

Postdoctoral Fellowship in Community and Spatial Ecology

Impacts of Management on a Grassland Ecosystem

Smithsonian Conservation Biology Institute

The Smithsonian Conservation Biology Institute ([SCBI](#)) is seeking two Postdoctoral Fellows to advance the Smithsonian's ongoing research into wildlife distributions in grassland ecosystems, as part of a new collaborative initiative with the American Prairie Reserve (APR) in Montana; Conservation Science for Restoring America's Wild Prairie. The projects will advance APR's mission of creating the largest wildlife reserve in the contiguous US. APR is restoring native biodiversity to the reserve including conducting a large bison restoration project. As such, the research will be both basic and applied leading to conservation and restoration recommendations. This is a full-time, 3-year appointment, and the fellow(s) will be based at APR with regular trips to SCBI in Front Royal, VA.

The objectives of this fellowship are to: (1) Assess the bird and mammal communities across ranges that differ in conservation and management practices including in cattle and bison stocking rates and (2) Focus on prairie dog towns, their extent and mammal community, in preparation for black-footed ferret restoration. Both projects involve extensive GIS and spatial ecology experience, as well as being well versed in wildlife survey techniques. Experience in surveying short-grass prairie bird communities is essential for one of the fellowships.

The successful candidate will pursue innovative and applied research questions in the field of grassland wildlife communities and their response to management. The postdoctoral fellow will work with Drs. William McShea, Jared Stabach and Melissa Songer at SCBI and Kyran Kunkel at APR.

Responsibilities

- Work with Principle Investigators and APR staff to select study sites and sampling regimes at APR and Charles M. Russel Wildlife Refuge.
- Work with field teams to effectively survey bird communities through point counts and mammal communities through camera traps.
- Use remote sensing and other landuse data sources to determine factors structuring mammal and bird communities in the study area.
- Create scientific manuscripts based on research that are applicable to wildlife conservation and management journals.
- To develop and present (written and oral) products suitable for general audience explaining purpose and results of project.
- Work with Smithsonian researchers and their partners to develop wildlife image repositories (eMammal and Wildlife Insights) into effective research, education and outreach vehicles for wildlife conservation.
- Participate in scientific meetings and engage with colleagues and collaborators pursuing related research questions.
- Provide guidance and assistance to technicians, students, fellow postdocs, and others carrying out related work.

Preferred qualifications

- A Ph.D. in Wildlife Management or Conservation, Community Ecology, or a related academic field (PhD required for full stipend).
- Expertise and experience in estimating wildlife populations in grassland systems, especially multi-temporal analysis of land use and management.
- Significant analysis skills in R; additional programming experience advantageous (e.g. Java and/or Python). Extensive experience in spatial analysis using ARC GIS or similar software.
- Experience designing, organizing, and managing ecology projects involving camera traps.
- Enthusiasm for collaborating across institutions to jointly pursue wildlife topics relevant to both academic and applied audiences.
- Savvy interpersonal skills to build and maintain collaborative and productive relationships with ranchers, conservationists, and agencies.
- Enthusiasm for living in a remote and challenging field location

Preferred start date is **early Summer 2018 or sooner**. The stipend package is set at \$60,000 per year plus housing at APR. Interested applicants should submit a single pdf composed of cover letter, CV, and names and contact information for 3 references to scbiecology@si.edu by **March 1, 2018**. Please include “SI/APR Post-Doctoral Fellowship” in subject header. The cover letter should include (i) the applicant’s earliest possible start date; (ii) and a summary of the applicant’s research and analysis experience in wildlife community estimation and grassland ecology.