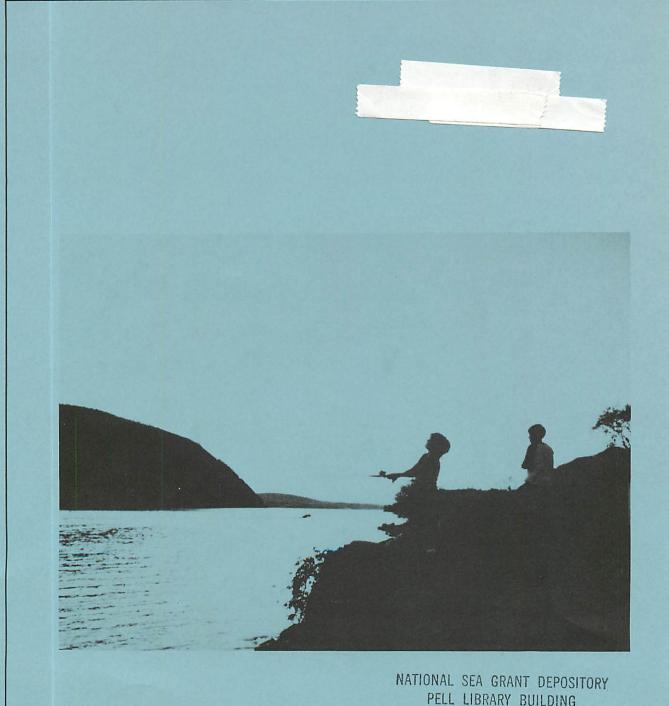
January - December 1982

Annual Report of Program Accomplishments



NATIONAL SEA GRANT DEPOSITORY PELL LIBRARY BUILDING URI, NARRAGANSETT BAY CAMPUS NARRAGANSETT, RI 02882

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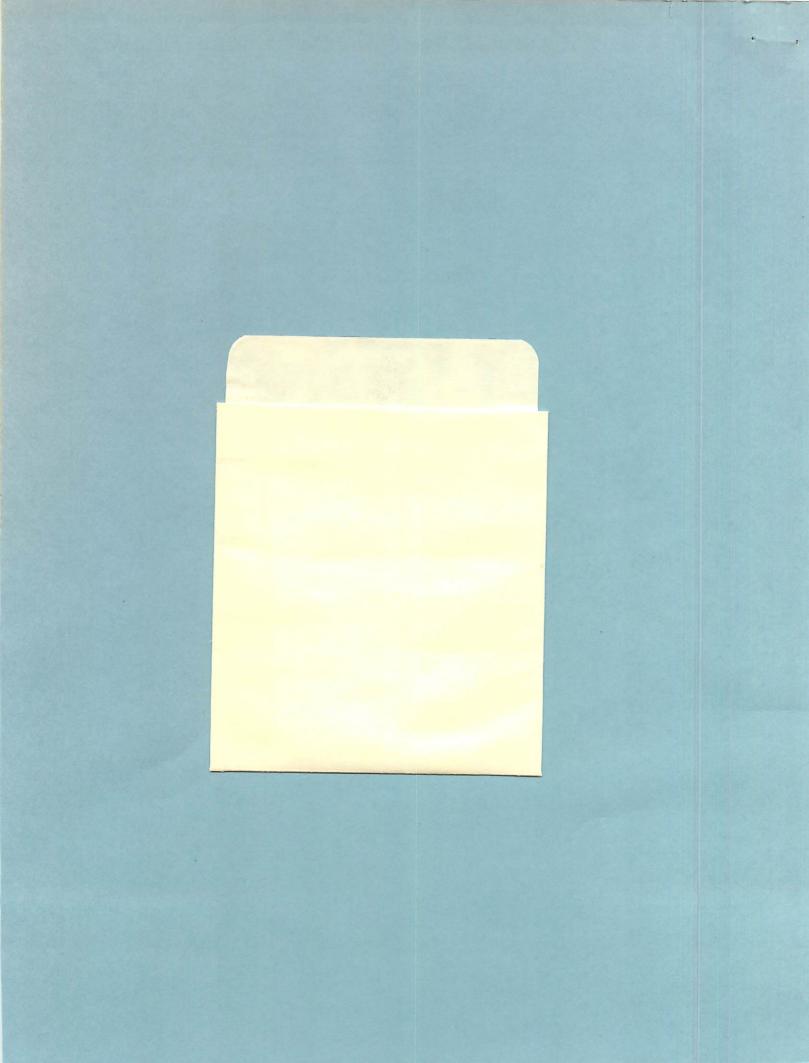


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INTRODUCTION

This report is compiled with a special sense of satisfaction since it marks completion of the tenth year of Sea Grant Extension Program activities in New York. It has been a fine decade!

Ten years ago one might have reasonably concluded New York largely had ignored its coastal resources. This posture was certainly true in most academic institutions and extension education programs in which only a handful of persons focused on coastal issues.

In 1982, more than 100 extension professionals in at least 25 New York counties had involvement in coastal related educational programs. Similarly, 50 university faculty at 15 New York institutions actively pursued resolution of coastal problems. Sea Grant can legitimately claim major responsibility for this dramatic shift in emphasis. With a sense of pride then, we are pleased to present selected Sea Grant Extension Program accomplishments for 1982.

educational program Summarized within are activities accomplishments of the New York Sea Grant Extension Program in the areas of coastal issues, coastal erosion, recreation and tourism, commercial fishing, seafood processing and marketing, consumer fish use About 50,000 individual clientele contacts and several and education. million media contacts resulted from the combined activities of Sea Grant and county staff. Activities and accomplishments included were selected to indicate the nature of program directions, and a few of many benefits to the people and economy of our nation and state. of the seven major program areas plus campus-based support and program leadership is described briefly and selected events and outcomes listed. Example anecdotes are included in each section to provide insight to more complex or longer term program efforts. Detailed background information and situational analysis for the major program areas are not included. These may be found in the 1982 Situation Statement and Program Plan.

Role and Mission

The role of New York's Sea Grant Extension Program is to carry out educational efforts that help coastal residents, decisions makers and resource users resolve current and projected problems associated with the development and conservation of coastal resources. Our mission to promote wise coastal resource use is carried out through education. To carry out that mission we must be--and are--strongly people oriented. More than 100 coastal residents directly assist in the formulation and conduct of our efforts through ten formal program advisory committes. It is difficult to capture the dimension of people involvement in an annual report. Individual acknowledgments of satisfaction, accomplishment and direct benefits received by program participants tend to be obscured by the synopses which follow. But we have sought to retain the human dimension in our accounts of program efforts, for people are the key to successful Sea Grant Extension programs.

This report was compiled by Michael Duttweiler and Bruce DeYoung. All other staff contributed to its development with the Hudson Valley section derived primarily from Stephen Lopez.

PROGRAM PERSPECTIVE

Background

The National Sea Grant mission to enhance appropriate use of our marine and Great Lakes coastal resources is carried out in New York through Cooperative Extension; staff carrying forth that work are New York Cooperative Extension employees.

Eighty-five percent (15 1/2 million) of this State's residents live in the 28 counties bordering the Great Lakes, marine coastlines and tidal waterways.

Only in New York are significant coasts present on both the Great Lakes and the Atlantic Ocean (600 and 1800 miles respectively). The problems and potentials among these valuable coastlines — where people live, work and play—are many and diverse.

