

WASHINGTON SEA GRANT



A Coastal Society

Washington is a coastal society, with almost 70 percent of its nearly eight million residents living within its 15 coastal counties. The Pacific Northwest's vibrant and diverse marine ecosystems and resources have been foundational to human sustenance, livelihood and culture since people have been here, and remain so today. For example, coastal Tribes may pair Indigenous knowledge systems with Western science to ensure ecologically and culturally important species can be conserved and thrive. And the state's maritime sector—including commercial fishing and shellfish aquaculture—is an economic engine employing nearly 61,900 people and generates nearly \$46 billion in business revenues.



The challenges that affect Washington's shores and waters affect the entire state. From sea level rise to ocean acidification, there are many challenges. Washington Sea Grant (WSG) serves Washington by helping address these challenges so that the state's unique coastal society can continue to thrive for decades.

About Washington Sea Grant

Based at the University of Washington (UW), WSG is part of a national network of 34 Sea Grant colleges and institutions located in U.S. coastal and Great Lakes states and territories. The National Sea Grant College Program is administered by the National Oceanic and Atmospheric Administration (NOAA) and funded through federal-university partnerships.

For more than 50 years, WSG has funded important marine research and worked with communities, managers, businesses and the public to strengthen understanding and sustainable use of the region's ocean and coastal resources. WSG-supported researchers are at the scientific forefront of vital topics—from restoring and cultivating kelp as a sustainable aquaculture crop to investigating how changing ocean temperatures impact Tribal fish stocks. But such research remains simply an academic enterprise if its findings are not relevant to and communicated for use by practitioners such as marine industry members, natural resource decision-makers, and the public. WSG's wide-ranging outreach services work to bridge this two-way knowledge flow, develop practical tools

for management and guide equitable access throughout Washington's diverse communities and economies to our shared marine resources and opportunities. WSG's educational and workforce development programs help ensure that Washington's legacy of important marine work will continue through the next generation.



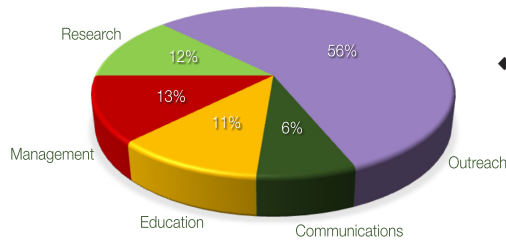
Clockwise: Lime Kiln Lighthouse on San Juan Island; digging for razor clams; a shellfish grower harvests oysters; the Elwha River



HOW WE WORK

WSG organizes its activities around three core functions: research, outreach, and education. Its communications work is also woven through each of these areas. The integration of these functions is key to carrying out WSG's mission.

- ◆ Research sponsored by WSG focuses on issues and opportunities faced by ocean users and managers in Washington and the Pacific Northwest. In a highly competitive selection process, top priority goes to projects that build regional scientific capacity and provide knowledge for use in the marine and coastal environment. From understanding how ocean change will affect vulnerable species to developing new ventures within the aquaculture industry, WSG supports a mix of basic and applied research.
- ◆ Outreach experts provide technical assistance, applied research and community engagement to connect marine and coastal constituents to the best scientific and place-based



information available. WSG specialists work in a broad range of topic areas, including safe seafood access, aquaculture, fisheries, water quality, habitat restoration, sustainable coastal development and shoreline planning, marine operational safety, oil spill prevention, and climate hazard resilience.

- ◆ Education activities engage learners of all ages to enhance understanding and stewardship of marine resources and provide professional development opportunities that nurture ocean-related careers. WSG supports informal educational programs for K-12 students and presents undergraduate and graduate students as well as recent graduates with fellowship programs that expand horizons, increase equity, and enhance future careers.

Communications is important to each of the three core functional areas described above in order to maintain the program's commitment to being a public resource for trusted science-based information. WSG aims to provide information that draws on lived experiences and honors Washington's history, people and places. Using a variety of platforms, such as websites, social media and publications, WSG works to translate technical and scientific findings into useful information for a broad set of constituents.



Clockwise: The San Juan Islands; WSG Crab Team in the field; three species of albatross; a school of salmon

WSG PRIORITIES

Through national and local strategic planning processes, WSG identified four critical program areas. These program areas respond to issues of major importance to WSG constituents and partners, including NOAA, the National Sea Grant Office, research scientists and WSG stakeholders throughout the Pacific Northwest.

- ◆ **Environmental Literacy and Workforce Development**

Environmental literacy is critical for citizens to understand their own impacts, for the passage of policies that promote healthy oceans, and for supporting Washington's ocean economy and heritage. This support relies on a well-trained and well-informed workforce. WSG educates students of all ages and strengthens the maritime sector.

