Opportunity Title: USFS Research Fellowship to Promote Tribal Values in Lands with High Wildfire Risk
Opportunity Reference Code: USDA-USFS-2022-0007

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-USFS-2022-0007

How to Apply ***Connect with ORISE...on the GO!*** Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application package consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate must provide proof of completion of the degree before the appointment can start. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV
- Two educational or professional recommendations. At least one recommendation must be submitted in order for the mentor to view your application.

All documents must be in English or include an official English translation.

Application Deadline 11/29/2021 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.***

USFS Office/Lab and Location: A research opportunity is available with the US Forest Service (USFS) located in Asheville, North Carolina. Due to current facility restrictions, this opportunity may begin remotely. If the candidate lives within a radius of 120 miles from Asheville, they may conduct their entire appointment remotely. However, if restrictions are lifted, the participant will be required to participate in periodic in-person activities in Asheville and Cherokee, NC.

Research Project: American chestnut restoration efforts are typically promoted as a public good. However, approaches may not align with the diverse worldviews and priorities of Tribes and tribal organizations throughout chestnut's range. Tribal priorities and traditional ecological knowledge of American chestnut should be considered in future restoration efforts of this species. To date, tribal consultation, partnership, and input has been largely absent from chestnut restoration efforts. Within the southern extent of chestnut's range, the Eastern Band of Cherokee Indians (EBCI) has expressed initial interest in establishing an experimental chestnut orchard on tribal lands. This project will enhance understanding of past and present relations between Indigenous peoples and American Chestnut and assist the Eastern Band of Cherokee Indians in their future decision making or prioritization on American chestnut restoration on Tribal and adjoining public lands.

The American chestnut (Castanea dentata) was a keystone species across much of its former 200 million acre range in eastern North America until it was decimated by two non-native pathogens: root rot caused by

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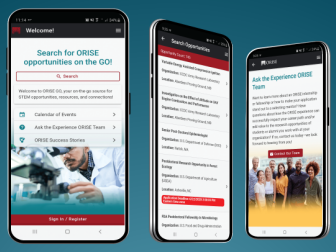
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Phytophthora cinnamomi and chestnut blight disease caused by Cryphonectria parasitica. American chestnut restoration efforts are typically promoted as a public good. However, approaches may not align with the worldviews and priorities of Tribes and tribal organizations throughout chestnut's range. Yet, Tribes will likely be affected by chestnut restoration. Such possibilities impact tribal sovereignty and decision-making ability. To date, tribal consultation, partnership, and input has been largely absent from chestnut restoration efforts.

Tribal priorities and traditional ecological knowledge of American chestnut should be considered in future restoration efforts of this species. The reciprocally beneficial relationship between humans and the tree remain important to many Tribes. Tribal relations with chestnut are dynamic, and ongoing, though they have been impacted by a multitude of factors over time. While much knowledge is held within communities, relatively little published information exists regarding tribal relationships (historical or contemporary), and knowledge of American chestnut. Six ethnobotanical sources published between 1910 and 1977 ascribe a variety of medicinal and nutritional uses of American chestnut to Cherokee, Haudenosaunee and Monhegan peoples (Moerman 1999). Yet, these sources are usually brief and lacking cultural context. With the exception of one publication (Hamel and Chiltoskey, 1975), they are not written from a Tribal perspective.

Perspectives on chestnut restoration strategies vary within and between Tribes. Within the southern extent of chestnut's range, the Eastern Band of Cherokee Indians (EBCI) has expressed initial interest in establishing an experimental chestnut orchard on tribal lands. Yet, the diverse worldviews and knowledge around American chestnut restoration within the EBCI community needs to be included as strategies are developed. Tribal priorities around the benefits of chestnut reintroduction may differ from other actors. For instance, the ECBI (and possibly other Tribes) place more importance in restoring chestnut as a food source, for both humans and wildlife, as opposed to timber values. Therefore, a Cherokee perspective may favor breeding or genetic selection for tree characteristics (e.g., heavy mast production, high nutritional quality of nuts, or increased crown area) that differ from current breeding or genetic program priorities (e.g., 'timber form' trees with fast growth and straight form with limited branching).

Learning Objectives: The fellow will gain experience:

- Conducting literature reviews, including documenting and synthesizing changes and gaps in knowledge in the historical uses, cultural significance, and cultural viewpoints from Tribes and tribal organizations within the former range of the American chestnut.
- Documenting, synthesizing, and analyzing current perspectives, knowledge, and viewpoints around chestnut within the Eastern Band of Cherokee Indians
- Facilitating dialogue with the Eastern Band of Cherokee Indians, and building interpersonal skills

- Building capacity for a broader regional outreach to Tribes and tribal organizations in the Southeastern United States on current and potential future interest and priorities of American chestnut restoration.

Mentor: The mentor for this opportunity is Michelle Baumflek (michelle.baumflek@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: January 2022. Start date is flexible.

Appointment Length: The appointment will initially be for one year, but may be extended for an additional year upon recommendation of USFS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR) only.

Questions: Please visit our Program Website. After reading, if you have additional questions about the application process please email USForestService@orise.orau.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a master's degree in one of the relevant fields, or be currently pursuing the degree with completion by May 31, 2022. Degree must have been received within the past five years.

Preferred skills:

- Ability to work collaboratively as well as independently
- Interest or experience with: Indigenous knowledge, ethnobotany, participatory and Indigenous research methodologies, or American Chestnut
- Knowledge of literature databases (E.g. ProQuest, Google Scholar, EndNote) and/or archival research protocols, sources, and catalogues
- Excellent oral and written communication skills, including an ability to bring people together
- Familiarity engaging with Tribal communities
- Familiarity with engaging people and communities through workshops, surveys, interviews, or similar approaches.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and USFS. Participants do not become employees of USDA, USFS, DOE or the program administrator, and there are no employment-related benefits. Proof of

health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree.
- **Discipline(s):**
  - **Earth and Geosciences** (1 👁)
  - **Environmental and Marine Sciences** (7 👁)
  - **Life Health and Medical Sciences** (7 👁)
  - **Other Non-Science & Engineering** (2 👁)
  - **Social and Behavioral Sciences** (7 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).