



**Oregon State**  
**University**

**College of Earth, Ocean, and  
Atmospheric Sciences**

Oregon State University  
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January 30, 2025

Dear Oregon Ocean Policy Advisory Council Scientific & Technical Advisory Committee:

I write to nominate myself for a member seat on OPAC's Scientific and Technical Advisory Committee. As an Assistant Professor of Geography and Geospatial Science at Oregon State University's College of Earth, Ocean, and Atmospheric Sciences, I work with communities in Oregon, including on Oregon's coast, to understand their experiences of environmental change and what is needed to build greater resilience. Across the range of my coastal projects described below, my focus is on engaging with communities through participatory methods, centering community knowledge, and understanding the human dimensions of environmental change on Oregon's coast. I believe this social science and community engagement expertise may fill a need for the Scientific and Technical Committee.

My current projects on the Oregon coast include an investigation of the community impacts of land-based seaweed aquaculture farms, a geospatial analysis of environmental and policy factors shaping the spatial patterns of aquaculture, and an examination of the climate adaptation resources available to shellfish and seaweed growers. I am also working with a research team studying the chain of connections between increased wildfire smoke, Oregon rivers and estuaries, coastal ocean chemistry, fisheries, and human health. For example, one component of our team's work focuses on improving our understanding of if/how wildfire smoke impacts river chemistry in ways that may contribute to harmful algal blooms on coasts, thus potentially impacting shellfish health and the health of humans who harvest and consume shellfish. My contributions to these projects involve obtaining community perspectives and knowledge through interviews, surveys, and focus groups. I have also served on the committees of students researching crabbers' perspectives on the feasibility and usability of ocean hypoxia measuring tools and the Latinx coastal communities' emergency preparedness. Through these various efforts, I have developed collaborations with fishers' and growers' organizations, researchers, and policy makers working along the coast that will contribute to the community-informed perspectives I can bring to this committee.

In my past work in other coastal regions, I studied co-managed marine protected areas in Costa Rica, Colombia, and most recently, in California (the Chumash Heritage National Marine Sanctuary). My focus for this work has been on how co-management plans balance conservation needs with local livelihoods and energy projects; community perceptions of co-management agreements; and the role co-management can play in community based economic development.

Together, these projects have prepared me to offer insights to the STAC on a wide breadth of human dimension issues for Oregon's coastal and ocean resources, including economic, policy, health and wellbeing dimensions of fisheries and aquaculture, climate change adaptation, conservation and marine protected areas, and community resilience. If appointed, I look forward to serving in this capacity.

Warm Regards,

Kelsey Emard  
Assistant Professor

## KELSEY EMARD

104 CEOAS Admin Building  
Corvallis, OR 97331-5506  
kelsey.emard@oregonstate.edu

### ACADEMIC APPOINTMENT

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2019-present Assistant Professor (Assistant Professor Senior Research until 2024)  
College of Earth, Ocean, and Atmospheric Sciences  
Oregon State University

### EDUCATION

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2020 PhD Geography  
The Pennsylvania State University

### SELECTED PUBLICATIONS

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- Emard, K., C. Edgeley, C. Wölfle Hazard, D. Sarna-Wojcicki, W. Cannon, O. Cameron, L. Hillman, K. McCovey, D. Lombardozi, S. Pearse, and A. Newman. Connecting Local Ecological Knowledge and Earth System Models: Comparing Three Participatory Approaches. *Ecology & Society*, 29(4): 43. <https://doi.org/10.5751/ES-15570-290443>
- Emard, K., O. Cameron, W. Wieder, D. Lombardozi, R. Morss, & N. Sobhani. 2024. Integrating farmers' perspectives into Earth system model development: Interviews with end users in the Willamette Valley, Oregon to guide actionable science. *Weather, Climate, and Society*, 16(3): 453-465. <https://doi.org/10.1175/WCAS-D-23-0066.1>
- Shah, S.H., C.R. O'Lenick, A. Ramos-Valle, J.S. Wan, O.V. Willhelmi, K. Ash, C.M. Edgeley, M.J. Molina, J. Moulite, C.C. Pizzaro, K. Emard, et al. 2023. Connecting physical and social science datasets: Challenges and pathways forward. *Environmental Research Communications*, 5(9): 095007. <https://doi.org/10.1088/2515-7620/acf6b4>
- Emard, K., & L. Nelson. 2021. Geographies of global lifestyle migration: Towards an anticolonial approach. *Progress in Human Geography*, 45(5): 1040-1060. <https://doi.org/10.1177/0309132520957723>

### PUBLICATIONS UNDER REVIEW AND IN PREPARATION

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- Emard, K., & K. Miller. Community perspectives on co-management of marine protected areas: Comparing cases in Costa Rica and Colombia. *Journal of Latin American Geography* (submitted January 2025).
- Emard, K., M. Morrison, J. Ajibade, K. Ash, C. Edgeley, M. Lachaud, and A. Quarkume. Grappling with epistemic risk in community-based climate science scholarship. *Nature Climate Change* (in preparation).

