



## 2024 Native American Research Assistantship Program

### — Student Application Instructions —

Application Deadline: **Friday, January 26, 2024**



**The Wildlife Society** (TWS) is an international professional non-profit organization with a mission to inspire, empower, and enable wildlife professionals to sustain wildlife populations and their habitats. As part of this mission, TWS actively engages in supporting Native students who aim to become professional wildlife managers, biologists, scientists, and policy makers.



**USDA Forest Service Research and Development** (USFS R&D) works at the forefront of science to improve the health and use of our Nation's forests and grasslands. USFS R&D recognizes the importance and value of Indigenous Traditional Ecological Knowledge (ITEK) in enhancing approaches to maintain and restore ecosystems which sustain healthy wildlife populations.

Together, TWS and USFS R&D are committed to enhancing and sharing the diversity of human experiences and backgrounds within the community of natural resource professionals and are excited to continue our partnership in 2024 through the **Native American Research Assistantship (NARA) Program**.

#### **Description:**

The NARA Program is intended to support Native undergraduate or graduate students and to expand our collective understanding of the natural world through elevating ITEK within federal research projects. The Program will facilitate student mentoring opportunities with USFS R&D scientists and promote student advancement and training for careers in natural resource and conservation-related fields. A paid stipend of at least \$6,500 will be provided to participating students. Additional funding may be available to assist with professional development experiences.

Through the short-term research assistantships, Native students will have an opportunity to learn and work with an interdisciplinary team of researchers on projects related to wildlife ecology and natural resources. A list of the 2024 proposed projects along with project descriptions is included at the end of

this document. Only a limited number of projects will be funded and are dependent on a suitable student/mentor match.

### **Expectations:**

The assistantships are for 3 months within the 2024 calendar year. Starting dates are negotiable within the context of the seasonality of the research topics. Provided housing is not guaranteed, but may be offered at a USFS R&D facility or available in the surrounding area depending on the project. See the project descriptions for more timing, location, and housing information. The project team will assist the student in finding suitable housing options.

Applicants will participate virtually or in-person (see project description) in laboratory or field-based data collection, data entry, and analysis. The work experiences gained during the assistantship are intended to benefit the program participants, and comprise one of the many facets of training and educational opportunities provided to the students during the assistantship.

During the assistantship, students will also improve their oral and written communication skills. The successful applicant will be provided the opportunity to assist in publishing manuscript(s) in peer-reviewed journals, popular press, and/or present findings to local tribal partners and/or at scientific meetings along with federal scientists (dependent on travel funding).

The selected students will be given a brief orientation to TWS and USFS R&D prior to the start of the assistantship in addition to regular check-ins throughout the program. Applicants will be expected to work independently and as part of a research team. Some travel may be expected for the project. Transportation and relocation to and from the project location will not be paid, but students may use their stipend to cover any transportation or living expenses not directly covered by the project.

### **Qualifications:**

In order to participate in NARA, applicants must meet the following criteria:

- Applicants must be a U.S. citizen or national (residents of American Samoa and Swains Island);
- Applicants must be currently enrolled (or be a graduating senior) in an undergraduate or graduate program from an accredited institution of higher education in the United States;
- Applicants must identify as a member of a Native American, First Nations, Métis, Inuit, Alaska Native, Native Hawaiian, or Pacific Islander tribe or community, and provide proof of tribal affiliation or descendance from a tribally enrolled parent or grandparent.
- Applicants must have a cumulative GPA of 2.5 or higher on a 4.0 scale. Preference will be given to students with a GPA of 3.0 or higher.
- Applicants must demonstrate an interest and commitment to conserving natural resources, to working with Native communities, and to elevating ITEK in federal scientific and policy processes;
- Applicants must be fluent in English and have excellent communication and interpersonal skills. Knowledge of a Native language or culture is an asset, but not required.
- Applicants must uphold and conduct their activities in accordance with the **Code of Ethics and Standards for Professional Conduct** as prescribed by The Wildlife Society.

**Application Procedure:**

To apply, please submit, as a single PDF:

- A cover letter (two pages or less) that includes -
  - Email address, phone number, and mailing address in your cover letter signature;
  - Research project you are applying for and your estimated availability. If more than one project is of interest, please list your preferences in the order of most to least interested;
  - Information highlighting your interest in NARA and applicable experience related to the project(s) you are applying for.
- Resume/CV
- Academic transcripts (official or unofficial transcripts will be accepted)
- Documentation of tribal affiliation or descendency. For purposes of NARA, this may include:
  - Tribal Identification, Enrollment Card, Certificate of Degree of Indian or Alaska Native Blood, or letter from a Tribal official or Native Hawaiian Organization indicating your belonging to a state or federally-recognized tribe or community;
  - Proof of a parent or grandparent's enrollment in a tribe (Eligibility is not based on blood quantum or DNA test, and TWS will not accept or request this information as proof of tribal affiliation or descendency);
- Two letters of recommendation

The Wildlife Society will review all provided documentation and may request additional information, if needed, to determine sufficient qualifications. The NARA Program is administered by TWS. Students will receive compensation from TWS but there will be no employer-employee relationship between the Program participant and TWS or USFS. As such, all federal, state, and local taxes and withholdings are the responsibility of the applicant. Further, coverage under a medical insurance plan is required and the responsibility of the applicant.