Our Role

The role of the Sea Grant Extension Program in New York is to carry out educational efforts that will help coastal residents, users and decision makers resolve current and projected problems, while developing and conserving coastal resources. To carry out this role the Extension Program:

- Transfers knowledge to persons who can use it to solve coastal problems.
- Stimulates appropriate persons to apply this knowledge tosolving problems.
- Stimulates researchers to generate knowledge needed to solve coastal problems.

These roles are carried out by:

- Identifying problem-solving educational programs and activities with: commercial fishermen, marine recreation industries, seafood processors and handlers, consumers of marine foods, marine mining industries, coastal zone decision makers, coastal property owners, marine recreationists, urban minority youth and others.
- Maintaining and further developing working relationships with other agencies and groups so resources are used more efficiently and programs are implemented more effectively.
- Assisting in developing the directions of future Sea Grant research efforts so they are in accord with needs of the coastal users and the welfare of society.
- Increasing the proficiency of the Extension Program staff to execute programs relevant to the needs of coastal users.

Staffing

To carry out these tasks, there were 19 professional positions in the Sea Grant Extension Program as of January 1983 supported in full or part by Sea Grant funds. These include specialists at: Extension offices in New York City, East Aurora, Fredonia, Plainview and New City; State University campuses at Stony Brook, Brockport, Potsdam and Oswego; and, the Cornell University Laboratory at Riverhead. Located in Ithaca are a Program Coordinator, Associate Director of the Sea Grant Institute, marine economist (30%), and a recreation researcher (1/3 Extension time). An additional position in Nutritional Sciences at Cornell supports education efforts in seafood nutrition. The second Program Coordinator is located at the Riverhead office. Campus-based positions, one in shellfish biology at the State University at Stony Brook; and the other in Great Lakes fisheries management at the State University at Oswego, provide competencies in the areas.

State appropriated Sea Grant funds support four of those positions and eight counties contributed to staff support. In addition county extension staff in 20 counties committed time to Sea Grant program efforts. The year was notable for four counties first contributing or expanding funds committed to the Sea Grant Extension Program.

SPECIAL FEATURE

The Lower Hudson River Sea Grant Program

Note: Until 1982 coastal issues along the Hudson River were addressed by Sea Grant on an ad hoc basis, pirating regional staff from other areas as necessary. 1982 marked the start of a major new effort in that region. This feature story captures primary themes and mechanisms in that exciting new approach.

Background

The Hudson River estuary stretches over 160 miles from New York City to Troy. It is one of the most biologically productive estuarine ecosystems in the Northeast. One estimate of fishery value identifies \$1.65 million realized annually through recreational fisheries and at least \$150,000 through commercial fisheries. More than 40 marinas line its shores in addition to numerous yacht clubs. Over 20 organizations and local groups have a special interest in the river. These include Scenic Hudson, Hudson River Fishermen's Association, the Hudson River sloop Clearwater and research groups.

Residents, officials and county extension staff in the region recognized the value of river-oriented extension educational programs and sought Sea Grant assistance on waterfront planning, shore erosion protection, recreational access, fishery and fish contaminant problems, and youth education involving river resources. These needs were initially responded to case-by-case utilizing staff from outside the region. To provide more complete and coordinated response, a Sea Grant regional office was estalished in February 1982 focused on six counties in the lower Hudson Valley. This office, partially funded by counties, is staffed by a regional extension specialist working closely with Extension associations in the counties. The counties involved include Westchester, Putnam*, Dutchess, Rockland*, Orange and Ulster.

In its first year the program has focused on three of its major areas of emphasis—waterfront planning and development, marine trades, and the fishery. Below we describe a few of many accomplishments in each of those areas.

Waterfront Planning and Development

Waterfront communities in the Lower Hudson Valley range from the city of Yonkers with a population of 200,000 to the Village of Piermont with 2,300 residents. Leaders from each of those communities, and others were assisted in understanding complex requirements for waterfront improvement permits through a regional workshop. The 36 participants represented local government, industry, marine trades, and residential property owners from all six counties. We know of two participants who have since obtained permits for specific improvements valued in excess of \$100,000, and several others attendees have modified their plans to more readily meet permitting requirements.

^{*}Provided direct financial support to the program in 1982.

Local officials of Cold Spring were assisted in evaluation of construction alternatives and cost estimates for repair of the village dock. This information in turn was used by a local not-for-profit group in applications netting some \$30,000 from three foundations for improvements to the dock.

The Village of Piermont itself was aided in a review of their marina development requirements. This formed the basis for planning grant aplications now awaiting review with a state agency. Work with that community also identified an option that will reduce environmental impacts of a major community dredging proposal, hopefully paving the way for the permit approval.

Marine Trades

The Lower Hudson Valley is a major boating area with over 40 commercial marinas and boatyards plus 30 yacht clubs. In addition, a host of related business activities, such as boat and equipment sales, are dependent on boating. However, no commercial trade association existed in the area.

Sea Grant brought together, for the first time ever, the varied marine businesses in the lower valley. The operators decided to form a Lower Hudson Marine Trade Association. The group established four goals with assistance from a Cooperative Extension Community Resource Development program specialist: to increase group effectiveness; to exchange information; to promote the industry; and to coordinate a boat show.

Sea Grant Extension has also assisted at least 15 individual marina owners covering a wide array of concerns including permits, dock and breakwater engineering, acceptable spoil disposal, financial management, aquatic plant management, and landscape planning. As a result, one marina in Piermont obtained permits for maintenance dredging which will allow maintenance of adequate depth at 120 existing slips and permit expansion of slips to 145. At the U.S. Gypsum plant in Stony Point, permit assistance also helped make possible plans for maintenance dredging that will allow continued access by vessels with raw materials necessary to that business.

Fishery and Contaminants

Concern with fish contaminants continues high as levels of PCBs (polychlorinated biphenyls), cadmium, dioxin and other chemicals associated with potential human health problems remain high in many species of fish caught in the river. Eels are a potentially important source of protein, for instance, that is currently banned from commercial landings for domestic consumption. However, individual recreational catches continue to be eaten, contributing to harmful chemicals in the diets of many unsuspecting area residents.

To address this problem Sea Grant hosted, with Rockland County Cooperative Extension, a Hudson River fish preparation and cooking workshop in New City for Extension agents and representatives of local media, a target audience who would then instruct others. Several articles on this topic have since appeared in local newspapers, including "Be Careful of Fish from the Hudson" appearing in the Rockland County Journal-News (circulation approximately 50,000).

To encourage safe recreational fishing, recognition of contaminated species, and preparation techiques to reduce contaminant intake, Sea Grant assisted Orange County Extension staff host a Fish Derby in Newburgh. Cosponsored with the NYS Department of Environmental Conservation as well as the local Youth Bureau and Methodist Church three dozen youths and adults participated. Interest and enthusiasm was so high the Derby will be broadened in scope in 1983 and other counties are planning similar efforts.

The Lower Hudson Sea Grant Advisory Committee

Advisory committees are of key importance in ensuring Sea Grant Extension educational programs have major local value. In this first year, a committee was created composed of local leaders and County Extension staff. The group has been active in programming, taking lead roles in virtually every major program area including chairing sections of education programs.

Summary

In its first year the lower Hudson Sea Grant office achievements came from efforts conducted with and through local leaders and County Extension Associations. An advisory committee, active in programming, has been established. Interest and support of the program has grown with additional counties committed to financial support of the program in 1983. Sea Grant's Extension Program meant new solutions and new opportunities for the lower Hudson in 1982, and will mean even greater future opportunities.

