

2017 – GEOSCIENTISTS-IN-THE-PARKS PROJECT DESCRIPTION

NPS UNIT: HOT SPRINGS NATIONAL PARK	PD #: 2017034
<p>Position Title: Invasive Vegetation Management, Mapping, and Education Intern</p> <p>Position Type: GIP Intern</p> <p>Primary natural resource discipline: Biological resources</p> <p>Location: 101 Reserve Street Hot Springs, AR 71901</p>	
PROJECT DESCRIPTION AND WORK PRODUCTS	
<p>Position Description: The intern hired for this position will be part of the natural resource management team, helping to achieve invasive vegetation management goals through research, monitoring, and active removal, aiding in visitor outreach and education about the impacts of invasive species on forest health, and assisting the Chief of Resource Management and Visitor Services by creating maps, reports, interpretive programs, and printed educational materials to inform park management decisions and expand visitor understanding and satisfaction. The intern will be the lead individual for a vegetation management project on Hot Springs Mountain to manage English Ivy (<i>Hedera helix</i>), an invasive species that has overtaken approximately 40 acres of the forest immediately adjacent to the National Historic Landmark area of Bathhouse Row. The ivy has killed several native trees and threatens hundreds more as it continues to proliferate. Because of the sensitive thermal water resources of the area and potential contamination of groundwater, herbicide application is not a possible treatment option. Instead, the intern will work with a contracted goat rental company to mechanically remove the ivy and other invasive species in the area.</p> <p>The intern's primary responsibilities will be to complete before and after surveys of the treated areas, to produce photographs, maps, and a scientific report of results (based on the change in percent cover of English Ivy and other species, etc.), to identify and record trees heavily impacted by ivy, and to interpret the project's goals and methods to the public throughout, as this project will be in a high visitor use area. Secondary responsibilities will include the mechanical removal of ivy that the goats miss or cannot reach, development of printed and digital interpretive material about the project, its results, and invasive species, the creation and presentation of formal interpretive programming about invasive vegetation management, and putting together a lesson plan about flora in the park that meets education curriculum standards in Arkansas. Tertiary duties may include assistance with other projects in natural or cultural resource management such as acoustic surveys of bat species, water quality monitoring, and archival research. The results of this project are expected to inform vegetation management decisions of the future and to contribute to the execution of the park's mission to preserve the lands associated with the thermal water.</p> <p>Upon successful completion of the GIP internship, the participant is eligible for an AmeriCorps Education Award. This position is offered through the National Park Service's Geoscientists-in-the-Parks Internship Program in partnership with Environmental Stewards and The Geological Society of America.</p> <p>Work Products: <i>Required deliverables will include:</i> 1.) Written and digital records of field work completed, 2.)</p>	

Before and after photographs and maps, 3.) Written and presented formal scientific report of results, and 4.) Interpretive program delivered at least once weekly to the public.

Recommended deliverables will include: 1.) Content related to botany, invasive vegetation, and forest health (completed design of wording and images) for five new wayside sign exhibits along park trails, 2.) Content related to botany, invasive vegetation, and forest health (completed and recorded wording) for five cell phone tour stops associated with the new wayside signage, and 3.) Educational curriculum/lesson plan about invasive vegetation and its impacts on park flora and other resources. Optional deliverables will include additional wayside and cell phone tour content, additional interpretive programs delivered to the public, and additional lesson plans.

QUALIFICATIONS

Applicants must have at least 60 hours of undergraduate coursework toward a bachelor's degree in the life sciences (biology, botany, natural resource management, etc.) or a closely related field from an accredited institution. Courses in plant taxonomy, forest ecology, and GIS are desired. Experience with ArcGIS, invasive plant management and removal, plant identification, Trimble GPS units and software, and following mapping protocols are preferred. Applicants should also have strong communication skills, both verbally and in writing. Interpretation and education experience, especially with digital media, publications, and lesson planning is desired.

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

VEHICLE/DRIVER'S LICENSE REQUIREMENTS

Applicant must have a valid driver's license and a good driving record. A valid driver's license is required, as the intern will operate government vehicles in the performance of their job duties. A vehicle is strongly recommended to allow for greater flexibility in housing options, as well as for transportation, as no grocery stores are located within walking distance of the park. Carpooling with other park interns or staff will likely be possible, if necessary.

If the GIP is required to drive a park vehicle for their position, a driving records search will be performed and the GIP's ability to drive a park vehicle will be contingent upon the results. Examples that will preclude a GIP from driving a park vehicle include DUIs, multiple moving vehicle violations, suspended or revoked license, or three or more accidents (regardless of fault) in the last 3 years.