- ◆ **Resilient Communities and Economies**

Washington's coastal communities must be prepared for a wide range of risks that threaten lives and livelihoods, including flooding, erosion, shifting species, oil spills and tsunamis. WSG builds capacity for coastal communities that are economically vibrant, environmentally healthy, and resilient to hazards and climate change.

“ From the history of the oyster to saving lives at sea, Washington Sea Grant's team of 34 experts from all walks of marine science are ready with solutions, whether it is seaweed farming or collaborating with Indigenous communities around shared marine resources. ”

University of Washington Magazine



- ◆ **Healthy Coastal Ecosystems**

Washington is located in one of the world's most productive marine regions, home to iconic species such as southern resident killer whales and Chinook salmon. However, its ecosystems face numerous threats, including warming waters, ocean acidification, invasive species, pollution and lost or degraded habitat. WSG seeks to understand ocean environments, reduce stressors and advance ecosystem-based approaches to manage, protect and restore natural resources and support human well-being.

- ◆ **Sustainable Fisheries and Aquaculture**

From tribal fishermen to commercial oyster farmers, seafood harvesting and consumption is a vital part of Pacific Northwest culture, diet and commerce. However, local seafood industries and consumers are confronted with difficult issues such as diminishing stocks, limited local retail opportunities, complex regulations and the inherent dangers of commercial fishing. WSG facilitates sustainable use of living marine resources through science-based and Indigenous knowledge-based management and workforce development.

Left: A marine sunset at Fishermen's terminal in Seattle; Right: Students learning in the field



CROSS-CUTTING PRINCIPLES

Vital Partnerships

Partnerships are key to everything WSG does. WSG cultivates partnerships by integrating the expertise and capabilities of partners from federal, tribal, state and local agencies from academia, nongovernmental organizations and industry.

WSG partners include:

- ◆ Washington State Parks, which WSG works with to manage and conduct the Pumpout Washington campaign to encourage boaters to pump, not dump, their sewage.
- ◆ Tribes, such as the Swinomish Indian Tribal Community, with whom WSG recently teamed to identify a site for the first known modern-day clam garden in the U.S.
- ◆ Marine industry organizations such as the Northwest Marine Trade Association, which WSG works with to provide data on in-state boat sales, used by marina and boat dealers for planning.
- ◆ Shellfish growers, who benefit from WSG's support in water quality, workforce development and network convening.
- ◆ Washington State Department of Fish and Wildlife, which works closely with WSG on a variety of critical programs that support environmental and economic health, including monitoring for invasive species and conducting outreach to consumers on Washington's commercial fishing industries.
- ◆ Volunteers such as the ones who participate in WSG's Sound-Toxins program, which is relied upon by public health and fisheries managers to provide warnings of harmful algal blooms, and Crab Team, an early detection and monitoring program to understand the spread of invasive European green crab and how local ecosystems could be affected.

Diversity, Equity, Inclusion, Justice and Accessibility

To achieve organizational excellence, pursue its vision, and adhere to its mission, WSG maintains a commitment to diversity, equity, inclusion, justice and accessibility. WSG works to create equitable access to resources and opportunities for Washington's diverse communities and seeks to incorporate their voices and priorities. WSG's values are informed by environmental justice and are based in a culture of inclusion, respect, long-term engagement and accountability.

Addressing Climate Change

Current and future climate change impacts each of WSG's program areas; addressing these impacts is essential to meeting WSG's goals. WSG pursues strategies to further climate change mitigation, adaptation and resilience across the human and ecological communities along the shorelines and coasts of Washington State.



Students in a WSG sea safety class practice using survival suits

WSG LEADERSHIP

Terrie Klinger
Faculty Director
wsg-director@uw.edu

Kate Litle
Deputy Director
kalitle@uw.edu

Katy Curtis
Assistant Director for
Operations and Culture
katy123@uw.edu

Melissa Poe
Assistant Director for
Outreach
mpoe@uw.edu

MaryAnn Wagner
Assistant Director for
Communications
maryannb@uw.edu


Sea Grant
WASHINGTON

3716 Brooklyn Avenue NE
Seattle, WA 98105-6716

seagrant@uw.edu | wsg.uw.edu

206.543.6600

WSG-PM 19-04; 1/24

 UNIVERSITY of WASHINGTON
COLLEGE of THE ENVIRONMENT



National Oceanic and
Atmospheric Administration

“I've been partnering with Washington Sea Grant for over ten years, working directly with almost 1,000 independent fishermen families from coastal communities around the state, from Whatcom to Pacific counties. Through this work, Washington Sea Grant helps to ensure economic viability and cultural dynamism in some of Washington's most underserved communities.”

Peter Phillips, Owner and
Publisher, *Fishermen's News*

