

Sea Grant Congressional Intern Katherine Minsch consults with her advisor Professor Henry Bokuniewicz at MSRC.

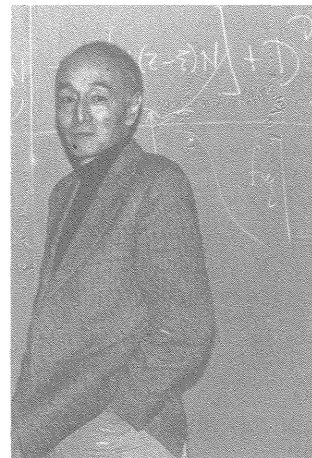
MSRC STUDENT AWARDED SEA GRANT CONGRESSIONAL INTERNSHIP

An MSRC student, Katherine Minsch, has been selected as one of ten 1984 Sea Grant Congressional Interns, the first from New York State in the six years the internship program has been operating. Ms. Minsch was chosen from a highly competitive pool of applicants, who were recommended by their faculty, screened by the Sea Grant Institutions and recommended to the National Office for final selection.

The Sea Grant Internship program provides a unique educational opportunity and experience for graduate students with an academic interest in marine resources and in the policy decisions affecting those resources. The program allows highly motivated and qualified graduate students to match themselves with "hosts" on Capital Hill or in the Executive Branch. The one year assignment contributes to the educational experience of the interns by exposing them to and involving them in the marine policy decision-making process at the Federal level.

Ms. Minsch came to MSRC in 1980 with considerable experience in environmental studies. She studied at the Habitat Institute of Environmental Studies in Massachusetts, graduated Southampton College with a B.S. *magna cum laude* in Marine Biology, was awarded a traineeship at the School of Public Health at the University of North Carolina (UNC) and was a Research Technician with the

Occupational Studies Group (UNC). During her stay at the Center she has worked on projects at the Port Authority of New York and New Jersey and the Long Island Regional Planning Board. She is currently finishing work on her masters thesis at MSRC, "Management criteria for the subaqueous burial of dredged sediment." Her advisor is Professor Henry Bokuniewicz. During her internship Ms. Minsch is on the staff of the House Subcommittee on Oceanography of the Merchant Marine and Fisheries Committee.



Recipients of the MSRC Associates Distinguished Teaching Award, Akira Okubo (left) and Mary Scranton (right).

OKUBO AND SCRANTON RECEIVE DISTINGUISHED TEACHING AWARDS

Professors Akira Okubo and Mary Scranton were selected by the Center's graduate students as the recipients of the MSRC Associates Distinguished Teaching Award. Dr. Okubo, who received his Ph.D., from The Johns Hopkins University, teaches Introduction to Mathematics for Marine Sciences, Mathematical Marine Ecology and, with Professor Carter, Oceanic Diffusion. Dr. Scranton, who received her Ph.D. from MIT, teaches the core course, Chemical oceanography, and with Professor Cochran, Topics in Marine Geochemistry.

Dr. Okubo is using mathematical models to study and describe zooplankton swarming and fish schools. Dr. Scranton is studying the biological processes controlling hydrogen distribution in the World Ocean. She and her students presently are working on the anaerobic

cycling of hydrogen in freshwater and marine sediments. She is also working on the interactions among facultative anaerobic bacteria, Nitrogen fixation and Hydrogen production in the open ocean with Dr. John Schwarz, a scientist at the Texas A & M University and Dr. Mary Silver of University of California at Santa Cruz.

STEINBERG — SQUIRES AWARD WINNER

The Steinberg-Squires Award, which honors the best graduate thesis produced in an academic year, was presented to Jonathan Kramer for his MS thesis, "Seasonal Aspects of Carbon Metabolism in *Fucus vesiculosus*." *Fucus vesiculosus* is a seaweed, colloquially known as rockweed, which can serve as a model for studying closely related kelp species. Kelp is important in mariculture and as a potential energy source. Mr. Kramer received a certificate and a \$200 check. His name was engraved on a plaque that is displayed permanently in the Center's conference room.

Criteria for selection of the award winner include both originality and importance of the thesis, as well as clarity of writing and the degree of independence shown by the student. The award was established in 1980 through a donation to the Stony Brook Foundation by Donald F. Squires, Director of New York Sea Grant Institute and former Director of the Marine Sciences Research Center, and his wife Marian Steinberg.

