Alex P. Martin

Lincoln, NE Email: APM.Vallisneria@gmail.com

EDUCATION

Master of Arts (Research/Thesis) – 2022

Evolution, Ecology, and Organismal Biology (Aquatic Ecology & Systematic Botany) University of Kansas, Lawrence, KS

Bachelor of Science – 2019

Evolution, Ecology, and Organismal Biology University of Kansas, Lawrence, KS

Associate of Science – 2012

Law Enforcement Century Technical College, White Bear Lake, MN

EXPERIENCE

Jan 2025 - Lab Manager, University of Nebraska – Lincoln - School of Natural Resources

Present Limnology and aquatic ecology research.

Supervisor: Dr. Jessica Corman

May 2024 – Agricultural Science Research Technician, USDA - ARS

Dec 2024 Switchgrass and Sorghum breeding for bio-fuel and forage research. DNA/RNA extractions,

qPCR, germination studies, farm equipment operation.

Supervisor: Scott Sattler

Feb 2023 - Freshwater Science Specialist, The Nature Conservancy - NJ

April 2024 Watershed-wide stream and floodplain monitoring, reforestation and stewardship, leading community engagement and volunteer events, macroinvertebrate collecting, stream health

assessment using continuous instream monitoring equipment (HOBO loggers, Hach YSI multimeter), and data analysis using R, developing collaboration/partnerships with restoration and conservation organizations.

Supervisor: Michelle DiBlasio

Sept. 2022 – **Research Assistant,** Phenotyping Eastern gamagrass (*Tripsacum dactyloides*)

Dec. 2022 Common garden plant management, tissue and phenotype data collection, collaboration with

researchers at Donald Danforth Plant Science Center. Supervisor: Dr. Maggie Wagner, University of Kansas

June 2021 - Interim Greenhouse Manager, University of Kansas Greenhouse

May 2022 Teaching collection plant care, oversee undergraduate hourly students.

Spring 2022 Internship: McGregor Herbarium (KANU), Biodiversity Institute & Natural History Museum

Dried specimen preparation, mounting, cataloging, digitization, databasing, loan processing.

Supervisors: Caleb Morse & Craig Freeman, University of Kansas

May 2020 - Graduate Research Assistant, Aquatic ecology, Marion Reservoir - KS

Sept. 2021 Limnological profiles using discrete and continuous sampling methods (YSI probe, LiCOR, Fluoroprobe, Secchi, Van Dorn), deployment of high frequency sensors (miniDOT, HOBO loggers), sediment core incubation studies for assessment of internal phosphorus loading.

Supervisor: Dr. Ted Harris, University of Kansas

May 2019 - Research Lab Assistant/Lab Tech, Floral evolution of *Penstemon* spp.

May 2020 Greenhouse plant care, plant propagation via cuttings, phenotype/floral trait data collection, bacterial colony PCR, gel electrophoresis, stable plant transformation and vacuum infiltration

using Agrobacteria.

Supervisor: Dr. Lena Hileman, University of Kansas

Jan. 2018 - Undergraduate Lab Assistant, Population genetics of Mimulus guttatus

Dec. 2019 DNA/RNA extractions, human-mediated pollination, plant tissue grinding, data collection.

Supervisor: Dr. John Kelly, University of Kansas

Summer Field Research Assistant, Aquatic fungi and algae sampling

Field data collection of lentic waters, hand coring sediment samples, discrete and continuous

data sampling.

Supervisor: Dr. Ted Harris, University of Kansas

Summer Field Research Assistant, Plant-microbe interactions, NSF project "Dimensions"

Prairie plant identification, design and fabrication of field research infrastructure, plant

husbandry.

2018

Supervisor: Dr. James Bever, University of Kansas

2013 – 2017 Patrol Officer, Court Security, Hennepin County Security Division, Minneapolis, MN

Crisis Intervention, emergency medical response, report writing, creating and implementing a

county bike-lock program to help the community of bicyclists.

Supervisor: Lt. Rodney Michael

TEACHING EXPERIENCE

Fall 2021 Graduate Teaching Assistant, Biology 415 – Field and Laboratory Methods in Ecology

Taught methodologies for quantitative sampling of terrestrial and aquatic systems, design of field studies, computer simulation and digital data analysis techniques, scientific writing, and poster

presentations.

