

SPRING 2025 EDITION

Cascadia CoPes Hub Quarterly Newsletter





ABOUT US

The Cascadia Coastline and Peoples Hazards Research Hub, or Cascadia CoPes Hub, is a team of researchers funded by the National Science Foundation to increase knowledge about the natural hazards coastal communities face and ways to increase their resilience. The Hub is working with communities in the Pacific Northwest, including Washington, Oregon, and Northern California to increase their ability to mitigate and adapt to impacts from hazards like earthquakes, tsunamis, sea level rise, landslides, and climate change. Read more [here](#) or visit our [website](#).

Please enjoy this 8th edition of our newsletter for updates on the progress and activities of the Cascadia CoPes Hub. The Hub is wrapping up their second year of amazing accomplishments. You will find descriptions and links to highlights from recent Hub activities, upcoming events, and ways to get engaged with the Hub.



HIGHLIGHTS

NAVIGATING COASTAL HAZARDS 2 WORKSHOP

On February 10-11, 2025 in Astoria, Oregon, researchers, coastal leaders, tribal members, planners, emergency managers, and consultants gathered to focus on advancing coastal resilience to geohazards in the Cascadia region. The event, organized by the Cascadia CoPes Hub, drew in nearly 150 participants from Northern California, Oregon, and Washington. The workshop emphasized strengthening partnerships, fostering leadership, and exploring innovative, nature-based solutions for coastal preparedness. Attendees engaged in research presentations, roundtable discussions, and hands-on activities, sharing insights on hazard mitigation, community-driven monitoring, and multi-hazard evacuation mapping. With a strong focus on interdisciplinary cooperation, the event provided a platform for peer mentoring and data-sharing, reinforcing the region's adaptive capacity in the face of future coastal threats.



Participants discuss research in small breakout groups

The conference kicked off with a poster session showcasing research activities across the 3 states, then transitioned into presentations on projects from the Cascadia CoPes Hub Pilot Project grants. This was followed by engaging talks from local community partners to discuss local resilience efforts in their communities including an overview of COHORT, 'Community-based coastal resilience action along the lower Columbia River', and 'Expansion of CoSMos into Cascadia'.

A highlight of the workshop was the Science Innovation Challenge, where participants collaborated on actionable strategies to enhance coastal resilience focusing on each participant's particular challenge. The day concluded with roundtable discussions on various community projects such as 'Tsunami Preparedness: Lessons from the Nehalem Bay Drill and Strategies for Collaborative Success' and 'Addressing Unpermitted Shoreline Armoring: Community Strategies for Adaptive Responses to Rising Sea Levels'.



Group takes a sediment core at Cannon Beach

The second day showcased Cascadia CoPes Hub research across the 3 teams along with more projects on local community resilience projects. Participants then engaged in small-group discussions to create research projects based on the findings from the first workshop. This science innovation challenge resulted in 14 novel research ideas to address concerns and needs from our coastal communities. The workshop concluded with two field trips. The first journeyed to Cannon Beach, OR to explore tsunami deposits. Participants were able to take a sediment core and see the sand deposit from the 1700 tsunami.



