



Coastlines

NEW YORK STATE SEA GRANT PROGRAM AND MARINE SCIENCES RESEARCH CENTER

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THE NEW YORK STATE SEA GRANT PROGRAM

The New York State Sea Grant Program was formally launched on October 27, 1971 at a presentation ceremony in Governor Rockefeller's office in New York City. The first year of the program is funded at \$967,935, to support research, advisory services, educational and program development activities on the two coastlines of the state. SUNY Chancellor Ernest L. Boyer accepted the \$600,000 federal portion from the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce, in behalf of the consortium of State University and Cornell which forms the basis for the institutional Sea Grant award. Chancellor Boyer said that this program will permit the intellectual and scientific resources of State University and Cornell to work collectively on the development of the state's marine resources.

"We are going to move forward in this critical area dealing with happiness and survival itself," he stated. "Scientific and scholarly research, when done in the service of people, is still the best means we have at our disposal for advancing the health, economic growth and human enrichment of society. We all have a continuing obligation to assist and support such work."

Cornell University President Dale R. Corson's statement, read by Vic Provost Keith Kennedy, emphasized the historical role of Cornell as a land-grant college, with a continuing responsibility in teaching, research and extension services which is now being expanded to the problems and concerns of the sea. Robert Abel, Director of the Office of

Sea Grant, NOAA, in making the presentation thanked the Program Director, Donald Squires, saying that "when a government agency is presented with as well prepared a plan as the New York State Sea Grant proposal, it is a pleasure to award taxpayers' money."

Dr. Donald F. Squires stated for Coastlines that "with our first year of Sea Grant initiated, we must begin to work very hard towards producing results of value to the state and to the program. For the New York State Sea Grant Program to grow and prosper all of its initial participants, as well as those who will be joining the program in the future, will have to give their best creative thinking toward the problems of restoring the quality of the state's coastal waters, developing their resources and planning better utilization of our coast for the citizens of the state. With the award of the first year grant, the burden is upon us to show that we can live up to the expectations."

THE NATIONAL SEA GRANT PROGRAM- WHAT IS IT?

The National Sea Grant College Act of 1966 established for the marine resources of the nation the same kind of program that has been so successful for agriculture under the Morrill Land Grant Act of 1862: the direct involvement of scholars in the practical problems of resource development through research, education and advisory services to bring to the user community needed practical information.

Awards are made in four categories:
 (1) Sea Grant Projects: for research or

education in a specific marine activity; (2) Sea Grant Coherent Projects: for a well-defined regional problem; (3) Sea Grant Institutions: to a university with a broad existing base of competence in marine science and of capacity to develop a complete program of research, education and advisory services; and (4) Sea Grant Colleges: Sea Grant Institutions which have attained high quality of performance after sufficient time has elapsed to evaluate their program.

In 1968, the first year of the national program, federal funding was \$2 million. In fiscal 1971, the first year of Sea Grant College designation (Oregon State University, University of Rhode Island, Texas A&M University and the University of Washington) funding reached \$17.6 million. The Office of Sea Grant was transferred in October 1970 from the National Science Foundation (NSF) to the newly created National Oceanic and Atmospheric Administration (NOAA) in the Department of Commerce.

THE NEW YORK STATE SEA GRANT PROGRAM - THE FIRST YEAR

Total first year funding for the institutional award to State University and Cornell is \$967,935, of which matching funds of \$367,935 were provided by the universities and industry. This is the first multi-campus Sea Grant program and the first to involve both marine and Great Lakes research. The grant is one of the largest single first year awards.

Projects funded are listed below by principal and associate investigators, with campus affiliation and Office of Sea Grant classification.

