





PD #: 2019424

2019 – PROJECT DESCRIPTION FALL/WINTER SEASON

NPS UNIT: EL MALPAIS NATIONAL MONUMENT

Position Title: Cave and Karst Assistant (1)

Position Type: GIP Intern

Primary natural resource discipline: Geologic resources **Project keywords:** caves, microclimate, paleoclimate, bats

Location: Grants, New Mexico

PROJECT DESCRIPTION AND WORK PRODUCTS

Position Description: The intern will be responsible for assisting in bat hibernacula counts of approximately 130 caves at El Malpais National Monument (ELMA). During the process of conducting bat counts, the intern will observe and note geological, archaeological, and microbial features. After the completion of the bat count, these data will be collected using ArcGIS Survey 123 in the field and then transferred into a geodatabase at the office. The intern will be responsible for assisting in the collection of data from data loggers (ultrasonic depth monitoring equipment for ice, ibuttons for cave microclimate, and a Hobo weather station). The intern may be asked to assist researchers involved in projects, such as microbial sampling, bryophyte inventory, arthropod inventory, and ice core collection.

The primary project is the collection of baseline information regarding hibernating bats. This is critical for resource management as New Mexico is one of the most likely areas to be affected by white-nose syndrome within the next few years. This is in support of the National and New Mexico White Nose Syndrome Response Plans. The secondary component to this project is recording observations made of the caves during the bat counts. The Federal Cave Resource Protection Act requires federal land managers to conduct an inventory of caves within their management area.

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: Completed assessment of hibernating bats at ELMA. Basic inventory of caves at ELMA to support an in-depth inventory at a later date.

QUALIFICATIONS

Background education or experience could be in geology, biology, or archaeology. It is imperative that the intern be comfortable within the cave environment (rugged terrain, tight crawls, and steep heights) and be able to work in winter conditions and able to navigate the rugged terrain of lava flows.

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. Intern will drive a park truck during work hours. Roads will include primitive roads.

A personal vehicle is RECOMMENDED but not required for this position. A personal vehicle is not necessary but is desirable. Most facilities (include ELMA HQ) are within a mile from housing. There is no public transportation in the area.

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, 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 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. The monument leases a 3br/2ba house in Grants for use by interns and visiting researchers. It's a modern, well-kept house with basic furnishings - beds, dressers, and kitchen pots/pans/utensils. Individual will need to bring their own bedding. The household will be shared. Park Service staff will check-in/check-out all tenants and enforces good housing cleanliness with regular inspections.

INTERNSHIP START/END DATES

Start Date: 1/6/2020

Number of weeks: 12 weeks Flexibility of dates: Yes

LIVING ALLOWANCE

12 weeks (\$350/week = \$4,200)

RELOCATION ALLOWANCE

\$250 (mainland only)

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 \$1,612 - \$6,095 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.

NATURAL & PHYSICAL WORK ENVIRONMENT

Natural Environment: El Malpais National Monument is in a fascinating geological setting, featuring a complex interconnection between recent volcanic activity and ancient sedimentary rocks with a varying elevation between 6000-8,000'. North of the monument, just a few miles past the city of Grants, Mt. Taylor reaches 11,306'.

The Mt. Taylor uplands and the Zuni Mountains west of the monument support juniper, pinon, ponderosa, fir, and aspen stands. From the city of Grants (elevation 6,460') to the south, the lava flows and cinder cones of El Malpais extend into high desert grasslands and shrublands home to pronghorn, mule deer and elk. The eastern boundary of the monument abuts the sandstone and slickrock cliffs of the Acoma Indian Reservation. The monument, along with the BLM's surrounding National Conservation Area, protect more than 350,000 acres. The intern will be working at El Malpais National Monument during the winter months. Temperatures will primarily be in the 50s with a low in the 20s, and snow is likely. Nearby attractions include various Native American nations and cultural sites like Chaco Canyon, El Morro National Monument, Shiprock, and the Acoma Pueblo. While most amenities (grocery, department stores, theater, etc.) can be found in Grants, Albuquerque is an hour's drive to the east on I-40.

Physical Work Environment: The monument's National Park Service headquarters and our natural resource management office are located within the city of Grants, New Mexico. The office is a friendly, comfortable setting with a staff of around 20. The field environment can be physically taxing and requires the ability to work and hike over extremely rugged terrain and in varying weather conditions while carrying 10-40 pounds of supplies and gear at an elevation between 7000-8000'. Field work will involve navigating rough backcountry roads requiring high clearance and occasionally 4WD, hiking on lava flows in remote wilderness, locating cave sites with GPS units, and working in lava tube caves, which require navigating by artificial light, working in temperatures in the low 40s, and non-technical climbing.

MENTORING AND LEARNING GOALS

Mentoring: The Natural Resources Branch Chief (NRBC) will be the primary mentor to the intern. The Resources Management Division Chief and Cultural Resources Branch Chief also will serve as mentors. The mentors will assist the intern with data collection, provide resources and direction for study. They will assist with development and review of research design, and review all final products. It is likely that the intern will meet researchers from various fields of study.

Learning Goals: Identify bat species; inventory geologic, archaeologic, and microbiotic features; use software: ArcGIS and Survey 123; maintain and collect data from data loggers.

SUPERVISORS

Primary Supervisor:

Eric Weaver
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Secondary Supervisor:

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