A sediment core showing the tsunami deposit layer

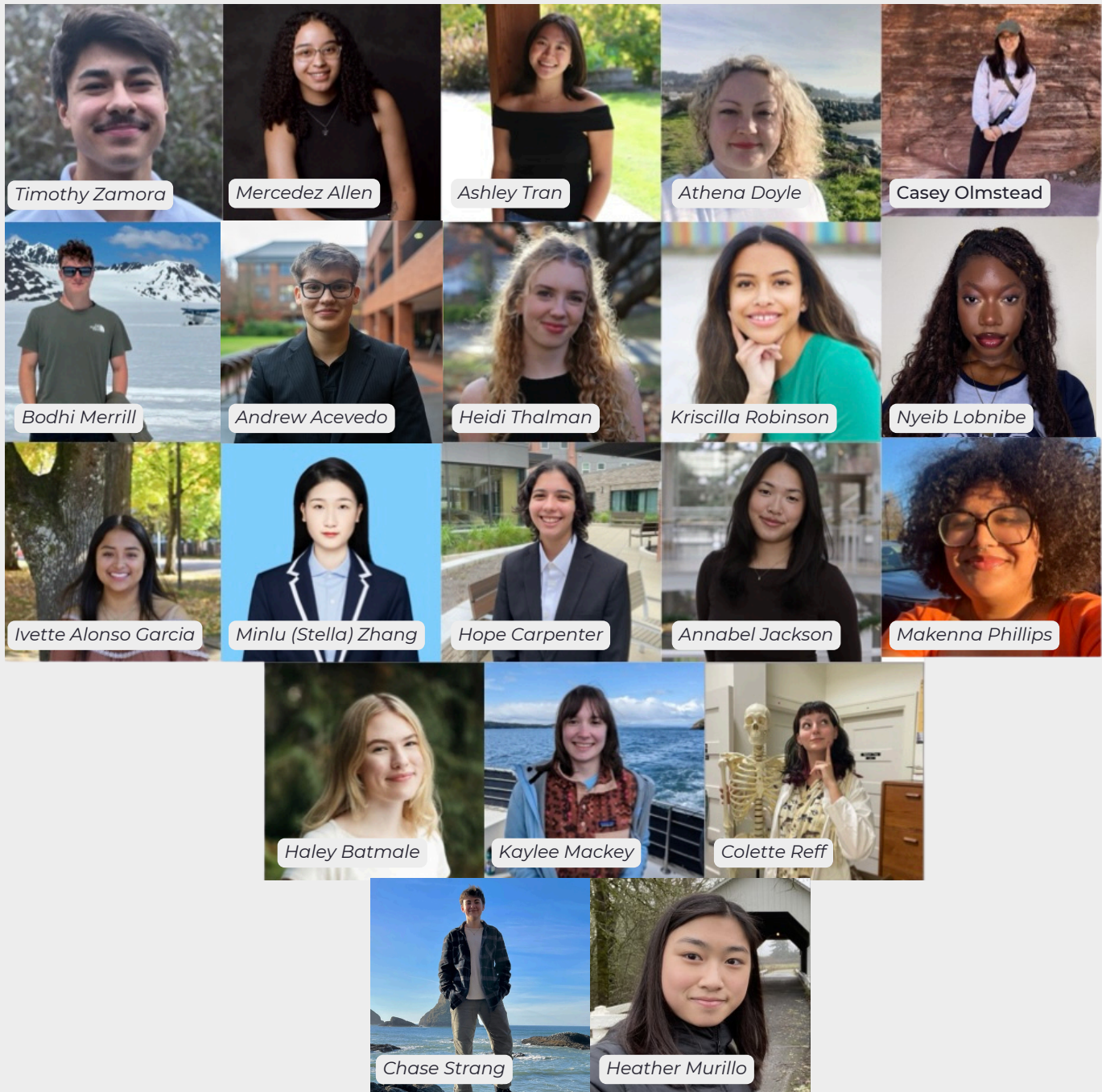
This was led by Laura Gabel with DOGAMI and Carrie Garrison-Laney with WA SeaGrant. The second trip ventured to the Port of Chinook, WA and included several stops along the way to explore their coastal challenges and strategies to combat erosion and flooding. This trip was led by Jackson Blalock with the Pacific Conservation District.



Participants walk along the Port of Chinook shoreline

ANNOUNCING OUR NEW COHORT OF CHARTER FELLOWS: WELCOME ABOARD!

