

# Coastlines

NEW YORK STATE SEA GRANT INSTITUTE  
STATE UNIVERSITY OF NEW YORK and CORNELL UNIVERSITY

Vol. 12 No. 4

July-August 1981

## Assessing Sea Grant in New York

As part of the continuing congressional hearings on the President's budget, Sea Grant programs across the nation were asked to assess their economic impact on coastal communities. This issue of "Coastlines" focuses on the recent accomplishments of the Sea Grant research and extension program in New York which were identified in that assessment. The results of that survey showed that nationally Sea Grant activities in one year stimulated industry, business and commerce to the extent of at least \$227 million more than the total federal Sea Grant appropriations in the last 13 years.

According to Donald F. Squires, director of the New York Sea Grant Institute, the survey of Sea Grant's economic impact in New York indicated that:

1. Research in sand mining in New York Harbor could save \$44 million annually in construction costs in the metropolitan region.

2. Participation in a Great Lakes flood control project resulted in savings of about \$750,000 in flood insurance per flood.

3. Development of floating tire breakwater technology resulted in savings of \$4.5 million in one-time construction costs by communities using this option.

4. Development of convenience seafood products has resulted in retail sales of minced fish, particularly white sucker, of about \$50,000 in Rochester alone.

While these results — and those cited in the six articles here — are pleasing, they must be viewed as a target against which the program will improve in the future.

## Sea Grant Research: Low Profile, High Impact

by Michael Duttweiler, program coordinator in Ithaca

Most *Coastlines* readers likely would have some difficulty if asked to describe the research program of the New York Sea Grant Institute. This is natural enough since most of you have learned of Sea Grant through our extension activities or *Coastlines*, our newsletter that features extension oriented information. Yet, without an active, quality coastal research network, our extension education programs could consist of little more than repackaging existing information — hardly the type of innovative resource needed for today's problems.

The 1981 New York Sea Grant research program consists of more than 30 projects at more than 14 educational institutions throughout the state. Primary subject areas include aggregate mining and spoil disposal, shore structures and processes, recreation and tourism, Great Lakes

sportfishery, Great South Bay studies, marine finfisheries, seafood technology, coastal energy and marine education.

Some of the outcomes of research appear as discrete products or findings directly of use to "consumers". Examples include:

- Development of procedures for recovering nutrients and flavor from clam wash water, both of which subsequently are used in preparing clam broth. One clam processing firm now has \$500,000 in annual sales of clam broth produced by this process in addition to reduced wastewater treatment costs.
- Development of new seafood products from minced fish flesh, often of underutilized species. One major supplier of airline meals has adopted several product lines which now generate more than \$150,000 in annual revenues. *continued on page 8*

## What does this symbol mean?

The symbol you see represents a series of articles which Sea Grant has made available to newspapers in coastal areas of the state. With a focus on *Coastal Living* in summertime, the articles are intended for coastal homeowners, boaters, water recreationists and seafood users. They include information on protecting coastal property from heavy rains, flooding, erosion and oil spills; boating, swimming and diving safety; and fish preparation.

If these topics interest you, look for the *Coastal Living* logo in your local newspaper. Also, we'd be pleased to know what you think of our effort to have timely, practical information like this appear in newspapers.

— Editor



New York Sea Grant Extension Program  
in cooperation with the State University  
of New York and Cornell University

## Communities Develop Anew with Help from Sea Grant

by Mike Voiland, Sea Grant specialist in Brockport

Whether it involves the intensely urbanized waterfront of New York City, or the more rural shoreline settings of the Great Lakes, New York Sea Grant has played an important role in many coastal community development decisions.

Functioning as stimulators, tutors, authors, moderators, facilitators, translators and always as educators, Sea Grant specialists are helping civic leaders make decisions and effect desired, positive changes in their local areas. To be sure, it would be impossible to present a comprehensive listing of how Sea Grant has assisted many New York coastal communities in developing their waterfront resources. But here are a few examples of the program's achievements and impacts on the look and vitality of the state's waterfront.

