



## Oregon Sea Grant Natural Resource Policy Fellowship Host Descriptions 2021-2022

**About the Natural Resource Policy Fellowship:** The Natural Resource Policy Fellowship (NRPf) places a graduate student fellow with an agency or nonprofit in Oregon. This fellowship is intended to give the student first-hand experience in natural resource policy related to marine and coastal issues. For additional details visit: <https://beav.es/4zz>

Please note, the Oregon Sea Grant Scholars Program is focused on broadening participation and diversity by restructuring our recruitment and review processes to be more equitable. Our intent is to be inclusive of applicants from various cultural, ethnic, and socioeconomic backgrounds with unique lived experiences, skills and interests; including applicants that may have had fewer opportunities in the marine policy field.

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11	Abandoned and Derelict Vessel (ADV) Program Specialist	Oregon State Marine Board, Environment and Policy Section	Salem, OR	29

\*Due to the ongoing COVID-19 pandemic, many host offices are currently teleworking from home, while some hosts have transitioned back into the office and others anticipate that transition in the Fall 2021. All NRPf positions listed offer some flexibility in office locations and/or telework options. Additional details are provided in the following descriptions, but may change as the COVID-19 response evolves.

### Position Number 1

**Host Office:** Oregon Department of Fish and Wildlife (ODFW), Marine Resources Program (MRP)

**Position Title:** Pink Shrimp Fishery Management Policy Fellow

**Position Location:** Charleston, OR (Office work could be performed remotely as needed)

**Program Overview:** Oregon Department of Fish and Wildlife's (ODFW) mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. ODFW's Marine Resource Program (MRP) applies this mission to fisheries with the goal of sustainability. One of the fisheries MRP manages is the pink shrimp (*Pandalus jordani*) fishery. It is the state's second most valuable single species fishery, valued at approximately 25 million dollars per year. Managers, scientists and industry have made the fishery a worldwide leader in sustainability, exemplified by its Marine Stewardship Council (MSC) certification in 2007, the first shrimp fishery to receive such. Oregon's pink shrimp project researches, monitors, and manages the fishery. The project performs fishery independent at-sea research and intensively monitors the fishery; analysis of these data are used to develop management policies. As appropriate, members of the pink shrimp project then present rule-making issues to the Oregon Fish and Wildlife Commission (OFWC).

**How this position specifically relates to marine and coastal policy:** This position will directly contribute to the development and implementation of fishery management policies. The fellow would work with managers, scientists and industry to develop policy changes in a few key areas: 1) seasonal structure (i.e. outreach and rulemaking issues regarding season length), 2) bycatch reduction research, analysis and consideration for rule making, 3) working with industry to update reporting (i.e. application of existing rules to current practices), and 4) Fishery Management Plan (FMP) review and update.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** Day to day activities would vary but include fieldwork (at-sea and land based), data management and analysis, outreach coordination, and rulemaking preparation.

ODFW aims to complete two at sea research projects in 2021-2022. In 2021, ODFW will revisit habitat surveys of Nehalem Banks via Remote Operated Vehicle (ROV). We will examine video to quantify habitats and compare to past work to determine affects to habitats by shrimp trawl gear and determine recovery rates. The fellow's duties in relation to this work could include at sea work as well as research, analysis and writing to evaluate and report results. Next, further research on bycatch reduction, using LED fishing lights is anticipated in 2022. The fellow's duties in relation to that work could include planning, at sea work, analysis and reporting on those results. Result of both these upcoming research projects could be applied to management in the short term.

ODFW aims to bring an OFWC exhibit in the winter of 2021-2022 regarding 1) changes to the shrimp season and 2) changes to methodology of evaluating landings for count per pound issues. Shrimp season currently opens April 1, a start date that is no longer tenable to many in industry, given changes in fishing practices, market changes and to reduce biological impacts of fishing (e.g. catching fewer egged shrimp). The fellow's duties regarding these items could include outreach, literature review, analysis and writing. Additionally, rules regarding count per pound testing to assure legal catch could be revisited to improve clarity on the rules associated with this methodology and improve equity in enforcement. These tasks will serve the key need of coordinating and supporting increased sustainability of the pink shrimp fishery through rules modification.

Lastly, ODFW aims to assist industry in meeting requirements for accurate landing receipts. The fellow will assist industry members in developing statistically sound methodologies for landing shrimp, where ice is mixed in the landing. The fellow's tasks regarding landing receipts will be outreach with industry at distant ports and development of standards for ODFW approval.

The West Coast Pink Shrimp Fishery is valuable and spreads from Northern California to Northern Washington, centered in Oregon. Outreach and research conducted by the fellow would likely include visiting all of Oregon's larger ports (Astoria, Newport, Charleston and Brookings).

**Approximate breakdown of field/office work:** Fieldwork would be around 25% of the position while office work would be the remaining 75%. Fieldwork may include at sea research, meeting and coordination with distant ports. Office work could be performed remotely as needed. Fellows will be provided office space, a laptop computer, phone and access to a government vehicle. A driver license and acceptable driving record is required.

**List the communities or stakeholders with which the fellow may engage:**

- Scientists- work with regional fishery scientists to assure prudence of rulemaking.
- Managers- Coordinate and communicate with Oregon, California and Washington shrimp fishery managers to assure cohesive application of rulemaking.
- Industry- Communicate and process needs of industry to assure palatability of rule making.
- Communities in Oregon affected would include Astoria, Newport, Charleston and Brookings, the fellow would work to engage these community members.

**Desired products from the fellow:**

- Rulemaking assistance in a Winter 2021-2022 OFWC exhibit.
- Habitat data management, analysis and writing.
- Fishery bycatch research assistance, analysis and development of potential rule making.
- Effective communication around compliance with industry in accommodating estimations on fishery receipts.
- Analysis of rules regarding minimum count per pound regulations and development of new rule language as appropriate.

**Potential benefits of this position to the fellow:**

- Experience with policy and management in a sustainable fishery.
- Experience with fishery research, analysis and writing.
- Access to a wide variety of stakeholders, highly invested in the fishery.
- Being part of a strong, experienced and diverse team.

**Required skills:**

- Verbal and written communication (to varied groups and within a team)
- Basic knowledge of fisheries
- Independent work skills
- Analysis skills (power analysis, ANOVA, etc.)
- Analysis software familiarity (Excel, R, NCSS, etc.)

**Preferred skills:**

- Policy/ rule applications
- Advanced analysis skills
- Fisheries science fundamentals
- Advanced knowledge of fisheries

## Position Number 2

**Host Office:** Oregon Department of Fish and Wildlife/ Marine Resources Program/ Fish Division

**Position Title:** Oregon Marine Resources Dashboard Reporting Analyst—The dashboard analyst is responsible for creating a data dashboard to display interactive summaries of Oregon marine fishery-dependent, fishery-independent, and ecosystem data.

**Position Location:** Newport, Oregon (Office work could be performed remotely as needed)

**Program Overview:** The Oregon Department of Fish and Wildlife's Marine Resources Program (MRP) is responsible for assessing, monitoring, and managing Oregon's marine habitat, biological resources, and fisheries. The MRP's main office is located at the Hatfield Marine Science Center in Newport, OR and includes two additional offices in Newport. There are also field stations in Astoria, Charleston, Brookings, and Corvallis. The MRP has primary jurisdiction over fisheries in state waters (from shore to three miles seaward), and participates in regional and international fishery management bodies including the Pacific Fishery Management Council, the International Pacific Halibut Commission, and the North Pacific Fishery Management Council. Management strategies developed at all levels affect Oregon fish and shellfish stocks, fisheries, resource users, and coastal communities. Staffing consists of approximately 60 permanent and more than 60 seasonal or temporary positions. The current annual program budget is approximately \$9 million, with about 76% coming from state funds including sport license fees, commercial fish license and landing fees, and a small amount of state general fund. Grants from federal agencies and non-profit organizations account for approximately 24% of the annual program budget. Funding levels have been relatively stable over recent years.