The Cascadia CoPes Hub welcomes 20 new members to our 4th CHARTER Fellow Cohort! The Cascadia Coastal Hazards and Resilience Training, Education and Research, or CHARTER, program offers formal and informal training, education and hazards science research across the middle school, high school, undergraduate, graduate, and postdoctoral levels. The CHARTER Fellows program provides a unique opportunity for students who identify as BIPOC (Black, Indigenous and people of color); Latinx; LGBTQ; first generation; and/or low-income, in all academic disciplines to participate in hazards and resilience research. Read more about our fellows [here](#).



GRADUATE STUDENT LEADS THE WAY: MADELEINE LUCAS ON CCASE AND CASCADIA RESILIENCE

Hub PhD student Madeleine Lucas (University of Washington) gave a seminar at the Hatfield Marine Science Center on January 30, 2025. Her well attended session showcased the Cascadia Culture & geoScience Exchange (CCASE) Program, which aims to increase resilience to Cascadia subduction zone earthquakes and tsunamis in coastal Washington and Oregon communities, particularly among indigenous groups.



With fewer than 1% of Earth Science degrees awarded to Native Americans, CCASE seeks to engage tribal youth in STEM by connecting Earth Science to their cultural values and community needs. By integrating indigenous culture and language into their curriculum and providing mentorship to high school students through the internship program, CCASE aims to

support tribal school students in building strong science identities and to inspire Native American youth to pursue Earth Science careers. Their mission is to develop long-lasting and impactful education partnerships with schools affected by Cascadia earthquake and tsunami hazards towards collectively increasing community resilience to these hazards.

ANNUAL SOCIETY FOR APPLIED ANTHROPOLOGY CONFERENCE

Hub members presented at the Annual Society for Applied Anthropology Conference in Portland, OR on March 28th. Team 3 Members (left to right) Laurie Richmond, Clara Riggio, Kailin Sepp, Maja Jeranko, Joshua Blockstein, Jenna Tilt, Andrea Mah, and Najiba Rashid, presented a panel entitled “Building Inclusive Adaptive Capacity to Coastal Hazards in Cascadia”. Panelists were able to share their research projects and engaged in a hearty Q&A discussion with attendees.



FROM FIELD TO FUTURE: BAF FELLOWS EXPLORE COMMUNITY-ENGAGED DISASTER SCIENCE AT UW

From April 3-5, UW's Center for Disaster Resilient Communities (CDRC), the NHERI RAPID Facility, and the Cascadia CoPes Hub partnered with the William Averette Anderson Fund (BAF) to host nearly 30 doctoral BAF Fellows at their Spring 2025 Workshop. The Fellows, an exceptional group of doctoral students specializing in hazards and disaster studies across a range of disciplines and institutions, are supported by the BAF as part of its mission to increase the number of underrepresented professionals in disaster research and practice. This spring's workshop, hosted on UW's Seattle campus, deepened connections between Fellows and the regional disaster research community, familiarized the Fellows with the RAPID facility, fostered professional development through exposure to community-engaged applied research, and increased awareness of the BAF among CDRC, Cascadia CoPes Hub, and RAPID Facility researchers and leaders.



The first day of the workshop consisted of a deep dive into ongoing research collaborations with community groups in Seattle's Duwamish River Valley, including a field visit alongside local community partners.

A panel of Hub researchers answer BAF Fellow questions after presenting on the Hub's research and goals

Hub researchers and leadership opened the next day by providing an overview of the Hub, the work done by each team, and examples of the projects. Fellows also engaged in a roundtable discussion about advancing community leadership in disaster risk reduction with UW leadership, local government, and a BAF alum. The RAPID Facility also gave Fellows a comprehensive overview and tour of the facility before leading the fellows through hands-on demonstrations of the Facility's field research equipment. Finally, CDRC's director of Tribal engagement and Hub researcher Jamie Donatuto closed out the workshop with a community engagement training.

The CDRC and other sponsors of the workshop are grateful to have had this opportunity to host and train so many talented, motivated, and compassionate doctoral candidates, and look forward to supporting the Fellows as they continue their academic and professional journeys.



