

**Opportunity Title:** USFS Fellowship in Silviculture and Applied Forest Ecology  
**Opportunity Reference Code:** USDA-USFS-2021-0214

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-USFS-2021-0214

**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. All transcripts must be in English or include an official English translation. Click [Here](#) for detailed information about acceptable transcripts.
- A current resume/CV
- Two educational or professional recommendations. Applications need at least one recommendation submitted in order to be viewed by the mentor.

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

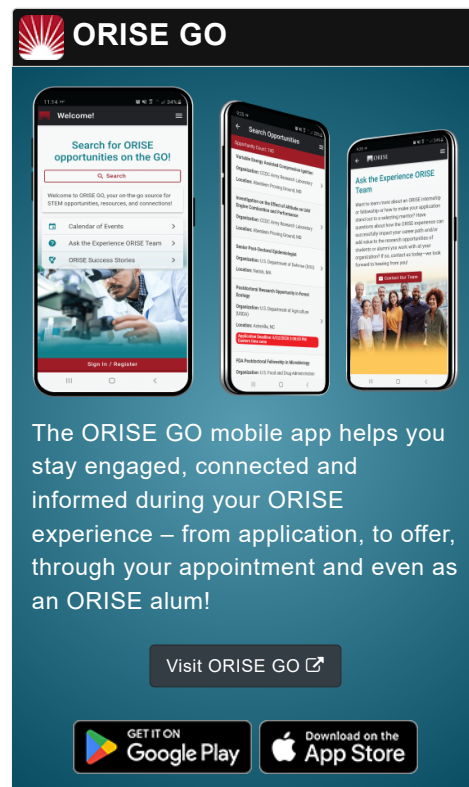
**Description** *\*Applications will be reviewed on a rolling-basis, and the opportunity will remain open until filled.*

**USFS Office/Lab and Location:** A research opportunity is available with the U.S. Forest Service (USFS), Pacific Southwest Research Station (PSW) located in Davis, California or Redding, California

**Research Project:** The USDA Forest Service's Pacific Southwest Research Station (PSW) is seeking a post-Master's Fellow with knowledge of silviculture and applied forest ecology to join a team researching strategies to improve the post-fire reforestation and overall sustainability of California forests. The project will synthesize new and previously collected data from PSW's long-term experimental plots to provide updated scientific guidance for managing forests threatened by climate change. Long-term study results will be translated into Forest Vegetation Simulator (FVS) tools to aid managers in planning and monitoring silvicultural treatments. The project will evaluate: 1) the benefits and tradeoffs of competing vegetation control and fertilization for reforestation; 2) the influence of tree-species diversity on mixed-conifer forest resistance and resilience to drought, bark beetles, and wildfire--and thus climate-change-critical carbon sequestration and storage; and 3) the comparative effects of three experimental harvesting techniques on forest structural heterogeneity, fire risk, and resilience to disturbance.

#### **Learning Objectives:**

- Enhance collaborative skills by working as a member of a scientific team to better understand how silvicultural treatments and tree-species diversity affect western forest resilience under a changing climate
- Grow expertise in conducting statistical and spatial analysis of large, long-term experimental datasets using R and GIS



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- Become proficient in translating quantitative scientific results into the FVS, Climate-FVS, and FVS-Fire and Fuels Extension modeling tools routinely used by forest managers
- Refine natural resource information-sharing capabilities by collaborating on the preparation of scholarly manuscripts, as well as on presentations for meetings, webinars, and field tours
- Become familiar with techniques used for specialized data collection, planning and conducting forest monitoring, and establishing new planting studies

**Mentor:** The mentor for this opportunity is Christopher Looney ([Christopher.looney@usda.gov](mailto:Christopher.looney@usda.gov)). If you have questions about the nature of the research please contact the mentor.

**Anticipated Appointment Start Date:** As soon as a qualified candidate is identified. Start date is flexible and negotiable, and will depend on a variety of factors.

**Appointment Length:** The appointment will initially be for 2.5 years, but may be extended 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. The annual stipend will range from \$58,235-\$68,980, and will include a health insurance supplement and a travel/supplies allowance. A computer will be provided.

**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 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.

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

## Qualifications

The qualified candidate should have received a master's degree or doctoral degree in Forestry, Natural Resources, Ecology, or a related field.

Candidates must have a valid driver's license.




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Preferred skills:

- Understanding of silvicultural practices and research experience in forest or woodland ecosystems
- Demonstrated skill in statistical analysis of ecological datasets and data management
- Evidence of scientific and technical writing for peer-reviewed publication
- Experience presenting on natural resource topics
- Ability to perform both independently and as part of a team
- Familiarity with FVS or fire modeling is desirable, as is basic knowledge of climate science as it applies to forest ecosystems

**Eligibility  
Requirements**

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree or Doctoral Degree.
- **Discipline(s):**
  - **Environmental and Marine Sciences** (7 )
  - **Life Health and Medical Sciences** (8 )
  - **Social and Behavioral Sciences** (2 )