COASTAL ISSUES

Many coastal issues do not fit easily within a single technical category either because they are truly interdisciplinary in nature or because they represent social rather than technical actions.

Field staff are necessarily involved with varied coastal issues simply by virtue of their key role as technical information sources for coastal communities. Frequently, Sea Grant's role is to provide a synopsis of current events for community organizations. A review of oil and gas drilling on Lake Erie for a local League of Women Voters chapter, an update on acid precipitation impacts in the Great Lakes Basin for the Niagara Fall Aquarium, technical assistance for the St. Lawrence River Study Group's (an international university consortium assisted by Sea Grant); investigation of winter navigation and input to numerous local government actions dealing with coastal issues such as wetlands protection, water use zoning and waterfront development are some 1982 examples. Over 2000 persons and 150 community groups were involved in such efforts.

A wide range of coastal issues is addressed through our media efforts. For example, Buffalo's radio WBEN noon newscasts featured a week-long series on Great Lakes topics promoted as "Sea Grant Week." Two media workshops were conducted on regulation of Lake Ontario water levels. Sixteen reporters and editorial staff of the Gannett newspapers in Rochester attended the first workshop. The second was billed as a "press briefing" with one weekly newspaper, one radio station, one TV station and two county planning staff participating. Subsequently at least five media reports on lake levels appeared.

Also, feature and news coverage on current coastal events is aired weekly on Rochester radio station WHAM as the "Great Lakes Report." A member of the Monroe County Planning Department staff heard a "Great Lakes Report" dealing with non-point pollution of the Great Lakes. She requested and was granted permission for her office to use that script as part of Monroe County's public information effort on the Irondequoit Bay Nationwide Urban Runoff Program (NURP) study.

Two additional press workshops on Lake Ontario issues—fish contaminants and sportfishery development—were conducted for staff of the Rochester based Gannett papers in an attempt to improve the frequency and quality of coverage of Lake related issues. The Rochester Times—Union developed a three part series on the Great Lakes directly incorporating Sea Grant research findings from throughout the Great Lakes Sea Grant Network. The series was picked up by the Associated Press.

TOURISM DEVELOPMENT

For many New York's coastal counties tourism development is the most promising of a very limited number of economic development options. Our program reflects that opportunity with coastal tourism and recreation development comprising our single largest program area.

In some cases, we are assisting communities consider tourism, an industry they may never have considered as an economic development potential. In other instances we may provide specific technical assistance to established tourism centers.

Tourism trails, such as the Americana Trail in New England, have proven to be highly effective promotional devices. To capture the essence of trail development, a Sea Grant specialist visited the Americana Trail and later produced a videotape on effective tourism trail development. More than 150 community leaders subsequently viewed the tape.

One result was the Thousand Islands International Council, in consultation with the Eastern Ontario Travel Association, identifying stops to be included on an "International Seaway Heritage Trail" and development of a brochure to encourage visitors to circumnavigate Lake Ontario. In another case, thirty-eight community leaders from Chautauqua and Erie Counties met to explore development of a Lake Erie tourism trail. An ad hoc steering committee was formed to pursue the idea and later a formal board of directors was constituted to pursue trail development. Sea Grant provided the initiative and organizational assistance to reach that point.

Longer term impacts of Sea Grant research and extension activities have emerged as our program marked its first decade in New York. State Senate hearings on waterfront development in support of coastal recreation and tourism featured presentations by at least five interest groups or agencies directly quoting Sea Grant research and extension material on pertinent topics. This represents successful communication, acceptance and application of Sea Grant generated information applicable to a problem of Great Lakes wide significance.

Tourism development activities can be site specific as well. The small Barcelona Harbor on Lake Erie has a commercial fishing dock and provides limited recreational access. Few area residents recognized how the Harbor contributed to the area's economy or the recreational opportunity it presented. To address both information needs, Sea Grant helped organize a Barcelona Harbor Festival which was conducted during the summer of 1982. The thousands present helped steer local township government to consider harbor improvements from a broader perspective and with considerably increased public interest.

Example Anecdotes

*Sea Grant has assisted seven Great Lakes counties in the formation of "Fishery Advisory Boards", appointed by and advisory to county government. One test of their acceptance has been the commitment of local funds for their operations—a commitment four have garnered. A further test is whether that funding is maintained as local governments face increasing financial difficulties. The merit of continuing the Oswego County Sportfishery Advisory Board was questioned by some legislators. A public meeting was held and attended by representatives by a variety of business and agency representatives. Sea Grant provided an overview of the roles of that Board in resolving fisheries issues. By the end of the meeting, multiple arguments were made for the continuation of the Board and resolutions to abolish the board were abandoned.

*Communities often overlook potential local historical tourism assets. A Sea Grant sportfisheries specialist discovered that a small, unnamed island in the Genesee River had served as a research site for the American fish culture pioneer Seth Green. Once Sea Grant had documented and presented the history of Green's work, the Rochester City Council designated the island Seth Green Island and added to its already rich waterfront heritage. The name has been approved and adopted officially by the U.S. Board on Geographic Names and will appear on federal, state and local maps.

TOURISM BUSINESSES

Our assistance to coastal tourism businesses ranges from help on general organizational skills to specific technical assistance. More than 400 businesses were assisted during 1982.

With Sea Grant acting as an intermediary, leaders of Long Island marine trades associations met with officers of the statewide Empire State Marine Trade Association to explore mutual benefits from affiliation. As a result of this effort the Association of Marine Industries, a Suffolk County, Long Island group, voted to affiliate with the statewide Association. This action broadens membership into more areas of New York State, building a stronger, more persuasive voice for this important but typically neglected industry.

The Lake Ontario Charter Boat Association, organized with help from Sea Grant, was assisted with promotional literature, committee structures and formal operating procedures. The Henderson Fishing Guides Association was provided similar organizational assistance. On more technical themes, 75 charter association members learned how oil analysis techniques might protect their equipment investment.

One hundred-thirty marina operators received three issues of the service letter "Marine Facilities Notes" which contains specific suggestions for improving facilities and operations. In a formal survey, all respondees reported that the service letter was helpful to their business operations.

A Sea Grant Specialist wrote articles on marina landscaping and controlling marina managers stress both of which appeared in <u>Boat and Motor Dealer</u> magazine (nationwide circulation 24,000). This trade magazine appearance resulted in requests for further information and raised Sea Grant's visibility across the nation with that important marine recreation industry.

With the rapid growth of Lake Ontario's salmonid sportfishery Sea Grant increasingly is called upon by prospective tourism businesses. Seven prospective marina operators were assisted with economic analyses of the sportfishery for use in loan applications, as well as being helped to review marina demand, design and permit procedures. At least two prospective operators proceeded with development plans.

Bait and tackle business are another key element in sportfishery development. Eight bait operations were provided specific information for improving survival and quality of minnows and crayfish they hold. Three reported observable improvements in their bait as a result.

Assistance to businesses ranged from items on general business practice to highly individualized instruction. Tax management is a basic business survival skill. Forty-eight business people participated in a Small Business Tax Workshop cosponsored with Cooperative Extension while another 25 received IRS tax kits for small businesses. Twelve attendees of a "You and Your Business Course" were interviewed in a followup evaluation. Eight had changed their display of stock, three changed their method of advertising, five changed their book management

practices and two developed business ratios. On the individualized instruction extreme, a fisherman who had failed the weather test on his U.S. Coast Guard charter licensing exam requested tutoring from Sea Grant. Through counseling and review of informational materials, he was licensed within a month.

