



**Native American Research Assistantship
USFS / USGS Natural Resource Partnership with
The Wildlife Society's Native American
Professional Development Program:**

Student Application Instructions

Applications due by January 15, 2023



The Wildlife Society (TWS), a professional non-profit organization for the wildlife biology profession, is actively engaged in supporting Native students who aim to become professional wildlife managers, biologists, scientists, and policy makers. Building on a long history of collaboration with USDA Forest Service Research and Development (USFS R&D), the Native American Research Assistantship Program will be expanded for FY2023 to include placement of Native American students at both USFS and the U.S. Geological Survey (USGS).

USFS R&D and USGS are committed to enhancing the diversity of ethnic backgrounds within the community of natural resource professionals. We are particularly keen to integrate and recruit Native American scholars and early career scientists since we recognize that Indigenous Traditional Ecological Knowledge (ITEK) and expertise held by Tribes and Native communities can be braided with western science and other scientific approaches to sustain and restore ecosystems.

USFS R&D and USGS, through partnership with TWS, are offering research assistantships for Native undergraduate or graduate students. The program will facilitate student mentoring opportunities with U.S. federal agency scientists and promote student advancement and training for careers in natural resource and conservation-related fields. A paid stipend of at least \$6,000 will be provided to participating students. Additional funding may be available to assist with housing costs and professional development experiences, as available.

Description

Short-term research assistantships are available for Native students interested in wildlife, forest, and natural resources and excited to learn and work with an interdisciplinary team of researchers. We are seeking upper-level undergraduate (junior/senior) or graduate (M.S. or Ph.D.) students interested in conducting research in one of the following areas. Only a limited number of projects will be funded and are dependent on a suitable student/mentor match.

Projects with USDA Forest Service Research and Development

1. Assessing Ramps (*Allium tricoccum*) Harvesting to Support Cherokee Food Sovereignty

Project Objectives:

- To collaboratively ensure the sustainable supply of native forest plants that are gathered by Tribes, inform National Forest management, center Cherokee knowledge and plant stewardship in management, and provide robust models of Tribal-federal engagement
- To understand how different harvest treatments and intensities impact ramps populations
- To understand trends in ramp population density over time with respect to landscape factors, harvesting pressure, and climate trends

Location, Estimated Duration, and Housing:

- Western North Carolina
- The assistantship will last for approximately 12 weeks within March – August, 2023
- Affordable and local housing is available, and will be secured or reserved by the hosting office. Student must pay for their own housing. Student will be able to work with project leader to identify available options.

Required Skills:

- **Educational Background:** The ideal candidate will have a background in Biology, Environmental Conservation, Forestry, Native American or Indigenous Studies.
- **Technical Skill Competencies:** Familiarity with botanical or ecological field methods is preferred. Basic ability with data entry and management in Microsoft Excel is preferred.
- **Communication Skill Competencies:** The ideal candidate will be a clear communicator and able to work in a group.
- **Physical Demands:** Field work may consist of long days, up to 10 hours, and includes traversing variable distances of up to several miles over sometimes steep topography to access study sites.

2. Bat Diversity Along the Klamath River Before and During Dam Removal

Project Objectives:

- To quantify the diversity and activity of bat species along the Klamath River in northern California before and during dam removal that is scheduled for some time in 2023
- To provide education and research opportunities for students

Location, Estimated Duration, and Housing:

- Klamath River, Humboldt County, California
- The assistantship will last for approximately 12 weeks within June – August, 2023
- Affordable and local housing is available and will need to be secured and paid for by the student with assistance by the Forest Service.

Required Skills:

- **Educational Background:** Progress towards a degree in Wildlife Management, Conservation, Ecology or Biology
- **Technical Skill Competencies:** Basic competency with electronics and troubleshooting. Basic computer competency: additional skills will be learned during the project.
- **Communication Skill Competencies:** Ability to communicate orally in writing to a variety of project partners ranging from tribal and private landowners, to agency personnel to academic audiences. The student may be asked to make group presentations to groups of various size and interest levels.
- **Physical Demands:** Physical challenges are limited to hiking short distances (< 0.5 mile) to deployment sites. Hiking may be over rocky and uneven terrain. Field visits may occur during extreme heat and during windy or rainy conditions. Data analysis will require the ability to visualize spectrograms on a computer screen.

