



Alexandra Barry

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Date of Birth: 1997-04-27

RESEARCH AND WORK EXPERIENCE

EDGE Ecology Group, Göteborgs Universitet

Doctoral Student – Gothenburg, Sweden

September 2024 – Present

- Design and execution of phytotron climate study utilizing 5000+ Arctic and boreal plants grown from seed
- Participation in lab meetings, journal clubs, and workshops

Dr. Anne Bjorkman: anne.bjorkman@bioenv.gu.se (Supervisor)

Wason Forest Ecophysiology Lab, University of Maine

Graduate Research Assistant – Orono, Maine

July 2021 – August 2023

- Designed and ran greenhouse experiment with 450 seedlings in fulfillment of Master of Science thesis
- Designed and ran field study of 60 mature trees in fulfillment of Master of Science thesis
- Led establishment and initial measurements of a six-site, >1000-seedling climate gradient study
- Programmed, installed, and monitored point dendrometers on 30 mature trees for field study
- Measured leaf physiological parameters using LiCOR 6400, operated and performed troubleshooting on thermocouple psychrometers and pressure chamber in order to measure plant tissue water potential
- Collaborated in the writing and review of manuscripts for publication, analysis in R
- Mentored two undergraduate students through design of research projects, data collection, and presentation of research in conference setting

Dr. Jay Wason: jay.wason@maine.edu (Supervising Faculty, Master's Thesis Advisor)

Gough Forest Ecology Lab, Virginia Commonwealth University

Forest Field Technician – Richmond, Virginia and Pellston, Michigan

Feb. 2018 – August 2020

- Established and inventoried long-term study plots and nested vegetation plots
- Established and inventoried study sites at established chronosequences for assessment of regeneration and carbon pools post-harvesting and fire
- Measured leaf-level gas exchange using LiCOR 6400XT; leaf spectrometry with a CI-710
- Operated Zero Emission Canopy Access Vehicle (ZECV) to collect canopy physiology measurements

Dr. Chris Gough: cmgough@vcu.edu (Principal Investigator)

Johnson Population Ecology Lab, Virginia Commonwealth University

Undergraduate Research Fellow – Richmond, Virginia

Feb. 2017 – May 2019

- Designed and conducted invasive insect field experiment in forest settings across Central Virginia, USA
- Worked with team members to record data on moth behavior in field setting

Dr. Derek Johnson: dmjohnson@vcu.edu (Supervising Faculty, Bachelor's Thesis Advisor)

Bulluck Avian Lab, Virginia Commonwealth University

Summer Field Research Assistant – Fort AP Hill, Virginia

June 2016 – August 2016

Dr. Lesley Bulluck: lpbulluck@vcu.edu (Principal Investigator)

EDUCATION

Göteborgs Universitet – Gothenburg, Sweden

Ph.D. in Natural Science Specializing in Biology

2024 – Present

Thesis: 'Effects of Climate Warming on Plant Community Productivity in the Arctic Tundra'

University of Maine – Orono, USA

M.Sc. in Forest Resources – Concentration Forest Ecosystem Science

2021 – 2023

Thesis: 'Climate Interactions Drive Tree Physiology and Growth in a Northeastern Forest Ecotone'

Virginia Commonwealth University (VCU) – Richmond, USA

B.Sc. in Biology (minor in Chemistry)

2015 – 2019

Thesis: 'A comparison of two methods of quantifying mating success in low density [spongy] moth populations'

B.Sc. in Psychology (dual major)

2017 – 2019

AWARDS AND HONORS

George L. Houston Scholarship, University of Maine

2022 – 2023

Dean's Scholarship, Virginia Commonwealth University

2015 – 2019

Undergraduate Research Award, VCU Rice Rivers Center

2017 – 2018

Undergraduate Research and Creative Scholarship Fellowship, VCU

2017 – 2018

PRESENTATIONS

2023 – Ecological Society of America Annual Meeting. Portland, Oregon USA. 'Differential sensitivity of three northeastern tree species to compounded climate extremes.' Oral Presentation.

2019 –

Virginia Commonwealth University Rice Rivers Center Research Symposium. Charles City, Virginia USA. 'Comparing two methods of quantifying an invasion-restricting component Allee effect in the defoliating pest *Lymantria dispar*.' Poster Presentation.

Ecological Society of America ESA/USSEE Joint Meeting. Louisville, Kentucky USA. 'Translating mate-finding ability to mating success in [spongy] moth across a vegetation gradient.' Poster Presentation.

PUBLICATIONS

Barry, AM, B Bein, Y-J Zhang, JW Wason (2024). Linking physiological drought resistance traits to growth and mortality of three northeastern tree species. *Tree Phys* 44(9).

Schulz, KA, **AM Barry**, LS Kenefic, JW Wason (2024). Contrasting survival strategies for two northern conifer trees to extreme drought and flood events. *Tree Phys* 44(10).

Clay, C, L Nave, K Nadelhoffer, C Vogel, ... **AM Barry**, CM Gough *et al.* (2022). Fire after clear-cut harvesting minimally affects the recovery of ecosystem carbon pools and fluxes in a Great Lakes forest. *Forest Ecol and Mgmt* 519.

Atkins, JW, E Agee, **A Barry**, *et al.* (2021). The *fortedata* R package: open-science datasets from a manipulative experiment testing forest resilience. *Earth System Science Data* 13: 943-952.

PROFESSIONAL AFFILIATIONS

Nordic Society OIKOS

Member – Sweden (2024-present)

BECC/MERGE Steering Committee, GU

PhD Representative (2025-present)

Gothenburg Global Biodiversity Centre

Member (2024-present)

Ecological Society of America

Member – Ecophysiology Chapter (2019-present)

SWIFT (Supporting Women in Forestry Today, Univ. of Maine)

Planning Committee (2021-2023)

TEACHING EXPERIENCE

BIO 506 Botanisk ekofysiologi ur ett klimatperspektiv, Göteborgs Universitet

Teaching Assistant

Jan. 2025 – February 2025

BIO 911 Botanisk och zoologisk fysiologi, Göteborgs Universitet

Teaching Assistant

January 2025 – May 2025

ES 2618 Naturbaserade lösningar, Göteborgs Universitet

Teaching Assistant

Dec. 2024 – January 2025

SFR 439 Biology of Woody Plants, University of Maine

Guest Lecturer

Sept. 2022 – October 2022

Dr. Jay Wason: jay.wason@maine.edu (Supervising Faculty)

Grade 7 Life Science, AG Wright Middle School, Stafford, Virginia USA

Long-Term Substitute Teacher, Life Science

October 2020 – June 2021

- Acted as primary instructor for in-person and virtual lessons in general biology and life sciences