

NEWSLETTER

Winter 2024, ISSUE 16



MAST 201 students drive the R/V Taani simulation at the Hatfield Marine Science Visitor Center while on a class field trip.

FROM THE DIRECTORS' DESKS

With the new year 2024, we are excited to announce the future of the Marine Studies Initiative (MSI). To celebrate the importance of MSI to OSU, it will transition from a catalyst initiative to a permanent academic support program called Marine and Coastal Opportunities (MACO), within the Provost's Office of Academic Affairs alongside Global Opportunities and other university experiential learning programs.

MACO will continue to sustain and expand marine and coastal experiential learning, as well as raise visibility of university-wide marine and coastal teaching and scholarly work. Jack Barth will continue to support MSI and MACO as he transitions to fulltime professor in the College of Earth, Ocean, and Atmospheric Sciences. Kristen Milligan, who has served as MSI Associate Director for 7 years, will become program director for MACO. Kristen and Jack will work with Steve Wuhs, Associate Vice Provost for Academic Affairs, to establish MACO. More details will follow.



Jack Barth,
MSI Executive Director

The MSI was conceived in 2014-2015 and launched in 2016, creating a hub office for university-wide engagement. Our newsletters highlight much of the work facilitated and supported by our MSI Office: new coastal experiential courses, student and faculty awards, internships, research collaborations, and more. Other achievements include:

- In partnership with the College of Liberal Arts, the creation and launch of an interdisciplinary Marine Studies undergraduate degree program.
- With Hatfield Marine Science Center and leadership by Robert Cowen, Associate Vice President for Research and Operations, (1) completion of the state-of-the-art, 70,000-square-foot Gladys Valley Marine Studies Building and (2) the current construction of new 34,000-square-foot housing for students and visiting professionals.
- With academic partners across the university, expanded course offerings at the Hatfield Marine Science Center and new student internship opportunities.

This change coincides with the beginning of Oregon State University's strategic plan "[Prosperity Shared Widely](#)", a plan with actions directly relevant to how we, at OSU, help to create a healthy future for our ocean and the planet. We thank everyone involved in this initiative. Ever onward!



Kristen Milligan,
MSI Associate Director

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Fall Term: Experiential Learning at the Oregon Coast

This fall, nearly 260 students, representing 9 colleges, 18 undergraduate majors, and 14 graduate programs came to Hatfield Marine Science Center for their coursework. Attendance included single day field trips by Humans and the Ocean (MAST 201) and Environmental Field Studies (ENVS 221), weekend field trips by Estuarine Ecology (OC 434/534) and Sensors in the Wild Ocean (HC 407), and courses held at Hatfield either for the full term (Behavioral Ecology of Marine Animals (FW 466/566), Special Topics: Bayesian Modeling for Ecologists (FW 599), and Marine Science Seminar (FW 407/507)) or as fall extension term intensives such as Methods in Physiology and Behavior of Marine Megafauna (FW 469/569), Oregon Coast Math Camp (OC 515), and Observing Climate (ATS 295).

Spotlight: Coastal Ecology and Marine Resources, FW 426/526, led by Fisheries, Wildlife, and Conservation Sciences faculty Scarlett Arbuckle and Mauricio Cantor, is an innovative hybrid field course serving as an undergraduate capstone and key graduate experiential course. Through mentored research experiences, students customize their learning to study ecology and management of coastal ecosystems. The setting at the Hatfield Marine Science Center provides access to ecosystems, working waterfronts, and many faculty, agency, and non-profit partners. Offered in the Fall 2023 term, this term boasted:

22

Fall 2023, 22 students from 6 colleges and 7 majors/programs enrolled

4

4 intensive, residential field days at the coast to learn about coastal ecosystems and create peer and professional networks.

2

2 learning modalities. After the field intensive, students complete the remainder of the course in person at Hatfield or via Ecampus.

1

1 end-of-term symposium for students to present research

MAST Undergrad Program Update “Oceans and Society” Book

The Marine Studies (MAST) undergraduate degree program continues to grow! New majors increased by nearly 20% in the past year, with 1/3 of the students as new first-years! Building on the original vision of MSI, we recently received final approval for a campus-wide and online minor in Marine Studies. The MAST minor is a great way for students across degree programs to complement their studies and deepen their understanding of the dynamic interconnectedness of human cultures, literature and philosophy, and the social sciences within marine and coastal spaces. Through the collaborative efforts forged by MSI and the College of Liberal Arts, both MAST majors and minors will be able to bridge their classroom knowledge and applied coastal passions. Learn more about MAST at: beav.es/qsx

- Lori Cramer, Assistant Director, MAST degree program

Written by Dr. Ana Spalding, Associate Professor of Marine and Coastal Policy at OSU, and Dr. Daniel O. Suman, Professor of Environmental Law at the University of Miami, *Oceans and Society: An Introduction to Marine Studies* introduces the interdisciplinary field of marine studies and the dynamic relationship between people and the marine environment. This book draws on social science and humanities approaches to address challenges such as climate change, fisheries, aquaculture, marine pollution, and management of areas beyond national jurisdiction.

