

21st Century Marine Science for Maine People

Introduction: Building a Resilient Coast

Maine's coastal communities were founded on natural resources, from fish and shellfish to stone, salt, and wood. Many communities continue to depend on marine resources, and some are experiencing demographic, economic, political, and environmental changes that create conflict and have the potential to erode Maine's unique natural and cultural heritage. Maine Sea Grant envisions a future in which Maine's coastal communities are resilient to challenges and changes—resilient communities continually gather the necessary skills, knowledge, and resources (human and physical) to plan for, cope with, and thrive in the face of both predicted and unexpected change.

This strategic plan reflects input collected in several phases in 2012 and 2013 from stakeholders and the Maine Sea Grant Policy Advisory Committee, and it is in alignment with the 2014–2017 National Sea Grant College Program Strategic Plan.

Supporting Marine Science for Maine People for More than 40 Years

The University of Maine is the designated Sea Grant College for the State of Maine. Sponsored by the National Oceanic and Atmospheric Administration (NOAA) and the State of Maine, Maine Sea Grant is part of a network of programs throughout the coastal and Great Lakes states. Maine Sea Grant supports marine and coastal scientific research, education, and outreach. In partnership with University of Maine Cooperative Extension, members of the Marine Extension Team focus on issues of concern to Maine's coastal communities.



MAINE SEA GRANT STRATEGIC PLAN 2014–2017

Why are we concerned?

What do we want to see? Our vision for Maine.

Healthy Coastal Ecosystems

Many of Maine's coastal ecosystems are fragmented, depleted, and impaired. At the same time, compared to other Eastern states, Maine's population is small and our coastal ecosystems are relatively undeveloped, a situation that presents challenges—how can we preserve what we have?—as well as opportunities for restoration.

Maine people recognize that healthy ecosystems are the foundation of resilient communities, and act to ensure the long-term health of coastal resources.

Resilient Communities

Demographic, economic, political, and environmental changes have the potential to erode Maine's natural and cultural heritage, especially in communities that continue to depend on marine resources.

Coastal communities include viable neighborhoods, thriving waterfronts, and businesses that draw upon and maintain their natural and cultural heritage.

Safe & Sustainable Seafood

Maine's coastal communities rely on the sea for their economic and cultural livelihood, providing food for people within and outside of Maine, yet many marine resources are on the decline.

Wild harvest and culture fisheries and the communities that depend on them are economically viable and environmentally sustainable.

Preparing for a Changing Climate

Residents and towns need strategies to prepare for and adapt to climate change and its effects on local ecosystems and infrastructure.

Communities understand the risks and opportunities that may result from a changing climate, and develop effective strategies to enhance and maintain resilience.

Environmental Literacy

Citizens who can evaluate scientific information are best prepared to make decisions about issues that affect the resilience of Maine's coastal communities and ocean-related resources.

Maine citizens use scientific knowledge to make decisions about issues that affect the ecological health, economic vitality, and resilience of Maine's coastal communities and ocean-related resources.

Workforce Development

Maine's future economic and ecological health require an educated, skilled, and creative workforce.

Maine has a diverse workforce skilled in science, technology, engineering, mathematics, and other disciplines critical to the ecological health, economic vitality, and resilience of Maine's coastal communities and ocean-related resources.

How do we get there?

Coastal community constituents have the information, tools, resources, and support they need to:

- understand the effects of human activities and environmental changes on coastal resources, and work to improve ecosystem health.
- restore marine habitats and their connections to inland watersheds, and engage in related research, education, and outreach activities.
- practice stewardship that leads to participatory decision-making and ecosystem-based management decisions.

- participate in decision-making and public planning processes.
- understand the value of waterfronts and tourism.
- evaluate the strengths and weaknesses of alternative development and energy supply scenarios.
- balance the coastal access needs of various stakeholders.
- pursue sustainable recreation and tourism products and opportunities.

- engage in and support research, monitoring, and business development that increase seafood quality and profitability.
- support and enhance safe, sustainable production and consumption of seafood.
- respond to change.

- assess local risk vulnerability.
- implement resilient coastal development strategies and practices.

- become familiar with environmental literacy principles.
- engage in informal science education opportunities focused on coastal topics.
- engage students and other audiences in evidence-based learning.
- contribute to Sea Grant-supported citizen science programs.

- access academic and professional opportunities in science, technology, engineering, and mathematics (STEM) fields.

How will we measure success?

Constituents use Sea Grant tools, technologies, and information services to manage, protect, or restore ecosystems.

Communities address coastal access and working waterfront needs; evaluate assets and opportunities in order to plan for their preferred futures; realize sustainable recreation and tourism products and opportunities; and/or evaluate and implement alternative ocean-based energy strategies.

Seafood industry members apply knowledge they have gained as a result of Sea Grant activities.

Communities and property owners implement climate-related hazard resilience practices.

Citizens participate in informal education programs.

Citizens collect and submit environmental data used to improve resource management and advance environmental research.

Formal and informal educators engage students in evidence-based learning.

Sea Grant-supported graduates become employed in a career related to their degree.

Additional cross-cutting measures of success:

Changes in legislation, regulation, or policy.

Market and non-market economic impact.

Jobs and businesses created or sustained.

Our Approach

Support scientific research that is relevant to the issues and needs of coastal communities in Maine, through competitive research grants, program development funds, and staff research activities.

Serve as a liaison between researchers and coastal communities. Through the Marine Extension Team and other mechanisms, Sea Grant research activities are linked with effective outreach and communication strategies.

Maintain focus on applied research and monitoring. Our role as liaisons to coastal communities and stakeholders allows us to be responsive to emerging issues and gaps in research, outreach, and education services, which often leads to applied research and monitoring programs.

Foster education programs that help recruit and retain a workforce skilled in disciplines critical to the ecological health, economic vitality, and resilience of Maine's coastal communities and ocean resources.

Provide professional training to build the capacity of our partners. Through leadership and advisory roles, we provide organizational development and management support for individuals and groups throughout the state.

Leverage partnerships for expertise and funding. We partner to be effective, and because the diversity and depth of issues often extend beyond the technical expertise of our team. We also partner as a way of extending our reach geographically.

Be a trusted source of science-based information. Our relationships with researchers at the University of Maine and at institutions and laboratories across the state and region help ensure that outreach and communications are supported by science and address stakeholder information needs.

Share access to state, regional, and national networks, including the National Sea Grant Network, the broader NOAA community, other federal and state agencies, Cooperative Extension professionals, research scientists, and the private sector.

Act as objective facilitators. MET members have developed the convening and facilitation skills necessary to make sure the right people are in the room and engaged when communities are faced with difficult questions and decisions.

A commitment to responsiveness

This strategic plan represents only part of our work over the next four years, and it is a living document. Resilience includes the capacity to respond to new and emerging issues, and we intend to be flexible and adaptive as new priorities arise.

Informing strategic research

The majority of Maine Sea Grant funding sponsors research at the University of Maine and other research and education institutions in Maine and the Northeast. Whenever possible, the granting process strives to link the scientific capacity of Maine to the strategic goals of the program. Funding is directed to support the best possible science that helps to inform decision-making needs in each of the four focus areas, as described in this strategic plan, and/or addresses state, regional, and national priorities that are revised in each biennial request for proposals (the next funding cycles initiate in 2015 and 2017).

Descriptions of recent and current research projects can be found at seagrant.umaine.edu/research.