Example Anecdotes

*Hospitality is a basic ingredient for the success of tourism in any community. Many service business workers in tourist areas are youths. Effective means for providing hospitality training for such youth have been lacking. To address this need, Sea Grant in cooperation with St. Lawrence County Cooperative Extension developed a "Courtesy is Contagious" training program for 4-H youth. Teaching materials and a three-part training course for volunteer leaders and 4-H club members were assembled. Thirty-five youth and five volunteer leaders piloted the program with at least five clubs subsequently initiating hospitality projects of their own. The program is being packaged for replication in other counties and states.

*Last year New York Sea Grant was joined by other Sea Grant programs and private enterprise in the Northeast in the conduct of educational programs on the value of routine engine maintenance for decreasing operational costs. As a part of that effort, educational materials were developed on the diagnostic technique "Oil Analysis", useful in gauging maintenance needs of machinery using lubricating fluids. Before Sea Grant's educational programming in this area, marine industries on Long Island were unfamiliar with the technique and laboratories performing the service were not aware of the number of marine businesses which could benefit from their services. With increased awareness marine business use of the technique expanded and one analysis firm even opened a branch office on Long Island. One charter boat operator in Montauk, New York, noted this past year his \$12,000 engine was saved from major damage by repairs whose need was revealed by oil analysis.

TOURISM FACILITIES

Soon after a community or organization makes a commitment to develop tourism, focus turns to what type of facilities are available? A dozen communities were assisted in assessing coastal tourism resources during the year. Once such an overview of resources is completed specific technical issues emerge, Sea Grant Extension staff in New York are often the initial contact when such problems are encountered—particularly when encountered by local governments.

Example Anecdotes

*The St. Lawrence River community of Clayton is actively pursuing efforts to upgrade its waterfront and shoreside facilities. As often is the case, the community has been successful in gaining some grant assistance for specific facilities but neither had nor could afford the technical expertise to develop an integrated plan for a planned community recreation area.

Extension staff working with campus professors arranged for a graduate student in Cornell's Landscape Architecture Department to assist the Village. The result was a professionally done site plan for the facility at minimal cost to the Village, and an excellent applied project for the student involved.

*Financial planners from a New York City based consulting firm received market information relating to marina space demand as they developed a proposal for a private marina development at the 60th Street train yard in Manhattan.

*Rochester is the major population center on the south shore of Lake Ontario. Traditionally, its harbor has been used for commercial purposes. Public demand for boating access grew dramatically with growth in water-based outdoor recreation and especially with the explosive growth of our Lake Ontario salmon and trout sportfishery. In July 1983, Monroe County will complete construction of a boat launching facility after four years of deliberation and much assistance from Sea Grant.

Awareness of the need for access was generated through a 1978 Sea Grant-sponsored "Rochester Harbor Symposium: Prospects for Recreational Use and Development." Subsequently, Sea Grant research findings on the emerging sportfishery and Lake Ontario access needs were provided to the Monroe County Planning Board. These activities resulted in boat launch ramp acquisition being designated high priority by the county Capital Improvement Fund. Over the next three years (which included time for litigation over the site!), Sea Grant provided extensive technical assistance in boat launch design and economic impact analysis of the project. Design information provided through Sea Grant saved the County at least \$10,000 in site design costs.

Even after difficulties with alternative sites were resolved, there was hesitancy among some legislators to proceed with this major investment. Sea Grant, working through the county Fishery Advisory Board, provided indepth information on the potential economic impact of the project. (Sea Grant had helped establish the Advisory Board two years earlier.) Again, Sea Grant research on the sportfishery was a primary information source.

In March 1982, the Monroe County Legislature approved purchase and development of the launch site at a cost of \$415,000. Conservative estimates suggest that the facility will generate a minimum of \$440,000 of additional annual retail trade in the county.

SPORTFISHERIES DEVELOPMENT

The response of coastal communities to sportfishery development is increasingly affirmative and sophisticated. Niagara County produced an extensive sportfishery development plan outlining access and support service needs. Sea Grant research and extension materials comprised much of the document's reference materials. The small Lake Ontario community of Dexter completed an economic assessment of fish passage facilities on Black River dams again drawing heavily from Sea Grant information. Other documents and proposals by the Central New York Regional Planning Board and St. Lawrence-Eastern Ontario Commission reflected a similar action orientation, and use of Sea Grant resources.

These studies and proposals reflect the growing maturity of the Great Lakes sportfishery as well as a change in roles for Sea Grant. In the past, Sea Grant focused on raising awareness about sportfishing related issues. Now we are able to assist coastal communities address specific issues as they arise. This role shift is based both on the improved capability of communities to deal with sportfishery issues and growth in Sea Grant technical information on such issues as economic impact documentation and technical topics including access facility design.

Promotion of sportfishery resources is needed communities are to be competitive with other traditional fishing areas. Fishing derbies have become a primary attraction device. Sea Grant provided assistance to the coordinators of six Lake Ontario derbies. Included were such topics as sponsorship techniques, rules and promotional activities, etc. Articles written for various derby gazzettes reached at least 20,000 readers. In one case, options on running and structuring a fishing derby associated with Rochester's Festival were offered and adopted by Rochester's Corporation and community leaders. Farash thereafter donated \$7,000 to sponsor the derby. In another instance, it was Sea Grant's lack of involvement that was significant. In 1980 and 1981 Sea Grant helped the Erie County Fishery Advisory Board conduct a derby by identifying formats, potential sponsorship, etc. The 1982 derby came off splendidly with no significant involvement of Sea Grant--representing a successful educational relationship.

Partially as a result of a workshop on the need for cooperative sport fishery promotion in Wayne County, the Wayne County Economic Development office will be applying for a CD block grant for tourism industry development. Regardless of the outcome of the application, this action represents formal commitment by the county to coordinated tourism development.

Direct promotional efforts were also given assistance. For example, Monroe County (Rochester area) was helped in producing a sportfishing promotional map; Marriot Hotels of Rochester was assisted in designing a sportfishery package program; three county Fishery Advisory Boards received specific suggestions for their promotional campaigns.

Indirect promotional assistance was provided through work with outdoor writers. In such cases, Sea Grant serves as a technical resource to writers for such prominent outlets as "Field and Stream" and the "New York Sportsman." Literally millions of potential anglers are reached through such efforts.

At year's end, an exciting new concept emerged for demonstrating the potentials of sportfishery development on Lake Ontario. A floating classroom in the form of a thoroughly outfitted sportfishing vessel would travel to various ports conducting a range of educational activities. The activities include instruction on fish contaminant reduction, use of safety equipment, coastal education activities for youth, shoreline tours for decision makers and more. To demonstrate the emergence of business enterprises associated with the fishery, all equipment needs and virtually all operating money would be sought from the private sector. As of this writing, "all signals are go" with over 200 firms, groups, and individuals contributing and a large menu of activities scheduled.

Example Anecdote

*The 1982 professional Boatman's Forum held in Brooklyn, sponsored by Sea Grant programs in New York, New Jersey and Connecticut. The meeting was run in cooperation with the Atlantic Professional Boatman's Association, which is a primary trade organization for the region. This workshop included 16 information displays by manufacturers and the participation of three federal agencies (NMFS, FCC, Coast Guard) and five state groups. Attended by 112 skippers of charter and party boats, presentations included fishery management, vessel maintenance and fishing techniques.

