PROJECT DESCRIPTION
2020 SPRING/SUMMER

NPS UNIT: WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE  
PD #: 2020004

Position Title: Geology Assistant (1)  
Position Type: Guest Scientist  
Primary natural resource discipline: Geologic resources  
Project keywords: glaciers, permafrost, GIS, hydrology, interpretation  
Location: Kennicott, Alaska

PROJECT DESCRIPTION AND WORK PRODUCTS

Position Description: Alaska’s National Parks include over 7,500 glaciers, and ongoing changes in these glaciers impact other park resources, including infrastructure, recreational opportunities, hydrology, and ecology. The NPS Inventory and Monitoring Program is responsible for monitoring and interpreting glacier change within Wrangell-St. Elias and Denali, the first and third most glaciated park units in the state. The GIP Guest Scientist will contribute to this program by completing office-based (~75%) and field-based (~25%) tasks that contribute to our understanding of glacier change, and related phenomena, in the Alaskan parks.

Wrangell-St. Elias National Park and Preserve was created, in part, to protect and manage its superlative glacial landscapes. Management of those landscapes requires a thorough scientific understanding of those landscapes, a recognition of the ways those landscapes are changing, and a solid plan for how to interpret and mitigate those changes. This Guest Scientist will contribute directly to those goals.

This position is offered through the National Park Service’s Geoscientists-in-the-Parks (GIP) Internship Program in partnership with Stewards Individual Placement Program (Stewards) and The Geological Society of America (GSA).

Work Products: The primary purpose of the position is to collect, manage, analyze, and describe glaciological data that contribute to development of interpretive and outreach materials describing changes in the Kennicott Glacier. Development of visual interpretive media, in consultation with other NPS staff, is a critical component. This work will culminate in a graphic-rich written report, and requires that the participant have a strong understanding of glacier processes and environments. Secondly, the Guest Scientist will assist with diverse tasks related to glacier monitoring, permafrost monitoring, and other physical science objectives. Most work will be based out of the Kennicott Valley, within Wrangell-St. Elias National Park, but some fieldwork (and, if appropriate and desirable, some office work) will occur in Denali and perhaps other Alaskan park units/offices.
QUALIFICATIONS

- Applicants must have completed an undergraduate degree by the start of the appointment and must be enrolled in, or have completed, a graduate (MS or PhD) program. Degrees/programs in geosciences, glaciology, snow science, or geophysics strongly preferred.
- Minimum required coursework (or demonstrated proficiency): Glaciology, GIS, Geomorphology, and Physical Geology.
- Skills: strong technical / scientific writing, GIS and GPS proficiency, glacier and wilderness travel, Wilderness First Responder or comparable.
- Desire and ability to work in a remote setting involving minimal resources, challenging conditions, and extended travel that includes small aircraft.

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 LICENSE REQUIREMENTS

Applicant must have a valid driver license and a good driving record. Some fieldwork will require travel to remote portions of this and other park units. Ability to drive a government vehicle is required.

A personal vehicle is RECOMMENDED but not required for this position. In the remote setting of the Kennicott Valley, the guest scientist will appreciate having both a personal vehicle (for travel to other towns/areas, including Anchorage) and a bicycle (for travel within the Kennicott Valley, which has limited access for personal vehicles).

If the GIP is required to drive a park vehicle for their position, Stewards will perform a driving records search, and the GIP’s ability to drive a park vehicle during work hours will be contingent upon the results. GIPs 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 GIP from driving a park vehicle include: GIP under the age of 21 years old that has been licensed less than three years, DUls, 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 GIP position. If the GIP 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. Park housing in Kennicott, within walking distance of the office, is provided at no cost to the participant. Park housing is a small private cabin with adjacent shared kitchen and bathroom facilities. Kitchen is fully equipped, but linens are not provided. Alternate park housing is available in McCarthy, 5 miles away, with bicycle and shuttle access to Kennicott.

INTERNSHIP DATES

Start Date: 5/11/2020
Number of weeks: 12 weeks
Flexibility of dates: Yes

LIVING ALLOWANCE

20 weeks ($400/week = $8,000)

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 GIP Program is supported through AmeriCorps by providing a Segal Education Award in addition to the GIP’s living stipend and relocation allowance.

Upon successful completion of the GIP position, the GIPs (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 GIP or other AmeriCorps positions, they will not be eligible to apply for an additional GIP position.

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**NATURAL & PHYSICAL WORK ENVIRONMENT**

**Natural Environment**: In the remote setting of the Kennicott Valley, the guest scientist will appreciate having both a personal vehicle (for travel to other towns/areas, including Anchorage) and a bicycle (for travel within the Kennicott Valley, which has limited access for personal vehicles). The Valley is home to roughly 200 people in summer, and has a small number of restaurants, lodges, and guiding businesses. There is one very small store, and most residents purchase groceries in bulk from distant towns. During the tourist season there is a bustling social scene, but during the shoulder seasons (May and September) the Valley is very quiet.

**Physical Work Environment**: The bulk of work will be conducted in an office environment within the Kennecott National Historic Landmark. Offices in the NHL include power, heat, and IT connectivity, but are in general rustic compared with more urban settings. Park headquarters, in Copper Center, are a 3.5 hour drive away. Office spaces in Kennecott are shared among park staff from multiple divisions, but the participant will be situated adjacent to the supervisor. Office work will constitute more than 50% of the position, but the Guest Scientist will be expected to participate in a variety of fieldwork opportunities that range from glacier monitoring to permafrost monitoring. All will require physical exertion in a remote mountainous setting, inclement weather, and associated hazards. Some will involve travel by private or government vehicle on gravel and paved roads, travel by small plane, and/or travel by helicopter. The Guest Scientist will frequently be expected to work independently. Some required personal protective equipment will be provided, but the Guest Scientist will be expected to have clothing, as well as enthusiasm and experience, for this type of work. The participant will be expected to be cheerful in the face of snow, ice, mosquitoes, and heavy brush.
MENTORING AND LEARNING GOALS

Mentoring: Guest Scientist will work closely with WRST Physical Scientist Michael Loso, who will provide primary mentorship. The participant will receive direction and assistance with glaciological fieldwork and data analysis (including GPS/GIS work), interpretive product development, report writing, and NPS administrative procedures. Fieldwork will expose the Guest Scientist to a wide variety of resource and ranger division staff at multiple parks. Additional physical science mentorship will be available through interaction with physical science/geology staff at other NPS units.

Learning Goals: Most broadly, the participant will learn about the resources of the Alaska parks and the manner in which NPS monitors and manages them. They will become familiar with the geologic setting, and especially the glaciers, of Wrangell-St. Elias and Denali National Parks. The Guest Scientist will develop this familiarity by assisting with a broad range of tasks, but they will focus primarily on a self-directed project that will build their skills in data management and analysis, GIS mapping, and interpretation of glacial phenomena. This project will be expected to culminate in a well-written final report that requires the participant to clearly think about, write about, and illustrate (using maps and figures) complex scientific information in a format suitable for a lay audience.

SUPERVISORS/MENTORS

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<tr>
<th>Primary Supervisor/Mentor:</th>
<th>Secondary Supervisor/Mentor:</th>
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<tbody>
<tr>
<td>Michael Loso</td>
<td>Mark Miller</td>
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<td>Physical Scientist</td>
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