



Project List (COVID note – some projects are in-person, virtual, or could be either)

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1. Oregon Department of Fish and Wildlife (ODFW), Newport, OR

Shellfish and Estuarine Assessment of Coastal Oregon (SEACOR)

all projects are subject to change without notice

The [Oregon Department of Fish & Wildlife](#) (ODFW) Shellfish Program is responsible for monitoring state shellfisheries, and the [shellfish assessment team, SEACOR](#), conducts shellfish and habitat assessments in each Oregon estuary. These efforts inform resource management decisions and are also used to track changes in Oregon's estuaries and shellfisheries.

IN PERSON OPTION: The scholar will work collaboratively with the SEACOR team to survey shellfish populations and estuarine habitats in various regions across Tillamook Bay, Oregon's 2nd largest outer coast estuary. Shellfish in Tillamook Bay are an important cultural, economic, and food resource for people in this area. For this project, the scholar will spend 75-80% of their time in the field and the remaining time in the ODFW Marine Resources Program offices in Newport.

If SEACOR team travel for field work is limited by the COVID-19 pandemic again in 2021, there is still an in-person option for a local project in Yaquina Bay. This will also involve working with the SEACOR team to map bivalve populations and update stock assessment information for gaper clams (*Tresus capax*) that ODFW uses to manage recreational clam fisheries in the bay. If the location is changed to Yaquina Bay due to ODFW restrictions on travel, the scholar will spend 50-60% of their time in the field and the remaining time in the office along with the rest of the SEACOR team.

VIRTUAL OPTION: Travel for field work in Tillamook Bay was not possible during 2020. Although this may change as 2021 evolves, there is also a virtual option to work on a data analysis project with the SEACOR team. The exact focus of this project would depend on the skillset and interests of the scholar. As an example, a data project could be focused on using the R statistical language or ArcGIS to investigate shellfish-habitat associations and/or spatial patterns in shellfish and habitat in Oregon estuaries. The scholar will participate in virtual SEACOR team meetings and other professional development opportunities. For virtual projects with SEACOR, the scholar will be 100% in the office/remote.

Minimum qualifications

- basic background in biology and ecology
- comfortable working independently and as part of a team
- willingness to work outdoors in all weather conditions (ability to traverse unstable substrates and work from small boats)
- competence in R, Excel, and data management and analysis; Basic GIS skills or training for virtual project
- self-starter: may be working remotely; should not need daily direction

Other optional qualifications

- strong communication skills
- experience with small motorized boats (<25') or other water craft (e.g. kayak, canoe)
- ability to drive to off-site locations

Eligibility: Open to US citizens only

2. Oregon Coastal and Ocean Information Network (OCOIN), remote, OR

Lead ongoing engagement efforts, optimize survey and mapping tool

all projects are subject to change without notice

VIRTUAL ONLY: The [Oregon Coastal and Ocean Information Network \(OCOIN\)](#) is a partnership of Portland State University, Oregon State University, Oregon's Coastal and Marine Data Network, and the Oregon Coastal Management Program. OCOIN is a virtual network without a physical location. This policy/science network was established to facilitate long-term collaboration among policy makers, managers, and researchers working on coastal and marine projects to promote the use of scientific data in decision making. OCOIN balances community engagement and outreach, with technical GIS to assist in science-based policy making. A Sea Grant Scholar would lead our ongoing engagement efforts, and work with a technical team to optimize the user survey and streamline OCOIN's GIS tool (all necessary GIS skills will be provided as 'on the job training').

As a direct report of OCOIN and member of the Steering Committee, the Scholar would work to further our mission of "facilitating long-term collaboration among policy makers, managers, and researchers working on coastal and marine projects to promote the use of scientific data in decision making." Specifically, the scholar, with supervision and guidance from the Steering Committee, would: 1) Establish new and maintain existing relationships with stakeholders in ocean and coastal related fields in Oregon, 2) Update and improve on our existing infrastructure and services, the [Coastal Explorer Tool](#) and the Oregon Marine and Coastal Network Directory, 3) Plan and execute OCOIN's annual meeting, which requires interaction with ocean and coastal professionals throughout the region, 4) Interface with members of our Outreach, Technical, and Executive Committees, 5) Coordinate development of the next issue of the online newsletter, and 6) Implement original ideas from the Scholar to further our mission.

Office work: 100%, (50% outreach and engagement, 30% technical and map coordination, 20% coordinating events and newsletter)

Minimum qualifications

- strong interpersonal skills: outgoing, comfortable web conferencing, calling, and emailing with ocean and coastal professionals
- self-starter: Scholar will likely be working remotely; should not need daily direction
- creativity: excited to create new initiatives that grow OCOIN and build on existing platforms
- strong work ethic: Scholar would be willing to work across tasks ranging from coordination, technical skills, knowledge of the policy and science funding processes, and have a foundation of scientific principles

Preferred qualifications

- comfortable or familiar with updating an online survey
- basic knowledge of policy and science funding processes
- interest in learning some basic GIS

Eligibility: International students are eligible to apply

3. & 4. (TWO POSITIONS) Oregon Department of Fish and Wildlife (ODFW), Newport, OR

Socioeconomic impacts of Marine Reserve implementation

all projects are subject to change without notice

IN PERSON ONLY: The [Oregon Department of Fish & Wildlife](#) (ODFW) [Marine Reserves Program](#) conducts human dimensions research to monitor the socioeconomic impacts of marine reserve implementation. **Two** Summer Scholars will work with ODFW [Human Dimensions](#) Project staff to gain professional experience and practical skills in interdisciplinary natural resource social science, with a focus on marine reserve management. The scholars may also occasionally work on other marine reserve projects such as outreach and science communications or ecological data collection in the field.

