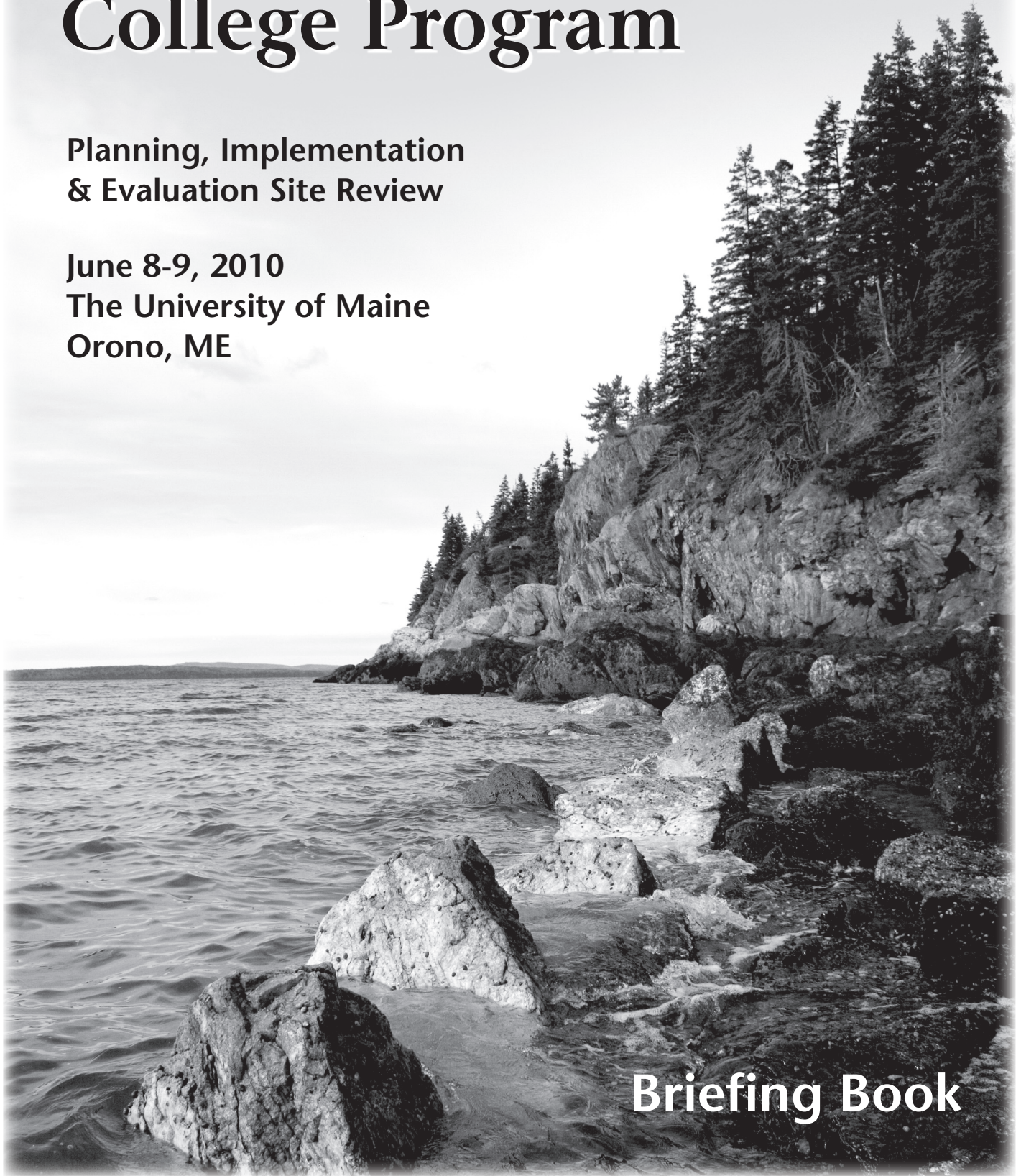


Maine Sea Grant College Program

Planning, Implementation
& Evaluation Site Review

June 8-9, 2010
The University of Maine
Orono, ME

Briefing Book



Contents

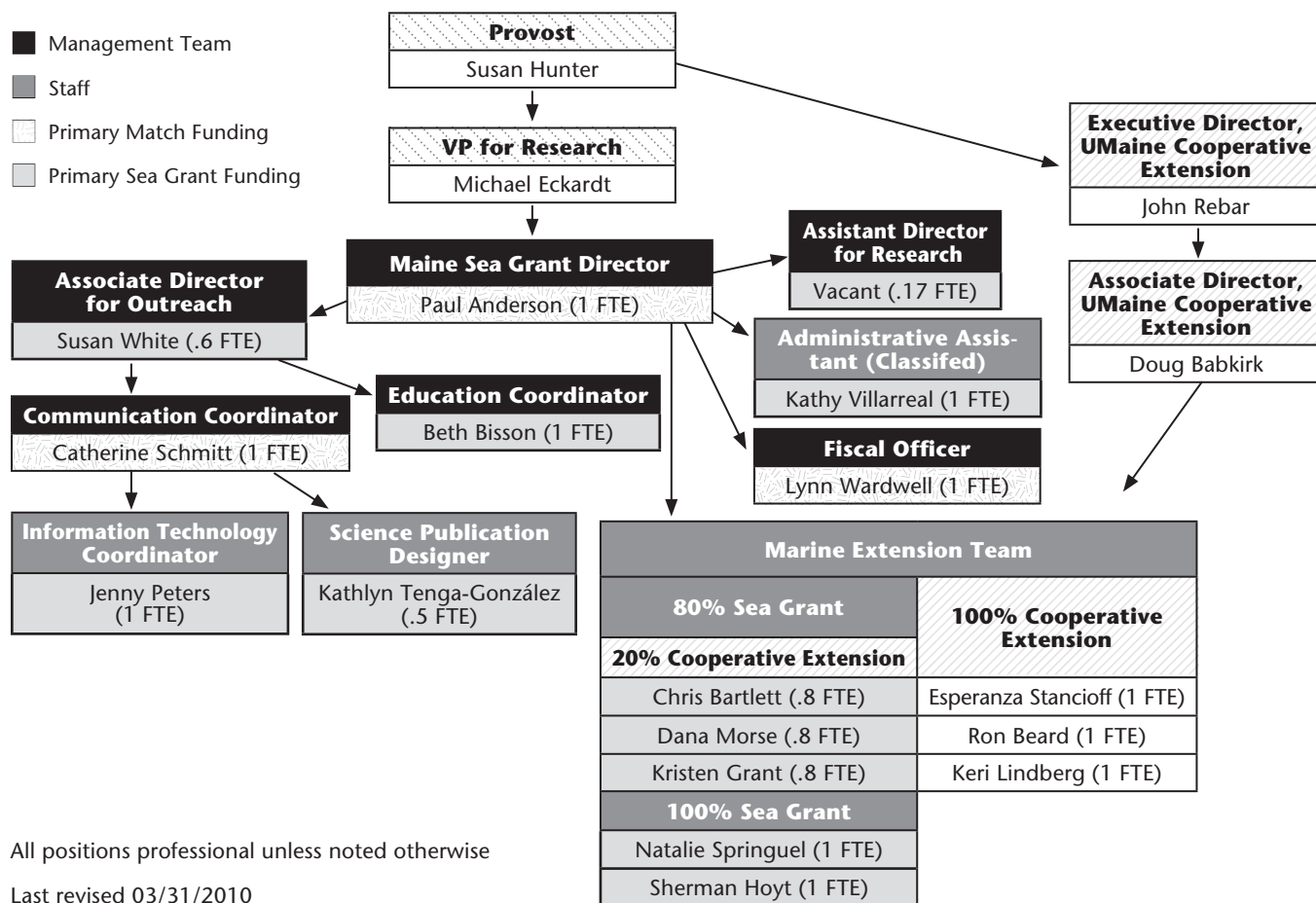
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I. Program Management and Organization

