

NEWSLETTER

SPRING/SUMMER 2022, ISSUE 12



Ocean11 marine club students having fun at the dunes during their Spring camping trip.

FROM THE ACADEMIC ADVISOR'S DESK

In “A Fish Out of Water” by Helen Palmer, illustrated by P. D. Eastman, a little boy overfeeds his fish, leading it to outgrow its bowl, the house, and eventually the local swimming pool. This children’s book came to my mind when I pondered how to describe the growth I see (and definitely feel) in my work with marine students – fast, big and sometimes unexpected! Our internship program expanded this summer with new mentors and partners, project topics and new areas along the coast. We’re now offering 12 internships including citizen arts and sciences, marketing, engineering and others. It’s exciting to be able to offer such a variety of opportunities to a broader range of students with different educational goals. The new College of Liberal Arts Marine Studies (MAST) major is on a sharp growth curve with almost 40 students currently and potentially double that next Fall! For the first time, MAST upperclass students are developing their Specialization Area coursework, internships and capstone projects. Seeing the MAST degree pieces actually coming together is exciting for both the students and MSI. Finally, Our Ocean11 marine club continues to grow big and strong. The opportunity to be back in person has sparked our student leaders to plan activities practically every week such as; a beach cleanup, Ship Trip R/V *Oceanus* tour, SustainabiliTEA, Float-In flick in the campus pool, ocean organism ID workshop, waffle bar at The Study Oasis, Spring Coast Camping Trip and more. With all of the energy and excitement, 15 new students are ready to jump onto next year’s Ocean11 Student Leadership Team. GROWTH. “Never feed him a lot. Never more than a spot! Or something may happen. You never know what.” - Helen Palmer

-Cynthia Leonard, Academic Advisor



Cynthia Leonard,
*Marine Studies Initiative
Academic Advisor*

Student Spotlights

The Roundhouse Foundation Marine Studies Innovation Lab Scholarship and Internship Fund Awardees (AY 2022-23)



Spencer Tanenholtz

Sophomore, Ecological Engineering & Oceanography

At Oregon State, I'm majoring in ecological engineering and oceanography. Ever since I was little, I've had a passion for the ocean. I absolutely love ocean science, and ecological engineering is my way of making a bigger difference by being able to design and build tools to help the natural environment around me.

The Innovation Lab (iLab) at Hatfield combines both of my biggest academic interests, and I couldn't be happier to be working there. Currently, my largest project is to help design a camera system for use in some new fish tagging methods for hatcheries, but I also have fun doing odd jobs around the lab like designing 3D-printed accessories for some of the machines in the lab. Working near the coast is almost a dream come true for me. I grew up in Colorado and I've always wanted to be by the ocean...and now I am!



Genevieve Coblentz-Strong

Junior, Mechanical Engineering & Oceanography

I am double majoring in mechanical engineering and oceanography. My intention is to pursue a career in ocean engineering. Combining my life-long passion for the ocean with technical knowledge, my goal is to make scientific and technological advancements that will further our understanding of climate and ocean health.

In the beginning of my iLab internship, I learned new software and how to operate a variety of tools for developing prototypes. Recently, I helped create underwater obstacles for the MATE ROV high school competition and have fixed 3D printers used for prototyping. My primary, longer-term project is to design an eDNA sampler that uses mostly off-the-shelf components to make it more affordable and accessible to researchers. In addition, I am designing it to have a more user-friendly interface than the current eDNA samplers on the market.

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marinestudies.oregonstate.edu



Marine Studies Initiative



@msi_oregonstate



@osumarinestudies

Academic Program News

We celebrate the array of upcoming courses at Hatfield Marine Science Center and through College of Liberal Arts for the Marine Studies degree. In Spring 2022 at Corvallis, School of Writing, Literature and Film faculty Karen Holmberg taught the first offering of Writing of the Sea (WR 460). This course uses rhetorical structure and strategies to express beliefs about, responses to, and ethical commitments toward the world's oceans.

Spring 2022 at Hatfield: Twenty-eight students lived and learned through the 15-credit spring term Marine Biology and Ecology (BI 450) capstone experience. Team-taught by Integrative Biology faculty, this coastal-based course provides a model for degree programs creating coastal-based curricula.

