


Annual Report of Accomplishments and Activities

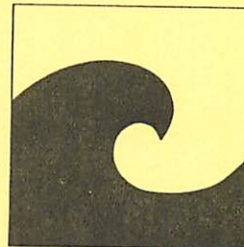
New York Sea Grant Extension Program

January - December 1979

Introduction

This report summarizes activities and accomplishments in the coastal planning and development, coastal engineering and design, recreation and tourism, commercial fishing, seafood processing and marketing, consumer fish use and youth education program areas. It is not a complete compendium. It is neither desirable nor practical to fully describe the more than 500 meetings and more than 72,590 direct audience contacts made during 1979 (56,750 by Sea Grant staff and 15,840 by other Cooperative Extension staff as reported in the EMIS system). Rather, selected activities and accomplishments are included to indicate the nature of program directions during 1979. Detailed background information and situational analysis for the major program areas are not included. These may be found in the 1979 Situation Statement and Program Plan. Each of the seven major program areas plus campus-based support and program leadership is described briefly and selected events are listed.

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EXTENSION**  
CORNELL UNIVERSITY



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## TABLE OF CONTENTS

	PAGE
A. Coastal Planning and Development	1-4
1. Contacts with Government	1
2. Helping Citizens Participate in Public Decisions	2-3
3. Coastal Issues Education Methods	3-4
4. Example Anecdote	4
B. Coastal Engineering and Design	5-8
1. Contacts with Government	5-6
2. Shoreline Landowners	6-7
3. Marine Contractors	7
4. Educational Techniques/Materials	7-8
5. Example Anecdotes	8
C. Coastal Tourism and Recreation	9-13
1. Cooperative Activities with Other Extension Staff	9
2. Communities and Government	9-10
3. Tourism Enterprises	10-11
4. Recreational Facilities	11-13
5. Recreation Opportunity Education	13
6. Example Anecdotes	13
D. Commercial Fishing	14-16
1. Extended Jurisdiction	14
2. Finfish	15
3. Business Administration	15
4. Shellfish	15-16
5. Example Anecdotes	16
E. Seafood Processing and Marketing	17
1. Processing	17
2. Marketing	17
F. Consumer Fish Use	18-19
1. Training and Support	18
2. Fish Contaminants	18
3. Example Anecdote	18-19
G. Youth Education	20-22
1. Urban Fishing Program	20
2. School Systems	20-21
3. Cooperative Extension 4-H	21
4. Career Education	21
5. Example Anecdotes	21-22
H. Campus Based Support of Educational Programs	23-24
1. Subject Matter Support	23
2. Communications Support	23
3. Program Leadership	24



## A. COASTAL PLANNING AND DEVELOPMENT

Effective use of limited coastal resources requires that decision makers gain timely information in an appropriate form. Often Sea Grant specialists help clientele to gain and use factual information so they can be involved in the decision making process.

### 1. Contacts with Government

With more than 2400 miles of coastline in New York State, significant audiences for our educational programming are the many public jurisdictions managing its use. On Long Island, a Sea Grant specialist co-sponsored a workshop and tour of the northeast Queens waterfront for thirty elected and appointed officials. The Deputy Commissioner of New York City's Ports and Terminals Department identified a previously unknown and illegal dumping activity during the outing and took remedial action to halt this activity. A tour of potential New York City waterfront redevelopment sites also was hosted by Sea Grant for representatives of the U. S. Department of Interior (HCRS). Involving 24 area residents, the tour was instrumental in conveying urban waterfront redevelopment needs to the officials. One outcome has been consideration of the East River for a national rivers study being conducted by The Heritage, Conservation and Recreation Service.

The formal Coastal Zone Management planning effort has sometimes been controversial in this state. To provide interested publics with factual information, a Sea Grant specialist presented three radio programs and three news columns on the issues. This and a 30-minute Rochester TV show depicted New York Coastal Management Program (CMP) relationships with local government. At the specialist's suggestion, CMP staff held an informational meeting in Rochester shortly before a scheduled public hearing. The specialist conferred with the President of the New York State Planning Federation about the implications of CMP for local zoning powers. This and other comments were shared with the State Legislature when the specialist testified at formal hearings on that subject.

Working with another Cooperative Extension Specialist, Sea Grant conducted two public workshops for the Tug Hill Commission attended by 115 persons. These workshops helped participants to identify the Commission's impacts and what local government support services should remain after the Commission is phased out.

To help decision makers gather appropriate information systematically, a Sea Grant specialist led a coastal natural resource inventory course. Attended by area government representatives, course materials were used by the Towns of Brookhaven and Oyster Bay to conduct their own coastal inventories.

Environmental issues sometimes become so controversial that regulatory agencies are attacked unjustly by reactionary publics. To counter this, a Sea Grant specialist worked with other Southeastern New York Extension Specialists to organize "A Dialogue with EPA". The day long discussions allowed 30 key community leaders to discuss environmental concerns with regional EPA administrators "face to face". The meeting was so successful that a series of future non-crisis meetings were scheduled. EPA subsequently asked the Sea Grant specialist for information on organizations which might be interested in participating in dredging hearings.



## 2. Helping Citizens Participate in Public Decisions

Presentations on waterfront redevelopment were made to Community Boards located along New York City's waterfront. Comprised of community leaders, these boards provide guidance on New York City budget allocations. At least partially as a result of these presentations, the city's capital budget now includes \$200,000 for improving the Manhattan Board #8 promenade along the East River.

Because waterfront development in cities is often a massive undertaking, coalitions of interested groups are sometimes required to effect change. In New York City, a Sea Grant Specialist stimulated two coalitions to form. Five Community Boards along Manhattan's waterfront defined a common working relationship with Sea Grant assistance. They now are meeting as a group with designated representatives from each board attending. Sea Grant activities also provided an impetus for the formation of an ad hoc committee concerned about the future of the East River. Called "Friends of the East River", the discussion group includes: the New York State Park Commission for New York City, Parks Council, Women's City Clubs, Neighborhood Committee for the Asphalt Green and North East Queens Nature and Historical Preservation Committee. Efforts of this group will improve coordination and communications between members.

The St. Lawrence Valley Conference Council, an international group established by a Sea Grant Specialist to air discussion of key issues for the Valley, conducted: a Hazardous Lands Seminar for 15 planners and land/water regulators, a Home Energy Conference and a conference on agriculture in the Valley Region which was attended by 105 persons. One result of these efforts is a demonstrated increase in interaction between agencies and public groups on both sides of the border. Discussions with the St. Lawrence Valley academic community resulted in the formation of a St. Lawrence River Research Symposium workgroup and a Social Impact Study Symposium which examined regional social impacts associated with proposed development options.

A Canadian firm wishing to transport semitrailers across Lake Ontario via ferry approached the Town of Wilson (Niagara County) with the idea. They wish to build an open-lake docking facility (1500' long) for a route from Toronto to Wilson. Land has been purchased but zoning changes, detailed engineering designs and permits are still needed. Sea Grant assisted the company in identifying permitting agencies, coastal engineers with this expertise, and marine contractors and encouraged them to contact the New York Coastal Management Program for possible financial assistance under the "economic development" program.

Presentations on CZM were made to a graduate class at Cornell, the Sodus Bay Waterways Association, the Monroe County Fisheries Board and the Western New York Marine Contractors Association. The Waterways Association and Contractors Association were assisted in preparing testimony.

