

## **Post-Doctoral Position: Bobcat Spatial and Population Ecology at Purdue University**

The Department of Forestry and Natural Resources at Purdue seeks an energetic and motivated post-doctoral scholar for a project to understand more fully the dynamics of bobcat population recovery in Indiana. The successful applicant will provide insights into bobcat spatial and population ecology via application of advanced modeling approaches to previously collected telemetry data from bobcats in south-central Indiana and supplementary data from road-kills, archer surveys, and camera trapping. The post-doctoral scholar will: (A) derive estimates of survival rates for bobcats in an expanding population in south-central Indiana, (B) estimate home-range size and habitat selection in this population, (C) model habitat suitability and derive estimates of potential capacity of habitat to support bobcats, and (D) develop connectivity maps with resistance surfaces to allow comparison with habitat suitability maps as a tool for planning and management. The successful applicant will begin in May 2018 and work closely with project PIs and collaborators from the Indiana DNR. This position is offered as a one-year contract with renewal contingent on funding availability and satisfactory performance. The initial annual salary for this position is \$47,500 and provides benefits such as health insurance.

**Required qualifications** include completion of a Ph.D. in wildlife ecology, ecological modeling or related field prior to May of 2018 with proficiency in the use of R statistical software and ArcGIS mapping tools. Applicants should have experience managing a research project and a solid record of publication in scientific journals. **Preferred qualifications** include experience with: (1) common approaches to survival analysis, (2) probabilistic modeling of home range and habitat selection including a range of presence-only based tools, (3) maximum-clique analysis to estimate carrying capacity and (4) development of movement resistance surfaces from habitat suitability maps for use in least cost path analysis, circuit theory algorithms and/or individual-based models to estimate connectivity across landscapes.

**To apply:** Prospective applicants should send via email a brief letter of interest and CV with “Bobcat Post-Doctoral Scholar” in the subject line to the project PIs Rob Swihart ([rswhart@purdue.edu](mailto:rswhart@purdue.edu)) and Pat Zollner ([pzollner@purdue.edu](mailto:pzollner@purdue.edu)). Review of materials will begin on 16 February.

Women and underrepresented minorities are strongly encouraged to apply. Purdue University is an equal opportunity affirmative action employer.

**About Purdue:** Purdue is a land-grant university of over 40,000 students and ranked the 5<sup>th</sup> best public university in the U.S. Located in West Lafayette, Indiana, Purdue is an easy drive from Indianapolis and Chicago. The Department of Forestry and Natural Resources (FNR) is housed administratively in the College of Agriculture (#8 world ranking), emphasizes interdisciplinary approaches across a broad spectrum of natural resource sciences, and offers vibrant, nationally ranked graduate programs in wildlife and ecology. The West Lafayette-Lafayette area is home to a diverse community of 174,000, with good schools, safe neighborhoods, over 40 parks and extensive trail systems, active Farmers Markets, and year-long community festivals and art events.