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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 conducting shellfish and habitat assessments for each estuary in Oregon, and monitoring shellfisheries for the state. These efforts inform resource management decisions and are also used to track changes in Oregon's estuaries and shellfisheries..

IN PERSON ONLY: The scholar would work on the [Shellfish Assessment Project \(SEACOR\)](#) conducting a study of shellfish populations and estuarine habitats in 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. The Scholar will work collaboratively on a team to collect shellfish and estuary habitat data in various intertidal regions of Tillamook Bay. The scholar will also participate in a collaborative Unmanned Aircraft System (UAS, or drone) project with a focus on using UAS to map intertidal eelgrass in Oregon estuaries. Collaborators include students and teachers from the Coastal Drone Academy based out the Career Tech High School in Lincoln City, and scientist and field staff from the US Department of Agriculture. The Scholar will work out of the ODFW Marine Resources Program offices in Newport with the rest of the SEACOR team. We have developed field COVID safety protocols to protect the health and safety of staff while still being able to collect data for the project. To learn more about SEACOR and the work we do, view the following video at: <https://www.youtube.com/watch?v=ytwmnQGTTwA>.

The primary role and responsibility of the Scholar will be collecting and analyzing field and laboratory data as an important member of the team. Tasks include participating in team meetings, preparing field gear, traversing intertidal flats, collecting environmental and biological data with a partner, extracting and measuring shellfish, and entering and analyzing data. The Scholar may also interact with recreational harvesters and engage the public at any outreach events the team attends. Depending on their interests and skills, the Scholar may also conduct an independent data project under guidance of a mentor. Opportunities include small scale mapping of bivalve populations, analyzing habitat-species associations, or assisting in the spatial analysis of UAS imagery from an eelgrass mapping project.

Field work: 75-80%, Office work: 20-25%, significant travel

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)
- attention to detail
- strong work ethic and willingness to learn intertidal field sampling methods

Other optional qualifications

- strong communication skills
- experience with small motorized boats (<25') or other water craft (e.g. kayak, canoe)
- experience with statistics, data entry, and/or GIS

Eligibility: Open to US citizens only

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

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. Oregon Kelp Alliance (ORKA), Port Orford, OR

ORKA kelp forest research and restoration projects

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IN PERSON ONLY: The [Oregon Kelp Alliance](#) works to enhance our understanding of and to promote healthy kelp forests in Oregon, and includes marine scientists, natural resource managers, tribal members, conservation non-governmental organization employees, commercial divers and fishermen, sport divers, ecotourism businesses, mariculturists, and restaurateurs who have an interest in maintaining or restoring healthy kelp forests in Oregon. Kelp is a foundation species that provides habitat and food to myriad marine species, sometimes even miles away. Local economies rely on kelp forests to provide food for red sea urchins and abalone and habitat for rockfishes and other commercially valuable species. Local community identities are built around these fisheries, and local tribes value these species as cultural resources.

The ORKA Scholar will serve as a field technician supporting ORKA kelp forest research and restoration projects, learn about and support Oregon kelp forest policy initiatives, science communication through the ORKA website, social media channels, seminars and workshops, conduct outreach to various stakeholder groups (recreational, survey, scientific, and commercial divers, and other coastal stakeholder groups), and provide support for ORKA activities. They will be provided with an opportunity to conduct an independent research project focused on a specific portion of ORKA's work, including data analysis and reporting of results in a suitable conference format.

Field work: 35%, Lab work: 25%, Office work: 20%, Travel 20% (time spent on each activity will vary)

Minimum qualifications

- knowledge of OR interest in Oregon's kelp forests
- willingness to participate in field work at various ocean shore and beach locations (traversing sand beaches and rocky shorelines, spending many hours out of doors, working from small boats)
- good organizational skills, strong communication skills

Other optional qualifications

- proficient in using social media channels (twitter, instagram, facebook, You Tube, etc.)
- willing to be trained to operate an air fill station to fill SCUBA tanks
- trained SCUBA diver
- ability to drive to off-site locations

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

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

Development of asynchronous 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 work on the development of an asynchronous online education center. Haystack Rock Awareness Program conducts educational events virtually and on the beach at Haystack Rock from March through October; we teach about local tidepool and seabird/shorebird ecology, oceanography, climate change, and other relative marine biology topics. To improve our virtual education tools, we will be developing a free Online Education Center that includes video lessons, interactive educational games, lesson plans, pdf print outs to use on field trips or at home, workbooks, species glossaries and guidebooks, and more. The Sea Grant Scholar will oversee the initial curation and organization of existing materials into this center – they will work closely with the Director, Communications Coordinator, Education Coordinator, and our Rocky Shore Interpreters to assist in this project.