### East Midtown Manhattan: When a community learns to plan its revival.

During summer 1978, Sea Grant Specialist Steve Lopez "walked, bicycled and drove" the two-mile stretch of shoreline from Manhattan's East 14th to East 59th streets. Lopez found adjacent parcels used for conflicting purposes such as transportation, residences, industry or simply abandoned, vacant land. He

also determined that the local community planning board had no specific plans or focus on waterfront redevelopment.

Shortly thereafter, three presentations were made at board committee meetings and then Lopez arranged a televised panel discussion on the waterfront area. In Steve's own words, "Things began happening very fast after this!"

The Manhattan Community Planning Board #6 secured design services from Harvard University grad students. The board arranged to have the city draw up a request for private development proposals, with local input emphasized. Advertised nationally, the request drew proposals from four developers. The selected mixed-use proposal was valued at \$275 million dollars, which, "if all goes well," Lopez says, "should culminate in a revitalized waterfront by 1985."

### Greenpoint, East River, Queens and Mattituck: Citizens chart a course.

Sea Grant has assisted other groups plan for improvements to their shoreline environment. A "waterborne workshop" in Northeast Queens brought 30 officials and civic leaders together for a boatride and

firsthand look at their often neglected shoreline resource. In Brooklyn, the Greenpoint Civic Council was assisted in identifying waterfront access sites and the option of university student assistance in developing site plans. Asphalt Green, a group from the East River area, was able to gain access to Cornell's Architectural School for waterfront planning assistance. And, out on Long Island, the community of Mattituck tapped Sea Grant expertise on committee processes and resource planning to inventory and chart its waterfront uses and directions.

### Lake Ontario: Sea Grant helps with fishing boating access.

On Lake Ontario, a rapidly developing salmonid sportfishery is highlighting the need for boat access improvements. Sea Grant specialists at Oswego and Brockport helped six lakeshore county governments set up fishery advisory boards to plan for and promote wise access development. Further, the boards were put in contact with the state's Fish and Wildlife Management Act Board, which identified access needs to the state legislature and executive department. The FWMA Board, working with access suggestions from the fishery boards, was able to have \$1.2 million dollars proposed for boating and fishing access site development on Lake Ontario in the 1981-82 executive budget.

### Rochester and Sodus Point: A penny saved is a penny earned.

Sea Grant specialists aided the Monroe and Wayne Counties' governments in the design of badly needed boat launching facilities. At Rochester Harbor, the Monroe County Parks Department saved an estimated \$10,000 on final costs of designs for a badly needed launch, when specialists provided county staff with design reviews, criteria and example plans. At Sodus Point, Wayne County officials were assisted in designing and building a launch ramp on their own — eliminating the need to bring in private consultants, engineers and contractors. The result was the installation of a facility normally costing some \$50,000 for an estimated reduced cost (to county taxpayers) of about \$6,000.



Photo: N.Y.S. Dept. of Commerce

## Coastal Recreation Businesses: Alive and Innovative

by Michael Duttweiler, program coordinator in Ithaca

Commercial recreation and tourism along New York coasts are confronting today's inflation and exorbitant energy costs — creatively! Marine trades and coastal tourism enterprises are finding new cost-saving practices and we are proud to say that Sea Grant is lending a hand.

Energy audits to identify potential conservation techniques are nothing new. Utility companies have offered this service to homeowners for several years. Similarly, audits of small business operations conducted by the New York State Energy Office are "old hat". What is new is that the Energy Office recently changed its guidelines to include marinas among those businesses eligible for free on-site energy audits.

New York Sea Grant arranged for the Energy Office to conduct two demonstration audits of marinas in preparation for an upcoming conference. At the conference, which was cosponsored by the Long Island Association of Marine Industries, more than 55 representatives from marina businesses learned of specific energy-and-dollar-savings techniques. Based on the response of those attending, the Energy Office made the policy change to provide free audit services for marinas.