Summer 2022: An exciting palette of courses is available this summer, with summer session registration open to students from all institutions. During the first week of summer, the Creative Coast (ART 399/499/599) is taught by art faculty Andy Meyers and Michael Boonstra. This four-credit intensive is an experiential learning studio focused on creative forest-to-sea fieldwork and research in the Cape Perpetua Scenic Area. Hatfield Marine Science Center is home for thirteen field courses ranging from introductory to advanced. Check out all course flyers at (beav.es/if6).

Written by Kristen Milligan, MSI Associate Director

Summer Field Courses at Hatfield

June 20 - July 16, OSU Summer Session 2

Pacific Northwest Coastal Ecosystems, BI 353, Sarah Henkel

Phycology, BOT 417/517, Allen Milligan

Biology and Conservation of Marine Mammals, FW 302, Renee Albertson

Field Techniques for Marine Mammal Conservation, FW 301, Renee Albertson

Food from the Sea, FW 324, Taylor Chapple

Coastal and Estuarine Oceanography, OC 433/533, Jack Barth

July 18 - August 12, OSU Summer Session 4

Biology and Conservation of Marine Mammals, FW 302, Kate Stafford

Ecology of Marine and Estuarine Birds, FW 331, Rachel Orben

Biological Oceanography, OC 340, Maria Kavanaugh

Marine and Estuarine Invertebrate Zoology, Z461/BI 561, Nate Kirk

August 15 - September 2, OSU Summer Session 5

Aquaculture Laboratory, FW 498/598, Chris Langdon

Socioecology of Marine Megafauna, FW 499/599, Mauricio Cantor

Hatfield Updates



(Above) Sea Grant's Lindsay Carroll running the live animal interaction. (Right) Big Fish Lab's Taylor Chapple hosting a live shark dissection at the HMSC virtual Marine Science Day, 2022. Photos by Mark Farley.



Marine Science Day

On April 9, 2022, Hatfield hosted the second virtual HMSC Marine Science Day. This was a choose your own adventure event where visitors could explore different themed rooms—Live Events, Kid Zone, Research and Discovery, Behind the Scenes Tours, Community Art, and Get Involved Locally. With over 2,000 visits to the site during the event, 31% of which were first-time visitors to the HMSC website. While most of the visitors were from Oregon or Washington, we had virtual visitors from across the country and even internationally. There was a lot to see and do, but don't worry that you missed the event, the HMSC Marine Science Day (beav.es/icM) site will be up for a full year!

Research Seminars

HMSC Research Seminar Series will be happening throughout the summer 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.

Hatfield Visitor Center

Interested in visiting the Hatfield Visitor Center this summer?

Reservations are required: Reservations must be made at (beav.es/ifu) before your visit.

Summer Days/Hours: Open Thurs - Mon, 10 AM - 4 PM

Fee: \$3 for visitors ages 5 and up; payment is online-only, Visa or MasterCard accepted.

Time: Visits are 1 hour long.

Face coverings: Per OSU guidelines, masks are welcome but no longer required.

“Blue Heart: Beauty and Change Along America’s Western Shoreline”

The Blue Heart Gytaku Art Exhibit will be on display for one year through October 2022 at the new Gladys Valley Marine Studies Building in Newport, Oregon. The public is welcome to view the art during Hatfield Marine Science Center's typical hours of operation: Monday through Friday, from 8 AM to 5 PM.

Parking is available at no charge. Visit (beav.es/iQ8) for more information.

Research

In Fall of 2019, the Marine Studies Initiative and OSU's College of Forestry hosted a **Forage Fish: Connecting the Land and Sea** workshop in Newport.

An interdisciplinary group met, to discuss better ways to connect our understanding of very nearshore ocean habitat, particularly forage fish communities, to the success of predators, especially seabirds and the coastal forest-dwelling Marbled Murrelet. The goal of this workshop was to bring together scientists and managers for outlining collaborative research, as well as potential funding entities that may have an interest in supporting this work. During the workshop, attendees formulated a research strategy for both the short- and long-term to link studies of nearshore ocean conditions with recent and with ongoing and future predator-prey research projects.