Eighteen persons attended a workshop on "How to Get Heard at a Public Meeting". Several subsequently made presentations at public hearings on winter navigation. The St. Lawrence County EMC's Acting Executive Secretary was instructed in how to set up a public meeting and develop a publicity plan. The first such meeting was a success.



In related efforts, Sea Grant Specialists worked with citizen groups interested in water quality improvement. The New York City 208 Citizens Advisory Committee held a special subcommittee meeting on the East River waterfront that apparently was a direct outgrowth of previous contacts with Sea Grant. Recommendations on changes in current 208 plans will be made as a result of the meeting. Presentations on sludge management were made to 20 marine educators at the Alley Pond Environmental Center, to six NOAA Ocean Survey personnel and 12 members of the New York City 208 subcommittee on intergovernment responsibilities. Information provided to League of Women Voters representatives from Hauppauge was incorporated in their comments on the draft 208 Water Quality Management Plan. Approximately 200 "Red Tide" posters were distributed by Sea Grant to marinas and yacht clubs to inform those planning to cruise into the New England area about potential paralytic shellfish poisoning from taking shellfish from infected waters. Also, a slide-tape show prepared by a New York Sea Grant Specialist on a Bight Pollution is being used in New Jersey marine education programs.

### 3. Coastal Issues Education Methods

The large audience for coastal issues educational programs requires use of mass media. In New York City a specialist participated in a cable television panel discussion of waterfront improvement viewed by an estimated 22,000 persons. To augment this, he published a bulletin, Changing NYC's Waterfront: A Citizen's Guide, as well as a bi-monthly newsletter "City Shores" for 300 readers. In Rochester, Sea Grant Specialists established a weekly column on coastal issues in a newspaper having a circulation of 200,000.

Research scientists are concerned with current meters which are sometimes "harvested" by fishermen. To ease tensions and create better cooperation between both groups, a Sea Grant Specialist developed and distributed a posterized notice to 1,000 fishermen identifying meters deployed by MESA. Scientists from MESA were pleased to report fewer meters lost as a result of this. In the future they and other marine scientists may use a similar strategy themselves to reduce the losses.

The potential "opening" of Irondequoit Bay to Lake Ontario boat traffic by constructing a high bridge over its outlet (the present bridge is too low for all but the smallest boats) has many proponents and opponents. Sea Grant assistance was sought by both sides. The Bay Opening Policy Committee was provided information on dredge spoil dumping regulations and potential disposal sites. Five groups on both sides of the issue were provided suggestions on how to prepare testimony and specific factual information for use in testimony. One specialist participated in a 3-hour, "live" radio talk show on the topic with an estimated audience of 32,000 persons.

Between 5,000 and 7,000 persons participated in the Lake Erie Festival, an annual event that grew out of a Sea Grant sponsored "Coho Day" several years ago. A local radio station operated from a remote terminal at the Festival for 9 hours over 4 days. More than 20 local organizations cosponsor this event which features educational activities--a coastal youth education workshop conducted by Sea Grant for example--photography and art contests and much more.



Both historic preservation and development interests involved in the potential construction of new cement silos in the Oswego Harbor contacted Sea Grant for assistance with the decision-making process. The Sea Grant Specialist assisted by helping to arrange meetings between the Oswego Environmental Management Council and each interest group. The Council later presented written comments at a public hearing on the topic.

#### 4. Example Anecdote

The proposal to extend St. Lawrence Seaway navigation from its present season of about eight months to a year-round operation--with associated developments such as ice management and development of twin locks--is a major issue in the St. Lawrence Valley. Some residents see it as an economic windfall for the region. Others question whether environmental and social effects on the region are acceptable. Sea Grant has responded to this issue in several ways.

Information packets informing individuals how they could effectively participate in public hearings and other opportunities for public involvement related to extended navigation were mailed to 250 Valley residents. An information forum entitled "Winter Navigation in the St. Lawrence River" was cosponsored with the League of Women Voters and the St. Lawrence County EMC and was attended by 80 persons. A similar forum on the potential effects of winter navigation on the Oswego area was attended by 40 persons. Sea Grant assisted the St. Lawrence County EMC in printing a "Citizen's Guide to Winter Navigation" which was distributed to 500 persons. Sea Grant distributed 200 copies of an issue of the Great Lakes "Communicator" which dealt with winter navigation.

A primary question of area residents was what the direct effects of winter navigation on shoreline residents might be. To gain some guidance on this, the Regional Sea Grant Specialist visited the St. Mary's River where year-round navigation now exists and conducted an informal survey of residents. The results of this visit were reported through four area radio station interviews, one area TV appearance, an area newspaper column, a "Coastlines" article, and presentations to the St. Lawrence County EMC and 80 members of the "Save the River" organization. Findings also were reported to a U. S. Senate hearing on extended navigation.

Thus, while Sea Grant could not appropriately take "a stand" on extended navigation, it did play a key role in facilitating involvement of area residents and assembling and distributing pertinent information.

\* \* \*

Mining companies have expressed interest in learning more about sand mining potentials in New York Harbor. A Sea Grant Specialist arranged for Sea Grant funded researchers to meet with ten companies to review investigations to date. One company representative attending noted that they may run out of land resources in three years. All agreed that unless the State's regulatory agency permits this activity for an appropriate term, they would not make the investment. Three of the participating companies now are actively pursuing the potential to mine harbor waters.



## B. COASTAL ENGINEERING AND DESIGN

Coastal erosion causes severe physical and economic damages for New York State property owners. With thousands of people needing information, we often use contacts with governmental bodies and industry organizations to multiply our efforts. Opportunities for expanding offshore mining will occur only if the many involved organizations communicate their needs and concerns to others.

### 1. Contacts with Government

One measure of the quality of shoreline protection information provided by Sea Grant is the fact that local and state governmental units often seek that information and use it in making decisions. For example, the Village of Sodus Point on Lake Ontario requested that a Sea Grant Specialist review several erosion problems that threatened their sewer and water treatment facilities. Specific information on construction materials was provided. As a result of this visit, the Village had a rock revetment constructed after they had specified that the contractor change the original design, adding substantially more weight to the units and redesigning areas of critical erosion. Similarly, when officials of the Keewaydin State Park were considering options for protecting their St. Lawrence River facilities they requested information from Sea Grant. Based on that information, they have designed and installed a floating tire breakwater which is functioning well.

In another instance, Congressman Lundine (district includes Lake Erie shoreline) requested that the resident Sea Grant Specialist meet with him and seven city, town and county elected officials to discuss Lake Erie harbor protection, erosion problems and funding difficulties experienced in the Cattaraugus Creek Harbor of Refuge Program. As a result of this and subsequent meetings it appeared that progress on the harbor project might soon be possible. In a related case, the Sea Grant specialist arranged a meeting between Barcelona Harbor Commissioners and Congressman Lundine's aides which resulted in the Corps of Engineers conducting a site visit and committing to make repairs on offshore breakwaters. The Corps also agreed to designate the harbor "high priority" for navigational channel dredging -- it has not been dredged since construction in the 1950's.