Gene Feldman, Sea Grant specialist at our Riverhead office, reports that three marinas have since undergone audits and are implementing a variety of conservation practices. One operator estimates saving nearly \$1,000

annually by changing his outdoor lighting system and possibly \$1,400 through other conservation practices.

Although maintaining boat moorings may not be the kind of thing most people lose sleep over, the fact is there are more than 20,000 documented moorings in New York's coastal waters that are costly for owners to maintain. According to Program Coordinator Bruce DeYoung, "The replacement cost for those mooring chains exceeds \$150,000 each year. Typical chains corrode rapidly, especially in salt or brackish waters, and less corrosive chains are simply too expensive."

DeYoung identified the mooring chain problem as being similar to that of finding a suitable binding material for floating tire breakwaters. In that case, less costly rubber belting materials proved effective. Field experiments have begun on using belting as a replacement for mooring chains. Initial results are promising. To be certain of reliability, Sea Grant is exploring research to test the materials fully. If the present findings hold, marina and boat owners everywhere should have a simple and cost effective option for mooring maintenance.

The coastal recreation and tourism industry as a whole is faced with an increasingly competitive market and selective consumers. For a tourist area to survive and thrive, accurate descriptions of patrons, their spending patterns, and their sources of

information are required.

Specialist Stephen Brown, located at Potsdam, reports that Niagara County soon will have a monitoring system to assist entrepreneurs and local government in defining, identifying and evaluating the nature, objectives and value of a tourist industry, its strengths and weaknesses. Brown indicates "the monitoring system is analogous to a business taking inventory but it will be applied to the entire tourist industry; it will identify which products — attractions and services — are sought and will allow appropriate management decisions."

The Niagara County monitoring system was developed by Michele Bunn of Niagara University with input from Brown. It apparently is the first such system in New York. Specialist Brown is developing a fact sheet on monitoring tourism so that other communities will be able to design and implement their own system.

These three examples, selected from a very full menu, illustrate well the old saw that "necessity is the mother of invention."

If you would like to receive more information on the "inventions" cited above, contact the specialists who are mentioned. Also, let us know if you have discovered any cost saving or tourism management technique that might be helpful to others. A healthy marine economy is to the benefit of us all.



Mike Voiland (above) from Sea Grant's Brockport office looks over the construction of Sodus Point's new boat launch (pictured here) which helped to save the county of \$44,000.

# Shifting Sands Shifting Needs

## Changing Tides in Coastal Protection

by Bruce DeYoung, program coordinator in Riverhead  
Peter Sanko, Sea Grant specialist in Stony Brook

Our beaches are rivers of sand, ever shifting to reflect changing wave conditions and directions. Like the beach, Sea Grant's educational role in coastal protection reflects the changing needs of New Yorkers. This article traces the direction of Sea Grant's educational program to help coastal property owners having erosion problems.

Along New York's marine, Great Lakes and St. Lawrence River shorelines, the need to protect property belonging to individuals, business and governmental units is evident. Coastal erosion; flooding; excess groundwater; wave damage to marine facilities; unwise purchases of protective structures; substandard design and building practices head the list of challenges confronting Sea Grant specialists.

Headway is being made to help residents make effective decisions. Most of these decisions reflect a close-working relationship between Sea Grant specialists and property owners. As New York Sea Grant Governing Board member Don Witschieben observes, "Property owners often know their needs. Sea Grant has the means to meet those needs... but nothing of value happens unless the two are joined!"

Many saw the value of this partnership in Sea Grant's information on improving wave protection. In 1975, Sea Grant supported university investigation of floating tire breakwaters. In 1979, an information bulletin was published on this research. More than 2,000 copies have been distributed in New York and elsewhere. A sampling of those who

received the bulletin indicates that nearly two-thirds decided against using the floating breakwater after reading the publication. Those who decided to use it gained over \$5 million in benefits compared to conventional technology.