Members of the workshop audience having ties to organized sport angling clubs were stimulated to seek Sea Grant assistance subsequently in forming a coalition group of their own. Called "the New York Sport Fishing Federation," the new group blossomed and now represents more than 50 organized sportfishing clubs with a membership of 45,000 active anglers. Both trade organizations are collaborating with New York Sea Grant to produce a Sportfishing Forum in 1983 to meet the needs of the sportfishing industry.

*The following detailed anecdote is included to illustrate the maturing strengths of our sportfishing related research and extension program.

In January 1981 the New York Sea Grant Institute funded a research project titled "Determination of Lake Ontario Salmonid Movement, Patterns, Distribution and Habitat Preferences Using Radio Telemetry." This project was designed to improve the understanding by fishery managers and anglers of the movements of the trout and salmon in Lake Ontario and was suggested by one of our program advisory committees. An important objective of the study was to enhance the warm weather season harvest of salmonids. Prior to 1981, and despite much angling, the summer harvest of salmonids was limited for no one knew the depth and distance whereabouts of these fish in Lake Ontario.

Communication of preliminary research results by extension specialists resulted in confirmation of resarch findings by anglers and charter operators and allowed minor modification of research procedures to allow development of additional, more instructive information. The following examples illustrate extension applications of research findings and resulting impacts.

Conversations between the researchers and extension specialists beginning in late April 1982 revolved around the researchers' experiences and observations related to the lake's "thermal bar." The thermal bar is technically defined as that zone of surface and subsurface waters where there is a pronounced and rapid drop in temperature down to 39 degrees F. The researcher speculated that it constituted such a major density and temperature change that it could actually act as a reef or barrier behind which salmonids may aggregate prior to late spring dispersal throughout the lake. He suggested that anglers locate the bar, at whatever distance from shore, and fish it for trout and salmon. The bar may be very visible due to the flotsam that collects near it.

The Sea Grant specialist contacted 5 charter captains and/or experienced recreational anglers and reported the suggestions. Within days, it was reported that at least 50 boats in the Sodus area and Nine Mile Point area were actively fishing the bar catching good numbers of steelhead/rainbow. "Bar fishing" (not to be confused with bar talk) remained productive throughout May, June and early July.

In June 1982, Sea Grant hosted a major educational program "Finding Fish" near Rochester. Only 500 of the most experienced charter operators and boat anglers on Lake Ontario were invited to hear researchers and federal/state fishery managers discuss findings indicating where to locate summer salmonids. The 350 attending learned of Sea Grant research suggestions on specific temperatures and sites likely productive of summer salmonid catches.

During the six week period after the "Finding Fish" program seven unsolicited reports were received from program attendees. In all cases, reports included documentation of successful catches in offshore waters up to 14 miles out. It was clear that participants in the "Finding Fish" program had successfully applied the research information and a summer fishery was beginning to develop.

This combined research-extension effort produced immediate and signficant results. These included:

- confirmed and expanded bottom structure and temperature preference information for brown and lake trout;
- significant improvement of anglers' understanding of the lake's spring and early summer thermal progression and the rainbow's relation to it, leading to improved catches of this species;
- suggestion of a wide-scale summer dispersal of Pacific salmonids in the lake, providing a basis for future offshore exploration by fishermen interested in harvesting these species. This finding also signaled, to users and managers alike, that increased stocking levels may somewhat ameliorte the problem of poor coho, chinook and rainbow catches;
- significant improvement in anglers' understanding of the lake's mid-summer thermal set-up, again providing key information and the "open mind" upon which offshore exploration for Pacific species can be based;
- determined the long-range, rapid movement capability and behavior of salmonids in the lake, strongly suggesting that actual stocking sites may play an insignificant role in habitat preference shown by non-spawning fish. This finding could have a bearing on various future stocking practices and allocations.

RECREATIONAL SAFETY

Media programs on safe use of the coasts were initiated this year for it was clear certain consumer-oriented aspects of safe coastal use were not gaining adequate attention. As in the past, other organizations such as the Coast Guard Auxilliary continued to provide quality safety programming in those areas. However, recent Sea Grant research had much to offer. Topics included hypothermia, cold water drowning, and special wave and weather characteristics of the Great Lakes.

Example of media uses of these efforts included a Cornell Consumer Information News release on water safety used on the Fourth of July by 40 stations which reach 9 million listeners. Thirteen scripts on winter recreational safety and climatological aspects of safety were aired by Buffalo's WBEN radio. Each show had an estimated 50,000 listeners. The impact and response such efforts can have is indicated by a single climate-related article in the Rochester Democrat and Chronicle generated 500 requests for the "Lake Ontario Recreational Climate Guide" produced jointly by the National Ocean Data Center and Sea Grant.

In addition to media efforts, we are seeking to have other organizations incorporate more coastal information in their safety programs. For example, the Erie County 4-H program and American Red Cross chapter were assisted with water safety and hypothermia exhibits at the Erie County Fair—the largest county fair in the State.

Another NOAA cooperative venture resulted from sportfishing and professional boatmen leaders in the marine district asked Sea Grant to assist them in improving marine weather forecasting. One national and four regional workshops on this topics were held in cooperation with the National Weather Service. As a result of these meetings which attracted Long Island congressional interest, the National Weather Service is planning to install transmission equipment on Eastern Long Island to cover an area previously lacking their broadcast. We intend recreational safety to remain a modest program effort focused on providing technical assistance to other groups more directly responsible suited for safety education.

COASTAL PROTECTION

Eroding shores, deteriorting bulkheads, slumping bluffs are not pretty and can create enormous costs for communities, businesses, and individual home owners. It is to these audiences our coastal protection efforts are directed, often through intermediaries including coastal engineers, architects, and contractors.

Along the Great Lakes, educational programming on erosion emphasizes lower cost alternatives for property owners having bluff stabilization problems. To help homeowners better understand the natural mechanisms at work, and ways to control these, three demonstration areas have been developed.

In 1981, a dune stabilization project using beach grass, and fertilization techniques to promote natural vegetation, was established near Port Ontario on Eastern Lake Ontario. Property owners with dune stabiliation problems now visit that site to see for themselves how those techniques work. In addition to about 25 individual referrals, 30 participted in an indepth workshop on this subject cosponsored with the Oswego County Soil and Water Conservation District and Oswego County Cooperative Extension. Most attendees could identify specific erosion control measures appropriate to their situation, after the workshop.

Demonstration projects were established this year in Lake Erie State Park, to illustrate bluff drainage techniques, and at Wing County Park on Lake Ontario to illustrate vegetative techniques for bluff stabilization. In both cases, video tapes and written materils were developed to augment onsight educational experiences. Workshops scheduled to occur in 1983 at both sites, will "teach the teacher" enabling those attending to more effectively use the demonstration site as an educational tool. This expands on this past summer's related effort when in-service training occurred there for twelve agricultural extension agents concerned with erosion control.

Substantial donations of time, labor and materials have been involved in each of the demonstration areas. More than 20 individuals and twelve governmental agencies contributed time and equipment to these projects. Several firms contributed supplies, including a single donation of more than \$800 worth of filter cloth. Such collaboration has established networks to effectively blend Sea Grant and existing local resources meet important educational needs common to much of the Great Lakes.