Leadership of Maine Sea Grant is provided by a management team of five individuals based in the Orono office:

- Paul Anderson (Director)
- Susan White (Associate Director for Outreach)
- Lynn Wardwell (Fiscal Officer)
- Beth Bisson (Education Coordinator)
- Catherine Schmitt (Communications Coordinator)

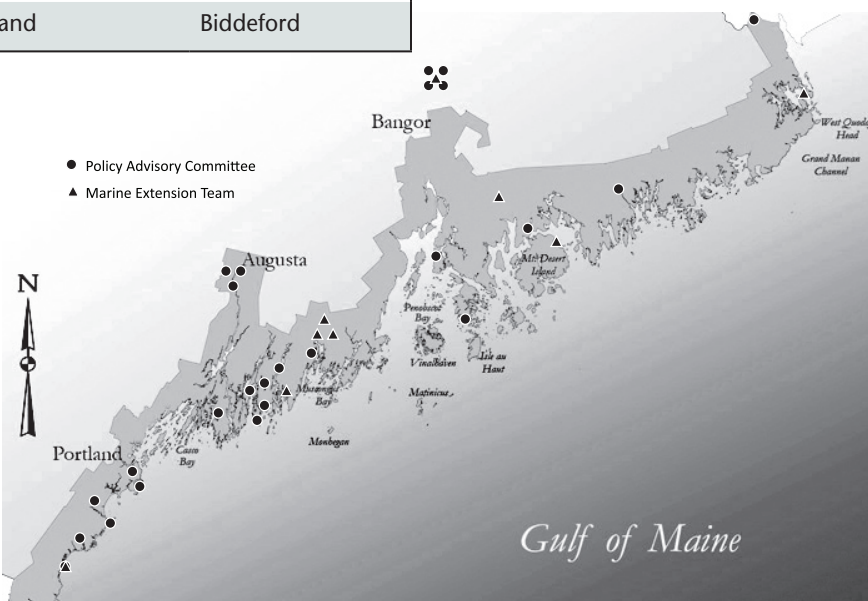
The team meets regularly to review new programmatic initiatives, consider proposals for program development funds submitted by external applicants, provide strategic direction, and cultivate opportunities for program growth, new partnerships, and initiatives in emerging issue areas. The management team is also responsible for planning and coordinating staff development activities and creating a healthy, supportive working environment for the entire Maine Sea Grant staff.



Maine Sea Grant Policy Advisory Committee		
Robin Alden	Penobscot East Resource Center	Stonington
Jennifer Atkinson	Quebec-Labrador Foundation	Waldoboro
Douglas Babkirk	UMaine Cooperative Extension	Orono
Dick Clime	Coastal Enterprises, Inc.	Wiscasset
Fred Cook	Downeast and Acadia Regional Tourism	Cherryfield
Dennis Damon	Legislature-Marine Resources Committee	Trenton
Russell Danner	Department of Inland Fisheries & Wildlife	Augusta
Mark DesMeules	Damariscotta River Association	Damariscotta
Paul Dest	NOAA Wells National Estuarine Research Reserve	Wells
Judy East	Washington County Council of Governments	Calais
Michael Eckardt	UMaine Vice President for Research	Orono
Andrew Fisk	Department of Environmental Protection	Augusta
Don Hudson	Chewonki Foundation	Wiscasset
Peter Jumars	UMaine School of Marine Sciences	Orono
John Kocik	NOAA National Marine Fisheries Service	Orono
Kathleen Leyden	NOAA Maine Coastal Program	Augusta
Patrice McCarron	Maine Lobstermen's Association	Kennebunk
Jim McKenna	Maine Maritime Academy	Castine
Linda Mercer	Department of Marine Resources	Boothbay Harbor
Leila Percy	Legislature-Marine Resources Committee	Phippsburg
Cathy Ramsdell	Friends of Casco Bay	South Portland
Curt Rice	Northwest Atlantic Marine Alliance	Cumberland
Graham Shimmield	Bigelow Laboratory for Ocean Sciences	Boothbay Harbor
Susan Swanton	Maine Marine Trades Association	Portland
Philip Yund	University of New England	Biddeford

