



Coastlines

NEW YORK STATE SEA GRANT PROGRAM AND MARINE SCIENCES RESEARCH CENTER

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NEW YORK'S YEAR II SEA GRANT PROGRAM

The second year of New York's Sea Grant Program commences November 1, 1972. Interested members of the faculties of State University of New York and Cornell University are invited to participate in the program which supports both research and educational activities as defined below.

Sea Grant research on the Great Lakes or the marine coast may be either applied or basic, but must always be clearly identified with the solution of a problem and with the organization requiring the solution. Persons wishing to obtain Sea Grant support for their research must be prepared to answer the following questions:

1. Why is the research being undertaken?
2. Who requires the research results that will be obtained from the project?
3. What use would be made of the results of the research?

The National Sea Grant Program strongly encourages the participating institutions to formulate multidisciplinary teams to attack particular problems. Within New York State we are developing such teams, with particular emphasis on those composed of members of several campuses. During the planning stage of our initial Sea Grant proposal the beginnings of such teams were identified and the problem areas generally outlined. Through the past months, with the assistance of external advisory councils, our objectives have been focused more sharply. We are, therefore, particularly interested in learning of persons who wish to participate in some of the research areas outlined

on the following pages.

Individual initiatives are always welcomed, particularly when they are applicable to Sea Grant objectives, i.e., projects which will contribute toward the development, conservation, or economic utilization of the coastal zone, solve problems now confronting Great Lakes and marine communities, or contribute toward an understanding of the interplay between recreational and industrial utilization of the coastal region.

Through the past months we have been engaged in a review of program direction with the assistance of the national office. While during the first year of Sea Grant we emphasized environmental quality and included within the scope of the program many projects studying the effects of pollution, the national program now wishes our activities to move in a different direction. This shift takes cognizance of the number of other federal agencies supporting work on water quality and seeks to place stress on those activities which are uniquely Sea Grant. We are therefore encouraged to emphasize studies relating to the economic development of the resources of the coastal region, the management of the coastal region and its resources, and the development of techniques, policies, understandings and technologies which will enhance the utilization of the coastal region. In the totality of our program, such activities should be closely coordinated with other national programs such as the International Field Year on the Great Lakes, the New England River Basins Study of Long Island Sound, and the National Marine

Fisheries Program on the New York Bight.

Areas of Year II Emphasis:

1. Coastal Zone Management: Studies
Wetlands, inter-institutional management groups are being formed.

2. Resource Evaluation and Management
Energy policy, erosion studies, recreation, port development and transportation groups are being formed.

3. Resource Development
Fisheries management and aquaculture, mineral resources (including sand and gravel), food processing and marketing groups are being formed.

4. Ocean Technology
Aquaculture engineering, diving physiology, materials and other areas are under consideration.

Projects in education should be directed toward the development of new curricula, and educational opportunities uniquely possible through Sea Grant funding. Particular priority will be given to programs for which a demonstrated market for graduates can be established. Support for traditional marine graduate programs is not encouraged.

The Governing Board of the New York State Sea Grant Program has suggested that an effort be made again during Year II to solicit wide participation on the part of SUNY campuses and Cornell. Therefore, individual projects will be modestly supported. A project requiring in excess of \$30,000 (two-thirds of which will be provided through the federal funds of Sea Grant) must have particularly strong merit and justification. Through shifts in national policies Sea Grant supported research is being shifted away from pollution studies, unless such investigations are in support of other projects.

To avoid wastage of effort by interested faculty, we are not requesting proposals at this time. Rather, interest should be indicated by submission of a preliminary proposal information sheet to the Sea Grant Program Office. The Sea Grant Cabinet will work with interested faculty in developing programs and integrating research activities having related or allied objectives. Full proposals (in the New York State Sea Grant Program format) will be requested in June. Initial budgetary review will be conducted in July and investigators will be notified of their status at that time. Proposals incorporated into the final document will be submitted to Washington, D.C. on August 15 for November 1 funding.

Persons wishing to obtain further information prior to submitting a preliminary proposal information sheet are encouraged to contact the Program Office as soon as possible.

SEA GRANT RESEARCHERS' MEETING

The first of the Sea Grant meetings for New York State is scheduled for March 10 at SUC/Cortland, from 9.00 a.m. to 6.00 p.m. in Room 204, Corey Union. Principal Investigators will report on their research activities, and the Cabinet will discuss the program for Year II. The meeting is open to any interested persons, who should contact Dr. Daniel Brennan, Department of Geology, SUC/Cortland. tel. 607-753-2815. Travel and lodging arrangements should be made by the individual.

