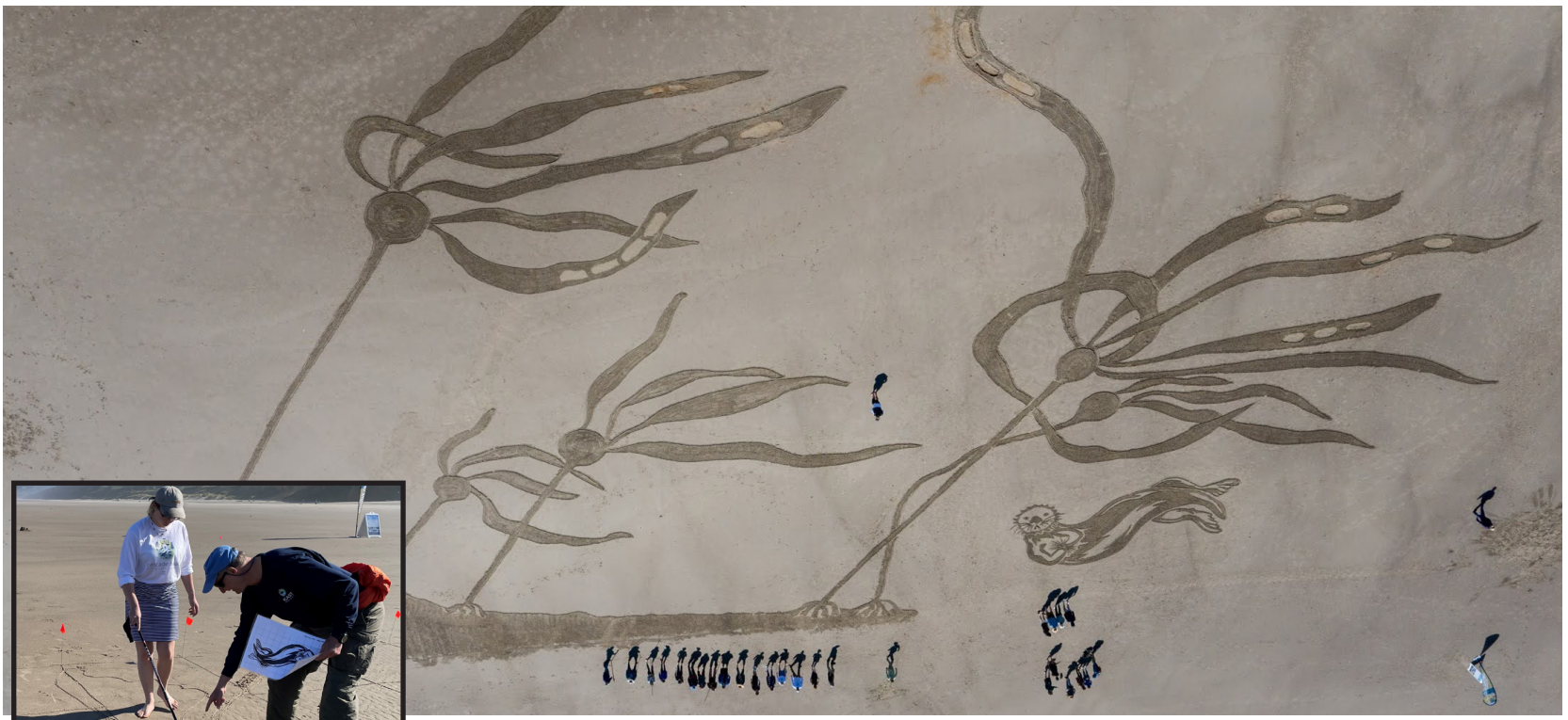
MARINE STUDIES INITIATIVE

NEWSLETTER

FALL 2022, ISSUE 13



Left: Jack Barth and MSI intern Marina Larson etch a sea otter in the sand. Center: Overhead view of bull kelp and sea otter at the "Art on the Beach" event in Lincoln City, Oregon.