Many coastal structures on Long Island, particularly bulkheads, are constructed of wood. A seminar on wood treatment and preservation drew nearly 100 contractors, engineers and wood treatment company representatives. As a result of the seminar arranged by Sea Grant, the current supplier of wood for marine construction on Long Island is now recommending a 40% higher retention rate for C.C.A. This wood preservation compound is widely misused on Long Island, resulting in shortlived coastal structures. Another outcome of this Sea Grant educational work is bulk purchase of marine construction wood by three marine contracting firms. By acting in unison, these companies are now able to gain higher quality materials at a lower price. Attendees widely acknowledged low retention rates for preservatives presently in use on Long Island and formed a committee to draft recommended code changes for governmental bodies. As a result of this, Suffolk County Engineers reviewed and then changed guidelines they use for publicly funded marine construction projects within the county.



The primary fuel used for heating Long Island homes is oil. Because of favorable transportation costs, much of this is delivered by barge to small coastal ports. However, few townships recognized the need for identifying containment and cleanup procedures should a spill occur. Recognizing this, a Sea Grant Specialist stimulated township representatives to discuss contingency plans and resource sharing. Now each town has a designated person to coordinate initial responses when a spill occurs.

Property owners owning lands near a publicly held coastal structure were concerned it was increasing erosion rates and requested Sea Grant assistance. A Sea Grant Specialist arranged meetings between state agency representatives, the property owners association and county and town officials to discuss the issue. The Association requested review of the situation by the New York Attorney General's Office. The Specialist was asked by Attorney General representatives to help them in identifying actual erosion rates for the area. The Attorney General's formal opinion was then based, in part, upon information provided by the Specialist.

## 2. Shoreline Landowners

Although meetings and mass media efforts are more efficient in terms of numbers of persons contacted, individual site visits and consultation remain important in our coastal protection work because of the site specific nature of erosion problems. More than 40 such visits were conducted in 1979 along the Great Lakes. Topics included erosion control alternatives, mechanisms of erosion, repair of existing structures, casualty tax loss, riparian rights, and permit requirements. In one case, a landowner whose house was dangerously close to the edge of an 85 foot Lake Ontario bluff decided that it would be less expensive to move the house than to build any protective devices. In another, eight cottage owners at Angola on Lake Erie elected to use vegetative protection rather than small building rubble which was suggested by a contractor and likely would have been ineffective.

One unique workshop combined the concept of individual site visitation with a group learning setting. In a meeting cosponsored with the Oswego County Soil Conservation Office and the Buffalo Office of the Army Corps of Engineers, 140 landowners from three counties had color slides of their erosion problems critiqued by Corps engineers. Slides had been taken based on response to a newspaper announcement of the upcoming workshop. Two other workshops provided 23 landowners in Niagara and Monroe Counties with information on vegetative protection.

When possible, groups of landowners are contacted to provide general information on erosion control. Groups contacted in 1979 included the Brockport Yacht Club, the Sodus Bay Waterways Association, the Niagara/Orleans Shoreline Protection Association and the Lake Ontario South Shore Council.

Property owners can limit costs of erosion protection by wise initial investment and appropriate maintenance of the structure. Based upon consultation with Sea Grant Specialists, 57 Long Island property owners identified that they saved more than \$127,000.



In some cases alternate coastal protection techniques and materials can be used effectively. Sea Grant Specialist discussions with a Coney Island property owners association at Sea Gate resulted in the group exploring use of a tube sill. A consulting engineer has been retained to develop a scheme using tube sills to better protect about 900 properties from erosion.

In another location, property owners were helped by Sea Grant to recognize that low profile groins could decrease erosion of their properties. Because groins are typically not permitted by agencies for Long Island, tours were arranged to familiarize key agency leaders with this technology. The permits were granted and the structure was built of an unconventional material--aluminum. This decision reached by the Association was again the result of information supplied by the Specialist. To further regional understanding of this technique, New England Marine Advisory Service (NEMAS) directors toured the site and reported back to Specialists in their respective states.

As in other subject areas, mass media can also be effective in coastal protection programs. After a severe storm caused much erosion along the St. Lawrence, press releases were sent out describing casualty loss income tax deductions. Subsequently, 12 people requested and received additional information. The storm had hit just after a press release describing floating tire breakwaters (FTBs) was sent out. As a result, papers had a real story--the FTB at one marina saved a boathouse, boats and several docks.

### 3. Marine Contractors

After two organizational meetings arranged by Sea Grant, 17 contractors representing 13 companies formed the Western New York Marine Contractors Association. This organization should serve as a quality control mechanism for on shoreline protection construction and as a referral organization for landowners. The Corps of Engineers, New York State Department of Environmental Conservation, Office of Parks and Recreation and several local municipalities have begun referring problems to the Association. For example, the Genesee State Parks Commission asked the Association for comments on their new boat launch ramp to be constructed at Oak Orchard Harbor. The Corps instructed a general contractor to subcontract with a member of the Association for the shoreline portion of a job at Lake Erie State Park. The Association also provided a vehicle for Sea Grant to give contractors current coastal protection information such as new developments in wood preservation and repair techniques. It also serves as a voice for the contractors such as when two members offered testimony on new State erosion control legislation hearings after receiving information on the legislation from Sea Grant. Sea Grant is providing organizational assistance to the group during its initial year only, after which it is expected to continue on its own. The Long Island Marine Contractors Association also is contacted regularly and several educational programs were cosponsored with them.

### 4. Educational Techniques/Materials

There are many techniques and materials employed by field specialists to multiply their efforts. This year specialized Fact Sheets were produced to support educational programs on bluff drainage and casualty loss tax laws for property owners. An Information Bulletin on enhancing wave protection with floating tire breakwaters (FTBs) also was produced and widely sought by clientele. Slide presentations on



FTBs and bluff drainage were produced to augment these written materials in meeting settings. Three "Coastlines" articles and an educational display entitled "Coping With Inflation and Shoreline Erosion" additionally provided clientele with money saving tips in coastal protection technology. Feature articles on FTBs were run in several major newspapers and three radio spots featured FTBs and erosion mitigation techniques.

Another technique used by field staff is helping clientele to identify specific problems and referring them to more appropriate resources. This was the case when a Sea Grant Specialist helped the East Hampton Beach Preservation Society to recognize it needed engineering surveys of their beach over a long period of time. Because the cost of private consulting efforts would preclude that option, the Specialist helped the Society to identify local university and secondary school instructors to help out. Now, area high school science students are learning about the area through field surveys. (see Youth Education anecdote).

#### 5. Example Anecdote

Often site specific information necessary for making coastal protection decisions is lacking. Such was the case when Town of Wilson and New York State Office of Parks and Recreation (OPR) officials could not determine the influence of dredging on erosion near Twelve-Mile Creek on Lake Ontario. Recognizing this information need, the Sea Grant Specialist involved instigated a Quick Response Research Project (QRRP) to provide the necessary information. At the request of OPR, Sea Grant conducted a meeting at which they and 35 local residents were provided information from the project, clearing up many misconceptions about the dredging. A second report was given to the Wilson Town Board and 30 other residents. At least partially as a result of these meetings, OPR has approved dredging operations at the Creek assuring much needed recreational access.

In a similar situation, a QRRP was initiated to monitor the effectiveness of a dredging project in Braddock Bay. Results showed state and local officials that the dredge spoils were placed in the wrong location. Indications were that dredging this unprotected channel is a very short-term solution, at best.