For years, coastal property owners have watched while erosion ravaged their bluffs, threatening to leave their house teetering on the brink of disaster. "Many owners don't identify groundwater to be part of the problem," says Sea Grant Specialist Chuck O'Neill. "Although waves can undermine bluffs very rapidly, water in and on the ground is a more insidious type of erosion. Because this is difficult to recognize, some property owners don't act until after a catastrophe occurs. Then," notes O'Neill, "misinformation leads them to add new structures instead of looking elsewhere."

To address this problem, Sea Grant specialists held workshops, published a fact sheet, and stimulated demonstrations on the use of vegetation in erosion control.

In Oswego County along Lake Ontario, landowners were hesitant to experiment with vegetation techniques not previously used. Sea Grant helped organize five organizations, including the Oswego County Soil and Water Conservation District, the St. Lawrence-Eastern Ontario Commission, the State Department of Environmental Conservation and the Youth Conservation Service, to plant dune grasses along a portion of eastern Lake Ontario. "After eight months, the vegetation has stabilized several severely damaged areas," notes Sea Grant Specialist Bob Buerger. "These successful techniques can now be shared with others along our coasts experiencing similar problems."

During the last decade, property owners have sought assistance from



Sea Grant in confronting financial loss caused by catastrophic storms. According to Sea Grant Specialist Chris Hagerman, "Coastal property owners are often interested in claiming erosion damages as a casualty loss on their Federal Income Tax. For lack of appropriate documentation, some losses which do qualify are disallowed by the Internal Revenue Service." Sea Grant's fact sheet on coastal casualty losses has helped over 1,000 property owners in four years.

To improve the effectiveness of erosion control statewide, Sea Grant works closely with marine contractors' associations. Although relatively new, these associations provide Sea Grant with a means for improving quality coastal construction and conveying current design information to contractors. Through such partnerships, a survey on wood borers has been initiated downstate, and contractors upstate have received information on cooperative insurance. It was through marine contractors' associations that a need for a handbook on materials and construction techniques was identified. Says Sea Grant Specialist Pete Sanko, "Each contractor uses a little different technique in constructing small protective structures. By working closely with contractors and Cornell engineering faculty, Sea Grant will have a source book on techniques for contractors."

Sea Grant sponsors seminars, workshops and group meetings on erosion. At these meetings, property owners learn about techniques and materials from Sea Grant specialists, university faculty and each other. Information bulletins share factual information on subjects ranging from choosing a qualified marine contractor to "do-it-yourself" projects. The end result from both approaches is the same — informed decisions!



## Measuring Youth Involvement in Sea Grant Activities

by David Greene, Sea Grant specialist in East Aurora

In the Town of East Hampton on Long Island, a group of high school students measures sand levels on the beach.

On the opposite side of the state in Erie County, an advanced biology class measures the beach profile of a county park with a long history of erosion problems. This same group takes pH readings of rainwater and mails the results to SUNY Brockport.

Far to the north, a St. Lawrence County 4-H club prepares for the event of an oil spill in the St. Lawrence River in a contingency planning project set up by Sea Grant Specialist Mark Wiley and 4-H Agent Steve VanderMark.

Erosion, acid rain, and oil spills are problems being addressed by youth involvement, kindling an interest in coastal matters that will extend for some into adulthood.

The East Hampton inventory grew out of heated controversy and the need for unbiased, scientific information. Town residents dislike the unsightly erosion structures built on their beaches in the 1960s and question their effect on erosion.

It was just this question that got the students involved. The East Hampton Beach Preservation Society, worried about erosion of the beach, contacted Pete Sanko, a coastal geologist at Sea Grant's Stony Brook office, asking for unbiased data that would explain the beach situation. Sanko, familiar with a wetlands inventory conducted by students in



Westchester County, contacted Ed Matthews, a Cooperative Extension 4-H agent from Suffolk County who works with high school groups on a variety of marine education projects. Together Sanko and Matthews worked out a plan for East Hampton students to conduct a coastal monitoring project.