FROM THE EXECUTIVE DIRECTOR'S DESK

Jack Barth,
Executive Director
Marine Studies Initiative

What a great summer filled with the joy and curiosity of students and interns back in person and bustling through the Gladys Valley Marine Studies Building on the Hatfield Marine Science Center campus in Newport. There were twelve, lab-and field-intensive classes offered at HMSC this summer. A record number of Marine Studies interns worked on exciting projects from Cascade Head in the north, in Newport and Florence, to our Port Orford Field Station in the south. See inside about how these interns blended natural science, engineering, business, communications, and art in their summer projects. The internships at Cascade Head included an "Art on the Beach" event for two days in the middle of the summer. A giant bull kelp, with an accompanying, adorable sea otter created by MSI intern Marina Larson and her mentor Duncan Berry, amazed beachgoers before the tide swept it away. Students in the Marine Studies undergraduate major continue to thrive and soon we'll have our first graduates from the program! This fall 2022, we're anticipating nearly doubling the number of students in the program to around 75. I hope to see you at one of our upcoming events including the Big Blue Film Festival at the Gladys Valley Marine Studies Building in Newport. *-Jack Barth, Marine Studies Initiative Executive Director*

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MSI Student Awards

In Spring and Summer 2022, the Marine Studies Innovation Fund provided financial support for several undergraduate students exploring their ocean-related academic interests. Six students—Kaleigh Ballantine, Wally Fiori, Drake Gross, Marina Larson, Ashley Marxsen and Julia Parker—received MSI Student Awards of up to $500 for field housing at Hatfield, internship transportation expenses, and/or field equipment purchases. In addition, MSI provided Coastal Housing Awards totaling around $1,100 for three students staying at Hatfield in Summer or Fall 2022. We're excited more and more students are taking advantage of these opportunities made possible by generous donor support!

Learn more about Marine Studies Initiative Student Awards: (***beav.es/iHi***)

Ashley Marxsen

Senior

Fisheries, Wildlife, and Conservation Sciences

The MSI Student Award supported travel expenses to Hawaii for her Marine Mammal Research Program internship studying the abundance and distribution of spinner dolphins.

In this photo, Ashley is photographing dorsal fins of spinner dolphins for photo grading and matching individuals using AI software.

Drake Gross

Graduated 2022

Biology, Marine Biology Option

The MSI Student Award was used to purchase waders and rain boots while enrolled in BI 450 -- Marine Biology and Ecology.

While wearing the waders Drake participated in several intertidal community surveys, beach seining, crabbing, and invertebrate, fish, and algae collection.

Follow us on social media!

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Academic Program News

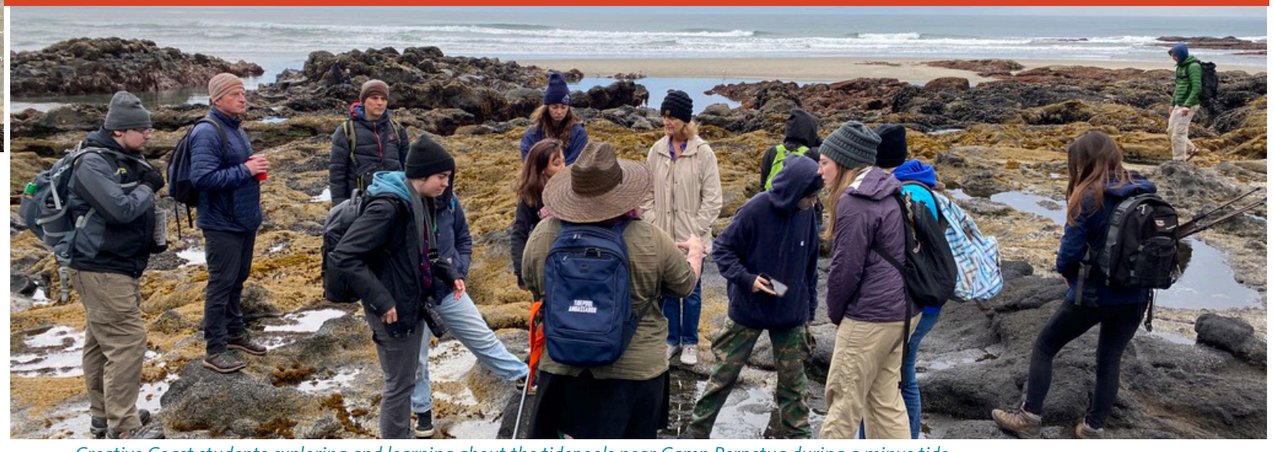
Summer at Hatfield Marine Science Center:

Between June and August, nearly seventy students took part in twelve field courses. Faculty from three Colleges taught about: Marine Mammals (four courses by CAS faculty K. Stafford, M. Cantor, R. Albertson); Phycology (A. Milligan, CAS); Food from the Sea (T. Chapple, CAS), Birds (R. Orben, CAS); Aquaculture (C. Langdon, CAS); Coastal Ecosystems (S. Henkel, COS); Marine Invertebrates (N. Kirk, COS); and, Oceanography (two courses by CEOAS faculty J. A. Barth and M. Kavanaugh). Many of these students took multiple courses through the summer. Course information: (***beav.es/iCk***).

Welcome to Fall Term:

Undergraduate and graduate programs across the university are welcoming new and returning students. Three courses bring students to Hatfield for one and two week experiences in the early weeks of September: Oregon Coast Math Camp (OC515), Observing Climate (ATS295), and the Ecampus hybrid courses Coastal Ecology and Resource Management (FW426/526) and Methods in Physiology and Behavior of Marine Megafauna (FW469/569). Also anticipated are full-term courses bringing students to Hatfield. This includes a new Honors College colloquium "Sensors in the Wild Ocean" taught by College of Engineering faculty Meagan Wengrove, Matt Johnston and Drummond Biles. For all fall courses integrating with Hatfield, visit (***beav.es/iCu***).

Marine Course Spotlight

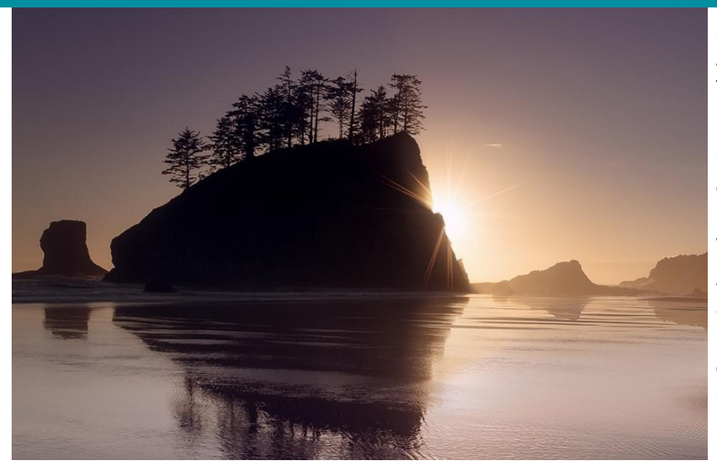


Creative Coast students exploring and learning about the tidepools near Camp Perpetua during a minus tide.

This summer Michael Boonstra, Senior Instructor, College of Liberal Arts and Andy Myers, Instructor, College of Liberal Arts offered a course "Creative Coast" (ART399). Students camped for 4-nights at Cape Perpetua, which is located in the Siuslaw National Forest on the central Oregon coast. Students explored the many different ecosystems at Cape Perpetua including an incredible tidepool tour during a minus tide. Students also observed and listened to various plants and organisms with visiting artist, Lisa Schonberg.
View an example of student work in this video by Ellie Lafferty: ***beav.es/iVB***

This course was partially funded by the Marine Studies Initiative 2022 Advancement Award, which supports transdisciplinary collaborations, including through focus on human dimensions of the ocean and coasts; expanding and enhancing educational opportunities at the coast; and further strengthening inclusive excellence in marine-related programs. Learn more: ***beav.es/iV8***

Research



Second Beach at Sunset, Olympic National Park, Washington. Photo credit Lara Jacobs.

