Two MS Assistantships – Bobcat Ecology: Illinois

**Agency**  
Western Illinois University

**Location**  
Macomb, Illinois

**Job Category**  
Graduate Assistantships

**Website**  
http://www.wiu.edu/biology/

**Salary**  
$16,000/year + tuition waiver

**Start Date**  
07/01/2019

**Last Date to Apply**  
04/15/2019

**Description**  
Two M.S. graduate assistantships are available (pending final approval of funding) starting 1 July 2019 in the Department of Biological Sciences at Western Illinois University (WIU) to study the ecology of bobcats in northcentral Illinois. Successful candidates will formally begin research/coursework at WIU starting during the Summer 2019 semester. A fundamental motivation for this research will be to continue evaluating the efficacy of camera traps for estimating bobcat abundance in agriculturally-dominated landscapes of Illinois.

The first assistantship will evaluate 1) use of camera traps to estimate occupancy and density of a local population of bobcats in northcentral Illinois, 2) survival parameters, and 3) refining camera survey protocols that can be applied to similar types of habitat across Illinois. Work conducted during 2015–2019 provided preliminary density and home range estimates across west-central Illinois to improve our understanding of bobcat spatial requirements in relation to variation in seasonal detection probabilities. In addition, survival analyses are ongoing throughout west-central Illinois, though continued research across similar landscapes will aid in better understanding potential effects of intrinsic and habitat factors on seasonal and annual survival of bobcats across fragmented forested landscapes of northern Illinois.

The second assistantship will focus on obtaining direct estimates of bobcat reproductive parameters (i.e., parturition dates, fecundity, kitten litter size and sex ratios, den characteristics, first-year kitten survival) to aid in refining population models, precision in statewide abundance estimates, and inform decisions about management programs and approaches for monitoring abundance of bobcats throughout Illinois. Further, this study will link information on landscape composition, movement behavior by individuals, and fine-scale genetic structure to gain a mechanistic understanding of how spatial heterogeneity may influence population structure of bobcats in fragmented Midwestern landscapes.

The successful candidates will be hired by 1 May 2019 and receive his/her M.S. degrees in Biology at WIU.
Qualifications

Candidates should have (1) a B.S. in wildlife ecology, zoology, ecology, or a closely related field; (2) experience capturing and handling mesocarnivores and conducting radiotelemetry; (3) proficiency using remote cameras; (4) earned GPA >3.3/4.0; (5) GRE scores >1100 (old scale) or equivalent (new scale); (6) strong quantitative skills; and (7) strong organizational skills, attention to detail, and excellent oral and written communication skills. Applicants should be independently motivated to take action to meet project objectives, are self-starters, possess a strong work ethic, and have a valid driver’s license and clean driving record. Additionally, applicants should have extensive trapping experience, ability to establish and maintain strong relationships with private landowners, and proficiency with GIS/GPS.

Application Materials

Interested candidates should submit their application via email as a single PDF file to Dr. Chris Jacques with the subject lines Bobcat Population Ecology, Bobcat Genetic Structure, or Bobcat Population Ecology and Genetic Structure (if interested in both). The application packet should include a cover letter, full transcripts (unofficial or official), CV, GRE scores, and list of 3 references submitted no later than 15 April 2019. Review of applicants will begin immediately and continue until suitable applicants are selected. The successful applicants will coordinate the capture of 40 and 60 adult and kitten bobcats, respectively, so must be able to start field work no later than 1 July 2019.

Contact Person

Dr. Chris Jacques

Contact Phone

309-298-2155

Contact Email

cn-jacques@wiu.edu (preferred)