**How this position specifically relates to marine and coastal policy:** This position would develop a data dashboard to provide policy and management support to Marine Resources Program staff. Major policy areas include federally managed fisheries, state managed fisheries, and the impacts of climate and ocean conditions on these managed resources. The creation of an interactive data dashboard would inform the development of policy, assessment, and regulations for marine species and habitats to ensure long-term sustainability and continued fishing opportunities.

The specific goal of this project is to create a pilot data dashboard to serve the broader needs of natural resource agencies who manage or co-manage marine and estuarine resources in Oregon. The data dashboard would provide a platform to better manage Oregon's marine resources by bringing together a suite of climate/ocean indicators and fishery and survey data to contextualize trends, inform monitoring efforts, and trigger or inform sustainable management practices. The dashboard is meant to be a centralized "one stop shop" for managers to look across ecosystem and fishery-based indicators for a more complete picture of trends in Oregon's marine resources.

This data dashboard will inform policy, regulatory, and possibly legislative decisions and provide a transparent process to use indicators to trigger or support management decisions. Monitoring and assessment prioritization efforts would be informed by the ability to view ODFW and other relevant available data and related trends in a central location. Additionally, this data dashboard can be used to communicate the utility of using ecosystem and fishery-based indicators in the decision-making process to the following audiences:

- Recreational Fishermen and Charter/Guide Fishing Businesses
- Commercial Fishermen and Commercial Fishing/Processing Businesses
- Local and Regional Management Partners and Decision Makers
- Academic Partners and Researchers

- NGO or Conservation Groups

This pilot project's objectives would include:

- Identify 1-2 managed species that are important to Oregon fishing communities
- Identify 1-2 ecosystem based data streams that are indicators of fishery performance
- Create a data dashboard using Shiny Dashboards to create interactive data visualizations to explore trends

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:**

Daily tasks would specifically relate to the objectives listed above. These may include:

- literature review on the selected species and fisheries to identify potential ecosystem indicators that directly influence species and fisheries
- inventory available ecosystem data streams and prioritize these data streams for known species and fishery ecosystem indicators
- becoming familiar with the available fishery and ecosystem data streams and how to access them remotely through R
  - Fishery data include catch streams, potentially through PacFIN and RecFIN data depositories, internal ODFW datasets for development of CPUE indices and ODFW fishery-independent datasets.
  - Ecosystem data might include climate and ocean indicators (i.e. chlorophyll, upwelling, harmful algal blooms, etc), social indicators (population, income, etc.), and species not targeted by fisheries (i.e. marine mammal, seabird, etc.).
- code development, testing, and documentation for the Shiny application
- consultation with MRP managers and constituents for feedback on the dashboard's utility and functionality.

These daily tasks will provide the primary support for the initial stage of development of a comprehensive data dashboard that will serve as a tool to inform sustainable fisheries management and decision making.

**Approximate breakdown of field/office work:**

- 90% office work
- 10% field work
  - Attend a Pacific Fisheries Management Council Meeting
  - Shadow Port Biologists in the collection of commercial data

As the fellow will be connecting to ODFW's secure network to access fishery data, ODFW will provide office space and a laptop for this position. If remote work is desired, a reliable internet connection is necessary but not provided by ODFW. All expenses for any field work will be covered by ODFW. This may include reimbursements for meals and other related travel expenses (e.g. hotel rooms, airfare, etc.), or expenses incurred on a personal vehicle while traveling for official business. A personal vehicle is not required for travel and may only be used with prior supervisor approval. A current driver's license and a satisfactory driving record are required, in order to operate ODFW vehicles.

Remote work possible with ability to attend meetings in Newport, and rare travel along the Oregon coast. Potential travel outside of Oregon to Pacific Fisheries Management Council meeting, which rotates meetings throughout California, Oregon, and Washington.

**List the communities or stakeholders with which the fellow may engage:**

- State fishery managers
- Federal fishery managers
- PFMC and associated advisory bodies
- Fishery research scientists
- Commercial and recreational fishery participants

**Desired products from the fellow:**

- Functioning interactive data dashboard
- Annotated code documentation, including a technical memorandum
- Present to the HMSC seminar and brown bag seminar to ODFW

**Potential benefits of this position to the fellow:**

- Development and refinement of high-level R coding skills
- Exposure to regional and local fisheries management and decision-making processes
- Improved understanding of Oregon's marine resources and the data that support science-based management and assessment
- Understanding of changing ocean conditions and drivers of ecological change

**Required skills:**

- Ability to receive constructive criticism and work as a member of a team
- Basic to intermediate R coding skills with enough proficiency to quickly master the Shiny package
- Strong oral and written communication skills
- Strong critical thinking and problem-solving skills

**Preferred skills:**

- Knowledge or background of Oregon's marine environment and resources
- Knowledge of Oregon's fisheries and/or ecosystem-based management
- Understanding of connecting to api, SQL, and Oracle database connections in R
- Familiarity with Shiny package in R
- Experience with stakeholder engagement

### Position Number 3

**Host Office:** Oregon Department of Fish and Wildlife/Fish Division/Marine Resources Program

**Position Title:** Market Squid Fishery Fellow

**Position Location:** Newport, Oregon (Office work could be performed remotely as needed after in-person orientation)

**Program Overview:** The Marine Resources Program (MRP) studies and manages the animals and habitats found in the ocean and estuarine waters of Oregon. Oregon has 363 miles of coastline and 1,410 miles of tidal shoreline, and our authority and influence extends from this shoreline out to 200 nautical miles off of the coast. Oregon's diverse marine resources support commercial fisheries that annually contribute more than \$500 million in personal income to Oregon. Generally, the MRP assesses and manages Oregon's marine habitat, biological resources and fisheries, with primary jurisdiction and authority in Oregon's Territorial Sea (from shoreline to three miles). In addition to direct responsibilities in state waters, the MRP shares co-management responsibility with state, federal, regional and international decision-makers who together develop management strategies that affect Oregon fish and shellfish stocks, fisheries, and marine habitats. The program's work focuses on three major categories: marine resource management (policy and regulation); fisheries monitoring and sampling; research and assessment of species and habitats.

**How this position specifically relates to marine and coastal policy:** The market squid fishery fellow will contribute directly to the development of policy and management for the market squid fishery in Oregon. This fishery has grown significantly in recent years, and ODFW is evaluating the need for changes to existing policy and management for this fishery. The fellow will assist with gathering and evaluating information and developing recommendations in support of near-term fishery management decisions and potential future development of an Oregon market squid fishery management plan (FMP). The fellow's work will be immediately useful in ODFW's understanding and management of the fishery and in consideration of potential rule changes by the Oregon Fish and Wildlife Commission in 2021 or 2022. Although full development of a FMP will take longer than the term of this Fellowship, the fellow's work will contribute to the foundational elements of a potential future FMP. The scope of information to be gathered and summarized by the fellow includes ecosystem and socio-economic factors and input from multiple stakeholders, including an industry advisory committee that ODFW is in the process of forming. Near-term policy questions to be addressed include a potential restricted participation system for the fishery in order to limit capacity and ensure resource conservation and economic viability of fishery participation; gear restrictions to reduce adverse impacts on habitat and/or conflicts with other types of fishing gear; vessel monitoring; the effect of recently adopted rules on the population's reproductive capacity; and the Oregon market squid fishery's impact on the overall forage base in the California Current Ecosystem. The market squid fishery fellow will assist ODFW staff with these near-term activities that will shape policy and management for this fishery.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:**

- Working with the project leader and other MRP staff, the fellow will help review, organize, and summarize previous work related to squid biology, ecology, and fisheries. This will involve literature review and communication with west coast fishery scientists, managers, and fishing industry participants.
- The fellow will assist with organizing forums to gather public input from stakeholders, attend those forums, and take notes on discussions that occur.

- The fellow will help ODFW staff gather information needed for evaluating the near-term management issues and development of an FMP that is consistent with Oregon's Marine Fishery Management Plan Framework and the federal Coastal Pelagic Species Fishery Management Plan, as well as other applicable policies and rules.
- The fellow will attend meetings of MRP staff, including those not related specifically to the development of the fishery management plan (FMP), in order to learn about the program's full range of policy, management, research, monitoring, and other activities.