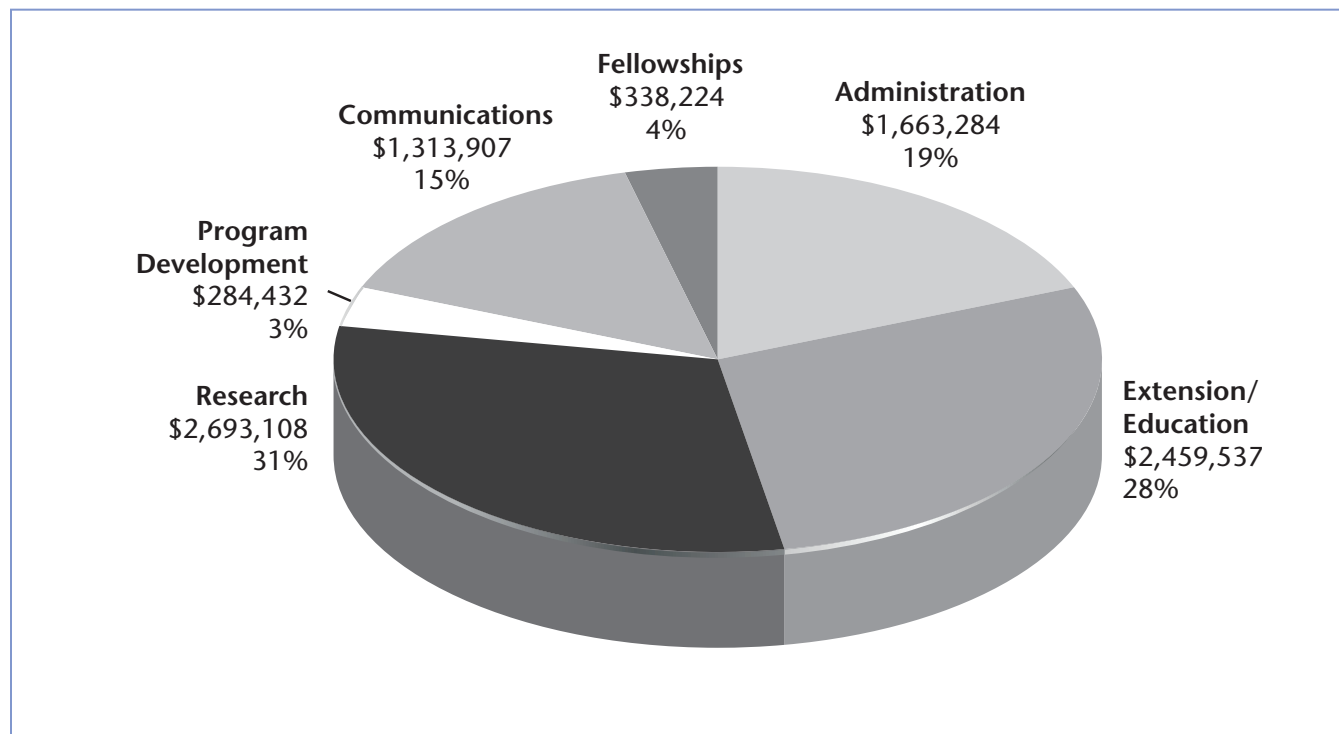
A 25-member **policy advisory committee** (PAC) provides input to strategic planning, programmatic direction, and funding decisions. Members are in leadership positions representing stakeholders in issue areas addressed by our current strategic plan, as well as the University of Maine, other academic research institutions, state legislators, and NOAA partners.

Members are nominated by committee and appointed by the president of the University of Maine and serve renewable three-year terms. The PAC usually meets three times per year in rotating locations; during the most recent strategic planning process our reliance on the PAC intensified. PAC members have served on committees for planning events such as the 2010 Research Symposium as well as pre-proposal review committees.



Funding

Total funding 2006-2010 (award plus match)



	Administration	Extension	Research	Program Development	Communications	Knauss Fellowships	Total
2006	\$328,392	\$445,426	\$617,414	\$55,000	\$266,297	\$184,884	\$1,897,414
2007	\$379,287	\$456,733	\$535,715	\$33,556	\$279,750	\$0	\$1,685,041
2008	\$316,532	\$438,248	\$546,207	\$64,113	\$280,380	\$0	\$1,645,481
2009	\$337,503	\$491,336	\$436,527	\$81,763	\$291,252	\$65,340	\$1,703,722
2010	\$301,569	\$627,793	\$557,244	\$50,000	\$196,227	\$88,000	\$1,820,834
	\$1,663,284	\$2,459,537	\$2,693,108	\$284,432	\$1,313,907	\$338,224	\$8,752,492

Leveraged Funds

	NOAA	Other Federal	State	Local	Total
2006	\$185,543	\$2,500	\$9,313	\$43,805	\$241,161
2007	\$119,854	\$500	\$20,100	\$22,247	\$162,701
2008	\$75,734	\$0	\$20,375	\$29,383	\$125,492
2009	\$23,527	\$14,887	\$30,604	\$95,275	\$164,293
					\$693,647

Recruiting Talent

Maine Sea Grant runs an open research competition every two years. Throughout the process, we are careful to avoid and manage conflict of interest. Anyone is eligible to apply (except for federal employees) and can receive funds if they compete effectively. The procedure is as follows:

1. In January or February of the year prior to funding, a request for pre-proposals is issued for research that will contribute to the goals of the local, regional, and national Sea Grant strategic plans. The call for proposals is posted on our website and distributed to all research institutions in Maine and networks of Sea Grant staff and advisors.
2. Pre-proposals are vetted through a panel of in-state stakeholders (including some members of our PAC), and evaluated based on relevance to contemporary coastal issues. A subset are invited back as full proposals.
3. A minimum of four anonymous scientific peer-reviews is solicited for each full proposal, to which investigators have the opportunity to respond.
4. A multi-disciplinary technical panel, comprised of experts in relevant fields from outside Maine, convenes in the fall to evaluate the proposals, the peer reviews, and the rebuttals, and to recommend projects for funding from Maine Sea Grant. Compositions of review panels are presented on the next page.

