

JESSIE SMITH NOYES FELLOWS NAMED FOR 1976-77



President John Toll meets Noyes Fellows.

DEAN SCOTT BECKER, GREGORY T. GREENE, and MONTEITH G. HEATON were selected as recipients of the prestigious Jessie Smith Noyes Fellowships for the 1976-77 academic year. The Noyes Fellowship program was established in 1975 to support outstanding graduate students working on important environmental problems of the coastal zone.

Dean Scott Becker, son of Mr. and Mrs. Dean Becker of Pittsford, New York, graduated with honors from SUNY College, Brockport in 1973 with a B.S. in biology. Now in his second year in our Marine Environmental Sciences Program, Mr. Becker is working with Professor H. H. CARTER to improve our ability to predict the dispersion of hard clam larvae in Great South Bay.

Gregory T. Greene, son of Mr. and Mrs. Herbert Greene of Bayport, New York, is also in his second year at MSRC. Mr. Greene received his B.A. in geology with honors from Princeton University in 1975. Mr. Greene is working under Professor J. L. MCHUGH on the growth and mortality of young hard clams in Great South Bay, New York. This work represents an amplification of Mr. Greene's research interest in hard clam biology. This project, and Becker's, are important elements in McHugh's studies to develop an effective management plan for New York's hard clam industry.

Monteith G. Heaton, son of Mr. and Mrs. S. M. Heaton, received his B.S. degree in chemistry with honors from SUNY College, Oneonta in 1974. Mr. Heaton will work with Professors J. R. SCHUBEL and I. W. DUEDALL on a study of plumes of dissolved contaminants produced by disposal of dredged materials into open waters by pipeline discharges. Last month Mr. Heaton's research took him to Corpus Christi Bay, Texas, the first of five sites he will study.

MCHUGH APPOINTED TO FISHERY COUNCIL

Professor J. L. MCHUGH was recently appointed by U.S. Commerce Secretary Elliot L. Richardson to serve a three-year term on the newly created Mid-Atlantic Regional Fishery Management Council, one of eight such councils created by Public Law 94-265, the Fishery Conservation and Management Act of 1976. McHugh was nominated with 20 others by Governor Carey to represent New York on this important council. The Secretary selected three from New York. The other two are WILLIAM R. PELL of Greenport and NANCY K. GOELL of East Hampton. The 19-member Council also has representatives from New Jersey, Pennsylvania, Delaware, Maryland, and Virginia. Professor McHugh's extensive experience in fishery management will be important to the Council in attaining its primary goal--development of management plans for fishery resources within the newly delineated 200 mile jurisdiction of the U.S.

SERVICE

Professor CHARLES F. WURSTER has agreed to serve as a member of Jimmy Carter's environmental task force.

J. R. SCHUBEL will serve on the Dredging Advisory Committee of the Nassau-Suffolk Regional Planning Board which is developing a regional dredging plan for the two counties. Dr. Schubel also led a panel discussion on the research program related to sand and gravel mining in the lower Bay of New York Harbor. The research is supported by the New York Sea Grant Institute which is directed by DONALD SQUIRES, former director of the Marine Sciences Research Center.

PEOPLE AND MEETINGS

Professor WILLIAM S. REEBURGH of the University of Alaska will spend his sabbatical year at MSRC. Dr. Reeburgh will be working on the processes that control the origin and distribution of methane in marine sediments. Dr. Reeburgh is well known for his research on gases in marine sediments and on the electrical conductivity of sea water.

Professor CHARLES F. WURSTER presented an invited paper on "Environmental Carcinogens" at the Annual Convention of the New England Natural Food and Farming Association on 17 July 1976. Dr. Wurster attended U.S. Environmental Protection Agency meetings of the Administrator's Pesticide Policy Advisory Committee in Washington in April and May, and in New Orleans in August.

Professor EDWARD J. CARPENTER presented a paper on *Sargassum* Production and chaired a session on "Nutrients and Light" at the 39th Annual Meeting of the American Society of Limnology and Oceanography in Savannah, Georgia, 21-24 June 1976.

Dr. BOUDEWIJN BRINKHUIS was awarded a postdoctoral fellowship to be jointly supported by the New York Sea Grant Institute and the Jessie Smith Noyes Foundation. Dr. Brinkhuis will investigate the role played by rooted aquatic plants in mobilizing and releasing heavy metals and other contaminants from dredged spoil deposits to the environment. Dr. Brinkhuis received his Ph.D. from SUSB in 1975. He received the Harold C. Bold Award for excellence of his thesis. This marks the first time a doctorate from Stony Brook has been accorded this high honor.

Professor MALCOLM J. BOWMAN presented an invited paper entitled "The Role of Bottom Turbulence in Shallow Water Frontogenesis" at the 8th International Colloquium on Ocean Hydrodynamics at the University of Liege, Belgium, 31 May-4 June, 1976.

Professors PETER K. WEYL and IVER DUEDALL attended a workshop on "Long Island Sound Dredged Materials Disposal" at Yale University on 22 May 1976.

