Opportunity Title: USDA-FS Quantitative Landscape Ecology Research Fellowship
Opportunity Reference Code: USDA-FS-PNWRS-2025-0078

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-FS-PNWRS-2025-0078

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 9/26/2025 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 Pacific Northwest Research Station (PNWRS) located in Wenatchee, Washington.

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: This project will evaluate smoke emissions over a broad range of fuel, fuel moisture, and meteorological conditions and prescribed, cultural, and wildfire burn events. Using available software platforms, smoke emission factors and total smoke production by factor will be

accounted for and differenced for the range of burn conditions as above. This research will involve a collaborative process with Okanogan-Wenatchee National Forests and create geospatial tools for wildfire, prescribed burning, and cultural burning related smoke trade-off analyses and quantitative forest landscape restoration and decision support. Results and findings will be submitted to one or more leading peer-reviewed journals, and presentations will be provided to Okanogan-Wenatchee National Forest and other partners, along with the databases we create. The geospatial smoke tradeoffs dataset can then be used in project planning.

Learning Objectives: The fellow will develop professionally while engaging in research-operational partnerships and learning about systems involving forest fuels and fire emissions modeling. They will gain experience with modeling, coding, and database management in support of a complex, multi-model ecological forecasting workflow. The fellow will gain valuable experience in advanced model development, calibration, and synthesis of the forest succession, fire severity, and climate change components of this workflow. The fellow will collaborate at the USDA Forest Service, Okanogan-Wenatchee National Forest and will have the opportunity to improve professional collaboration and communication skills.

Mentor: The mentors for this opportunity are Brion Salter (robert.salter@usda.gov) and Dr. Paul Hessburg (paul.hessburg@usda.gov). If you have questions about the nature of the research, please contact the mentors.

Anticipated Appointment Start Date: As soon as possible, however onboarding may not start until September. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year 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 anticipated stipend is $60,000.00 – $75,000.00 Yearly.**

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 employment-related benefits. Proof of health insurance is required for participation in

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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.PNWRS@orau.org 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 (forest ecology, landscape ecology, fire ecology, or related discipline). Degree must have been received within the past five years.

Preferred skills:

Experience with ecological modeling, spatial analysis and statistics, ArcGIS Pro software, Python and R coding.

Stipend

$60,000.00 – $75,000.00 Yearly

Point of Contact

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Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (1 👁)
  - **Earth and Geosciences** (1 👁)
  - **Environmental and Marine Sciences** (6 👁)
  - **Life Health and Medical Sciences** (2 👁)
  - **Mathematics and Statistics** (1 👁)