

Opportunity Title: USDA-FS Fellowship for Mature and Old-growth Forest Carbon

Resilience to Disturbance

Opportunity Reference Code: USDA-FS-SRS-2024-0313

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-FS-SRS-2024-0313

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 Forest Service Southern Research Station (SRS) located in Knoxville Tennessee, **but may be remote.** 

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.

The Southern Research Station represents FS R&D in the states of the southeastern US. This region spans a range of forest ecosystems from the coastal plains and bottomland forests to the uplands and mountains of the Southern Appalachians and contains the highest biodiversity in the continental US. The station's research priorities include restoration, forest



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health, fire, water, and markets as well as forest genetics and effects of climate change.

For more information, see our

website: https://www.fs.usda.gov/research/srs

**Research Project:** The fellow will engage with SRS scientists to conduct research, and to synthesize and communicate results related to mature and old-growth forests, forest carbon sequestration, and how they are affected by forest disturbances. This research is a priority of USDA and the Forest Service, and the fellow will have the opportunity to make contributions in a developing scientific area.

The fellow will engage with Forest Service staff to:

- Develop and analyze forest structure data from the National Ecological Observatory Network (NEON) and the national Forest Inventory and Analysis (FIA) program to assess forest membership in mature or oldgrowth forest categories and measure change over time.
- Engage with Forest Service scientists to quantify relationships between forest inventory measures of forest structure and change to remotely sensed measures of forest disturbance from satellites and airborne sensors and/or to eddy-flux measurements of carbon sequestration.
- Conduct research related to the sensitivity of mature and old-growth forest structure and carbon dynamics to disturbances in forest systems.
- Synthesize research results into written manuscripts and presentations for publication and communication to diverse audiences.

## **Learning Objectives:**

- Learn about the science of mature and old-growth forests, their structural definitions, forest carbon and natural resource management issues in disturbed forest across the US at forested NEON sites, and methods to conduct the full cycle of scientific research.
- Gain first-hand knowledge of Forest Service Research & Development science, National Forest System management, and other USDA agencies.
- The participant will have the opportunity to interact with scientists in
  Forest Service research stations, and managers in the National Forest
  System and other land management agencies and entities. The
  participant may explore options for future job or educational
  opportunities and take advantage of additional training opportunities.
  There will be opportunities for professional development, including
  training and travel.

**Mentor:** The mentor for this opportunity is Jane Foster (<u>Jane.Foster@usda.gov</u>). If you have questions about the nature of the research, please contact the mentor.

**Anticipated Appointment Start Date: October 1, 2024.** Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year through

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September 2025 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, experience and based on location within the range of \$69,000 - \$82,000 per year.

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR) 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 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 employmentrelated 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.SRS@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a master's or doctoral degree in one of the relevant fields. Degree must have been received within the past five years or is currently pursuing.

## Preferred skills:

- Experience applying scientific analyses and results to resource management issues
- · Extensive knowledge related to forest structure, carbon storage and disturbances
- · Familiarity with forest inventory data and working with data using code
- Ability to write clearly and effectively for technical and non-technical audiences

## Eligibility Requirements

- Citizenship: LPR or U.S. Citizen
- Degree: Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- · Discipline(s):
  - Computer, Information, and Data Sciences (1.4)
  - Earth and Geosciences (4.●)
  - Environmental and Marine Sciences (7 )
  - Life Health and Medical Sciences (12 )
  - Social and Behavioral Sciences (1.

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