In accordance with Federal law and U.S. Department of Agriculture policy, TWS is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)

Application packages and questions should be emailed to Tricia Fry, [tricia@wildlife.org](mailto:tricia@wildlife.org) no later than 11:59 pm ET on **Friday, January 26, 2024**. Applicants can expect to receive a decision in March 2024.

## Projects with USDA Forest Service Research and Development

### ***Project 1: Science to Support High Priority Data Needs at Stream Restoration Sites in the U.S. Forest Service Southwestern Region***

**Project Objectives:** The objectives of this project are to provide science support to the Southwestern Region and the Carson, Santa Fe, and Gila National Forests by collecting baseline, implementation, and/or post-implementation monitoring and assessment of aquatic organism passage (AOP) and stream restoration sites. The project leaders have collaborated with National Forest System staff to identify aquatic organism response to AOP projects and the effects of stream restoration on groundwater storage, riparian soil carbon, and greenhouse gas emissions as high priority data needs.

**Location: *IN-PERSON*** - The duty station for this project will be the Rocky Mountain Research Station Albuquerque Forestry Sciences Lab. Field work for the project will occur on the Santa Fe, Carson, and Gila National Forests in New Mexico.

**Duration:** May – October 2024, with some flexibility

**Housing:** Affordable and local housing is available, and the student must identify, secure, and pay for their own housing. The project leaders will aid in the search for housing by soliciting the UNM biology student listserv, as well as connecting the student with other members of the field crew working on the project.

#### **Required Skills:**

Educational Background: biology, ecology, forestry, soil science, fish biology

Technical Skill Competencies: We are willing to train the student for all technical skills, but experience with the following skills would be beneficial:

- 1) Field skills: botanical surveys, vegetation identification, soil sample collection
- 2) Computer skills: data entry and quality control/quality assurance
- 3) Lab skills: Basic lab procedure and safety skills in addition to experience pipetting and operating an analytical balance. Desire to learn DNA isolation and characterization, fish identification skills

Communication Skill Competencies: Basic oral and written communication skills. The research assistant will be expected to present a summary of their work at the Albuquerque Lab Student Symposium.

Physical Demands: Field work for this project will involve hiking and camping at high altitudes and in variable weather that can include high heat, cold, thunderstorms, and snow. Additionally, the student will be expected to hike with a ~20-pound backpack and help carry field gear. Field sites are all located within a 1.5 miles hike from parking locations.

## ***Project 2: Drought Recovery in Northern Grasslands (DRyING): Understanding Mechanisms and Indicators of Flash Drought in Northern Grasslands to Inform Post-Drought Grazing***

**Objectives:** The increasingly common occurrence of flash droughts in the water-sensitive grasslands of the Northern Great Plains (“northern grasslands”) challenges land managers when deciding their seasonal and annual grazing practices. To sustain long-term forage production, rangeland managers are cautioned not to resume grazing on drought-stressed areas too quickly after the end of a drought. Translating this general guidance into concrete decision points for a specific grassland requires:

- (1) understanding the processes behind dominant plant species’ and plant communities’ recovery from drought,
- (2) information on how grazing after a drought impacts these processes, and
- (3) a practical, robust indicator of grassland recovery following drought.

We are addressing these needs for northern grasslands through field and greenhouse experiments that measure plant susceptibility to, and recovery from, drought occurring in different parts of the growing season and under different grazing conditions. We aim to help land managers make decisions about stocking levels following drought that will ensure long-term sustainability of their operations and the natural resources they rely on – a goal matching that of many of our regional tribes. Such decisions are made more challenging by growing climate variability. Our research will provide mechanistic, species-specific information needed to predict how northern mixed-grass prairie will respond to new climate circumstances, and therefore how rangeland management practices may need to change to maintain ecosystem health and productivity. The NARA intern could work on this larger project while focusing their study on an individual plant species we are sampling as part of the project.

**Location:** *IN-PERSON* - Rapid City, SD

**Duration:** Research Assistant would be hosted for 3 months from May 20, 2024 to August 9, 2024. There is flexibility to start earlier or later depending on needs. The intern gets the most benefit of learning plant species in May and June. We typically work four 10-hour days per week.

**Housing:** Affordable and local housing is available, and the student must identify, secure, and pay for their own housing. The School of Mines and Technology offers their student apartments as summer housing options for seasonals. We are only able to offer USFS housing in Hill City (30-minute drive) if there is availability (which is determined in February 2024).

