



# DARLING MARINE CENTER

Connecting people to the ocean





# Mission

To connect people to the ocean by generating and sharing knowledge of coastal and marine ecosystems, and the human communities that are part of them.



**D**arling Marine Center was established in 1965 as the University of Maine's marine laboratory. In keeping with UMaine's statewide mission, this unique facility delivers distinctive research, education, and community and industry engagement programs, transforming knowledge into solutions to meet the needs of coastal communities in Maine and beyond.

The Darling Marine Center is an internationally recognized hub of marine science and aquaculture research, led by world-class faculty. Their collaborative work contributes to understanding of the Gulf of Maine and oceans worldwide. These scientists work in Maine and around the globe; teach the next generation of researchers, industry professionals and decision makers; and engage local communities in active exploration of coastal and ocean environments.

For decades, UMaine graduate students based at the Darling Marine Center have conducted research in collaboration with Maine's leading marine experts. Those graduate students and faculty — who hail from fields as diverse as ecology, engineering, food science, oceanography and policy — also mentor undergraduates in residence at the center.

Through two UMaine School of Marine Sciences programs — Semester by the Sea and SEA Fellows — undergraduate students have opportunities to

conduct independent research and to immerse themselves in hands-on education year-round at the Walpole campus. The Darling Marine Center also hosts programs for visiting college students and groups from throughout the world, and has a long tradition of informal education programs for the public and local schoolchildren.

As engaged community partners, Darling Marine Center faculty, staff and students work with fishermen, aquaculture entrepreneurs and citizen scientists to advance workforce development and education through fundamental and applied research, product development and commercialization, and business incubation.

These active partnerships include close collaborations with marine-dependent businesses throughout Maine, including the aquaculture startups in residence at the center. In addition, the Darling Marine Center is a primary partner in the Alliance for Maine's Economy, a network of Maine-based organizations dedicated to ensuring that Maine seafood, fishing and aquaculture industries, and the natural and innovation ecosystems they depend on, benefit Maine's people and communities.

As a hub for marine research, education and engagement in the region, the Darling Marine Center is a destination for professional and citizen scientists from throughout the state and nation.





# Strategy

## RESEARCH

The Darling Marine Center provides facilities and access to coastal and ocean ecosystems to enable cutting-edge research by faculty and students from UMaine and beyond.

## EDUCATION

The Darling Marine Center plays a leading role in training the next generation of marine researchers, industry professionals and decision makers, providing hands-on education in marine sciences for learners of all ages.

## ENGAGEMENT

The Darling Marine Center collaborates with research, government and community partners to help sustain coastal communities and marine ecosystems in Maine and beyond.



# Impact

Darling Marine Center scientists contribute to the sustainability of coastal communities and economies in Maine and beyond. Ocean ecosystems are vital to the health of communities worldwide, and Maine is no exception. More than \$600 million in fisheries landings and \$4 billion in tourism revenues are generated each year as part of the state's economy.

**As a regional hub for marine science and education, the Darling Marine Center supports fundamental and applied research on our oceans, climate and environment that is foundational to the future of Maine and the world's oceans.**

## SUSTAINING MARINE FISHERIES

The American Lobster Settlement Index, developed and managed by UMaine School of Marine Sciences researchers based at the Darling Marine Center, is enabling resource managers, scientists and fishermen to monitor and respond to changes in the numbers of newly settled lobsters throughout New England and Atlantic Canada. This collaborative project is helping to untangle the connections between the lobster life cycle and changes in environmental conditions to ensure sustainable fisheries and fishing communities into the future.

## TRACKING ENVIRONMENTAL CHANGE

Darling Marine Center-based scientists and students have developed a coastal observing network that generates real-time data for fishermen and aquaculture entrepreneurs. This research and workforce development program, supported by the U.S. National Science Foundation, has enabled researchers to deploy ocean observing buoys from Casco Bay to Cobscook Bay over the last five years. Together, this network is generating vital information about how the coastal ocean is changing and how best to balance aquaculture, wild-caught fisheries and other highly valued ocean uses in Maine.

## SUPPORTING CITIZEN SCIENCE

Citizen scientists gather water quality data from throughout southern and midcoast Maine through the Maine Coastal Observing Alliance. Darling Marine Center scientists train citizens to analyze and interpret their observations, in partnership with a diverse set of nonprofit and government partners. Maine has some of the cleanest coastal waters in the United States, thanks in part to these stewards. This is one of the reasons for the rising popularity of Maine-sourced seafood, which generated more than \$600 million in revenues in 2018.

## MARINE INNOVATIONS FOR MAINE

Darling Marine Center's Business Incubation Program, hosted in partnership with the Maine Aquaculture Innovation Center, has helped to develop more than 10 businesses over the last 10 years. These companies, based at the Walpole campus, have employed tens of local employees and created new value-added marine products for the aquaculture, biotechnology and fisheries sectors. In addition, industry partners use the Darling Marine Center pier and flowing seawater system to conduct field trials that address key questions related to Maine's seafood economy and the ecosystems that support it. Such ties ultimately contribute to profitable, resilient businesses that are able to grow and thrive in the region.



[dmc.umaine.edu](http://dmc.umaine.edu)



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