The scholar will be considered a researcher and educator who will be responsible for: writing curriculum summaries for existing materials (such as what Next Generation Science Standards are covered by a worksheet), organizing existing materials by grade level, creation of new worksheets, creation of species glossaries and guidebooks, organizing all materials into the online education center, working with the Communications Coordinator on creating video lessons, assisting with field trips, and working some shifts as a rocky shore interpreter.

Field work: 30% Office work: 60% 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

5. International Coastal Atlas Network (ICAN) - remote

Build the coastal web atlas network of projects and connect to global initiatives

all projects are subject to change without notice

VIRTUAL ONLY: The [International Coastal Atlas Network](#) (ICAN) is a community of practice founded in 2006 to scope and implement data interoperability approaches to coastal web atlases (CWAs). In 2013 ICAN became a project of UNESCO IOC's [International Oceanographic Data and Information Exchange \(IODE\)](#) Programme. The long-term strategic goal of ICAN is to encourage and help facilitate the development of digital atlases of the global coast based on the principle of distributed, high-quality data and information. These atlases can be local, regional, national and international in scale. This can be achieved by sharing knowledge and experience among atlas developers in order to find common solutions for coastal web atlas development whilst ensuring maximum relevance and added value for the users. ICAN members seek to play a leadership role in forging international collaborations of value to the participating nations, thereby optimizing regional governance in coastal zone management and marine spatial planning. A major goal is to help build a functioning digital atlas of the worldwide coast based on the principle of shared distributed information.

A Sea Grant scholar would contribute to ICAN's efforts by helping to build the CWA network of projects and assisting with connecting new projects to relevant global initiatives. The Scholar would become familiar with the international network of coastal atlases and related forms of marine spatial data portals, and would learn about a wide range of topics related to international collaboration and data sharing for efforts such as the UN Decade for Ocean Science. Most specifically, the scholar would work with the Co-chairs of the ICAN steering group to build up a directory of projects worldwide, to be made accessible via the ICAN website. The scholar will also assist with the development of a web survey and several online forms to be used for data collection from CWA project owners, and may assist with contributions to various social media content channels, to enhance outreach and communications.

Remote work: 100% (30% directed research, 40% web page, web directory, web survey and web map building, 10% coordination with ICAN mentors and steering group members, and 20% in career enhancement learning opportunities provided by the ICAN mentors)

Minimum qualifications

- ability to meet via Zoom and work with people remotely
- interests in international collaborations, coastal management, marine spatial planning, OR information and data sharing
- ability to do independent web research and utilize Google Drive
- ability to meet one early morning per week via Zoom with international collaborators

Other optional qualifications

- familiarity with web editing, maps, and graphics programs

Eligibility: International students are eligible to apply

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

Amplify communication resources for creating education, science, and stewardship tools

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 National Estuarine Research Reserve public involvement coordinator to amplify communication resources vital for creating education, science and stewardship tools and information that can be used to engage a variety of audiences. Scholars will work with the Reserve mentor to post events and themes on social media, assist with capturing photos and videos of education, science and stewardship activities using Reserve cameras and software programs (Adobe and Cyberlink), and interact with staff, other interns, program participants and visitors. The scholar will design and distribute fliers to promote Reserve programs and assist with content for regularly scheduled media campaigns and learn to write and send press releases. Scholars will work with the mentor to assist with public outreach efforts and program development. This includes attending some community meetings and weekend events. The scholar will spend time observing and assisting with education, science and stewardship programs in order to understand and communicate about them better.

If in-person internships are not possible, the intern will work remotely to create and edit material under the direction of the mentor. The scholar will work on Reserve prioritized communication elements that are modified for remote work if necessary. For example, on-site staff can gather the raw material and share with the mentor to edit and create. If South Slough is offering remote summer camp, the scholar will help develop and carry out virtual lessons for campers implement summer camp programs, as well as enhance and design outreach and education materials about estuarine ecosystems and Reserve research for existing Reserve programs.