SEA GRANT ADVISORY SERVICES PROGRAM UNDERWAY

Program Leader Appointed

Bruce T. Wilkins, a member of Cornell's Department of Natural Resources, has been appointed Program Leader for the New York State Sea Grant Advisory Services. Dr. Wilkins received the B.S. degree from Cornell and the M.S. degree from Montana State University, both with a major in wildlife management. In 1967 he obtained the Ph.D. degree from Cornell, specializing in natural resources conservation, land economics, and fishery biology. His thesis dealt with planning for marine resources in a Long Island community. His early experience was as a range and game biologist with the Montana Fish and Game Department. He later became a county agricultural agent in Broome County, N.Y., and from 1963-1967 he served as an extension specialist for the Department of Natural Resources at Cornell. Since joining the faculty of the NY State College of Agriculture and Life Sciences, Cornell University, in 1967, he has been responsible for developing and supervising the undergraduate curriculum in outdoor recreation.

Advisory Services Role

Advisory Services agents have a double function, reflecting the Sea Grant orientation toward the practical concerns of the community. They translate research findings for direct use by people in business and industry, civic groups and local government, and they feed back to the researchers needs as seen by users.

Dr. Wilkins told Coastlines that meetings with community groups, commercial and recreational leaders will be among the initial Advisory Services functions. One or more major conferences will be handled by the Advisory Services in the coming year.

An important early task is the development of linkages to the knowledge base in SUNY, Cornell, state and federal agencies and Cooperative Extension staffs in New York. On the relationship between Sea Grant Advisory Services and Cooperative Extension, Dr. Wilkins stated: "Experience elsewhere suggests

that successful Sea Grant advisory efforts have often linked closely with Cooperative Extension, thus involving veteran extension personnel in a variety of ways. As I view it, the challenge in New York is not to take limited Sea Grant resources and try to build a new organization, but rather to use these new resources to expand and supplement existing structures, working closely with them to enable society to better use their marine resources."

Dr. Wilkins sees the following possible initial objectives for the Advisory Services:

On the Great Lakes:

- 1) Achieving implementation of important portions of the regional water resources plan
- 2) Increasing incomes of commercial fishermen on Lake Erie and Ontario
- 3) Expanding appropriate recreational developments on the shores of Lakes Erie and Ontario
- 4) Aiding in appropriate siting of power plants

On Long Island:

- 1) Increasing the protection afforded estuary areas by governmental groups and community action
- 2) Improving incomes of full-time commercial fishermen through better use of equipment
- 3) Development of the Irish moss industry if deemed feasible by research
- 4) Achievement of plant efficiencies in processing of shellfish
- 5) Development of better cost control for charter fishing boats.

Four Specialists Recruited

Four regional Advisory Services specialists are being recruited, with marine expertise in biology, regional planning, food processing or economics. Two will be based on Long Island and two near the Great Lakes.

Their duties will involve working with local university units and others to develop an Advisory Services effort; group and individual consultation to identified audiences including community leaders, commercial fishermen, processors and county extension staffs; and preparing

material for radio, television and newspapers.

Sea Grant Briefing for Cooperative Extension

A three-day conference to introduce Cooperative Extension employees to Sea Grant was held at Cornell University February 28-March 2. Arthur Alexiou, Director of Institutional Grants, and Daniel Panshin, Director of Advisory Services, Office of Sea Grant, National Oceanic and Atmospheric Administration (NOAA) spoke on the program from the national perspective. Advisory Services in other states were discussed by Walter Gray, Director of the New England Marine Resources Information Program, and Frederic Smith, Marine Economist from Oregon State University. Donald Squires, Program Director, and Bruce Wilkins, Program Leader for Advisory Services, outlined the Sea Grant Program in New York. The conference was arranged by Lyle Raymond, Extension Associate of the Water Resources and Marine Sciences Center at Cornell.

PROGRAM OFFICE MOVES TO ALBANY

Dr. Donald F. Squires, Program Director, and Ms. Marian Steinberg, Administrative Assistant, have offices with the Vice Chancellor for Academic Affairs, SUNY, and on March 17 will move from 8 Thurlow Terrace into new quarters.

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The editorial office remains at Stony Brook. In Dr. Squires' absence Dr. M. Grant Gross, Associate Director for Research, has been named Acting Director of the Marine Sciences Research Center.