One outcome from the workshop was a research paper **“Critical Research Needs for Forage Fish within Inner Shelf Marine Ecosystems”** that appeared in the journal *Fisheries*. This multi-authored and interdisciplinary paper highlights the importance of forage fish within inner shelf marine ecosystems using examples from the Northern California Current and describe outstanding research needs for forage fish within this topical area.

*(Right) A Caspian tern (*Hydroprogne caspia*) carrying a juvenile Pacific herring (*Clupea pallasii*) while circling above a breeding colony located near the mouth of the Columbia River estuary, Oregon. Although forage fish species like Pacific herring are a critical component of marine ecosystems, little research has focused on this group in nearshore areas despite their ecological and economic significance. Photo by Timothy Lawes.*



View the full article **“Critical Research Needs for Forage Fish within Inner Shelf Marine Ecosystems”** (beav.es/ifz).

Learn more about the Forage Fish Workshop (beav.es/ifK).



Oregon State
University

<https://beav.es/ZXW>

Oregon State Productions Presents:

ON the WING

The Marine Studies Initiative and Oregon State Productions announce their latest collaboration, *On the Wing*. This short video combines essay “On the Wing Marbled Murrelets” by OSU English major Rachael Vega with stunning imagery of OSU researchers tracking the nests and foraging habits of elusive Marbled Murrelets.

Watch the
video here:
beav.es/ZXW



Summer 2022 Interns



Theodore Nuss - Citizen Arts and Sciences, Cascade Head

Mentor-Duncan Berry, 4CAST

Theodore will work closely with the Cascade Head Biosphere Reserve Team, assisting in the day-to-day organization and implementation of this multi-stakeholder project. Project will involve both remote and fieldwork in the initial engagement with, and training of, a “core cadre” of local citizen scientist and artists who will form the future project trainers and coordinators interfacing with the public. All serves the overarching goal of identifying and measuring the thermal impacts of climate change on inter-related habitats within the Cascade Head Biosphere Reserve.

Misha Robertson - Seafood Industry Relationships and Marketing, Newport

Mentor-Laura Anderson, Local Ocean Seafoods

Misha will experience and gain an understanding of the seafood restaurant industry relationships by working with Local Oceans Seafood Dockside Grill & Fish Market’s marketing team. He will create messaging and promotions around one or more core company values of seafood consumption and personal health, seafood sustainability, ocean health, and connection with local fishermen.



Jeremy Schaffer - Coastal Bird Stewardship and Outreach, Newport-Florence

Mentor-Reba Ortiz, Siuslaw NF, USFS

Jeremy will assist with the Coastal Bird Stewardship Outreach Project along the central coast (Newport to Florence) by cultivating visitor stewardship of coastal seabirds and shorebirds, primarily the Marbled Murrelet, by increasing visitor understanding of their role in sensitive seabird and shorebird conservation at Siuslaw National Forest and Oregon State Park areas on the Oregon central coast.

Tate Scarpaci - Marine Reserve Interpretation and Science Communication, Port Orford

Mentor-Tom Calvanese, OSU, MSI

Tate will learn about and experience the Redfish Rocks Marine Reserve and Marine Protected Area, and communicate ecological and cultural aspects of the marine reserve and MPA to the public and visitors of Port Orford. He will also recruit volunteers for community science programs with partner agencies such as CoastWatch, COASST, and the Marine Mammal Stranding Network, with opportunities to participate in field research and monitoring activities.



Faith Townsend - Marine Reserve Interpretation and Science Communication, Port Orford

Mentor-Tom Calvanese, Red Rock Comm Team, MSI

Faith will learn about and experience the Redfish Rocks Marine Reserve and Marine Protected Area, and communicate ecological and cultural aspects of the marine reserve and MPA to the public and visitors of Port Orford. Faith will also recruit volunteers for community science programs with partner agencies such as CoastWatch, COASST, and the Marine Mammal Stranding Network, with opportunities to participate in field research and monitoring activities.