Professor J. R. SCHUBEL was a co-convenor of the Seventh Symposium of the Belle W. Baruch Institute for Marine Biology and Coastal Research (South Carolina), 19-22 May 1976. The symposium, entitled "Transport Processes in Estuarine Environments," was dedicated to Dr. DONALD W. PRITCHARD, the well-known estuarine oceanographer and former director of the Chesapeake Bay Institute. Dr. Schubel wrote the dedication and also presented an invited paper "Horizontal and Vertical Sediment Fluxes in Chesapeake Bay," which he co-authored with ROBERT E. WILSON and AKIRA OKUBO.

Dr. DOUGLAS BIGGS attended the Joint Oceanographic Assembly, Edinburgh, Scotland, September 13-24, 1976, as a recipient of a U.S. National Research Council travel grant. His paper, "Field studies of fishing, feeding, and digestion in siphonophores" was reviewed as a contributed paper in sessions dealing with biological oceanography. He also spent a week at the Station Zoologique of the University of Paris where he met with French researchers working on siphonophores and other gelatinous oceanic zooplankton.

Professor AKIRA OKUBO and ALAN ROBBINS participated in a July workshop at the University of Washington for the METREX Project (Multidisciplinary Eastern Tropical Experiment). METREX is the physical, chemical and biological study of the oxygen minimum layer and secondary nitrite maximum layer in the tropical region of the Pacific Ocean. Dr. Okubo presented a paper on the swarming of midges at the XV International Congress of Entomology in Washington, D.C., 19-27 August 1976. From 11-14 September 1976 Dr. Okubo was in Aberdeen, Scotland for a planning meeting for a NATO symposium on patchiness in the marine environment which will be held in Italy in the fall of 1977.

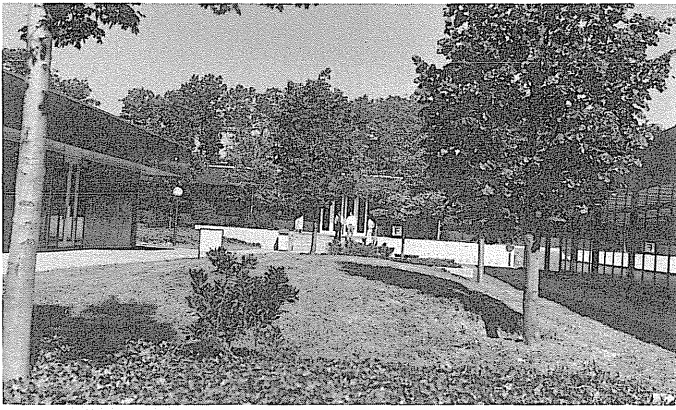
Professor HARRY H. CARTER presented an invited paper, co-authored with AKIRA OKUBO, entitled "The Study of Turbulent Diffusion by Dye Tracers: A Review" at the seventh symposium of the Belle W. Baruch Institute for Marine Biology and Coastal Research, 19-22 May 1976.

ANNE WILLIAMS summarized her statistical findings of dredging and disposal projects carried out on Long Island for the Dredging Advisory Committee of the Nassau-Suffolk Regional Planning Board.

This past July DAVID HIRSCHBERG, one of MSRC's graduate students, participated in a multi-institutional, EPA-funded study of the radioactive waste disposal site in the Atlantic Ocean off New Jersey. MSRC's project is under the direction of Professor RAMESH DAYAL.

Professor J. L. McHUGH presented an invited paper entitled "Recreational Use of Shellfishes: Issues and Conflicts" at the Symposium on Coastal Recreation Resources in an Urbanizing Environment, in Hyannis, Massachusetts. He also presented an invited lecture on "Fisheries of the American Continental Shelf" at the American Institute of Biological Sciences meeting in New Orleans, 30 May-2 June 1976.

Professor P. M. J. WOODHEAD spent a month last spring on a cruise in the Pacific from Honolulu to Palmyra Island, a coral atoll. The purpose was to assess the atoll's suitability as a base for development of a large ocean thermal energy conversion plant and as a site for stimulated biomass production.



MSRC MOVES TO NEW QUARTERS

MSRC moved into spacious new quarters on Stony Brook's wooded South Campus last month. The additional space is being put to good use--much needed laboratories, student and staff offices, a map and chart room, special project rooms, and a reference room. Several offices, and portions of several laboratories, have been reserved for visiting scientists and students. We invite you to visit us in Buildings F, G, and H.



MSRC's logo is prominently displayed in Building G. J. R. SCHUBEL, left, Director of MSRC enlisted the services of his father-in-law, Dr. MARION HOSTETLER, Montpelier, Ohio, in the execution of the design. The logo consists of reduplicated circles depicting an estuary emptying into the ocean. The circle on the left is green, representing land and vegetation, while the one on the right is blue, representing the estuary and the sea. The logo graphically depicts MSRC's commitment to the coastal environment.

NEW RESEARCH PROJECTS

Since our last Newsletter, MSRC scientists have had ten new projects funded whose combined support exceeds \$400,000. Nearly 90% of the total funding comes from federal sources including: U.S. Army Corps of Engineers, Environmental Protection Agency, National Science Foundation, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric

Administration (MESA, New York Bight Project), Energy Research and Development Administration, and the Office of Naval Research. The balance of the support came from State agencies.