E.R. Baylor, MSRC, Pollution/Oil Spills; D.J. Brennan, SUC/Cortland, Geological Oceanography/Coastal; E.E. Chermack, SUC/Oswego, Pollution/Thermal; D.R. Coates, M.E. Morisawa, SU/Binghamton, Management and Preservation of Environment; R.R. Costa, E.J. Cloutier, J.A. DeMarte, H.V. Kibby, R.J. McLean, SUC/Brockport, Ecological Studies; U.H. Czapski, SU/Albany, Pollution/Thermal; J. Femenia, SU Maritime College, Ocean Engineering; R.E. Ford, P. Goldstein, SU/Buffalo, Ocean Law/Coastal; J.D. Francis, H.R. Capener, SU College of Agriculture at Cornell, Education/Manpower Survey; C.R. Harrington, SU College of Agriculture at Cornell, Advisory Services/Program Development; J.H. Judd, SU/Oswego, Coastal Resources Management; J.H. Judd, SUC/Oswego, Pollution/Thermal; S. E. Leibovich, Cornell, Physical Oceanography/Coastal; J.D. Longobardi, D. Epstein, J. Pescatore, SU Maritime College, Physical Oceanography/Coastal; K.K.S. Pilay, C.C. Thomas, Jr., Western N.Y. Nuclear Research Center, Pollution/Metals; R.J. Rumer, Jr., SU/Buffalo, Environmental Model Development/Physical; E.E. Schrier, SU/Binghamton, Chemical Oceanography/Coastal; J.T. Scott, SU/Albany, Pollution/Thermal; W. Smith, Suffolk County CC, O. Terry, MSRC, Technician Training/Mariculture; D.F. Squires, MSRC, Program Management and Development; K.M. Stewart, SU/Buffalo, Physical Oceanography/Coastal; R. Stewart, SU/Albany, Pollution/Thermal; O. Terry, MSRC, Aquaculture/Plants; A. Van Geet, SUC/Oswego, Pollution/Metals; P.K. Weyl, MSRC, Environmental Model Development/Management; G.C. Williams, MSRC, Commercial Fisheries/Biology.

GUIDE TO WHO AND WHAT OF THE NEW YORK STATE SEA GRANT PROGRAM

Program Director, Dr. Donald F. Squires
Coordinator of Great Lakes Programs,
Dr. John H. Judd
Administrative Assistant, Marian Steinberg
Editor, Ellen Arel

Governing Board

Representatives from top level administration of SUNY two-year, four-year and university centers and Cornell are the policy determining body and make final review of the program's disposition of resources.

Cabinet

Dr. Donald F. Squires
Dr. Leonard Dworsky, Director,
Water Resources and Marine Sciences
Center, Cornell University
Dr. John H. Judd, Research
Associate, Late Ontario Environmental
Laboratory, SUC/Oswego
Dr. Clifford Harrington, Director
(pro tem), Advisory Services, New York
State Sea Grant Program, SU College of
Agriculture, Cornell University
Dr. John L. McHugh, Coordinator
for Marine Research, MSRC

The Cabinet meets bimonthly to develop and assess the program. In mid-November the Cabinet began a series of meetings to formulate the program for the second year, and will be contacting the academic community with reference to research areas.

Advisory Councils

The outside "user" community, representing industry, civic groups and local government, establishes priorities and advises on program development. Program review at all levels is responsive to the priorities set by these councils.

HOW IT WORKS

Dr. Squires told Coastlines that program formulation for Year II will in general follow this pattern:

The Sea Grant Cabinet, in conjunction with the National Sea Grant Program, will determine general areas for research activities, educational programs and advisory

services. Funding levels will be established in the next month for these areas. The general outline will be presented to the Advisory Councils for review and the establishment of priorities. A general announcement of the program should be available in early spring. The Program Director and members of the Cabinet will be visiting campuses through the winter to keep interested persons advised, and to solicit ideas which can be brought into the program development process.

During the spring, research teams, preferably multi-campus and inter-disciplinary, will be established in the various program areas, and proposals will be formulated. During July the proposal for Year II will be written and submitted for national review. The Site Visit by the National Sea Grant Panel will be held on September 19 and 20, at which time both progress reports of Year I work and proposals for Year II will be presented. Funding for Year II will begin November 1, 1972.

During Year I of the New York State Sea Grant Program, emphasis was given to Environmental Quality, with second and third priority to Environmental Management and Resource Development respectively. In the second year emphasis will shift toward the latter categories. Preliminary indications are that Year II programs will be focussed on Coastal Zone Planning and Management, Resource Identification and Management, and New Technologies.

Program announcements and other information on the New York State Sea Grant Program will appear in Coastlines.

FUNDS FOR GREAT LAKES RESEARCH

The New York State Atomic Space and Development Agency (ASDA) has accepted the preliminary results of an ecological study of Lake Ontario being made for ASDA by Dr. Eugene Chermack, Dr. Ronald Engel and Dr. John Judd (project director) of Lake Ontario Environmental Laboratory (LOTEL), SUC/Oswego. The research will continue through summer 1972, with total funding of \$35,000. The study deals with currents, chemistry, fish, benthos and bottom topography.

ASDA is using the results for guidance in selecting power plant sites which it will buy and lease to power companies.

For the International Field Year Great Lakes (IFGYL) LOTEL has submitted proposals to the Environmental Protection Agency (EPA) for an ecological survey of the coastline from Rochester to Stony Point. Dr. Robert Sweeney, Director, Great Lakes Laboratory (GLL), SUC/ Buffalo, has been awarded \$110,000 from NSF for the Niagara to Rochester segment.