Since our last review in 2006, Maine Sea Grant's research competition has generated pre-proposals from three new institutions and seven new investigators. This expansion represents a significant proportion of Maine's marine science community, enhancing Maine's capacity in applied and timely research.

	2006	2008	2010
Pre-Proposals	27	32	35
Institutions Represented	9	10	10
Full Proposals	11	14	14
Institutions Represented	3	5	4
Funded Proposals	5	5	7
Institutions Represented	2	3	2
New PIs	1	2	4
New Institutions	1	0	2
Success of Home Institution	80%	60%	71%
Success in National Competitions	3	3	1
Regional & Multi-program Projects	0	0	2

	Pre-Proposal (Stakeholder) Review Panel		Full Proposal (Technical) Review Panel	
2006	James Connors	NOAA Maine Coastal Program	Ted Castro-Santos	US Geological Survey
	Chris Davis	ME Aquaculture Innovation Center	Rocky Geyer	Woods Hole Oceanographic Institution
	Michele Dionne	Wells NERR	Kelly Giraud	University of New Hampshire
	Bill Duffy	Northern Geomatics	Jeff Hughes	Marine Biological Laboratory
	Susan Farady	Ocean Conservancy	Larry Jacobson	NOAA National Marine Fisheries Service
	Clare Grindal	Downeast Lobstermen's Association	Arthur Mathieson	University of New Hampshire
	Tracy Hart	Maine Sea Grant	Jim O'Connell	Massachusetts Sea Grant
	Lew Incze	University of Southern Maine		
	Linda Mercer	Department of Marine Resources		
	Kristan Porter	F/V Whitney & Ashley		
	Eric Swanson	Acadia Aquaculture		
2008	Chris Bartlett	Maine Sea Grant	Kathleen Castro	Rhode Island Sea Grant
	Judy East	Washington Co. Council of Govts.	Yvon Durant	University of New Hampshire
	Elizabeth Hertz	NOAA Maine Coastal Program	Larry Harris	University of New Hampshire
	Linda Mercer	Department of Marine Resources	Martha Mather	University of Massachusetts
	Steve Page	Ocean Farm Technologies	Tom Webber	University of New Hampshire
	Barbara Parker	Dept. of Environmental Protection		
	Chris Peterson	College of the Atlantic		
	David Schmanska	Town of St. George		
	Robert Snyder	Island Institute		
	Steve Train	F/V Hattie Rose		
	John Williamson	Ocean Conservancy		
2010	Mark DesMueles	Damariscotta River Association	Ames Colt	RI Dept. of Environmental Management
	Ron Beard	UMaine Cooperative Extension	Penny Howell	CT Dept. of Environmental Protection
	Phil Yund	University of New England	Richard Langan	University of New Hampshire
	Jim McKenna	Maine Maritime Academy	Rob Robertson	University of New Hampshire
	Linda Mercer	Department of Marine Resources	Thomas Trott	Suffolk University
	Geoff Smith	Nature Conservancy	Sally Yozel	The Nature Conservancy
	Jennifer Litteral	Island Institute		
	Curt Rice	Northwest Atlantic Marine Alliance		
	Karen Young	Maine Community Foundation		
	Dick Clime	Coastal Enterprises, Inc.		
	Fred Cook	Downeast Acadia Regional Tourism		

Funded Proposals

	PI	Title	Total funds
2006	Ambrose, W.	Effects of bloodworm harvesting on tidal fauna and ecosystem function	\$134,204
	Belknap, D.	Are Maine's marshes drowning? Determining the life cycle of salt marsh pannes	\$163,886
	Brawley, S.	Integrated mariculture with <i>Porphyra</i> ("nori") to achieve sustainable aquaculture and new food products	\$102,940
	Chen, Y.	Developing and evaluating biological reference points for American lobster fishery management	\$79,293
2008	Ambrose, W.	Growth and long-term abundance patterns of the bloodworm	\$49,728
	Chen, Y.	Modeling ecosystem dynamics for American lobster in the Gulf of Maine	\$135,380
	Davis, M.	Safety and compliance in the Maine commercial fishing industry	\$141,419
	Holland, D.	The benefits and risks of increased spatial resolution in management of New England groundfish stocks	\$99,835
	Wahle, R.	Developing genetic fingerprinting techniques in lobster seeding trials	\$173,969
2010	Belknap, D.	The critical leading edge of Gulf of Maine salt marshes	\$156,945
	Chen, Y.	A comparative study of monitoring programs for coherence in quantifying the dynamics of American lobster fisheries in Maine	\$127,890
	Coghlan, S.	Restoration of diadromous fishes: the effects of dam removal and habitat conditioning in spawning streams	\$105,224
	Johnson, T.	Assessing vulnerability and resilience in Maine fishing communities	\$129,336
	Snyder, R.	Mapping Maine's working waters	\$37,000
	Kite-Powell, H.	Mitigating risks to whales from lobster fishing (regional project)	\$25,000
	Hover, F.	Using technology to assess the invasive sea squirt, <i>Didemnum vexillum</i> (regional project)	\$25,000



Maine Sea Grant also administers a small pool of program development funds (~\$35,000 direct funds per year). The deadline for proposal submission is rolling, and the management team convenes three times per year to review proposals and select successful projects for funding. On occasion, we consider time-sensitive proposals between review cycles. Development projects are funded in the range of a few hundred dollars to \$10,000, although most are between \$3,000 and \$6,000. Development awards have proven to be a very effective means of initiating research projects and establishing partnerships to leverage funds and effort. An ideal example of the effectiveness of these funds is offered by Debbie Bouchard, manager of the University of Maine's Aquatic Animal Health Laboratory, who leveraged \$3,000 in Sea Grant development funds awarded in 2007 to obtain a \$250,000 grant for a two-year project investigating factors that affect lobster health.