Erin Webber - Big Blue Film Festival Development, Newport

Mentor-Mark Farley, OSU-MSI, HMSC

Erin will assist the Hatfield Marine Science Center (HMSC), Marine Studies Initiative (MSI), and Oregon State Productions (OSP) in developing the programming and operation of the ocean and coastal-themed Big Blue Film Festival in Newport. She will help with developing a festival business plan, a festival program, a volunteer strategy, a film submission process, a marketing plan, and guidelines for film and speaker programming, as well as recruit sponsors and partners.



Summer 2022 Interns



Kyle Davis - Advancing Biogeochemical Instrumentation and Science, Newport

Mentor-Eric Rehm, Sea-Bird Scientific

Kyle will assist with the Coastal Bird Stewardship Outreach Project along the central coast (Newport to Florence) by cultivating visitor stewardship of coastal seabirds and shorebirds, primarily the Marbled Murrelet, by increasing visitor understanding of their role in sensitive seabird and shorebird conservation at Siuslaw National Forest and Oregon State Park areas on the Oregon central coast.

Athena Abrahamsen - Ocean Acidification and Messaging, Newport

Mentor-Kerry Carlin-Morgan, Oregon Coast Aquarium

Athena will work with the Oregon Coast Aquarium Education and Exhibits department to create ocean acidification messages. Project includes gathering data on guests' knowledge, values, and behaviors related to ocean acidification, embedding the messages into an interpretive program, and evaluating the impact on guests.



Marina Larson - Citizen Arts and Sciences, Cascade Head

Mentor-Duncan Berry, 4CAST

Marina will work closely with the Cascade Head Biosphere Reserve Team, assisting in the day-to-day organization and implementation of this multi-stakeholder project. Project will involve both remote and fieldwork in the initial engagement with, and training of, a "core cadre" of local citizen scientist and artists who will form the future project trainers and coordinators interfacing with the public. All serves the overarching goal of identifying and measuring the thermal impacts of climate change on inter-related habitats within the Cascade Head Biosphere Reserve.



Anabel Baker



Genevieve Coblentz-Strong



Spencer Tanenholtz

Roundhouse Foundation Marine Studies Innovation Lab Scholarship and Internship Fund, Newport

Mentor-Drummond Biles, HMSC iLab

With the generous support of the Roundhouse Foundation, this award supports OSU undergraduate students in their second year or more of study who are participating in a paid internship with the Hatfield Marine Science Center Innovation Lab (iLab) in Newport, Oregon. Recipients are students in any college at Oregon State University who are interested in developing the programs and operations of the HMSC iLab.

The internship includes a Roundhouse Foundation Marine Studies Innovation Lab Scholarship award for the Winter and Spring terms, a paid hourly position at the HMSC iLab during the Winter, Spring, and Fall terms (approximately 8 hours per week), a paid position with a stipend for housing at HMSC during the Summer term, and access to up to \$1,000 that can be used for supplies, travel, etc. to support iLab-related projects. Genevieve, and Spencer have already begun their work in the Innovation Lab, and Anabel looks forward to getting started this summer.

Dam Proud Day



(Above) Tom Calvanese, Port Orford Field Station Manager, and Deb McNeil, long time friend and donor, having fun in Port Orford.

On April 27, 2022, Oregon State University's Dam Proud Day, a one-day, virtual fundraising event, brought in over 6,000 gifts totaling more than \$1.5 million to OSU. The Marine Studies Initiative, including the Port Orford Field Station, raised over \$20,000 from close to 100 gifts. We are so thankful for the incredible generosity this year from donors who contributed.

A huge thank you to Ric Brodeur and an anonymous donor, for supporting student housing expenses at the coast and Deb McNeil for her 1:1 match up to \$10,000 to support the Port Orford Field Station.

Again, thank you for your outpouring of philanthropic support and we look forward to using your gifts to make a difference for our students, our university, and our ocean and coasts.