BAF Fellows ask questions about air quality monitoring instruments during a RAPID Facility equipment demonstration

CHARTER FELLOWS SHINE AT PSA CONFERENCE IN SAN FRANCISCO

Ten undergraduate Charter Fellows from the Cascadia CoPes Hub traveled to San Francisco for the 2025 Pacific Sociological Association (PSA) Conference, held March 28–30. Each Fellow presented original research during poster sessions, engaging with peers, faculty, and professionals from across the country. The event marked a milestone for the students—and the program—as it delivered on a key goal: supporting students in presenting their research at a major academic conference. For many, this was their first time attending and presenting at an international scholarly gathering.

"This conference was such an amazing experience for me and very validating," said Fellow Catalina Kurihara, who reflected on the opportunity to share her work and build connections with other undergraduates. "I've always been eager to learn and find what I'm passionate about. Having my work seen by others meant so much. I'm excited to go to the All Hub Meeting and present again."

Additionally, Mya Baker and Annika Jensen respectively presented posters on "Community Connect: Bringing Neighbors Together Through Gamified Disaster Preparedness" and "Leveraging Telehealth to Enhance Connectivity and Care for Coastal Communities During Natural Disasters". Both projects explored the challenges of "islanding" in disasters, and involved geospatial analysis and stakeholder interviews and focus groups in Westport, South Beach and Grays Harbor, WA, which they conducted under the supervision of Hub member Dan Abramson, funded through an NSF Research Experiences

for Undergraduates (REU) supplement to the synergistic Smart & Connected Communities project "Socially-integrated robust communication and information-resource sharing technologies for post-disaster community self-reliance", for which Abramson is Co-PI. Baker and Jensen will also present their posters at the April 2025 Hub Annual Gathering in April.

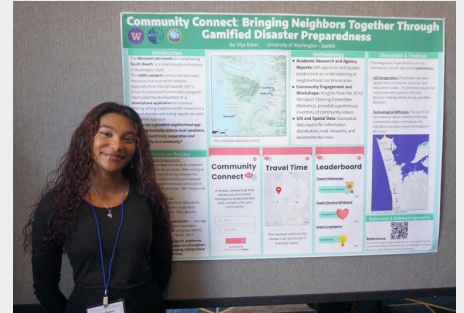
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The PSA conference provided more than academic enrichment. Fellows explored the city's museums, iconic landmarks, and capped their experience with a shared dinner at a South Asian restaurant—moments that deepened their sense of community. The success of this trip highlights the collective efforts behind the Charter Fellows program.

"The experience was transformative, impactful, and showed overall growth in my perspective, mindset, and learning. We worked closely with numerous Community-Based organizations and local nonprofits to provide safe, clean kits to the houseless communities around. As a person who has never been to California, I was glad to spend my time giving back and learning about the surrounding communities." - Ivette Alonso Garcia

Next year, the PSA Conference heads to Long Beach, California, and the Cascadia CoPes Hub looks forward to continuing to support the academic journeys of undergraduate scholars from across the Pacific Northwest. As fellow Catalina added, "I think I'm now the first woman in my family to present research at a conference. I feel so lucky to have found the Cascadia CoPes Hub."



Maya Baker presents her poster at PSA

CENTERING PLACE AND COMMUNITY TO ADDRESS CLIMATE CHANGE AND SOCIAL JUSTICE

The partnership between the University of Washington and the Shoalwater Bay Indian Tribe (SBIT), supported in part by a UW EarthLab Innovation Grant, reached a meaningful milestone in December 2024. A Tribal Community Workshop held on December 13 brought together community members to share stories about the deep meanings of place and their reflections on relocation—conversations vital to the Tribe's upland expansion and long-term master planning in the face of growing coastal hazards.

The workshop was led by UW Landscape Architecture Professor and environmental psychologist Lynne Manzo, with facilitation support from EarthLab project PI and Hub member Dan Abramson; UW Urban Design and Planning Assistant Professor Dylan Stevenson; and UW Landscape Architecture research assistant Jessika Gill. It was presided over by SBIT Tribal Council Chair Quintin Swanson.

