

MEU-A-89-001

Sea Grant

**MARINE
ADVISORY
PROGRAM**



COOPERATION

The Sea Grant Marine Advisory Program in Maine and New Hampshire is a network of organizations working together toward a common goal: to promote the wise use, development, and conservation of northern New England's coastal and marine resources through research-based informal education programs.

By integrating the talents and resources of a variety of educational institutions and government agencies, the Sea Grant Marine Advisory Program extends the impact of its programs and responds more effectively to the needs of those dependent on marine resources.

Whether it's a workshop for fishermen on basic net mending, a seminar for harbormasters, a conference on marina development, a demonstration of new fishing gear, or a forum for clam flat managers, the Sea Grant Marine Advisory Program is there, helping to get the most accurate, up-to-date information to those who can use it.

Since 1981 this network of cooperation has been developing and is today a vital part of the Sea Grant College Program of the Center for Marine Studies at the University of Maine, and the Marine Program at the University of New Hampshire.

COMMUNICATION

Effective communication is the key to a successful cooperative network concept within the Sea Grant Marine Advisory Program. Knowing the best way to reach a specific audience with useful information is an integral part of the job for everyone cooperating in the network.

An equally important responsibility is to articulate clientele group problems in appropriate fashion to the university research community. This two-way communication links practical problems with suggested solutions through a network of people working together for mutual benefit.

COORDINATION

The Sea Grant Marine Advisory Program has two main offices which provide administrative and communications support to the cooperators in the region. Staff and cooperators work together to serve the marine communities of Maine and New Hampshire by sharing ideas and information, coordinating current projects, and planning for future projects. For more information about the Sea Grant Marine Advisory Program in Maine and New Hampshire, contact the cooperating agencies or institutions nearest you, or:

Sea Grant Marine Advisory Program
Center for Marine Studies
30 Coburn Hall
University of Maine
Orono, Maine 04469
(207) 581-1440



Sea Grant Marine Advisory Program
Marine Program Building
University of New Hampshire
Durham, New Hampshire 03824
(603) 862-2996

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College of the Atlantic
Bar Harbor, Maine
(207) 288-5015



Fisheries Technology Service
Maine Department of Marine Resources
Augusta, Maine (207) 289-2291



Maine Maritime Academy
Castine, Maine
(207) 326-4311



Marine Law Institute
University of Southern Maine
Portland, Maine
(207) 780-4474



Northeast Marine Education Program
University of Maine, Orono, Maine
(207) 581-2434



Southern Maine Vocational Technical Institute
Marine Science Department
South Portland, Maine
(207) 799-7303



University of Maine Cooperative Extension
Orono, Maine
(207) 581-3168



University of Maine at Machias
Machias, Maine
(207) 255-3313



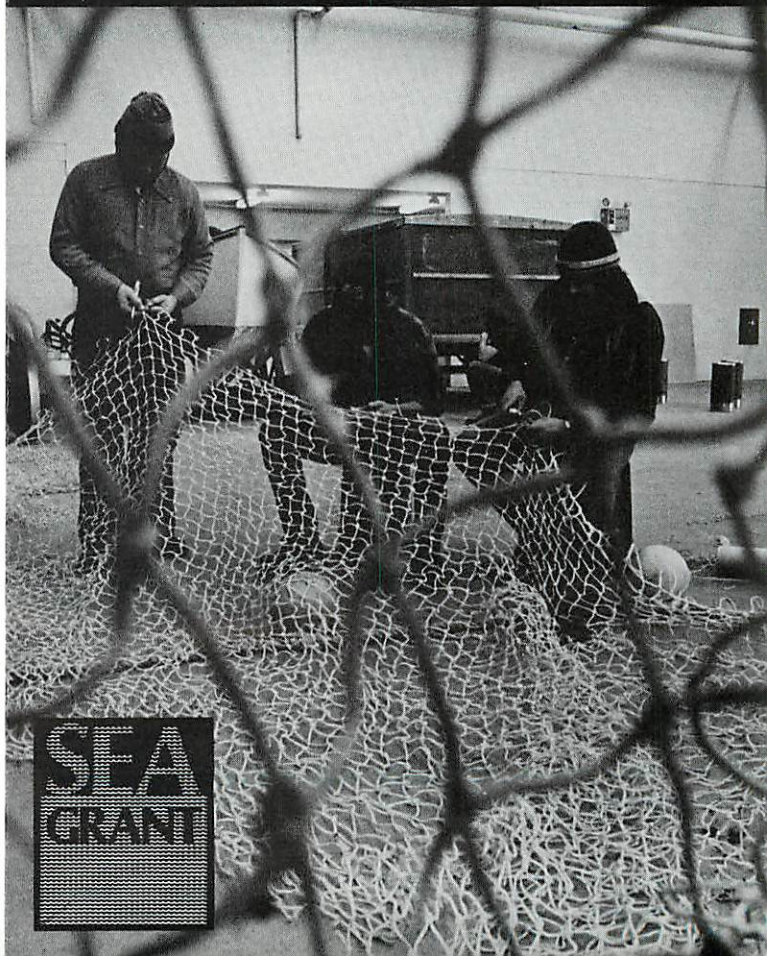
Center for Innovation and Entrepreneurship
University of Maine, Orono, Maine
(207) 581-1465



Washington County Vocational Technical Institute
Marine Center
Eastport, Maine
(207) 853-2518



MARINE CENTER and WASHINGTON COUNTY VOCATIONAL TECHNICAL INSTITUTE



**MARINE CENTER
DEEP COVE
EASTPORT, MAINE 04631
(207) 853-2518**

and

**WASHINGTON COUNTY VOCATIONAL
TECHNICAL INSTITUTE
CONTINUING EDUCATION DEPARTMENT
RIVER ROAD
CALAIS, MAINE 04619
(207) 454-2144 ext. 36**

The Washington County Vocational Technical Institute (WCVTI) is one of six post-secondary vocational schools in Maine. Located in Calais near the Canadian border, it offers programs in several vocational-technical areas.

The Marine Center (MC), a special division of WCVTI devoted to teaching marine-related programs, was established in a renovated facility on Eastport's Deep Cove in 1978. Developed with the aid of federal grant money, the MC is one of the best equipped public vocational facilities on the Maine coast. A newly rebuilt wharf and a 60-ton marine Travelift enable students to launch or haul boats for the school as well as for local marine interest.

