

Postdoctoral Research Associate

SPATIAL OPTIMIZATION OF INVASIVE SPECIES MANAGEMENT EFFORTS IN NEW YORK

POSITION LENGTH: This is a full-time 14 month appointment

SALARY: \$49,000/year plus benefits (health and dental insurance, retirement, life insurance, disability)

START DATE: June 1, 2017 (negotiable)

POSITION SUMMARY AND DUTIES:

We are seeking a postdoctoral research associate to develop models related to the dynamics of invasive species in New York, which will be used by natural resource managers to make optimal conservation and management decisions. This project will use a decision analytic framework to optimize a dynamic multi-objective problem involving management of hundreds of invasive species across New York. The decision analysis and spatial modeling product will help decision makers in evaluating which species to focus their scarce conservation dollars, which areas of the state they should focus, and what management actions they should use. The complexity of the spatial optimization problem will require extensive development, both from the ecological and computer science perspectives. The candidate will work with stakeholders to identify objectives and feasible management actions; model invasive species distributions; work on the development of a spatial optimization algorithm; and translate research results into a product usable by managers. The end product will guide managers in decision making regarding invasive species management efforts in New York State. The candidate will work with The New York Cooperative Fish and Wildlife Research Unit at Cornell University (Dr. Angela Fuller), the New York Invasive Species Research Institute (Carrie Brown-Lima), the New York Natural Heritage Program (Dr. Jennifer Dean), and the Department of Computer Science at Cornell University (Dr. Carla Gomes). The candidate will be supervised by Dr. Angela Fuller and will work closely with another postdoctoral scientist on the project, supervised by Dr. Gomes. The candidate will be expected to develop manuscripts for submission in peer-reviewed journals and communicate research to project PIs, partners, and managers.

MINIMUM REQUIREMENTS:

1. Ph.D. in ecology, natural resource management, operations research, or a related quantitative field.
2. Strong mathematical and programming skills, experience in statistical estimation and simulation modeling and use of R.
3. Demonstrated desire and proven ability to publish in peer-reviewed journals.
4. Excellent writing and personal communication skills.
5. The ability to work independently and under limited supervision as well as work with collaborative research teams, including natural resource managers.

RECOMMENDED QUALIFICATIONS:

Competitive candidates will also have one or more of the following qualifications: have a background in structured decision making and/or adaptive management, knowledge of invasive species biology and management, ability to communicate complex scientific results to a diverse group of stakeholders, experience in optimization, experience in facilitation, previous use of ArcGIS.

TO APPLY:

Please send a curriculum vitae, a letter of application describing your background and experiences and responding to each of the requirements and qualifications, and the names and contact information for three references (all in a single pdf document) to Dr. Angela Fuller, Department of Natural Resources, Cornell University, NY Cooperative Fish and Wildlife Research Unit, 211 Farnow Hall, Ithaca, NY 14853, angela.fuller@cornell.edu, (607) 255-2841. Deadline for applications is April 4, 2017.