

PhD Assistantship: Response of Greater Sage-Grouse to Wind Energy Development – University of Wyoming

Description

Dr. Jeff Beck from the University of Wyoming is seeking a motivated and experienced PhD student to assist in evaluating research questions related to anthropogenic impacts on wildlife, specifically using greater sage-grouse (*Centrocercus urophasianus*) response to the Pryor Mountain Wind Energy Facility in Carbon County, Montana as a study system. The selected student will work directly with top grouse/wind energy researchers including Chad LeBeau and Dr. Kurt Smith of Western EcoSystems Technology, Inc. (WEST; <https://west-inc.com/>) and Dr. Aaron Pratt with the Sutton Avian Research Center (<https://www.suttoncenter.org/>). The Pryor Mountain Wind Energy Project (Project) provides a unique opportunity to conduct a robust study to investigate the effects of wind energy development on a sage-grouse population. We collected sage-grouse habitat use and survival data from 2013–2015 in the area that overlaps the Project, providing information on this sage-grouse population prior to the development of the Project. We were funded by the Montana State Office of the Bureau of Land Management to carry out five field seasons (2021–2025). In spring 2021, we captured female sage-grouse and equipped them with GPS transmitters to initiate the “after” portion of our before-after-impact study design. Study collaborators include the Bureau of Land Management, PacifiCorp, and Montana Fish, Wildlife & Parks. The student must be able to communicate effectively with personnel from these entities as well as private landowners who provide access to their lands.

PhD students in the Department of Ecosystem Science and Management may earn their PhD degree in Ecology (<http://www.uwyo.edu/pie/>) or Rangeland Ecology and Watershed Management (<http://www.uwyo.edu/esm/graduate/prospective/majors/rangeland.html>). The original research developed is flexible to the ingenuity of the successful applicant, but should be related to the project’s overall objectives. The study includes modeling vital rates (nest, brood, adult female, and juvenile survival) and population growth, movements and resource selection, and point counts of avian predators. The general study design includes data collected pre- and post-impact within a before-after-control-impact study design. Field work for this project will entail capturing and processing sage-grouse, radio-tracking, monitoring nests and broods, as well as interacting with a field crew supervised by WEST. Field work will also require close interaction with field technicians while working under harsh weather conditions, safely operating 4WD trucks and ATVs, and working long hours with highly variable work schedules (including night-time hours). Students will be expected to work collaboratively and share data, assist in compiling progress reports, publish manuscripts in peer-reviewed journals, and present findings to lay and scientific audiences.

The position has a flexible start date of either August 2021 (preferred) or January 2022. The successful applicant must commit to at least 3 rigorous field seasons (2022–2024). Tuition and fees, health insurance, and an annual stipend are provided for a total annual support package of \$32,268 (\$22,860 annual stipend) for a PhD student.

Qualifications

Qualifications include a BS and MS degrees in the biological, ecological, or natural resource sciences, or other closely related field; relevant research experience; an ability to work long hours; complete rigorous field work; and possess excellent written and oral communication skills. Applicants with quantitative and spatial skills, rigorous field experience, and an established record of presentations and publications will be viewed highly. A MS GPA of ≥ 3.5 , GRE with verbal and quantitative scores $\geq 50^{\text{th}}$ percentile, and minimum GRE of 4.0 for analytical writing will be viewed highly.

To Apply

Please apply by emailing a SINGLE PDF file that includes a cover letter, CV, minimum of 3 references, unofficial transcripts, and a copy of your GRE test taker score report to Dr. Jeff Beck (jlbeck@uwyo.edu). Closing date for applications is August 1, 2021. After initial screening, suitable candidates will be invited to write, and ultimately present, a one-page synopsis of a potential research idea for this project that is feasible to form a chapter in their dissertation.

Review of applicants will begin immediately.

Contact

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