

POSITION ANNOUNCEMENT:

FUTURE PARK LEADERS of EMERGING CHANGE

The National Park Service (NPS) is pleased to support the *Future Park Leaders of Emerging Change* (FPL) program as a pathway for exemplary students in higher education (advanced undergraduate students and graduate students) to apply their skills and ideas to park-based challenges and solutions. The Initiative offers 12-week paid internships which allow students to gain valuable work experience, explore career options, and develop leadership skills through mentorship and guidance while helping to advance NPS efforts on emerging management issues. Successful students may be eligible for non-competitive hire into federal positions for which they qualify following completion of all academic requirements.

Modeling Indigenous Subsistence, Archeology, and Cultural Significance for the East Branch of the Penobscot River ahead of Timber Management to Reduce Wildfire Severity

Katahdin Woods and Waters National Monument
Patten, Maine

INTERNSHIP PROJECT BACKGROUND

Intense, severe wildfires, influenced by a hotter and drier climate in Northern Maine, are a significant emerging management issue for National Park Service (NPS) units. Katahdin Woods and Waters National Monument (KAWW), located in northern Maine, is one of the newest units in the National Park System. The majority of the Monument is forested, and as such is threatened by periodic wildfires influenced in part by changes in the climate. How the Monument manages the threat of wildfires may have significant impacts to the landscape and to subsurface resources. To decrease the severity of future wildfires and promote a healthy forest, KAWW will develop a forest management plan, which may include reducing fuel loads through selective timber harvesting. To inform this plan, the park needs to better understand the impact these conservation efforts may have on culturally and spiritually significant resources and cultural landscapes.

The land within the boundaries of KAWW is part of the original homeland of the Penobscot Indians. The Penobscot River, flowing through the Monument, is named after/by them, and is an important part of their origin story. The Penobscot River remains a significant part of the identity and spirituality of the Penobscot Indians, who continue to use resources found along the river in their traditional crafts and medicine. As major stakeholders in the resources found within the Monument, understanding the culturally and spiritually significant landmarks and landscapes within the unit will be critical as KAWW begins to draft planning documents, including those that will include timber management to combat wildfires and reduce fuel loads in the forests along the edge of the river.

Archeologists in the state of Maine regularly use a developed predictive model for archeological site locations in inland Maine. The model is based on geological and geographic considerations as well as past climate factors that may have influenced both subsistence and settlement practices among the Native inhabitants of Maine prior to the arrival of Europeans. This model has the potential to be a great tool, but has yet to be used for predicting site locations for lands located within the boundaries of KAWW. Likewise, while the Monument has and continues to work closely with the Penobscot Nation, important information about current cultural and spiritual landmarks and landscapes have not been collected. This information is integral to the ongoing planning process implemented by KAWW and the Northeast Regional Office in order to better understand the land and its cultural landscapes, and to protect and preserve important cultural and natural resources.

INTERNSHIP PROJECT DESCRIPTION

The FPL intern will develop a predictive model for the location of archeological and culturally significant sites along the East Branch of the Penobscot River within the boundaries of KAWW. The model will be based on the one already developed for coastal Maine, but further refined to include data about past land use and settlement of the East Branch, in addition to current cultural and spiritual significance of landforms and landmarks along the river among the descendent community of Penobscot Indians. The intern will draw from archeological, geological, geographic, environmental, and, critically, ethnographic data regarding landmarks and landscapes of significance to the Penobscot Nation. The FPL intern will work collaboratively with staff from KAWW, Archeologists from NPS Northeast Region Archeology Program (NRAP), an Ethnographer from the NER Tribal and Cultural Affairs Office, Historic Landscape Architects from the NER Olmsted Center for Landscape Preservation (OCLP), and the Tribal Historian and Archeologist from the Penobscot Nation.

The predictive model developed by the intern is directly tied to KAWW's efforts to develop a Management Plan for the Monument, and a Foundation Document that will set the course for planning and management of the resources within the unit. These documents will include plans for how the Monument intends to promote a healthy forest through timber management. This model will guide future archeological research to identify and protect archeological resources and cultural landscapes ahead of the implementation of the Monument's timber management plan. Park staff have been proactively working to begin the process of identifying archeologically significant sites along the East Branch of the Penobscot River, culturally significant landscapes within the boundaries of the Monument, and have worked to establish a partnership with the Penobscot Nation Tribal Historian and Archeologist.