Now in its second year, the study provides more than just a job well done, according to Matthews. "An engineering firm gave us an estimate of \$200,000 for data collection, and it didn't include repeated collection like these kids are doing... So for this reason alone, the kids are providing a tremendous service."

An obvious concern regarding the study has been reliability of the students and accuracy of their work. To this, Anthony Minardi, the students' biology teacher answers, "I'd say the percent error was probably less than seven percent — which is about the same you'd get from graduate students doing the same job."

In Erie County, a special biology class is similarly involved. Results of their beach profile study will be sent to the proper county planning boards. The acid rain samples taken by the class are part of an Earth Science Acid Precipitation Project coordinated by John Hubbard, a professor at SUNY Brockport, in cooperation with approximately 60 teachers from across New York. The Erie County group was one of the 17 schools which participated in the project.

The students' teacher, Carla Borrelli says, "Acid rain has been in the news and here we have an opportunity for not only a learning experience, but real involvement with an environmental issue."

With heavy marine traffic on the St. Lawrence River, there is always

potential for an oil spill. To a population which both uses the river for recreational purposes and relies on it as the resource in its tourism industry, an oil spill can be a catastrophe. Almost five years ago the NEPCO 140 barge spilled over 300,000 gallons of heavy oil on the St. Lawrence, an event residents will never forget. Boats, docks and beaches were covered with oil. No one could walk without getting oil on their shoes.

It was in this context that Mark Wiley, Sea Grant specialist in Potsdam, began developing a contingency plan for the area. In such a plan, protective materials and lines of communication are prepared before a spill. Then, in the event of a spill, a clear-cut course of action is available, and potentially, thousands of dollars can be saved.

Steve VanderMark, a St. Lawrence 4-H agent, was looking for ways of involving older community members with the environment and important local resources. Wiley's contingency planning looked like just the right thing for a meaningful project. A few phone calls got the groups together. Now the Lisbon 4-H club is busily designing oil spill protective materials and a contingency plan for the town beach.

Throughout New York, the Sea Grant Extension Program is helping to involve youth with coastal matters. Better still, the youth are providing services to their communities that can't be measured in dollars alone.

**Photos:** Sea Grant's involvement with youth also helps coastal residents protect their shorelines. From left to right, students from East Hampton High School measure sand levels and enter data into computer; and Ed Matthews who helped set up the project congratulates them at the end of the school year.

## Sea Grant's Fishery Team Sizes Up 1980

"The commercial fishing industry is going to grow no matter what," says Sea Grant Specialist John Scotti to a group of Hampton Bay fish packers. "And whether Long Island's 12,000 fishermen are part of it is my concern."

Scotti, who specializes in fishing economics and marketing, heads a team of fishing experts made up of university scientists, economists, nutritionists and Sea Grant specialists. His concern is that New York's commercial fishermen have up-to-date technology, dock facilities, markets and recognition for their contribution to the state's economy.

Last year New York's commercial fishermen caught 39.8 million pounds of fish worth \$44.7 million, according to figures compiled by the National Marine Fisheries Service. But due

to unreported landings and cash payments, says Jon Conrad, fisheries economist at Cornell University who is a member of Scotti's team, a more accurate value is probably around \$89 million.

In 1980, the value of landings increased by 15.6% over the value reported in 1979. Fishermen, however, faced a 27.7 percent increase in the cost of diesel fuel. Says Conrad, "This cost-price squeeze has left many fishermen on the brink of economic survival. The traditional otter trawl fishermen who drag a net and doors through the water using large fuel-consuming engines have been hit the hardest." Worse still, the average day at sea now costs most fishermen between \$700 to \$1,100 even if they come back empty-handed.

To help New York's fishermen counteract these changes, Sea Grant developed its "team of experts." In addition to Scotti and Conrad, the

team includes Sea Grant Program Coordinator, Bruce DeYoung, Specialists Chris Smith and Gene Feldman; Bob Malouf, Sea Grant professor of shellfish biology at SUNY, Stony Brook; Peter Woodhead, professor of marine resources also at Stony Brook; William Lesser, professor of agricultural economics at Cornell; Glenna Kopfen from Cornell's Division of Nutritional Sciences; and Wanda Mead from Suffolk County Cooperative Extension.

