

**MS Assistantship: Using wetland ecosystem services to plan sustainable agriculture**  
Delaware State University, Dover, DE

One graduate research assistantship is available on a project to assess the effects of agricultural practices on wetlands. Healthy wetlands provide many benefits to both agricultural ecosystems and nearby human communities, including pollination of crops, flood mitigation, recreational opportunities, and other goods and services (together called ecosystem services). In low-lying states like Delaware, sea level rise threatens both agricultural lands and wetlands. Keeping agriculture sustainable with sea level rise requires understanding where in the landscape different kinds of agricultural practices will maintain the health of nearby ecosystems. The thesis project can be tailored to the student's interests, but it likely will include examining identified hotspots in ecosystem service delivery (high-performing wetlands) to investigate if decisions and practices on the farms and/or characteristics of the wetlands explain their apparent resilience. Analysis of previously collected spatial data using geographic information systems (GIS) and statistics will be a primary activity of the student, but the investigations of high-performing wetlands may include computer-based (e.g., remote sensing) and/or field-based data collection. The student will gain experience in all parts of the scientific process from project design to public presentation of results and will develop strong skills in data analysis.

The student will be mentored by Dr. Sigrid Smith in the M.S. program in Natural Resources in the Department of Agriculture and Natural Resources at Delaware State University. The program is designed to prepare students for careers in natural resources management, ecology, environmental science, and related fields. Information about the program is at:

<https://cast.desu.edu/departments/agriculture-natural-resources/natural-resources-ms> .

The position is funded fulltime for two years starting in spring 2023, and it provides a stipend (\$20,000 in first year and \$21,000 in second year, without benefits) and tuition and enrollment fees. A Bachelor's degree from an accredited college or university in natural resources, environmental science, geography, agriculture, or related fields is required. A minimum average GPA of 2.5 overall and 3.0 within the major is needed for admission into the program. Students with experience using geographic information systems (GIS) and statistical software and with strong organizational, computer, and writing skills are especially encouraged to apply.

To apply, please email a cover letter describing your research interests and fit for the position, resume/CV, unofficial copies of transcript(s), and contact information for three professional references to Dr. Sigrid Smith ([WetlandsLab@desu.edu](mailto:WetlandsLab@desu.edu)) with "ag and wetlands MS student" in the subject line. Any questions may be sent to the same email. The lab promotes an inclusive environment and strongly encourages people of all backgrounds and identities to apply. Review of applications will begin August 1, 2022, and continue until the position is filled.