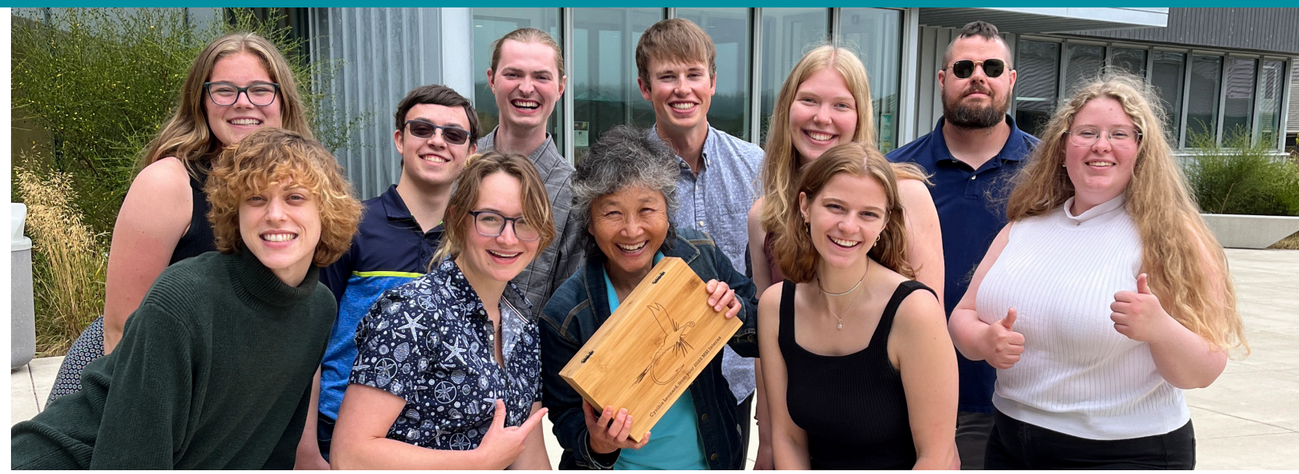
Citizen of Muscogee (Creek) Nation, Fourth-year Forest Ecosystems and Society Ph.D. Student, Lara A. Jacobs, and Dr. Ashley D'Antonio from Oregon State University's College of Forestry, are investigating the ecological and pathogenic impacts of outdoor recreation in marine systems located in Washington's Olympic National Park (OLYM). As with many other parks and protected areas, OLYM's recent increases in recreation use may create social and ecological impacts due to improperly disposed of human excreta (namely, human fecal matter). However, the issues posed at OLYM are unique in that they may pose human health issues in marine areas that a local Tribe uses for subsistence purposes. With the financial support of the Marine Studies Innovation Fund, this project identifies the prevalence of antibiotic resistant fecal indicator bacteria at the phenotypic and genotypic levels (to understand if environmental samples from soil, sand, and water contain antibiotic resistant bacteria), associated virulence factors (to provide information about the likelihood for the bacteria to cause diseases in humans), and determines if fecal indicator bacteria from environmental samples originated from human sources (e.g., human fecal matter). Because many issues with outdoor recreation can be mitigated through public education activities, Lara and Ashley will be facilitating two public workshops this fall in Oregon and Washington, in which they discuss science-informed best practices for outdoor recreationists to minimize their impacts in marine systems.

Western Flyer

The famed vessel, the Western Flyer, that was used by author John Steinbeck and Ed Ricketts – author of the well-known guidebook on intertidal ecology "Between Pacific Tides" – on their 1940 adventure from which the "Log from the Sea of Cortez" was written, has been restored! The vessel, the book it inspired, and the quest of the Western Flyer Foundation (WFF: ***www.westernflyer.org***) to restore it for use in scientific research and youth education along the North American west coast epitomize MSI's mission to blend the natural sciences with arts and humanities. MSI Executive Director Jack Barth serves on the WFF Board, advising on outfitting the Western Flyer with oceanographic instruments and helping to prepare for the Western Flyer's scientific and educational cruises along the coast. The boat was refloated on June 29, 2022 and was towed to Seattle where a new diesel-electric hybrid engine is being installed. The goal is for the Western Flyer to sail south to its permanent home in Monterey Bay, California, in the fall 2022 with, hopefully, a stop in Newport, Oregon. An exact date is uncertain but stay tuned for more news on this exciting project!

*The Western Flyer in Port Townsend, Washington, after restoration. See the Western Flyer Foundation Youtube channel (**beav.es/iC2**) for more of this famous wooden vessel. Photo by Chris Chase.*

2022 Summer Internships



Interns are all smiles after delivering excellent oral presentations at the 2022 Coastal Summer Intern Symposium, and giving a beautiful thank-you gift to their internship coordinator, Cynthia Leonard. Back: Athena Abrahamsen, Spencer Tanenholtz, Jeremy Schaffer, Kyle Davis, Genevieve Coblentz-Strong, Theo Nuss. Front: Misha Robertson, Marina Larson, Cynthia Leonard, Erin Webber and Anabel Baker Not pictured: Tate Scarpaci and Faith Townsend.