The MC is probably best known for its two-year program in wooden boatbuilding. The course emphasis is on discipline and craftsmanship, and the fact that the program has twice been nominated for the Secretary of Education's Award as an outstanding vocational program speaks well for its success. Teams of three or four freshmen work together to build a Whitehall dory. As seniors, each team builds a Buzzard's Bay day sailer, adopted from a Francis Herreshoff design. Marine drafting and lofting are also taught.

Other programs offered at the MC include a one-year program in Marine Finishing, one of the only courses in this technology taught in the United States, as well as outreach programs in Marine Mechanics and Commercial Fishing. The placement rate for graduates of the Marine Center is over 90%, with most graduates having a choice between two or three job offers.

As a part of the Marine Advisory Program (MAP), WCVTI is linked with other post-secondary units in the state offering similar training. This connection strengthens the MAP's ability to provide quality outreach training programs tailored to the needs of individuals working in maritime industries.

Continuing Education Programs for Fishermen:

- Basic Hydraulic Maintenance for Lobster Boats
- Basic Twine Mending
- Cold Water Survival
- Electronics
- Marine Engines
- Navigation
- Net Construction
- Net Mending
- On-Board Safety
- Record Keeping
- Techniques of Trawl Door Adjustments and Rigging

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University of Maine Cooperative Extension
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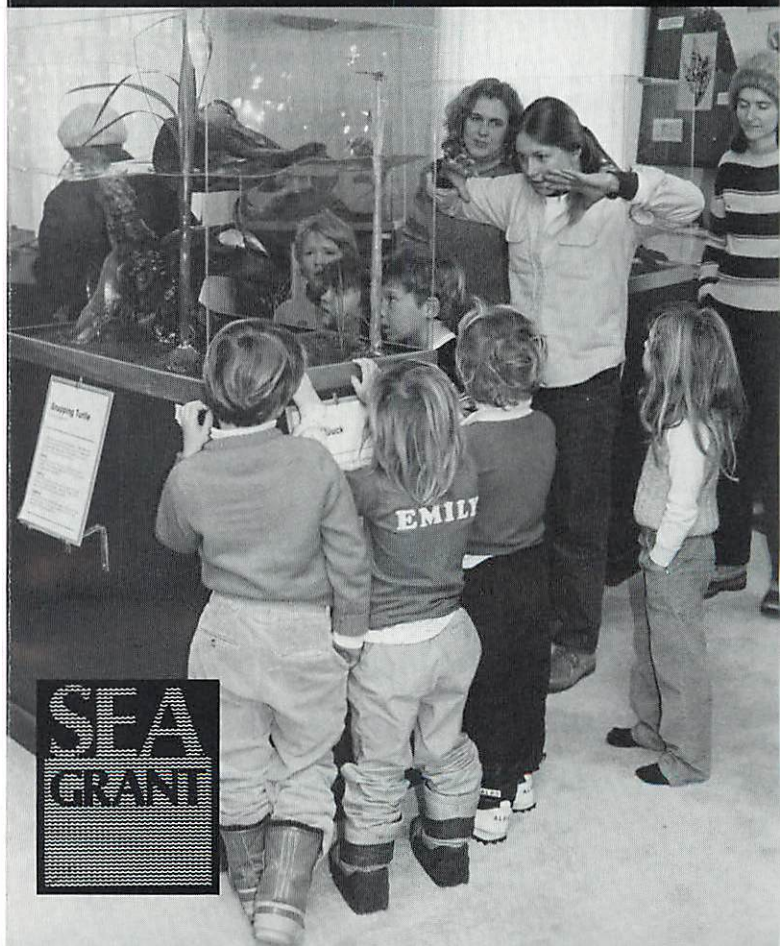
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Washington County Vocational Technical Institute
Marine Center
Eastport, Maine
(207) 853-2518



COLLEGE OF THE ATLANTIC



**COLLEGE OF THE ATLANTIC
BAR HARBOR, MAINE 04609
(207) 288-5015**

Founded in 1969, College of the Atlantic (COA) is a private, coeducational college offering the Bachelor of Arts in Human Ecology. The curriculum is designed to equip students with the knowledge, enthusiasm, and sensitivity to solve complex environmental and social problems from a multiple and humanistic perspective. Students take an active, "hands on" approach to learning and assume a major role in designing their own programs of study.

Located in Bar Harbor, Maine, COA occupies 26 acres of shorefront property on Mount Desert Island.

MARINE EDUCATION PROGRAMS

By cooperating with the Marine Advisory Program, COA is able to link researchers and educators nationwide to promote an ecological understanding of humans and their environments.

Programs relating to marine education offered by COA include:

FIELD STUDIES BY THE SEA

This summer program is offered to practicing teachers, graduate students and others with keen interest in environmental studies. Three graduate credits are awarded cooperatively by COA and the University of Maine at Orono Continuing Education program.

NATURAL HISTORY MUSEUM PROGRAMS

- Museum tours offer interpretations of over 40 exhibits depicting the animal and plant life on Mount Desert Island and the Gulf of Maine.
- Outreach Programs include on-campus or traveling participatory exhibits for schools, colleges, museums, nature centers and other organizations.

Specific programs include Whales-on-Wheels and the Naugahyde Whale.

- Evening Speaker Series (July and August) coordinates lectures, slides, and activities on a variety of natural history topics. To apply for listing in the COA Natural History Speakers Network, or for a list of speakers, contact the Museum.

FIELD STUDIES BY THE SEA FOR CHILDREN

This summer program is designed to expand third through eighth graders' knowledge of our natural environment and introduce them to ecological concepts. Field trips explore three major ecosystems: forest, salt marsh, and shore.

ALLIED WHALE

Founded in 1972, this non-profit organization coordinates a whale-sighting network in the Gulf of Maine, sponsors the Mount Desert Rock Whale Watch and collects photographs of humpback whale flukes (tails) and finback whale fins in an effort to identify and track individual animals.