Many public landowners along the lakes have invested in structural measures to control erosion and are now considering more such investments. In just this past year, Sea Grant specialists assisted eight municipal governments, providing technical assistance in decisions ranging from storm sewer outfall protection, repairing a major jetty, to saving a historic lighthouse.

From more than 100 assistance requests received from Great Lakes property owners during the year about 40 on-site visits involving more than 95 properties were made. Results from these varied. Three individuals initiated terracing and seeding practices, one marina operator decided not to deploy a floating tire breakwater while a yacht club chose to move forward and use this new technology researched by Sea Grant.

Because of extraordinarily heavy rainfall this past spring, more than 30 requests for information on controlling bluff erosion were received and onsite visits made in downstate counties. In many of those cases, property owners found subsurface drainage systems and expanded vegetation use could minimize their problem. One of the visits led to the Miller Place Property Owners Association inviting Sea Grant to present an onsite workshop to help them cope with stabilizing bluff property along Long Island Sound. As a result of this presentation, more than 60 members of that Association decided to use plantings to alleviate erosion difficulties.

The Town of Riverhead owns a series of beaches along Long Island Sound which are being rapidly eroded. At the invitation of the Town's Attorney and its Park Commissioner, Sea Grant staff discussed long term erosion planning to deal with the problem. As a result, the town is now exploring ways to use sand excavated from a nearby landfill to replenish the beach site. In a similar situation, the Town of Southold using suggestions from Sea Grant initiated the use of sand from annual dredging to replenish a prime bathing beach. At the request of New York State's Department of Environmental Conservation, a Sea Grant specialist made an onsite visit of erosion problems experienced by the village of Saltaire. Because this village is located on Fire Island, a valued national seashore, only limited environmental intervention was possible.

Example Anecdotes

In August 1981, 40 Lake Ontario coastal property owners attended workshops entitled, "Low Cost, Do-It-Yourself Shoreline Erosion Control." These sessions were jointly sponsored by New York Sea Grant Extension, USDA, Soil Conservation Service and the Soil and Water Conservation Districts, as well as Cooperative Extension Associations from Monroe and Wayne counties. The focus of these workshops was bluff/slope prepration for vegetation and subsurface drainage options to stabilize coastal bluffs.

One year later, twenty-six of the 30 individuals for whom current addresses could be obtained responded to our query--Did you use the information? Seventy percent reported they had used information received at the workshop. Twelve had implemented a new erosion control project on their property as a result of attending the workshop and more than one-half of the attendees indicated they had shared information with neighboring property owners.

In many instances, a decision to not implement erosion control can be the wisest. In the case of a Sag Harbor Property Owner's Association, Sea Grant's comparison of historic and present shoreline erosion information indicated that their beach was actually accreating rather than eroding as some members had thought! For this reason, the Association decided against the construction of an expensive erosion control project. In another instance, a Cutchogue property owner learned from Sea Grant that his bluff was stable and did not require a \$30,000 bulkhead indicated by others. Sea Grant's role is to assist others make the best decision for their situation. Thus the choice to adopt or to not adopt, a particular action can each be a legitimate demonstration of sound education having occurred.

COMMERCIAL FISHERIES

American fishermen's lack of experience and knowledge of harvest techniques for certain underutilized fish and poor market opportunities for those same species have been major impediments to increasing their harvest and use. This year in partnership with the Mid-Atlantic Development Foundation and the National Marine Fishery Service, Sea Grant aided U.S. fishermen dramatically expand their harvest of squid.

When the Mid-Atlantic Fishery Development Foundation arranged for the 176 foot Kiyo Maru to visit Long Island waters for nearly a month, Sea Grant helped arrange for more than 30 fishermen and governmental officials to make overnight visits to the vessel observing and better grasping their advanced technology. Potential users from Rhode Island, Massachusetts, Virginia, New Jersey, Delaware and New York gained first hand observations of the automated squid jigging and light attraction techniques used in the foreign harvest of this resource. Following these visits, the Sea Farer out of Montauk, was rigged to use the Japanese technology and techniques. The effectiveness of this equipment was proven when over 5,000 pounds of squid were harvested during a three-hour period.

Sea Grant also provided leadership for development of domestic processing and marketing of Illex squid. This species is traditionally less valued than Loligo. Working with Ruggiero Seafoods of Newark, New Jesey, Illex squid was test marketed. The results are so encouraging that Ruggiero Seafoods added it to their product line. Sea Grant staff stimulated collaboration between private industry, government and university staff leading to the development of a new and potentially important commercial product to the United States market.

Another example of Sea Grant industry collaboration was when the Mid-Atlantic Fishery Development Foundation aided Sea Grant's project to demonstrate small vessel pair trawling. Twenty small commercial fishing vessels participated in pair trawling demonstrations aimed at harvesting several underutilized species in New York waters. Pair trawling involves two vessels towing a large net rather than a single large vessel hauling it. This required technologies new to the fishing community including use of warp tension meters, range finders and a high rise bottom pair trawl. As a result of this initiative, two commercial fishing enterprises have adopted this new technique to heighten their business profits and effectiveness. Media programs we have developed are expected to stimulate others to evaluate this new technique.

While some Sea Grant educational initiatives during 1982 focused on bringing new technology and techniques to the commercial fishing industry, other initiatives stimulated business enterprises to reexamine their use of current technologies. For instance corrosion and abrasion often limit the useful life of wire ropes used by trawlers in Long Island waters to less than one year. With DuPont Corporation assistance, a Sea Grant Extension Specialist introduced a synthetic line made of Kevlar as a trial test substitute for the conventinal metal wire. At the end of a year's worth of use aboard the vessel American Eagle, the results were impressive. Although the jacket around

the tow line showed signs of abrasion, the vessel captain estimated a four year life span with the introduction of an alternate jacket material. DuPont Corporation has committed to exploring use of that new material.

Termination of public health service support for the commercial fishing industry has created dilemmas for those seeking to protect the health of themselves and employees. Sea Grant assisted the Long Island Fishermen's Association to develop a health insurance program to lower conventional health insurance rates for its members and strengthen the association's financial position. Related to this, Sea Grant made fishermen aware of a new financing alternative for honme purchases and refinancing existing structures for the purpose of raising capital for business purposes. This information proved to be important for six fishing businesses which subsequently made application for this particular program sponsored by the Farm Production Credit Association.

Sea Grant's educational initiatives also focused shellfishing industry. Through presentations by a Sea Grant Professor of Shellfisheries, bayment associations across Long Island learned new techniques for planting seed clams to bolster natural populations. In the case of the Southampton Baymen's Association, new techniques were also learned of ways to prevent starfish predation of scallops. An audience of over 150 lobstermen also benefited from Sea Grant's educational work on alternate lobster pot preservation techniques. With financial support from a regional wood preservation company, lobstermen on Long Island and in Rhode Island are having opportunities to test CCA treated lobster pots. A fact sheet on preserving profits through this new technique was also developed and shared with industry members throughout New England. That same industry was aided through a Woods Hole Sea Grant sponsored workshop in which three New York producers were commended for the contribution they made, and they said they had gained a great deal.

Over 20 fishermen have used a fishing trip simulator designed by the Sea Grant professor in marine economics intended as an aid in port selection, cost of trips to various areas and influences of many variables on profits. A second program designed to calculate present values of seed clams and oysters to assist in hatchery decision making is being used by major hatcheries on Long Island. Findings from the economic analysis of the hard clam industry were presented at the Long Island Fishermen's Forum and the Northeast Fish and Wildlife Conference.

