

Opportunity Title: USDA-FS Identifying Historical Forest Conditions to Inform Restoration Treatments in the Colorado Front Range

Opportunity Reference Code: USDA-FS-RMRS-2024-0319

Organization U.S. Department of Agriculture (USDA)

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How to Apply *To submit your application, scroll to the bottom of this opportunity and click **APPLY**.*

A complete application 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. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- 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.

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Application Deadline 11/8/2024 3:00:00 PM Eastern Time Zone

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

USDA Forest Service Office/Lab and Location: A fellowship opportunity is available with the US Department of Agriculture (USDA) Forest Service (FS) within the Rocky Mountain Research Station (RMRS) located in Fort Collins, Colorado.

At the heart of the USDA Forest Service's mission is their purpose. Everything they do is intended to help sustain forests and grasslands for present and future generations. Why? Because their stewardship work supports nature in sustaining life. This is the purpose that drives the agency's mission and motivates their work across the agency. It's been there from the agency's very beginning, and it still drives them. To advance the mission and serve their purpose, the USDA Forest Service balances the short and long-term needs of people and nature by: working in collaboration with communities and our partners; providing access to resources and experiences that promote economic, ecological, and social vitality; connecting people to the land and one another; and delivering world-class science, technology and land management.

Research Project: In the last two decades, many thousands of hectares of overly dense and homogenous dry conifer forest have been treated to restore more ecologically appropriate forest structural conditions and reduce the risk of uncharacteristically severe wildfires. However, many thousands more still need to be treated. Historical forest structure

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information can inform the design and implementation of such treatments by providing insight into the structural conditions that had been created and maintained by wildfire in the past. In addition, insight into how historical forest structure was shaped by environmental conditions such as aspect, elevation, and soil type can allow for the tailoring of treatments to reduce “one-size-fits-all” approaches.

The ORISE fellow will have the opportunity to participate on an interdisciplinary team of researchers and managers who are engaged on an ongoing [a dendrochronologically-based historical forest structure project](#) in the Colorado Front Range. The fellow will contribute to the team by participating in the full research cycle, including the refinement of research objectives; data management, analysis, visualization, and interpretation; and dissemination of results via presentations and peer-reviewed and technical forestry publications.

Learning Objectives:

- Advance knowledge and scientific skills relevant to the ecology and management of western US dry conifer forests.
- Develop leadership skills by helping an interdisciplinary researcher-manager team refine and implement research objectives and approaches.
- Strengthen and apply techniques used for forestry data management, analysis, visualization, interpretation, and archival.
- Enhance science communication skills and experience by delivering presentations and drafting peer-reviewed and technical forestry publications.

Mentor: The mentor for this opportunity is Paula Fornwalt (paula.fornwalt@usda.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: January 1, 2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for two years and six months, but may be extended upon recommendation of USDA Forest Service 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. **The stipend is \$70,000 to \$80,000/year, commensurate with experience.** A health insurance and a travel and supplies allowance will also be included.

Citizenship Requirements: This opportunity is available to U.S. citizens only.

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

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through an interagency agreement between DOE and USDA Forest Service. Participants do not become employees of USDA, USDA Forest Service, 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.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email ORISE.USFS.RMRS@orau.org and include the reference code for this opportunity.

Qualifications The fellow will need to have received a doctoral degree in a natural resources field (preferably forestry, natural resources, plant sciences, ecology, environmental sciences, biology, or related) within the past five years, or currently be pursuing the degree to be received no later than June 30, 2025.

Preferred skills:

- Ability and desire to conduct research independently and as part of an interdisciplinary researcher-manager team.
- Strong interest in the ecology and management of US forest ecosystems.
- Experience conducting natural resources research; familiarity with dendrochronological techniques ideal.
- Strong analytical skills and demonstrated experience managing, analyzing, and visualizing large natural resources data sets with statistical programs such as R and geospatial programs such as ArcGIS Pro.
- Strong writing and presenting skills and demonstrated experience lead-authoring peer-reviewed natural resources publications and delivering presentations.
- Ability to prioritize multiple activities within project deadlines.

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 6/30/2025 12:00:00 AM.
 - **Discipline(s):**
 - **Earth and Geosciences** ([1](#))
 - **Environmental and Marine Sciences** ([12](#))
 - **Life Health and Medical Sciences** ([13](#))
 - **Mathematics and Statistics** ([1](#))
 - **Social and Behavioral Sciences** ([1](#))