Mr. Robert Sykes, Jr., project director, SUC/Oswego, has prepared a proposal in connection with running NOAA's eastern radar network. Dr. Jon Scott, SU/Albany, has submitted an IFGYL proposal for a coastal chain of buoys for physical and meteorological research.

Other projects at GLL (Dr. Robert Sweeney, project director) include a bio-assay on hazardous materials and chemical detoxicants, funded by EPA, and instruction of sewage treatment plant operators, funded by the New York State Department of Environmental Conservation (NYSDEC).

GREAT LAKES RESEARCH VESSELS

LOTEL began operating the T-501 on Lake Ontario in November. GLL formally dedicated the R/V Dambach on July 17. These 65-foot T-boats, on loan from the Corps of Engineers, are the largest and best equipped research vessels being operated from a U.S. port on Lake Erie or Ontario. The vessels will be heavily utilized by SUNY participants in IFGYL. LOTEL has on loan a 34-foot research vessel belonging to the GLL. SUC/Fredonia launched its 36-foot environmental study boat the R/V Limne this summer, beginning near-shore research on the chemistry and biology of Lake Erie. She has been used for classwork and research on Cladophora.

OCEANGOING RESEARCH AND TRAINING CRUISES

MSRC conducted another in its series of oceangoing research and training cruises in August, on the 142-foot R/V Undaunted. Prof. M. Grant Gross, MSRC Associate Director for Research, was senior scien-

tist. Participants included several members of the MSRC faculty and staff, Dr. John Judd of LOTEL, SU/Oswego, Prof. Frank Martin of Suffolk County CC, Dr. Jeffrey Levinton, Earth and Space Sciences, SU/Stony Brook, students from SU/Stony Brook and six other universities.

The cruise covered New York Bight, New York harbor area, Long Island Sound and Block Island Sound. Investigations included physical, chemical and biological oceanography with emphasis on understanding the processes of the shelf waters and water quality. Data from the April and August cruises will be published in several MSRC technical reports. The cruises are funded by the National Oceanographic and Atmospheric Administration, the Environmental Protection Agency and the Office of Naval Research.

The fate of future MSRC research and training cruises has become murky, according to Associate Director Frederick Roberts. The scheduled October 1 cruise had to be cancelled when NOAA withdrew support for the R/V Undaunted. The cruises scheduled for April and August have apparently met the same fate. Other ship support is being ferreted out, in view of large interest on the part of SUNY campuses. Future schedulings will be reported in Coastlines.

R/V MICMAC FIELD TRIPS

SUNY/Binghamton ecology students, led by Prof. John Haugh, Biology, were introduced to marine ecology via the R/V Micmac. They used the MSRC 40-foot research vessel on a field study weekend in October. Aboard the Micmac they took water samples, dredged and made bottom grabs for specimens. Research technician Glen Hulse gave instruction in physical oceanographic technique: water sampling, depth measurements (radar and fathometry) and temperature. MSRC Associate Director Fred Roberts also arranged for the group of 25 to visit Flax Pond and the Fire Island National Seashore. The MSRC tries to schedule research work so that the R/V Micmac is usually free on weekends for visiting classes. Contact Mr. Roberts for use of the vessel.

DISCOVERY BAY LABORATORY, WEST INDIES
A STATE UNIVERSITY LABORATORY

Summer 1971, the second since the completion of the new laboratory buildings, was another very active one. SUC/Oswego enrolled 30 students in a three-week interdisciplinary course in tropical ecology, directed by Prof. Norman J. Gillette. The Organization for Tropical Studies held a course in carbonate sedimentation for advanced graduate students, directed by Dr. Clyde Moore, Louisiana State University.

Discovery Bay is one of the best teaching areas for marine biology, Prof. Harvard Lyman, Biology, SUNY/Stony Brook, explained. Total amateurs are within wading distance of an extremely varied marine environment. Collected specimens are in the laboratory for examination within minutes. Dr. Lyman plans to use the Laboratory to introduce bio-chemistry students to marine biology without any previous marine experience. With the arrival in January 1972 of Prof. Peter Woodhead as Director, expansion of the scientific and teaching program of the Laboratory, curtailed by the untimely death of Dr. Thomas Goreau, will move into high gear. A full semester course for graduate students and upperclass undergraduates is planned for spring 1973. The course will be open to all SUNY four-year colleges and university centers.