## C. COASTAL TOURISM AND RECREATION

### 1. Cooperative Activities with Other Extension Staff

New York Cooperative Extension is increasing its involvement in recreation and tourism with direct assistance from Sea Grant Extension staff. Ten Extension personnel attended an inservice training program on tourism development which featured Dr. Uel Blank of the University of Minnesota and was partially supported by the Great Lakes Sea Grant Network. Four agents in four counties subsequently requested and received specific guidance on establishing tourism education efforts. A synopsis of the National Tourism Extension Workshop, which was attended by two Sea Grant representatives, was provided to 55 Cooperative Extension staff with tourism interests. While many agents contacted are not in coastal counties, each contact serves to expand the overall capabilities of New York Cooperative Extension in tourism development, which in turn develops support for this major Sea Grant Extension Program.

### 2. Communities and Government

Organized development of the coastal tourism industry and provision of adequate recreational opportunities are contingent upon support from local governmental units and community groups. Sea Grant works directly with both providing technical expertise and organizational skills.

For example, the Oswego County Chamber of Commerce, Orleans County Fishery Advisory Board, Wayne County Public Information Office and the Monroe County Planning Department were assisted in preparing county recreational fishing guides for tourism promotion. Wayne County also produced a county boating access guide with Sea Grant assistance and the Oswego County Environment Management Council was helped in preparing a county recreation map.

Relative newcomers to the Great Lakes are Fishery Advisory Boards to County Legislatures. One such group formed in Niagara County several years ago. Sea Grant has assisted groups in five additional counties in deciding whether or not similar Boards would be beneficial in their location. By the end of 1979, three additional boards had formed. In the case of Monroe County, the major population center on Lake Ontario's southern shore, Sea Grant provided organizational and secretarial assistance during a one year formative period. A Monroe County fishing information hotline was established in cooperation with the Monroe County Fishery Advisory Board, the Rochester Parks Department, the Monroe County Conservation Council, the Rochester Anglers and bait and tackle businesses. The Board takes over operation after the first year. Specific assistance was provided to each of the Boards on current sportfishery management developments, inter-board communication, organizational practices, shoreline access needs and conduct of economic impact surveys. These groups should assure that sportfishery development has a "fair say" in local government decisions.

Specific assistance on a variety of topics included: helping one group considering developing a Maritime Museum for the Port of Oswego, conducting a workshop on trail development for recreational planners from the Thousand Island Bridge Authority which resulted in a series of "Drive-it-Yourself" and bicycle



tours, assistance in proposal preparation for a group seeking to develop an Oswego Boating Center and participation in a Monroe County Tourism Workshop attended by 50 persons and sponsored by a community improvement organization.

Often, Sea Grant is called upon for general information on coastal recreation trends. For example, more than 1500 shoreline community leaders from county and local government and interest groups in four counties viewed a slide/tape program on Lake Ontario sportfishery development and were provided current economic development data. These individuals play key roles in developing coastal tourism, especially in the creation of new recreational facilities as described below. Following one of the presentations, the Orleans County Supervisors formed a fishery advisory board.

In some cases, a direct approach generates direct results. Seeking to gain more active involvement among City of Ogdensburg leaders in St. Lawrence Valley tourism development, the Sea Grant Specialist conducted a continuing education course on "Developing Tourism in Your Community". One of the participants subsequently became executive director of the City Chamber of Commerce and another has initiated a tourism development strategy for the City.

Isolated activities sometimes can have unexpected results. A presentation on "Developing Tourism in Your Community" was made to a Canton Agricultural and Technical College class taught by the chairman of the St. Lawrence County Tourism Committee. Subsequently, the committee asked the Sea Grant Specialist to assist the St. Lawrence County Chamber of Commerce in developing a long-range tourism plan.

A "Tourism Fact Book for St. Lawrence County" and "Directory of Economic Development Agencies Serving St. Lawrence County" were developed by Sea Grant staff and 90 copies were distributed. One of the recommendations made in the fact book, to have the county set up a tourism monitoring system, is now being implemented by the St. Lawrence County Chamber of Commerce.

In some cases, it is simply enough for Sea Grant to provide "seed" ideas. The Thousand Islands International Council is considering a CB Tourism Information Service, are planning an annual "Bullhead Festival" revolving around this popular spring fishery, and are considering agricultural tours based on materials provided by Sea Grant.

### 3. Tourism Enterprises

While the community and local governmental framework is important, the backbone of tourism development is the collection of tourism businesses. Contacts with tourism businesses involve a variety of topics. One businessperson altered a customer newsletter format and instituted use of xerox labeling based on information received from Sea Grant. At another extreme, a group of potential marina builders were provided specific guidance on construction and permit requirements. The longevity of such specific advice is often surprising. A businessperson who participated in a 1974 Sea Grant Salmonid Development Tour to Manistee, Michigan reported that he still uses materials gained on that trip in his business and community projects.



Common problems among enterprises sometimes become apparent. Basic needs for marketing information and vacation packaging techniques were identified by a Sea Grant Specialist. To address the former, he initiated a quick response research project entitled the St. Lawrence Seaway Tourist Survey. The results of this were distributed to more than 150 businesses and were discussed in 25 local media outlets. In addition, the Thousand Islands International Council has used the information collected to help design a promotional plan for 1980. To address the need for packaging information Sea Grant encouraged the Thousand Islands International Council to co-sponsor a Vacation Packaging Workshop with the New York State Division of Tourism and helped publicize the event. Fifty persons attended.

Formal conferences also play a role in providing specific guidance for entrepreneurs. One hundred twenty-five persons, 80 representing business interests, attended a conference entitled "Your Business and the Lake Ontario Sportfishery" which described resource management trends and associated potential for commercial development. A "Tourism in the North Country" conference was attended by 25 persons who received information specific to tourism development in the St. Lawrence Valley and Northern New York areas.

Hospitality training is another specific informational need identified by Sea Grant field staff. A Sea Grant research project generated a series of hospitality training booklets to meet this need. Approximately 100 persons received hospitality training from the Thousand Island International Council based on these materials. The Thousand Island State Park and Recreation Commission conducted a training session for their 200 staff members using the materials.

Trade organizations also encourage the self-improvement of tourism businesses. The formation of a Long Island Marine Trades Association with a current membership of 40 was stimulated and helped to form by a Sea Grant Specialist.

An Urban Marinas Conference cosponsored with Connecticut Sea Grant was attended by 75 persons.

#### 4. Recreational Facilities

New York's Great Lakes coastlines have received greatly increased emphasis as a recreational site in the past ten years. One result is that physical access to the Lakes is limited. All levels of government as well as private enterprise are involved in solving this dilemma.

Contacts at the federal level are limited but significant. Development of additional Harbors of Refuge are directly contingent on commitment of federal funds. A tour of harbor of refuge sites on Eastern Lake Ontario was conducted for an aide of one local Congressman. One Congressman from the Lake Erie shore requested Sea Grant involvement in local debates on a harbor site. Another Specialist presented testimony at a Congressional Field Hearing on the Recreational Boating Safety and Facilities Improvement Act of 1979. The Army Corps of Engineers requested and received an assessment of the intensity and seasonality of pier use for fishing in the Rochester Harbor for consideration in future harbor improvements.