World Ocean Day

The United Nations has designated June 8 as World Oceans Day. This year's theme is "Revitalization: Collective Action for the Ocean," shedding light on the communities, ideas, and solutions that are working together to protect and revitalize the ocean and everything it sustains. Learn more about World Oceans Day at ([UNWorldOceansDay.org](https://unworldoceansday.org)). Visit (beav.es/ify) for MSI special updates on World Ocean Day, including a video of marine artwork by Ocean11, seafood recipes, a downloadable coloring book, and more!

This year to celebrate World Ocean Day, Marine Studies Initiative and Ocean11 Marine Club held a tabling event on June 8 outside of Strand Ag Hall for OSU community members to stop by and have some snacks, play games, and learn more about World Ocean Day. Thank you to all the visitors that came by our table and celebrated with us, it was fun! Stay tuned for next years celebration!

The United Nations has also adopted 17 Sustainable Development Goals (SDGs) and number fourteen is "Life Below Water" with the goal to conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Learn more about the UN's SDGs at (beav.es/ify).



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



(Above) Former Port Orford Ocean Resource Team board members Jeff Miles, Lyle Keeler, Danny Keeler, and Chris Aiello, and Executive Director Leesa Cobb were honored for their historic contributions to the ocean-dependent community of Port Orford (board member Aaron Longton not pictured). Also attending were: Jack Barth and Tom Calvanese from OSU; Dave Lacey, Tara Ramsey, and Lindsay Gatchell from Redfish Rocks Community Team; Mike Baran from Port Orford Sustainable Seafood; State Representative David Brock Smith; special guests Jane Barth, Rose Miles, Rhonda Keeler; and Field Station supporter Deb McNeil.

This spring, we were pleased to recognize the Port Orford Ocean Resource Team, which gifted the Port Orford Field Station to OSU in December of 2021. OSU has fully committed to the mission of the Port Orford Field Station to support student learning, scientific research, community priorities, and economic opportunities in Port Orford and along the Southern Oregon coast. We joined the Redfish Rocks Community Team and Port Orford Sustainable Seafood to honor POORT Board Members Aaron Longton, Jeff Miles, Lyle and Danny Keeler, and Chris Aiello, and Executive Director Leesa Cobb for their contributions to our ocean dependent community. We will continue to build on the foundation they created as we join with the community to revitalize the ocean and everything it sustains.

This summer, we look forward to working with students and interns from the GEMM Lab, led by Leigh Torres, who will embark on the 8th year of gray whale foraging research. We'll continue supporting research and monitoring efforts at the Redfish Rocks Marine Reserve, led by the ODFW Marine Reserve program, and will celebrate "10 Years of Marine Stewardship at Redfish Rocks" with the Redfish Rocks Community Team and ocean acidification and hypoxia monitoring led by Francis Chan at Rocky Point. As partners with the Redfish Rocks Community Team, we'll support two Marine Reserve Interpretation and Science Communication interns and a partnership with the PISCO Lab as they prepare to establish the Cape Blanco Marine Research Area, where they have been conducting intertidal research for decades. We'll house a Sea Grant Summer Scholar who will work with the Oregon Kelp Alliance to promote healthy kelp forests in Oregon, who will be joined by a student in the Summer Undergraduate Research Experience program from the College of Science. We'll also host a Research Experiences for Undergraduates (REU) intern, who will work with Dr. Ford Evans and Tom Calvanese on an Oregon Sea Grant funded research project studying the co-culture of dulse (an edible red seaweed), and purple sea urchins. Be sure to follow these and other exciting projects this summer on our social media channels on Facebook, Instagram, Twitter, and YouTube ([@osuportorford](#)).

The Port Orford Field Station is playing an essential role by supporting field based research, education, and engagement activities in the region. Its location south of Cape Blanco is ideal for the study of the unique marine and coastal ecosystems of the rocky southern Oregon coast. The station is a meeting place for scientists, students, and community members, facilitating collaborative and cooperative research, education, and engagement.



(Above) Crab boil dinner served at Port Orford celebration event.

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

Donate to this fund at beav.es/3ff.



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. Donate to this fund at beav.es/3fY.

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 this fund at beav.es/3fg.



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

To make a gift, go to: beav.es/iWq

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



Oregon State University
Marine Studies Initiative