SEA GRANT MARINE FISHERY PROGRAM

Dr. J.L. McHugh, Coordinator for Marine Research in NYSSGP and Professor of Marine Resources, MSRC, sees marine

fishery management within New York's Sea Grant Program in the following terms:

"As a program of the State it should concentrate on problems amenable to solution by the State. The marine Sea Grant fishery program should pay special attention to endemic living resources like molluscan shellfish, to aquaculture, and to the effects of environment on marine life. Attention to highly migratory resources should be pointed in the direction of helping to formulate public policy and to improve public understanding of the issues and their means of solution.

Preliminary study shows that the history of the marine fisheries of New York is a history of resource destruction and mismanagement. The recorded history of landings since 1880 shows clearly that one resource after another has produced large catches and then declined to minor importance, and the process is continuing at an accelerated pace. The causes of some of those declines are known and they could be corrected by unilateral action within the State. The causes of others are equally well known, but the solutions are beyond the powers of the State acting alone. The causes of still others are not understood at all.

Rational management of the fisheries of New York State, as in most other states in the USA, is difficult because tradition, public misunderstanding of the issues, and conflicting interests interfere. The marine fishery laws are for the most part sponsored by uninformed special interest groups. These laws and regulations tend to foster economic inefficiency and work against the best interests of the fishing industry. They are difficult to combat because they usually are disguised as conservation measures. The battles rage, between sport and commercial fishermen, between elements of the domestic commercial fishery, and between domestic and foreign fishermen; bills are introduced in the state legislature, and many pass; but the living resources continue to disappear. Thus, identification of the problems and their relative importance, and public education, must be important elements of the Sea Grant fishery program.

In many cases the problem is social-political or economic, and not the lack of basic scientific knowledge of the resource. Thus, participation of social scientists is required at an early stage. A strong fishery extension service will be an important supplement to fishery management research."

Dr. McHugh recently appeared as an expert witness on the NET television series "The Advocates" on a program arguing the 12-mile or 200-mile marine fishery jurisdiction. Dr. McHugh argued for the narrower limit, on the grounds that international regulation, while imperfect, is still far better than domestic marine fishery management almost anywhere in the United States. Dr. McHugh was elected in June to a three-year term as Chairman of the International Whaling Commission.

CLADOPHORA AND EELGRASS PROJECT

Cladophora and eelgrass, which are serious nuisances to small boat operators and swimmers on the Great Lakes and the Great South Bay respectively, might become a cash crop instead of a problem. Harvesting the algae and grass is already technically feasible. The Empire State Paper Research Institute of SU College of Forestry at Syracuse is proposing to investigate, as a possible interim project for Sea Grant, a commercial use for these plants.

SEA GRANT GOVERNING BOARD MEETS

The Governing Board met January 21 at the Commodore Hotel in New York City, to take up matters of policy regarding Sea Grant and the Sea Grant Program. Dr. T. Alexander Pond was chairman.

Members of the Board are; Albert M. Ammerman, President, Suffolk County Community College; Louis T. Benezet, President, SU/Albany; Albert W. Brown, President, SUC/Brockport; W. Donald Cook, Vice President for Research, Cornell; Bruce Dearing, Vice Chancellor for Academic Programs, Central Administration, SUNY; Henry Diamond, Environmental Conservation Commissioner, New York State; J. Sherwood Dunham, Vice President for Academic Affairs, SUC/Oswego; E.K. Fretwell Jr., President, SUC/Buffalo; S. Stewart Gordon, Execu-

tive Vice President, SU/Binghamton; W. Keith Kennedy, Vice Provost, Cornell; and T. Alexander Pond, Executive Vice President, SU/Stony Brook.

MSRC NORTH SHORE BAYS STUDY

On February 7 the Nassau-Suffolk Regional Planning Board released at a press conference the MSRC study Characteristics and Environmental Quality of Six North Shore Bays, Nassau and Suffolk Counties, Long Island, by M. Grant Gross, DeWitt Davies, Paul M. Lin and William Loeffler, published as MSRC Technical Report No. 14. This is the first study of the environmental quality of the six bays as a group, and the first attempt to make predictions. Data was gathered on the 40-foot MSRC vessel R/V MICMAC, equipped with a continuous-flow on-site water analysis system developed at the Center. On board, temperature, salinity, and dissolved oxygen were recorded. Water samples were later analyzed for nutrient concentrations; sediment grain size and interstitial nutrient concentrations were measured. Combining this information with knowledge of natural processes, that is the exchange of water between the bays and the Sound, it was possible to estimate which bays are likely to be in serious trouble if additional sewage is dumped into them. The findings have no necessary correlation with the popular view of water quality, which is based on such factors as water color, clarity and smell, and the location of industrial facilities.