According to Scotti, the team's top priority has been to help fishermen reduce operational costs by introducing low-cost, up-to-date fishing methods and technology. At the 1981 Long Island Fisherman's Forum, for



John Scotti (right) works with one of Long Island's 12,000 commercial fishermen.

example, the team brought together 500 fishermen and 27 representatives from industry and government from 10 states to exchange information. There, participants learned about fuel-saving trawl designs, fuel management, gear modification, engine maintenance, record keeping, marine insurance, tax savings and free medical care. Another conference was held for Long Island's shellfish industry on the application of energy-saving techniques to hatchery operations.

A second priority has been to help improve docking facilities and on-shore processing capability. From 1970-79, New York's commercial fishermen increased their yearly catch of finfish from 16.4 million pounds to 25 million pounds. Unfortunately, however, the fresh fish market for finfish has not expanded as rapidly as the fleet's fishing ability. The result is a critical need for facilities and processing plants to

## NOTICE TO SEAFARERS

Contract care for seafarers through the Public Health Service has been curtailed as of May 8th by the Secretary of Health and Human Services due to fiscal year 1981 budgetary constraints. As a result, only those seafarers who are under treatment at a PHS facility, or who suffer a life-threatening emergency away from a PHS facility are eligible for contract care. Care at PHS facilities is not affected at this time so seafarers should continue to avail themselves of this benefit. These restrictions apply for the remainder of the fiscal year (September 30, 1981) and may be extended if necessary. For more information, contact John Scotti at our Riverhead office.

handle the increase.

To meet this need, the team has been working toward better recognition of commercial fishing by state and local governments. Signs of success are surfacing. 1980, for example, was the first year that the **New York Economic Handbook: Agricultural Situation and Outlook** included a section on finfish and shellfish. 1980 was the year when the Suffolk County Fishing Development Council, composed of local legislators and members of the fishing industry, was established. In 1980 Suffolk County formulated plans to expand dock facilities at Shinnecock Inlet in the Town of Southampton. And in 1980 plans for onshore processing facilities in Montauk, Greenport, Southampton, Island Park, and New York City moved ahead.

Aside from these developments in which team members have been involved, Sea Grant specialists continue their extension activities with commercial fishermen. If you count the number of times a specialist like Scotti communicates with fishermen through newsletters, attendance at meetings, weekly telephone calls and publications, it's about 4,000 contacts a year. And if you include the contacts by other team members, it's in the hundreds of thousands.

For New York State whose commercial fishery nets \$44.7 million a year — or presumably double that figure, it all adds up.

## Update from New York Sea Grant

A five-page synopsis on the seasonal economic impacts of Lake Ontario's developing salmonid sportfishery is available from Sea Grant. **The Lake Ontario Salmonid Sportfishery: Some Economic Research Needs** reviews the dollar expenditures generated in lakeshore counties by peak-season anglers, as determined from four surveys conducted between 1975 and 1980. A number of additional areas for economic study are suggested. For a copy, see **I Want More**.

Steve Kelleher, graduate student in the Cornell University Food Science Department, has received one of the national Sea Grant Association's **1981 Student Awards** for his research in seafood handling. Mr. Kelleher is a student of Dr. Robert Zall. The award will be presented at

the Annual Meeting of the Sea Grant Association this July.

**Twenty-seven U.S. Coast Guard licensed boat captains** recently met in Rochester and established the Lake Ontario Charter Boat Association. Operators from as far away as Oneida Lake, Brockport and Pulaski attended the meeting.