The MSI is proud to have supported Dr. Spalding in this endeavor. The MSI office has 2 copies available to faculty, staff, students, and community members to read in-office at Strand 300 on Corvallis campus, open 9 a.m.- 4 p.m. Purchase at: beav.es/qAw

Made possible because of generous private contributions, MSI Advancement Awards foster interdisciplinary teamwork. Awardees explore the human aspects of these environments—delving into how people engage with and leave an impact on the ocean and coasts. Eight new projects were funded in 2023, three of which have been featured in past newsletters:

- Creative Coast course: is a four-credit, five-day intensive experiential learning, studio art course that focuses on the Cape Perpetua Scenic Area. Leaders: Michael Boostra and Andy Myers (CLA)
- New Indigenous Ocean and Coast Class: Award-winning experiential, cooperative education course with long weekends at the coast. Leader: Natchee Barnd (CLA)
- Pernot STEM Academy Microbiology Summer Camp: Experiential learning program for historically underrepresented or underserved students interested in a STEM career, with a day at Hatfield Marine Science Center. Leader: Rebecca Vega-Thurber (COS)

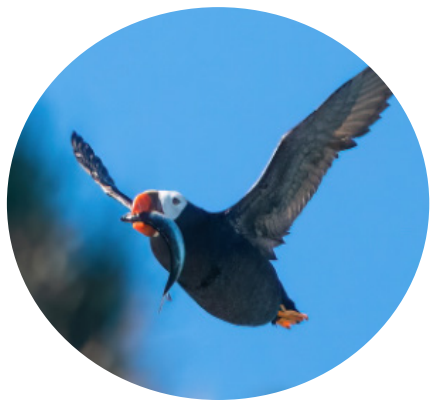
The other projects, well underway are:

- Collaborating for Future Ocean Social Science in Oregon Retreat: This two-day retreat unites coastal social scientists from Oregon state universities to share research, fostering collaborations. Leader: Kelly Bienenweg (CAS)
- Ground Zero Groundwater 101: Folklore, Facts, and Futures: Addressing groundwater mysteries, this project includes workshops on the Oregon Coast to explore the coastal underground, risks from septic systems, and the impact of sea level rise. Leader: Todd Jarvis (Institute for Water and Watersheds, OSU)
- Stakeholder Engagement for Coastal Community Resilience: Focused on the Cascadia Subduction Zone risk, this project enhances community resilience through listening sessions in coastal communities.
- Using Photography to Gain Insight on Seabirds and Humans: An internship focused on the ecological knowledge gap about Oregon’s coastal birds, in particular the visually stunning tufted puffins. It resulted in crucial data collections and a photo essay. Leader: Rachael Orben (CAS)

See a spotlight on the Ocean Object Art Exhibit below, another MSI 2023 Advancement awardee! More info on all the 2023 projects can be found at our website: beav.es/qW5

Ocean Object Art Exhibit

In Fall 2023, the Marine Studies Initiative supported the Ocean Object art exhibition at Fairbanks Hall, by Sarah FitzSimons, including a reception on November 2nd. On display was her Pacific Quilt, a hand sewn depiction of the Pacific Ocean that measures over 500 square feet. The quilt includes varying shades of fabric to depict changes in the ocean floor and lines sewn to represent the currents on the surface of the Pacific. Sarah started work on the quilt following a move to the Midwest after years of living on different coasts. It is the first quilt she has made; it took 5 years to complete and acts as a way for her to take the ocean with her wherever she is. It was designed to be both an art piece and a way of linking Sarah’s home to the ocean. The quilt has been on display all over the country, most recently here at OSU as well as the State of the Coast Conference at Hatfield Marine Science Center. Currently, Sarah teaches courses on Sculpture at the University of Wisconsin-Madison. More information about Sarah and her other amazing projects can be found on her website: sarahfitzsimons.net

