



SCIENTISTS IN PARKS

PROJECT DESCRIPTION SUMMER 2021

NPS UNIT: PACIFIC ISLAND INVENTORY & MONITORING NETWORK WITHIN HAWAI'I VOLCANOES NATIONAL PARK	PD #: 2021095, 2021096, 2021097
<p>Project Title: Hawai'i Volcanoes Montane Wet/Tropical Forest Monitoring (3) Primary natural resource discipline: Biological Sciences Project keywords: Botany, plants, forest, backcountry, hiking, monitoring, vegetation Location: Hawai'i National Park, Hawai'i</p>	
COVID-19 NOTICE	
<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>	
PROJECT DESCRIPTION AND WORK PRODUCTS	
<p>Position Description: The Pacific Island Inventory and Monitoring Network is recruiting for three interns to assist with backcountry vegetation monitoring within wet forest plant communities of Hawai'i Volcanoes National Park. Major duties include 1) working in a group of 3-6 individuals conducting field work in a wide array of vegetation types under the supervision of a field crew leader, 2) hiking extended distance (up to 10 miles/day) in challenging terrain and environmental conditions while carrying a backpack (up to 50 lbs.), 3) routinely identifying plant species in the field and the lab using plant keys to verify species identification, 4) ensuring vegetation data are collected following established standardized methods according to long-term monitoring protocols, and 5) entering data into project databases and checking the quality of the data entered. Important responsibilities or this position include ensuring a respectful working environment, safely conducting work in a remote and physically challenging backcountry environment, collecting field data in a neat and complete manner, and communicating effectively with supervisors and crewmembers. Specific tasks include ensuring proper PPE and sampling equipment are maintained and readily available, participating and leading daily safety discussion before starting field work, backcountry hiking on-trail and off-trail to pre-determined plot and transect locations using map and GPS, recording plant species and measurements (abundance, cover, tally of size-classes, diameter, etc.), and ensuring data is accurate, properly stored, and backed-up upon return from the field. A summary report detailing field effort, preliminary findings, maps of surveyed areas, and discussion of methods will be completed at the end of the internship and presented to the park staff, partners, and the scientific community.</p> <p>This project will help natural resource managers understand the condition of the forests within Hawai'i Volcanoes National Park. It provides valuable information including detection of changes occurring in the native forests, identification of potential problems in the early stages, and an ability to measure progress of forest management practices. Introduced and invasive plant species are a major threat to natural resources in Hawai'i. Invasive plants have contributed to decreased biological diversity, the loss of native plant species, habitat degradation for native bird species and other native animals, and negative impacts on watershed hydrology. Park managers need reliable information to design appropriate resource management actions. The comprehensive design of this project provides not only the detection and abundance estimates of invasive plants, but also measures the direct impact of invasive plant species on the entire forest community.</p>	

This position is offered through the National Park Service's Scientists in Parks (SIP) Program in partnership with Stewards Individual Placement Program (Stewards) and The Geological Society of America (GSA).

Work Products: Deliverables 1-2 are part of a group effort, while deliverables 3-4 are managed independently by the intern. 1) A database containing vegetation monitoring data for 60 plant community plots (50 x 20 m) and 40 invasive plant transects (1000 m). 2) GIS files containing plot/transect locations with associated photos of the vegetative landscape and photo documentation of plant species as necessary. 3) A summary document detailing the field effort, discussion of methods, maps of surveyed areas, and preliminary findings on topic of choice related to the vegetation monitoring data collected. 4.) A blog article, story map, poster, etc. (~500 words) highlighting this work.

QUALIFICATIONS

Background in botany and plant species identification. Applicant should demonstrate this knowledge by describing relevant coursework, previous work experience, and related projects. Ability to maintain positive attitude in demanding work environment (hiking and monitoring vegetation in heat, rain, mud, thick understory vegetation, etc.). Ability to hike with 50 lbs. up to 10 miles/day and tent camp up to 4 days at a time. Ability to work effectively in teams of 3-6 people. Interest in identifying and documenting plants using detailed photography and collection of plant vouchers. Interest in digitizing field data collected including data entry and scanning, downloading, organizing, and maintaining accurate digital files. Interest in summarizing vegetation data and creating and editing technical reports.

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

A personal vehicle is RECOMMENDED but not required for this position.

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. Shared housing within Hawaii Volcanoes National Park is available and is located within walking distance of scenic views of Kīlauea Caldera, project offices, and the national park’s visitor center. Interns will be provided private individual rooms with shared kitchen and bathroom facilities. The resident community within the park is small and located in a remote area. The elevation at park housing is 4,000 feet. The climate is variable but can be cool with frequent rains year round. Volcano Village, a small community with limited services, is located 5 miles away. The nearest large city of Hilo (population 40,000) is located 30 miles from the park. Very limited public transportation is available. Government vehicles are not provided for transportation unrelated to work activities.

NATURAL AND PHYSICAL WORK ENVIRONMENT	
<p>Internship duties will be approximately 80% field work, 20% office. Hawai'i is beautiful, however, interns should be aware that the work environment is very demanding! (It requires hiking and monitoring vegetation in heat/cold, rain, mud, thick understory brush, etc.) Interns should be able to hike with 50 lbs. pack up to 10 miles/day. The park office is in a remote area on Hawai'i Island (the "Big Island"). The elevation of the park office is 4,000 feet. Work sites range in elevation, but all vegetation monitoring will occur in often rainy, "wet forest" plant communities. The weather is generally variable day to day, ranging from hot and sunny to cold and rainy. Extended periods of several weeks with rainy conditions are possible.</p>	
INTERNSHIP DATES	
<p>Start Date: 5/3/2021 Number of Weeks: 36 Weeks Flexible Start Date: Yes</p>	
LIVING ALLOWANCE	
36 Weeks (\$400/week = \$14400)	
RELOCATION ALLOWANCE	
\$1000	
AMERICORPS PROGRAM	
 <p>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.</p> <p>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.</p> <p>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.</p>	
SUPERVISORS/MENTORS	
<p>Primary: Jacob Gross Jacob_Gross@nps.gov 808-895-2136</p>	<p>Secondary: Kathryn Akamine kathryn_akamine@nps.gov 808-985-6320</p>