**Approximate breakdown of field/office work:** The fellow's work will be primarily done in the office setting. There may be opportunities to observe fishery landings in the field with MRP fishery sampling staff. Other field work components would be interactions with stakeholders at meetings. The fellow will be provided with an agency laptop computer complete with software required for the work. Office space with internet access will be provided in Newport. If travel to meetings outside of Newport is required, travel costs to and from Newport in accordance with agency travel policy.

The fellow could potentially work remotely, but would need to come to Newport both for initial in person orientation at a minimum until they are up to speed and for any meetings in Newport. Office space would be provided for the fellow at the Newport ODFW office.

**List the communities or stakeholders with which the fellow may engage:**

- Coastal communities
- Fishing industry stakeholders from various sectors (e.g., fishers, processors, fish buyers)
- Conservation stakeholders
- State and federal fishery managers

**Desired products from the fellow:**

- Annotated bibliography from literature reviews
- Meeting planning (meeting frequency is yet to be determined)
- Notes from fishery stakeholder meetings and/or forums
- Drafting text for potential use for Commission exhibits and/or as part of a Market Squid Fishery Management Plan

**Potential benefits of this position to the fellow:**

- Exposure to a broad range of perspectives on natural resources management
- Interactions with state and federal fisheries managers
- Attendance at meetings related to fishery management
- Opportunities to observe fisheries in action through port sampling operations
- Exposure to and interactions with coastal communities
- Opportunity to help shape real world policy decisions

**Required skills:**

- Familiarity with natural resources management and policy
- Demonstrated ability to conduct library research and literature reviews
- Working knowledge of MS Office software use
- Technical writing skills
- Ability to prioritize tasks in a dynamic setting
- Good people skills

- Valid driver's license and acceptable driving record

**Preferred skills:**

- Broad understanding of Oregon's marine environment and fisheries
- The following qualities in a fellow would be highly beneficial
  - Highly organized
  - Independent
  - Self-starter
  - Adaptable
  - Experience setting up stakeholder meetings or other public forum

### Position Number 4

**Host Office:** Oregon Department of Fish and Wildlife, Marine Resources Program, Newport

**Position Title:** Fishermen Citizen Science and Ocean Change Fellow

**Position Location:** Newport, OR (Office work could be performed remotely as needed)

**Program Overview:** Oregon Department of Fish and Wildlife's (ODFW) mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. ODFW's Marine Resource Program (MRP) applies this mission to fisheries with the goal of sustainability. Oregon's marine waters are changing at a rapid pace and the need for timely documentation of physical and biological shifts is paramount, to meeting sustainability goals. Rapid response for assessing and responding to changes impacting ecosystems and fisheries requires high resolution observations that document both biological and physical observations simultaneously. Ocean fishermen have rich experience and observation of Oregon's marine ecosystems and collectively are an active and underutilized source plying Oregon's waters from commercial, charter, and private boats every day. Innovative ways to capture strategically targeted information using fishermen as citizen scientists would add great value to real-time fisheries management policy (e.g. locations of fish aggregations relative to ocean conditions, early warning of ecosystem shifts), as well as long-term planning to balance fisheries and conservation needs over time (e.g. observations of whales around fishing gear).

**How this position specifically relates to marine and coastal policy:** Recently labeled a high-priority "next step" at the 2021 Fishermen-Scientists Ocean Acidification and Hypoxia (OAH) Roundtable, a citizen science cell phone app for commercial and sport fishermen has been discussed for many years as a great way to improve real-time understanding of ocean change. The product would most importantly reveal ecological and oceanographic events that are just emerging, which would be used for rapid response research teams, in-season fishery management, and future natural resource policy development. This project will identify and prioritize information needs by managers and researchers, and scope the information fishermen are willing to provide, targeting modification or development of a fishermen cell phone app. The app will provide meaningful first-hand observations on the water and build collaborative relationships between managers, researchers and fishermen, helping on many levels to develop effective fisheries policy. In one specific example, this product would be used to document whale and turtle observations, complementing ODFW work to mitigate species entanglements in Dungeness crab gear. While the fishermen reporting app is an ultimate product goal for ODFW MRP, the Fellow will provide syntheses of priority information needs and existing candidate apps, and a written plan for app development. App creation or testing may also be a product of this fellowship depending on the Fellow's technical skills or additional funds for an outside contract to create the app.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** Goals for the project will require a mix of day-to-day activities that include researching and writing (summarizing literature and information), calls with a variety of stakeholders (fishermen, researchers, ODFW staff), attending relevant meetings (ODFW staff meetings, OAH Council and OAH Council Education/Outreach meetings, fishing industry meetings, etc.), and occasionally making port visits (travel) using agency-provided vehicles. More specific goals:

- a) Define goal(s) of the app (e.g. collect observations as early warning system, engage fishermen and researchers in process, collect strategic types of information our staff need, etc) and priority data to collect, functionality, usability.
- b) Review current apps and potential for adaptation (analogous to a literature review)
- c) Work with fishery managers and scientists to identify and prioritize information needs

- d) Work with fishermen from a variety of fisheries to determine willingness, capacity, and incentives for participation, types of information they can provide, and preferences/needs for app features (e.g., recommendations to make it easy like text reminders/prompts, use app on the water or at the end of the day)
- e) Work with ODFW staff to develop a plan for app development.
- f) If skills, funds, and time are available, create or work with contractor to develop a pilot app and test function and usability with fishermen.

**Approximate breakdown of field/office work:** This is an office-based project (at ODFW office, or remote, or combination). Travel to ports to talk with fishermen will be part of the work, but is scalable and may only require 10% of the time. ODFW will provide office workspace (as needed), an agency laptop with access to required servers, business cell phone, and access to state-owned vehicle for business travel. Fellow must have a valid Driver's License and pass background check including acceptable driving record.

Remote work is possible with ability to attend meetings in Newport (fellow would be responsible for their own travel arrangements and costs for these meetings), and rare travel along the Oregon coast (ODFW responsible for the fellow's travel arrangements and cost).

**List the communities or stakeholders with which the fellow may engage:**

- This project will require extensive communications with fishermen as the key citizen science group, ODFW staff and researchers in Oregon, as well as exposure to work by the legislatively-created OAH Council and its Education & Outreach Working Group.
- Fishing fleets, with particular emphasis on whale-watching vessels (charter), crab vessels (commercial), pink shrimp vessels, and albacore vessels (sport, charter and commercial).
- ODFW staff and researchers who work with fisheries, with highest priority on the crab fishery (commercial), pink shrimp fishery (commercial), albacore fishery (sport and commercial), and groundfish fishery (sport).
- Interaction with and participation in meetings of the Oregon Ocean Monitoring Group (OOMG), the Oregon OAH Council, and the OAH Council's Education & Outreach Working Group.

**Desired products from the fellow:**

- Written syntheses of:
  - priority needs by managers and researchers to inform type of app and requests from fishermen.
  - existing apps that provide the type of communication that is desired by Oregon fishermen, researchers and managers.
  - data collection priorities of the 3 target groups: fishermen, researchers, managers; recommendations on prioritization of data to be collected, to deliver the most broadly desired needs, without overwhelming or alienating app users.
- Written plan for building the app including priority data, usability, logistics and model from which to build the app.
- If skills, time, and funds are available, develop a pilot app and work with fishermen to test functionality and usability of app.

