



MOSAICS IN SCIENCE DIVERSITY Internship Program

2020 PROJECT DESCRIPTION

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| NPS UNIT: GREAT SMOKY MOUNTAINS NATIONAL PARK | | PD #: 2020512 |
| <p>Position Title: Natural Resource Management Assistant</p> <p>Position Type: MIS Intern</p> <p>Primary natural resource discipline: Biological resources</p> <p>Project keywords: Fish monitoring, backpack electrofishing, fisheries surveys, Brook Trout</p> <p>Park or Program Website: http://www.nps.gov/grsm/learn/nature/fish.htm</p> <p>Location: Gatlinburg, Tennessee</p> | | |
| MOSAICS IN SCIENCE INTERN OVERVIEW | | |
| <p>The Mosaics in Science Diversity Internship Program is focused on persons who are under-represented in STEM fields. Students and recent graduates who are African American, Latino/Hispanic, Asian, Pacific Islander, and Native American are encouraged to apply for these internships. In order to be eligible for a MIS intern position, applicants 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.</p> <p>A Mosaics Intern within the Mosaics in Science Diversity Internship Program is an entry level natural resource science internship that focuses on career exploration and building fundamental natural resource science skills. Each Mosaics Intern will receive a weekly stipend of \$400, park-provided housing or a housing allowance and paid travel expenses. Interns who successfully complete 640 hours of work in one or more eligible internships and are under the age of 30 will be eligible for the Public Lands Corps Non-Competitive Hiring Authority for two years following the completion of the internship. Successful completion of a Mosaics in Science internship does not guarantee that the participant will be hired in to a federal position.</p> | | |
| PROJECT DESCRIPTION AND WORK PRODUCTS | | |
| <p>Position Description: The position will work as a member of the Great Smoky Mountains National Park (GRSM) fisheries management team to assess populations of trout and other non-game fish populations using standardized Index of Biotic Integrity (IBI) and Southern Division American Fisheries Society depletion stream sampling protocols. The candidate will participate in brook trout distribution assessments to compare current upstream trout distribution with historical data to detect long-term changes in headwater species migration and changes in water quality. The candidate will also assist with monitoring surveys of threatened and endangered fish populations using snorkeling techniques and assist with translocation for genetic augmentation of these populations. The candidate will collect and analyze water samples for E. coli using the Colilert System to assess stream impairment due to horse concession trail manure runoff. The candidate will learn to use Microsoft Access databases to enter a variety of fisheries management data incorporating data validation and verification techniques. The candidate will work with volunteer groups and state and federal agency partners on fisheries projects. There will also be several opportunities to speak with youth and adult groups during education programs on current fisheries-related research in GRSM.</p> <p>The intern will assist fishery managers in the perpetuation of native species of fish in GRSM by conducting field surveys, possible native fish restoration projects, and surveys of federally threatened and endangered fish species. Great Smoky Mountains National Park is home to nearly 70 species of native fish and the goal of the fisheries branch is the preservation of these species for current and future generations, which aligns and</p> | | |

paraphrases the NPS mission of 'preserving and protecting the natural and cultural resources' of our National Park. Fishery managers collect annual population data from approximately 65-70 streams throughout GRSM's 2,900-miles of perennial waterways.

This position is offered through the National Park Service's Mosaics in Science Diversity Internship Program in partnership with Environment for the Americas.

Work Products: We provide valuable data by keeping a pulse on fish and water quality monitoring in GRSM. We have one of the most biologically diverse parks in America, but it faces many challenges in the forms of atmospheric acid deposition from nitrate and sulfate exhaust, overuse from visitors, and invasive insects. Our interns assist in collecting valuable data which are and have been used to implement exhaust regulation change from regional fossil fuel burning energy plants, equine trail use mitigation from E. coli monitoring, and extending the native range of our only native salmonid, the Southern Appalachian Brook Trout.

QUALIFICATIONS

We seek applicants who would like to gain experience in the field of resource management and science as they work towards their career goal in the natural resource field. Applicants should have at least 6 semester hours of biology, zoology, fisheries or wildlife related coursework.

All applicants should be physically fit, willing and able to carry 40 pounds for 4-5 miles over strenuous terrain. Some field activities require staying overnight at remote backcountry campsites for 2-4 nights. Field environments are often humid and summer thunderstorms are often encountered while working in the field.

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 a veteran 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 driver license and a good driving record. Yes, although the seasonal and permanent employees will be driving most often.

A personal vehicle is RECOMMENDED but not required for this position. We strive to house our interns at units near (within 300-yards) our office. We have had numerous interns in the past who did not have a vehicle. Interns will need to partner with someone, however, for travel to local grocery stores (5-10 miles from their housing units).

HOUSING

Park housing is available and will be provided at no cost to the participant. Park housing is within walking distance of the intern's duty station. Housing consists of 2-3 bedrooms houses that are fully furnished. Candidates should bring their own linens. Occupancy is limited to one person per room.

INTERNSHIP START/END DATES

Start Date: 6/1/2020

End Date: 8/14/2020

Eleven weeks of the internship will be in the park. A mandatory Career Workshop will be held in Washington, D.C. from August 2 – 6, 2020.

Are these dates flexible? Yes

STIPEND PAYMENT

\$4,800, all travel and housing costs will be covered

NATURAL & PHYSICAL WORK ENVIRONMENT

Natural Environment: Great Smoky Mountains NP encompasses roughly 528,000 acres and 2,900 miles of streams with elevations ranging from 1,200-6,600 feet. There are nearly 800 miles of trails in the park ranging from easy to physically strenuous. Summer conditions are hot (80-95F) and humid (80-95%) with occasional rain

and thunderstorms. The town of Gatlinburg is 2 miles from the park headquarters (and housing) and easily accessible by car, bike or trail. There are numerous grocery stores, outdoor stores, gas stations, restaurants, etc. in Gatlinburg.

Physical Work Environment: Candidates will spend a majority of their time in the field hiking into streams where sampling will occur. Applicants should expect to hike regularly carrying packs of 30-40 pounds over rocky trails and/or streams. The work can be physically strenuous at times, so applicants should be in good physical condition.