Example Anecdotes

The working relationships and close ties between Sea Grant Extension staff and New York's university community are evidenced in a number of ways. One specialist made a presentation to 20 students at Suffolk Community College at the request of the instructor. Another level of interaction takes place when Sea Grant Extension staff assist university faculty having apparent conflicts with community groups. This was the case when a Sea Grant Specialist spent an evening visiting fishermen from Mattituck Inlet with a researcher from SUNY Stony Brook proposing a mariculture research project for Long Island Sound. The fishermen were concerned over newspaper reports that the research could result in sizable portions of Long Island Sound being covered by apparatus which would preclude commercial fishing trawling. Once the details of the project were outlined accurately, the fishermen's concerns were alleviated and some offered guidance on which sites would be "out of harms way." In the final analysis the trust which Sea Grant Extension staff have built with the comercial fishing industry and university faculty can often aid in alleviating such situations.

An emerging audience is that of low technology mariculturalists. Often compared to small scale farmers, these individuals increasingly are turning to Sea Grant to learn techniques which they can use to raise shellfish stocks in publically owned waters. Meetings with more thn 12 such individuals resulted in three new enterprises being formed to practice low technology mariculture in Great South Bay. If successful, theis 4-H clam club may lead the way for commercial and ublic agencies adopting techniques to expand natural standing stocks in Long Island embayments.

SEAFOOD MARKETING

In a state with 17 million consumers, stimulating safe, effective, appropriate and efficient use of marine products for food can be a staggering task. So again, our strategy has been to work with others, to stress educating those who in turn can teach others. Three of those groups with whom we worked extensively in 1982 were: Commercial Seafood Processors, Restaurants, and Governmental Units with responsibility for aiding the promotion of New York food products.

With the coming aboard of New York Sea Grant Extension's first field located Seafood Technology Specialist in late 1982, Sea Grant programming in this subject area moved to new levels. One firm participtaed in a trial project to assess the value of using enzyme infused ice in their processing of seafood. This technology was developed with University of Rhode Island Sea Grant support. If successful, this methodology will extend the shelf life of seafood held in storage by the company. The Specialist learned of the experimental technique during a field trip to New England supported by a regional Sea Grant network.

Other seafood processors were aided in gaining information on low interest federal development loans and guidelines on clam chopping/processing. A new clam processing facility may soon be in production using these suggestions.

About 30,000 people visited a Syracuse supermarket sponsored food show where we portrayed innovative seafood products of the future. As a result of that exposure, an upstate supermarket chain of 100 stores included information on buying and preparing seafood in one of their weekly ads. Another downstate chain of 15 stores developed and distributed a consumer brochure on seafood use.

Workshops on seafood use were held for, among others, the North Country Food Services Association, composed of restauranteurs from that region. As a result of the meeting, representatives from Howard Johnsons and Red Lobster Restaurants tested the use of fried squid rings as an appetizer for their outlets.

Example Anecdote

This year the Long Island bay scallop industry was undercut by large scale marketing of cheaper calico scallops imported from Southern states. To address this problem, Sea Grant helped key baymen organize with governmental representatives and agents of the NYS Department of Ag & Markets. The NYS Depretment of Ag & Markets subsequently intervened at the marketplace by enforcing regulations requiring products to be properly marked with harvest locations identified (i.e. calico scallops not bay scallops). Additionally, a "Caught in New York" label was produced and affixed to Long Island bay scallops entering the marketplace. Previously, this product was shippped in unmarked packages making it easy to label any seafood of similar appearance including the lower priced calico product as bay scallops.

The New York State Department of Ag & Markets began a pilot program this year to allow farmers to operate farmers markets in urban areas. The farmers market will operate one day a week for a limited number of hours in a specifically identified area. In response to a suggestion by Sea Grant, this New York State agency included fish outlets in the program. After the opportunity was outlined in a Sea Grant newsletter for the fishing industry, the agency received four requests from fishermen seeking to participate in this experiment.

CONSUMER USE OF SEAFOODS

Seafood related programming received more attention in 1982 than in any prior year and involved at least six of our staff (total person-years about 1.4). With financial assistance from the Mid-Atlantic Fishery Development Foundation, five "Seafood Sense" workshops involving more than 140 professional home economists and food service professionals were conducted. Indepth coverage of nutritional aspects of seafood and proper fish handling and preparation was included. Specific plans were made by each participant for incorporating topics covered into their work for the following year. Followup evaluations indicate that to date nearly 788,000 consumers had been reached through the efforts of only 26 of the 140 program participants: 600,000 through radio and TV; 187,500 through newspapers and newsletters and 300 through workshops and classes.

Teaching other professionals and relying on the multiplication effect of their subsequent efforts is seen as a primary strategy for our broadly defined seafood use program. In addition to the above, workshops and exhibits were arranged for more than 490 professionals through the New England Marine Advisory Council, Atlantic Fisheries Technical Conference and the New York Home Economics Association. Also, more than 350 consumers and health professionals received current information on the role of seafoods in disease prevention.

Media efforts are a must in consumer oriented programs. Seafood related radio programs involved more than 30 scripts or interviews by Sea Grant staff on 30 stations reaching an estimated listenership of more than four million persons. Requests for further information received by the Ithaca office alone totaled more than 500. Three "AMBuffalo" TV shows featured Sea Grant staff covering seafood topics and reached about 30,000 viewers. One of those shows generated 125 requests for more information at the East Aurora office.

Along the Great Lakes, fish contaminant related programs remained important. More than 1500 persons viewed contaminant reduction trimming procedures at three demonstrations. Also, eighteen persons who work primarily with Wayne County migrant worker populations, many of whom rely heavily on Lake Ontario fish for food, participated in a workshop entitled "Making Freshwater Fish Safer to Eat." A radio interview on fish contaminants was used on the International Joint Commission's "Great Lakes Radioline". In an effort to stimulate consumer awareness of seafood, Sea Grant provided leadership for developing a Seafood Festival in Port Jefferson, New York. Attended by more than 4,000, this Festival brought together Chambers of Comerce, Long Island Tourism agencies, Suffolk County Economic Devlopment staff and Suffolk County Extension agents in producing a successful day-long educational activity. Over 20 presentations, exhibits and demonstrations focused on wider use of seafoods by consumers. In a related event, Sea Grant provided leadership for educational workshops on less appreciated seafood at the Hempstead Seafood Festival. This Festival was attended by over 15,000 people during a two-day period, owing to its location near the New York City metropolitan area.

Sea Grant stimulated a branch of the City University of New York to sponsor a graduate course in seafood technology. Undertaken at Queens College, the course drew 18 students composed of professional home economists and dieticians.

Sea Grant and New York City Cooperative Extension developed a brochure in Spanish on the purchase, handling and preparation of seafood. Sent to over 400 magazines and newspapers, the information is helping members of this ethnic community to save money by making wise use of seafoods in family diets.

Example Anecdotes

*This year New York Sea Grant Extension information on consumer seafood use was distributed to media outlets throughout the Mid-Atlantic region. Aided by support from the Mid-Atlantic Fishery Development Foundation, Sea Grant developed a series of radio scripts which were shared with more than 200 radio and newspaper outlets in the Mid-Atlantic region. Preliminary evaluations indicate that this seafood use information was aired on 85 of the radio stations. As a part of this effort, radio scripts were provided each week to WCBS radio in New York City on the best buys in seafood. When Sea Grant indicated that it would discontinue this practice, representatives of the National Marine Fisheries Service were sufficiently impressed to provide the information on a continuing basis.