While the EarthLab-funded phase of the collaboration has wrapped up, the partnership continues to grow. SBIT is continuing work with UW through a series of studios and seminars. Among them is the Winter 2025 McKinley Studio, "Designing Positive Ecological Futures for the Lowlands of the Shoalwater Bay Indian Tribe," taught by Dylan Stevenson, Julie Kriegh, and Hub member Celina Balderas Guzmán.

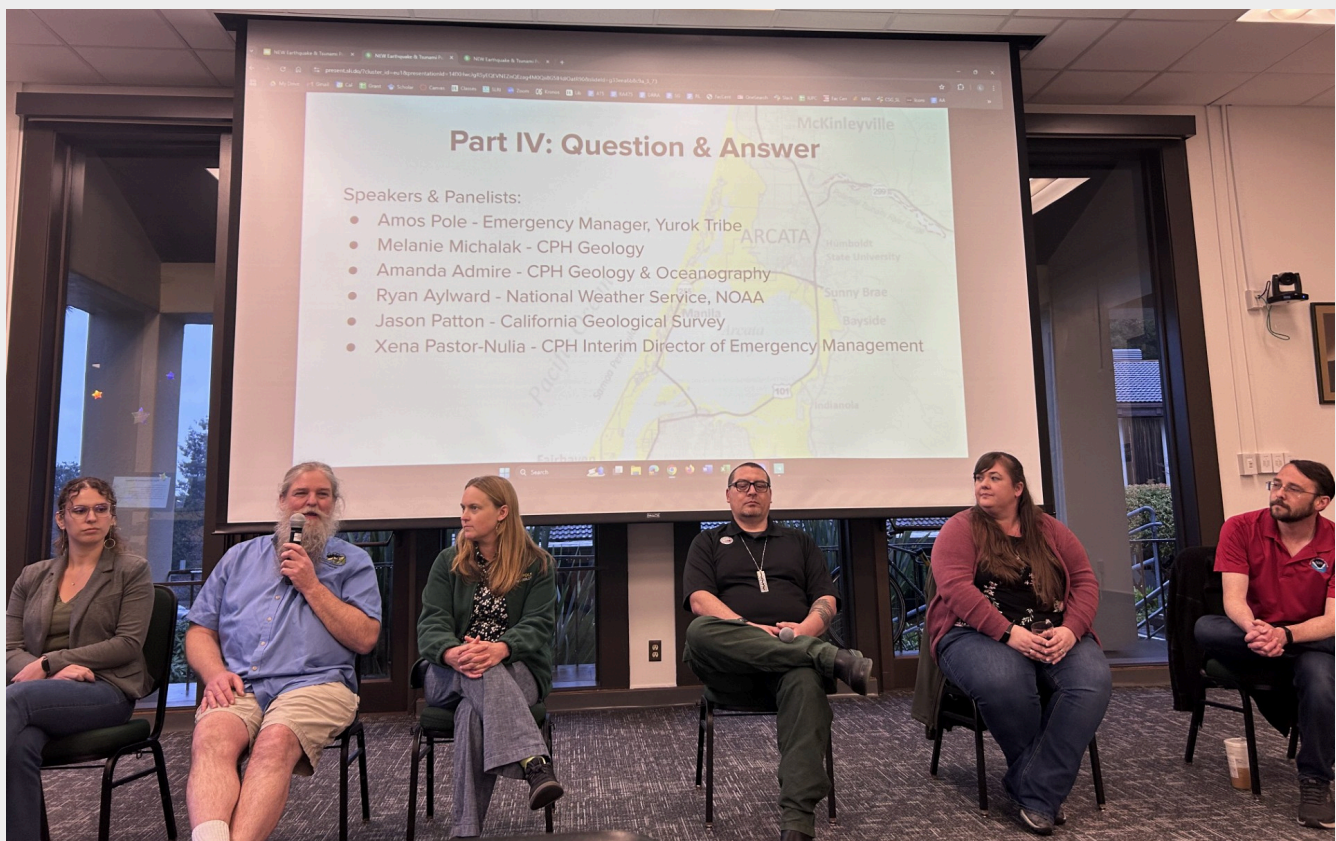
The work also expands into storytelling. Abramson and the project team are collaborating with SBIT and Rishi Sugla's Stories as Science team—part of a NOAA-funded initiative through the UW Climate Impacts Group and Northwest Climate Resilience Collaborative. Together, they are exploring how oral histories and video documentary storytelling can enhance coastal hazards adaptive planning.

