Point Blue Conservation Science (*formerly PRBO*)
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Conservation Science for a healthy planet.

Point Blue Conservation Science
POSITION ANNOUNCEMENT

Job Title: Quantitative / Spatial Ecology Post-Doc

Location: Petaluma or Sacramento [region], California (negotiable)

Duration: 1 -2 years, dependent on funding, beginning no later than June 1, 2017

Group: Pacific Coast & Central Valley Group

Hours/Benefits: Full time w/competitive benefits

Point Blue Conservation Science's Mission and Vision

Point Blue advances conservation of birds, other wildlife and ecosystems through innovative research, restoration, outreach and extensive partnerships. Our highest priority is to reduce the impacts of habitat loss, climate change and other threats to wildlife and people, while promoting adaptation to the changes ahead. Point Blue will achieve this by conducting further research on ecological processes and by developing and disseminating science-based solutions to mitigate the negative impacts of these changes. Because of our work today, healthy ecosystems will continue to support thriving wildlife and human communities in California and beyond, on land and at sea.

Job Summary

The Quantitative/Spatial Ecology Post-Doc (QSP), while working for Point Blue will collaborate with U.S. Geological Survey (USGS), The Nature Conservancy, and the California Landscape Conservation Cooperative (CA LCC) to develop ecological forecasting models for water and wildlife in California's Central Valley. These models will be designed to inform a decision support system that can guide the optimal allocation of water to meet biodiversity and ecosystem services targets.

Specifically the project objectives are to:
1. Provide multi-annual, within-year forecasts and updates of the spatial and temporal availability of wetland habitats, the distribution of wetland and open water dependent species, connectivity, and groundwater recharge.
2. Generate long term projections (50 year) of flooded cropland and wetland habitat in order to forecast wetland and open water dependent species, connectivity, and groundwater recharge under multiple scenarios.

3. Prioritize and strategically create an integrated network of wetland habitat on the landscape as part of large-scale coordinated conservation to optimize focal wetland-dependent species and habitats, biodiversity, spatio-temporal habitat connectivity, and groundwater recharge in the Central Valley both in the near-term (within year) and over the long-term (50 years).

Essential Duties

- Lead development of complex distribution and forecast models as part of the broader water optimization project.
- Develop spatial models and distribution layers of water and wetlands.
- Apply forecast models to develop spatial projections.
- Work with USGS to ensure all covariates are developed and prepared for species and ecosystem services distribution models.
- Work closely with Point Blue's informatics team to link modeling code and covariate data with an automated surface water tracking system (http://data.pointblue.org/apps/autowater/).
- Conduct reproducible research, fully documenting data sources and analysis code so the work can be reproduced with any new data for future updates.
- Organize and lead meetings with partners and stakeholders as needed.
- Produce publications and peer-reviewed quality reports.
- Communicate the research to key science collaborators.

Knowledge, Skills, Abilities

- PhD in Ecology or related field with extensive focus and experience with quantitative and spatial ecology, statistics, predictive models, machine learning, artificial intelligence, and remote sensing.
- Experience with modeling and spatial analysis in R, ArcMap and GIS software, remote sensing, and Google Earth Engine.
- Well-developed understanding of wetland ecology and management, the ecosystem services of wetlands, and the climate change impacts to these ecosystems and associated human communities.
- Self-directed and highly motivated team player, with very strong interpersonal skills.
- Must have passion for rigorous conservation science and application of innovative data-driven approaches to conservation decision-making.
- Demonstrated commitment to excellence and integrity in all aspects of work.
- Track record of peer-reviewed publications on using state-of-the-art predictive/forecasting models and quantitative techniques with ecological applications.
- 3+ years of effective project management experience working with a variety of partners.
- Excellent written and verbal communication skills, including demonstrated success in clearly and concisely translating science to diverse audiences.

- *Desirable:* Web programming languages (eg, Python, Php, HTML, CSS, Javascript), interactive web mapping applications (using OpenLayers or Mapbox), server-side R deployment (using R-Serve); experience writing R to run unattended.

Compensation and Benefits

Salary: $55,000-60,000/year, depending on education and experience.

Point Blue offers competitive compensation commensurate with experience, 100% medical and dental premium coverage, partial coverage of dependents (75%) including domestic partners. Other insurance options include long term care insurance, vision, life insurance, flexible spending account, short term and long term disability, as well as generous paid time off and 401(k) Plan matching contribution, per conditions outlined in Point Blue's personnel manual.

How to Apply

Please email cover letter explaining your interest and qualifications, resume and three references with emails and phone numbers to mreiter@pointblue.org with the subject line "Quantitative/Spatial Ecology." Position will remain open until filled though we are looking for someone who can start no later than June 1, 2017. This is a 1-2 year position with the possibility of extension pending funding.

Point Blue is an equal employment opportunity employer and does not discriminate against applicants or employees because of race, color, religion, national origin, sex, age, sexual orientation, citizenship status, disability status of an otherwise qualified individual, membership or application for membership in a uniformed service or membership in any other class protected by applicable law and will make reasonable accommodation for applicants with disabilities to complete the application and /or participation in the interview process.