



Coastlines

~~NEW YORK STATE SEA GRANT PROGRAM~~

STATE UNIVERSITY OF NEW YORK and CORNELL UNIVERSITY

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SPEAKERS NAMED FOR FEBRUARY 20-21 CONFERENCE ON MANAGING OUR COASTAL ZONE

Speakers and workshop discussion leaders have now been named for the coastal zone conference in Albany February 20-21. (Note that the date printed on the cover of the brochure is incorrect.)

"The purpose of the exercise," stated Donald F. Squires, New York State Sea Grant Program Director, "is to develop a full set of problems which New York's coastal zone management program will have to face. The objective of the workshops is to develop their theme as it relates to the whole problem of coastal zone planning. We want to elicit opinion, suggestions, resolutions and recommendations from all conference attendees to develop an awareness of problems and conflicts and to posit solutions. We hope that with this conference the development of New York State's coastal zone management plan will be off to a good start."

Introductory Talks

Welcoming and introduction: **Louis Benezet**, President, SUNY Albany; Keynote Address: **The Hon. Perry B. Duryea**, Speaker, NYS Assembly; Semantics and Definitions: **Donald F. Squires**, NYSSGP Director. Coastal Zone Legislation, **Marc J. Hershman**, Professor, Louisiana State University Law Center; Policy Alternatives for the State in Implementation of the Coastal Zone Management Act: **Robert W. Knecht**, Acting Director, Office of Coastal Zone Management, National Oceanic and Atmospheric Administration; on the general topic of the relations between university research and government: **Bruce Dearing**, Vice Chancellor for Academic Programs, SUNY.

Critical Issues for the Coastal Zone

Discussion leaders and reporters for the workshops on Critical Issues for the Coastal Zone: **Electrical Energy and its Effect on the Coastal Zone**: **Dennis Rapp**, Director, Office of Environmental Planning, NYS Public Service Commission; **Ronald A. Stewart**, Atmospheric Sciences Research Center, SUNY Albany; **Claire Stern**, Executive Director, Long Island Environmental Council.

Water Quality Problems: **Eugene Seebald**, Director, Division of Pure Waters, NYS Dept. of Environmental Con-

servation (DEC), **Robert E. Ford**, Sociology Dept., SUNY Buffalo; **Richard Miller**, Executive Secretary, Long Island Fishermen's Assoc.

Resources--Their Conservation and Utilization: **James F. Davis**, Director, NYS Geological Survey; **Albert Jensen**, Acting Director, Division of Marine and Coastal Resources, DEC, **Robert Sweeney**, Director, Great Lakes Laboratory, SUC Buffalo; **John Suydam**, President, National Boatman's Alliance.

Environmental Control--Physical Limitations: **Robert Cook**, Director of Central Engineering, Division of Resource Management, DEC; **Donald R. Coates**, Geology Dept., SUNY Binghamton; **Samuel Williams**, President, O'Brien and Gere, Engineers, Inc.

Unique Areas--Problems of Preservation: **Henry G. Williams**, Deputy Director, NYS Office of Planning Services, **Orville Terry**, Marine Sciences Research Center, SUNY Stony Brook; **Eric Fried**, Senior Wildlife Biologist, DEC.

Land Use Pressures on the Coastal Zone: **Donald Elliott**, Chairman, NY City Planning Dept., **Paul Marr**, Geography Dept., SUNY Albany; **William Tyson**, Executive Secretary, St. Lawrence-Eastern Ontario Commission.

Recreation--Public and Private Sectors: **Charles Breuel**, Deputy Commissioner, Division of Comprehensive Planning, Office of Parks and Recreation; **Bruce Wilkins**, Advisory Services Program Leader, NYSSGP; **Royal LaLonde**, Hutchinson's Boat Works; **Harry Kiltbau**, President, Long Island Waterfowler's Assoc.