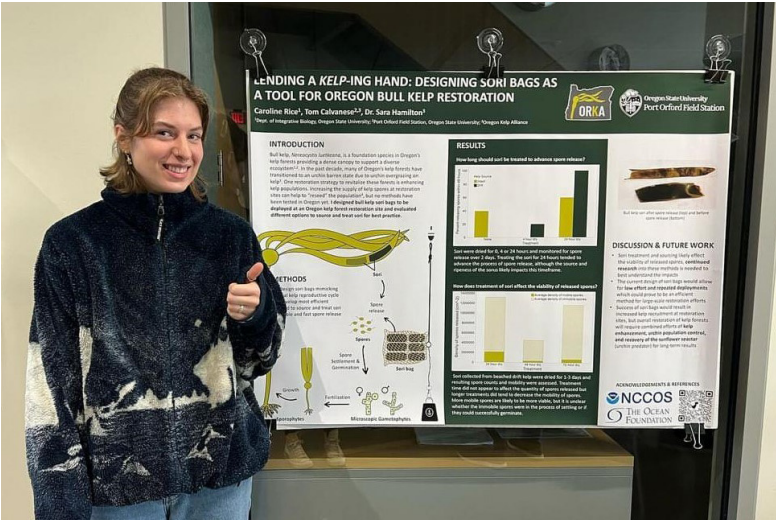


A tufted puffin photograph taken during the 2023 Advancement Award project, “Using Photography to Gain Insight on Seabirds and Humans on the Oregon Coast”. Courtesy of Rachael Orben.



Sarah FitzSimons' “Ocean Object” quilt that was displayed in Fairbanks Hall, OSU Corvallis Campus during Fall 2023.

Port Orford Field Station



Caroline Rice stands next to her project poster while presenting at the CERM symposium.

This fall, we said farewell to our summer interns. However, the field season wasn't yet finished, and we still hosted groups of researchers including the PISCO Lab and Reef Check. One of our summer interns enjoyed their time here so much they decided to stay and finish their undergraduate capstone project. Caroline Rice is an undergraduate studying Biology with a marine biology option. Caroline spent her fall at the field station working on a project for her Coastal Ecology and Resource Management class as part of her Marine Conservation and Management minor. The project focused on developing a new methodology for kelp forest restoration through kelp forest enhancement. Caroline worked in partnership with the Oregon

Kelp Alliance and the Port Orford Field Station. The project involved the development of kelp spore bags to enhance reproductive inputs at kelp restoration sites. These spore bags once completed would be easily deployed where there is no longer kelp to "reseed" the area in hopes that kelp will grow the following season. Caroline presented her research at the CERM (Coastal Ecology and Resource Management) poster symposium and completed her undergraduate degree. Congratulations, Caroline! We look forward to hosting more interns and students in the summer of 2024.

Ocean11 Marine Club

Ocean11 had a record-breaking Fall with the number of students experiencing the ocean and our Ocean11 "family." Over 130 filled our Fall Kick-Off Meeting space to start things off. Then our student Leadership Team led our 5 Committees through a multitude of activities. Our Community Outreach Team organized our largest Beach Cleanup yet with 80 signing up to remove macro and microplastics near Devils Punchbowl. Next Gen Outreach Team had 20 students engaging with 1,400 school kids over ocean education activities at OSU Discovery Days. Our Field Trip Team led 50 students on our annual overnight in Newport, exploring Hatfield and the OCCC Aquarium Science Program. Our Social Committee hosted 60+ at our Fall football tailgate and 90+ in the pool at their Float-In Movie Night. Research and Learning Opportunities' try at a new activity was wildly successful, as their Science Illustration Workshop brought 55 students--their largest event ever. Other new activities included partnering with the College of Forestry for their Holiday Tree Auction. Using an ocean theme, O11 members trimmed a fir with seashells, handmade decorations, etc., all proceeds going to a food pantry. Our tree had the second highest bid at \$300! What great momentum rolling into 2024!



Ocean11 Fall Kickoff meeting with tons of students!

Are you an undergraduate student with a passion for the ocean? If so, OSU's Ocean11 Marine Club may be the perfect fit for you!

For information about how to get involved, contact Ocean11 at ocean11osu@oregonstate.edu

For more information about Ocean11, visit: beav.es/ocean11



Community Artwork



The artwork created by Ryan Osha, MSI Media and Communication Tech student worker, and his grandparents, Johanna and John Stutsman.

This beautiful artwork was created by MSI student worker, Ryan Osha, and his grandparents, Johanna and John Stutsman. The watercolor painting depicts two killer whales, also known as orcas, spyhopping near the Yaquina Head Lighthouse in Newport, Oregon. Though not common in Oregon's transient killer whales, spyhopping is common in Southern Resident killer whales, who spend the summer months in the Puget Sound of Washington State.