This summer, the Hatfield Marine Science Center, the Cascade Head Biosphere Collaborative (CHBC) and the Port Orford Field Station welcomed MSI summer interns. Students conducted summer research projects along the Oregon coast focusing on a wide variety of disciplines such as Ocean Acidification Awareness to Sustainable Seafood Promotion. We would like to thank all our mentors for their commitment to guiding students through their research and work experiences. MSI summer internships would not be possible without our outstanding mentors!
Watch final internship presentations here: ***(beav.es/i9N)***

Funding acknowledgements: The 2022 summer internship program was supported by the Marine Studies Initiative and contributions from Local Ocean Seafoods and Sea-Bird Scientific. Additional sponsors provided internship-specific field housing, stipend, and travel assistance: Duncan Berry on behalf of CHBC, US Forest Service Siuslaw National Forest, Redfish Rocks Community Team, Hatfield Marine Science Center, and Oregon's Ocean Scidification and Hypoxia Coordinating Council.

The Marine Studies Initiative and Oregon State Productions announce their latest collaboration, ***The Wind Moves Us***. This series showcases visual testimonials from people who help us understand the tremendous opportunity afforded to us by this free, reliable, and invisible life-force.

Watch the videos here:
https://beav.es/ibk

Hatfield Updates

The Hatfield community gathering on the Gladys Valley Marine Studies Building rooftop during the summer evacuation drill.

Hatfield Evacuation Drill:

This summer the first evacuation drill took place to the Gladys Valley Marine Studies Building rooftop. This was an opportunity to evaluate how long it takes Hatfield community members to get out of their buildings, confirm the route to Hatfield Marine Science Center's newest evacuation site, and reassess their personal evacuation plans. Once on the rooftop attendees were encouraged to view the rooftop community disaster cache.

Hatfield Visitor Center:

The Hatfield Marine Science Visitor Center is open to the public 10 AM to 4 PM, Thursday through Monday. Visitors can purchase a ticket online before the visit. Tickets are $3 each for guests five and up, and tickets are good for the entire day. Purchase a ticket and learn more at (***beav.es/3dJ***).

HMSC Research Seminars:

HMSC Research Seminar Series takes place every Thursday from 3:30- 4:30 PM PST. Visit the OSU Events Newport Calendar (***beav.es/3x3***) for the seminar schedule with onsite and login details.

HMSC Science on Tap:

HMSC Science on Taps are free, family-friendly events in a casual environment featuring a host of scientists talking about the latest ocean research. This speaker series runs monthly from September to June. Check out HMSC Science on Tap (***beav.es/iVk***) for more information.

