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Department of Biological Sciences
Life Sciences Center
78 College Street
Hanover, New Hampshire 03755

Postdoctoral position in invasion ecology, population biology and forest modeling

Are you interested in conducting high-impact, creative, original synthesis research using field data collected across four continents over the past decade? Do you have a background in forest health, invasion ecology, population biology, forest pests, plant population ecology, forest modeling, or a related field?

The Department of Biological Sciences at Dartmouth College invites applicants for a postdoctoral research position in invasion ecology, population biology and forest modeling. The successful applicant will join co-investigators Dr. Flora Krivak-Tetley (Dartmouth College, University of British Columbia), Dr. Matt Ayres (Dartmouth College) and Dr. Sandy Liebhold (USFS Northern Research Station) to work on a project funded by the US Forest Service International Programs.

Project collaborators:
Argentina: Juan Corley, Ecología de Insectos, INTA EEA Bariloche, Argentina

South Africa: Bernard Slippers, Dept. of Zoology and Entomology, Forestry and Agricultural Biotechnology Institute, University of Pretoria, South Africa

Brett Hurley, Dept. of Zoology and Entomology, Forestry and Agricultural Biotechnology Institute, University of Pretoria, South Africa

Spain: María Lombardero, Departamento de Producción Vegetal, Universidad de Santiago

USA: Jeff Garnas, College of Life Sciences and Agriculture, University of New Hampshire

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Project Summary: This project builds on a decade of work with the invasive forest insect *Sirex noctilio* (Sirex woodwasp), a highly destructive pest in Southern Hemisphere pine plantations that was detected in the U.S. for the first time in 2004. The candidate will join a collaborative team spanning four continents (US, Spain, South Africa, Argentina) and lead the integration of extensive field data to answer questions in two important areas: variation in the complex population dynamics of this forest pest; and interactions between *S. noctilio* and its forest resources. Primary goals include the identification of key differences in determinants of *S. noctilio* outbreaks and tree mortality in the Northern versus Southern Hemispheres and the development of a multi-scale modeling tool to describe interactions between *S. noctilio* and forests across multiple scales. This will facilitate the preparation of a comprehensive, updated risk assessment for U.S. pines that will soon be threatened by *S. noctilio* invasion. This project will not require extensive travel or field data collection but will include some opportunities for both, including international trips to work with project collaborators.

Qualifications: A PhD in ecology, entomology, forestry, plant science or a related field is required. Experience with R programming (or other similar languages) and capacity for spatial analyses will be necessary. Highly qualified applicants will be eager to conduct high impact original synthesis research and have a strong background in either population biology or forest stand or landscape modeling. Ability to work independently and enthusiasm to collaborate across disciplines and continents required.

Start Date and Appointment Details: Anticipated early 2023 start date with 24 month duration. Appointment is at Dartmouth College in Hanover, NH in the Upper Connecticut River Valley.

Salary: Competitive and commensurate with experience; includes health care benefits

To Apply: Please contact Dr. Flora Krivak-Tetley with questions about the project and the position. To apply, please email: statement of interest, CV, and the names and contact information for three references to Dr. Flora Krivak-Tetley (fkt@dartmouth.edu).

Application review will begin November 15th, 2022.