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Washington County Vocational Technical Institute
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MAINE MARITIME ACADEMY



MAINE MARITIME ACADEMY
CASTINE, MAINE 04420
(207) 326-4311

Maine Maritime Academy is a four-year residential college offering undergraduate and graduate programs in marine-related fields. Bachelor of Science degrees are offered in:

- Nautical Science
- Marine Transportation/Management
- Marine Engineering Operations
- Marine Engineering Technology
- Marine Systems Engineering
- Ocean Studies

Graduates can qualify for a license as a Third Mate or Third Assistant Engineer in the U. S. Merchant Marine, and for an Ensign's commission in the U. S. Naval Reserve or U. S. Coast Guard Reserve.

The Academy also offers the degree of Master of Science in Maritime Management, and in 1990 it will initiate two new Associate degree programs in Yacht Operations & Boatyard Management and Yacht Design.

OUTREACH PROGRAMS

Maine Maritime is located in Castine at the head of Penobscot Bay, an area rich in seafaring traditions, and an ideal setting for marine outreach programs. Year-round seminars for individuals working in marine industries are offered in the Academy's Center for Advanced Maritime Studies.

By cooperating with the Marine Advisory Program, the Academy reaches out to people well beyond its immediate area. Among programs available to the general public are these:

SCUBA DIVING AND SAFETY CONFERENCES

These conferences offer divers and rescue personnel a chance to refresh their skills and update their knowledge of equipment, safety techniques, and medical management procedures.

OCEAN SURVIVAL

These courses deal with problems involved in offshore accidents. The instruction is valuable for pleasure boat operators, scuba divers, lifeguards, sailors, clam diggers, lobstermen, deep ocean mariners, ferryboat operators, marine patrol officers, and emergency medical personnel.

MARINE SPECIMEN PROJECT

"Operation Sea Specimen" offers workshops to assist public school teachers in developing a program of marine education. Midshipmen are available to visit schools with live specimens from the Academy laboratories.



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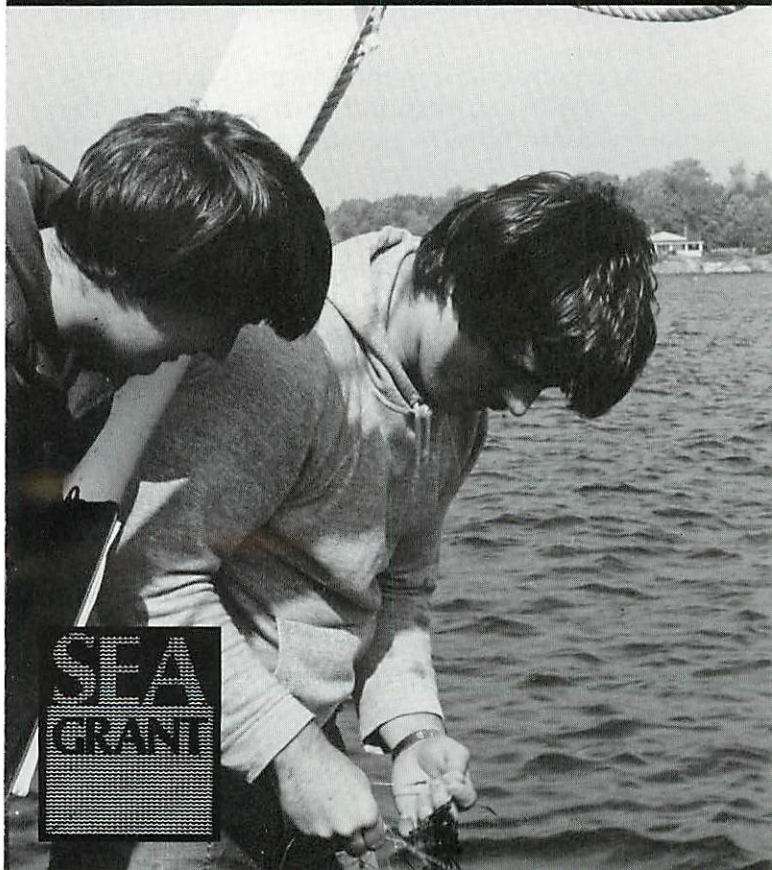
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NORTHEAST MARINE EDUCATION PROGRAM



**UNIVERSITY OF MAINE TECHNICAL
SERVICES PROGRAM
22 COBURN HALL
UNIVERSITY OF MAINE
ORONO, MAINE 04469
(207) 581-1465**

The University of Maine Technical Services Program (UMTS) serves as a formalized extension link to relate the technical needs of Maine professional and business people with the resources of the University of Maine. Technical needs are identified by plant visits, meetings, and other *means of communication*. Responses to these needs are made through such technology transfer mechanisms as educational programs, technical problem-solving and consulting, new product development, survey referrals, and in-plant projects.

As a cooperator in the Marine Advisory Program, UMTS can respond to the needs of the marine community in all four of its technical service areas.

EDUCATIONAL SERVICES

Technical workshops, seminars, short courses, training programs, and special instruction are offered both on the Orono campus and at other locations throughout the state.

TECHNICAL PROBLEM SOLVING AND CONSULTING

In a technical extension role, a UMTS engineer is available to work closely with technical and business personnel in identifying problems, establishing liaison with UMaine resources and addressing needs and project follow-up. Typical projects include development of (1) an underwater television camera, (2) special winches and (3) electronic tension controls, many of which are student projects of minimal cost.

NEW PROJECT DEVELOPMENT SERVICES

UMTS provides specific new project development services and works as required to utilize University of Maine resources. Examples include design and fabrication of an alternator, a shellfish harvester, a lobster feed chopper, and a ways tension meter. New product development is one of UMTS's fastest growing activities.

INFORMATION SERVICES AND REFERRALS

UMTS provides a broad range of information and services referrals. Sources include the University of Maine Department of Industrial Cooperation; academic departments; the Fogler Library; state, regional and national information centers; consultants; vendors; and other sources of technical information.

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(207) 581-1465



Washington County Vocational Technical Institute
Marine Center
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CENTER FOR INNOVATION AND ENTREPRENEURSHIP UNIVERSITY OF MAINE



**CENTER FOR INNOVATION
AND ENTREPRENEURSHIP
UNIVERSITY OF MAINE
16 MAINE TECH PARK
ORONO, MAINE 04473
(207) 581-1465**

The Center for Innovation and Entrepreneurship (CIE) serves as a formalized extension link to relate the technical needs of Maine professional and business people with the resources of the University of Maine. Technical needs are identified by plant visits, meetings, and other means of communication. Responses to these needs are made through such technology transfer mechanisms as educational programs, technical problem-solving and consulting, new product development, survey referrals, and in-plant projects.