**Potential benefits of this position to the fellow:**

- First-hand experience with the processes involved in marine policy formulation and implementation
- Interaction and networking with scientists and seafood industry who are engaged in OAH and nearshore monitoring in Oregon and the West Coast
- Development of strong public outreach and communication skills

**Required skills:**

- Familiarity with Pacific Northwest marine ecosystems, marine natural resources data, and policy
- Excellent communication skills (both oral and written) and organizational skills
- Excellent self-direction skills and ability to work independently

**Preferred skills:**

- Experience with citizen science, working with fishermen, and Pacific Northwest marine data
- Experience or familiarity with mobile app development
- Demonstrated ability to develop project from the start to completion

**Position Number 5**

**Host Office:** Oregon Department of Fish and Wildlife / Marine Resources Program

**Position Title:** Conservation and Fisheries Management Plan for Abalone

**Position Location:** Charleston, OR (Office work may take place remotely as needed)

**Program Overview:** The mission of the Oregon Department of Fish and Wildlife (ODFW) is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. The Marine Resources Program (MRP) manages multiple recreational and commercial fisheries to meet the goals of conservation and sustainability. Populations of red abalone are currently in serious decline in Oregon and northern California due to decreased availability of kelp as their primary source of food. Recent surveys reveal declines in red abalone since 2015 to a level well below the threshold considered essential to ensure successful reproduction and replenishment of the patchy populations. California and Oregon suspended the recreational abalone fishery for several years (until 2024 in OR; until 2026 in CA) to provide time for fishery managers to monitor marine habitat conditions, conduct new surveys of abalone populations, and develop a regional conservation and fishery management plan to guide future rebuilding of the abalone populations. The Sea Grant Fellow will work directly with the ODFW/MRP Shellfish Program to assist with development of the Conservation and Fishery Management Plan (CFMP) for Abalone in Oregon.

**How this position specifically relates to marine and coastal policy:** This position will contribute directly to the development and implementation of marine conservation and fishery management policies regarding abalone in Oregon. More specifically, the Sea Grant Natural Resource Fellow will work with marine resource managers, scientists and recreational abalone harvesters in OR and northern CA to develop policy perspectives and alternative management options to ensure conservation of abalone populations and sustainability of recreational fisheries. The Fellow will also assist ODFW with the acquisition of new datasets to characterize the current status of abalone populations and their habitat, coordinate regional activities to assess variability in abalone populations, solicit stakeholder input, and generate an understanding of biophysical limitations to recruitment of red abalone at the northernmost extent of their biogeographic range.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** Activities undertaken by the Fellow will vary widely from day-to-day, including:

1. Work in the office to gain familiarity with historical literature, conduct correspondence with resource managers and marine scientists (phone, email), draft policy statements and develop alternative management options.
2. Work along sections of the rocky shores to assist with new surveys of abalone populations and characterizations of abalone habitat.

Together, these activities will contribute toward development of the Conservation and Fishery Management Plan (CFMP) for Abalone in Oregon.

**Approximate breakdown of field/office work:** About 85% of the work will occur in an office setting, and about 15% of the activities will occur in the field. Work in the office may take place remotely (as needed), and activities in the field may include surveys in intertidal areas, snorkel dives, taking photos from vantage points, provision of assistance with SCUBA surveys, and domestic travel to hold meetings and discussions with resource managers, scientists, and stakeholders.

**List the communities or stakeholders with which the fellow may engage:**

- Marine Resource Managers - coordinate with shellfish resource managers in Oregon and northern California to gain information, develop policy-level guidance, and ensure regional coordination of conservation and management actions;
- Marine Scientists – communicate with marine scientists and abalone biologists to gain input about the reproduction, growth, and ecology of abalone populations, and the relationship between recruitment success and local oceanographic currents;
- Recreational Abalone Harvesters – conduct correspondence with recreational abalone harvesters and other stakeholders in Oregon and northern California to gain their input and perspectives regarding possible conservation steps and future management alternatives; and
- Affected Coastal Communities – the primary communities affected are located in Brookings, Port Orford, Charleston, and Newport.

**Desired products from the fellow:**

- Compilation of technical literature and datasets regarding biology, fishery harvests, and management of red abalone in OR and northern CA;
- Generate a draft Conservation and Fishery Management Plan for Abalone;
- Identify potential agency rules/regulations needed to implement priority management actions;
- Preparation of informational items and decision-support documents for the Oregon Fish and Wildlife Commission;
- Preparation of outreach materials, FAQ documents, and maintenance of digital media for stakeholders.

**Potential benefits of this position to the fellow:**

- Experience with policy development, regional conservation strategies, and management for a sustainable abalone fishery;
- Direct participation in fisheries management, compilation of research, data analysis, and technical writing;
- Gain familiarity with diverse group of marine scientists, citizen scientists, abalone harvesters, and other coastal stakeholders; and
- Participate as an integral member of the ODFW Marine Resources Management Program during development of the Conservation and Fishery Management Plan for Abalone.

**Required skills:**

- Verbal and written communication (to varied groups and within a team);
- Basic knowledge of abalone biology, ecology, and marine fisheries management;
- Fundamental skills with public correspondence and digital media;
- Analytical skills and expertise with databases (summary statistics, retrospective studies, trends); and
- Basic skills with GIS, map displays, and spatial relationships.

**Preferred skills:**

- Understanding of biology and ecology of rocky reef habitats and biotic communities;
- Expertise with databases, statistics, advanced analysis;
- Familiarity with marine natural resource policy; and
- Advanced knowledge of marine conservation and fisheries management.

**Additional Context:** Populations of red abalone are currently in serious decline in Oregon and northern California due to decreased availability of kelp as their primary source of food. Recent surveys by ODFW and ReefCheck reveal declines since 2015 to a level well below the threshold considered essential to ensure successful reproduction and replenishment of the patchy populations. California and Oregon suspended the recreational abalone fishery for several years (until 2024 in OR; until 2026 in CA) to provide time for fishery managers to monitor marine habitat conditions, conduct new surveys of abalone populations, and develop a regional conservation and fishery management plan to guide future rebuilding of the abalone populations. The Sea Grant Fellow will work directly with the ODFW Shellfish Program to prepare the Conservation and Fishery Management Plan (CFMP) for Abalone in Oregon, including synthesis of information about the ecology of abalone populations in Oregon marine waters, compilation of historical fisheries data and information, summary of the rules and regulations regarding recreational fisheries, analysis of current policy positions for at-risk marine species, coordination and evaluation of possible state-level and regional (OR and CA) management actions for conservation and rebuilding, and generation of stakeholder input prior to presentation of the CFMP to the OR Fish and Wildlife Commission.

**Position Number 6**

**Host Office:** Oregon Department of Environmental Quality (ODEQ) – Water Quality Division

**Position Title:** Ocean Acidification and Hypoxia (OAH) Marine Assessment Policy Fellow

**Position Location:** Portland or Salem, OR (Both remote and in-office working are possibilities depending on the State and DEQ's policy at the time of the fellowship)

**Program Overview:** The mission of the Department of Environmental Quality (DEQ) is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, water and land. The Oregon Department of Environmental Quality strives to create an inclusive environment that welcomes and values diversity. We foster fairness, equity, and inclusion.

The Water Quality Division works with DEQ's staff in its three regions and the Laboratory to develop and implement programs to protect and enhance the quality of the waters of the state to ensure public health and the environment are protected. The Water Quality Assessment program conducts a statewide water quality assessment and assembles a biennial status report on Oregon's water quality through collaboration between Headquarters and laboratory staff.

This fellowship position will support DEQ's activities related to Oregon's Ocean Acidification and Hypoxia (OAH) policy, particularly focusing on collaboration with other federal and state agencies and academia by assisting with the convening and facilitation of a scientific technical workgroup. This workgroup's charge will be to define and develop scientifically-supported methodologies for assessing OAH impacts in marine territorial waters that can be used to carry out water quality assessments within DEQ's Clean Water Act assessment program.

**How this position specifically relates to marine and coastal policy:** Oregon was one of the first places in the world to observe direct OAH impacts. As OAH continues to intensify, there are now clear signs that OAH is undermining Oregon's iconic fisheries, ecosystems, and coastal communities.

Oregon DEQ's biennial Integrated Report assesses water quality across the state and provides a snapshot of the current status of water quality in Oregon. Waterbodies where data show that water quality standards are not met are included on the state's Clean Water Act section 303(d) list of impaired waters.