HOUSING

In-park housing is not currently available, so interns will be provided a housing allowance and lists of available rental houses and apartments nearby. This list will include furnished housing within walking distance of the interns' office space and unfurnished housing within a 20 -minute drive of the park. For unfurnished housing, the park may supply all necessary furniture (beds, chairs, dressers) and kitchenware (dishes, small appliances, etc.), if needed. Walking-distance housing is typically more expensive than other available options. A vehicle is strongly recommended to allow for greater flexibility in housing options, as well as for transportation, as no grocery stores are located within walking distance of the park.

Interns will have the option of staying by themselves or rooming with other interns or temporary park staff, and the interns' supervisor(s) will facilitate communication between individuals prior to their arrival in the park. Each intern will be responsible for ensuring the requirements of their lease are met (no smoking, no pets, initiating utility services, etc.) and for coordinating with any roommates to share responsibility for paying deposits and utilities, where required. Many available housing options include all or most utilities in the rental rate and the housing allowance is designed to cover such costs.

INTERNSHIP START/END DATES

Start Date: 5/22/2017

End Date: 8/11/2017

Number of weeks: 12
Are these dates flexible? No
STIPEND PAYMENT
\$3,600 for 12 weeks
HOUSING PAYMENT
\$1,500 for 12 weeks
TRAVEL ALLOWANCE
\$250
PHYSICAL/NATURAL & WORK ENVIRONMENT
<p>Physical/Natural Environment: Hot Springs National Park is within the ZigZag area of the Ouachita Mountains, and the terrain of the park is narrow valleys and steeply inclined slopes topped with novaculite outcrops. The maximum elevation within park boundaries is just over 1,200 feet. The park surrounds the north end of the City of Hot Springs, and there is considerable urban interface.</p> <p>The city of Hot Springs, Arkansas, (population of 35,000) in Garland County (population 97,000) offers a wide variety of entertainment and recreation options, including a small amusement park, and the nearby lakes, forests, and rivers provide ample opportunity for outdoor adventures.</p> <p>Work Environment: Summers in central Arkansas are very hot and humid, with heat index values often exceeding 105 for many consecutive days, and biting insects and other wildlife, poison ivy, and sunburn are likely field work risks. Interns will be expected to complete many physically challenging tasks in the conditions described.</p> <p>The intern office space is within the Lamar Bathhouse, near the south end of Historic Bathhouse Row, a National Landmark District. Each intern will be provided with an individual workspace which will include a desk, desk chair, computer, and lockable storage.</p>
MENTORING AND LEARNING GOALS
<p>Mentoring: Upon the interns' arrival to Hot Springs National Park, they are provided with a blank "Leadership Development and Mentorship Plan," which includes elements for the intern and for the mentor to complete. The intern is asked to list 3-5 professional goals they have for their internship experience, and to define what they will need to do to achieve those goals. Additionally, the intern completes a section on career impact – outlining their near-future professional goals, and the skills, training, and experiences they would like to acquire. They also complete a section about longer-term goals, and indicate how they think the internship can help them achieve the near- and long-term goals.</p> <p>The mentor completes elements that: 1.) Explain how s/he will guide the intern toward achieving the stated goals – defining the structure, opportunities, and resources that will foster professional development, 2.) Detail the tasks, training, networking, etc. the intern will complete during the internship to help attain the stated goals, 3.) Detail what steps the mentor will encourage the intern to take over the summer to further explore/define their long-term goals, and 4.) Define what leadership opportunities will be provided to advance the intern's professional development, including what opportunities may be provided for the intern to interface with senior park managers.</p> <p>Following the completion of all of the elements by both parties, the plan is discussed between the intern and mentor, modified if necessary, and then signed. Throughout the summer it is revisited during regular mentoring meetings to ensure both parties are working toward the intern's professional development.</p> <p>In addition to individual meetings bi-weekly, group mentoring sessions are held weekly to discuss general topics such as resume writing, job interviews, and professional dress, as well as explaining various aspects of the federal</p>

hiring process and exploring USAJobs. Peer to peer mentoring is actively encouraged and is also facilitated indirectly through scheduling and office arrangement.

Learning Goals: Hot Springs National Park is a very small park at just over 5,500 acres, and as our staffing is limited, interns here have myriad opportunities to participate in a wide range of resource management and interpretive tasks. Though this internship has a specific focus, the intern(s) will be encouraged to spend time doing work in multiple disciplines to become both more well-rounded and experienced and perhaps more sure of their future goals. The intern(s) will gain technical expertise in the collection of GPS data, the creation of maps in ArcGIS, the development of scientific reports, the implementation of public interpretive programming, and the design of printed and digital educational materials, and will be trained on the identification of native and invasive plant species of Arkansas, as well as receiving CPR/First Aid and other park-specific safety training. Additionally, they will develop personally through interaction with their co-workers, supervisors, and roommates, and will develop professionally through exposure to the scientific process in action. Their public speaking and writing skills will also improve through practice gained in this internship.

SUPERVISORS

Primary Supervisor: Shelley Todd	Secondary Supervisor: Tom Hill
Title: Natural Resource Program Manager	Title: Cultural Resource Program Manager
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