State level activities are common and have been very productive. One of our primary contact groups is the State Fish and Wildlife Management Act (FWMA) Board, an advisor to State Government. The FWMA Board was assisted in designing



and carrying out a survey of Lake Ontario shoreline County Governments for their suggestions on where state development is necessary for enhancing boat access. All counties responded. One follow-up activity was review of the survey findings and the potential for developing boat launch sites on State-owned lands with a State Senator and a representative of the FWMA Board. The Sea Grant Specialist also accompanied an FWMA Board representative in a meeting with the Commissioner of the Department of Environmental Conservation and the Deputy Commissioners of Commerce, Agriculture and State to discuss access problems. Sea Grant also conducted two tours of shoreline access sites for FWMA Board members. The Board was provided a fact sheet on Lake Ontario salmonid sport fishery economics and access problems for distribution at a meeting of the State Outdoor Writers Association. Two significant results of these activities were apparent by year's end. The State Office of Parks and Recreation made development of their Lake Ontario access sites top priority and the Governor included specific reference to need for access development in his budget message.

After a request for assistance from the Office of Parks and Recreation (OPR), Sea Grant made suggestions for improving the decisionmaking climate relative to harbor of protection developments on Cattaraugus Creek (Lake Erie). The Specialist subsequently was invited to participate in a meeting cosponsored by two area Congressmen and attended by the Congressmen, representatives of three state legislators and numerous Corps of Engineers, DEC and OPR managers. At the suggestion of the Sea Grant Specialist, a briefing paper on the beneficiaries and the users of the Cattaraugus Creek area was developed. The report was used with the legislative committees which debated the project's merit. After a subsequent meeting, a New York legislator in attendance agreed to sponsor enabling legislation for the local share (\$400,000) of the project. He shepherded legislation through the finance committee with an 18 to 0 vote.

The 1979 State Supplementary Budget included \$180,000 for a launch facility and access site improvements on Lake Ontario. This appropriation was instigated by a State Senator at least partially as a result of information received at a Fishery Advisory Board meeting arranged by Sea Grant.

County and local governments also receive assistance. The Monroe County Parks Department requested that plans for their Rochester Harbor boat launching facilities be reviewed by Sea Grant and comparative construction costs identified. Several significant design problems were identified by Sea Grant and then corrected by the county's consulting engineer. Boat launch design information also was provided to Orleans and Wayne Counties, the latter then initiating construction of a launch ramp on Sodus Bay.

The Sommerset Power Plant Multiple Use Committee considered an unprotected boat launch and beach nourishment as part of their shoreline plan. Both of these ideas were deleted based on cost information provided by Sea Grant.

Niagara Mohawk Power Company requested Sea Grant to informally intercede for them in a communication problem with a town. The utility had a verbal agreement with the town to expand a parking site for fishermen if the town would lay gravel on the site but felt the town had not "done its part". After several phone calls to town officials, which pointed out the misunderstanding, the site was drained and surfaced before the salmon run began.



Individual contacts with 15 persons with marine facilities dealt with dock construction, floating tire breakwaters (FTB), launch ramp design, boat storage, campground construction and bulkheading. Known results to date include: two marina operators who installed FTBs, one who decided an FTB was not appropriate, one group who opted for a boat hoist rather than new ramp facilities and two marina operators who made dock improvements.

#### 5. Recreation Opportunity Education

This includes projects designed to raise awareness of recreation opportunities along our coastlines. For example, current "how to" information on recreation is included in regular radio and newspaper presentations by three specialists. In one specific event, Sea Grant co-sponsored the second annual Lake Ontario Trout and Salmon Seminar which was attended by more than 2,500 people. Displays on identifying and harvesting fish and trimming fish for contaminant reduction were included. More than 1,000 individuals viewed fish trimming demonstrations given by Monroe County Extension and Sea Grant. In a continuation of efforts to increase awareness of Lake Erie's recreation assets, 3,000 copies of a pamphlet entitled, "Lake Erie's Recreation Climate" -- produced with assistance of a special NOAA grant -- were distributed through Chambers of Commerce and individual requests.

The importance of knowledge of access sites was highlighted when a wheelchair-bound angler requested and received a listing of access sites without barriers.

#### 6. Example Anecdotes

Change in the ability of local institutions to address needs identified in our major program areas can be one measure of our long-term effectiveness. In working with marine trades businesses it soon became apparent that lack of skilled employees limited the success of many operations. To address this need, Jefferson County Community College is offering an Associate's Degree in Marina Management. Sea Grant provided assistance to the College over the past four years in developing a curriculum for the program.

\* \* \*

Lack of awareness of recreational fishing opportunity and appropriate techniques sometimes limits the tourism development possibilities of a fishery. This appeared to be true of the Lake Ontario smallmouth bass fishery off Wayne County. To address this situation, a Sea Grant Specialist arranged for four outdoor writers from major daily newspapers in Syracuse and Rochester to participate in a smallmouth bass fishing demonstration with knowledgeable local anglers. Many fish were caught and each of the delighted writers ran major articles on the event. One even published a related article in "Outdoor Life". Participation in the fishery site since has expanded greatly.



## D. COMMERCIAL FISHING

Educational programs for the commercial fishing industry include extended jurisdiction, business management, shellfisheries and finfisheries. Fishermen are helped to identify and solve problems and expand business potentials. Federal, state and local policy-makers are likewise helped to recognize and effectively respond to industry needs.

### 1. Extended Jurisdiction

Extended jurisdiction of the United States over fishery resources has sparked new harvest opportunity for domestic commercial fisheries. To capitalize on this requires adoption of new technologies and adequate dockside support facilities. The size and nature of fishing port expansion often precludes a single interest from developing appropriate sites. Often public and private groups with port development interests don't effectively work together because of lack of coordination and perceptions of conflicting needs.

Meetings with more than 300 fishermen, local, state and federal officials resulted in commitments for expansion of public facilities at two Long Island ports. Sea Grant stimulated formulation of the Nassau County Fishery Development Committee which gained \$950,000 through Congressman Lent for a Jones Inlet/Freeport dredging study. In Southampton, Sea Grant Specialists acted as a catalyst to have county, town and municipal officials meet with fishermen and packers to review port development needs. This resulted in more than \$225,000 being committed to revitalize the port, with a \$400,000 application pending with the Economic Development Administration.

Specialists also helped developers of a private dock and packing facility at Lake Montauk to gain town endorsement and respond to industry needs. When completed, this 400-foot facility will relieve congested mooring conditions in Montauk Harbor.

In addition to helping industry meet the need for dock development, Sea Grant Specialists assisted fishermen in interpreting new laws and regulations created by extended U.S. fishery jurisdiction. A newsletter made 500 subscribers aware of emerging fishery laws and enabled their informed participation in key hearings. The newsletter disseminated information on the yellow tail flounder fishery opening when National Marine Fishery Service formal communications did not occur as planned.

Industry is also being made aware of extended jurisdiction implications through radio spots. The media specialist and regional fisheries specialists are participating in a NEMAS sponsored radio series on the 200-mile fishing limit. This thirteen-part series is being broadcast by stations in Riverhead (WRIV) and Sag Harbor (WLNG) preferred by fishermen. Although carrying agricultural information on a regular basis, both station's managers indicate this to be the first scheduled information on fisheries concerns.

To heighten awareness of fisheries issues, two Sea Grant Specialists from New York participated in an inservice education course cosponsored by NEMAS and NMFS. The meeting was evaluated as a useful exchange of information and viewpoints by the participants.



## 2. Finfish

The 200-mile limit is opening new fishing stocks and harvest opportunities for industry. With this opportunity is an emerging need for fishermen to evaluate new harvest methods, gear and fish stocks. Interest in a directed squid fishery was sparked by a conference on harvesting, handling, processing and marketing, sponsored by Sea Grant Specialists. More than 60 participated in this meeting held on Long Island. Additionally, more than 100 fishermen attended a conference on trawl doors cosponsored with the Long Island Fishermen's Association.