Oregon DEQ does not currently have a methodology for assessing OAH impacts in marine territorial waters to carry out its Clean Water Act responsibilities, and there is not a clear consensus of what would constitute an impairment listing within this program. To help fill this current methodology gap, DEQ expects that scientific and technical input will help define what constitutes sufficient evidence to identify detrimental impacts to aquatic life and a beneficial use impairment within Oregon's territorial waters. Oregon DEQ is convening a technical workgroup to assist with development of Clean Water Act assessment methodologies that accurately capture and quantify OAH impacts in Oregon's territorial waters.

The objective of the technical workgroup is to assist DEQ in developing methodology options to assess Oregon's territorial waters for ocean acidification and hypoxia impacts, to be shared in the Integrated Report.

This fellowship position will support DEQ's activities identified in Oregon's OAH Action Plan, particularly focusing on collaboration with other federal and state agencies and academia by assisting with the convening and facilitation of a scientific technical workgroup to define methodologies for assessing OAH impacts in marine territorial waters.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** The fellow's day-to-day activities include: (1) Coordinate and communicate with OAH technical workgroup members and individuals identified within other federal and state agencies and academic institutions; (2) Schedule four to five workgroup meetings over the next 12 months; (3) Conduct day-to-day tasks as needed in order to support the coordination and preparation for these workgroup meetings; (4) Prepare meeting materials and summarize meeting discussions and conclusions; (5) Support the facilitation of the technical workgroup meetings; (6) Research and summarize ocean acidification and hypoxia issues as needed; (7) Develop recommendations for additional data collection to fill information gaps and meet Clean Water Act needs; (8) Assist DEQ staff in developing agendas, coordinating and facilitating workgroup meetings, preparing reports, white papers and other work products for the OAH technical workgroup; and (9) Develop and provide OAH-related informational materials, fact-sheets, FAQ documents, and white papers for DEQ website and informational updates.

**Approximate breakdown of field/office work:** The fellow's time will largely be working in the office but could include traveling within Oregon to attend meetings.

**List the communities or stakeholders with which the fellow may engage:**

- Participating in discussions with the OAH Scientific technical workgroup.
- Preparing communications to and participating in discussions with state agencies including ODFW and DLCD, federal agencies, national and regional NGOs, Oregon Watershed Councils.
- Participating in meetings with the Oregon Ocean Monitoring group (OOMG) – Group of Oregon focused academics (OSU, UO, PSU).
- Participating in discussions with the seafood industry, and concerned Oregonians interested in collaborating on OAH monitoring and research.
- Summarizing information from the Oregon OAH Coordinating Council – Legislatively created Council with members from State agencies, tribal government, conservation interests, fishing interests, shellfish interests, Oregon Ocean Science Trust, academia, and the Governors' office.
- Summarizing information generated from the Pacific Coast Collaborative (PCC), OA Sub-Committee – Small group of staff and agency personnel from the State/Provisional governments of British Columbia, Canada, Washington State, Oregon, and California.

**Desired products from the fellow:**

- Policy documents – including white papers and report text/graphics from the workgroup.
- Meeting materials – including meeting summaries, fact sheets and talking points from workgroup meetings.
- Website content and data summarization of OAH Technical Work Groups.
- Summary report on Assessment Methodology options and recommendations for determining OAH impacts in Oregon's territorial waters from the technical workgroup.

**Potential benefits of this position to the fellow:**

- Experience with meeting and workgroup development, coordination, and facilitation to achieve a specified outcome.
- Coordination with DEQ Headquarters and laboratory staff for policy development.

- Coordination with other State of Oregon agencies involved in OAH related activities.
- Exposure to local, regional, national, and international government working groups on ocean acidification and hypoxia.
- First-hand experience with the processes involved in marine and Clean Water Act policy formulation and implementation.
- Interaction with scientists and seafood industry members who are engaged in OAH and nearshore monitoring in Oregon and the West Coast.
- Development of public outreach materials and communication skills.
- Opportunity to network with scientists and professionals who have expertise and interest in ocean acidification and hypoxia.
- Opportunity to network with Oregonians who are passionate about ocean and climate change.
- Opportunity to develop and tailor communication materials to diverse audiences.
- Opportunity to build facilitation and coordination skills.

**Required skills:**

- Experience working on controversial natural resource issues
- Excellent communication skills (both oral and written)
- Experience working on environmental science and policy issues
- Experience with event organization and coordination
- Analytical thinking skills
- Familiarity with Pacific Northwest marine ecosystems and policy
- Familiarity with Clean Water Act

**Preferred skills:**

- Experience developing/producing meeting materials
- Experience in data analysis
- Experience with climate and ocean change issues
- Experience working with multidisciplinary groups

### Position Number 7

**Host Office:** The Nature Conservancy (Oregon Chapter and TNC's Global Aquaculture Team)

**Position Title:** Restorative Seaweed Aquaculture Fellow

**Position Location:** Portland, Oregon (open to discuss other locations)

**Program Overview:** The Nature Conservancy (TNC) is the leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. Our mission is to conserve the lands and waters on which all life depends. TNC works in 50 states and 72 countries on many issues including climate change, freshwater, oceans, and conservation lands.

**How this position specifically relates to marine and coastal policy:** Seaweed aquaculture has the potential to provide sustainable products and economic returns, while creating ecological benefits to marine ecosystems and addressing impacts of climate change. Despite interest and high potential for seaweed farming in this region, the industry has been slow to emerge. This project will explore the policies, obstacles, and opportunities for future kelp and seaweed aquaculture and the potential application and benefits of restorative aquaculture.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** The Fellow will explore the potential to invest in and create restorative seaweed aquaculture farms in the Pacific Northwest (PNW). Specifically, the Fellow will:

- Conduct an assessment of the opportunities and obstacles of kelp and seaweed aquaculture in Oregon. The investigation will explore the status of Oregon's seaweed aquaculture industry, species options, potential production methods and suitable farming locations, market opportunities and barriers, policy needs, ecological considerations, challenges, and potential for ecosystem services (e.g. blue carbon, mitigating effects on local acidification, habitat). (40% FTE)
- Organize and host tours of kelp aquaculture farms and/or potential farm locations in Alaska, British Columbia, and Washington, including meetings with potential private companies, university, government agencies, and Tribal / First Nation partners. (20% FTE)
- Meet with and identify partnership opportunities with private companies, Indigenous communities, academic, and NGO partners throughout the PNW. (15% FTE)
- Project / team management and donor engagement. (10% FTE)
- Participate in TNC activities including trainings, staff meetings, and retreats. Network and collaborate with TNC's colleagues from the aquaculture, fisheries, science, marine, and blue carbon teams. The fellow will have a 35-hour work week, flexible work schedule, and time off for vacation, federal and state holidays, and sick leave. TNC will be reopening our offices after September 6. (15% FTE)

**Breakdown of field/office work:** 25% field & external meetings / 75% office work

**List the communities or stakeholders with which the fellow may engage:**

- Work directly with TNC's Global Aquaculture Strategy Lead, Global Aquaculture Manager and TNC staff from Oregon, Washington, British Columbia, and Alaska.
- Direct contact with experts in kelp and seaweed throughout OR, WA, BC and AK, and possibly other countries such as Indonesia.
- Interaction and learning from the private sector, state and federal government agencies, Tribal / First Nations, academia, and NGOs.

- Explore synergies with Oregon-based entities and individuals exploring this topic including, but not limited to, the Oregon Kelp Alliance, Oregon Aquaculture Association, Oregon Sea Grant, and Oregon State University.
- In-person learning at aquaculture facilities. TNC will provide a travel budget as needed.

**Desired products from the fellow:**

- Draft a well-written and professional report for public distribution of the Oregon Kelp and Seaweed Aquaculture Assessment to a diverse audience in Oregon (e.g. elected officials, industry, corporate partners, conservation groups, academia) as well as distribution in the PNW and through TNC's global aquaculture community and their contacts.
- Organize and host successful tours of seaweed aquaculture facilities.
- Progress reports and a final report to funders as needed.
- Presentations as requested to the public at professional meetings and/or conferences.

**Potential benefits of this position to the fellow:**

- Full integration into The Nature Conservancy and its operations.
- Real world experience working throughout the PNW (in the US and Canada) with the aquaculture industry, policy, and academic leaders.
- Participation in cutting edge policy work that will contribute to the emerging field of restoration aquaculture nationally and globally.