### COMPETITIVE RESEARCH GRANTS

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- In Preparation* "Shedding light on seaweed: Assessing the feasibility of supplemental illumination to increase productivity and quality of Pacific dulse at commercial farms along the Oregon coast" (Co-PI)
- Under Review* Burroughs Wellcome Fund Climate & Health Excellent (CHEX) Centers, "Nexus of Ocean, Climate, and Wildfire Impacts on Health" (Co-PI) – *invited to submit full proposal*
- 2024-29 NSF Dynamics of Integrated Socio-Environmental Systems, "DISES: Evaluating the effectiveness of climate-smart agriculture to build climate resilience" (Lead PI)
- 2024-25 Oregon State University Research Advancement Grant, "Building climate adaptive, resilience, and just coastal farming systems" (Lead PI)

- 2024-25 Oregon State University Transdisciplinary Research Seed Fund, “Effects of wildfire smoke on health and ecosystems” (Co-PI)
- 2021-24 NSF NCAR Early Career Faculty Innovator, “Integrating climate data into farm management: A case study in the Willamette Valley, Oregon to guide actionable science” (Lead PI)

#### INVITED TALKS

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- 2024 Building climate adaptive, resilience, and just coastal farming systems  
Research Advancement Academy, April 25
- 2023 Farmers’ perspectives on usable Earth system models  
GEWEX U.S. Regional Hydroclimate Project Meeting, February 16
- 2022 Integrating climate data and farmer perspectives on soil management  
Innovator PI Symposium, National Center for Atmospheric Research, July 27
- 2021 Podcasts as method for understanding women's experiences of climate change  
Women and Climate Change Speaker Series, University of Maine, March 25

#### RECENT CONFERENCE ACTIVITY

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##### **Organized Sessions**

- 2025 Intersectional approaches to climate justice  
Co-organized with Deepti Chatti, University of California San Diego  
American Association of Geographers, Detroit, MI, March 24-28
- 2023 Climate science and environmental justice research, praxis, and methodologies  
Co-organized with J. Ajibade, Portland State University; K. Ash, University of Florida; C. Edgeley, Northern Arizona University; and C. Wölfle Hazard, University of Washington  
American Association of Geographers, Denver, CO, March 23-27
- 2019 Emerging Tourism Economies: Impacts on Place and People  
Co-organized with K. Miller, University of California Santa Barbara  
American Association of Geographers, Washington D.C., April 3-7

##### **Papers**

- 2024 Assessing the epistemic risk in “actionable” data for farmers’ climate change adaptation  
American Association of Geographers, Honolulu, HI, April 16-20
- 2023 Developing climate models in response to farmers’ perspectives and practices  
American Association of Geographers, Denver, CO, March 23-27
- 2022 Conservation and development: Comparing park co-management in Costa Rica and Colombia  
Coauthor: K. Miller, UC Santa Barbara  
American Association of Geographers Conference, Virtual, February 25-March 1

##### **Workshops**

- 2023 Advancing Equity through Convergent Research (co-organized)  
National Center for Atmospheric Research, Boulder, CO, August 2
- 2021 NSF Reciprocity of Community Science  
National Center for Atmospheric Research, Virtual, July 16
- 2016 NSF Qualitative Research Ethics in the Era of Big Data  
National Science Foundation, Washington D.C., December 8

## GRADUATE STUDENT ADVISEES

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2024-present	Kylie Griggs, MS Geography and Geospatial Science
2023-present	Lorena Cardenas, PhD Geography and Geospatial Science
2023-present	Elizabeth Hyde, MS Geography and Geospatial Science
2022-present	Ann Marie Lauritsen, PhD Environmental Sciences
2022-2024	Margo Carroll, MS Environmental Sciences
2021-2023	Olivia Cameron, MS Geography and Geospatial Science
2021-2023	Abigail Knipp, MS Marine Resource Management

## UNDERGRADUATE STUDENT RESEARCH ADVISEES

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2025-present	Finley Hammons, BS Environmental Sciences
2025-present	Alec Vaugh, BS Geography and Geospatial Science
2023-present	Nicholas Cramer, Honors BS Geography and Geospatial Science
2022-2024	Lauren Hanley, BS Environmental Sciences
2022-2023	Dumitru Vlad, BS Geography and Geospatial Sciences
2021-2023	Elliott Scheuer, BS Geography and Geospatial Sciences
2021-2022	Wauren Ochs Richardson, BS Geography and Geospatial Sciences

## TEACHING EXPERIENCE

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2019-present	Assistant Professor of Geography Oregon State University
2017-2019	Graduate Instructor of Geography The Pennsylvania State University
2011-2015	Adjunct Instructor of Geography Portland State University

## SERVICE TO PROFESSION

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2023-present	Proposal Reviewer <i>National Science Foundation NCAR Early Career Innovator Program</i>
2019-present	Specialty Group, American Association of Geographers Past Chair (2024-present), Chair (2023-2024), Vice Chair (2022-2023), Secretary (2019-2021)
2018-present	Journal Referee <i>Ecology and Society; Annals of the American Association of Geographers; Progress in Human Geography; Social and Cultural Geography; The Professional Geographer; Gender, Place, and Culture; Environment and Planning E: Nature and Space; Rural Sociology; Geoforum; Geography Compass; Natural Resources Forum: A UN Sustainable Development Journal</i>

## PROFESSIONAL MEMBERSHIPS

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American Geophysical Union  
American Association of Geographers  
National Women's Studies Association  
Conference of Latin American Geography

## LANGUAGES

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English, first language  
Spanish, basic conversational