The scholars will work together collecting data for: 1) a survey of visitors to Oregon's five marine reserves (beach surveys), and 2) a survey of business owners in towns located near the reserves. The purpose of the visitor survey is to assess marine reserve awareness, support, and knowledge among coastal visitors. The purpose of the business survey is to determine local business owners' perceived impact of reserve implementation on their businesses and communities. Data collection will involve conducting interviews using very brief questionnaires at the reserves and local communities. Scholars may also work with coastal community volunteers conducting the interviews in some locations. Later during the summer, data entry, data analysis, and/or report writing are potential responsibilities. The scholars will present the preliminary results of these studies at the end of the summer.

Field work: 80%, Office work: 20%

Minimum qualifications

- comfortable with public speaking and performing interviews
- willingness to participate in field work at various ocean shore and beach locations (traversing sand beaches, spending many hours out of doors)
- ability to drive to off-site locations

Other optional qualifications

- excellent writing skills
- familiarity with statistical analysis (SPSS or similar) software
- familiarity with data entry (Microsoft Excel)

Eligibility: Able to be employed in the U.S.

5. Haystack Rock Awareness Program (HRAP), Cannon Beach, OR

Primary school educational outreach, curriculum design, and online education center

all projects are subject to change without notice

IN PERSON, VIRTUAL, OR HYBRID: The [Haystack Rock Awareness Program](#) (HRAP), is a marine-based environmental educational program, focused on stewardship and outreach at Haystack Rock in Cannon Beach. The mission statement, “to protect, through education, the intertidal and bird ecology of the Marine Garden and Oregon Island National Wildlife Refuge at Haystack Rock,” demonstrates the fundamental role education plays in our program. This year’s sea grant scholar will be focused on the field of primary school educational outreach via a research project revolving around impacting motivation during virtual field trips, online and in-person 21st century curriculum design, and creating an interactive online children’s education center.

The scholar will be considered a researcher and educator who will be responsible for scheduling and implementing the virtual field trip research project with assistance from HRAP staff, conducting necessary literature reviews, and designing and presenting updated curriculum and an online children’s education center that focuses on evidence-based 21st century learning. The scholar will collect, analyze, and summarize data from a virtual field trip motivation research project. They will communicate these results for internal use, partnering agencies, and other educators. A stretch outcome would be to co-author a complete manuscript that would be suitable for submission for publication in a peer-reviewed education journal. Another potential outcome on this scholarship, time permitting, are to update HRAP’s field trip curriculum and children’s online education center to reflect 21st century learning skills and objectives. Additionally, the scholar will be invited to participate in various outreach events, trainings, board meetings, council meetings, and other organized events that will allow them to meet, work with, and engage stakeholders and/or professionals in various marine education and management fields.

Field work: 60% Office work: 30% Meeting/conferences/special events: 10%

Minimum qualifications

- background and/or interest in marine-based environmental education
- ability to distill and summarize large volumes of complex information in a way that can easily be communicated to primary school-aged children

Other optional qualifications

- familiar with or interest in conducting action research

Eligibility: Open to US citizens only

6. Oregon State Department of Fisheries and Wildlife & US Department of Agriculture–Agricultural Research Service (USDA-ARS), Newport, OR

Host parasite challenge experiments

all projects are subject to change without notice

IN PERSON: The [USDA-ARS](#) program at the Hatfield Marine Science Center (HMSC) is designed to address problems experienced by the shellfish aquaculture industry in US west coast estuaries. The pelagic cryptoniscan dispersal stage of the bopyrid isopod, *Orthione griffenis*, lack mouth parts and cannot feed until settling under the carapaces of the intertidal burrowing mud shrimp *Upogebia pugettensis* hosts. The settling cryptoniscans morph into the parasitic reproductive bopyridan life stage that has mouth parts. *O. griffenis* cryptoniscans are abundant in the Yaquina estuary from late June through September but are found as settled bopyridans only after September. Do summer cryptoniscans wait through summer to settle or do they die trying? We will test whether the July/August cryptoniscans are waiting to settle after August or settling constantly but failing to survive before August by artificially injecting cryptoniscans into the carapace chambers of infested and uninfested male and female *U. pugettensis*. We will assume cryptoniscans wait to settle if cryptoniscans do not attach when injected into hosts collected in summer and that cryptoniscans die trying if they fasten to these hosts and are lost by other causes than host access. The cryptoniscans and mud shrimp hosts for these experiments will be collected in zooplankton and benthos samples Yaquina Bay adjacent to HMSC and the experiments will be performed in the HMSC laboratory facilities.