3. Bison Grazing and Grassland Birds: Evaluating Prairie Restoration on Midewin National Tallgrass Prairie**Project Objectives:**

- Determine how bison grazing improves the diversity of native vegetation during the restoration of prairie ecosystems
- Determine how grassland birds respond to bison grazing during prairie restoration
- Design and implement a grazing management program for prairie restoration and management that promotes desired conditions for grassland bird habitat
- Provide training opportunities for students

Location, Estimated Duration, and Housing:

- Midewin National Tallgrass Prairie
- The assistantship will last for approximately 12 weeks within May – August, 2023
- The Forest Service will provide shared local housing (with other field technicians and graduate students working on the project) at no cost to the student

Required Skills:

- **Educational Background:** Wildlife biology, ecology, environmental science
- **Technical Skill Competencies:** Attention to detail, strong observational skills, familiarity with excel, interest and experience in birds and wildlife monitoring a plus

- **Communication Skill Competencies:** Ability to communicate clearly with all team members. Strong written (report) and oral (poster presentation) communication skills
- **Physical Demands:** It is expected the student will work 40 hours per week with pre-dawn starts, sometimes in hot and humid conditions and over uneven terrain

Projects with U.S. Geological Survey

1. Hyperspectral Identification of Harmful Algal Blooms in the Klamath Basin and Beyond

Project Objectives:

- Draft and test a validation protocol for field spectrometers
- Develop methods to organize, visualize, and release hyperspectral data
- Analyze hyperspectral data

Location, Estimated Duration, and Housing:

- Virtual assistantship with possible opportunities for field work in the Upper Klamath Lake area (Oregon)
- Students located near the National Institute of Standards and Technology campus in Gaithersburg, Maryland may be able to participate in lab work
- The assistantship will last for approximately 12 weeks within May – August, 2023
- No housing will be required for the virtual desk work of this project. Should there be an opportunity and need for field work, hotel accommodations will be provided

Required Skills:

- **Educational Background:** General science/biology or geography. Remote sensing knowledge preferred.
- **Technical Skill Competencies:** Basic computer skills (e.g., Excel, Word, PowerPoint, etc.). Ability to operate in a virtual environment using platforms, such as Teams. Ability to work with larger data sets preferred.
- **Communication Skill Competencies:** Ability to operate in a virtual environment using platforms, such as Teams. Ability to compose emails that detail questions, answers, and required information.
- **Physical Demands:** Do not anticipate any mandatory field work. Student should expect to complete work assigned at a computer for prolonged periods of time.

2. Identifying the Potential Socio-Economic Effects of Chronic Wasting Disease (CWD) on Native Americans

Project Objectives:

- Identify the socio-economic impact categories of CWD on tribal communities

- Develop a research prospectus to quantify those impacts in collaboration with one or more Tribal communities

Location, Estimated Duration, and Housing:

- Virtual assistantship
- The assistantship will last for approximately 12 weeks within June – August, 2023
- No housing will be required for the virtual desk work of this project
- Students whose tribes have cultural and/or spiritual connections to cervids susceptible to CWD (deer, elk, moose, etc.) are especially encouraged to apply

Required Skills:

- **Educational Background:** Natural resources, environmental science, wildlife biology, ecology, or related discipline
- **Technical Skill Competencies:** Familiarity with standard computer programs, such as Microsoft Office suite (Word, Excel, PowerPoint)
- **Communication Skill Competencies:** Student should be comfortable speaking with Tribal members and biologists and delivering presentations (individually or with project leader). Student should also be willing to work with the project leader to draft a USGS report or peer reviewed journal article about research findings.
- **Physical Demands:** Student should expect to complete work assigned at a computer for prolonged periods of time

3. Tribal Data-Network Infrastructure Plan –transfer of US Geological Technology to Tribal Nations

Project Objectives:

