Opportunity Title: USGS Postdoctoral Fellowship in Climate Impacts
Opportunity Reference Code: USGS-2021-01

Organization	U.S. Department of the Interior (DOI)
Reference Code	USGS-2021-01
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. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV
- 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.

Application Deadline	9/15/2021 3:00:00 PM Eastern Time Zone
Description	***Applications will be reviewed on a rolling-basis.***

USGS Office/Lab and Location: A research opportunity is available with U.S. Geological Survey (USGS) Southeast Climate Adaptation Science Center (SE CASC) located in Raleigh, North Carolina.
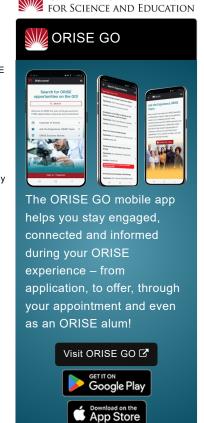
The USGS mission is to monitor, analyze, and predict current and evolving dynamics of complex human and natural Earth-system interactions and to deliver actionable intelligence at scales and timeframes relevant to decision makers. As the Nation's largest water, earth, and biological science and civilian mapping agency, USGS collects, monitors, analyzes, and provides science about natural resource conditions, issues, and problems.

The mission of the Climate Adaptation Science Centers (CASCs) is to deliver science to help wildlife, ecosystems, and people adapt to a changing climate. We work directly with land managers, native communities, and other partners to create research and tools that can be applied directly to adaptation decisions. Our network is comprised of nine regional CASCs and one National CASC.

Research Project: This project will provide technical assistance and research on the impacts of climate on eastern US ecosystems including:

1. quantitative analysis on climate observations and future scenarios at relevant spatial and temporal scales,
2. methods to quantify and propagate climate model projection uncertainty, and
3. methods to integrate climate projections into species, habitat, and ecosystem response models.

Results of this research will fill significant gaps in the understanding of

climate processes on important eastern US ecosystems, particularly the role of uncertainty in modeling climate and ecosystem changes.

Project will involve close interaction with ecological scientists and engagement with natural resource management officials at federal, tribal, and state agencies.

Learning Objectives:

1. Develop understanding of how climate model output can be used to explore possible impacts to ecological systems
2. Develop understanding of how climate model uncertainty may propagate through other impacts models
3. Develop understanding of technical and scientific needs of natural resource managers to address climate-related challenges.

Mentor: The mentor for this opportunity is Ryan Boyles (rboyles@usgs.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: 2021. 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 for two additional years upon recommendation of USGS 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.

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 USGS. Participants do not become employees of USGS, 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: If you have questions about the application process please email USGS@orau.org and include the reference code for this opportunity.

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

Preferred skills:

- Experience with principles, theory, and concepts of the climate system and climate models, including routine access, use, and interpretation of

climate model output.

- Experience in advanced statistical methods, analysis of climate models, spatial analysis using R, Matlab, Python, or similar programming.
- Understanding of climate model downscaling approaches, climate projections, and sea level rise projections.
- Ability to manage, manipulate, analyze, and distribute very large climate datasets.
- Experience studying climate impacts to natural resources and communication/translation of climate concepts to non-experts.

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Academic Level(s):** Postdoctoral.
- **Discipline(s):**
  - **Earth and Geosciences** (7 👁)
  - **Engineering** (1 👁)
  - **Environmental and Marine Sciences** (3 👁)
  - **Mathematics and Statistics** (2 👁)
  - **Physics** (1 👁)
  - **Social and Behavioral Sciences** (1 👁)