UN Decade of Ocean Science

Did you know the international community, through the United Nations (UN), has designated 2021-2030 as the Decade of Ocean Science for Sustainable Development – [UNDOS](#) for short? We're rallying around "the science we need for the ocean we want." This is in support of several of the UN Sustainable Development Goals, including #7 Affordable and Clean Energy, #13 Climate Action and, especially, #14 [Life Below Water](#). Efforts are focused around ten challenges including to sustainably feed the global population, develop a sustainable and equitable ocean economy, expand the global ocean observing system, and ensure skills, knowledge and technology for all. The [Ocean Decade Collaborative Center for the Northeast Pacific](#) -- MSI Executive Director Jack Barth serves on their Advisory Board -- has the mission to support and facilitate co-designed and co-produced knowledge for collaborative solutions to ocean challenges in the Northeast Pacific region. We encourage you to learn more about and participate in the UN Decade of Ocean Science!

Science for the Sea in OSU's Strategic Plan

Great news that OSU's new strategic plan for 2024-2030, "[Prosperity Widely Shared](#)," has elements focused on the ocean and coasts, namely 1) "climate science and related solutions" as the ocean is the climate, 2) "clean energy technology and related solutions" that includes ocean renewable energy, 3) "robotics" that includes autonomous ocean vehicles with sensors, and 4) "integrated health and biotechnology" that includes sustainable food and drugs from the sea.



Hatfield Marine Science Center



Left: “Upogebia or “Blue Mud Shrimp” painting by Emy Daniels. Center: Emy Daniels, HMSC Artist-in-Residence.
Right: Emy’s plein air painting of the Western Flyer ship docked in Newport, Oregon.

Introducing Hatfield Marine Science Center’s newest Artist in Residence, Emy Daniels! Emy is a painter who creates fascinating illustrations of marine life and costal landscapes using primarily gouache, a method of painting using opquae pigments ground in water and thickened with a gluelike substance. She also used a mix of acrylic, watercolor, colored pencils, and graphite. She enjoys plein air painting (painting outside in the open air) as it allows her to observe the environment in the moment and create layered illustrations that draw the viewers in. Emy uses her art to show viewers the impact science has on our planet.

Emy Daniels was born in California and received her Bachelor’s degree in Biology and Studio Art from the University of California, San Diego. She then went on to receive a Master’s degree in Biology from the Scripps Institution of Oceanography as well as work in various marine biology research labs at Scripps. Growing up in California and now residing in Newport, Oregon, Emy has spent her life surrounded by the ocean and its beauty. She is “inspired by the varied coastline, weather, and intimate encounter with wildlife,” and brings these views and experiences to life in her art.

Check out Emy’s art throughout the Hatfield Marine Science Center and on her Instagram [@EmyDanielsArt](#) and [@Revolution.Zine!](#)

Big Blue Film Fest

Led by the Hatfield Marine Science Science in collaboration with partners, the Big Blue Film Festival (BBFF) is back in Newport! After being a tremendous success in 2023, the BBFF will return on **January 26 – 27, 2024** to showcase ocean-themed films at the intersection of marine studies, humanities, and the arts. The festival will be held at the Hatfield Gladys Valley Marine Studies Building and the Newport Performing Arts Center. The festival will span two nights, with an award ceremony and films on Friday night and films on Saturday. Breaks in between the films provide guests the opportunity to explore the Hatfield and Newport. Along with food and drink, t-shirts and stickers will be for sale. **Remember to purchase tickets at the link below prior to the event!**

Tickets available at: linktr.ee/bigbluefilmfest



MSI Faculty Update

Introducing Angela Cicia as our newest team member, joining the Marine Studies Initiative as the MSI Academic Development Coordinator. Angela began her work on October 16, with offices at Hatfield Marine Science Center and our Corvallis campus office at 300 Strand Ag Hall. She also holds a Senior Instructor position in Fisheries, Wildlife and Conservation Sciences.

Angela will have a vital role in advancing OSU coastal-based courses and curricula. Her work includes collaborating with faculty, advisors, university units, Hatfield Marine Science Center, and others to plan and promote coastal experiential learning. This new position reflects the expanded demand and development opportunities for courses at the coast. We benefit immensely from the experience and perspectives Angela brings from her prior work, including General Biology Course Coordinator and Assistant Director of Student Support at Arizona State University and Marine Science Laboratory Coordinator at the University of New England, where she coordinated operational support for field and experiment-based teaching laboratories.



