



Latino Heritage Internship Program

LATINO HERITAGE INTERNSHIP PROGRAM

Diversity Internship Program



NPS UNIT: DINOSAUR NATIONAL MONUMENT	PD#: 26
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Position Title: Science Communication and Resource Monitoring Intern
Position Type: LHIP Traditional Internship (Public Land Corps)
Primary natural resource discipline: Interpretation/Education
Location: 11625 E. 1500 S. Jensen, UT 84035

PROJECT DESCRIPTION

Position Description: This internship will provide opportunities to observe, develop, and practice science communication strategies through a multidisciplinary project that combines interpretation/education with invertebrate research at Dinosaur National Monument (DNM). The interpretation/education component of the internship focuses on researching, developing and presenting interpretive programs that integrate citizen science into the visitor experience. Interpretation at DNM includes well established programs to communicate topics of geology, paleontology, and dark skies to a variety of audiences, especially children. This internship will include participating in the established interpretive schedule of providing visitor services and public programs at the Quarry Visitor Center, Quarry Exhibit Hall, and Campgrounds alongside other interpretive staff. This internship will also include developing new interpretive programs or products that support a new natural resource study on two butterfly species that began in 2019. The natural resource monitoring and research component of the internship focuses on a status assessment of pollinators, in particular monarch butterflies and bumblebees. The intern will be responsible for conducting field surveys to collect baseline data on monarch butterfly and bumblebee occurrence and habitat preference. Surveys will occur at both established/designated plots and in "opportunistic" plots at both DNM and the greater Uinta Basin. Standardized citizen science-based protocols will be used for milkweed and nectar plant surveys, egg and larvae, and adults surveys, and tracking parasitism and survival. The intern will also be paired with a dedicated pollinator project intern provided by the Bureau of Land Management (Vernal Field Office) to assist other local federal and state agencies with similar data collection as requested. There may also be an opportunity to conduct these same surveys across eastern Utah in partnership with the State of Utah. The primary final product will be the submission of all project data to U.S. Fish and Wildlife Service (USFWS) to inform listing considerations under the Endangered Species Act (ESA) via the citizen science-driven Integrated Monarch Monitoring Program (<https://monarchjointventure.org/get-involved/mcsp-monitoring/field-activities>). Tagging and parasite data collected during the project is provided to Southwest Monarch Study (<https://www.swmonarchs.org/>) and Project Monarch Health (<https://www.monarchparasites.org/>). Other final products include a summary report of monarch and bumblebee activity for DNM resource management archives and a presentation of findings to partners and staff.

Background on Monarch Butterfly The monarch is a currently proposed to be listed as a federally "threatened" species under the ESA. As such, the USFWS is gathering data on the monarch's range, population numbers, habitat, breeding success, and threats. A listing decision is expected in December 2020. However, low monarch wintering and breeding numbers in 2020 remains a cause for concern and underscores the need for continued monitoring. While monarchs in the eastern United States are well understood, less is known about monarchs west of the Continental Divide. Of specific interest is understanding where western monarchs migrate to for the winter and what route they take. DNM is located in the easternmost portion of the western monarch population's range. DNM began limited monitoring of monarchs in 2017-2018 as a result of a new partnership

with Southwest Monarch Study. A comprehensive monitoring program began in earnest in 2019 with the award of an LHIP intern to DNM in both 2019 and 2020. This 2021 internship will continue the foundational work completed in 2019/2020, with the possibility to expand surveys to more locations throughout eastern Utah, the Uinta Basin, and on private lands.

This position is offered through the National Park Service's Latino Heritage Internship Program in partnership with Environment for the Americas.

COVID ACCOMMODATIONS

No

LEARNING GOALS

The intern will build science communication and public speaking skills and gain experience applying 21st Century Interpretation standards to a variety of interpretive programs for different public audiences. The intern will become proficient in field-based monitoring, data management, and study design and will work both independently and with interagency staff to visit rare and unique sites within DNM and the Uinta Basin. The intern will gain experience with how monitoring of special status species can directly enhance resource knowledge and shape management decisions on federal and state lands.

MENTORING

Upon arrival the intern will meet with park staff for an orientation to the park and project, discuss overall direction of data needs and resources available to meet project goals. The intern will receive training in the NPS standards of Interpretation and be assigned an interpretive coach and mentor. The intern will be taught butterfly and bumblebee identification, capture, and tagging techniques, as well as basic plant ID skills necessary to complete monitoring protocols. Weekly meetings will be held between project supervisors and intern to help monitor progress and mitigate problems. Opportunities may exist to cross train with other divisions, such as visitor and resource protection, and on other resource and interpretive projects.

PROJECT RESULTS

N/A

LEADERSHIP

N/A

DHA-RAI OUTCOMES

N/A

NATURAL & PHYSICAL WORK ENVIRONMENT

Physical Work Environment: Dinosaur National Monument is a spectacular 211,000-acre medium-sized park with mega-park values. Dinosaur has the most complete geologic record of any national park area and an internationally renowned display of Jurassic era dinosaur bones. The rugged landscape provides diverse habitats that support a surprisingly diverse assemblage of plants and animals and critical habitat for endangered species. The whitewater rafting and magnificent scenery found in the canyons of the Green and Yampa rivers provide premier Western boating experiences. The Yampa is the only remaining large tributary in the Colorado River

system that retains its free flowing character. Dinosaur is over 90% recommended wilderness. The area receives an average of 8-10 inches of precipitation annually. Temperatures range from -20 degrees to 105 degrees. The communities of Rangely, CO and Vernal, UT host small Latino communities and offer all amenities (hospital, schools, grocery, etc.). Both towns are within commuting distance (20 miles) of headquarters located in Dinosaur, CO and the Quarry visitor center located in Jensen, UT. Please visit our website at www.nps.gov/dino for more information.

Work Environment: The work is split between the field (70%) and office (30%). Field work can include exposure to extreme weather conditions and terrain, biting insects, domestic livestock, and wild animals. DNM regularly hosts summer interns and volunteers for projects such as trail building and maintenance, cultural surveys, various natural resource projects, paleontology research, and general visitor and interpretive services.

VEHICLE AND DRIVER LICENSE REQUIREMENTS

Transportation to DNM and for personal needs requires a personal vehicle and valid driver's license. An appropriate government vehicle for the intern to use for field work will be provided. A driving records search will be performed and the intern's ability to drive a park vehicle will be contingent upon the results. Examples that will preclude an intern from driving a park vehicle include DUIs, multiple moving vehicle violations, suspended or revoked license, or three or more accidents (regardless of fault) in the last 3 years.