



USDA Forest Service Resource Assistant Program

Position. Ecologist

Duration. 8 Month Fellowship (32 weeks): Starting June 2023 – February 2024 (dates are dependent upon the start date)

Location. Remote

Reports To. The Ecologist will report to Andrew Gougherty, Research Landscape Ecologist.

Job Overview

The Ecologist will join the Landscape Change Research Group (LCRG) – a team of Forest Service scientists focused on understanding how climate change impacts forested ecosystems in North America. The Resource Assistant (RA) will work on a project seeking to quantify how climate change will impact the distribution and severity of forest tree pests. As part of this work, the RA will assemble geographic occurrences, host associations and impacts of important forest pests of North American trees from historical and contemporary databases, and will assist in integrating these data into a modelling framework for predicting pest distributions and impact. The RA will also assist in a literature review to identify how climate change may facilitate host shifts and the spread of pests on the landscape. This work will have important implications for identifying the main drivers of pest distributions and identifying the regions and tree species most at risk from future pest threats. The RA will also have the opportunity to contribute to other ongoing projects within LCRG, including investigating the roles of disturbances on tree species distributions, and assessing the geographic patterns of trait variability. As part of the position, the RA will learn about the scientific process from formulating the research question to analyzing data to writing and preparing manuscripts for peer review. The position will be filled remotely, so an ability to work independently and as part of a collaborative team will be crucial.

Responsibilities and Duties

- Generate and manage databases of host associations, geographic occurrences and impacts of important trees pests in North America which will involve digitizing historic records, querying contemporary databases, and geocoding pest occurrences
- Use statistical tools to link pest occurrences with host abundance, climate, and topography
- Assist with integrating data with models of pest distributions
- Conduct literature review for reports of links between pests and climate
- Contribute to writing manuscripts based on the results of their work

Qualifications

- Bachelor's or Master's degree in natural resource science, ecology, geography or related field



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- Experience with geographic information systems (GIS) and/or maintaining geographic databases is very desirable but not required
- Coursework in ecology, geography, forestry, and/or statistics are strongly preferred, as is experience with the R statistical language
- Ability to work independently and as part of a collaborative teams is crucial

Minimum Requirements

- Completion of 2 years at an accredited university, an Associate's degree, or higher
- US citizenship or permanent residency. RAs must undergo a government background check if selected.
- Participation in US Forest Service Orientation Training scheduled for June 2023