Program Development Awards 2009-10

PI	Institution	Project	Award
Scott Hall	National Audubon Society Seabird Restoration Program	Using geolocators to determine winter range, behavior, habitat use and movements of Atlantic puffins	\$6,000
Heather Koopman	University of North Carolina	Factors affecting egg quality in American lobsters	\$3,000
Gayle Zydlewski	Cove Brook Watershed Council	Penobscot River Revival on the Bangor Waterfront	\$2,000
Habib Dagher	University of Maine	Wind energy leader travel support	\$1,200
Laura Singer	Gulf of Maine Research Institute	Exploring fine scale ecology for groundfish in the Gulf of Maine and Georges Bank (workshop)	\$2,500
John Sowles	Maine Department of Marine Resources	Maine Coastal Waters Conference	\$2,000
Stephen Coghlan	University of Maine	The effects of sea lamprey spawning in Atlantic salmon nursery streams	\$5,000
Aaron Dority	Penobscot East Resource Center	A sentinel fishery for Downeast Maine: developing local seafood supply and demand	\$1,955
Aria Amirbahman	University of Maine	Use of a novel technique to assess DOC benthic flux in the Penobscot River Estuary	\$3,500
David Munson	Herring Gut Learning Center	Herring Gut Egg-to-Plate Initiative	\$4,525
Jay Adams	Old Fort Western Fund	Spring Running on the Augusta Waterfront	\$500
Rick Wahle	Bigelow Laboratory for Ocean Sciences	Lobster Settlement Index 20th Anniversary (workshop)	\$1,000
Jen Atkinson	Quebec-Labrador Foundation	Study of circulation in Muscongus Bay	\$5,000
Jennifer Brewer	Penobscot East Resource Center	Assessing a community-based fisheries stewardship education program	\$4,000
Barry Costa-Pierce	Rhode Island Sea Grant	Ecology of marine windfarms: perspectives on impact mitigation, siting, and future uses	\$1,000
Christine Mahaffey	University of Maine	A comparative study of morphology and dynamic buoyancy in cetaceans	\$5,000

Descriptions of current and recently completed research and program development projects are housed on our website, <http://www.seagrants.umaine.edu/research>, and are updated regularly.

Stakeholder Engagement

Maine Sea Grant defines “stakeholders” broadly as any person or group throughout the state who benefits directly or indirectly from our efforts to promote sustainable use, conservation, and stewardship of Maine’s ocean and coastal resources. To make this definition meaningful within the context of our many different activities, we have identified key stakeholder “audiences” with whom we frequently work, and for whom we develop products, programs, and services:

- Commercial fishermen and aquaculturists
- State natural resource agency leaders and staff
- Municipal officials
- Maine citizens and communities
- K-12 teachers and students
- Tourism-related businesses
- State legislators
- Nonprofit organizations
- The University of Maine community

Members of our PAC represent many of these stakeholders. We engage our stakeholder audiences in different ways, based on assessment of need and communication preferences, and the nature and content of individual projects or programs.

Partnerships are integral to how Maine Sea Grant engages stakeholders and ensures relevance and transparency in our work. We take seriously the service mission that comes with being part of a land- and sea-grant institution, and nothing we do is without partnership. The following pages describe the different types of partnerships we have cultivated since last review in 2006 (* indicates multiple partnerships with that entity; ^R indicates a research partnership).

Our **federal partners** are usually established via funding opportunities. Federal partners (NOAA partners are described later) tap into our coastwide network of facilitation and advisory expertise, seeking assistance with on-the-ground technology transfer and seafood product development, as well as communications and education projects.

Environmental Protection Agency

National Park Service*

USDA APHIS Veterinary Services

USDA National Institute of Food and Agriculture

USDA Northeast Sustainable Agriculture Research and Education



Under the federal Beaches Environmental Assessment and Coastal Health Act, Maine has received \$250,000 from the US EPA each year since 2002 for beach water quality assessment and notification in support of public health. The Maine Healthy Beaches Program, a partnership among Sea Grant, municipalities, University of Maine Cooperative Extension, Maine DEP, and nonprofits, trains approximately 200 local level staff and volunteers annually. In 2009, 28 towns/state parks representing 60 beaches participated in the program. Program coordinator and MET member Keri Lindberg has partnered with Maine Geological Survey scientists to study fate and transport of bacterial pollutants,

conducted shoreline surveys to identify pollution sources, and built local capacity to find, fix, and prevent sources of fecal pollution that degrade beach water quality. Participating towns have made improvements to stormwater management, increased the number of homes served by municipal sewer, and kept their beaches open for use and enjoyment.



Our **state, municipal, and local partnerships** leverage funding for action that improves resource management. State agencies such as the Department of Marine Resources and Maine Coastal Program provide funding to Maine Sea Grant for research and extension, taking advantage of Sea Grant's relationship with the University of Maine, and our capacity for disseminating data and research results to coastal communities. For example, we work with the Maine Geological Survey to analyze data collected by volunteers in the Southern Maine Beach Profiling Program, and share this information with the Maine Coastal Program as we work with both agencies to support coastal hazard preparedness and adaptation to accelerated sea-level rise.

Since 2000, Maine Sea Grant has supported Dr. Yong Chen at the University of Maine to research and develop models of fisheries population dynamics. Chen works closely with Department of Marine Resources staff to address their needs. Chen is currently working with state lobster biologist Carl Wilson to evaluate efficiency and effectiveness of the various monitoring programs in place for American lobster. On the water, marine extension team member Sherman



Hoyt is working with Wilson to study the effects of reducing trap density on lobster harvests.

Of the 52 Maine municipalities that received the *Building a Resilient Coast: Maine Confronts Climate Change* DVD in 2009, several are already finding this and other outreach products related to coastal community resilience extremely valuable in their efforts to get local decisionmakers, such as planning board members, selectmen, and city councilors, to take actions to adapt to higher and more frequent storm surges.



Other groups are finding the resource helpful with providing a common

background of knowledge on climate change and coastal hazard issues. Esperanza Stancioff and Kristen Grant are continuing their efforts with new funding to work with towns on implementing coastal climate change adaptation planning.