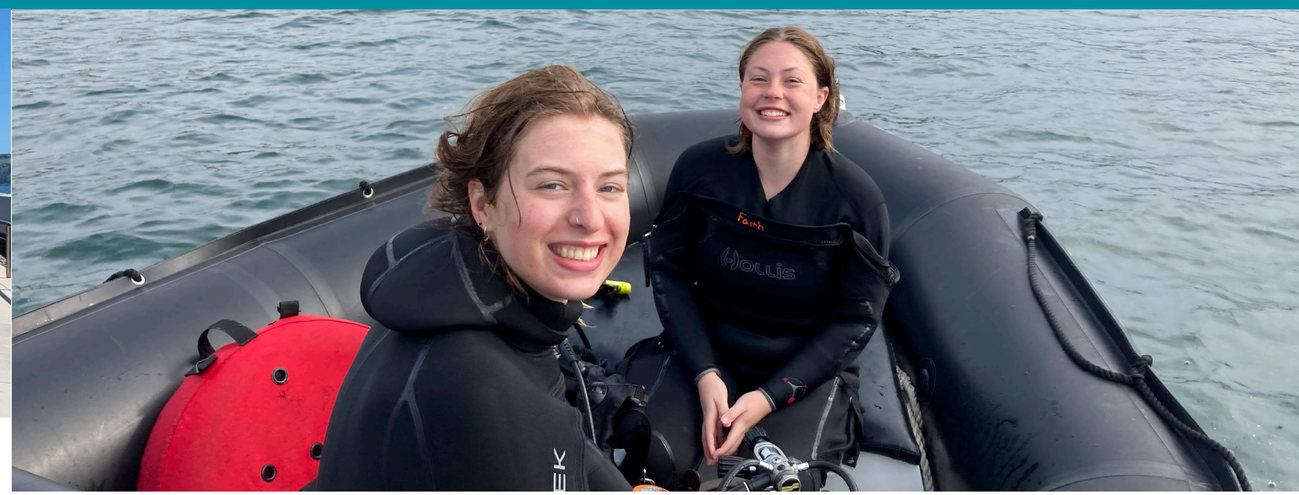
OCEAN 11 MARINE CLUB

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)

Port Orford Field Station



Caroline Rice and Faith Townsend after a successful scientific dive in support of the GEMM Lab team (Caroline to left, Faith to right).

This summer, 2022, was another season full of research, learning, and community engagement. Eleven student interns came to the Port Orford Field Station from different internship programs across Oregon and around the country to form our largest cohort of interns yet. The station was at full capacity and buzzing with activity and excitement. Two of the interns at Port Orford Field Station were part of the Marine Studies Initiative internship program:

Tate Scarpaci – MSI Marine Reserve Interpretation/Science Communication Intern. Tate's internship focused on the Redfish Rocks Marine Reserve and Marine Protected Area, and the importance of juvenile fish recruitment to the local commercial fisheries. Commercial fishing is the economic driver for the Port Orford community, with a significant portion of landings in the live fish fishery. Many of these high-value species of rockfish are dependent on habitat as both juveniles and adults, and Tate took part in the sampling of juvenile fish as part of this internship.

Tate Scarpaci surveying sea stars with members of the Bruce Menge, Jane Lubchenco Lab -Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) during intertidal monitoring.

Faith Townsend – Faith joined us as a Marine Reserve Interpretation/Science Communication Intern, supported by the Redfish Rocks Community Team, with a focus on juvenile fish recruitment. Faith is a certified AAUS Scientific Diver and used her skills to support several research projects during her internship, including dives to swap out underwater cameras for the GEMM Lab team, and deployed to capture video of gray whales feeding. Faith also worked with Reef Check to conduct surveys at Nellie's Cove, and Paradise Point, and supported other student intern projects in the field.

Learn more about the Marine Studies Initiative internship program and watch final presentations here: (***beav.es/i9N***)

MSI Upcoming Events

Terisa Siagatonu:

In celebration of LGBT History Month and in honor of the people, land and seascapes of Oceania, we welcome Terisa Siagatonu. Award winning poet, teaching artist, mental health educator and community leader who is deeply devoted to the Pacific Islander community. Keynote lecture, space is limited! **October 26, 2022**, 4-6 PM at Kaku-Ixt Mana Ina Haws.

State of the Coast Conference:

The 2022 Conference is scheduled for **November 5, 2022** in Newport, OR at Hatfield Marine Science Center's new Gladys Valley Marine Studies Building. State of the Coast is a chance to have fun and learn while listening to informative talks on current marine science and policy issues, participate in hands-on activities, and network with research, industry, and community leaders. This is Oregon's coastal conference for everyone! Brought to you by Oregon Sea Grant. Learn more and register at **https://beav.es/5wk**

Big Blue Film Festival:

Save the date! This event will take place **January 27-28, 2023**. Primary venues include the Hatfield Marine Science Center and the new Gladys Valley Marine Studies Building (GVMSB) auditorium. Enjoy a wide range of films, Q&As with filmmakers and special guests, mixers with filmmakers and local experts, and an awards ceremony to celebrate our excellent ocean-themed films.

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

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 transdisciplinary 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.

Eder Family Fund for Dungeness Crab Research (#270030)
The Eder Family Fund for Dungeness Crab Research supports research related to Dungeness crab and its fishery such as crab distribution, landings, mortality, fisherman safety, biotoxin domoic acid levels, which all aid in supporting this important species for generations to come.

Donate to these funds at: (**beav.es/iVS**).

Your gifts make a difference for our students, our university, and our ocean and coasts.

To make a gift, go to:
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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