Supervisors: Dr. Ben Sikes & Dr. Dan Reuman, University of Kansas

Fall 2020 - Graduate Teaching Assistant, Biology 102 - Principles of Biology Laboratory

Spring 2022 Supervisor: Dr. Laura Rozzi, University of Kansas

PUBLICATIONS

Martin, A.P., Mort M.E. (2023). *Vallisneria* (Hydrocharitaceae): novel species, taxonomic revisions, and hybridization. *Aquatic Botany*. https://doi.org/10.1016/j.aquabot.2023.103669

Martin, A.P. (2022). Vallisneria australis S.W.L. Jacobs & Les. The Aquatic Gardener, 35(3),

36-40.

PRESENTATIONS, CONFERENCES, AND MEETINGS

Martin, A.P. (2024). *Vallisneria* (Hydrocharitaceae): species diversity and restoration practices. Northeast Aquatic Plant Management Society. Invited speaker. January 11th.

Martin, A.P. (2024). *Vallisneria* (Hydrocharitaceae): species diversity and restoration practices. Northeast Aquatic Plant Management Society Winter Webinar. January 17th.

Martin, A.P. (2023). *Vallisneria* (Hydrocharitaceae): novel species, taxonomic revisions, and hybridization. San Francisco Aquarium Society & Sacramento Aquarium Society. Invited speaker. August 4th and 5th.

Martin, A.P. (2023). Paulins Kill River: data collection and analysis. Delaware River Watershed Initiative Gathering, Blue Bell, Pennsylvania. Invited speaker. June 7th.

- **Martin, A.P.** (2022). New insights for the systematics and taxonomy of *Vallisneria* (Hydrocharitaceae). Aquatic Gardeners Association Convention, Chicago, Illinois. Invited speaker. September 30th.
- Martin, A.P., Harris, T.D., Baker, D., Huggins, D., Kastens, J., Willis, N., Bohnsack, B. (2021). Internal phosphorus loading in Marion Reservoir, Kansas: a sediment core incubation study. Governor's Conference on the Future of Water in Kansas. Virtual. November 18th. (poster). Runner-up Best Graduate Student Poster

Harris, T.D., Moody, J., Baker, D., Kniola, K., Kessler, R., **Martin, A.P.**, Kastens, J. (2021). Past, present, and future blue-green algal blooms in Kansas. Governor's Conference on the Future of Water in Kansas. Virtual. November 18th.

Martin, A.P., Harris, T.D., Baker, D., Huggins, D., Kastens, J., Willis, N., Bohnsack, B. (2021). Internal phosphorus loading in Marion Reservoir, Kansas: a sediment core incubation study. Kansas Natural Resources Conference. Virtual. January 28th. (poster). **Best Student Poster**

Hosseini, A., Roundy, J., Baker, D., **Martin, A.P.**, Harris, T.D. (2020). High-frequency temperature and dissolved oxygen monitoring of a discontinuous polymictic reservoir in the Midwestern USA. Global Lakes Ecological Observatory Network G21.5 Meeting. October 19th.

AWARDS, SCHOLARSHIPS

Eugenie S. Polson Scholarship, University of Kansas (\$6650)

2021 Fratcher Botany Fellowship Scholarship, University of Kansas (\$750)

Runner-up Best Graduate Student Poster, Governor's Conference on the Future of Water in Kansas, November (\$125)

Best Student Poster, Kansas Natural Resources Conference, January

PEER REVIEW

Gebhart, M.G., et al. (2024). Invasive Eelgrass Hybrid, *Vallisneria* × *pseudorosulata* in the Southeastern United States. Invasive Plant Science and Management.

Jiang, L., et al. (2024). *Vallisneria branasolumensis* New Species (Hydrocharitaceae), a New Species from Southern Anhui, China. Phytotaxa.

Molecular Phylogenetic Analysis of *Vallisneria spiralis* Linnaeus in Kanyakumari, Tamil Nadu, India. The Open Bioinformatics Journal.