



POSITION DESCRIPTION

Summer 2022

NPS UNIT: Isle Royale National Park

Position #: 66, 67

Position Title: Ecology Assistant

Primary natural resource discipline: Biological Sciences

Position Keywords: moose browse, fire, vegetation, backcountry, forest ecology

Location: Houghton, Michigan

COVID-19 NOTICE

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.

POSITION DESCRIPTION AND WORK PRODUCTS

Project Description: Isle Royale National Park has an abundant moose population that is putting pressure on the island's terrestrial and aquatic vegetation. Evaluating herbivory across the landscape is vital to understanding vegetation dynamics, the impacts of increased predation following wolf introductions, and assessing the vulnerability of preferred browse species to climate change. Isle Royale's browse monitoring program aims to evaluate the long-term impacts of moose herbivory on seedling recruitment, understory plant communities, aquatic plants, and forest composition. Much of the forest land on Isle Royale is at the southern extent of the boreal forest range and key tree species of this ecosystem are preferential forage for the suite of herbivores and thus, not regenerating. It is vital to understand ecosystem response to both herbivory and climate change to inform future park management.

The Ecology Assistant (intern) will be responsible for collecting, entering, and summarizing data for the park's herbivory monitoring program. The position will require 5-8 day hitches in the backcountry, with field days spent sampling vegetation plots across the park's 160 miles of trails. Office time will be spent entering vegetation data in to an Access database. The intern will use GPS, tablets, compass, and measuring tapes and will identify trees and shrubs and evaluate moose and snowshoe hare herbivory.

In addition, last year Isle Royale NP had it's largest wildfire since the 1940s. The fire occurred following a long summer drought. Vegetation plots will be established in and around the burn area to monitor the impacts of natural fire on the landscape, the impacts of herbivores on post-fire forest regeneration, and inform future fire use at the park. The intern will establish plots and conduct post-fire vegetation surveys.

The Ecology Assistant will also have the opportunity to assist on a variety of Natural Resource Management activities, including control of invasive species, wildlife monitoring, and water quality assessments.

Work Products: The intended deliverables of this position include:

- Collection of moose, beaver, and snowshoe hare browse and fire effects vegetation data
- Database of browse and fire monitoring data, with data entered following the Isle Royale Data Management Plan guidelines
- End of season summary report of vegetation sampling
- Optional: Development of Interpretive program at Visitor Center(s) focused on moose herbivory

NATURAL & PHYSICAL WORK ENVIRONMENT



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Isle Royale National Park is an island archipelago located in Lake Superior. It is an International Biosphere Reserve and 99% of the park is designated Wilderness. The park is approximately 70 miles from Houghton, Michigan in northern Lake Superior. There is limited access to the park, by boat or seaplane. Isle Royale runs a ferry service that services the park with two trips per week during peak season. There are numerous opportunities for recreation including kayaking (park provided kayaks on Mott Island), hiking, fishing, and camping to name a few.

Groceries and other supplies are ordered from Houghton, Michigan, and are delivered by boat once a week. Access is available via NPS ferry from Houghton, with complimentary fares for employees, as well as for partners, parents, and/or children to come visit. Other family members or friends are eligible for a reduced fare. Pets are not allowed. Land vehicles are not allowed. During the summer, the temperature may vary, from cold and wet with the need for winter clothes to hot and humid, with temperatures over 90°F. Blackflies and mosquitoes can be bad at times, especially during June. Flexibility is required, as weather conditions may cause cancellations and delays in ferry boat and work schedules.

Cell phones generally don't work, with a few exceptions. Opportunities to get back to the mainland during the summer are limited. There are computers/internet that can be used outside of work hours to take care of personal business, within government guidelines. Phones are available for personal use. There is wi-fi available to park employees, however bandwidth and location of the signal is limited.

This is a field based position and the intern can expect to be working outdoors 70-80% of the time. Marine weather often dictates daily activities, and flexibility in work is a must. Interns must be in good physical condition and able to hike distances of up to 10 miles over rough terrain while carrying loads of 30 pounds or more and conducting field sampling. Biting insects or other pests such as black flies, deer flies and mosquitoes are common. Interns will be expected to work in a variety of environmental conditions; from near-freezing temperatures with rain and snow in May, to hot and humid weather in late summer. The intern can expect frequent encounters with moose in the field. The trails are maintained, but there is a fair amount of elevation change, and the trails are challenging with roots, rocks, and mud. The main hazards are working in cold and wet conditions and boating.

QUALIFICATIONS

The intern must be an undergraduate student or recent graduate in a Natural Resources, Forestry, Ecology or Environmental Sciences program. No specific coursework is required but Plant Identification, Botany, Forest Ecology, and GIS are desired. Backcountry camping and/or hiking experience is required, and candidates must be comfortable working in remote locations and in (powerboats, canoes, kayaks) and around water. This position requires hiking 8-10 miles per day, carrying up to 40 pounds, camping in remote locations, and performing work duties in addition to hiking/camping.

The intern should possess an excellent work ethic, have a passion for the outdoors, attention to detail, ability to collect high-quality data, and most importantly a positive attitude.

The applicant must be a U.S. citizen or U.S. permanent legal resident ("green-card-holder"). Prior to starting this position, a government security background clearance will be required.

VEHICLE AND DRIVER LICENSE REQUIREMENTS

Applicant will not need to drive a government vehicle.

A personal vehicle is not required for this position.



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If the SIP is required to drive a park vehicle for their position, Stewards will perform a driving records search, and the SIP's ability to drive a park vehicle during work hours will be contingent upon the results. SIPs will have to have had their license for 3 years or be over the age of 21 to be insured as drivers under Stewards insurance policy. Examples of things that will preclude a SIP from driving a park vehicle include: SIP under the age of 21 years old that has been licensed less than three years, DUIs, multiple moving vehicle violations, suspended or revoked license, or three or more accidents (regardless of fault) in the last 3 years. If the driver's search is favorable, Stewards will provide driver's liability insurance while the intern is driving a NPS vehicle for their SIP position. If the SIP is denied coverage by Stewards, they will not be permitted to drive during work hours.

HOUSING

Park housing is available and will be provided at no cost to the participant. Housing will provided in co-ed dormitory facilities (shared or private room). These facilities have a shared kitchen and bathroom facilities and are located near the park headquarters on Mott Island or on Mott Island itself. Bedding and towels are not provided.

INTERNSHIP DATES

Start Date: 05/30/2022

Number of Weeks: 12

Flexible Start Date: Yes

LIVING ALLOWANCE

12 Weeks (\$400.00/week =\$4800.00)

RELOCATION ALLOWANCE

350.00

AMERICORPS PROGRAM



AmeriCorps

AmeriCorps is a program that engages individuals in intensive community service work with the goal of "helping others and meeting critical needs in the community". The SIP Program is supported through AmeriCorps by providing a Segal Education Award in addition to the SIP's living stipend and relocation allowance.

Upon successful completion of the SIP position, the SIPs (AmeriCorps members) are eligible for a \$1,638 - \$6,195 pre-tax education award that can be used for paying back student loans or for continuing their education. The amount of the education award is based on the length of the position.

AmeriCorps limits the number of terms an individual can serve to 4 terms. If an applicant has previously completed 4 SIP or other AmeriCorps positions, they will not be eligible to apply for an additional SIP position.

Partners

This position is offered through the National Park Service's Scientists in Parks (SIP) Program in partnership with various organizations.

