

Maxwell G. Gebhart

mgebhart@gri.msstate.edu ♦ (813)-817-6788 ♦ 2 Research Blvd, Starkville, MS 39759

Education

Mississippi State University, Starkville, MS
Ph. D. in Weed Science

Expected Graduation: August 2028

Dissertation:

Minnesota State University, Mankato, Mankato, MN
M. S. in Biology

Graduated: July 2023
Cumulative GPA: 3.96

Thesis: Resource Allocation, Phenology, and Ecological Niche Modeling of Diploid Flowering Rush (*Butomus umbellatus*) Collected from Mentor Marsh, Ohio; Unity Island, New York, and Tonawanda, New York

University of Central Florida, Orlando, FL
B. S. in General Biology

Graduated: August 2020
Cumulative GPA: 3.27

Professional Experience

Research Associate I, Starkville, Mississippi

Aug 2023 - Current

Mississippi State University, Geosystems Research Institute

- Developed and executed experimental and statistical procedures such as phenology and herbicide interactions on a variety of aquatic plant species
- Managed undergraduate students for current research projects and developed undergraduate level projects for regional presentations
- Conducted basic facility maintenance on greenhouse and plumbing structures
- Organized and conducted purchasing for future research projects saving upwards of \$7,000 in laboratory supplies and equipment
- Wrote, edited, and developed manuscripts to be submitted to academic journals and societies
- Edited several grants to be submitted to different government agencies such as Tennessee Valley Authority and Florida Fish and Wildlife Commission
- Facilitated and organized regional conference itineraries and information sessions for the Midsouth Aquatic Plant Management Society

Graduate Research Assistant, Mankato, Minnesota

Aug 2021 - July 2023

Minnesota State University at Mankato

- Mentored undergraduate students in several lab methodologies such as starch extraction from plant tissues and ecological niche modeling in R statistical software
- Managed and scheduled undergraduate students for current research projects in the Wersal lab

- Recorded and organized Wersal lab datasets and information for future research projects, statistical analyses, and manuscript creation
- Created and determined experimental designs for lab projects on herbicide testing trials and testing environmental effects on invasive plants and macroalgae

Graduate Teaching Assistant, Mankato, Minnesota

Aug 2021 - May 2023

Minnesota State University at Mankato

- Created and executed lesson plans on a variety of subjects within biology such as enzymes, photosynthesis, and biological molecules
- Organizing pre-made lab activities for undergraduate students to complete within a set time period and outside exam study periods
- Teaching undergraduate students numerous topics relating to biology such as spectrophotometry and speaking about research possibilities
- Communicated with other teaching assistants about confusing aspects of labs, lessons, and exams

Aquatic Invasive Species Inspection County Manager, Mankato, Minnesota

May 2022 - Sept 2022

WaterGuards LLC

- Scheduled and managed approximately 30 watercraft inspectors across Blue Earth, Le Seuer, and Waseca counties
- Performed routine boat inspections at public boat launches for known aquatic invasive species within Minnesota and the Midwest region
- Adhered to standards and regulations regarding aquatic invasive species set by the Minnesota Department of Natural Resources
- Educated the general public had about aquatic invasive species found in Minnesota and how their movement can be minimized through boat inspections and boat cleaning

North Pacific Fishery Observer, Seattle, Washington

Dec 2020 - April 2021

TechSea International

- Trained how to create sample designs in the field using random number tables and several dichotomous keys to collect biodiversity data
- Used sample designs to collect bycatch for one-third of each haul to understand species richness
- Took biological samples such as otoliths, scales, and sex and length data from several different managed fish species such as Alaskan Pollock, Chinook Salmon, and Sablefish
- Recorded intake of prohibited species and took measurements such as sex, lengths, and scales
- Organized and reviewed all collected biological data for the National Marine Fisheries (NMFS) to ensure the vessel followed set fishing guidelines

Articles in Press

P. Carver, R.M. Wersal, and M.G. Gebhart. 2024. Environmental factors influencing biomass and bulbil production of *Nitellopsis obtusa* in Lake Koronis, Stearns County, Minnesota. *Journal of Aquatic Plant Management*. 62: 1-6.

M.G. Gebhart and R.M. Wersal. 2023. Ecological Niche Modelling of Diploid flowering rush (*Butomus umbellatus* L.) in the United States. *Journal of Freshwater Ecology*. 39: 1, 2292232.