### **Required Skills:**

Educational Background: BS or BA in Biology (or similar field) or enrolled pursuing this degree

Technical Skill Competencies: All skills in field and on computer can be taught. Familiarity with Microsoft Word and Excel is a plus. Willingness to be outside for extended periods of time.

Communication Skill Competencies: Ability to work in a team environment.

Physical Demands: Will be required to crouch, stoop, kneel, or bend for long periods of time while looking at plants on the ground in typically hot or windy conditions.

### ***Project 3: Validating Methods for Detecting Pregnancy Status in Rare Forest Mesocarnivores***

**Objectives:** This is a laboratory-based project to validate methods for assessing reproductive status in free-living mesocarnivores (wolverine, Canada lynx) from non-invasive measurement of hormone metabolites in scat.

**Location:** *IN-PERSON* - University of Montana, Missoula, Montana

**Duration:** Students will be expected to work 40 hours a week (excluding holidays) during their tenure in the position. Given that the most affordable housing option for the student will likely be on the University of Montana campus, the student should plan to work from ~May 13 – July 30, 2024, when housing is available. If the student elects not to use University of Montana housing, flexibility in start and end dates may be considered.

**Housing:** Affordable local housing is available. The project leader and postdoctoral scholar will work with the research assistant to finalize their housing application. The project leader and postdoctoral scholar have been in contact with the University of Montana to request a spot in summer dormitory housing, which will cost the student ~\$550/ month. The selected student must work with the project leader and postdoctoral scholar immediately upon their selection to finalize all paperwork to confirm their spot in summer housing.

#### **Required Skills:**

Educational Background: Biology, wildlife biology, environmental studies

Technical Skill Competencies: No prior technical skills are required as all training will be provided on the job. Prior experience in a laboratory environment (through classes or a job) and familiarity with Microsoft Excel are preferred.

Communication Skill Competencies: Communication skills are the most important skill a student can bring to this position. This position will require that the student speak with the project leader and postdoctoral scholar multiple times a day to receive training and discuss research findings. The student is also expected to take accurate and detailed notes about their laboratory work so that results can be replicated. The student will have the opportunity to practice group presentation skills throughout the summer with coaching from the project leader and postdoctoral scholar, so no prior experience with presentations is expected.

Physical Demands: The physical skills required for this job include sitting or standing for multiple hours in a laboratory environment and having sufficient manual dexterity to operate a pipette and take notes by hand or on a computer.

## ***Project 4: Fulfilling Tribal Wildlife Research and Management Needs***

**Objectives:** NARA student will assist the Project Leader in the development of sections of a comprehensive Tribal Wildlife Management Plan (TWMP) requested by the Mescalero Apache Tribe (MAT). The NARA student will research, draft, and edit technical sections of the TWMP in a remote capacity if relocating is not an option. If relocation for the student is possible, they can assist in the development and coordination of local community focus groups to understand wildlife needs and interests of the tribal community, especially as it relates to ITEK and information provided by elders and practitioners within the community. This would take place on or near the Mescalero Apache Indian Reservation including communities such as Mescalero, Ruidoso, Tularosa and/or Cloudcroft located in south-central New Mexico. Information from focus groups can inform the goals of the TWMP and help steer the future management of species of concern on the reservation. The NARA student will also have the opportunity, if desired, to conduct field work on the reservation as prioritized by the Department of Resource Management and Protection (DRMP). All fieldwork duties would be in support of adding information and baseline data to the TWMP.

**Location:** **REMOTE** - with in-person field work as an option if desired by the student

**Duration:** May 2024 – August 2024 – with flexibility

**Housing:** If the research assistant chooses to do participate in fieldwork, affordable housing is available and will be secured or reserved by the hosting office or independently. In either case, the student would pay for their housing.

### **Required Skills:**

Educational Background: Wildlife Management, Ecology, Forestry, Natural Resource Management and/or Environmental Science/Studies is preferred.

Technical Skill Competencies: Basic knowledge of Microsoft Office is required. General competency using Excel, GIS, and GPS units as well as hard copy maps and communication radios for field work is ideal. Use of literature search engines is preferred.

Communication Skill Competencies: Ability to convey knowledge and information both through oral and written format regarding project purpose, goals, objectives, and recommendations.

Physical Demands: The most challenging aspects of the field work may include topography, altitude, climate, temperature, hiking with heavy backpacks/gear, and daily schedules. Most importantly the student must be able to hike long distances in steep, rugged terrain in adverse weather conditions at high elevations (7,000-9,000 ft) if they are interested in the field components. There is absolutely no exception to lacking the physical ability to hike in rugged terrain. This is equivalent to passing a pack or Work Capacity Test (WCT) required for USFS wildland firefighters.