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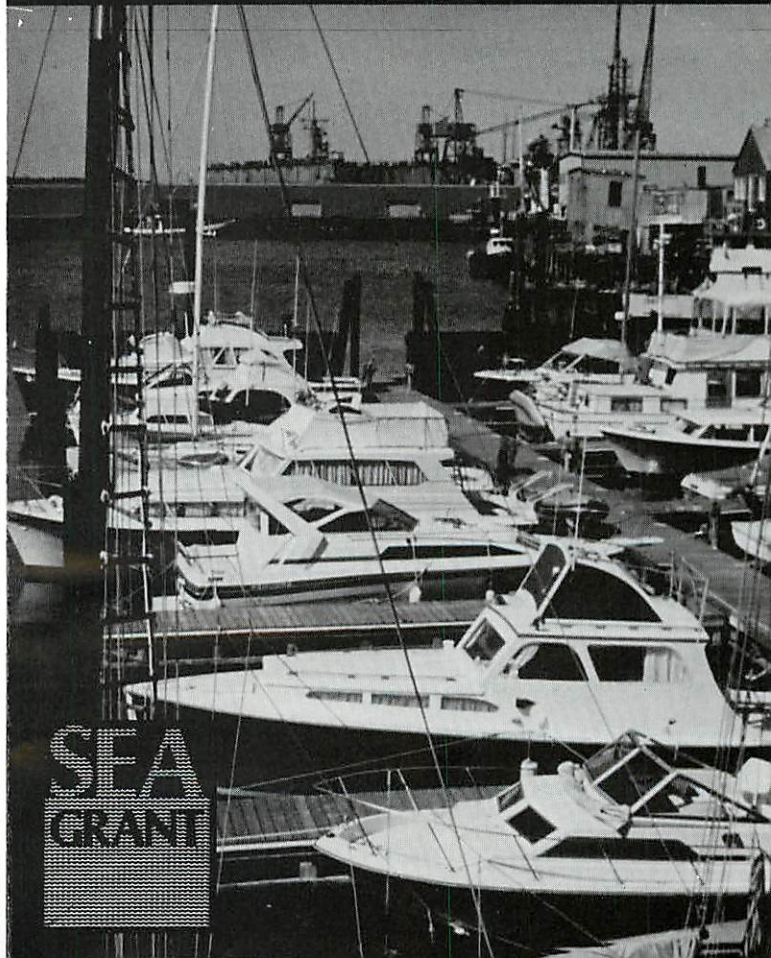
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Washington County Vocational Technical Institute
Marine Center
Eastport, Maine
(207) 853-2518



MARINE LAW INSTITUTE



**MARINE LAW INSTITUTE
UNIVERSITY OF MAINE SCHOOL OF LAW
246 DEERING AVENUE
PORTLAND, MAINE 04102
(207) 780-4474**

RESEARCH

Since 1979, the Marine Law Institute has dedicated its program of legal and policy research to the analysis of ocean and coastal resource issues for the express purpose of improving management practices and public understanding. Its research is supported by grants and contracts from governmental agencies and private foundations. Operating funds are provided by the University of Southern Maine and the University of Maine, Center for Marine Studies.

The Institute's research agenda includes:

- Fisheries management regulation
- Aquaculture
- Coastal land development pressures and growth management
- Waterfront and harbor management
- Public access rights in the shoreline
- U.S.-Canadian relations concerning Gulf of Maine resources
- Marine water quality

EDUCATION

MLI is the only law school-affiliated marine policy research program in the Northeast. The Institute offers a developing program of study within the University of Maine School of Law. Courses currently included are *Coastal Zone Law*, *Ocean Law*, *Natural Resources Law*, and *Admiralty*. The Institute initiated an interdisciplinary course on the Gulf of Maine, which is now offered annually to University of Southern Maine undergraduates, and has contributed to courses in the graduate program in Public Policy and Management. Law students work as research assistants on MLI's research projects.

In cooperation with the Maine/New Hampshire Sea Grant College Program, MLI sponsors and contributes to conferences and workshops on fisheries law and policy, waterfront development, and growth management. Institute staff

respond to inquiries from the public, local officials, state agency personnel, and marine industries concerning state and local laws affecting aquaculture, fisheries, coastal land use, water pollution control, and harbor management.

PUBLICATIONS

The Marine Law Institute's publications include a two-volume casebook on ocean and coastal zone law; *Environmental Decisionmaking in a Transboundary Region*, the results of a U.S.-Canadian, interdisciplinary study of the transboundary environmental and policy considerations of large-scale, tidal energy development in the Bay of Fundy-Gulf of Maine region; and proceedings from the 1986 conference *East Coast Fisheries Law and Policy*.

The Marine Law Institute's periodical, *Territorial Sea*, offers in-depth legal and policy analysis of the current topics in the United States ocean and coastal law. Subscribers reflect a varied audience of practicing attorneys, government agencies, academic institutions, and affected industries.

Findings from a legal and economic study commissioned by the New England/New York Coastal Zone Task Force on the management of the shoreline to preserve and promote coastal dependent industries and uses are available in two companion volumes: *Guidebook to the Economics of Waterfront Planning* and *Water Dependent Uses and Managing the Shoreline for Water Dependent Uses: A Handbook of Legal Tools*. MLI also has published materials for local officials, including the *Maine Harbormasters' Handbook* and three guidebooks on public shoreline access issues, as well as numerous other reports and articles on its research.