"The goal of our association is to enhance the development and visibility of our industry," said Marv Cappon, association president who co-captained a charter fishing service in Orleans County. "We want to stimulate and promote charter fishing on Lake Ontario and to benefit our businesses through group action." According to Sea Grant Specialist Mike Voiland, the new association is seen as an outgrowth of Lake Ontario's rapidly developing sport-

COASTLINES is published bi-monthly by the New York Sea Grant Extension Program. This program is funded by the National Oceanic and Atmospheric Administration, the State of New York, and the New York Sea Grant Institute. Subscriptions to COASTLINES are free for New York residents. Two-year out-of-state subscriptions are \$4. Request COASTLINES from Editor Sally Willson, Sea Grant Extension Program, Fernow Hall, Cornell University, Ithaca, N.Y. 14853.

fishery. "The state's Department of Environmental Conservation program to restore the fisheries has helped create 30 charter fishing businesses since 1974." Sea Grant's Brockport staff has been instrumental in providing the new association with technical assistance and organizational advice.

## I Want More!

Additional information is available from New York Sea Grant. Please check the publications which interest you and send to your nearest Sea Grant Extension Office. Single copies of the following publication are free:

- \_\_\_\_\_ **Broadening our Experience with Marine Biomass**, D.F. Squires, 1980, 5 pp., free.
- \_\_\_\_\_ **The Lake Ontario Salmonid Sportfishery: Some Economic Research Needs**, M. Voiland, 1981, 5 pp., free.
- \_\_\_\_\_ **A Select Bibliography of Public Information Materials about Polychlorinated Biphenyls (PCBs)**, University of Wisconsin Sea Grant Institute, 1981, 12 pp., free.

For the following publications, make checks payable to Cornell University:

- \_\_\_\_\_ **Guidelines for Selecting a Marine Contractor**, B. Doyle, 1980, 4 pp., \$
- \_\_\_\_\_ **Controlling Bluff Groundwater Along the Great Lakes**, B. DeYoung and L. Brown, 1979, 6 pp., \$15.
- \_\_\_\_\_ **Enhancing Wave Protection with Floating Tire Breakwaters**, B. DeYoung, 1978, 28 pp., \$1.50.
- \_\_\_\_\_ **Comparative Characteristics of Surf Fishermen and Boat Fishermen on Long Island**, Sea Grant Reprint Series, E. G. Carls, 1980, 12 pp., \$1.25.
- \_\_\_\_\_ **Race, Income and Attitude toward Beach Cleanliness**, Sea Grant Reprint Series, C. Heatwole and N. West, 1980, 13 pp., \$1.00.
- \_\_\_\_\_ **A Fresh Look at the New York Coastline**, J. D. Warbach and D. B. Harper, 1980, 80 pp., \$5.00.
- \_\_\_\_\_ **Marine and Shoreland Resources Management**, J. M. Heikoff, 1980, 214 pp., \$28.95.
- \_\_\_\_\_ **Waterfront Redevelopment: A Partnership Between Public Resources and Private Ingenuity**, E. H. Kret, 1979, 136 pp., \$3.00.
- \_\_\_\_\_ **New Prospects for the New York City Waterfront**, M. L. Moss, 1980, 12 pp., \$1.50.
- \_\_\_\_\_ **Staging a Renaissance on the Waterfront**, M. L. Moss, 1980, 18 pp., \$1.50.
- \_\_\_\_\_ **Old Laws in a New Market: The Kosher Dietary Laws for Seafood Processors**, J. and C. Regenstein, 1981, 36 pp., \$2.00.
- \_\_\_\_\_ **Canned Minced Fish: Development of Products from Minced Fish**. Booklet 8, R. C. Baker, E. J. Mulnix and J. M. Darfler, 1981, 22 pp., \$.75.
- \_\_\_\_\_ **Canned Red Hake and Pollock: Development of Products from Underutilized Species of Fish**. Booklet 9, R. C. Baker, J. M. Darfler and E. J. Mulnix, 1981, 24 pp., \$.75.
- \_\_\_\_\_ **Contribution of the Ocean Sector to the United States Economy**, Sea Grant Reprint Series, G. Pontecorvo et al., 1980, 7 pp., \$1.50.