Implementation of Coastal Zone Planning and Management

Discussion leaders and reporters for the workshops on Implementation of Coastal Zone Planning and Management:

Preparation and Coordination of Coastal Zone Plans:

Stuart Denslow, Executive Director, Genesee-Finger Lakes Regional Planning Board; **Joseph Heikoff**, Graduate School of Public Administration, SUNY Albany; **Robert E. Lee**, Rochester Committee for Scientific Information, Univ. of Rochester.

The Coast as a Public Trust: **H. Crane Miller**, Attorney, Consultant to the Nassau-Suffolk Regional Planning Board; **W. Keith Kavenagh**, Institute for Colonial Studies, SUNY Stony Brook; **Paul MacClennan**, Buffalo Evening News.

For your files

Squires

The Changing Role of Local Governments: Per Moberg, Associate Director, Office of Community Assistance, DEC; **O. Andrew Collver**, Sociology Dept., SUNY Stony Brook; **Mrs. Richard Vesley**, Committee Chairman, Lake Erie Basin Committee, League of Women Voters.

Interstate and Intrastate Planning: Edward Stephan, Chairman, Nassau-Suffolk Regional Marine Resources Council; **Leonard Dworsky**, Director, Water Resources and Marine Sciences Center, Cornell University; **William Steggles**, Environmental and Technical Advisor, Ministry of the Environment, Province of Ontario.

Economic Implications of Coastal Zone Management: Harvey Schultz, Director, Economic Development Section, NY City Planning Dept.; **Robert Crow**, School of Management, SUNY Buffalo; **Stanley Platt**, Oceanographic Fund, Inc.

Information and Educational Needs for Coastal Zone Management: Richard Maltby, Assistant Director, Erie and Niagara Counties Regional Planning Board; **John Judd**, Coordinator for Great Lakes Research, NYSSGP; **Mason Lawrence**, Deputy Commissioner for Environmental Management, DEC.

The proceedings will be published very shortly after the conference.

Note that the date of the conference, listed incorrectly on the cover of the brochure, is **February 20-21**. Additional details from the NYSSGP Program Office, Albany.

THE CLADOPHORA PROBLEM IN THE GREAT LAKES

The following report on his Sea Grant research was written for Coastlines by John Judd, Coordinator for Great Lakes Research, NYSSGP, and Associate Professor of Botany and Physiology, SUC Oswego.

Massive accumulations of the filamentous algae *Cladophora* have disturbed residents and municipalities along the shores of the lower Great Lakes for many years. The malodorous decomposing weed was reported along the beaches of Lakes Erie and Ontario as early as the 1930's. Interest in the problem has increased even more since the 1950's when large accumulations occurred along the U.S. and Canadian shores. There is very little quantitative data concerning these accumulations but there is agreement that the magnitude and frequency has increased even since the 1950's.

Albicidal treatment of various kinds has been tried on the weed with only local and temporary effect. Mechanical removal has been attempted but the method is costly and also gives only temporary relief. An economically profitable use for the collected material would help defray the cost of collecting the weed and alleviate the need to utilize increasingly scarce landfill sites.

Objectives

The two-fold objectives of the first year of study were: 1) to aid in determining the extent of *Cladophora* growth in Lake Ontario. My data will be combined with other data

generated in the International Field Year Great Lakes (IFGYL) to give quantity and distributional patterns over the whole Lake. The results of this work will be compiled and reported during 1973.

2) to determine the suitability of *Cladophora* as a fertilizer and mulch for garden use.

Findings

Comparing my results with those of other researchers, it appears that the three things that control *Cladophora* in the Lakes would be temperature, light (photo period) and the turbidity of water. It appears that there are more than sufficient nutrients for the algae to grow. (The IFGYL nutrient results will be compared with previous studies to determine whether there has been a significant increase in nutrients.)

