

Emily M.X. Reed

121 David Clark Labs, North Carolina State University ■ (919) 389-0466 ■ emreed@ncsu.edu

Education

PhD Candidate, Biology

Concentration: Ecology and Evolutionary Biology

2016-Present

North Carolina State University

GPA: 4.200/4.0

Department of Biological Sciences

Advisor: Dr. Martha Burford Reiskind

Bachelor of Arts, French *summa cum laude*

May 2014

University of North Carolina at Asheville

GPA: 3.950/4.0

Minor in Neuroscience, Biology

UNC Asheville Honors Program

Study Abroad, Université Catholique de l'Ouest, Angers, France

Research

Global Change Fellowship: Graduate Research Assistant

Spring 2018, Fall 2019-2020

Landscape genomics of *Aedes albopictus*: dispersal of invasive species in urban areas
Southeast Climate Adaptation Science Center

Researcher

Summer 2017

State-wide Survey of Container *Aedes* Mosquitoes: North Carolina 2016, 2017
Supervised survey efforts in Wake Co, analyzed statewide data for 2016 survey
PIs: Michael Reiskind (NCSU), Brian Byrd (WCU), Stephanie Richards (ECU)

Research Technician

Summer 2016

Aedes albopictus Reciprocal Transplant/Common Garden Experiment
Implemented field experiment at Raleigh site, maintained records, managed undergraduate technicians
PIs: Michael Reiskind (NCSU), Laura Harrington (Cornell), Courtney Murdock (UGA)

Undergraduate Research Assistant

Spring 2016

Gene Expression Control of Murine Protein Pheromones
Investigated gene expression of murine proteins in mouse cell cultures via hormone manipulation
PI: Dr. Angel Kaur (UNCA)

Undergraduate Independent Research

Spring 2016

Freshwater Invertebrate Identification App
Developed app in collaboration with computer science student for use in volunteer-based stream monitoring efforts
Advisor: Dr. Timothy Forrest (UNCA)

Data Collector

Fall 2015—Spring 2016

The Role of Law Enforcement in Supporting Pedestrian and Bicycle Safety
Collected data on pedestrian/motorist interactions through observations and staged crossings
PI: Laura Sandt (UNC Highway Safety Research Center)

Undergraduate Independent Research

Spring 2014

A devilish dictionary: exploring the definition of nonwords
Conceptualized and implemented a Mathematica program used to invent words and definitions
Advisor: Dr. Patrick Bahls (UNCA)

Undergraduate Capstone Research

Spring 2014

Le créole guyanais: ses rapports avec le français et les autres langues créoles
Researched and presented the evolution and culture of the French creole language in French Guyana
Advisor: Dr. Cathy Pons (UNCA)

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Presentations

- Landscape genetics of an urban-suburban invader** 14 January 2020
Poster Presentation, United States Department of Agriculture
Interagency Research Forum on Invasive Species, Annapolis MD
- Landscape genomics of *Aedes albopictus*** 10 December 2019
Oral Presentation, North Carolina Mosquito and Vector Control Association
Annual Conference, Carolina Beach NC
- Landscape genetic tools can be used to identify habitat corridors in an invasive species** 13 November 2019
Poster, Southeast Climate Adaptation Science Center Regional Symposium, New Orleans La
- Landscape genetics of an invasive species in an urban-rural landscape** 19 September 2019
Lightning Talk Competition, Evolution and Comparative Genetics & Genomics Research Group,
Genetics & Genomics Initiative, North Carolina State University. **Winner**
- Landscape genetics of an invasive species in an urban-rural landscape** 31 July 2019
Oral Presentation, BioLunch Graduate Seminar Series, Raleigh NC
- Developed open spaces facilitate gene flow in an invasive mosquito** 24 June 2019
Poster, Evolution Conference, Providence RI
- The genomics of invasion: characterization of the red lionfish from its native and introduced range** 14 May 2018
Poster, Population, Evolutionary, and Quantitative Genetics Conference, Madison WI
- Using landscape genomics to understand urban dispersal of a highly invasive species** 13 March 2018
Poster, Southeast Climate Science Center Strategic Advisory Committee Meeting, Raleigh NC
- Understanding *Aedes* presence, abundance, and phenology: results from the 2016 North Carolina Mosquito Survey.** 13 February 2018
Oral Presentation, Mid-Atlantic Mosquito Control Association & North Carolina
Mosquito and Vector Control Association Annual Conference, Carolina Beach NC
- Freshwater invertebrate identification app** 9 April 2016
Poster, National Conference of Undergraduate Research, Asheville NC
- Constraint, the absurd, and creativity: how to make up words and call them literature** 5 October 2013
Oral Presentation, North Carolina Honors Association Conference, Boone NC
- Integrative learning and the use of contemplative practices in two honors classes: the holocaust, the arts, and contemplation & imagination** 15 September 2012
Oral Presentation, North Carolina Honors Association Conference, Greenville NC