Working collaboratively with a team of partners, the intern will conduct the following tasks:

1. Collect all relevant documents and data pertaining to historical, natural, geographic, and archeological conditions, both past and present, within the boundaries of KAWW
2. Apply for and receive certification to conduct ethnographic research from the Institutional Review Board if necessary

3. Work with the Penobscot Nation Tribal Historian and Archeologist to identify culturally and spiritually significant areas located with the Monument
4. Adapt the existing predictive model for archeological sites in inland Maine using data collected during the previous tasks to develop a predictive model for the land within the boundaries of KAWW
5. Conduct site visits to perform limited archeological, natural, and geological survey at a sample of sites identified within the new predictive model to test its effectiveness
6. Develop recommendations for determining site prioritization, significance, and vulnerability through ongoing testing and continued consultation
7. Create a vulnerability matrix using data collected during the project including GIS spatial data, and information suggested by the developed model and confirmed during fieldwork, that identifies areas that are most sensitive to damage associated with timber management
8. Co-host a meeting among project partners, affiliated local researchers, and other stakeholders to present the results of their research
9. Record draft recommendations in a final written document in collaboration with NPS and local Tribal partners

The FPL intern will provide a final report that clearly presents the results of their efforts including research into the historical, natural, archeological, and ethnographic data existing for resources in the park, methodology and results for collecting ethnographic data among the descendent community of Penobscot Indians, the methodology for establishing the predictive model, results of testing the model, recommendations for determining significance and future work, and a vulnerability matrix. A list of data gaps will be produced so that NER and park staff can request further funding for research. The intern will present their findings and methodology to the park Superintendent, park Interpretive and Resources staff, staff from the Regional Office and affiliated programs, and related partners and stakeholders. Likewise, the intern will work with park staff to draft talking points to use when discussing park resources and future research goals with visitors.

QUALIFICATIONS

- Current graduate student in the field of archeology
- Preference will be given to candidates who have completed an archeological field school, have experience or training in cultural anthropology, the collection of ethnographic data, have experience with ArcGIS, ArcMap, and other data collection and communication skills
- Advanced coursework in anthropology, archeology, environmental or climate science
- Ability to conduct independent research, be self-motivated, and the ability to collaborate with staff and partners associated with various science and history disciplines
- Ability to organize and process data using excel spreadsheets or other statistical programs

- Field conditions at KAWW can be rugged so the intern must possess a degree of physical fitness in preparation for conducting field research, including excavation using hand tools
- Experience hiking and camping, as well as the importance of safety while conducting such activities, is a plus
- The park has minimal infrastructure, and accessing sites along the river is typically conducted via hiking, canoeing, or a combination of both. Likewise, the environment in Northern Maine in the spring and summer can sometimes be challenging due to occasional extreme heat, persistent rain, and biting insects. The ideal candidate will possess experience working under sometimes challenging conditions, and must demonstrate the ability to maintain a positive attitude in the face of occasional adversity

LEADERSHIP DEVELOPMENT

The NPS supervisor within the Northeast Region Archeology Program will work with staff from KAWW, NER Tribal and Cultural Affairs, OCLP, as well as Tribal partners from the Penobscot Nation to provide technical and project management guidance and intern mentoring. The intern will have the opportunity to directly contribute to the integration of culturally significant archeological sites, cultural landscapes, natural resources, and sacred sites into the park's Management Plan and Foundation Document. The FPL intern will be provided with the experience of working with a diverse group of scientists, planners, and policy maker partners. The FPL intern will be provided the opportunity to collaborate in a discussion about prioritizing cultural and spiritual resources within the Monument while developing analytical skills towards archeological and ethnographic data and modelling as well as scientific field research through collaboration with, and mentoring from, professional Archeologists, Historic Architects, Historians, and Ethnographers. The intern will also present their findings in a professional setting to park and Regional management and collaborate with KAWW staff to develop talking points about park planning and sensitive resources to visitors, the public, and other educators.

DATES OF POSITION

Work dates are fully flexible from mid-spring until late-fall, 2019, depending upon the ideal candidate's availability.

COMPENSATION

This initiative supports one student at \$16/hour for 12 weeks, or 480 hours.

HOUSING

Park housing is available located in Patten, Maine. The community is rural, but is within driving distance of the city of Bangor. Additional work space is available at the Monument's contact station in Millinocket, located south of KAWW. Some limited camping within the Monument may be required while collecting field data.

WORK ENVIRONMENT

Work will primarily include local travel among the various sections of the park and the Park contact station in Patten, Maine. Patten is a rural community, primarily agrarian, but with deep ties to the surrounding forests and rivers through logging and other sportsmen activities. The community includes a few restaurants, an excellent grocery store, but is limited in terms of other amenities one might find in larger towns. The intern must be prepared to act with decorum at all times within the community, and strive to be a positive ambassador of the Monument.

Some travel to the NRAP offices in Lowell, Massachusetts, and to visits with other staff in Augusta, Bangor, Orono, Mount Desert Island, and Portland, Maine may also be required. The intern will have dedicated work space at the contact station in Patten, but will also conduct field research in the park that may include hiking, canoeing, and camping with other field staff and researchers. Northern Maine can experience weather extremes in the spring and summer, and biting insects (ticks, flies, and mosquitoes) are prevalent in the forest, particularly on windless days. The intern must be prepared to face various environmental challenges, and maintain a positive attitude in the face of occasional adversity.

CONTACT INFORMATION

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