LESSONS FROM THE 2024 DECEMBER EARTHQUAKE AND TSUNAMI WARNING

On Dec. 5, 2024, a magnitude 7.0 earthquake struck off the coast of Humboldt County, shaking communities and triggering a tsunami warning along Northern and Central California's coastline. [Local experts came together](#) on March 12, 2025 to reflect on the event by discussing ways to strengthen community resilience to earthquakes and tsunamis.

[The presentation and discussion](#) featured a panel of specialists from Cal Poly Humboldt, the National Weather Service, the Redwood Coast Tsunami Work Group, and the California Geological Survey. Topics included why earthquakes occur so frequently in the region, the effectiveness of earthquake and tsunami warning systems, and lessons learned from the Dec. 5 event to better prepare for future seismic events. The forum's goals were to explain how the systems that are in place work to alert residents, inform and empower community members, and improve future responses. You can watch the video here: <https://www.youtube.com/watch?v=GuzDqg9lHyE>

Panelists and presenters included Hub members Jennifer Marlow (Environmental Science & Management, Cal Poly Humboldt) and Laurie Richmond (Environmental Science & Management, Cal Poly Humboldt, California Sea Grant). The event was sponsored by the Cal Poly Humboldt Geology and Environmental Science & Management departments, California Sea Grant, the Redwood Coast Tsunami Work Group, and the Cascadia Coastlines and Peoples Hazards Research Hub. Mad River Union wrote a piece on the forum, which can be read [here](#).



UO TEAM PARTNERS WITH BANDON TO TACKLE COASTAL HAZARDS AND BUILD RESILIENCE



In mid-April, the UO research team—joined by graduate students and CHARTER fellows—gathered to continue planning their research efforts in support of Bandon, Oregon, on the South Coast. The region faces increasing vulnerabilities due to shifting precipitation and temperature patterns, along with heightened flood risks. These changes threaten local species, habitats, infrastructure, the economy, and public health and social systems in and around the City of Bandon and the Coquille River watershed. Together, this group—known as the Coastal Hazard Mitigation and Placemaking Project—is collaborating with the City of Bandon to address coastal hazards in the low-lying South Jetty area and support the community in building a more resilient and thriving future.

REGIONAL GOVERNANCE SOLUTIONS FOR SEA-LEVEL RISE ADAPTATION: PERSPECTIVES FROM HUMBOLDT BAY, CA

Former Masters student Kristen Orth-Gordinier and her advisor Laurie Richmond recently had a paper published in the journal *Environmental Science and Policy*. The manuscript is titled "Regional governance solutions for sea-level rise adaptation: Perspectives from Humboldt Bay, California." Coastal hazards like sea-level rise cross jurisdictional boundaries, but there can often be barriers to different agencies working together to develop solutions. This paper talked with people connected to the Humboldt Bay region to gain a sense of possible solutions or strategies to allow agencies to work better together on a regional scale to address sea-level rise.

