

Coastal Spatial Ecologist National Audubon Society

Position Summary:

As part of Audubon's 2015-2020 Strategic Plan, the Coasts strategy is focused on saving 16 flagship species in 24 targeted landscapes across the Western Hemisphere. Dramatic coastal changes, precipitated by sea level rise, increased storm intensity and anthropogenic impacts, represent major threats to pelagic, coastal and marsh birds. Understanding these threats to birds and identifying thoughtful responses are key to achieving Audubon's coastal goals.

As a member of the Conservation Science Team, the Coastal Spatial Ecologist will provide critical information that will serve as the foundation for Audubon's Coasts work. S/he will work closely with leadership and field teams for this strategy, as well as monitor and track the effectiveness of Audubon's programs to help achieve conservation goals. Reporting to the Director of Conservation Science, the Coastal Spatial Ecologist describes patterns of bird distribution and abundance; identifies threats and conservation targets; prioritizes conservation efforts from biological and sociological perspectives; provides scientific justification, study design, and analyses for field projects; and leads analyses on coastal resilience and sea level rise in relation to birds, habitats, and urban planning.

Essential Functions:

- Design and implement spatial analyses to describe changes in coastal bird populations through space and time;
- Analyze threats and prioritizing conservation efforts in a spatial context;
- Curate diverse spatial data;
- Design and implement spatial analyses of field studies, including citizen science projects;
- Lead or contribute to peer-reviewed publications and grant-writing in support of projects;
- Provide cartographic leadership for emerging projects, including digitizing priority landscapes; and
- Support spatial analysis needs across the Division as required.

Qualifications and Experience:

- M.S. in ecology, geography, spatial ecology or conservation-related field required, as well as 2-3 years' experience; a Ph.D. with less experience may also be accepted.
- Excellent GIS skills, particularly with ArcGIS products, including ArcPy.
- Demonstrated ability to: manipulate data and script analyses in R, and/or Python; clearly frame research questions, design studies, and implement analyses; as well work both independently and in a team-based environment.
- A self-starter, one who can think creatively about connections between birds, places, and people.
- Excellent oral and written communication skills, as well as strong interpersonal skills and the ability to work with a variety of audiences.
- Demonstrated experience dealing with data, metadata, and support documentation, as well as developing web-based cartographic tools, likely using JavaScript.

- Preferred qualifications include:
 - Expertise in ornithology, especially birds of North America and the Western Hemisphere more broadly;
 - Familiarity with the birding community;
 - Experience in Important Bird Areas process or other site-based conservation prioritization methods;
 - Proficiency in species distribution and climate change modeling;
 - Experience automating cartographic production; and
 - Technical background with: relational databases and spatial extensions, specifically ESRI SDEs, PostgreSQL and PostGIS; experience with graph theory; conservation prioritization software such as Zonation, Marxan, and Marxan with Zones; familiarity with relevant datasets, such as C-CAP, Protected Areas Database, Land Cover data, and eBird; familiarity with ecosystem service valuation tools such as InVEST, as well as with Github or another version control systems; and with the Open Standards for the Practice of Conservation and the Miradi adaptive management tool.

To apply:

<https://careers-audubon.icims.com/jobs/2875/coastal-spatial-ecologist/login>