**Required skills:**

- Ability to collate diverse perspectives and experiences, conduct research, and identify opportunities and gaps. Distill information into practical and applied recommendations.
- Excellent communication via written, spoken, and graphical means.
- Solid organization skills and the ability to provide timely and in-budget deliverables.
- Proven team player and ability to work with multi-disciplinary groups, use influence and interpersonal skills, listening, diplomacy, and tact to build strong relationships with others.
- General understanding of marine biological and ecological principles.

**Preferred skills:**

- Knowledge of the aquaculture industry and sustainability issues is helpful but not required.
- Prior policy experience or knowledge helpful.
- Interest in working with corporate partner(s) on supply chain, potential products, and market development.
- Ability to critically evaluate and synthesize scientific literature.
- Creative problem-solving skills.

### Position Number 8

**Host Office:** The Nature Conservancy (Oregon Chapter)

**Position Title:** Blue Carbon Fellow

**Position Location:** Portland, Oregon (open to discuss other locations)

**Program Overview:** The Nature Conservancy (TNC) is the leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. Our mission is to conserve the lands and waters on which all life depends. TNC works in 50 states and 72 countries on many issues including climate change, freshwater, oceans, and conservation lands.

**How this position specifically relates to marine and coastal policy:** Interest in blue carbon is growing; however, the science behind blue carbon and the role of carbon finance are still emerging. In addition, blue carbon is often overlooked or not well considered in national and state climate change programs and policy mechanisms. This project will explore the policies, obstacles, and opportunities for pursuing blue carbon in the Pacific Northwest.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** The Fellow will inform policy discussion and conservation actions in Oregon and Washington through the following:

- Lead a literature review on traditional and novel blue carbon pathways for the PNW.
- Conduct an inventory of existing blue carbon projects in Oregon and Washington.
- Analyze federal policy opportunities and identify federal funding sources that can apply to blue carbon in the PNW.

In addition, the Fellow will focus on Oregon for the following activities:

- Explore blue carbon enabling conditions and/or gaps in Oregon state policy (carbon markets, Governor's Executive Order, Oregon Global Warming Commission, state agencies, tax incentives, etc.).
- Meet with NGOs, Blue Carbon Working Group, tribes, private companies, academia, and others to understand opportunities for future partnerships and implementation.
- Assist TNC's scientists to conduct co-benefit accounting and applicability mapping to identify gaps and future locations where blue carbon is most promising.

We anticipate 25% FTE will be spent on the first three analyses and 50% on the Oregon specific activities. The remainder of the Fellow's time will involve:

- Project / team management and donor engagement. (10% FTE)
- Participating in TNC activities including trainings, staff meetings, and retreats. Network and collaborate with TNC's colleagues. The fellow will have a 35-hour work week, flexible work schedule, and time off for vacation, federal and state holidays, and sick leave. TNC will be reopening our offices after September 6. If remote work is required in the future due to Covid, TNC will provide needed support and equipment. (15% FTE)

**Approximate breakdown of field/office work?** 25% field & external meetings / 75% office work

**List the communities or stakeholders with which the fellow may engage:**

- Work directly with TNC Oregon's Natural Climate Solutions scientist as well as staff from the science, marine and government relation teams and staff from our Washington chapter.
- Direct contact with state and federal government officials and other experts in climate policy, blue carbon, and carbon financing.

- Engage with private companies, NGOs, academia, and others in the PNW to understand their strategies and level of current and future engagement on blue carbon.

**Desired products from the fellow:**

- A literature review of traditional and novel approaches to blue carbon in the PNW.
- One or more well-written and professional report(s) for public distribution that advance the policy dialogue. Reports may consist of blue carbon case studies in the PNW, opportunities to better incorporate blue carbon into carbon policies, an assessment documenting promising locations for blue carbon implementation, and/or funding opportunities to advance blue carbon approaches.
- Progress reports and a final report to funders as needed.
- Presentations as requested at professional meetings and/or conferences.

**Potential benefits of this position to the fellow:**

- Full integration into The Nature Conservancy and its operations.
- Real world experience working with leaders in carbon policy.
- Ability to influence future carbon policy decision-making and contributions to the field of blue carbon.

**Required skills:**

- Ability to collate diverse perspectives and experiences, conduct research, and identify opportunities and gaps. Distill information into practical and applied recommendations.
- Excellent communication via written, spoken, and graphical means.
- Solid organization skills and the ability to provide timely and in-budget deliverables.
- Proven team player and ability to work with multi-disciplinary groups, use influence and interpersonal skills, listening, diplomacy, and tact to build strong relationships with others.
- General understanding of marine biological and ecological principles.

**Preferred skills:**

- Knowledge of government relations is helpful but not required.
- Ability to critically evaluate and synthesize scientific literature.
- Creative problem-solving skills.

**Position Number 9**

**Host Office:** Oregon Coastal Management Program (OCMP) within the Oregon Department of Land Conservation and Development (DLCD)

**Position Title:** Rocky Habitat Policy Fellow

**Position Location:** Salem, Oregon (Office work may take place remotely as needed)

**Program Overview:** The Oregon Coastal Management Program (OCMP) works in partnership with 42 local governments, 11 state agencies, multiple federal agencies, four federally recognized tribal governments, and many other stakeholders to ensure that Oregon's coastal and ocean resources are managed, conserved, and developed consistent with statewide land use planning goals, state laws, and local land use regulations. The OCMP coordinates and integrates across the levels of government to support Oregon's unique land use planning program with a specific focus on local planning and management to protect and restore coastal natural resources. The OCMP accomplishes much of its work through coordination, financial and technical support for natural resource planning.

**How this position specifically relates to marine and coastal policy:** The position will support the implementation of the newly revised Oregon Territorial Sea Plan: Part Three – The Rocky Habitat Management Strategy. The Strategy outlines the goals, objectives, policies, and management prescriptions for coastal rocky habitats and resources along the Oregon Coast and within Oregon's territorial sea. The fellow would participate in a timely opportunity to engage with coastal local governments, agencies, NGOs, or other entities that support on-site interpretive programs at existing rocky habitat site management designations. This work will include implementation of the revised policies for rocky habitat management on a coastwide and site-specific basis, and may be integrated with other policy priorities such as the recommendations that have come from the Oregon Ocean Acidification and Hypoxia Coordination Council.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** The fellow will develop materials and web content for coordinating and delivering interpretive programming associated with rocky shore habitats and resources along the Oregon Coast. We envision the fellow developing a report and a guidebook that will include results from the inventory of interpretive efforts, a resource catalog, and recommendations for program capacity. The report will identify education, outreach, and awareness needs, priorities, and existing capacity, and outline a statewide framework to coordinate and implement the needs and priorities. The guidebook will implement the goals and objectives of the Rocky Habitat Management Strategy, and be used to build statewide capacity for volunteer stewardship activities, in partnership with state and federal agencies, conservation and stewardship organizations, and other entities as appropriate. Activities to complete this work include, but are not limited to the following:

- Development of a project plan for development, implementation, and management of materials and web content, including work tasks, timeline, and stakeholder engagement.
- Outreach to conservation and stewardship organizations to document current capacity, activities, needs, and areas of focus.
- Information gathering on state agency interpretive infrastructure and capacity, as well as a history of these efforts in Oregon.
- Conduct analyses to identify site-specific and coastwide needs for interpretation, education, outreach, and awareness efforts.

- Visitation and use research, focused on rocky habitat site uses and impacts. Uses may include recreation, wildlife viewing, harvest, education, scientific research, traditional and cultural practices, and other uses.
- Facilitate communications with relevant experts and agencies to gather information and feedback to support development of a proposed statewide rocky shores interpretive program.
- Compile and summarize findings in a report, guidebook, online content, and outreach materials.
- Develop and incorporate graphics, photographs, and other design elements to create user-friendly materials.
- Presentations of interpretive products to interested organizations, local governments, and coastal stakeholders.
- Additionally, the fellow will have an opportunity to work with other staff members in the Salem, and Portland offices as desired for professional development and to learn more about working in a state agency and federally approved coastal program.