Augusta	Maine Dept. of Transportation
Bar Harbor	Maine Emergency Management Agency
Bar Harbor Chamber of Commerce	Maine Geological Survey*
Biddeford	Maine Marine Invasive Species Working Group
Bristol	Maine Office of Tourism
Camden	Maine State Planning Office
Downeast and Acadia Regional Tourism	Maine Coastal Program*
Downeast Resource Conservation and Development Corporation	Northeast Regional Aquaculture Center
Eastport*	Ogunquit
Eastport Port Authority	Ogunquit Conservation Commission
Freeport	Old Orchard Beach
Gouldsboro	Portland
Joint Standing Committee on Marine Resources*	Rockland
Kennebunk Conservation Commission	Rockport
Kennebunk	Saco
Kennebunkport	Scarborough
Kittery	South Portland
Lincolnville	Southern Maine Regional Planning Commission
Maine Dept. of Agriculture	Sunrise County Economic Council
Maine Dept. of Conservation	Time and Tide Resource Conservation and Development
Maine Bureau of Parks and Lands*	Vinalhaven
Maine Dept. of Marine Resources*	Washington County Council of Governments
Maine Dept. of Environmental Protection*	Washington Hancock Community Agency
Maine Dept. of Health and Human Services	Wells
Maine Center for Disease Control and Prevention	Wells Conservation Commission
Maine Dept. of Inland Fisheries and Wildlife	Winter Harbor
Maine Dept. of Revenue Services	York
	York Harbor

Maine Sea Grant both partners on funding requests with and provides grants to **nonprofits and other non-governmental organizations** working in Maine and beyond.

Casco Bay Estuary Partnership	Maine Fishermen's Forum
Coastal Enterprises, Inc.*	Maine Island Trail Association
Coastal States Organization for Boating Access	Maine Surfrider Northern New England Chapter
Coastal States Organization	Maine Woods Consortium
Cobscook Bay Resource Center	Maine Working Waterfront Coalition
Community Wellness Coalition*	National Audubon Society ^R
Damariscotta River Association	Penobscot East Resource Center
Island Institute*	Penobscot River Restoration Trust
Higgins Beach Association	Quebec-Labrador Foundation*
Kennebec River Initiative	Slow Food Portland
Kennebunk River Action Committee	South Portland Resource Protection
Lobster Institute	Sportfishing and Boating Partnership Council
The Lobster Conservancy ^R	Spruce Creek Association
Maine Aquaculture Association	Trout Unlimited
Maine Aquaculture Innovation Center	Urban Harbors Institute
Maine Coast Heritage Trust	Wooden Canoe Heritage Association
Maine Commercial Fishing Safety Council ^R	Workforce Housing Coalition of the Greater Seacoast*
Maine Community Foundation	York Community Dialogue

Through Maine's Working Waterfront Coalition, Natalie Springuel and Kristen Grant work with other organizations to balance competing uses of Maine's shoreline and protect and enhance access for commercial fishing and related industries. In particular, relationships with the Rockland-based Island Institute have been especially effective. We funded the Island Institute in their effort to map "the last 20 miles" of Maine's working waterfront, and have since partnered with the Institute, Coastal Enterprises, Inc., and the Maine Coastal Program to support workshops about Maine's new current use taxation law for working waterfronts and waterfront access acquisition program, provide information on access rights and responsibilities, and coordinate the 2010 Working Waterfronts and Waterways National Symposium on Water Access. These partnerships have advanced Maine's national leadership on working waterfront issues.



Our partners in the **private sector** help keep us in tune with the needs of Maine's small businesses and the fishing industry. From partnering on research to identifying common ground, our industry partners keep our efforts outside of the ivory tower and focused on the economic realities faced by Maine's coastal communities.

Acadian Seaplants Limited
 Bagaduce River Oyster Company
 Boat US
 Cooke Aquaculture
 Fishing Vessel Jeanne C
 K2 Family Foundation
 Maine Coast Sea Vegetables^R
 Maine Cultured Mussel Company
 Maine Lobstermen's Association*
 Portland Water District
 Sea Urchin Zone Council
 Tilbury House Publishers

Chris Bartlett is based in Eastport, where salmon aquaculture is a major contributor to the local economy. The industry has overcome setbacks presented by diseases such as infectious salmon anemia (ISA), in part through regular meetings to address farmed fish health and a recent revision of federal and state ISA Program Standards, efforts coordinated by Bartlett. Dana Morse is based in Walpole on the Damariscotta River, the heart of Maine's oyster-growing industry. Morse recently organized a Northeast Regional Aquaculture Center workshop about marketing cultured shellfish, and regularly works with industry partners to support existing and new aquaculture business ventures.



*—multiple partnerships; R—research partnership

Given Maine Sea Grant's tripartite mission of research, education, and outreach, we have a long history of developing partnerships with institutions of **learning and research**.

Acadia Partners for Science and Learning*
 Augusta Children's Museum
 Bates College^R
 Bigelow Laboratory for Ocean Sciences*
 College of the Atlantic
 Cornell University Cooperative Extension
 Downeast Institute*
 Great Salt Bay Community School
 Gulf of Maine Marine Educators Association
 Gulf of Maine Research Institute*
 Herring Gut Learning Center
 Maine Aquatic Animal Health Lab
 Maine Maritime Academy
 Maine Maritime Museum
 Maine STEM Collaborative
 Massachusetts Institute of Technology
 Mount Desert Island Biological Laboratory*
 New England Ocean Science Education Collaborative
 Nokomis High School
 Oceanswide

Old Town High School
 Tufts University^R
 University of Maine
 UMaine Center for Research and Evaluation*
 UMaine Center for Science and Mathematics Education Research
 UMaine Climate Change Institute*
 UMaine Cooperative Extension*
 UMaine Department of Civil and Environmental Engineering^R
 UMaine Department of Wildlife^R
 UMaine School of Marine Sciences*
 UMaine Sen. George J. Mitchell Center for Environmental and Watershed Research*
 USGS Cooperative Fish and Wildlife Research Unit^R
 University of Maine at Machias*
 University of New Hampshire Cooperative Extension
 University of North Carolina Wilmington^R
 University of Southern Maine
 UMaine School of Law Center for Law and Innovation