In this case, Sea Grant demonstrated the value and effectiveness of using mass media outlets, with others adopting the methodology as appropriate. Part of this effort has included a workshop attended by journalists from major magazines and newspapers in the New York City area. This workshop stimulated media coverage of seafood items for months thereafter.

*Attempts to develop consumer acceptance of seafoods must involve inland audiences as well as coastal clientele if large scale changes in dietary habits and fish marketing are to occur. As a result of a news article on underutilized fish species, the Sea Grant extension associate in Cornell's Division of Nutritional Sciences participated in a live radio call—in show from Oklahoma City, Oklahoma. Topics included use of squid, skate and shark and a variety of consumer questions. This represents our first electronic media contact in a major inland market.

YOUTH EDUCATION

From 1981 to 1982 our staff commitment to youth education programs was decreased from approximately 1.8 person years to 1.2 person years. To soften the impact of that decrease, we sought to be more of a technical resource on marine education for other groups who in turn do the actual teaching for youths. Significant progress was made toward that end in 1982.

More than 175 leaders representing 51 organizations involving at least 20,000 youths received training in marine related topics. Groups included: Cub Scouts, school district science supervisors, N.Y.S. Outdoor Educators, three Boards of Cooperative Educational Services, Cooperative Extension Agents from 20 counties and the Assocation of Teachers of Agriculture.

Involvement of such stimulated groups in marine education sometimes exceeds even our high expectations. An example, two 4-H clubs from near Buffalo collaborated with Cape Cod extension staff yielding a marine education tour to that area.

Direct teaching efforts by Sea Grant staff along the Great Lakes reached more than 3000 students and 40 teachers. Topics ranged from marine careers to the implications of acid precipitation.

A visit by "Lawrence the Talking Lake Trout" compliments of Minnesota Sea Grant provided more than 100,000 New York residents with an introduction to marine education. Lawrence visited the New York State Fair, the Niagara Falls Aquarium and the Niagara County Salmonid Seminar. At the State Fair, Lawrence's voice was provided by a rotating group of 20 4-H'ers who had previously participated in marine education programs.

This year we completed a classroom educational program on pollution of the New York Bight. This initiative was undertaken with support from the Office of Marine Pollution Assessment (a sister NOAA agency) in cooperation with New Jersey Sea Grant staff. This material was subsequently presented at a workshop of the National Marine Education Association. The presentation was so well received that the Science Teachers Association of New York State requested a similar presentation for 60 teachers. Because the educational program is "self contained," it is expected that many teachers will use the materials in their classrooms.

Southampton College invited Sea Grant to make a marine sciences presentation during their career panels. Attended by over 80 students with a strong interest in gaining work experience within this field, opportunity was identified for this to be accomplished through the college's Cooperative Education Program. This program allows students to gain academic credit for "real world experience" during an internship. During the past year, one such student worked in our New York City office with Sea Grant specialists located there. This relationship gives Sea Grant staff access to well-qualified students anxious to support applied educational work being undertaken in the marine sciences.

A Sea Grant specialist presented two workshops on "biology in the fish market" during the Urban Outdoor Education Conference held in Pennsylvania for the Northeast region. Attended by 47 teachers, this session enriched their understanding of how to bring marine science education out of the classroom and into neighborhood fish markets!

Example Anecdote

*Each summer, Nassau County Cooperative Extension conducts youth leadership development and education programs in the environmental sciences at their camp located on Long Island. Recognizing that 4-H youth from across New York State attend this camp located on the shores of Long Island Sound, Sea Grant sought to introduce marine science curriculum materials into existing educational programs. The value of this initiative subsequently led to Nassau County Extension leaders allocating one week of the summer camp exclusively to marine science educational activities! Attended by 54 youngsters between 12 and 17 years of age, the camp was the first of its kind in New York State. One indication of its popularity was attendance by youth from as far away as Ohio and Massachusetts as well as upstate New York. Subsequent evaluation found the camp to be so successful as to warrant its continuation. Marine camp expenses were underwritten in part by a grant from the New York State 4-H Foundation, with county 4-H agents participating in its planning and conduct.

PROGRAM LEADERSHIP

Organizational Support

Longer range strategic planning has long been a commitment of New York's Sea Grant Extension Program. While relationships between Sea Grant and other extension units in New York have strengthened continually over the past ten years, it became obvious that a clearer vision of the future would help with difficult decisions to come. This is critical in light of the current economic scene. Specifically, became desirable to have explicitly stated goals for Sea Grant staffing and county extension based programs for the next several years. To that end, a document entitled "Sea Grant Extension: Looking Toward 1990" was developed. Ιt included an historical overview of Grant/Cooperative Extension partnership and specific prospects hopes for campus, regional and county based program efforts. document is serving as a basis for discussion of organizational support issues involving our Sea Grant Extension Programs.

Tangible demonstration of county commitment to Sea Grant programming is reflected in two new initiatives on the marine coast. Our Hudson River program (see special feature) was established with financial support from three counties. Three more are expected to contribute in the near future. Rockland County is providing an office, support staff and services—a major portion of the operting budget. In the second case, Nassau County is providing similar support for our newly established seafood technologist position.

A 10 hour workshop by Sea Grant Extension Program Coordinators on methodologies of extension education program evaluation was attended by Sea Grant staff from the Northeast and Cooperative Extension staff. The workshop taught new skills and highlighted the work of Sea Grant. A leader from a participating state subsequently sent a fine evaluation done by one of his attendees with a note "This never would have occurred without your workshop!"

Interstate Efforts

Program Leader Wilkins served for six months as Acting Program Leader for the Hawaii Sea Grant Extension Program. This was part of a year-long sabbatic which focused on marine resource activities among South Pacific institutions. In addition he presented lectures at Lincoln College, New Zealand, the Australian Institute of Maritime Studies Tasmania and provided a two-day workshop to fishery Peace Corps workers in the Philippines.

In collaboration with the Great Lakes Sea Grant Network, we conducted a workshop for newer program leaders from five states. Management philosophies and techniques were featured and those attending urged its continuation.

New York was active in regional programs in all three of our geographic areas—New England, Great Lakes and Mid-Atlantic. Program Coordinator DeYoung was elected chair of the Northeast Marine Advisory Council (NEMAC). Under his leadership, the network reorganized yielding less dependency on professional staff to carry out regional projects and more collaboration between representatives from Sea Grant programs and other NOAA main line components.

Program Coordinator Duttweiler served as chairman of the Great Lakes Network Outstanding Program Award Committee. The overall chairperson role for the Network rotates to New York in 1983.

On the Mid-Atlantic front--which lacks a formal collaborative structure--a variety of joint projects in fisheries and marine trades were initiated. These are reported in the appropriate subject summaries.

YOUR INVITATION

Creating and strengthening links between coastal research findings, other information sources and persons who need and can use that knowledge is a basic role of the Sea Grant Extension Program in New York State. If you would like to learn more about planned educational programs to meet emerging needs, request a copy of the "Sea Grant Situation Statement and Program Plan" from the sources identified below. Likewide, if you are interested in learning more about Sea Grant Extension activities, a subscription to a quarterly newsletter called Coastlines is available at no charge to New York State residents from the Ithaca address. We invite you to get involved in Sea Grant's future by contacting Sea Grant Extension Specialists located in your area to learn more about upcoming educational programs which may benefit you, your business or community!

Great Lakes and St. Lawrence River

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