STONY BROOK FOUNDATION AWARDS DINNER RECOGNIZES MSRC

Achievements of the Marine Sciences Research Center as it celebrates its 16th birthday at the State University of New York at Stony Brook were recognized at the tenth annual Distinguished Contributions to High Education Awards Dinner of the Stony Brook Foundation.

The \$135 a plate event, held on March 24, honored Admiral Hyman Rickover, known as the father of the atomic submarine, and Pulitzer Prize-winning author William W. Warner.

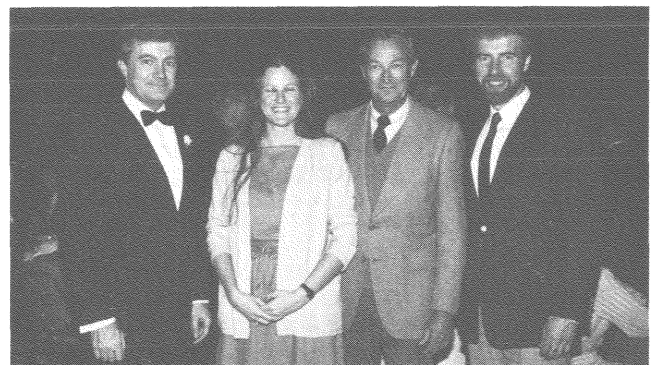
The dinner recognized the rapid development of Stony Brook's Marine Sciences Research Center as one of the nation's leading oceanographic institutions. The Center has grown since 1968 from a small organized research unit into a comprehensive coastal oceanographic research center with a staff of approximately 100 and an annual budget of nearly \$4 million, serving the entire 64 campus SUNY system. The Center now has programs leading to the degrees of master

of science and doctor of philosophy which enroll more than 100 students from around the world.

Admiral Rickover, who celebrated his 84th birthday on January 27, directed construction of the Nautilus, the first atomic submarine, in the early fifties. He most recently became the second American in history to be honored with a second Congressional Gold Medal and has received numerous awards for his work advancing American nuclear technological capacity including the Distinguished Service Medal and the Presidential Medal of Freedom.

William Warner won the Pulitzer Prize in 1976 for his book entitled "Beautiful Swimmers: Watermen, Crabs and the Chesapeake Bay," about the life cycle of the blue crab and the people who earn their living from harvesting the blue crab. His most recent book "Distant Water: The Fate of the North Atlantic Fishermen" was nominated for the National Book Critics Circle Award. The dinner-dance is a major annual fund-raising event which, since its inception in 1974, has raised substantial funds for new academic programs, scholarships and assistance to students and other academic and community endeavors. With an attendance of approximately 550, this year's dinner raised more money for the Foundation than any in previous years.

MSRC graduate student Lisa Campbell was selected as the recipient of the first Stony Brook Foundation Scholarship. The Scholarship carries with it a \$10,000 stipend and makes Ms. Campbell eligible in the future for selection to the Stony Brook Foundation's Society of Scholars. Ms. Campbell is completing her doctoral dissertation under Professor Edward J. Carpenter on Serotypic Differentiation of Coccoid Cyanobacteria by Immunofluorescence. Not very much is known yet about these bacteria which are abundant in the world's oceans. Ms. Campbell's research will help to identify different species.



President John H. Marburger (left), MSRC Prof. Ed Carpenter (far right) and Ms. Campbell's father, Harry G. Campbell congratulate MSRC Ph.D. candidate Lisa Campbell.



focus on research

J.L. McHUGH - RESEARCH PROFILE

J.L. McHugh has been interested in fishery management most of his life. In fact, he's just written a book on the subject, *Fishery Management*, a book which may well become a standard textbook in the field. And, with good reason, for Professor McHugh has been intimately involved with fisheries from the beginning of his career, ever since he was first employed by the Fisheries Research Board of Canada in 1929.



Since those early years Professor McHugh, who has directed and overseen the management of fisheries at both the state and the federal level, has discovered that the study and management of fisheries is broader than biology, that fishery management is not merely or even primarily an oceanographic science. "I learned how important the social sciences are in fisheries when I was at the Virginia Fisheries Laboratory (now the Virginia Institute for Marine Science), and became convinced that economics, law, engineering, as well as the social sciences, play an equal part with biology in deciding how fisheries are managed. In fact, often some of these other disciplines play a leading role, and biology takes a back seat."

Professor McHugh did research at the Scripps Institution of Oceanography in La Jolla, California while working toward his Ph.D. at UCLA. He received the Ph.D. in 1950 with a thesis on a study of the populations of Pacific northern anchovy.