Research at Discovery Bay

Dr. Harvard Lyman, SUNY/Stony Brook has been continuing his work on the symbiotic chloroplast problem, studying the sea slugs Tridachia crispata at the coral reef. This December, using the new high speed centrifuge, and the spectrophotometer on loan from the Smithsonian, he will be able to do some bio-chemical research at the Laboratory facilities, which he characterizes as "superb." Profs. Lyman, Slobodkin, SUNY/Stony Brook and Dr. Judy Lang, Smithsonian have submitted a proposal to NSF to work on "Experimental Studies in Reef Coral Speciation." Ian Johnson and Philip Dustin, graduate students, SUNY/Stony Brook, have been working at DBL under NSF support from a grant to Drs. Squires and Lang on a taxonomic study

of corals, "Behavior and Immunology Correlates of the Species Problem in Hermatypic Scleractinia."

Dr. David Barnes has been awarded a two-year NATO post-doctoral fellowship to continue his work at the Laboratory on the structure of coral skeletons. Applications for use of the Discovery Bay facilities are now submitted directly to Mr. Norman Copeland, Manager, Discovery Bay Laboratory, P.O. Box 35, Discovery Bay, Jamaica, West Indies.

MARINE LABORATORY AT ISLES OF SHOALS
PORTSMOUTH, NEW HAMPSHIRE

This summer SUNY joined Cornell and New Hampshire in sponsoring the Summer Program in Marine Science, an introductory course aimed primarily at undergraduates. Cornell, SU College of Agriculture at Cornell, SUC/Geneseo, Harpur, Potsdam and SU/Stony Brook students made up over half the total enrollment of 40. Profs. John Storr, SU/Buffalo and Peter Weyl, MSRC served on the instructional staff and also the admissions committee. This was the sixth year of the program which continues to be oversubscribed. The capacity of the program will be vastly increased by the construction of a marine laboratory on Appledore Island, with accommodations for 60 students and 40 faculty or researchers. Construction work began in earnest on July 1, and Dr. John M. Kingsbury, Director of the Summer Program and Professor of Botany at Cornell, expects the target date for phase one, August 1, 1972, to be met with no completion delays and no cost overruns.

Dr. Kingsbury anticipates a full-scale season of six months each year: three months of the summer university program and three months for such activities as research projects, conferences, adult and secondary education programs. He is open to suggestions for using these three months productively. Application material for summer 1972 will be ready in early January, and can be requested from:

John M. Kingsbury, Director
Summer Program in Marine Science
204 Plant Science Building
Cornell University
Ithaca, N.Y. 14850

PUBLICATIONS OF NOTE:

Sea Grant 70's, published monthly by the Office of the Sea Grant Program, Texas A&M University, summarizes the results of Sea Grant funded activities around the nation. Each issue reports on a single topic and lists related Sea Grant publications. Sea Grant 70's is available free of charge upon written request to: The Editor, Office of the Sea Grant Program, Texas A&M University, College Station, Texas 77843.

MSRC Technical Report Series (available from: Mr. Frederick Roberts, Associate Director, Marine Sciences Research Center, J-145, Stony Brook, N.Y. 11790)

- No.8. Survey of Marine Waste Deposits, New York Metropolitan Region. M.Grant Gross, et al. April 1971. 72 p.
- No.9. Studies on the Effects of a Steam-Electric Generating Plant on the Marine Environment at Northport, New York. George C. Williams, et al. November 1971.
- No.10. Temperature Distribution of the Heated Effluent from the Northport Power Station (LILCO) in Long Island Sound. Peter K. Weyl. August 1971. 37 p.
- No.11. Distribution of Dissolved Oxygen in the Waters of Western Long Island Sound. Charles D. Hardy and Peter K. Weyl. August 1971. 37 p.
- No.12* Study of Environmental Impacts of Alternative Long Island Sound Bridge Sites. E.J. Tuthill and J.F. Bagg. August 1971.
*Not yet released.

GLL Special Reports (available from: Great Lakes Laboratory, SUC/Buffalo, 5 Porter Avenue, Buffalo, New York 14201)

- No.8. Survey of Benthic Macroinvertebrates and Analysis of Water and Sediments from the Buffalo River. Robert A. Sweeney. January 1971. 23 p.
- No.9. Chromium, Cadmium, Arsenic, Selenium, Mercury and Aquatic Life: A Brief Literature Review. R.A. Sweeney. November 1971. 23 p.

Note: As space permits, Coastlines will call attention of our readers to publications of SUNY laboratories.

Coastlines will report six times a year on the expanding activities of the New York State Sea Grant Program and the Marine Sciences Research Center. (The MSRC Newsletter has been replaced by Coastlines.) The Editor will be contacting campuses for information about marine-related activities. We welcome contributions, suggestions and comments.

We are currently up-dating our mailing list. If you would like to continue to receive Coastlines, please detach and return the form below by January 1, 1972.

TO: Mrs. Ellen Arel, Editor, New York State Sea Grant Program, J-127, State University of New York, Stony Brook, New York 11790

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