRESENTATIONS AND PUBLICATIONS

Felker-Quinn, E, Housego R, Maxwell A, Lassiter MG. Exploring links between Bromus invasion, anthropogenic nitrogen enrichment, and wildfires using systematic review and meta-analysis. Oral Paper Presentation, Ecological Society of America, 2015.

Felker-Quinn, E, Lassiter MG, Maxwell A, Housego R, Young B. Links between plant invasion, anthropogenic nitrogen enrichment, and wildfires: A systematic review. Poster Presentation, American Geophysical Union, 2014.

Felker-Quinn, E, Herrick JD, Greaver T. A Systematic Review of US Wetland Responses to Nitrogen Loading. *Poster at Human Health Risk Assessment Meeting*, Environmental Protection Agency, May 2014.

Felker-Quinn, E, Greaver TL. Quantitative review of plant biomass and tissue nutrient concentration shows that response to nitrogen loading varies by wetland type. Poster Presentation, Ecological Society of America, 2013.

Felker-Quinn E, Schweitzer JA, Bailey JK. 2013. Meta-analysis reveals evolution in invasive species but little support for Evolution of Increased Competitive Ability (EICA). *Ecology and Evolution* 3(3): 739-751.

Felker-Quinn E, Bailey JK, Schweitzer JA. 2011. Soil biota drive feedbacks and the expression of genetic variation in an invasive plant. *Ecology* 92(6): 1208-1214.

PROFESSIONAL ASSOCIATIONS

- Membership in Rho Tau chapter of Graduate Women in Science since 2013
- Membership in Ecological Society of America since 2008
- Elected to membership in Sigma Xi, 2006
- Reviewer for: *Biological Invasions, Ecological Applications, Global Change Biology, Oecologia, Population Ecology, Canadian Journal of Forestry Research*

COMPUTER SKILLS

Microsoft Office, ImageJ, JMP, R, ArcGIS