STAFF

Alison Rieser, Director and Associate Professor of Law

Beverly Bayley-Smith, Administrative Manager

Tim Eichenberg, Staff Attorney and Lecturer in Law

Barbara Vestal, Staff Attorney-Planner

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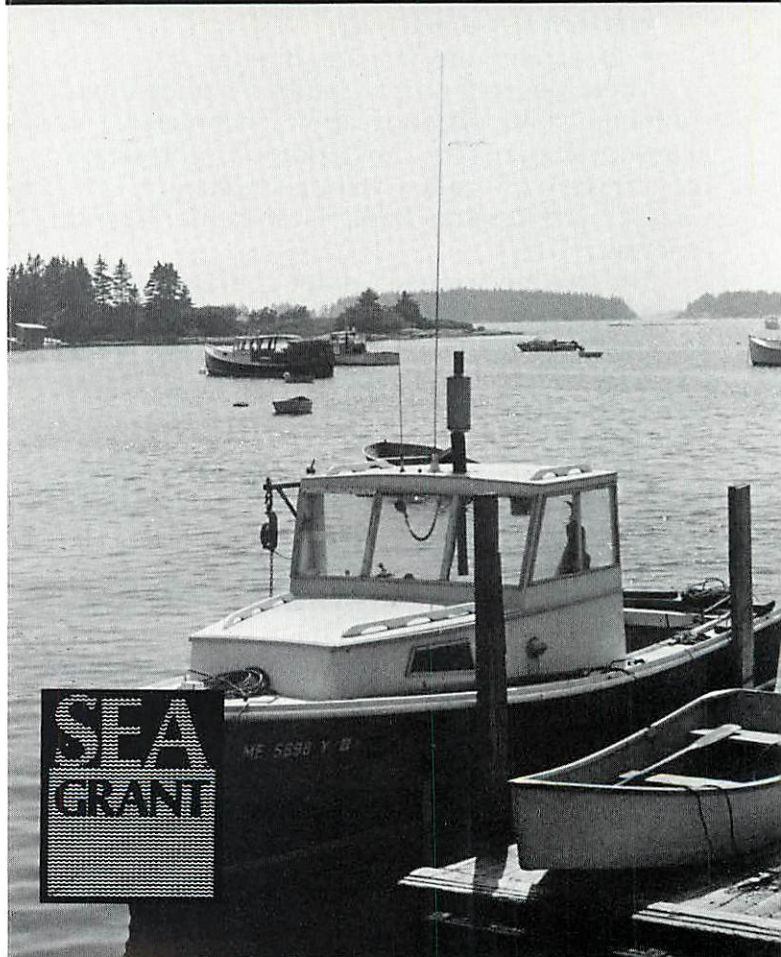
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SOUTHERN MAINE VOCATIONAL TECHNICAL INSTITUTE



SOUTHERN MAINE VOCATIONAL TECHNICAL INSTITUTE

**Fort Road
South Portland, Maine 04106
(207) 799-7303**

The Southern Maine Vocational Technical Institute (SMVTI) is one of six post-secondary technical schools in Maine. It offers a wide variety of technical programs at its location on South Portland's waterfront and aboard its training ship.

The Marine Science Department of SMVTI offers two-year Associate degrees or diplomas in:

- Environmental Technology
- Marine Engineering
- Nautical Science
- Oceanography/Marine Biology

These degrees prepare students to be environmental and oceanographic technicians or licensed ship officers. In addition, certificate programs are offered in Marina Mechanics, U. S. Coast Guard Original Radar Endorsements, and renewals.

The Marine Science Center contains oceanography, biology, and, chemistry laboratories, deck and engine shops and faculty offices. Other facilities include microbiology, botany, and water quality laboratories, classrooms, and lecture halls.

SMVTI's vessel, the AQUALAB III, is a 146-foot former U. S. Navy mine hunter which is equipped for oceanographic survey training, marine biology, fishing, navigation, and seamanship. In addition, the department operates a 32-foot diesel-powered research and training boat plus various other small outboard craft. Docking facilities can accommodate up to two 200-foot oceanographic vessels.

Cooperating in the Marine Advisory Program (MAP) network provides SMVTI an opportunity to work with others in the region offering complementary programs.

Some of the programs sponsored by MAP and SMVTI include:

Workshops for Fishermen

Workshops have been offered on such topics as financial management, marine electronics, fish finders, hydraulics, net mending, wire splicing, welding, and diesel engines.

Safety at Sea Seminar

This one-day seminar provided cruising and racing sailors, commercial fishing crews, and pleasure boaters with information and skills required to prepare for emergencies at sea.

Mr. & Mrs. Fish Marine Education Program

This is a unique marine education program which uses creative dramatics, colorful costumes, and humorous audience participation to teach people about the ocean and its resources.

Water Quality Conference

A day-long workshop for educators and community leaders combining information and action for securing clean water — a critical issue for the 1990's.

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UNIVERSITY OF MAINE AT MACHIAS



UNIVERSITY OF MAINE
at MACHIAS
O'BRIEN AVENUE
MACHIAS, MAINE 04654
(207) 255-3313

The University of Maine at Machias (UMM), a four-year accredited institution, is one of seven units of the University of Maine system. Located in coastal Washington County, it is the easternmost university campus in the United States. The geographical uniqueness affords a wealth of field-based experiences for students in all two-year and four-year program areas.

ENVIRONMENTAL STUDIES/MARINE ECOSYSTEMS

The Science/Math Division offers a Bachelor of Science degree in Environmental Studies (ES). The goal of this program is to prepare students to understand the complexities of environmental problems from a multidisciplinary approach where biological, historical, social, economic, and political issues are incorporated into the curriculum.

Students may choose to concentrate their area of specialization within the ES program on **Marine Ecosystems**. In addition to coursework, *field trips are required*, which foster a sensitivity to the Downeast coastal environment. These outdoor laboratories cover a variety of topics and range in content from whale watches, plankton tows, and benthic trawling to testing various ecological hypotheses with respect to mudflat and rocky shore communities.

SERVING REGIONAL NEEDS

UMM is a cooperating member of the Sea Grant Marine Advisory Program (MAP). This network links Maine people, institutions, and agencies interested in solving problems, learning solutions, conducting outreach programs, and contributing to the understanding of a diversity of marine-related needs at a variety of levels.

Marine outreach efforts at UMM include:

- technical assistance to the town of Cutler — along with the University of Maine's Darling Marine Center — with their continuing Lobster Hatchery program. Hatchery staff and summer work/study students from UMM raise larval lobsters through their three planktonic stages and release the bottom-dwelling juveniles to the wild for stock enhancement purposes.
- technical assistance to the Beals Island Regional Shellfish Hatchery management program, the first shellfish management effort in the country based on stock enhancement using hatchery-reared soft-shell clam juveniles. This is a ten-town, public aquaculture program which also affords UMM students opportunities through cooperative education, internships, and summer work/study.
- Sea Grant-funded projects to a) investigate the population dynamics of Mahogany quahogs under a variety of density and predator-exclusion regimes and (b) determine the optimum environmental and biological parameters necessary to enhance the growth and survivorship of seed clams produced at the Regional Shellfish Hatchery.

