



POSITION DESCRIPTION

POSITION TITLE: Post-doctoral Researcher (Ecological Modeling Specialist)

SALARY RANGE: \$60,000 - \$75,000

REPORTS TO: Senior Ecologist, Alaska

LOCATION: Flexible (TWS office or remote work in selected states)

ABOUT THE WILDERNESS SOCIETY

The Wilderness Society (TWS) is a national conservation organization dedicated to protecting America's wild places since 1935. Our mission is to unite people to protect America's wild places. Through science, advocacy, and partnerships with communities and policymakers we champion the protection of wilderness, national parks, forests, and other public lands that provide clean air and water, wildlife habitat, and the freedom to connect with nature. For more information, please visit www.wilderness.org.

GENERAL DESCRIPTION

Caribou (*Rangifer tarandus*) rely on an intact, healthy, connected environment to thrive. In turn, people – especially Alaska Native peoples who have lived with caribou since time immemorial – rely on healthy herds of caribou and their habitat. At TWS, we study caribou because they matter to people, are vital to the health and stability of arctic ecosystems, and use vast areas of the Alaskan Arctic throughout the year – meaning that protecting caribou also conserves large ecosystems and the many species within those ecosystems.

Research by TWS scientists and others has provided insights into how caribou move across Arctic landscapes and how human activity and development alter caribou behavior. This helps inform management decisions seeking to balance the needs of caribou and people and guides permitting and mitigation requirements. Often, however, studies are done after development has been approved and constructed, limiting the opportunity for proactive evaluation of the impacts of project alternatives. Simulation modeling offers an opportunity to use existing information about how human activities affect caribou to explore consequences of alternatives before they are permitted.

We are looking for a skilled post-doctoral researcher to help develop and apply data-based simulation models reflecting responses of caribou to roads. The postdoc will be an important member of our science team, which is made up of ecologists, wildlife biologists, and geographers with diverse expertise. The postdoc will serve as the lead for model development and application, working closely with the Senior Ecologist and an international team of collaborators to apply previous research and develop a functioning simulation model.

The position relies on extensive professional knowledge and technical skills to independently complete projects, with responsibilities including developing research questions, creating simulation models, conducting scientific research, applying analytical tools in support of conservation, sharing findings in an accessible and interactive manner, and authoring scientific publications. The position will lead development of a modeling framework that brings together new and existing tools and approaches, with a goal of better understanding caribou response to roads and predicting effects of existing or potential roads on 1) movement and distribution, 2) survival and reproduction, and, ultimately, 3) population dynamics. This individual will also work closely with teams across TWS, including Conservation Programs & Policy, Legal, Government Relations, and Communications.

This one-year position plays an important role in supporting an inclusive organizational culture that is grounded in trust and accountability to shared goals and outcomes. TWS has made diversity, equity, and inclusion strategic priorities for the organization and the post-doctoral researcher will integrate these priorities throughout their work. Across our team, we aspire to be campaign oriented, nimble, collaborative, innovative, transparent, and supportive of staff – our greatest asset.

ESSENTIAL DUTIES & RESPONSIBILITIES

- Develop a data-based simulation model of road effects on caribou movement, distribution, and fitness. The model will be parameterized where possible from existing knowledge, account for uncertainty, and be adaptable to refinement and expansion as additional information is acquired.
- Conduct analyses with the TWS Science team and an international group of collaborators.
- Publish findings in one or more peer-reviewed scientific papers and share them broadly through development of interactive tools.
- Communicate research, analytical findings, and policy recommendations to government agencies, Indigenous partners, elected officials, conservation groups, and other audiences.
- Use scientific research and information to help inform national-level policy issues and landscape outcomes.
- Work closely with other program staff to develop and integrate scientific program goals and priorities into campaigns to influence management of wildlands and priority landscapes.
- Other duties as assigned.

QUALIFICATIONS

Experience, Competencies, and Education

- Ph.D. in ecology, conservation biology, geography, or related field.
- Experience developing data-based spatial simulation modeling, including individual-based ecological models (IBMs) of animal movement.
- Demonstrated record analyzing data, writing results, and publishing scientific manuscripts.
- Proficiency programming or coding in R, Python, or other software packages.
- Experience working with telemetry data and conducting animal movement analyses.
- Experience creating Shiny apps or other similar tools for interactive communication of research findings.
- Strong organizational and data management skills.
- Ability to work independently and on a team.
- Ability to stay on schedule and meet deadlines.
- Ability to work successfully in teams and with people representing a rich mix of talent, backgrounds, and perspectives—across race, gender, and nationality.
- Ability to work with interdisciplinary teams of scientists and non-scientists to clearly communicate technical information to diverse audiences in written and oral formats.

Other desirable skills include:

- Experience with population modeling.
- Ability to apply both Bayesian and frequentist statistical approaches to environmental data.
- Demonstrated collaboration with Indigenous partners.
- Experience studying caribou.
- Experience working in the Arctic.

This job description is intended to convey information essential to understanding the scope of this position and it is not intended to be an exhaustive list of experience, skills, efforts, duties, responsibilities or working conditions associated with the position.

The salary range for this position is \$60,000 to \$75,000 depending on experience and location. The position is for one year and can be done from a TWS office (where applicable) or remote work from the following states: AK, AZ, CA, CO, CT, DC, ID, IL, ME, MD, MI, MN, MT, NV, NM, NY, NC, OR, OH, PA, SC, TN, TX, VA and WI. Applicants must already be authorized to work in the USA.

Applications are due by July 19, 2026. To apply, please visit:

<https://thewildernesssociety.careers.hibob.com/jobs/25324d21-d227-44e6-a024-71bfe9ea2221> and submit a cover letter and CV.

The Wilderness Society offers a competitive salary and benefits package, including health, dental, vision, life and disability insurance, and pet insurance; sick and vacation leave; a sabbatical program; and a retirement plan with employer contribution subject to certain limits and requirements. TWS is an equal opportunity employer and actively works to ensure fair treatment of our employees and constituents across culture, socioeconomic status, race, marital or family situation, gender, age, ethnicity, religious beliefs, physical ability, veteran status or sexual orientation.

As an organization, we aspire to being inclusive in the work that we do, and in the kind of organization we are. Internally, this means working as a team that listens to different points of view, recognizes the contributions of every employee and empowers each employee to bring their whole selves to work every day. Externally, this means ensuring that public lands are inclusive and welcoming, so that our shared wildlands can help people and nature to thrive. We are committed to equity throughout our work, which we define as our commitment to realizing the promise of our public lands and ensuring that all can share in their universal benefits.

To learn more about our commitment, please see <http://wilderness.org/our-commitment-diversity-equity-and-inclusion-wilderness-society>.

Pursuant to applicable fair chance laws, TWS will consider for employment qualified applicants with arrest and conviction records.

TWS complies with federal and state disability laws and is committed to providing reasonable accommodation for individuals with disabilities. If you require accommodation to complete the application process or to perform the essential functions of the position, please contact careers@twc.org. TWS only accepts resumes submitted for positions that are currently open. Unsolicited resumes or resumes for posted positions that are not submitted via the online application process (where applicable), will not be reviewed or retained.