Opportunity Title: USFS Fellowship in Management of Northwest Forests & Rangelands
Opportunity Reference Code: USDA-USFS-2021-0139

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-USFS-2021-0139
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.

Application Deadline	6/14/2021 3:00:00 PM Eastern Time Zone
Description	***Applications will be reviewed on a rolling-basis. Early submissions are encouraged, as a selection could be made before the deadline.**

USFS Office/Lab and Location: A research opportunity is available with US Forest Service (USFS), Pacific Northwest Research Station (PNWRS), Fire and Environmental Applications Team (FERA) located in Corvallis, Oregon.

At the heart of the U.S. 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 U.S. 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: The fellow will have the opportunity to participate in several research projects with scientists and to author or co-author scientific papers and present results at scientific conferences. Projects may include: 1) invasive species
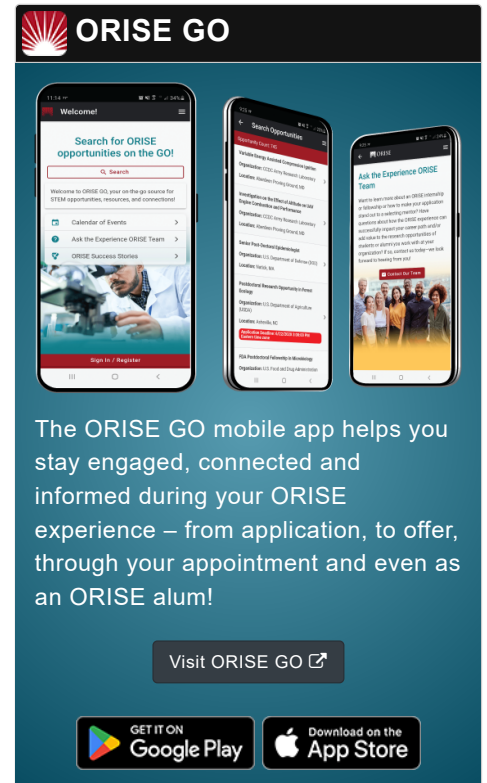
distribution modeling, 2) invasive grass mapping efforts using phenology and other remotely sensed information, 3) community vegetation statistical and multivariate data analysis, and 4) wildfire risk modeling using the large fire simulator FSim. There may also be opportunities for field work pending funding and pandemic travel restrictions.

Learning Objectives: Under the guidance of mentors in PNWRS and Oregon State University, the participant will collaborate with and learn from a team of scientists and managers. Training will include: planning and conducting research, collecting data, analyzing data (including spatial data in GIS), modeling, mapping, conducting spatial analysis, reporting research results, and writing publications.

Mentor: The mentor for this opportunity is Becky Kerns (becky.kerns@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: July 6, 2021. Start date is flexible and negotiable, 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 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, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the Guidelines for Non-U.S. Citizens Details page of the program website for information about the valid immigration statuses that are acceptable for program participation.

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 and include the reference code for this opportunity.

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Qualifications

The qualified candidate should be currently pursuing or have received a doctoral degree in a field related to weed, forest, or range ecology, fire/disturbance/forest ecology, landscape ecology, or biometrics, preferably using remote sensing and modeling to explore landscape scale issues.

Preferred skills:

- Knowledge and interest in rangeland and vegetation ecology, remote sensing, mapping and modeling
- Strong basic analytical and technical skills
- Modeling experience, preferably species distribution modeling, SDMs (e.g., Mahalanobis distance, ENFA, MaxEnt, boosted regression trees, pseudo-absence generation and probability-based modeling), vegetation modeling and vegetation detection
- Application of remote sensing/image processing, especially related to invasive plans, plant phenology, mapping and methods of detection: e.g. photogrammetry, satellite imagery (Landsat, Modis), hyperspectral imagery, LIDAR processing
- Extensive experience and skill with GIS software – all popular software packages, including ESRI (ArcGIS)
- Experience with Google Earth Engine (GEE) and programming within GEE
- Experience or familiarity with fire risk modeling using stochastic or conditional simulation models: FSim, FLAMMAP, FCONST, etc.
- Field experience, methods, and botanical expertise highly desired: plant identification skills, vegetation sampling methods, rangeland monitoring, plot layout
- Familiarity with running statistical models and coding in statistics (R experience preferred)
- Demonstrated proficiency in communications and writing, including peer-reviewed publications

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Earth and Geosciences** (1 👁)
  - **Environmental and Marine Sciences** (3 👁)
  - **Life Health and Medical Sciences** (3 👁)