The scholar would participate in field surveys and infection vulnerability tests of hosts to their parasites in laboratory and field conditions. The experiments would include the collection of live bopyrid cryptoniscan larvae from zooplankton samples that would be used for in field and laboratory challenge experiments. The scholar would collect, enter and analyze data using Excel and R coding and co-write a manuscript and presentation.

Field work: 15% (including possible overnight trips in Oregon, Washington, and Alaska) Office work: 55%, Lab work: 30%

VIRTUAL: Collect, enter and analyze data from previous samples using ImageJ, Excel and R coding.

Minimum qualifications

- ability to work under sometimes harsh field conditions (including rain, cold weather, and lots of soft estuarine mud and saltwater)
- competence in R, Excel, laboratory techniques and data entry/management and analysis
- basic knowledge of population biology

Other optional qualifications

- ability to drive to off-site locations

Eligibility: International students are eligible to apply

7. South Slough National Estuarine Research Reserve, Charleston, OR

Implement summer camp programs, enhance outreach and education materials

all projects are subject to change without notice

IN PERSON, VIRTUAL, OR HYBRID: Oregon's [South Slough National Estuarine Research Reserve](#) is made up of 5,900 acres and provides habitats for salmon, great blue herons, bald eagles, migrating ducks, elk, oysters, and crabs. The Reserve offers a diverse landscape of open waters, emergent islands, streams, salt marshes, and conifer-forested uplands. Through research, education, and stewardship programs, Reserve staff promote scientific and public knowledge of estuaries and how to manage them.

The summer scholar will work with the South Slough Reserve education and science staff to implement summer camp programs, as well as enhance and design outreach and education materials about estuarine ecosystems and Reserve research for existing Reserve programs. The Reserve hosts day camps every other week for children ages 5-18 years. The scholar will assist education staff, interns and volunteers with the planning and implementation of science camps. The scholar will use the weeks in between science camp to improve education materials for at least one existing Reserve program or exhibit. The scholar will work with the mentor, as well as science and education staff, to identify the project that matches best with their skills and interests. The scholar and mentor will work together to set goals to assure the project is completed by the end of the 10-week internship. If in-person internships are not possible, the intern will work remotely to improve education materials. The scholar will have project options based on Reserve prioritized existing education lessons, science projects or interpretive exhibits. Each of these options can be modified so that the scholar can work on them remotely if needed. If South Slough is offering remote summer camp, the scholar will help develop and carry out virtual lessons for campers.

Field work: 55% Office work: 45%

Minimum qualifications

- creative and possess strong oral and written communication skills
- comfortable working with children as well as adults
- interest in marine science and science communication
- ability to work in remote, challenging outdoor settings
- ability to drive their own vehicle to and from work
- ability to pass background check for working with children

Other optional qualifications

- basic understanding of ecology, biology or natural resources
- coursework in visual communication, journalism, graphic design or elementary education

Eligibility: International students are eligible to apply

8. Oregon Sea Grant, Newport or Coos Bay, OR

Eat Oregon Seafood initiative and programming for new fishers

all projects are subject to change without notice

IN PERSON, VIRTUAL, OR HYBRID: [Oregon Sea Grant](#) (OSG)'s vision is one of thriving coastal communities and ecosystems in Oregon. They achieve this vision by serving as a catalyst to promote discovery, understanding and resilience for Oregon coastal communities and ecosystems. OSG addresses regionally and nationally strategic issues through an integrated program of competitive, rigorously reviewed research, public outreach and engagement, and ocean and coastal education. Oregon's marine resource users are key partners to the program. OSG supports dynamic, inventive, and flexible approaches to meet the needs of communities in changing natural and social environments.

As a response to COVID-19 impacts on the Oregon Seafood Industry, this Scholar will help with the Eat Oregon Seafood initiative, to include developing programming for new fishers (such as an apprenticeship program). As part of Eat Oregon Seafood, we are working to expand our educational offerings, develop a new website, and potentially identify workforce resiliency options. There is a social media component to the initiative, and the opportunity to help plan videos and other outreach materials. The Scholar may work on a follow-up survey to the Oregon Seafood Industry. The Eat Oregon Seafood website is moving to a new platform, and we will be adding more content. The student may work with us to develop approaches for recruiting and training new/young fishers. This initiative is multi-faceted, and the Scholar would be able to actively participate in and contribute to a variety of projects, depending on their interests. The specifics may vary, depending on whether or not our coast is opening back up, or we are still all working remotely.

Field work: 10% (occasional travel between sites) Office work: 90%

Minimum qualifications

- independent and able to work remotely (if needed)
- strong computer skills

Other optional qualifications

- familiarity with USA seafood industry
- interest in outreach/communication
- ability to drive (location-dependent)

Eligibility: International students are eligible to apply