Field work: 55% Office work: 45%

Minimum qualifications

- creative and possess strong oral and written communication skills
- interest in science communications, education, natural history, sociology, media, OR graphic design
- basic understanding of social media platforms and digital photography
- ability to drive their own vehicle to and from work

Other optional qualifications

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

Eligibility: Open to US citizens only

7. Oregon Coordinating Council on Ocean Acidification and Hypoxia (OAH); Oregon Department of Fish and Wildlife (ODFW), remote

Develop fisheries/ocean observation phone application to collect science observations

all projects are subject to change without notice

VIRTUAL OR HYBRID: Oregon was one of the first places in the world to observe direct Ocean Acidification and Hypoxia (OAH) impacts. As OAH continues to intensify, there are now clear signs that OAH is undermining Oregon’s iconic fisheries, ecosystems, and coastal communities. Based at Oregon Department of Fish and Wildlife in Newport, this internship position will work with the [Oregon Coordinating Council on OAH](#) (OAH Council) to develop an ocean observation phone application to facilitate communication on ocean changes between fishermen and scientists in near real-time. The Fellow will learn first-hand the process of community project planning, execution, and outreach and how it aids long-term State monitoring needs as outlined in the Oregon OAH Action Plan. The scholar will also participate and learn about marine resource management and policy by assisting the mentor with meetings, web-based computer product development, and other activities.

The scholar’s primary project will be to develop an fisheries/ocean observation phone application that can be used by fishermen and other ocean users to collect science observations. This project will entail working closely with a team of stakeholders (and possibly contracted technical assistance) to develop the application as well as coordinating pilot testing and conducting project-related outreach. The scholar will work closely with the mentor on this project and will take the lead on portions of the project, including organizing stakeholder meetings, aiding in the design of the application, and facilitating pilot testing. The scholar will be responsible for active communication with the mentor and other project partners, and will be expected to seek guidance and assistance when needed. Other opportunities for scholar engagement throughout the program include attending OAH Council meetings and executive sessions of the International Alliance to Combat OA to learn more about policy, marine resource management and scientific research.

Office work: 100% (optional travel)

Minimum qualifications

- independent and able to work remotely (access to computer, internet, camera and microphone)
- comfort interacting with a wide range of stakeholders
- strong oral and written communication skills
- ability to self-monitor progress and take the lead as project coordinator

Other optional qualifications

- background knowledge in computer data processing OR programming, strong interest in learning computer web software development
- knowledge of ocean and climate change science and its impacts on communities
- ability to attend in-person stakeholder meetings

Eligibility: International students are eligible to apply

8. Cooperative Institute for Marine Ecosystem and Resources Studies (CIMERS), Newport, OR

Newport Hydrographic line sampling and lab work

all projects are subject to change without notice

IN PERSON ONLY: The Newport Hydrographic Line team is a group of NOAA Fisheries and Oregon State University [Cooperative Institute for Marine Ecosystem and Resources Studies](#) (CIMERS) scientists that sample the Newport Line fortnightly to understand changing ocean conditions. We have many collaborators; one being the Olympic Region Harmful Algal Bloom Partnership (ORHAB), which was formed to investigate the drivers of harmful algal blooms (HABs) that lead to shellfish harvesting closures along the Washington coast. In particular, we report abundance of the toxic diatom, *Pseudo-nitzschia*, and the toxin produced, particulate domoic acid (pDA), to the [Pacific Northwest Harmful Algal Bloom \(PNW HAB\) Bulletin](#). The Bulletin provides an early warning to coastal shellfish managers before open shellfish harvesting.

The scholar will participate in field surveys and process water samples for pDA in the lab. The water samples are processed using an enzyme linked immunosorbent assay (ELISA) to detect the amount of pDA in the water. The final data will be sent to ORHAB to contribute to their PNW HAB bulletin and therefore should be processed in a timely manner. The scholar will also be responsible for processing a backlog of water samples for pDA from 2021. Once the samples are processed, the scholar will analyze the data to address questions regarding patterns and environmental drivers in the environment. For example, is there a correlation with increased domoic acid production and nutrients or temperature? The scholar will present their findings for their final presentation.

Field work: 20% (potential travel to Washington state), Lab work: 50%, Office work: 30%

Minimum qualifications

- detail-oriented for lab work
- able to help with at-sea sample collection
- familiar with data entry OR analysis
- flexible team player

Other optional qualifications

- coursework including laboratory techniques
- some experience with Excel, JMP, R, or MS Access
- ability to drive for field work

Eligibility: Open to US citizens only