



# MOSAICS IN SCIENCE

## Diversity Internship Program

### 2021 Project Descriptions

<b>NPS UNIT: OCMULGEE MOUNDS NATIONAL HISTORICAL PARK</b>	<b>PD #: 2021515</b>
<p><b>Project Title:</b> Protect and Conserve Ocmulgee Mounds National Historical Park’s Natural Resources through Invasive Species Monitoring, GIS Surveying, and Habitat Restoration</p> <p><b>Position Type:</b> Mosaics PLC</p> <p><b>Primary natural resource discipline:</b> Biological Sciences</p> <p><b>Project keywords:</b> Vegetation management, surveying, restoration, invasive species, GIS</p> <p><b>Location:</b> Macon, Georgia</p>	
<b>COVID-19 NOTICE</b>	
<p>As the COVID-19 pandemic continues to change and evolve, project timelines and structure remain flexible and it may be necessary to postpone start dates, begin work remotely, or reformulate the project’s description. Should any development in the COVID-19 outbreak impair a project’s timeline or results, the SIP Team will work with the park and project mentors to assess the situation and determine the best course of action at that time.</p>	
<b>PROJECT DESCRIPTION AND WORK PRODUCTS</b>	

**Position Description:** Located on Georgia's Fall Line with over 700 acres of land (and an upcoming boundary expansion that will triple park size), Ocmulgee Mounds National Historical Park (OCMU) is home to forested upland, emergent wetlands, and diverse plant and animal life. The Natural Resource intern will contribute to approved resource management objectives in three areas: inventory of plant communities, monitoring of 36 target invasive species, and restoration of native plants.

OCMU is in the early stages of developing a GIS program for monitoring and management of invasive plants within the park. The intern will collect plant inventory data in the field using ArcCollector and work with the Natural Resources team to process and analyze it. This data will help inform vital land management decisions.

In past years, close to 70% of infested areas have been cleared of invasive species; these areas require monitoring and maintenance to prevent regrowth. The Natural Resources intern will work with Biological Science Technicians to map and monitor species such as Chinese privet, Chinese tallow, and other aggressive invaders in these areas. The intern will contribute to planned management strategies and keep detailed records to be used by the Natural Resources team for adaptive management planning and evaluation.

The intern will also participate in the restoration of culturally and ecologically significant Rivercane in areas where invasive species have been removed. This will involve assisting with plant propagation, transplanting, and monitoring the health and success of restoration sites.

The intern will lead a project to compile a resource guide outlining the characteristics and management needs of targeted invasive species using GIS data, historical management records, and supplemental research.

Depending on the participant's strengths, experience, and interests, there may be opportunities to contribute to research and planning for vegetation management, a wildlife trail camera program, and Natural Resource focused outreach. The intern will also be able to participate in citizen science efforts such as iNaturalist and the Dragonfly Mercury Project.

Specific goals and duties may be tailored to fit the participant's strengths and interests.

Invasive species management will directly impact the ecological health of the park. OCMU contains ecologically important emergent wetlands that support native plant and animal life currently under threat by invasives. Removal of these plants will allow for rivercane habitat restoration. Over 60 species of animals and insects depend on canebrake ecosystems, including several threatened and endangered species. Successful restoration will also provide ecosystem services such as water filtration and erosion control.

OCMU recognizes the importance of deliberate, data informed land management. There is a great need for a clear and accurate picture of current vegetation condition. The intern's collection of plant inventory data using GIS will fill knowledge gaps to help resource managers make informed decisions and prioritize areas of need. This data will also allow for long term comparison and evaluation, and provide records for future reference.

The resource guide created by the intern will compile several sources of park knowledge in one place, making it accessible for current and future staff. This will help ensure continuity of NR management practices and be a valuable asset.

Currently, Natural Resources is operating with minimal staff. The intern's work will be vital in reaching vegetation management goals of maintaining an estimated 300 acres and will enable the team to focus resources on developing other aspects of the program.

## **NATURAL & PHYSICAL WORK ENVIRONMENT**

While some work is done in an office setting, most of the participant's work will be based in the field, off trail. Working conditions may include high temperatures and humidity, hilly and uneven terrain, muddy wetland areas, and dense underbrush. Summers in Georgia are hot and humid, while winters range from mild to frost/freeze temperatures. Through the course of their work, the participant may be exposed to sun, heat, biting and stinging insects, irritant plants, wildlife (including snakes), and the potential for dehydration. Participants should be comfortable with considerable hiking, walking, standing for long periods of time, and lifting up to 50lbs. Participants will be required to wear appropriate PPE, all of which will be provided.

## **QUALIFICATIONS**

Participant's educational background should be in Environmental Science, Ecology, Biology, Botany, or related field. Priority will be given to applicants who have completed coursework or training in one or more of these areas. Familiarity with native and invasive plant species in the region and/or experience identifying plants using keys and field guides is strongly preferred. Previous experience with surveying is helpful, but not required. Attention to detail, problem solving skills, and the ability to work and communicate effectively with a diverse workforce are necessary for success in this role.

Participants must be comfortable with the working conditions outlined earlier in this document.

The applicant must be a U.S. citizen or U.S. permanent legal resident ("green-card-holder") between the ages of 18 and 30 years old, inclusive, or veterans up to age 35. Prior to starting this position, a government security background clearance will be required.

## **VEHICLE AND DRIVER LICENSE REQUIREMENTS**

**Applicant must have a valid drivers license and a good driving record.**

**A personal vehicle is not required for this position.**

## **HOUSING**

Park housing is available and will be provided at no cost to the participant. Interns will be housed in a 3 bed, 1.5 bath house on park property. Interns will have a private room with shared bathroom, kitchen, and common areas. Bed linens, kitchen items, and wi-fi are provided. Housing availability and details are subject to change due to COVID19.

## **INTERNSHIP START/END DATES**

**Start Date:** 5/17/2021

**End Date:** 7/30/2021

Eleven weeks of the internship will be in the park. A mandatory Career and Leadership Workshop will be held in Washington, D.C. from August 1 – 5, 2020.

## **PLEASE DIRECT ANY QUESTIONS TO ENVIRONMENT FOR THE AMERICAS**

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