## Sea Grant Research *continued from page 1*

• Coastal contractors soon will have construction manuals prepared by Sea Grant researchers in coastal engineering. The manuals will incorporate the latest design standards and research in a readily useful and understandable form. Existing manuals typically are either too technical to be useful to anyone but the highly trained or too simple to be of much practical assistance.

• Anglers and commercial charter operators plying the waters of Lakes Erie and Ontario are learning about daily and seasonal movement patterns of their preferred game species. Current research has identified the typical summer movements of salmonids making it possible to suggest preferred areas and temperatures rather than to "Follow the yellow boat driven by the guy with the Jeep hat."

True research — including investigation of problems for which there may or may not be clear answers — often generates results that are not easily applied to individual problems. The essential challenge for our extension staff is to identify research findings that may have relevance to

key problems in their geographic areas and to translate and summarize that information for use by coastal residents. More examples make the point:

• Research in coastal erosion has defined the general processes occurring along Lake Ontario's shore. Yet this or any other survey research cannot provide specific advice to the shoreline resident looking at her bluff and the vanishing lawn between it and her cottage. The extension specialist's role is to interpret the peculiarities of particular shoreline areas and work with landowners to identify viable shoreline stabilization options.

• For the first time, extensive economic analysis is being conducted on the commercial fin and shell fisheries of New York. To the extent possible, the findings are being tailored to the specific informational needs of the fishers. Yet, there again is a clear role for extension specialists to apply the findings to individuals or groups faced with hard boiled investment decisions which must be made today.

• A series of modest research projects have described the developing sportfishery and tourism industry of

Lake Ontario in terms of economic impacts, problems with lake access and factors affecting tourism. These pieces of information do not by themselves provide counsel to the municipalities seeking to judge the wisdom of public expenditures in support of the industry. Instead, extension specialists must integrate these findings and experiences of other communities into a form that assists in making difficult decisions.

While to many of you our research may not be as visible as the Sea Grant Extension Specialist attending your landowners association meeting, or the extension information bulletin in your hand, or even **Coastlines**, the Sea Grant research program is directed towards your needs. It is intellectual and practical fuel for our educational programs. The research and extension partnership distinguishes Sea Grant as a source of practical information for coastal residents.

For more information on current or past research, contact the Albany or Ithaca office. Watch the **I Want More** column of **Coastlines** for current research publication titles.

New York Sea Grant Institute  
411 State Street  
Albany, New York 12246  
Tel (518) 473-8002

Sea Grant Extension Program  
Morgan III  
SUNY/Brockport  
Brockport, New York 14420  
Tel (716) 395-2638

Sea Grant Extension Program  
Cornell University Laboratory  
39 Sound Avenue  
Riverhead, New York 11901  
Tel (516) 727-3910

Sea Grant Extension Program  
66 Sheldon Hall  
SUNY/Oswego  
Oswego, New York 13126  
Tel. (315) 341-3042

Sea Grant Extension Program  
South Campus, Building H  
SUNY/Stony Brook  
Stony Brook, New York 11794  
Tel. (516) 246-7777

Sea Grant Extension Program  
Fernow Hall  
Cornell University  
Ithaca, New York 14853  
Tel (607) 256-2162

Sea Grant Extension Program  
Cooperative Extension  
111 Broadway — 17th Floor  
New York, New York 10006  
Tel. (212) 587-9722

Sea Grant Extension Program  
Cooperative Extension Regional Office  
412 E. Main Street  
Fredonia, New York 14063  
Tel (716) 672-2191

Sea Grant Extension Program  
338 Dunn Hall  
SUNY/Potsdam  
Potsdam, New York 13676  
Tel (315) 268-3303

Sea Grant Extension Program  
Farm & Home Center  
21 South Grove Street  
East Aurora, New York 14052  
Tel. (716) 652-5453

The New York Sea Grant Extension Program provides equal opportunities in employment and programs.



## SEA GRANT

Fernow Hall  
Cornell University  
Ithaca, New York 14853  
Tel: (607) 256-2162