Sea Grant Specialists have also held dockside meetings at major fishing ports on specialized subjects. More than 250 fishermen from Shinnecock, Mattituck, Montauk and Freeport learned trouble-shooting techniques in vessel hydraulics and diesel powertrains. Presentations were also made on scottish seining and cold water survival techniques.

## 3. Business Administration

Meeting the challenges of extended fishery jurisdiction and improving vessel capabilities is a financial dilemma for many New York fishermen. Specialists provided guidance to 25 boatmen enabling them to attain \$2,000,000 in Small Business Administration/NMFS backed vessel projects. In addition, 18 others were assisted with Capital Construction Fund (CCF) applications to protect vessel sale revenues from capital gains taxes, thereby helping to finance new vessels. Fishermen, bookkeepers and accountants were helped to better understand tax implications of CCT through a written guide. It is anticipated that this guide will be incorporated into future IRS fisheries tax guides.

Financial institutions themselves also received educational programming. Seven regional managers of the Bank of New York participated in a fishery development seminar sponsored by Sea Grant. One outcome of this is expanded regard for commercial fishing as an industry. This most visably is now evidenced by bank-sponsored newspaper promotion for fishermen inviting their future business.

Meetings sponsored by Sea Grant with New York State Departments of Commerce and State helped fisheries to cut costly "red tape." There is now a defined fisheries development policy for New York State Department of State. Sales tax and unemployment insurance policies relating to marine industries are now under review by New York State Department of Commerce.

Other areas of financial management assistance for fishermen included unemployment insurance, tax management, sales tax, medical care programs and state marine insurance. Seventy fishermen attended six informational meetings on these topics.

## 4. Shellfish

The Long Island Shellfish Farmers Association, formed three years ago with Sea Grant stimulus, continues to grow and mature. At this year's meeting all shellfish hatcheries on Long Island were represented by the 44 people in attendance. In a similar effort, Sea Grant specialists this year acted as a catalyst for organizing town shellfish managers. The Long Island Association of Town Shellfish Managers is expected to provide a collective point of contact for Sea Grant educational programming.

Sea Grant researchers and extension staff assisted the Shinnecock Tribal Council in gaining a \$295,000 grant for developing a solar heated hatchery.



A Sea Grant supported shellfish biologist (with some extension responsibility) provided clam culture guidance to three culturalists. He also conducted a workshop and tour of shellfish facilities for five private companies, the New York State Department of Environmental Conservation and officials from three towns. Participating in a NOAA sponsored National Aquaculture Workshop, he discussed problems inhibiting development of clam culture. This helped to further refine the National Aquaculture Plan being developed.

#### 5. Example Anecdotes

A law prohibits mechanically assisted clam harvest in state waters. Enacted earlier this century, the law sought to protect clam populations in shallow embayments of Long Island's South Shore from overharvest. The North Shore has waters too deep for hand held tools for clam harvest. Because of lack of information on how deep water shellfish harvesting is undertaken and regulated elsewhere, this potential stock has been ignored. To break this impasse, a Sea Grant Specialist arranged for a tour of Virginia patent tong clambers. New York State Department of Environmental Conservation (DEC) representatives and two key baymen accompanied him to Virginia where Virginia Sea Grant coordinated a working vessel visit for demonstrations of the equipment. As a result, the DEC is promulgating a favorable amendment to the law for the State Legislature's consideration. The baymen who participated in the tour support the law change. And a tour film made by the specialist is being shown to baymen's organizations on Long Island to familiarize them with the technology.

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The Brookhaven Town Council sets the dock fees for boats in Port Jefferson public berths. Traditionally, the same fee has been charged for commercial and recreational boats. This year, the Council reviewed "transient" boaters' fees, holding hearings to determine appropriate charges. Commercial boatmen asked a Sea Grant Specialist to help them prepare for the hearings. The Specialist provided information on comparable facilities elsewhere showing their dock costs higher because of the transient designation. The boatmen recognized from this that their fees were not likely to be changed without an alteration first being made in their user status. The Specialist counseled them in gaining written letters of support from area businesses directly dependent upon the charterboats presence. The Town Council established a resident commercial vessel dock rate at a rate 60% lower than that for transient recreational craft after boatmen presented this information. Their combined savings from this change amounts to nearly \$12,000 per year. Equally valuable are the skills learned by the boatmen. They now know how to effectively participate in governmental affairs in a democratic setting.



## E. SEAFOOD PROCESSING AND MARKETING

Educational programs for seafood processors and marketing enterprises encourage improved seafood handling practices. Our work with processors enables them to make informed decisions on using innovative equipment and product handling procedures. Educational efforts for marketing enterprises is directed towards strengthening existing market mechanisms. It also identifies opportunity for sale of additional fishery products to domestic and foreign consumers.

### 1. Processing

College based support for this educational program area lapsed in March 1979 when Jim Daniels departed for Virginia Sea Grant. Subsequently, the Food Science Department at Cornell was not able to identify their 50% share of support for this position. This support continues to be sought. Before Daniels' departure, the sixth and final issue of "Fillet" was produced and distributed to its readership of 400 seafood processors and retailers in New York.

The number of firms testing the deboning and mincing of fish in plant was increased to three. A large supermarket chain in Rochester, Wegmans, is selling minced fish as a result of Sea Grant assistance.

Seafood processing technology questions were answered for nine processors and retailers and five Sea Grant staff from four states. In addition, one firm was provided information needed to assess the potential for a fishmeal plant on Long Island and subsequently decided not to proceed.

### 2. Marketing

Staff efforts in marketing have helped identify new marketing channels for seafood. To help New York consumers identify the freshest seafood locally available, a Sea Grant Specialist stimulated the creation of a package logo. Now, the New York State Department of Agriculture and Markets distributes a "Caught in New York" label similar to the "Grown in New York" label used by other enterprises statewide.

Increasing consumer access to seafood requires expanded retail sales. To help supermarkets understand seafood handling, Sea Grant Specialists produced a guidebook. This was used with twenty-one meat managers of a New York City area supermarket chain who attended a workshop entitled "Supermarketing Seafood: An Ocean of Opportunity." Now these supermarkets are better able to deliver a quality seafood product to consumers. Similar work undertaken with another market has resulted in direct purchase of flounder from fishing vessels.

More than two hundred seafood industry members were made aware of fishery development opportunities through a Seafood Marketing Service letter series sponsored by Sea Grant. At a Sea Grant sponsored marketing meeting, twelve Long Island fish packing/processing representatives learned of export opportunities. Export of less used species by several of these now looks probable.



## F. CONSUMER FISH USE

Use of fish as a red meat substitute continues to receive much attention in national dietary counseling. Also, new fish products and relatively less common species are becoming more available to consumers. This results in continued need for fish consumer information and instruction.

### 1. Training and Support

County Cooperative Extension Home Economists continue an important role in direct consumer education. Sea Grant provided support for 75 agents through two "service letters" on new educational materials on fish preparation and an update on fish contaminants. Many of these individuals (at least 20) incorporated this information in their consumer and nutrition education programs. For example, home economists from Monroe and Wayne Counties (Lake Ontario) presented information on fish contaminants to at least 300 anglers in conjunction with a lakewide salmon and trout derby.

