

PhD on Communicating Climate Adaptation

Oregon Cooperative Fish and Wildlife Research Unit and Human Dimensions Lab
Oregon State University Department of Fisheries, Wildlife and Conservation Sciences

Position description: The Human Dimensions Lab and Oregon Coop Unit at Oregon State University are seeking a highly motivated PhD student to conduct applied research on climate communication. The PhD student will design and lead a series of social science studies focused on identifying and addressing barriers to engaging diverse audiences in effective climate adaptation in the context of fisheries management.

Climate communication is a cutting edge field of research, with extensive work going on around the world to better understand how to increase public engagement in climate action and adaptation. Topics this PhD student might focus on include: risk and uncertainty, trust and distrust, misinformation, conflict, polarization, empathy, creativity, and collective action.

Fish in the Pacific Northwest live in complex social-ecological systems. Fish who migrate from the rivers to the ocean and back, like salmon and steelhead, face intense challenges from climate change, including warming rivers and streams, a warming, more acidic and deoxygenated Pacific ocean, changing food supply, and increased disease. Many people rely on these fish, including Tribal, commercial, and recreational fishers. People also rely on the same ecosystem services fish depend on, such as water quality and quantity. And many people can shape how society adapts to the changes facing fish and their habitats, including members of the public, nonprofits, businesses, and government.

To best understand this system, the PhD student might use any of the following social scientific methods in their research: interviews, communication experiments, surveys, document analysis (either quantitative, e.g. large language models, or qualitative), social network analysis, focus groups, or other related approaches.

The student will join a dynamic, supportive, interdisciplinary lab group and have the opportunity to work closely with both governmental research partners, particularly the Oregon Department of Fish and Wildlife, and partners in non-governmental organizations (NGOs). The student will be expected to play an active role in collaborative research and project management. They will receive four years of funding and will develop and implement a project-related dissertation under the mentorship of their advisor, Dr. Megan Jones. The student would receive a degree in Fisheries Science.

Start date: September 25, 2024

Funding: Four years of support, including 12 months of salary (~\$30-33k) and covering the costs of tuition, fees, and benefits. For nine months each year the student would be supported via a graduate research assistant (GRA), and the remaining three months of the year the student would be employed as a graduate teaching assistant (GTA).

Core location: Corvallis, OR (the traditional homelands of the Mary's River or Ampinefu Band of Kalapuya; <https://asosu.oregonstate.edu/land-rec>)

Expectations:

- Design and conduct original, empirical research using quantitative and/or qualitative social science data collection and analysis.
- Build and sustain partnerships with agency and nonprofit stakeholders.
- Co-author 2 or more manuscripts with Dr. Jones.
- Submit proposals to obtain addition research funding support as needed.
- Contribute to a culture of diversity, equity, inclusion and justice in the Human Dimensions lab and graduate student community.
- Share research results through professional oral presentations (e.g. at conferences) and outreach materials.
- Follow departmental guidelines to meet graduation requirements in about 4 years.

Minimum requirements:

- Applicants must meet the OSU Graduate School minimum requirements for admission (found at: <https://gradschool.oregonstate.edu/admissions/academic-requirements>).
- Qualified applicants will have a Bachelor's or Master's degree in a social science field (e.g. psychology, communications studies, anthropology, geography, sociology, political science, human dimensions of natural resources) by the expected start date. Students will also be considered who have a Master's degree in fisheries, wildlife, biology, ecology or allied fields and who have taken extensive coursework in social science methods and theory, or have demonstrable experience completing social science projects in the past.
- Strong written and oral communication skills across different types of audiences.
- Demonstrable experience working in teams.

The Oregon Coop Unit, HD Lab and partner agencies are dedicated to supporting the diverse needs of our students and employees. Applicants from historically excluded groups (e.g., Black, Indigenous, and People of Color, LGBTQ+, women, first-generation college students, and those from underserved communities) are strongly encouraged to apply.

To apply: My home department (Fisheries, Wildlife, and Conservation Sciences) uses a holistic admissions process. Please submit the following to me via email as a single PDF document:

1. A 2-page single-spaced cover letter describing how you meet the expectations and minimum requirements for this role, your research interests, what you ultimately hope to do after your PhD, and an initial outline of research ideas. In your research outline, please discuss potential questions, focal topics, and methods you are excited about, drawing on the position description above and project description below.
2. A current resume or curriculum vitae
3. Transcripts (unofficial copy is okay)
4. The names and contact information of three academic or professional references

Please email your application packet to Dr. Megan Jones, Megan.Jones@oregonstate.edu with the email title "PhD Application." **Applications will be reviewed on a rolling basis, with priority given to applications received by Wednesday March 20th.** Please reach out with questions.

Additional Project Description

Climate change is making fisheries management more complex, uncertain, and dependent on unprecedented levels of collective action. These effects are likely to exacerbate several ongoing communication challenges that fisheries managers face, including:

- How to discuss the role of science and uncertainty in decision-making,
- How to create shared expectations about the future, and about the pace of change towards that future,
- How to involve highly engaged and conflicted audiences in public planning processes, and
- How to engage more distanced communities who are currently not participating in public planning processes, particularly those who have been historically underrepresented and underserved.

To better understand how improved public engagement can help fisheries management adapt to climate change, the project team (led by the PhD student and Dr. Megan Jones) will explore one or more of the following themes:

- (1) **Comparison of different communication channels.** Research could include analyzing rates of participation in public planning processes and the kinds of content contributed in response to engagement through different channels. Focal channels might include more common engagement mechanisms, such as written public comments, social media, and public meetings, as well as the development of novel communication methods such as games, public deliberations, or relational organizing.
- (2) **Comparison of different communication messages.** Studies would involve retrospective analyses or field experiments testing the effects of various message framing on public participation in fisheries management. Experimental messaging would be tailored to different audiences' barriers to participation, such as climate beliefs, perceived polarization, basic needs related to autonomy, social norms, or others. Baseline data collection, such as through interviews and surveys, might be required to identify barriers to participation to inform the development of focal messages.
- (3) **Evaluation of communication training for fisheries professionals.** Research would involve developing, piloting, refining, and potentially large-scale testing of interventions intended to build fisheries professionals' capacity in various forms of communication expertise, including conflict management, innovation and creativity, and actionable science. These capacity-building interventions could include 1-time or repeated sessions, likely involving peer-to-peer learning through interactive workshops, as well as independent activities focused on each participants' own work context.

Additional resources that inform the project framework (I encourage you to integrate some of these into your cover letter):

- Individual and collective action: [Amel et al. \(2017\)](#)
- Resist-Accept-Direct: [Schuurman et al. \(2021\)](#)
- Actionable science: [Bamzai-Dodson et al. \(2021\)](#)
- Capacity building: [Porzecanski et al. \(2022\)](#)