UMM continues to grow as a member of the cooperating MAP network by reaching out to those in coastal towns in Washington County by providing skills and assistance in marine-related efforts.

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Since 1981 this network of cooperation has been developing by integrating the talents and resources of the following educational institutions and government agencies:

College of the Atlantic
Bar Harbor, Maine
(207) 288-5015



Fisheries Technology Service
Maine Department of Marine Resources
Augusta, Maine (207) 289-2291



Maine Maritime Academy
Castine, Maine
(207) 326-4311



Marine Law Institute
University of Southern Maine
Portland, Maine
(207) 780-4474



Northeast Marine Education Program
University of Maine, Orono, Maine
(207) 581-2434



Southern Maine Vocational Technical Institute
Marine Science Department
South Portland, Maine
(207) 799-7303



University of Maine Cooperative Extension
Orono, Maine
(207) 581-3168



University of Maine at Machias
Machias, Maine
(207) 255-3313



Center for Innovation and Entrepreneurship
University of Maine, Orono, Maine
(207) 581-1465



Washington County Vocational Technical Institute
Marine Center
Eastport, Maine
(207) 853-2518



UNIVERSITY OF MAINE COOPERATIVE EXTENSION



**UNIVERSITY OF MAINE COOPERATIVE
EXTENSION
9 COBURN HALL
UNIVERSITY OF MAINE
ORONO, MAINE 04469
(207) 581-3168**

The University of Maine Cooperative Extension (UMCE) is a cooperator with the Sea Grant Marine Advisory Program network. This places UMCE in a unique position to distribute research-based information and to deliver marine programs through its university — and county-based faculty. Examples of UMCE involvement in marine education are as follows:

COASTAL RESOURCE MANAGEMENT

Coastal development issues have been identified as UMCE's highest priority within the marine area. Extension staff are working with local communities and organizations on issues related to coastal development, public access, harbor and river management, and natural resource protection.

4-H/YOUTH EDUCATION

Hands-on educational experiences, aimed at helping youth appreciate and understand the significance of our maritime heritage and the importance of conserving our marine resources, are conducted through island camping programs, day camps, school field trips, clam hatchery projects, and 4-H club work.

FISH AS FOOD

The health benefits of seafood represent a significant thrust in UMCE's educational programming. Research-based information on seafood is available at county Extension offices.

HARBOR MANAGEMENT

Extension conducts regional forums for harbor masters and coastal officials and continues to provide educational and organizational assistance to the Maine Harbor Masters Association, which Extension helped form in 1986.

KENNEBEC RIVER

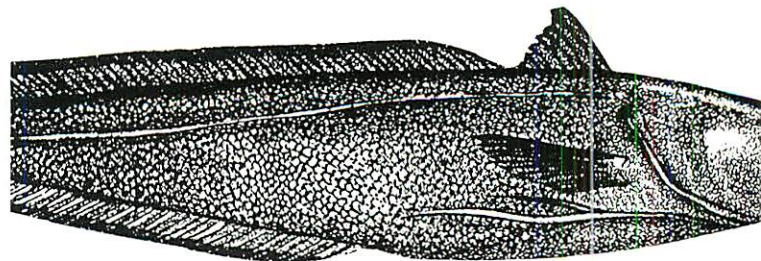
The lower Kennebec River and its tidal bay constitute an extraordinarily fertile resource. The Kennebec River Council, with educational and organizational assistance from UMCE, is developing a natural resource data base and public policy educational program.

AQUACULTURE

Commercial aquaculture, including shellfish, is expanding along the coast. The Cobscook Bay Finfish Association and formation of a Maine Shellfish Dealers Association, clamflat management are examples of educational programs in which UMCE, other Sea Grant cooperators, and local people work together. The Jonesboro 4-H clam hatchery project, formation of a Maine Shellfish Dealers Association, and clamflat management are examples of educational programs in which UMCE, other Sea Grant cooperators, and local people work together.

MARINE WATER QUALITY

Water quality issues are becoming a major priority for Maine people. Volunteer marine water quality monitoring networks are now being established.



COOPERATIVE EXTENSION OFFICES IN MAINE

Androscoggin-Sagadahoc County
Extension Office
277 Minot Avenue
Auburn, ME 04210
(207) 786-0376

Aroostook County Extension Office
13 Hall Street
Fort Kent, ME 04743
(207) 834-3905

Aroostook County Extension Office
Houlton Road
P. O. Box 727
Presque Isle, ME 04769
(207) 764-3361

Aroostook County Extension Office
Central Building
P. O. Box 8
Houlton, ME 04730
(207) 532-6548

Cumberland County Extension Office
Mailing address:
96 Falmouth Street
Portland, ME 04103
Location: 15 Chamberlain Street
(207) 780-4205

Franklin County Extension Office
78 Main Street
P. O. Box 670
Farmington, ME 04938
(207) 778-4650

Hancock County Extension Office
RFD #5, Boggy Brook Road
Ellsworth, ME 04605
(207) 667-8212

Kennebec County Extension Office
125 State Street
Augusta, ME 04330
(207) 622-7546



Knox-Lincoln County Extension Office
375 Main Street
Rockland, ME 04841
(207) 594-2104

Oxford County Extension Office
RR 2, Box 1735, Olson Rd.
South Parish, ME 04281
(207) 743-6329

Penobscot County Extension Office
Court House Annex
105 Hammond Street
Bangor, ME 04401
(207) 942-7396

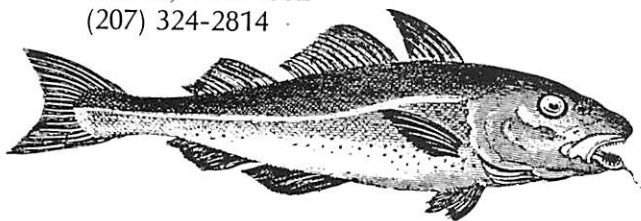
Piscataquis County Extension Office
Court House Complex
Dover-Foxcroft, ME 04426
(207) 564-3301

Somerset County Extension Office
P. O. Box 98
Norridgewock Avenue
Skowhegan, ME 04976
(207) 474-9622

