

POSITION DESCRIPTION: Postdoctoral Scientist (2)

Conservation Science Partners (csp-inc.org) is seeking two Postdoctoral Scientists passionate about ecology and conservation to provide analytical, technical, and project management leadership as part of a team of conservation biologists, ecologists, and data scientists working to address conservation challenges across the U.S. and internationally.

About: Conservation Science Partners (CSP) is a dynamic 501(c)(3) nonprofit established in 2012 to meet the analytical and research needs of diverse stakeholders in achieving conservation and protection of the natural world. Our mission is to apply human ingenuity to the preservation of nature using science, technology, and lasting partnerships with conservation practitioners. We connect the best minds in conservation science to solve problems in a way that is comprehensive, flexible, and service-oriented. CSP works in the complex and fast-paced nonprofit realm using tools that include data science and advanced analytics; risk analysis and climate change vulnerability analyses; species and habitat modeling; and wildlife and ecological connectivity analysis to identify solutions through land and water use, designating protected areas, and advancing social and environmental justice. We are a recognized leader in the development of data, models, and maps to convey the status of and change to natural systems and human impacts on the environment. Core clients and partners include federal agencies, foundations, environmentally progressive businesses, and other non-governmental organizations. Outcomes of projects are designed to explain ecological phenomena and lead to tools, map products, and strategies often tailored to the needs of decision makers.

Organizational Values and Culture: Our core values include scientific and technical excellence and integrity, which help to advance the function, direction, and initiatives of the organization. We support and encourage creativity and innovation in practice and products; respectful co-production of knowledge; and connection to the living world. We are actively seeking project opportunities that directly involve Black, Indigenous, and communities of color and diverse international partners, address disparate impacts of environmental change, and support social justice. We welcome the broader complement of knowledge and skills that stem from applicants' professional and life experiences. We seek candidates with deep curiosity directed toward diverse research interests, as well as aptitude and enthusiasm to develop new skills and areas of expertise.

Position Description: We are seeking two Postdoctoral Scientists to work as part of a collaborative team on two projects (one focused on California and the other on the US Great Plains region) examining the effects of climate and land use change on bird and mammal communities across large spatial scales. The postdocs will lead analytical aspects of each project related to occupancy and species distribution modeling, leveraging massive existing datasets on species detections from camera traps, acoustic recorders, and community science to build Bayesian hierarchical models of species distribution and habitat use and to project these models across multiple time points. The successful candidates will work closely with project team members within CSP's Changing Landscapes and Analytics Labs, as well as with scientists from across the organization, agency partners, and university collaborators. The individuals in these roles will also have the opportunity to engage with other wildlife and landscape conservation research taking place at CSP and to develop concepts/proposals for new projects in collaboration with other CSP staff and partners.

The Postdoctoral Scientists should have well-developed problem-solving and analytical thinking capabilities and a demonstrated record of applying these skills to ecological research, including a solid record for publishing in the scientific literature. A prior research focus on avian ecology and experience with acoustic bird identification will also be an asset.

Candidates should demonstrate attention to reproducibility and quality assurance/quality control in all their work. We are looking for someone with excellent organizational and communication (oral and written) skills; a deep curiosity directed toward diverse research interests; the aptitude and enthusiasm to develop new technical skills and areas of expertise; and the flexibility and willingness to 'lean into' the various emerging needs of a small, dynamic nonprofit. It is expected that this position contributes to an internal culture of diversity, equity, inclusion, innovation, creativity, and experimentation.

Core responsibilities and skills:

- Contributing to the design, development, and stewardship of multiple project facets, and leading advanced technical steps for these efforts.
- Developing ecologically relevant statistical models (e.g., occupancy, species distribution, habitat suitability) using reproducible workflows developed in statistical programming languages such as R or Python.
- Experience with hierarchical Bayesian approaches to formal inference using Bayesian programming languages such as JAGS or STAN.
- Managing, processing, and using animal presence data, movement data, and remotely sensed and other spatially referenced data originating from multiple sources; using workflows and tools that enable reproducibility (e.g., git).
- Utilizing a variety of land cover datasets, satellite image-based vegetation indices and related derivatives, climatological data as well as common analytical approaches to understand patterns of habitat distribution and change.
- Knowledge of common GIS, spatial data formats, and tools to download, process, map, and export such data. Preparing or deriving GIS and other spatial data layers, including metadata, and tabular data sources for use in modeling, reporting, and planning activities, using a variety of tools and cloud-based platforms (e.g., R, Google Earth Engine, QGIS).
- Demonstrated capacity to work in creative collaboration with diverse partners, collaborators, and colleagues to ensure research questions, methods, and outcomes are clear, and to support appropriate communication, interpretation, translation, and use of scientific products for multiple audiences, including land managers and policy makers.
- Developing or supporting manuscripts, reports, proposals, and professional presentations.
- Learning new methods and software for specific projects, as appropriate.

Preferred skills:

- Experience with Bayesian approaches for model integration, i.e., integrating multiple data types (e.g., unstructured presence-only data from community science observations, count data from structured surveys) into a single modeling framework
- Expertise in avian ecology and experience with acoustic bird identification
- Experience with cloud-based tools and workflows, including Google Earth Engine and cloud computing using virtual machines (e.g., in Google Cloud Platform).
- Creative vision to understand stakeholder information needs and translate data/science resources into actionable information.

Qualifications: PhD in ecology, conservation biology, or a related field is required. Preferred candidates will also be able to demonstrate at least three years of other professional experience.

Application deadline and expected start date: Priority will be given to complete applications received by **December 20, 2024**, with screening to begin soon thereafter and a targeted start date of **January 20, 2025**.

Location: Flexible within the United States, remote position, or ability to work in the main office in Truckee, CA.

Compensation: Compensation for the Postdoctoral Scientist position includes an annual base salary from \$65,000 to \$75,000 and the possibility of earning merit-based bonuses in addition to base salary. The actual base pay offered may depend upon a variety of factors, including without limitation, the level of education attained, certifications or other professional licenses held, qualifications of the applicant for the position, years of relevant work experience, and location in which the applicant lives and/or from which they will be performing the job. We offer a comprehensive group medical, dental, and vision insurance package; retirement benefits; and professional growth and advancement opportunities.

How to apply: Please email a cover letter explaining how your goals, skills, and experience fit the core responsibilities of the role and please also describe how your broader knowledge and experiences can contribute to our organizational culture and values. Include the names and contact information of at least three relevant professional references, as well as your CV, and send to: [hiring@csp-inc.org](mailto: hiring@csp-inc.org). Your cover letter, reference list, and CV should be compiled and sent as a single PDF file. Please indicate **POSTDOCTORAL SCIENTIST** in the subject line. *We sincerely appreciate all those expressing interest in this position. However, only applicants invited for an interview will be contacted.*

CSP is an equal opportunity employer and does not discriminate on the basis of race, color, national origin, sex, disability, age, religion, sexual orientation, gender identity, gender expression, creed, veteran status, parental status, or marital status in its programs and activities. We recognize that diverse backgrounds, cultures, and experiences can only enrich our community and our conservation mission and goals. As part of our intentional efforts to increase inclusivity, equity, diversity, and justice, we encourage applicants from underrepresented groups in conservation, e.g., those who identify as non-binary, LGBTQ+, are people of color, or represent any combination of these and other identities.