Two of the new projects are described briefly below. Others will be reported on in subsequent issues of the Newsletter.

Phytoplankton Patchiness

Phytoplankton, tiny chlorophyll containing photosynthetic algae suspended and drifting in ocean waters, form the base of marine food chains. Oceanographers who have studied this "grass of the sea" have long recognized that its spatial distribution is often characterized by patchiness. These non-random occurrences of phytoplankton are caused by responses of these organisms to the physical, chemical and biological factors in their environment. One important aspect of phytoplankton patchiness is the relationship between herbivorous zooplankton (tiny drifting, plant-eating animals) and the distribution of phytoplankton. The feeding, growth, and reproduction of such animals are, in large measure, dependent upon the phytoplankton concentrations encountered by these animals. These herbivores are, in turn, consumed by other larger animals, including larval and adult fishes. Therefore, investigations of the spatial distribution of phytoplankton may have important implications for the conservation and management of living marine resources.

In the spring of 1977 a number of MSRC scientists will begin an investigation of phytoplankton patchiness in Long Island Sound. These scientists include Drs. ROBERT E. WILSON, HAROLD B. O'CONNORS, JR., AKIRA OKUBO and WAYNE E. ESAIAS. The project is funded with a grant from the National Science Foundation.

MSRC Continues Study of N.Y. Bight

MSRC has been awarded a one-year \$56,000 grant from NOAA's MESA New York Bight Project to investigate particulate transformations in the apex of the Bight. The research will focus on the description and fate of particulates originating from wastewater sewage disposal and the Hudson River plume. The MSRC investigation headed by IVER DUEDALL, RAMESH DAYAL and HAROLD O'CONNORS, will be a joint effort involving HOBART KRAMER and KEITH JONES of the Brookhaven National Laboratory, and JACK FOEHRENBACH of the Department of Environmental Conservation. Other groups involved include the Sandy Hook Marine Laboratory, the National Aeronautics and Space Administration (Langley Research Center), and the Atlantic Oceanographic and Meteorological Laboratory (NOAA-Miami). The coordinator for this study is ROBERT YOUNG of AMOL.

NEW COURSES

Floatables in the N.Y. Bight

This fall MSRC is offering a new course under MAR 550, Topics in Marine Science. The 2 credit workshop on "Dispersion of Floatables in the New York Bight" is led by J. R. SCHUBEL and M. J. BOWMAN.

In the workshop, students and staff participate as co-investigators in a thorough and critical review of existing data to assess the probable sources of floatables to the Bight, to evaluate the transport mechanisms in the Bight, to infer the most probable explanation for the accumulation of floatables that led to the closing of many of Long Island's South Shore beaches this past summer, and to formulate specific recommendations for waste disposal, monitoring, and research for effective management of floatables in the New York Bight.

Staff participants will include 5-7 MSRC faculty members including several from the Marine Ecosystems Analysis (MESA) Project. The workshop participants will produce a report summarizing their findings.

Cold Spring Harbor Laboratory and MSRC Offer Course

The Cold Spring Harbor Laboratory and MSRC will co-sponsor a course this fall in Marine Environmental Sciences for high school students. The program will be coordinated by SANFORD KAUFMAN and teachers will include a number of MSRC faculty and advanced graduate students. For more information, contact: Mr. Sanford Kaufman (516) 692-3147.

DONATE YOUR BOAT TO SCIENCE

20'-26' trailerable power boat with cabin needed for research on pollution problems in N.Y. waters. Contact Mrs. JERI SCHOOF (516) 246-7710.



Arthur Cooley leads a field trip in MSRC's summer course, "The Marine Environment of Long Island."

SEMINAR SCHEDULE

- Sept.
23 5:30 Dispersion of Dredged Spoil
Dr. ROBERT GORDON, Geology and Geophysics, Yale Univ.
- 30 5:30 Effects of Spoil Disposal on Benthic Communities
Dr. DONALD RHOADS, Geology and Geophysics, Yale Univ.
- Oct.
7 5:30 Spoil Disposal in Long Island Sound--A Regional Plan
Mr. DENIS CUNNINGHAM, Connecticut Department of Environmental Protection.
- 14 5:30 Effects of Suspended Solids on Estuarine Organisms
Dr. J. A. SHERK, U.S. Fish and Wildlife Service.
- 21 5:30 A Plan for Dredging and Spoil Disposal on Long Island
Dr. LEE KOPPELMAN, Director, Nassau-Suffolk Regional Planning Board.
- Nov.
11 5:30 The Future of Spoil Disposal in Long Island Sound: The Role of the Corps of Engineers
Mr. CARL HARD, U.S. Army Corps of Engineers.

MSRC ASSOCIATES

For \$100 or more per year any individual or organization can become an MSRC Associate. Contributions should be made to the Stony Brook Foundation, a not-for-profit corporation under the New York State Education Law, which assists the University. All contributions are tax deductible and will be used to support the educational and research programs of the Center. Contact: Mrs. JERI SCHOOF at (516) 246-7710.