Waldo County Extension Office
RFD #2, Box 641
Belfast, ME 04915
(207) 342-5971

Washington County Extension Office
P. O. Box 189
5 Cooper Street
Machias, ME 04654
(207) 255-3345

York County Extension Office
Court House Annex
Alfred, ME 04002
(207) 324-2814



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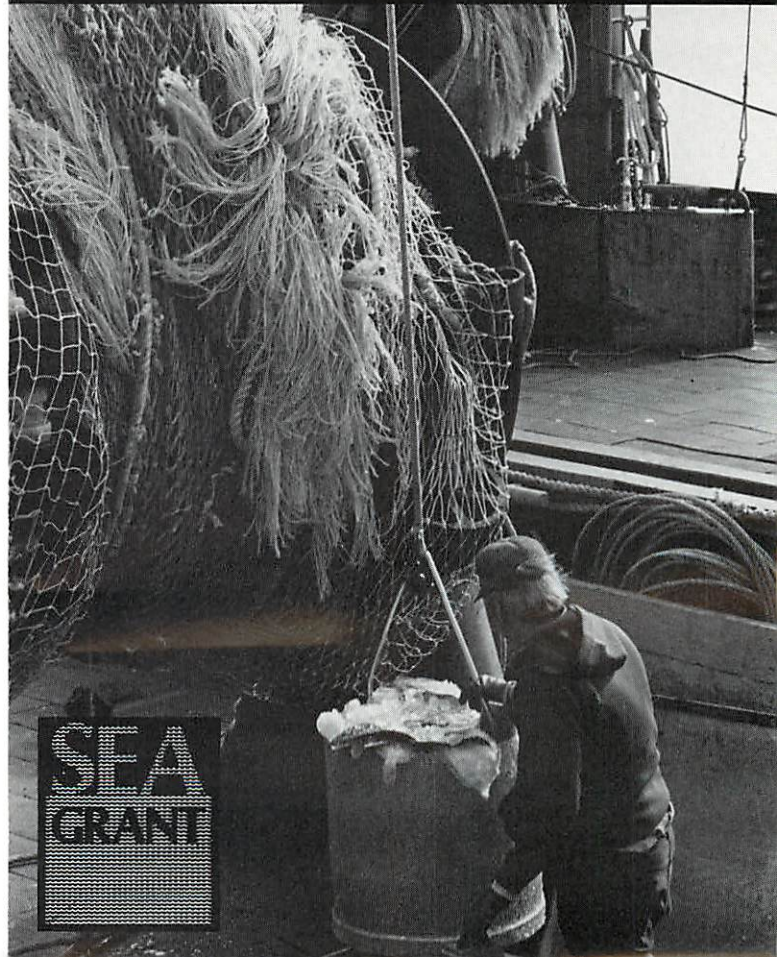
Center for Innovation and Entrepreneurship
University of Maine, Orono, Maine
(207) 581-1465



Washington County Vocational Technical Institute
Marine Center
Eastport, Maine
(207) 853-2518



FISHERIES TECHNOLOGY SERVICE



**DEPARTMENT OF MARINE RESOURCES
FISHERIES TECHNOLOGY SERVICE
STATE HOUSE, STATION 21
AUGUSTA, MAINE 04333
(207) 289-2291**

The Fisheries Technology Service (FTS) is a division of Maine's Department of Marine Resources. As one of the cooperators in the University of Maine Sea Grant Marine Advisory Program (MAP), FTS provides technical expertise in a variety of commercial fisheries research and/or development projects as well as acting as liaison between the commercial fishing industry, the Marine Advisory Program, and the Department of Marine Resources.

The long range goal of FTS continues to be developing Maine's commercial fisheries to a level of maximum economic and social benefit while protecting our resources' future productivity. A very important part of this effort is fishing gear research and development for increased selectivity and efficiency.

The FTS personnel at offices in Wiscasset, Stonington, Ellsworth, Beals, and Hallowell work directly with the fishing industry, local governments, other extension or marine advisory agencies, DMR area biologists, and educational or vocational-technical schools. As an MAP cooperator, FTS maintains an important link to those university resources applicable to fishery development.