Articles in Review

M.G. Gebhart, R.M. Wersal, B.T. Sartain, N.E. Harms. 202X. Phenology and Resource Allocation strategies of diploid flowering rush (*Butomus umbellatus* L.) collected from field sites in Ohio and New York. *Invasive Plant Science and Management*.

M.G. Gebhart and G. Turnage. 202X. Carolina Mosquitofern (*Azolla caroliniana* Willd.) response to systemic herbicides. *Journal of Aquatic Plant Management*.

Research Presentations & Posters

M.G. Gebhart and G. Turnage. 2024. A Review of the Taxonomy, General Biology, and Ecology of *Vallisneria*. *Aquatic Plant Management Society*.

M.G. Gebhart, G. Turnage, A. Squires, R.M. Wersal, C.R. Mudge, B.P. Sperry. 2024. Accumulated Growing Degree Days of Cuban Bulrush (*Oxycaryum cubense*) in the southeastern U.S. *Aquatic Plant Management Society*

G. Turnage and **M.G. Gebhart**. 2023. Systemic herbicides for control of *Azolla* grown in mesocosms. *Midsouth Aquatic Plant Management Society*.

M.G. Gebhart, G. Turnage, A. Squires, R.M. Wersal, C.R. Mudge, B.P. Sperry. 2023. Seasonal Resource Allocation and Accumulated Degree Day Estimation for Cuban Bulrush (*Oxycaryum cubense*) in the Southeastern U.S. *Midsouth Aquatic Plant Management Society*.

M.G. Gebhart, G. Turnage, A. Squires, R.M. Wersal, C.R. Mudge, B.P. Sperry. 2023. Seasonal Resource Allocation and Accumulated Degree Day Estimation for Cuban Bulrush (*Oxycaryum cubense*) in the Southeastern U.S. *South Carolina Aquatic Plant Management Society*.

M.G. Gebhart, R.M. Wersal, B.T. Sartain, N.E. Harms. 2023. Life History and Phenology of Diploid Flowering Rush (*Butomus umbellatus*). *Aquatic Plant Management Society*.

M.G. Gebhart, R.M. Wersal, B.T. Sartain, N.E. Harms. 2022. Life History and Phenology of Diploid Flowering Rush (*Butomus umbellatus*). *Aquatic Plant Management Society*.

M. Dallavalle, W. Bevan-Thomas, **M.G. Gebhart**, T. McCann, M. Schmitz, J. Buzby, J. Copertino, L. Walters. 2020. Anthropogenic Changes to Marshes and the Impact on Wildlife. *Coastal and Estuarine Ecology Lab Webinar*.

J. Condon, **M.G. Gebhart**, M. Bishop, S. Shaver, B. Kallas, C. Porter, D. Smith, F. Fox, J. Litwak, J. Rifenberg, K. Young, M. Coulthart, M. Drane, R. Thomas, S. Dempsey, V. Escrich, C. Craig, J. Copertino, L. Walters. 2019. The Presence and Impact of Microplastics on Several Florida Beaches. University of Central Florida Showcase of Undergraduate Research.

Invited Presentations

M.G. Gebhart, R.M. Wersal, B.T. Sartain, N.E. Harms. 2023. Diploid Flowering Rush (*Butomus umbellatus*) Phenology and Management. U.S. Army Corps of Engineers, Cleveland Museum of Natural History, and NY Department of Environmental Conservation.

Awarded Funding

Midwest Aquatic Plant Management Society Robert L. Johnson Memorial Scholarship	March 2024
Tennessee Valley Authority Grant – Managing Rockstar Vallisneria	February 2024

Professional Activities, Honors, & Certifications

Student Oral Presentation Award – National Aquatic Plant Management Society	July 2024
Student Paper Presentation Award – South Carolina Aquatic Plant Management Society	October 2023
Director of Student Affairs, Aquatic Plant Management Society	July 2022 - July 2023
Certified Master Herpetologist	September 2020
Dean's List, UCF	March 2018 - August 2020
Silver Pegasus Scholarship	August 2017
Florida Bright Futures Scholarship- Florida Academic Scholars	August 2017 - August 2020

Mentoring Experience

Persons:

- Chris Grant 2023-2024
- Jillian Skidmore 2023-2024
- Thomas Zellmer 2022-2023
- Ashton "Blake" DeRossette 2022 - U.S. Army Corps of Engineers
- Hunter Kelzenberg 2021-2022
- Jenna Eklund 2021-2023
- Pearl Jensen 2021-2023
- Gaolia Thao 2021-2023