Utilization results:

1. Growth of beans in both sand and soil was not affected by addition of *Cladophora* to the medium.
2. Corn growth in soil increased as well with the addition of *Cladophora* as it did without it. In the sand medium, addition of the algae increased growth. Plants growing in sand containing 25% *Cladophora* by volume were 1.5 times larger. Those in sand containing 50% *Cladophora* were 1.8 times larger.
3. The most dramatic growth was in lawn grasses (Kentucky bluegrass, *Poa pratensis*.) Addition of *Cladophora* to a soil medium increased growth by 1.3 and 1.6 times respectively for 25% and 50% addition of the algae. In sand, growth was twice as great when 25% *Cladophora* was added and 2.7 times as great when 50% was added.

Conclusions

Among the plants tested, it appears that growth of monocots (corn and grass) is most affected by addition of *Cladophora*, especially to sandy soil. The algae holds water in the soil and acts as a mulch to permit passage of air down to the roots. Further tests on more plant types will be made, but it appears that *Cladophora* can act as a mulch in soils. With breakdown, the algae would also add nutrients to the soils.

It may be that the material in a dried form could be harvested, and used by greenhouses, turf farmers, and home owners, to enhance plant growth. *Cladophora* might prove to be competitive with the peat moss from Canada used by many New York greenhouses, as the supply of peat moss is dwindling and the cost is increasing.

[In informal calculations made by Dr. Judd with a lawn fertilizer, *Cladophora* had 15 times the nitrogen and 5 times the phosphorus of the commercial fertilizer. Dr. Judd plans to write up his findings for gardening magazines. He also suggests that engineering research is now needed to find ways to harvest *Cladophora* before it becomes a nuisance on the beaches. Sea Grant-sponsored research on the possibility of manufacturing paper from marine weeds is being carried out by Bengt Leopold and Renata Marton, Empire State Paper Institute, College of Environmental Science and Forestry, Syracuse. Dr. Judd is now investigating the use of *Cladophora* as a mosquito larvicide.]

MARINA WORKSHOPS IN FEBRUARY

Marina workshops organized and sponsored by the Sea Grant Advisory Service will be held on Long Island and in the Rochester and Buffalo areas on the Great Lakes.

Long Island: Tuesday, February 13, 10 am to 3.30 pm, Farmingdale Agricultural and Technical College, in cooperation with Suffolk, Nassau, and Westchester Cooperative Extension Associations.

Buffalo area: Tuesday, February 27, 1 to 5 pm, Farm and Home Center, South Grove St., East Aurora, with the Cooperative Extensions of Chautauqua, Erie and Niagara Counties participating.

Rochester: Wednesday, February 28, 1 to 5 pm, Farm and Home Center, 249 Highland Ave, Rochester, Cooperative Extension Associations of Cayuga, Monroe, Orleans and Wayne Counties participating.

Individuals from federal and state agencies and the boating industry will discuss new regulations, dredging and construction, business management, trends in boating, marina insurance, and future research.

For additional information contact either the Brockport or Stony Brook, L.I. office of the Sea Grant Advisory Service.

FUTURE OF THE BOATING INDUSTRY

The following is taken from the remarks of George Rounds, Acting Secretary, National Association of Engine and Boat Manufacturers, at the Sea Grant Advisory Service workshop for marina operators held in Watertown, December 12, 1972.

The boating industry is about to end a banner year, in which more people spent more money on more boats than ever before. But in fact the industry has not had real growth, but has just about kept pace with inflation.

"The boating industry may have to abandon the growth ethic, may have to settle for a truly no-growth situation, at least as far as total expansion of the market is concerned. If there is to be any expansion of our total dollar income as an industry, it will be mainly in the service areas as demands for service continue to increase."

- Some of the reasons for the no-growth possibility are:
- 1) increased product and operating costs in boating. New standards and regulations under the Occupational Safety and Health Act and the Safe Boating Act will result in higher manufacturing costs passed on to the consumer. Higher property taxes, registration fees, perhaps even an operator's certificate fee, are hitting boatmen and making boating less and less attractive.
- 2) restrictions on certain kinds or sizes of boats in some locations, banning boats on some stretches of water, limiting numbers of boats.
- 3) critical shortage of boating facilities. The recently passed California moratorium on all construction on the seacoast, which freezes marina development there for at least five years, is a sign of the times.