**Approximate breakdown of field/office work:** The fellow will spend a majority of their time in an office and/or telework setting. However, they will be encouraged to meet with project partners in person and to travel the coast to observe and document visitor and stewardship activities in the field. The fellow will also have the opportunity to travel with OCMP staff members to attend meetings, workshops, and other related events. The breakdown of office to field work will be approximately 80%/20%. The fellow will be provided office space at the Salem DLCD headquarters with equipment such as laptop, mouse, headset, smartphone, and necessary software. Agency fleet vehicles are available to facilitate travel, along with per diems and opportunity for reimbursements for travel-related expenses.

**The communities or stakeholders with which the fellow may engage:** To develop guidance for statewide rocky habitat resource interpretive programming for Oregon, the fellow may engage with several agencies, local governments, or stakeholder groups via meetings or informal communications. Those groups may include:

- OR Department of Land Conservation and Development
- OR Department of Fish and Wildlife
- OR Department of Parks and Recreation
- Oregon Sea Grant
- Oregon State University and/or other higher education institutions
- Oregon Shores Conservation Coalition
- Oregon Surfrider Foundation
- Shoreline Education for Awareness
- Audubon Society chapters
- "Friends" groups
- Local watershed councils
- Oregon coastal local governments
- Coastal Tribal Nations

**Desired products from the fellow:**

- Process documentation, including summaries of any stakeholder feedback
- An agency report assessing outreach, education, and awareness capacity needs and priorities for rocky intertidal interpretive programs and resource coordination
- Statewide interpretive program guidebook for rocky intertidal interpretive programs
- Supporting files, graphics, and communication products (e.g. social media outreach plan)

**Potential benefits of this position to the fellow:**

- Extensive networking and collaborative work with local, state, and federal partners.
- Learning how a nationally approved coastal program functions.
- Working in a small agency with exposure to many of the primary coastal managers, policy-makers, and planners in Oregon.
- Experience compiling and distilling complex science and policy information into an easy-to-use guidebook that will be directly usable by many audiences.
- Increased policy and scientific knowledge and expertise regarding coastal resource management.
- Access to extensive professional development tools and opportunities.

**Required skills:**

- Research and literature review experience
- Technical writing and data analysis
- Ability to critically think and synthesize natural resources data
- Experience in communication and public speaking

**Preferred skills:**

- Familiarity with the Oregon Coast and related issues and resources
- Highly organized
- Comfortable working independently, self-starter
- Creative and adaptable
- Interested in the juncture of natural resources and policy
- Experience developing outreach materials
- Experience with geographic information systems (GIS) software and tools
- Familiarity with web content management systems and social media platforms

**Position Number 10**

**Host Office:** Oregon Department of Land Conservation and Development / Oregon Coastal Management Program

**Position Title:** Tribal Federal Consistency Policy and Processes Fellow

**Position Location:** Salem, OR (Due to the ongoing COVID-19 pandemic, DLCD employees are currently teleworking from home. While some transition back to the office is anticipated for fall 2021, the state enterprise and DLCD as an agency are continuing to define the details of those agreements to continue to support the highest safety for its employees.)

**Program Overview:** The Oregon Coastal Management Program (OCMP) is a uniquely networked program that works in partnership with 42 local governments, 11 state agencies, multiple federal agencies, federally recognized tribal governments, and many stakeholders to ensure that Oregon's coastal and ocean resources are managed, conserved, and developed consistent with statewide land use planning goals, state laws, and local land use regulations. OCMP works extensively in partnership with other agencies and community organizations to provide financial and technical support for natural resource planning. This includes projects regarding federal consistency, tsunami hazard preparedness, coastal rocky habitat management, estuary planning, marine renewable energy siting, climate change adaptation, water quality, and more. Overall, the OCMP coordinates and integrates local, state, and federal agencies programs to support local planning and to protect and restore coastal natural resources.

**How this position specifically relates to marine and coastal policy:** As a federally recognized coastal management program under the Coastal Zone Management Act, the OCMP has authority to review federal actions and permits for consistency with local and state management goals (also known as federal consistency authority). This review process requires extensive coordination and an understanding of Oregon's enforceable policies and the best available science. This project will offer the fellow direct experience related to coastal policy and management through Oregon's federal consistency authority. More information on the Oregon Coastal Management Program and its federal consistency authority can be found [here](#).

This fellow will work directly with OCMP's State-Federal Relations Coordinator, Senior Coastal Policy Specialist, Oregon's Legislative Commission on Indian Services and members of DLCD's Tribal Liaison program to seek consultation with representatives of Oregon's nine federally recognized Tribal nations to create procedures and policies to facilitate meaningful and transparent coordination and consultation with Tribal Nations during federal consistency reviews. While we believe Oregon's coastal Tribal Nations will have the greatest interest in federal consistency protocols with respect to the coastal zone, DLCD staff will invite participation from all nine nations. The scope of this project is intended to promote a coordinated process between Tribal Nations and the OCMP at both a staff and leadership level to assure the creation of appropriate procedures and policies. DLCD recognizes that as sovereign nations, tribal engagement on this project is based on tribal capacity, interest and priorities.

Overall, this position will give the fellow a unique opportunity to learn about the collaboration and coordination necessary to achieve meaningful coastal management and policy application specific to traditional and cultural resources. The fellow also will gain applied experience in coastal policy analysis and implementation, as well as procedural development knowledge and experience applicable to processes governed by the Coastal Zone Management Act.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:**

- Assist the State-Federal Relations Coordinator and Tribal Liaison with the development of the federal consistency tribal consultation and communication policies and procedures. Specifically assist with:
  - Formal communication and coordination with leadership of Tribal Nations and their staff including but not limited to members of the Legislative Commission on Indian Services Tribal-State Cultural Cluster and Natural Resource Groups.
  - Literature and policy reviews
  - Creation of outreach materials and other written documents.
  - Technical development of tools and mapping to aid with the implementation of the revised policies and procedures, and promote transparency
- Policy identification and analysis of state agency cultural and traditional resource policies.
  - These policies will be compiled into a catalog for incorporation into the Oregon Coastal Management Program.
- Data entry and organization associated with cultural and traditional resource policies to be consistent with DLCD's databases.
- Assist with additional federal consistency and policy tasks as needed, potentially including:
  - Program change analysis
  - Coastal effect analysis
  - Policy analyses, etc.
  - Additional tasks as necessary based on the fellow's professional development interests.

The scope of this proposed fellowship fits into the Oregon Coastal Management Program's federal work plan.

**Approximate breakdown of field/office work:** The fellows' day-to-day work will be conducted initially via telework through September 1 in an office environment with potential travel to meetings, workshops, and events based on the status of agency travel policies associated with the COVID-19 pandemic. Once travel is approved, the fellow can expect approximately 15% of their time dedicated to travel associated with this project. Office space (when allowed) and equipment (laptop, technology accessories, etc.) will be supplied by the agency. Personal devices will not be authorized for agency use.

**List the communities or stakeholders with which the fellow may engage:**

- Individual tribal nation staff, and leadership in coordination the DLCD's Directors Office. The federally recognized tribal nations with a known interest in the Coastal Zone include:
  - Coquille Indian Tribe
  - Confederated Tribes of Coos, Lower Umpqua & Siuslaw
  - Confederated Tribes of Siletz Indians
  - Confederated Tribes of Grand Ronde
  - Cow Creek Band of Umpqua Tribe of Indians
- Diverse agency and commission representation including federal, state (multiple departments), Oregon Land Conservation and Development Commission, and Oregon Legislative Commission on Indian Services

**Desired products from the fellow:**

- DLCD-OCMP Federal Consistency Tribal Consultation Policy and Procedures Document (Near-final version desired: due to the nature of government-to-government consultation, additional coordination may be necessary following the fellowship to finalize the document)

- Process Documents including: agendas, meeting and interview summaries, reports, literature analyses, and policy analysis summaries. (Final versions desired)
- Extension and outreach materials (Final versions desired)
- Updated data and mapping products: federal consistency portal, enforceable policy database, etc. (Final versions desired)

**Potential benefits of this position to the fellow:** Applicants with an understanding or experience of working with Tribal Nations, and who are interested in the juncture of natural resources and policy are highly encouraged to apply.