Collaboration of the MSRC and the Marine Resources Council of the Nassau-Suffolk Regional Planning Board is continuing. A MSRC wetlands classification project will be published by the Board. The Council has under consideration a coastal inventory of the North Shore; shoreline trends; physical description; and a beach classification system based on erosion susceptibility, and desirability for conservation and recreation.

MSRC COASTAL CRUISES

Associate Director Frederick Roberts has no good news to report so far. The efforts of the Center to replace the R/V UNDAUNTED, which was made available by NOAA for three research and training

cruises, have met with no success. One cruise was taken on an experimental basis on the R/V DELAWARE II out of Sandy Hook Laboratory. However, this requires matching our research plan with the work schedule at the Sandy Hook Laboratory. Also, space is very limited, enough for a science party of six. Mr. Roberts has not given up hope, but the outlook is not good at present.

ISLES OF SHOALS, PORTSMOUTH, N.H.
SUMMER COURSE IN MARINE SCIENCE

SU/Stony Brook, U. of New Hampshire, and Cornell offer a 4-week introductory program in Marine Science for undergraduate and graduate students. Participants earn five credits at any of the three sponsoring universities. Applications are available from Frederick Roberts, Assoc. Director, MSRC, Stony Brook, N.Y. 11790, or John M. Kingsbury, Director, Summer Program in Marine Sciences, 202 Plant Science Bldg., Cornell U., Ithaca, N.Y. 14850. Application deadline is March 15.

NEW MSRC TECHNICAL REPORTS

- No.12. Study of Environmental Impacts of Alternative Long Island Sound Bridge Sites. E.J. Tuthill and J.F. Bagg. August 1971. 136 p.
- No.13. Hydrographic Data Report: Long Island Sound - 1970. Part II. C.D. Hardy. January 1972. 20 p.
- No. 14. Characteristics and Environmental Quality of Six North Shore Bays, Nassau and Suffolk Counties, Long Island, New York. M.Grant Gross, DeWitt Davies, Paul M.Lin, William Loeffler. January 1972.98p.
- No. 15. Survey of Water Quality and Sediments in Six North Shore Bays, Nassau and Suffolk Counties, Long Island. Appendix to Technical Report No.14. February 1972. 29 p.

(Nota bene: Technical reports are available from the MSRC at no cost to NY State agencies and SUNY campus libraries and departments. Austerity has made it necessary to require a \$3.00 per copy handling charge from all others except those on an exchange basis.)

SEA GRANT ADVISORY COUNCILS APPOINTED

Representatives from civic groups, industry, recreation, local government and others from the "user" community are holding meetings March 3 at Farmingdale and March 9 at Syracuse, to provide guidance on long-range goals for the New York State Sea Grant Program.

The following will serve on the Marine Advisory Council:

- John Binner, Sportsmen's Council;
- Thomas Bishop, Moran Towing and Transportation Co.;
- Leo Geyer, Grumman Aerospace Corp.;
- Roger H. Gilman, Port of New York Authority;
- George Humphreys, Dept. of Environmental Conservation;
- Harry Kiltbau, Great South Bay Water Fowlers Association;
- Lee Koppelman, Nassau-Suffolk Regional Planning Board;
- Irving Like, Reilley, Like and Schneider;
- Jack Low, M. Low and Sons, Inc.;
- Richard Miller, Long Island Fishermen's Association;
- J. Richards Nelson, Long Island Oyster Farms;
- G. Stanley Platt, Oceanographic Fund, Inc.;
- Claire Stern, Long Island Environmental Council;
- John Suydam, National Boatsmen's Assoc.

Great Lakes Advisory Council:

- James Bruce, Canadian Centre for Inland Waters, Dept. of the Environment;
- David Caverly, Ontario Water Resources Commission;
- Leonard T. Crook, Great Lakes Basin Commission;
- Thomas Dyer, Metropolitan Water Board and Eastern Oswego Basin;
- Royal LaLonde, Hutchinson's Boat Works Inc.;
- Mason Lawrence, NYS Dept. of Environmental Conservation;
- Robert E. Lee, Rochester Committee for Scientific Information;
- James Mullarkey, NY Conservation Council Inc.;
- Leo Nowak, Erie-Niagara Counties Regional Planning Board;
- Leonard Starr, Fredonia Products Inc.;
- William Steinfeldt, Eastman-Kodak Co.;
- Joseph C. Swidler, Public Service Commission;
- Winfield D. Tyler, Associated New York State Food Processors Inc.;
- William E. Tyson, St. Lawrence-Eastern Ontario Commission;
- Mrs. Richard Vesley, Lake Erie Basin Committee of the League of Women Voters;
- Sam Williams, O'Brien and Gere.

Coastlines is available free of charge by writing to:
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