From 1951 to 1959 Professor McHugh was Director of the Virginia Fisheries Laboratory where he was introduced to oyster biology and also became interested in menhaden. In 1959, as head of the Division of Biological Research in the Bureau of Commercial Fisheries, Dr. McHugh was in charge of 20 laboratories around the coasts of the United States, and was active in several International Fisheries Commissions, either as Commissioner or Adviser to the Commissioners. He also served on a number of other bodies during that period, some domestic and some international. Dr. McHugh was promoted to Assistant Director for Biological Research in 1963, to Deputy Director of the Bureau in 1966, and in 1968 became Director of the Office of Marine Resources in the Department of the Interior, with responsibility for coordinating

oceanographic research in all Bureaus.

Early in 1970 Professor McHugh took a temporary position with the National Science Foundation in Washington where he headed the Office for the International Decade of Ocean Exploration, which had just been established, and guided it during its formative months. In August 1970, J.L. McHugh became Professor of Marine Resources in the Marine Sciences Research Center of the State University of New York at Stony Brook. He remains active here as Professor Emeritus.

"My interest has been in Fishery Management almost from the beginning," says Professor McHugh. The individual states are responsible for fishery management up to 3 miles out from the shore, the federal government from 3 miles to the 200 miles limit of the nation's waters. Professor McHugh points out some of the complications in this. "On the West Coast, fishery management is more developed. There may be as many problems, but those which do arise are somewhat easier to solve. I think the fact that there are only 4 states--in contrast to the 14 states on the Atlantic Coast--eases the difficulty in resolving conflicts among competing states' interests. However, with the development of better state-federal relations, the Atlantic States Marine Fisheries Commission has proven more effective in recent years."

Professor McHugh's main emphasis in his work at MSRC has been on broadening the approach to Fisheries Management. In 1971 he spent time at the Woodrow Wilson International Center for Scholars in Washington, D.C. The report he prepared there, "Domestic Wrangles and International Tangles--The Fisheries of the Middle Atlantic Bight," has been the basis for much of his recent work. His forthcoming book on fishery management approaches the subject broadly through a number of case histories, studying the diversity of factors which enter into the resolution of fishery management problems.

Whales may not be fishes, but the management of their harvesting is of vital interest to a marine biologist like Professor McHugh. Professor McHugh served on the International Whaling Commission from 1961 to 1972, as Commissioner (1965-1972) and Chairman of the Commission (1971-1972). His most recent manuscript, *Whales and Men*, is a study of whales, of man's harvesting policies and practices, and of their interrelation. As a friend of the whale, Professor McHugh cautions against a protectionism which advocates the complete cessation of all whaling. He points out that it is a position which, in

CURRENT RESEARCH

MARY SCRANTON and PAUL NOVELLI participated in a cruise of the R/V Wecoma off Baja California during November and December 1983. Hydrogen distributions were studied in both the water column and sediments.

In January, DR. SUSAN WILLIAMS and SETH YARISH spent 2 weeks studying nitrogen diagenesis in coral reef sediments in St. Croix U.S. Virgin Islands at West Indies Laboratory, of Fairleigh Dickinson University in Teague Bay.

LISA CAMPBELL participated in a 12-day cruise on the R/V Atlantis II. Roger Flood, from Lamont-Doherty Geological Laboratory, was chief scientist. CAMPBELL investigated growth rates of cyanobacteria at a station in the Sargasso Sea.

J.L. McHUGH is completing a book developed from his lecture notes called Fishery Management to be published by Springer-Verlag, New York. Professor McHUGH has just completed a research project on the inshore catch of food fishes in the Raritan Bay area which will be published by the New Jersey Department of Environmental Protection.

JAMES KIRBY has been awarded a subcontract to a grant to the Department of Civil Engineering, University of Delaware, from the Office of Naval Research, Coastal Sciences Program. The purpose of the study is to investigate means for modelling the propagation of surface waves in regions characterized by abrupt changes in water depth and ambient current. Professor Robert A. Dalrymple (U. of Delaware) is principle investigator for the one year project.

P.K. WEYL, TOM GULBRANSEN and JOHN EBERHARDT are working on projects to develop information systems, one for the Port of New Orleans, another for the Port of New York.



Among the celebrants of the Marine Sciences Research Center's 16th birthday were (l. to r.) Mrs. J.R. Schubel, MSRC Director J.R. Schubel, Dr. Lee Koppelman (Executive Director, Long Island Regional Planning Board), Mrs. John H. Marburger, Dr. Lewis Thomas, and President John H. Marburger.

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