- Extensive work with Tribal Nations, state, and federal partners.
- Learning how a nationally approved coastal program functions.
- Working in a small agency with exposure to many of the primary ocean and coastal managers, policy makers, and planners in Oregon.
- Experience facilitating and supporting a complex policy and procedure-making process while incorporating the components of state and agency tribal consultation policies
- Working with multiple stakeholders related to Oregon coastal zone management.
- Directly influencing and supporting traditional and cultural resource policy rational in an applied governmental process.
- Increased policy and socio-cultural knowledge and expertise regarding tribal coordination and coastal resource management.
- Experience evaluating multiple types of resource and human use data and building outreach and GIS products.
- Access to extensive professional development tools and opportunities.

**Required skills:**

- Respect for Sovereign nation status of Tribal governments in Oregon
- Ability to critically think and navigate complex and sensitive socio-cultural discussions
- Research and literature review
- Writing fluency: Technical and policy writing
- Communication, outreach and engagement
- Fluency with Microsoft Suite Products including – Word, Excel, PowerPoint, etc.
- A fellow with the following qualities would greatly benefit from this experience:
  - Curious
  - Highly organized
  - Fluency working independently as well as part of a team
  - Adaptive

**Preferred skills:**

- Experience communicating and coordinating with tribal staff, governments
- Experience communicating and coordinating with diverse populations.
- General understanding of the history of Tribal Nations in Oregon.
- Experience with GIS (ArcGIS, ArcGIS Online Apps, etc.)

**Position Number 11**

**Host Office:** Oregon State Marine Board, Environment and Policy Section

**Position Title:** Abandoned and Derelict Vessel (ADV) Program Specialist

**Position Location:** Salem, OR (Office work may take place remotely as needed)

**Program Overview:** The Oregon State Marine Board (OSMB) is a small state agency of approximately 40 staff members overseen by 5 Board members. The agency's mission is to serve Oregon's recreational boating public through education, enforcement, access, and environmental stewardship for a safe and enjoyable experience.

Staff at the Oregon State Marine Board (OSMB) are aware of an increasing number of abandoned and derelict vessels (ADV) on Oregon waterways. The term ADV is used to refer to any vessel that is moored, anchored, or otherwise located where it is not authorized to be, or is sunk, in danger of sinking, adrift, blocking a channel, or otherwise presenting a hazard. ADVs can damage aquatic habitat, contaminate water resources, and inhibit the ability of recreational boaters to have a safe and enjoyable boating experience. The OSMB seeks to address the impacts of ADVs through removal and prevention efforts including ongoing, regular response to ADVs; geographic data gathering and analysis; the development of legislative concepts; and the development/refinement of a vessel turn-in program. The OSMB works collaboratively on this issue with several state and federal agencies, law enforcement, and stakeholder groups.

**How this position specifically relates to marine and coastal policy:** Public policy around the care, handling, and disposal of vessels in the riverine and coastal environments of Oregon has a direct impact on marine environmental quality, habitat, fisheries, and recreation. This position will be involved in policy research and development of legislative concepts to address the issue statewide. ADVs contaminate water resources and essential habitat through leaking and leaching of chemicals, heavy metals, and petroleum, while also creating a physical disturbance and impediment to the feeding, reproduction, and other activities of wildlife. Derelict vessels in the Columbia River occur within the migratory and rearing distribution of 13 ESA listed stocks of salmon and steelhead. Derelict vessels on the Oregon coast are nearly all located in estuaries and bays, where fragile estuarine habitats are critical nursery habitat for two listed species of salmon as well as providing nursery and feeding habitat for green sturgeon, flatfish, and sharks.

**Anticipated day-to-day activities and how these tasks fit within a larger project scope:** The fellow in this position will work on several separate but intertwined projects throughout the duration of the fellowship. The tasks will all fall under the broader categories below.

- Support efforts to develop statewide policy concepts to address ADVs
- Support efforts to develop and refine data gathering form on mobile app
- Education/Outreach on ADV Database (and refinement of data gathering methodology and practices, including revisions to geographic data app referenced throughout)
- Development and refinement of framework for vessel turn-in program for privately owned unwanted vessels
- Use ADV Database to proactively identify high risk vessels and develop mitigation plans

This will require some of the following activities on a regular basis:

- Research/compiling of policy information from other states where progress has been made on ADVs

- Communication and collaboration with city, county, and state government entities (such as Oregon Department of Environmental Quality, Oregon Department of State Lands, local parks programs), and other interested stakeholders involved in ADV work to determine collective needs related to ADV data gathering and analysis
- Work with state GIS professionals to develop and refine digital interface to collect, analyze, store, and display data related to ADVs in a central ADV database
- Educate stakeholders in the use and maintenance of the ADV database; troubleshoot issues and challenges; perform quality control and maintenance of system
- Initiate new engagement with marina managers, boat owners, contractors, and industry professionals
- Develop framework for legislative concepts that could address current challenges facing state agencies related to impacts of ADVs on waterways
- Examine feasibility of various options to implement state-sponsored vessel turn-in program for unwanted vessels; report findings, develop potential framework for future program
- Research alternatives to traditional disposal methods for hard-to-recycle boat materials
- Provide information on project progress to be used in interagency communication, news releases, social media, etc.

**Approximate breakdown of field/office work:** In the first quarter of the fellowship timespan, most of the fellow's time is likely to be spent in an office environment or working remotely at the fellow's home workspace when appropriate and desirable. While in the office, the fellow will be provided with a personal workspace in an open concept work area with access to a computer. For field work and remote work, the fellow will be provided an agency mobile device with internet access. As time goes on, the fellow will be expected to engage with stakeholders onsite, educating them and modeling an ADV data gathering process as well as making observations in the field. For these activities, the fellow will need to have a valid driver license. A state-owned vehicle will be available for use. The majority of field visits are expected to occur in Multnomah and Columbia Counties, but occasional trips to coastal counties may be made as well. No overnight travel is currently expected to occur. The overall breakdown of field/office is anticipated to be 25%/75%.

**List the communities or stakeholders with which the fellow may engage:**

- Contractors in marine trades
- Public port officials
- Law enforcement and public safety personnel
- On-water businesses and floating home communities
- Staff from municipal, state, and federal government bodies
- Other stakeholders identified by the fellow, with an emphasis on inclusiveness and equity (proactive outreach to underrepresented stakeholders)

**Desired products from the fellow:**

- ADV database for storing, analyzing, and reporting ADV data, geographic location, and photos
- App form for submitting data to ADV database
- Findings report on initial trial usage of ADV app and database
- Outline and implementation schedule for vessel turn-in program or similar alternative program
- Summary of existing and potential regulatory measures to address ADVs
- Drafts of Legislative Concepts related to ADV policy, response, and prevention
- Minutes taken at standing stakeholder meetings and meetings initiated and scheduled by fellow
- Presentation to the Board regarding outcomes

**Potential benefits of this position to the fellow:**

- Experience researching state and federal laws around marine debris policy
- Involvement with developing legislative concepts to be brought to the Oregon Legislature
- Experience communicating with representatives from a wide variety of state and federal agencies, civic groups, law enforcement personnel, and other stakeholders
- Experience presenting a project to the members of the Governor-appointed Oregon State Marine Board
- Experience in program development and implementation
- Contribute to complex problem-solving process for statewide environmental issue

**Required skills:**

- Ability to work both independently and with diverse groups of collaborators
- Strong organizational and self-scheduling skills
- Self-motivated
- Excellent writing skills (both technical and informal)
- Ability to read and interpret regulatory language

**Preferred skills:**

- Creative and adaptable
- Interest in and familiarity with the subject matter (boats, ADVs, marinas, water pollution)
- Familiarity with GIS applications
- Familiarity with legislative processes
- Experience developing and producing printed outreach materials while following editorial style guide