The research team conducted interviews with 46 and surveys of 107 coastal professionals working in the Humboldt region to explore their perspectives on regional coordination. They found near universal belief that regional coordination should occur, but more mixed views on what form that coordination should take. Most agreed that developing a coordinating solution should be a bottom-up process and that it should involve some collaboration between local and state government entities. They also agreed that strong neutral facilitation was necessary. Many expressed concerns about setting up an entirely new government entity, worrying that it could siphon time and funding and create an additional layer of bureaucracy. Findings revealed that development of novel arrangements related to coastal hazard governance needs careful consideration as there are potential advantages and drawbacks to new approaches. Read the full paper [here](#).

UPCOMING EVENTS

April 16 - 18 2025 - Felicia Olmeta Schult (OSU Extension / OR Sea Grant) will have a table with coastal hazards preparedness resources at the Oregon Prepared Conference hosted by OEM in Sunriver, OR. Learn more about this event [here](#).

May 13 - 15, 2025 Community Surface Dynamics Modeling System

Annual Meeting, Boulder CO - Hub members Randy LeVeque and Loyce Adams will be participating in the Community Surface Dynamics Modeling System ([CSDMS Annual Meeting](#)) May 13-15 in Boulder, where this year's theme is "Exploring Earth's Surface with Models, Data & AI". This will be followed by a [GeoClaw Developers' Workshop](#) and Hackathon they are organizing at CU facilities, May 16-18.

May 21, 2025, 10:00 am - 12:00 pm PT- Felicia Olmeta Schult (OSU Extension / OR Sea Grant) will be moderating a webinar on community preparedness focused on older adults. Please join the Oregon Department of Emergency Management, in partnership with the Oregon Advocacy Commissions Office, AARP, Oregon Association of Area Agencies on Aging and Disabilities, the OSU Extension Service and Oregon Sea Grant for a virtual educational meeting on how to help older adults prepare for the disasters we face every year in Oregon such as ice storms, wildfires, and extreme heat. Each session will include live translation in English, Spanish, Vietnamese, Russian, and Chinese, as well as American Sign Language (ASL) interpretation.

June 16- 18, 2025, Columbia Climate School's Managed Retreat Conference

Hub member Dan Abramson (UW) will be hosting a session on "'Managed Retreat' vs. 'Upland Expansion': Multi-scalar Collective Strategies for Coastal Community Adaptation" that will include presentations by Abramson on "Integrating Sea Level Rise and (Co/Inter-)Seismic Hazards Information for Short and Long Term Coastal Community Adaptation in Washington State"; Hub member Celina Balderas Guzmán (UW) on "Supporting Adaptive Capacity in Coastal Communities through Co-Produced Informational Graphics"; plus talks from more UW faculty.

July 16 - 17, 2025, Natural Hazards Workshop Researchers Meeting,

Broomfield, CO - Hub members Dan Abramson, Ann Bostrom and Ziyang Liu plan to present a paper on the communication of chronic/gradual and episodic/sudden hazard information with a values-driven, asset-based participatory workshop protocol using geonarratives of historical and projected coastline change in South Beach, WA.

MEMBER SPOTLIGHTS

DWAINE PLAZA CHAMPIONS DEI AS 96TH PSA PRESIDENT



Dwayne Plaza (right) stands with two CHARTER fellows at PSA

Dwayne Plaza recently completed his term as the 96th President of the [Pacific Sociological Association](#). He led the organization from 2024 to 2025 through a pivotal moment in its history as it continued rebuilding post-COVID. His presidential conference, held from March 27th- March 30th, 2025 at the Parc 55 Hilton Hotel in San Francisco, centered on the timely and urgent theme, 'Sociology in Crisis: Strategies for Teaching and Researching in a Culture of Anti-DEI'.

The conference attracted 653 delegates from across the United States and Canada, reflecting the discipline's growing concern over challenges to diversity, equity, and inclusion in academia and society at large. A notable highlight of the conference was the participation of ten Cascadia Charter Fellows, who contributed to the scholarly exchange by presenting their own original research posters on the social impact of earthquakes and tsunamis.