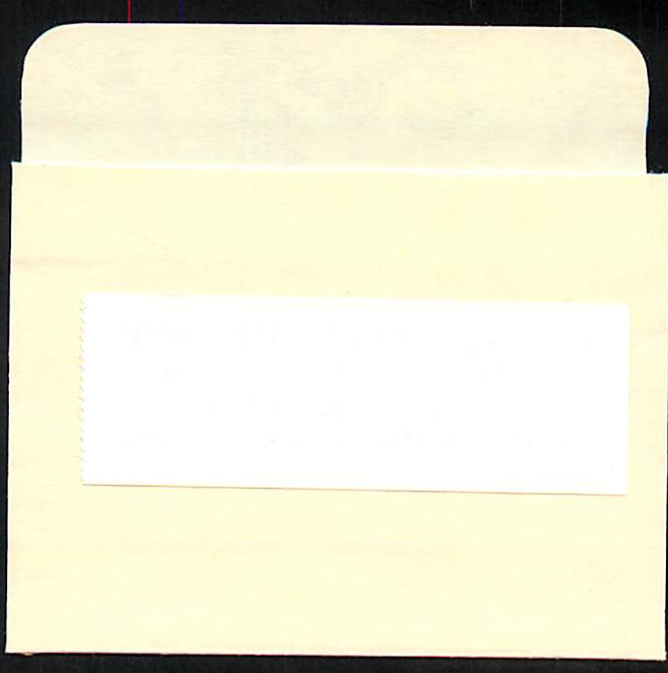
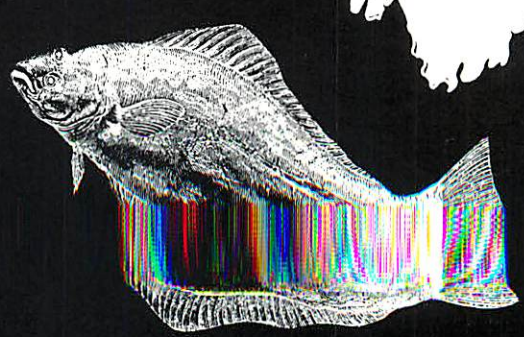
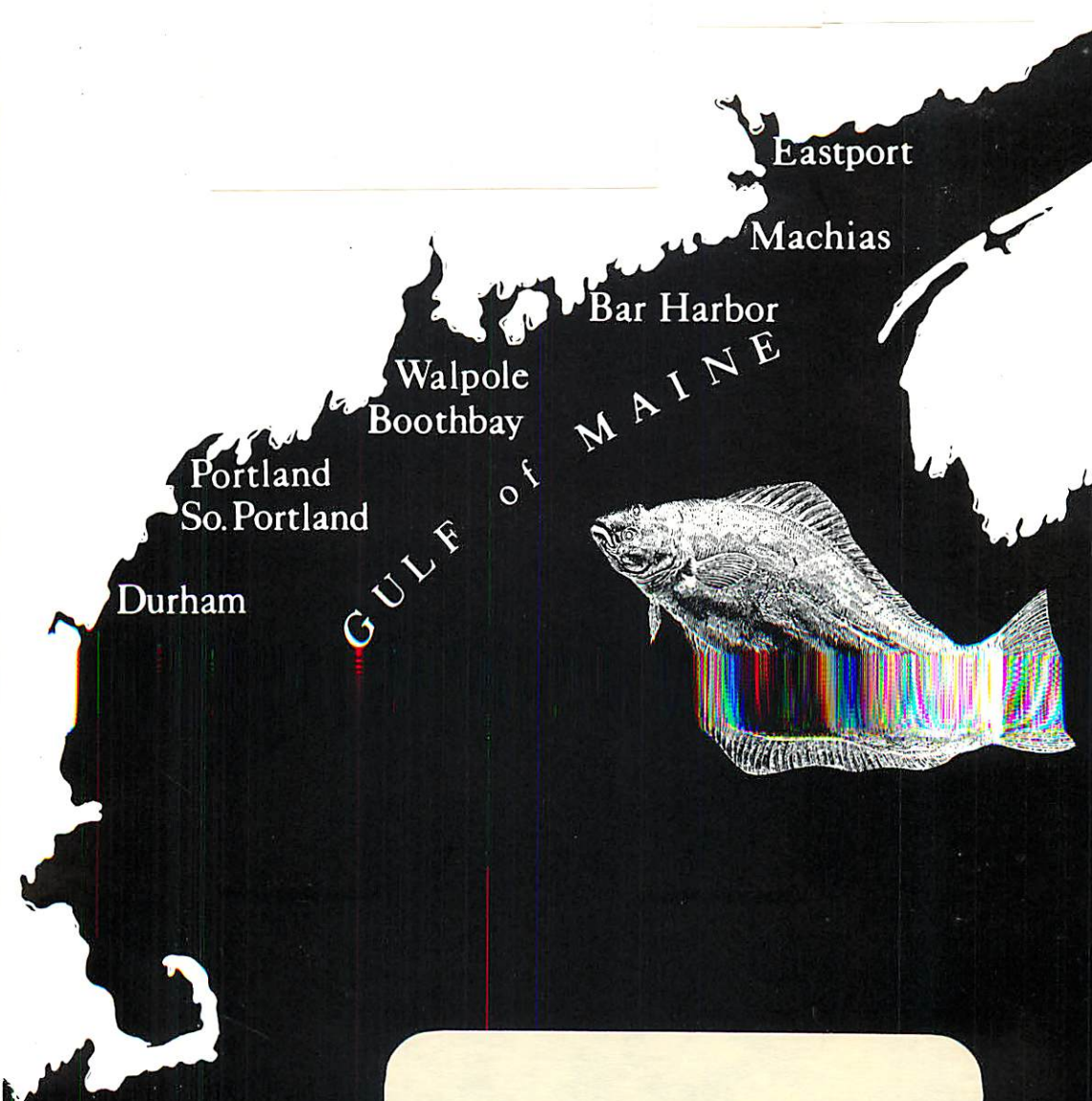
By working closely with fishermen all along the coast, many FTS projects come from ideas generated by the industry itself. Examples of past FTS projects are:

- **Shrimp separator trawls** — a number of trawl designs that retain shrimp and market fish and release trash;
- **Square mesh** — evaluation of efficiency of cod end mesh hung square to improve fish size selectivity;

- **Drag impacts** — study of the impact of use of scallop drags on the unharvested scallops and on their bottom habitat;
- **Aquaculture lease application assistance** — on-site inspection, evaluation of site potential, advice on application preparation;
- **Automatic fire extinguishing system** — promotion of automatic and other means of fire fighting aboard fishing boats;
- **Video library** — collecting and loaning videotapes on gear and its uses.

While FTS can only concentrate on a few major projects at any one time, the staff is always ready to get involved in worthwhile efforts. FTS complements other cooperators in the Marine Advisory Program, adding on-the-water experience and know-how to research and educational programs. Current FTS projects include:

- **Gear selectivity** — lessening damage to unharvested and harvested, but unmarketable, marine-life through more targeted fishing;
- **Seafood shipping and handling** — working with seafood buyers and shippers to improve product packaging, handling, and transport;
- **Seafood processing waste utilization** — finding economical uses for by-products of seafood processing;
- **Lampara seines** — promotion of this low-cost, energy-efficient, seining method now used in California;
- **Marine safety** — setting up sessions for fishermen to practice use of safety equipment.





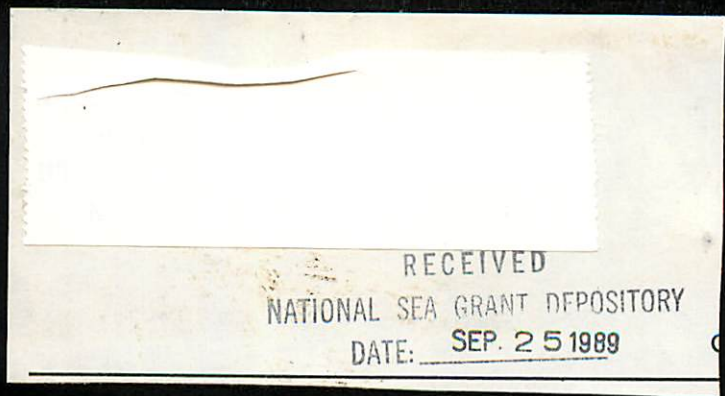
University of Maine
 University of New Hampshire
 Sea Grant College Program

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 Design/layout: Majo Keleshian

**MARINE
 ADVISORY
 PROGRAM**



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 Marine Science Department
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