- Operation and maintenance of USGS long-term water data networks, including groundwater-monitoring wells, streamgages, tide-elevation gages, and water-quality stations
- Understand natural variability in water resources on Tribal lands to identify and/or predict the effects of natural and human induced changes, including climate change and pollutants
- Supports the sovereignty of Native nations by training the student to provide Tribal Government Leaders with the information they need to protect their water resources and make informed water-resource decisions in light of current conditions and for future generations

Location, Estimated Duration, and Housing:

- Onondaga Nation (New York), Shinnecock Nation (New York), and Mashpee Wampanoag Tribe (Massachusetts)
- The assistantship will last for approximately 12 weeks within March – August, 2023

- Local housing is provided by the hosting office at no cost to the student. Student will likely stay in hotels located on Cape Cod, near Central Massachusetts, Long Island, NY, Western New York, and near Troy, NY

Required Skills:

- **Educational Background:** Earth and Environmental Science, Engineering, Electronics, Carpentry
- **Technical Skill Competencies:** Familiarity with standard computer programs, such as Microsoft Office suite (Word, Excel, PowerPoint)
- **Communication Skill Competencies:** Experience with technical writing preferred
- **Physical Demands:** Students can expect to carry heavy objects and traverse uneven surfaces. Student should also expect to complete work assigned at a computer for prolonged periods of time.

Expectations:

Applicants will participate in virtually or in-person in laboratory or field data collection, data entry, and analysis as it relates to natural resources and/or wildlife ecology and management.

During the research assistantship, students will 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 at scientific meetings along with federal scientists (dependent on travel funding). Students and scientists will weave ITEK and expertise held by Tribes and Native communities and western science to sustain and restore ecosystems.

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. The selected students will be given a brief orientation to The Wildlife Society, USDA Forest Service, and U.S. Geological Survey prior to the start of the assistantship.

Applicants will be expected to work independently and as part of a research team. Some travel may be expected for the project.

Qualifications:

Applicants are intended to be a member of an American Indian or Alaska Native tribe, First Nations, or a Native Hawaiian or Pacific Islander, or have another indigenous identification. Preference will be given to students currently enrolled in an undergraduate or graduate program from an accredited academic institution, but recent graduates will also be considered. A bachelor's or master's degree in wildlife biology, ecology, forestry or other closely related natural resource discipline is preferred. Students with associate's degrees from tribal colleges or universities or other community colleges are also eligible.

The ideal candidate will have strong verbal and written communication skills with demonstrated capabilities in science writing, ability to work both independently and as a productive member of a research team, and an ability to work under adverse field conditions (possible extreme weather, difficult terrain, venomous snakes and biting/stinging insects). Submission of a writing sample is optional.

Students with a GPA above 3.0 are preferred, and students with a minimum 2.5 GPA will be considered.

Current membership with The Wildlife Society is not required; however, please note if you are a current TWS member.

Additional Information:

The appointment is for 3 months within the 2023 calendar year. Starting dates are negotiable within the context of the seasonality of the research topics. Support includes a living stipend (subject to adjustment depending on housing situation). Provided housing is not guaranteed, but may be available in the area, offered at USFS R&D or USGS facilities, or rented in local towns, dependent on project. See the project descriptions for more timing, location, and housing information.

Coverage under a medical insurance plan is required and the responsibility of the applicant. Transportation and relocation to and from the project location will not be paid. Taxes and other federal, state/provincial, and local deductions are the responsibility of the applicant.

Application Procedure

All application materials must be received at jblake@wildlife.org by **JANUARY 15, 2023**.

To apply, please submit:

- A cover letter indicating to which research project you are applying. Please list all of your research project preferences in the order of most to least interested.
 - Please indicate your interest in participating in a virtual versus in-person assistantship.
- Resume/CV
- Academic transcripts (official or unofficial transcripts will be accepted)
- Documentation of Native ethnicity (e.g. tribal member enrollment)
- Two letters of recommendation

Application packages can be emailed as a single PDF to Jamila Blake, TWS Professional Development and Inclusion Manager, at jblake@wildlife.org.

Applicants can expect to receive a decision by March 2023.

If you have any questions about the application process or the assistantship program, please contact Jamila Blake at jblake@wildlife.org or 301-897-9770 x307.