Publications

- Reiskind MH, Styers D, Hayes I, Richards SL, Doyle M, **Reed EMX**, Hollingsworth B, Byrd BD (*In Review*) Taking the pulse: container *Aedes spp.* (Diptera: Culicidae) presence and abundance is associated with fine-scale landscape factors in North Carolina, USA. *Environmental Health Insights*
- Reed EMX**, Serr M, Maurer AS, Burford Reiskind MO (*In Press*) Gridlock and beltways: the genetic context of urban invasion. *Oecologia*
- Burford Reiskind MO, **Reed EMX**, Giacomini J, Labadie P, McNear A, Nieuwsma J, Parker G, Rossi R, Stephenson C, Roberts RB, Stephenson J. The genomics of invasion: characterization of the red lionfish from its native and introduced range. *Biological Invasions* 21:2471-2483. <https://doi.org/10.1007/s10530-019-01992-0>
- Reed EMX**, Byrd BD, Richards SL, Eckardt M, Williams C, Reiskind MH (2018) A statewide survey of container *Aedes* mosquitoes in North Carolina, 2016: a multi-agency response to Zika using ovitraps. *J Med Entomol* 56:483-490. <https://doi.org/10.1093/jme/tjy190>

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Honors & Awards

Southeast Climate Adaptation Science Center Global Change Fellowship	2018, 2019-2020
NC State College of Agriculture and Life Sciences Assistantship	Spring & Fall 2019
NC State Graduate Student Association Travel Assistance Award: \$500	2018
Harkema Graduate Award: \$350	2018
NC State University Biology Graduate Program Research Award: \$1500	2018
National Science Foundation Graduate Fellowship: Honorable Mention	2017
UNC Asheville Andrade Scholarship for Study Abroad	2012

Teaching

GLHLTH 735: One Health Teaching Assistant, Duke Global Health Institute	Summer 2019
AEC 460: Field Ecology & Methods Teaching Assistant, NC State University	3 semesters: Fall 2016-2018
AEC 550: Conservation Genetics Teaching Assistant, NC State University	Spring 2017

Undergraduate Mentorship

Emma Wallace Research Experience Genetics, NC State University	Fall 2019-Present
Chris Intehar Independent Research Applied Ecology, NC State University	Spring 2018
Stephanie Orr Independent Research Entomology and Plant Pathology, NC State University	Spring 2017

Leadership and Outreach

Invited Graduate Student Panelist Professional Development and Ethics Course, GN 820, Genetics, NC State University	Spring 2020
Volunteer BugFest, Darwin Day, North Carolina Museum of Natural Sciences	2016-Present
Treasurer University Graduate Student Association, North Carolina State University	2018—2019
Treasurer Graduate Student Association of Biology, North Carolina State University	2017—2018
Seminar Host Brandt Lecture: Dr. Hopi Hoekstra; Ecology and Evolution Seminar: Dr. Lindsay Zanno North Carolina State University	Spring 2017
Education Interpreter and Animal Care Volunteer Franklin Park Zoo, Boston MA	Summer 2015
Wildlife Rehabilitation Intern Western North Carolina Nature Center, Asheville NC	Spring 2015
Outreach publication author Western North Carolina Rehabilitation Guide for Reptiles, Amphibians, Mammals, and Birds Western North Carolina Nature Center, Asheville NC	Spring 2015

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Professional Memberships

Genetics Society of America

Society for the Study of Evolution

Entomology Society of America

North Carolina Mosquito and Vector Control Association

American Association for the Advancement of Science