Opportunity Title: Postdoctoral Research Opportunity in Landscape Ecological Forest Dynamics
Opportunity Reference Code: USDA-USFS-2020-0074

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-USFS-2020-0074
How to Apply	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. Proof must be sent to ORISE directly from the academic institution including graduation date and degree awarded. 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

If you have questions, send an email to USForestService@orise.orau.gov. Please include the reference code for this opportunity in your email.

Application Deadline	4/22/2020 3:00:00 PM Eastern Time Zone
Description	*Applications will be reviewed on a rolling-basis.*

A postdoctoral research opportunity is available with US Forest Service (USFS), Southern Research Station located in Asheville, North Carolina.

Changing forest ecological conditions and dynamics, and attendant changes in the sustainability of forest resources, occur within a broader context of varying land uses and environmental change. This context influences forest change and constrains the potential for success of various forest management and restoration strategies. Our broad goal is to provide management-relevant understanding of interactions among landscape context, forest dynamics, and forest resource sustainability across the southeastern US. Specific project objectives are guided by a co-development framework in collaboration with regional and state partners. The research participant is an integral part of that framework.
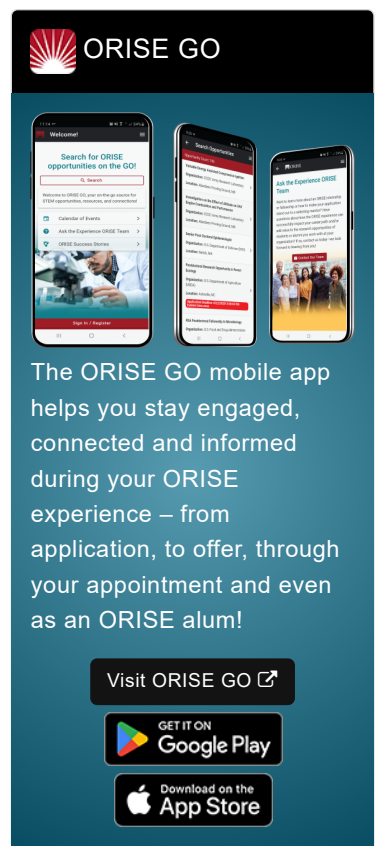
The participant will interact in a team environment with research collaborators and with forest management professionals to plan, perform and communicate strongly applied landscape ecological analyses of forest dynamics. Research includes integrating and analyzing large spatial and temporal datasets including remote sensing-based and field-based data. Science communication/transfer includes both peer-reviewed publication and engaging land management partners around project findings and data products. The participant will have access to a very rich collection of landscape and forest composition, structure, disturbance, and phenology data, and will collaborate with a team of experts in these datasets.

Learning objectives of this appointment include:

- Gain first-hand experience conducting cutting-edge research within a federal agency
- Develop skill in interacting with agency partners to develop applied science to meet complex natural resource management and conservation needs
- Develop analytical skills in a 'big data' framework, with challenges such as harmonizing disparate data types, complex spatiotemporal sampling designs, and computational intensity with large data sets

- Develop science writing and communication skills in a variety of contexts

This research opportunity is situated within the Eastern Forest Environmental Threat Assessment Center (EFETAC), a dynamic research unit of the US Forest Service's Southern Research Station. EFETAC scientists engage in diverse ecology research with broad objectives including: evaluating the effects and consequences of multiple interacting stresses (e.g., climate change, invasive species, wildland fire) on forest health; increasing knowledge of the risks, uncertainties, and/or benefits of multiple stresses on ecological conditions and socioeconomic values; and providing science-based decision support tools for policy formulation and land management.

Anticipated Appointment Start Date: Spring/Summer 2020

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 the U.S. Forest Service (USFS). The initial appointment is for one year, but may be renewed upon recommendation of USFS contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. **The annual stipend will be $76,000 and a travel allowance will also be provided to support occasional overnight travel.** Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE. The appointment is full-time at USFS in the Asheville, North Carolina, area. Participants do not become employees of USFS, DOE or the program administrator, and there are no employment-related benefits.

This opportunity is available to U.S. citizens, legal permanent residents, 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.

For more information about the USFS Research Participation Program, please visit the **Program Website**.

Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields.

Preferred skills:

- Experience in quantitative landscape ecology, forest resources, spatial data science, and/or conservation science
- Excellent analytical/statistical skills with spatial-temporal analysis of large data sets
- Experience with statistical analysis software (e.g. R, SAS), GIS software (e.g., ArcGIS, QGis), and programming languages (e.g., R, Python, C++)
- Experience or interest in social-ecological systems and science-management integration
- Excellent organizational, communication, and scientific writing skills
- Ability to conduct research in an interactive team environment as well as independently

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (1 👁)
  - **Computer, Information, and Data Sciences** (4 👁)
  - **Earth and Geosciences** (7 👁)
  - **Engineering** (6 👁)
  - **Environmental and Marine Sciences** (10 👁)
  - **Life Health and Medical Sciences** (19 👁)

Opportunity Title: Postdoctoral Research Opportunity in Landscape Ecological
Forest Dynamics
Opportunity Reference Code: USDA-USFS-2020-0074

- **Mathematics and Statistics** (5 👁)
- **Other Non-Science & Engineering** (1 👁)
- **Social and Behavioral Sciences** (7 👁)