



EDUCATION

University of Georgia – Athens, Georgia

August 2017-2022

PhD in Plant Biology
Graduate Certificate in Conservation Ecology
Interdisciplinary Certificate in University Teaching

North Carolina State University – Raleigh, North Carolina

August 2009-December 2013

Bachelor of Science: Horticulture Science (General Horticulture)
Minor: Agricultural Business Management, specialization in Marketing

WORK EXPERIENCE

Clemson University – Pee Dee Research & Education Center, Florence, SC

October 2022 – Current

<https://www.clemson.edu/cafls/research/peedee/>

Postdoctoral Fellow – Rife Lab

- Develop 3D printable tools for plant science
- Implementation and optimization of next-generation tech hardware for plant research methods
- Lab Management – equipment maintenance, chemical, organization, ordering
- Grant and peer-reviewed publication writing
- Mentorship of undergraduate and graduate researchers

Syngenta Crop Protection – Research Triangle Park, NC

October 2015 – July 2017

<http://www.syngentacropprotection.com>

Reproductive Biologist

- Collect and interpret data for two-line hybrid rice production
- Utilize novel microspore propagation methods to create double haploid wheat
- Perform confocal microscopy of wheat and rice anthers
- Organize and present data for multiple ongoing projects

Redfern Natural History Productions Limited – Southeastern US

May 2015 – August 2017

<http://www.redfernnaturalhistory.com/>

Expedition Leader & Field Botanist

Camellia Forest Nursery – Chapel Hill, NC

December 2013 – November 2014

<http://www.camforest.com>

Horticulturist

Biltmore Estates – Asheville, NC

April 2011 – August 2011

<http://www.biltmore.com>

Landscape Horticulture Intern

Plant Delights Nursery/Juniper Level Botanical Garden – Juniper Level, NC

April 2010 – August 2010

<http://www.plantdelights.com>

Horticulture Intern

TEACHING EXPERIENCE

Full teaching portfolio available upon request

PBIO 4650/6650 Plant Taxonomy (Spring 2022) UGA Lab Instructor
PBIO 4650/6650 Plant Taxonomy (Spring 2021) UGA Lecture & Lab Instructor
PBIO 3650 Plant Ecology (Fall 2020) UGA Lab Teaching Assistant
PBIO 8350 Molecular Phylogenetics & Evolution (Spring 2020) UGA Teaching Assistant
BIO 1108 Introduction to Organismal Biology (Fall 2019) UGA Lab Teaching Assistant
PBIO 8350 Molecular Phylogenetics & Evolution (Spring 2019) UGA Teaching Assistant
BIO 1108 Introduction to Organismal Biology (Spring 2018) UGA Lab Teaching Assistant
HS 301 Plant Propagation (Spring 2012) NCSU Undergraduate Lab Teaching Assistant

TECHNICAL SKILLS

Plant Biology - pressed plant collection, drying, mounting, digitization, and morphometric analysis; DNA extraction, quality control, library preparation

Bioinformatics - sequence alignment, phylogenomics, population genetics, GWAS, QTL

Horticulture – sexual and asexual propagation, fertilization, pest management, controlled crossing, tissue culture

Team management - clear communication, mentorship, problem-solving, decision-making, team building, delegation

Software – R, Microsoft Office, Adobe Photoshop, Illustrator, InDesign, Premiere Pro, Autodesk Fusion360

PROFESSIONAL MEMBERSHIPS & AWARDS

2024

- Fabreeko workshop sponsorship - \$1400
- Cocoa Press workshop sponsorship - \$250

2023

- Polymaker project award - \$800
- Botany 2023! Postdoctoral travel award
- Prusa Research project award - \$1000
- Fillamentum project award - \$400
- LDO Motors travel sponsorship - \$200

2022

- Excellence in Teaching Award nominee
- Outstanding Teaching Award

2021

- Palfrey Award – Department of Plant Biology UGA - \$1250
- [Unsung Hero of UGA](#)

2019

- Southern Appalachian Botanical Society Earl Core Research Award - \$1200

2018

- Palfrey Award – Department of Plant Biology UGA - \$1204
- Haines Award – Department of Plant Biology UGA - \$1279
- Plant Biology Graduate Student Association RTOA Award - \$800

2013

- International Carnivorous Plant Society (ICPS) Research Grant - \$1280

Current Professional Memberships

- 2024 International Association of Plant Taxonomists
- 2021 Society of Herbarium Curators member
- 2020 Botanical Society of America member
- 2019 American Society of Plant Taxonomy member

PUBLICATIONS

- **McNair, M.C.**, Cocioba, S.C., Pietrzyk, P., Rife, T.W. (2024) Toward a completely open-source 3D printable laboratory. *Applications in Plant Science*. <https://doi.org/10.1002/aps3.11562>
- **McNair, M.C.**, Zenoble, M., Sexton, C.M. (2023). Emphasis on quality in iNaturalist plant collections enhances learning and research utility. *Journal of College Science Teaching* <https://doi.org/10.1101/2023.01.24.525445>
- **McNair, M.C.**, Keesey, T.M. (2023). Filling out PhyloPic: a call for adoption by plant scientists. *Plant Science Bulletin*, vol. 69, issue 3. https://issuu.com/botanicalsocietyofamerica/docs/psb_69_3_2023/37
- Baldwin, E., **McNair, M.C.**, Leebens-Mack, J.H. (2023). Rampant chloroplast capture in Sarracenia revealed by plastome phylogeny. *Frontiers in Plant Science*. <https://doi.org/10.3389/fpls.2023.1237749>
- **McNair, M.C.** (2016) Field Trip Report: Hybrids at Old Dock Preserve, North Carolina. *Carnivorous Plant Newsletter*, 45:1. <https://doi.org/10.55360/cpn451.mm588>
- **McNair, M.C.**, & Harris, J., (2015) Germinating Nepenthes Seed: Putting Myths to Rest. *Carnivorous Plant Newsletter*, 44:2. <https://doi.org/10.55360/cpn442.mm333>
- **McNair, M.C.**, Wilkins, A., Werner, D.J., (2012) Wounding and Chemical Treatment Effects on Drosera capensis bud formation on leaf cuttings. *Carnivorous Plant Newsletter*, 41:4. <https://doi.org/10.55360/cpn414.mm785>