

SCIENTISTS IN PARKS

PROJECT DESCRIPTION SUMMER 2021

NPS UNIT: CAPE COD NATIONAL SEASHORE	PD #: 2021105
<p>Project Title: Field Assistant for Coastal Wetland Restoration at Cape Cod National Seashore (1) Primary natural resource discipline: Physical Sciences Project keywords: coastal wetland restoration, salt marsh, tide monitoring, water quality monitoring, sediment monitoring, GIS Location: Wellfleet, Massachusetts</p>	
<p>COVID-19 NOTICE</p>	
<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>	
<p>PROJECT DESCRIPTION AND WORK PRODUCTS</p>	
<p>Position Description: The main duties will be assisting with coastal wetland ecology monitoring projects associated with the Herring River Restoration Project focused on water quality and ecosystem monitoring and will include serving in the field, lab, and on computers. A rough breakdown of the intern's time is 40% field, 30% lab, 20% data entry/management and 10% other duties as assigned. The duties are critical to baseline, pre-restoration monitoring of the Herring River system and planning for a large and complex project to restore tidal flow to the former estuary. Similar work in other estuarine systems can also be expected. The GIP will serve as part of a team with other interns, volunteers, technicians, and the Restoration Ecologist, along with a project team comprised of non-NPS government and NGO partners. Duties and projects include:</p> <ul style="list-style-type: none"> • Monitoring and research activities in the field as well as processing and analyzing samples in the laboratory. • Involvement in both the field and lab for the Herring River monitoring program and other natural resource projects and applied research to inform salt marsh restoration and coastal management. • Perform laboratory analysis and written documentation of field sampling. • Perform routine maintenance, data acquisition, troubleshooting, and data management for automated/continuous samplers and data loggers. • Collect and process wetland sediment samples; use field GPS and other survey equipment to acquire three-dimensional survey data. • Use GIS for spatial data processing/management, data analysis, and basic map preparation. • Gain experience in a range of coastal environments, on various monitoring to management-oriented projects, with a range of field and laboratory methods and equipment. • Science communication activities to promote coastal wetland stewardship and science literacy. <p>Responsible stewardship of natural resources is a core mission of the NPS and restoration of degraded estuarine systems is a primary goal of CACO's General Management Plan and Foundation Document. The Herring River Restoration Project is the largest and most ambitious tidal restoration project in the eastern</p>	

U.S. and a top priority for CACO and NER. The SIP will be involved with critical field monitoring, data collection and analysis to support the project's adaptive management and decision-analysis program.

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:

- Field data and results of lab analyses (chlorophyll, color, grain size, etc.);
- Geospatial data sets and mapping products;
- Completion reports based on these tasks;
- Presentations of findings to CACO staff and agency/community partners;
- Poster or paper presentation(s) to a local conference(s)

QUALIFICATIONS

Applicants for the position must hold or be pursuing a minimum of a master's degree and/or have equivalent experience in subject areas such as ecology, marine biology, botany, wildlife sciences, biology, coastal geology, natural resources management, environmental science, or related disciplines.

Required:

- Must be a US Citizen and Permanent Resident
- Must be between the ages of 18 to 35
- Must be able to communicate clearly and concisely, both verbally
- and in writing, with NPS resource professionals and their partners
- Must be able to complete tasks well independently and on a team
- Ability to use field guides and dichotomous keys for plant and animal ID
- Physically able to conduct field surveys under demanding weather in rough terrain and in water
- Must know how to swim
- Must have a valid driver's license, provide documentation of a clean driving record, and have a personal vehicle
- Must have a demonstrated interest in coastal wetland ecology and a respect for nature
- Ability and willingness to undergo a federal criminal background check is required
- Proficiency in English is required

Preferred:

- Experience in water level and water quality monitoring and instrumentation
- Experience in field and laboratory analysis of water and coastal sediments
- Knowledge of marine vegetation and invertebrates
- Previous experience, or willingness to learn how operate small water craft in these settings is desired
- Experience with GPS and GIS for spatial data acquisition, analysis, and presentation
- Knowledge of the natural history and scientific processes of the Northeastern United States; for example: ecology of marine and estuarine ecosystems, dune and barrier beach ecosystems, coastal geologic processes, freshwater ecosystems, marine biology
- Bilingual applicants are encouraged and welcome

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

Applicant must have a valid drivers license and a good driving record.

A personal vehicle is 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. CACO offers visiting researcher housing within 10 miles of the North Atlantic Coastal Lab work site. Housing varies but is usually a shared furnished house with private bedroom. Residents bring their own linens, kitchens are furnished with basics. If possible, housing will be within a few miles of our primary worksite. Houses usually have other residents that are also seasonal employees or research technicians. Residents are responsible for cleaning, trash and utilities such as internet/cable/phone which are not otherwise provided.

NATURAL AND PHYSICAL WORK ENVIRONMENT

Cape Cod is a large peninsula extending 60 miles into the Atlantic Ocean from the coast of Massachusetts. Located on the outer portion of the Cape, Cape Cod National Seashore's 44,600 acres encompass a rich mosaic of marine, estuarine, fresh water, and terrestrial ecosystems. These systems and their associated habitats reflect the Cape's glacial origin, dynamic natural processes, and at least 9,000 years of human activity. Geomorphic shoreline change, ground water fluctuations, tidal dynamics including rising sea level, and atmospheric deposition are among the many physical processes that continue to shape the Seashore's ecosystems. Marine and estuarine systems include beaches, sand spits, tidal flats, salt marshes, and soft-bottom benthos. Freshwater ecosystems include kettle ponds, vernal pools, sphagnum bogs, and swamps. Terrestrial systems include pitch pine and scrub oak forests, heathlands, dunes, and sandplain grasslands. Many of these habitats are globally uncommon and the species that occupy them are correspondingly rare. Cape Cod is a relatively mild coastal environment with summer season between May and September. Winter weather brings storms, winds and freezing temperatures with little snow accumulation in the long term. Beaches, ponds and hiking trails abound. Supermarkets are in Provincetown (8 miles from the Lab) and Orleans (20 miles). Local amenities include many restaurants and small specialty markets. Nearest Mall stores are in Hyannis. The summer tourist season brings activity from Memorial Day to Labor Day.

INTERNSHIP DATES

Start Date: 5/3/2021

Number of Weeks: 36 Weeks

Flexible Start Date: Yes

LIVING ALLOWANCE

36 Weeks (\$400/week =\$14400)

RELOCATION ALLOWANCE

\$1000

AMERICORPS PROGRAM



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.

SUPERVISORS/MENTORS

Primary:

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