In other cases, Sea Grant Specialists team teach with Extension Home Economists. For example, 12 Expanded Federal Nutrition Education Aides in Buffalo were instructed in fish buying and preparation. Each subsequently included fish consumption information in their own educational programs. (See also the example anecdote below.)

### 2. Fish Contaminants

Presence of chemical contaminants in the flesh of sportfishes remains a crucial issue in the development of New York's Great Lakes fisheries and is assuming increased importance for our marine resources. One specialist demonstrated fish preparation for contaminant reduction on a Buffalo TV station reaching approximately 80,000 viewers. Contaminant profiles describing current problem chemicals in Lake Ontario were distributed to four county fishery advisory boards and more than 30 key leaders along the Lake. Current information on health advisories and proper fish preparation was provided to the sponsors of two major fishing derbies. At one, more than 200 people attended fish preparation workshops. Two discussion sessions on contaminants were conducted for 12 students in a Cornell fisheries class.

The Great Lakes Assistant Program Leader conducted a fish contaminants workshop under sponsorship of the Great Lakes Sea Grant Network. It was attended by 5 Sea Grant persons from New York, 3 from Ohio, 2 from Michigan, and one from New Jersey as well as the New York State Department of Environmental Conservation field supervisors for Lakes Erie and Ontario, 2 representatives from the Cornell Division of Nutritional Sciences and one County Extension Home Economist. Of the 16 attendees, 14 indicated in a post-workshop questionnaire that the information presented would be incorporated in their educational efforts.

### 3. Example Anecdote

Sea Grant and New York City Cooperative Extension staff hosted a "media event", including a shark fry, demonstrating use of unfamiliar species. This was carried by three Metropolitan Area TV stations during newscasts at 6 p.m. and 11 p.m. Coverage also appeared in the New York Times and Daily News and the story was put on one wire service. Audience contact through the media is estimated at 10 million.



Shark sales at the market in which the demonstration took place increased more than 100 fold to 800 pounds per week the two weeks following the event. Subsequently, two five-minute radio tapes entitled "Those Forgotten Fish" were aired on WNYC. Two additional radio interviews also were conducted of which one had an estimated listenership of more than 80,000.



## G. YOUTH EDUCATION

### 1. Urban Fishing Program

The New York State Department of Environmental Conservation (DEC), in cooperation with many local government and private groups, is conducting an urban fishing program in the metropolitan areas of the State. Sea Grant has provided direct assistance to the educational components of the program.

In New York City, Sea Grant conducted leader training workshops in each of the five boroughs. Six week-long fishing clinics and seven "fish fries" also were conducted. Total participation in the summer 1979 program was 1,550 city youths and 32 senior citizens from 42 local groups. Sea Grant also assisted in sponsorship of the program by working with a major bank in designing a letter of intent to the State Youth Board for matching funds to augment those raised by the Citizen's Committee for Urban fishing.

Sea Grant assisted DEC in planning upstate urban fishing programs for Buffalo and Rochester, the latter in cooperation with Monroe County Cooperative Extension. A training program for the Buffalo area cosponsored with DEC involved 16 leaders from 7 youth groups in the City. These leaders in turn initiated efforts with their groups. In one case, a Boy Scout group was instructed in fishing techniques and a second workshop cosponsored with a Buffalo Trout Unlimited Chapter involved 20 leaders who subsequently taught 150 youths basic fishing techniques. In a related effort, Sea Grant helped design a "noncompetitive" fishing derby as part of Buffalo's "Salute to the Waterfront". More than 2,000 young anglers participated.

### 2. School Systems

Successful marine education programs in major urban areas clearly must rely on "multiplier" and "teaching the teacher" concepts simply because of the size of potential audiences. Providing marine education materials through public schools is a basic approach.

Five Community School Districts in New York City were assisted in designing marine education efforts, either marine centers or mobile programs. Direct training of New York City teachers included: a fifteen session in-service course entitled "The New York City Waterfront: A Curriculum Resource" for 17 elementary teachers, a workshop on saltwater aquaria attended by 32 Queens teachers, a general marine education workshop attended by 250 members of the Elementary School Science Association and presentations at the New York State Science Supervisors Association Annual Conference, National Science Teachers Association Convention, Science Council of New York City and a number of technique meetings.

A grants-writing workshop was conducted for 20 New York City educators seeking funds for special projects. A follow-up meeting indicated that 10 were actually constructing proposals.

Upstate, 50 school districts were provided information on water related learning activities. Fifteen districts have subsequently indicated plans to participate in indepth workshops. A discussion of coastal education was conducted for 20 members of the Niagara Frontier Science Teachers Association. More than 200 teachers and 4,000 students participated in aquatic ecology workshops at Niagara, Orleans, Genesee, and Chautauqua County Conservation Field Days. In the latter, Sea Grant arranged for students from the State University College at Fredonia to conduct the workshop.



Niagara Frontier teachers also were contacted through provision of marine education materials to the University of Buffalo Science instruction unit for use in summer inservice education classes for local teachers. Assistance also was given in setting up a graduate assistant project with the end product a marine education workshop. New York cosponsored the National Marine Education Association meeting in Milwaukee through its Great Lakes Sea Grant Network membership.

### 3. Cooperative Extension 4-H

Another effective "multiplier" is incorporating marine educational materials in County Cooperative Extension 4-H programs. A training session on marine education was conducted for 4-H Agents from 12 counties. Volunteer leaders are key to the delivery of 4-H programs. More than 75 such leaders from four upstate counties received briefings on coastal education activities. An additional 20 leaders participated in an aquarium project seminar cosponsored with Niagara County Extension. Leaders from Erie and Niagara Counties have initiated a waterfowl project with assistance from Sea Grant. In direct teaching, more than 250 4-H members and parents participated in two workshops on marine education. A "Great Lakes Workbook" was developed and more than 1,200 copies distributed through 4-H exhibits at the Chautauqua, Erie, Niagara and Orleans County Fairs.

### 4. Career Education

In New York City, a committee of five educators was organized to prepare a proposal to develop marine career information. A series of career seminars was conducted for the Brooklyn Archdiocese with more than 200 students attending. In Rochester, 24 senior high students learned of marine careers at Science Exploration Days as did 20 members of a Rochester 4-H/Explorer post and 40 students from a Buffalo high school. In addition, approximately 150 individual requests for career information were answered.

The Nassau County Board of Cooperative Educational Services was assisted in developing a continuing education course for adult seamen and a proposed high school program for maritime support functions.