Education research has repeatedly documented the value of place- and inquiry-based educational programming that allows students to apply science concepts through meaningful investigations of local ecosystems and natural resource management issues. Maine Sea Grant's education programs are built around this philosophy of inquiry-based learning, and we engage our learning and research partners, including K-12 teachers, in all levels of program development and implementation. For example, Beth Bisson worked with faculty and fifth-grade students at Old Town Elementary School and staff from the University of Maine Senator George J. Mitchell Center and the Penobscot River Restoration Trust to develop and pilot a multidisciplinary education program on sea-run fish ecology, river restoration, and cultural history of the Penobscot River watershed during the 2007-2008 school year. As a result of the successful pilot, Bisson worked with the Gulf of Maine Research Institute to publish a curriculum unit based on the Penobscot River project and develop a series of additional watershed curriculum units in partnership with 31 science teachers throughout Maine. The curriculum and other teaching resources are now available online at <http://vitalventure.gmri.org>.

Another way we maintain connections with stakeholders is through **leadership by staff on boards and committees**. To these various tables we bring direct linkages to the University of Maine and extension host institutions, as well as the diverse expertise of a coastwide Marine Extension Team.

Anderson, P.

Herring Gut Learning Center Board of Directors (chair)
Maine Aquaculture Innovation Center Board
Maine Fishermen's Forum Board of Directors
Northeast Consortium Representative's Council
Northeast Regional Ocean Science Initiative
Sea Grant Association Board of Directors
University of Maine Aquaculture Research Institute
Advisory Committee
University of Maine Research Council

Bartlett, C.

USDA Infectious Salmon Anemia Technical Board
(chair)
Downeast Institute Board of Directors (chair)
Maine Marine Technology Center Advisory
Committee (secretary)
Eastport Port Authority Harbor Committee (chair)

Bisson, B.

Gulf of Maine Marine Educators Association Board
Maine Marine Invasive Species Working Group (co-
ordinator)
New England Ocean Science Education Collaborative
Governing Council

Hoyt, S.

Midcoast Maine Fishing Heritage Alliance Board of
Directors (chair)

Grant, K.

KEYS Community Wellness Coalition Board of
Directors (secretary)
Sea Grant Sustainable Coastal Community
Development Network, Executive Committee
(vice chair and regional representative), Training
Committee (chair), Organization and Membership
(co-chair)
Workforce Housing Coalition of the Greater Seacoast
Outreach Committee
Working Waterways and Waterfronts National
Symposium on Coastal Access 2010 abstracts
committee (chair)

Lindberg, K.

Maine Healthy Beaches Program Advisory Committee

Morse, D.

Energy in Fisheries Conference Organizing Committee
Herring Gut Learning Center Education Committee
Kennebec Celebration 2010 Organizing Committee
Maine Sea Scallop Advisory Panel
Northeast Aquaculture Conference and Expo
Planning Committee
Sea Grant Safe and Sustainable Seafood Supply
Focus Team
Time and Tide Resource and Conservation
Development Area Advisory Council

Schmitt, C.

Working Waterways and Waterfronts National
Symposium, steering committee and communications
committee (chair)
Lower Penobscot Watershed Coalition Steering
Committee

Springuel, N.

Bar Harbor Chamber of Commerce Sustainable
Tourism Committee
Downeast Fisheries Trail Planning Committee (chair)
Governor's Task Force on Nature-Based Tourism
Vacationland Resources Committee of Downeast
RC&D (chair)
Working Waterways and Waterfronts National
Symposium (coordinator and chair)

Stancioff, E.

Maine Healthy Beaches Program
Coastal Community Resilience Stakeholder Advisory
Committee (facilitator)

White, S.

Cove Brook Watershed Council (vice president)
Penobscot Bay Alliance (vice president)
UMaine Employee Assistance Program
Advisory Council

II. Collaborative Sea Grant Network and NOAA Activities



A member of the **Sea Grant Association** (SGA) Board of Directors since 2003, Paul Anderson has served as secretary, president-elect, president, and past-president, helping to enhance collaboration among the SGA, the **National Sea Grant Office**, and the **National Sea Grant Advisory Board** (formerly the Review Panel). Under his leadership of the SGA, Sea Grant was reauthorized by Congress, created a new national strategic plan, developed the new Planning, Implementation and Evaluation (PIE) system, the formation of Focus Area Teams, and the Network Advisory Council. He has played significant roles in the last two Sea Grant Weeks in Maine and California. Paul has developed close working relationships with directors from other Sea Grant programs, and has served on planning committees and review panels in six other state programs.

As members of national **Sea Grant Focus Teams**, Kristen Grant (Sustainable Coastal Development) and Dana Morse (Safe and Sustainable Seafood Supply) contribute time and expertise to the planning of Sea Grant activities within these focus areas, and will be helping with the aggregation of impacts in the coming years.

Natalie Springuel, a member of the **Sea Grant Coastal Community Development Network**, served on the planning committee for the first Working Waterways and Waterfronts National Symposium on Water Access in Norfolk, Virginia, in 2007, and is leading the planning committee for the next symposium to be held in Portland, Maine, in September 2010. At least 13 other Sea Grant programs are partners in this effort. Our coastal access and working waterfront efforts, supported in part by the **National Sea Grant Law Center**, have become a model across the country. For example, five other states are now adapting www.accessingthemainecoast.com for local application.

Esperanza Stancioff, one of only a few Sea Grant extension associates in the nation whose work is focused on climate change, has become a critical participant in planning for Sea Grant's role in the **NOAA Climate Service**, has served on review committees, and is helping to develop climate adaptation training for practitioners. She is also a leader in the **Sea Grant Climate Change Network**.

Beth Bisson is active on several national and regional committees related to formal education and has been active in the **Sea Grant Educators Network**. She also served on the national review panel for the **Knauss Fellowship Program** in 2008.