CONGRATULATIONS TO CHARTER FELLOW HEATHER MURILLO ON HER REU ACCEPTANCE!

Heather was recently accepted into the Purdue University, West Lafayette REU (Research Experience for Undergraduates), which will take place on May 26 to August 9 of this year, followed by a symposium on July 30. She will work on the project 'Integrated Biochemical and Physicochemical Processes to Recover Critical Metals from Municipal Solid Waste in Landfills'.



CONGRATULATIONS TO CHARTER FELLOW IVETTE ALONSO GARCIA ON HER DC-BASED INTERNSHIP!

Ivette will be 1 of 6 students from the CAMP (College Assistance Migrant Program) program picked for the Internship where she will be traveling to Washington DC and partnering with the Congressional Hispanic Caucus Institute (CHCI) for weekly leadership training. She will be Interning under Congresswoman Teresa Leger Fernandez's Office (NM-03). [HEP and CAMP](#) are educational programs which serve students from migrant or seasonal farm-worker families.



DR. ERIN WIRTH WINS THE PRESIDENTIAL EARLY CAREER AWARD



Before leaving office, President Joe Biden awarded nearly 400 scientists and engineers the Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the U.S. government on outstanding scientists and engineers early in their careers. Earth and Space Sciences affiliate faculty Erin Wirth was among those named.

HAROLD TOBIN 'WENT ON TOUR' AS OCEAN DISCOVERY LECTURER



ESS professor Harold Tobin was selected as one of six distinguished lecturers for the Ocean Discovery Lecture Series during the 2024-2025 academic year. This honor places him among a select group of experts invited to share groundbreaking research and insights that have come through scientific ocean drilling, specifically focusing on the international scientific efforts to understand the planet's most critical subduction fault zones. Read more [here](#).

PUBLICATIONS

****Bold** indicates a Hub member*

Pinardi, N., Kumar, T. S., Alvarez-Fanjul, E., Ansong, J. K., **Burgos, A.**, et al. (2024). Ocean Decade Vision 2030 White Papers – Challenge 6: Increase Community Resilience to Ocean Hazards. Paris, UNESCO-IOC. (The Ocean Decade Series, 51.6). <https://doi.org/10.25607/smm1-nq79>

Allemeier, A.M., Drummond, C., Tiefenthaler, B., Dvorak, T. C., Holza, F. M., Hume, C., Kreger, R. B., Koulibali, C. I., Khan, H. A., Best, A. L., Gee, T., Pedersen, G. D., Glover, K., **Ganu, D.**, et. al. (2025). Endocannabinoid involvement in beneficial effects of caloric restriction in a rodent model of comorbid depression and epilepsy. Progress in Neuro-Psychopharmacology and Biological Psychiatry 136, 111212. <https://doi.org/10.1016/j.pnpbp.2024.111212>

C Liu, BM Staes, **H Wang** (2025). Evacuation Time Estimates for Life Safety in Tsunami Hazards, International Journal of Disaster Risk Reduction. doi.org/10.1016/j.ijdr.2025.105237

Ganu, D., Starks, B., Davila, S. A., & Medrano, A. S. (In Press). Campus climate and the mental health of college student caregivers: The mediating role of group belonging. Journal of College Student Development.

Biel, R.G., **Hacker, S.D.**, Gerrity, S., Seabloom, E., **Ruggiero, P.** Interactive effects of invasiveness and community invasibility of grasses on US Pacific Northwest dunes. Biol Invasions 27, 103 (2025). <https://doi.org/10.1007/s10530-025-03564-x>

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Wang, Z., Leung, M., Sudarshana Mukhopadhyay, Sai Veena Sunkara, Scott Steinschneider, Jon Herman, Marriah Abellera, John Kucharski, **Ruggiero, P.**, 2025. Compound coastal flooding in San Francisco Bay under climate change, npj | Natural Hazards, <https://doi.org/10.1038/s44304-024-00057-0>.

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