Such regulations and restrictions are "only limited by the imagination of state assemblies and the pressures of the public sector for more control."

"What could possibly be positive about the future? We are entering the era of greater boating safety. Congress and the Coast Guard are determined on this point. This gives us, as an industry, a plus in the marketplace. Boats and boating will be safer. At least the products will be. We can merchandise this point, profitably."

We must increase educational efforts to produce safer boatmen on all fronts. Particularly the older boatman, including the fisherman and hunter who see a boat as a means to an end. "If we take the time to properly instruct a new boatman, we have won a customer as well as made a sale."

"Greater emphasis on service will enhance our survival quotient during the years to come...."

"We need greater professionalism at all levels of the industry. Our marketing information is woefully skimpy. We need better market data to streamline our operations at the marketing, distribution, and retail levels. How well can market shifts be forecast? How well defined is our particular market? What kind of demographics do we have access to that define the customers and aid in reaching them with the right message and the right product?"

Do we have trained sales personnel, professional service technicians and managers? Do we have a manpower pool of people trained in boating sales and service?

"As regulator pressures and dollar pressures on boating business increase, we must be equipped to handle them in a professional manner and thereby make the most of the situation."

MARINE FOOD SCIENCE SEMINAR

Central New York students interested in use of marine organisms for food may wish to attend the special marine seminar series of the Food Science Institute of the NYS College of Agriculture and Life Sciences to be held in the spring term 1973. Partially supported by Sea Grant funding, the Thursday noontime seminars are directed by a group of Cornell scientists headed by Prof. Robert Baker, Director of Food Science and Marketing.

The opening speaker is Prof. George Borgstrom of Michigan State Univ. on "The Future Role of the Oceans as a Source of Human Food." Other speakers will cover topics including "Marketing of Seafoods," "Shellfish Culture," "Nutrition from Fish for Humans, and for Animal Feeds," "Processing of Fish," "Public Health Aspects of Fish and Shellfish," "Fish Farming," "Spoilage and Preservation."

Complete details are available from Prof. Robert Baker, Rice Hall, Cornell Univ., Ithaca, N.Y. 14850. It is anticipated that a compilation of papers presented will be available later in the year.

COASTAL GEOMORPHOLOGY PUBLICATION

Proceedings of the third annual Geomorphology Symposium held at SUNY Binghamton September 29-30, 1972 have now been published. The hardcover volume has 209 illustrations and costs \$5.50. Articles on Long Island are "Probable causes of shoreline recession and advance on the South Shore of Eastern Long Island," by L. McCormick; "Effects of Erosion on Barrier Island Morphology at Fire Island," by K. Ruzyla; and "Beach Profile Changes on Western Long Island," C. Everts. The editor, Donald F. Coates, is conducting Sea Grant research on coastal erosion, stabilization and utilization of the South Shore of Long Island. **Environmental Geomorphology** (\$3.50), **Quantitative Geomorphology** (\$5.00) are also available postpaid from Publications in Geomorphology, SUNY Binghamton, Binghamton, N.Y. 13901.

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THERMAL DISCHARGE CAN ALLEVIATE NATURAL GAS SHORTAGE

The Year I Sea Grant research project of Ronald Stewart, SUNY Albany, and John Mathur, DEC, takes on special relevance in view of the increasing natural gas shortage. Cost of fuel is expected to double within the year, and with it will increase costs of bread, corn, and lumber.

Warm air from dry-cooling towers such as used in England and Germany can be used to dry seed, and lumber by the kiln-dried process. Corn farmers in Iowa lost one million bushels this summer because of the natural gas shortage, when they were unable to dry their crops.

Warm water to speed the growth of crops will be in ample supply in the Oswego-Rochester area. The March **Coastlines** will report on thermal discharge utilization.

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