Maine Sea Grant has served in the rotating leadership of the **Northeast Regional Sea Grant Network**, and contributed to the development of a regional research MOU between Northeast Sea Grant programs and universities. In the most recent research competition, two projects were selected for funding under the regional agreement and Maine is contributing funds toward these projects. Maine has been well represented in other regional collaborative programming, including the Fisheries Extension Enhancement program, aquatic nuisance species education and outreach, climate change activities, and research planning. Maine has been tasked (informally) with exploring the possibility of a Canadian Sea Grant program that could be based at Dalhousie University in Halifax, Nova Scotia. While discussions are still preliminary, we have several partnerships across the border that could benefit from the establishment of a **Canada Sea Grant Program**.

Maine Sea Grant shares a robust and unique relationship with the **NOAA Coastal Zone Management Program** (the Maine Coastal Program housed in the State Planning Office) and the **NOAA National Estuarine Research Reserve System** (Wells Reserve). The three directors meet frequently, share planning efforts, and serve on one another's advisory committees. Furthermore, Marine Extension Team member Kristen Grant is located at the Wells Reserve, where she collaborates with research staff and serves on the education planning committee. Sea Grant and the Maine Coastal Program have a long, productive history of co-funding and collaborating on specific projects related to many important coastal issues (a recent example is the siting of offshore wind energy generation in state waters). We see this three-way partnership as a model and have developed a "NOAA on Maine's Coast" fact sheet that is now being used as a template by Florida and Hawaii.



Maine Sea Grant works with the **NOAA NMFS Northeast Fisheries Science Center**. John Kocik, lead biologist at the Maine Field Station in Orono, serves on our Policy Advisory Committee. In 2008 they contracted with us to facilitate a collaborative research planning effort intended to help the fisheries scientists take a multi-disciplinary approach to the restoration of the Atlantic salmon in the Gulf of Maine. We also collaborate with local and regional NMFS staff on outreach activities, including the construction of informational kiosks throughout the lower Penobscot River watershed and information dissemination at the 2009 Boston Seafood Show.

Maine Sea Grant's new collaboration with the Maine State Climatologist, the University of Maine Climate Change Institute, and Cooperative Extension includes the **NOAA National Weather Service** as a partner, and we anticipate that this relationship will grow as our climate-related activity increases.



Communications coordinator Catherine Schmitt participated in an editorial workshop in Silver Spring for the new **NOAA Climate Service** online magazine, and the site features several Maine Sea Grant outreach products related to climate. In 2007, Schmitt wrote a feature article on the **Coast Survey** in observance of the NOAA forbears' 200th anniversary. The story appeared in *The Working Waterfront* newspaper and was reprinted by *Fishermen's Voice* newspaper and *Point of Beginning*, an online newspaper for the surveying and construction industry, and distributed throughout the offices of NOAA.

In 2009, marine extension associated Dana Morse hosted regional coordinators from **NOAA NMFS Aquaculture Program** as they visited aquaculture production sites in Maine and met with local stakeholders in the Damariscotta River oyster-growing region. Susan Bunsick of this program gave an invited plenary presentation at the 2008 Northeast Aquaculture Conference and Expo (chaired by Morse). As a member of the Sea Grant Safe and Sustainable Seafood Supply Focus Team, Morse has also participated in planning for the National Strategic Initiative aquaculture funding opportunity.

III. Program Changes Resulting from Previous Review

The last review of the Maine Sea Grant College Program was conducted by a Program Assessment Team in April 2006 and resulted in a highly favorable “Category 1” rating. The evaluation suggested several improvements for consideration by Maine Sea Grant, described below along with our response.

1. Elevate the education component of the program. Beth Bisson was hired just prior to the 2006 review and since then has provided significant capacity for the program in formal education, forming new partnerships within the University and state government, and with other educational institutions in the region. The upcoming reorganization of program leadership will promote Beth to Assistant Director for Outreach and Education, which should further elevate the role of formal education in the program and, importantly, ensure that extension and outreach are integrated with formal learning activities. Although in the short term we may lose some “boots on the ground” capacity in K-12 education, the plan is to explore extramural funding opportunities to build capacity and establish an educator position working under Beth’s leadership.

2. Improve the assessment of impact for the strategic and implementation plans. We worked hard during the development of the new 2009-2013 Strategic and Implementation Plan to establish reasonable metrics. We have learned over time to be realistic when identifying metrics and defining benchmarks, both to avoid placing unnecessary reporting burdens on staff and to ensure that our reporting provides ample evidence of the impacts of our most critical program components. Our current plan takes a community-based approach that best represents the stakeholders and user groups that benefit from our work. We are confident that this streamlined method will be successful and accurate.

3. Expand stakeholder base. New members of our Policy Advisory Committee include representatives of the tourism industry, Friends of Casco Bay, Penobscot East Resource Center, CEI, Inc., and the commercial fishing industry. Marine Extension Team members have expanded their stakeholder interactions and their formal association with key partners. In partnership with Cooperative Extension, Sea Grant sponsored and advised the work of a graduate student in the Department of Communications and Journalism at UMaine, who studied the interaction of MET members with the Maine Legislature. The recommendations based on this research, provided in Spring 2010, identify ways we can build and maintain connections to this very important audience. We have also made significant progress in building partnerships within the University of Maine community, including the Climate Change Institute, Advanced Engineered Wood Composites Center (wind energy), Margaret Chase Smith Policy Center, Water Research Institute, Center for Research and Evaluation, and the University Research Council.

4. Conduct a formal needs assessment of the coastal tourism sector. Through the work of Natalie Springuel, Maine Sea Grant is now a major player in advancing sustainable tourism in Maine. Natalie was a member of the state commission that established a series of goals and strategies for tourism in Maine and she has since focused on enabling sustainable coastal tourism in the easternmost parts of Maine’s coast. Her work has received awards and continues to expand as plans are unfolding for the development of the Downeast Fisheries Trail. This set of activities in sustainable tourism has become a major part of Natalie’s plan of work, and she has integrated input and assistance from other members of the Marine Extension Team as needed.

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