### 5. Example Anecdotes

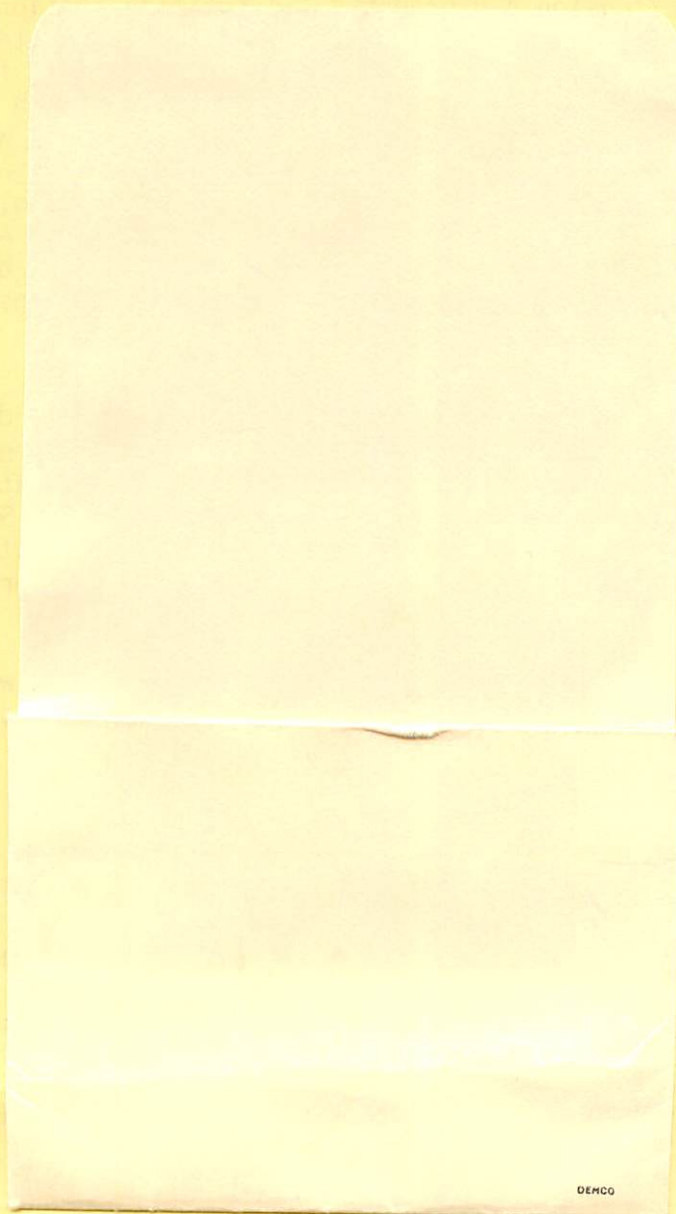
1979 was the first year in which Sea Grant and Suffolk County Cooperative Extension jointly funded a position in youth education. One project conducted by that agent, formerly a Sea Grant Term Specialist, involved senior high school students from East Hampton High School who conducted intensive beach profile studies of 3 miles of Long Island beach. Students in mathematics and sciences were involved. The East Hampton Beach Preservation Society made a grant of \$10,000 to the State University at Stony Brook Marine Sciences Research Center for this project. The Center is providing technical guidance and data analysis for the project which is expected to provide quality scientific data on this erosion susceptible coastline.

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The Gateway National Recreation Area serves to provide Metropolitan New York Area residents opportunity for a coastal environment "experience". The National Park Service initiated a two-day camping program for inner-city youngsters, entitled Gateway Ecology Village, during summer 1979. Sea Grant provided the marine



component for the program. An instructor was recruited and educational materials developed. Three days of teacher workshops were conducted. More than 2,500 youngsters between the ages of 9 and 12 participated in coastal appreciation and utilization activities which clearly would not be available without this or similar programs. The success of summer 1979 led to establishment of a similar fall camping program. In a separate program, a lecture series on marine science related topics is being conducted at Gateway for teachers and other interested persons.





## H. CAMPUS BASED SUPPORT OF EDUCATIONAL PROGRAMS

Subject matter and technical support are provided in the areas of recreation and tourism, seafood processing, aquatic plant management and communications. Many specific activities and accomplishments are incorporated in other sections of this report. Overall program direction is provided by the Program Leader and his two Assistants.

### 1. Subject Matter Support

Recreation and tourism continues to increase in importance along New York's coastline. Support for field staff programs is provided by a Research Associate in the Cornell Department of Natural Resources with a partial extension commitment. Areas of research and extension support include liability and recreational access, tourism development and recreation management. Two Quick Response Research Projects requested by field staff involved a comparison of Canadian and American approaches to tourism in the St. Lawrence Valley and a description of water surface zoning options. The former is still in progress. The latter has been completed and used by a Sea Grant Specialist in identifying water surface zoning options for Irondequoit Bay.

Support for seafood processing programs was limited by the departure of our campus specialist to Virginia Sea Grant in March. The Cornell Department of Food Science has not identified its portion of funding to continue this effort beyond the initial two year period, which was funded entirely by Sea Grant.

Support for field staff in the areas of fish contaminants and aquatic plant management is provided by Assistant Program Leader Duttweiler. Three issues of the aquatic plant management newsletter "Cattales" and three contaminant "profiles" were produced. "Cattales" is distributed to 135 individuals, primarily Extension staff, throughout the State. The contaminant profiles are distributed to Sea Grant staff.

The Program Leader initiated discussions with the Cornell Engineering College and the Division of Nutritional Sciences to develop additional support positions. The latter position is expected to be implemented in 1980.

### 2. Communications Support

Six issues of our newsletter "Coastlines" provided our 3,300 subscribers with current topical information from each of our specialists. The effectiveness of this newsletter often is multiplied. For example, editors in the Westfield and Dunkirk areas routinely use "Coastlines" articles in their papers and the Empire State Marine Trades Association distributed 250 reprints of an article to its membership.

Staff were assisted in the production of seven fact sheets and flyers, two bulletins, two slide/tape programs and two educational displays as well as numerous individual projects. More than 5,000 single copies of publications were distributed. A new informational flyer on the Sea Grant Extension Program was produced. Training sessions for staff included: publications production, photography and news writing. The Media Specialist wrote and had published an article on underutilized fish species--carried in "Sea Grant 70's"--and a feature article on the same topic which was included in the New York Cooperative Extension's annual newspaper supplement on inflation.



### 3. Program Leadership

Staff maintenance activities included hiring two Limited Term Specialists and two Regional Specialists. One of the latter openings resulted from the promotion of Bruce R. DeYoung from a Regional Specialist position to Assistant Program Leader for the Marine District. This new position completes the leadership structure of two Assistant Program Leaders--one for the Great Lakes and one for the Marine coast--and the Program Leader. A new field office location was established in Riverhead. Budget management responsibilities for the Sea Grant Extension Program were assumed by Cooperative Extension Administration.

Training sessions for field staff included adult education and group processes, a communication workshop and two workshops for Limited Term Specialists. The practice of encouraging staff to critique proposals from our and other advisory programs was continued.

The three program leaders participated actively in national, regional and state Sea Grant and related activities. The Program Leader completed his term as President of the Sea Grant Association and Chairman of the NEMAS Board of Directors. Leaders of the New Jersey, VPI, Minnesota, USC and Maine/New Hampshire programs requested assistance in developing their proposals. Eight faculty from Cornell were assisted in submitting proposals to the Mid-Atlantic Fisheries Development Foundation. The Program Leader also is serving on the Program Review Team for Rockland County Cooperative Extension Association.

Assistant Program Leader Duttweiler participated in two discussion sessions--one on the ECOP report on Sea Grant relationships and one on accountability and reporting--at the annual National Advisory Program Leaders Conference. He also participated in the Georgia Site Visit. Duttweiler is New York's designated representative to the Great Lakes Sea Grant Network. An example activity was a meeting with the Program Leader from Ohio Sea Grant to identify cooperative education projects.

As a NEMAS Director, Assistant Program Leader DeYoung serves on the Long Range Planning Committee. A tour of Long Island Advisory Services work was conducted for the NEMAS Board of Directors. DeYoung also participated in a meeting sponsored by NMFS for Cornell faculty doing work in seafood nutrition and product marketing and development.

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