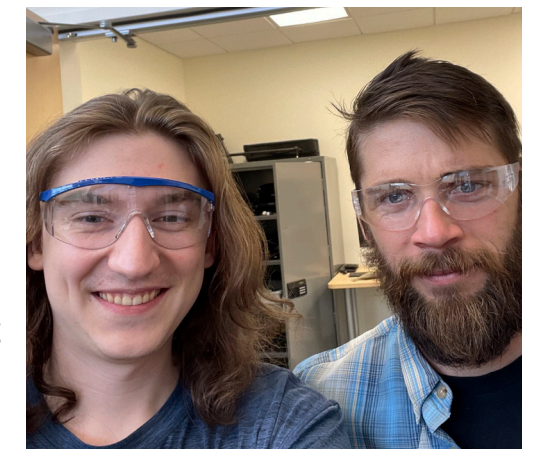
Angela Cicia,
MSI Academic Development Coordinator

When she isn’t working, you can find her out in her garden, baking, or enjoying the outdoors with her partner and two dogs. With her background and commitment to advancing academic development, we are excited to see the positive impact Angela will have on coastal learning opportunities for students. You can reach Angela at ciciaa@oregonstate.edu or 541-737-2790. Feel free to drop by Office 903 in the educational wing of Hatfield Marine Science Center 900 Building, or the MSI office in 300 Strand Ag Hall to say hello!

Roundhouse Intern Spotlight

With the generous support of the Roundhouse Foundation, this award supports Oregon State University undergraduate students in their second year or more of study with a paid internship with the Hatfield Marine Science Center Innovation Lab (iLab). Cody Spring, one of the 2023-2024 Roundhouse Interns, is a dedicated student pursuing a degree in Computer Science. With an interest in environmental challenges, he is eager to explore the intricate relationship between humans and the ocean. In Cody’s words: “During my internship at MSI Roundhouse, I have been heading a project in developing a LoRa (Long Range Radio) based data transmission system. The primary objective of this project is to facilitate efficient data collection over long ranges; specifically in cases where the data collection device may be in a hard-to-reach environment. Concurrently, I have taken on the responsibility of leading the development of a remote monitoring system for the 3D

printers in the Innovation Lab. This project integrates both hardware and software components to ensure optimal functionality. Through the application of my technical skills, I have contributed to the creation of an efficient monitoring system that offers real-time insights into the 3D printing processes as well as a live video feed, thereby enhancing overall operational efficiency and error prevention. My internship has been marked by notable milestones, and I am enthusiastic about the upcoming in-field tests, which have the potential to contribute significantly to the ease of access regarding scientific research.”



Cody Spring (left) and iLab Manager
Drummond Wengrove (right).

Thank you for your support!

We wish to acknowledge our many contributors for their kind and generous support of students and programs at Oregon State University. Your gifts help support the following:

Marine Studies Innovation Fund (#270020)

The Marine Studies Initiative Innovation Fund supports learning opportunities at the coast such as:

- Experiential hands-on learning opportunities
- Scholarships for marine-related degrees
- Unique research and internship opportunities
- Housing support to live at the coast while studying



NEW! Connecting Students to the Coast

In spring term, the Ocean11 Marine Club hopes to visit the OSU Seafood Lab in Astoria, OR, which is further than a day's drive. The students are trying to raise enough funds to cover the additional travel and lodging costs through OSU's crowdfunding site, Beavs Give, which "turns innovative ideas into reality". Help make Ocean11's Special Student Excursion a reality by providing a gift of any size at beavsgive.org.

Port Orford Field Station Science and Education Fund (#140330)

The Port Orford Field Station Science and Educational Fund supports access to unique marine and terrestrial ecosystems that support trans-disciplinary research and education, community priorities, and economic opportunities on the Southern Oregon coast. Donations to this fund enhance our ability to continue to provide this vital support to students, researchers and the community to expand our work in this hard-working rural community, as its residents embrace the new blue economy.



Your gifts make a difference for our students, our university, and our ocean and coasts. Donate to these funds at beav.es/T67.

To make a gift, go to: marinestudies.oregonstate.edu/impact/give-gift

Or send a check payable to 'OSU Foundation' with notation for MSI and list fund name, to Oregon State University Foundation, 4238 SW Research Way, Corvallis, OR 97330.

If you need assistance or details on other gift opportunities, call 800-354-7281 or 541-737-4218. Or, email: annual.giving@oregonstate.edu



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