

Coastal Features



Volume 9, Issue 1

FALL, 2000

Top Marine Scientists Search for Bioinvasive Species in Narragansett Bay

by
Kevin R. Cute

This article is the first in a series that will describe a rapid assessment survey for marine bioinvasive species that took place in Narragansett Bay, August 12-18, 2000.

PRUDENCE ISLAND — Marine bioinvasive species (non-native marine organisms) are becoming increasingly identified as a serious threat to fragile coastal ecosystems and the economic activities that depend upon them.

This growing recognition led to the First National Conference on Marine Bioinvasions, January 24-27, 1999 at the Massachusetts Institute of Technology. And when President Clinton announced the federal government's response to the problem a few days later (Executive Order 13112 "Invasive Species"), the stage was set for those charged with the task of protecting the nation's coastal resources to get busy.

The RI Coastal Resources Management Council (CRMC) responded by forming

a partnership with the RI Department of Environmental Management Narragansett Bay

(Continued on page 4)



Rhode Island RAS Team: (l-r) Dr. John Chapman, Dr. Charles Lambert, Dr. Seth Tyler, Gretchen Lambert, Dr. Dale Calder, Evangelina Swindt, Dr. James Carlton, Niels Hobbs, Dr. Robert Bullocks and Dr. Larry Harris.

CRMC Sponsors 19th Annual International Submerged Lands Management Conference

by
Kevin R. Cute

NEWPORT— What do habitat restoration, dredging, fishing, communications, public access, private docks, harbor management and a legal framework that sometimes resembles a Gordian

Knot have in common? If you attended the 19th Annual International Submerged Lands Management Conference you might answer...*Everything!*

(Continued on page 5)

CRMC Hosts First Annual Southern New England Aquaculture Conference

by
Dana R. DeSignore

STATE HOUSE - A diverse group of commercial fishermen, aquacultural farmers, scientists and educators recently gathered amidst the scenic backdrop of Salve Regina University for the First Annual Southern New England Aquaculture Conference.

The newly expanded gathering, held Oct. 1-2 in conjunction with the Fifth Annual Rhode Island Aquaculture Conference, was aimed at bringing the various people involved in the aquaculture industry together to share ideas, forge relationships and work together to further the budding industry in southern New England.

And from all involved, that goal was met. "I am pleased that the conference was such a success," said Rep. Eileen S. Naughton (D-Dist. 32) of Warwick, who chairs the Rhode Island Legislative Commission on Aquaculture. "We now need to organize a community effort, which will take three things: partnership, community will, and hard work. But in the end, when aquaculture is no longer a dirty word in New England but a thriving, viable business, we'll know our efforts will have paid off."

Coastal Features is published by the RI Coastal Resources Management Council. It is financed in part by a grant from the National Oceanic and Atmospheric Administration pursuant to the Coastal Zone Management Act, as amended. This issue of *Coastal Features* was edited by Kevin R. Cute. To comment on any article or to make address changes please contact the CRMC.

Representative Naughton also spoke of the importance of forming aquaculture technology "clusters" between conference-goers. She described the clusters as highly specialized groups of experts working together to foster the aquaculture industry in southern New England.



Representatives from Rhode Island, Massachusetts, Connecticut and New York, as well as from around the country, took part in this first joint event. One of the integral themes running throughout the conference was the important role of aquaculture in New England's business, education and environmental sectors.

During his keynote address, Dr. Thomas Losordo explained how he helped develop a burgeoning aquaculture industry in the state of North Carolina. Dr. Losordo, a zoology professor at North Carolina State University, is also president of the World Aquaculture Society.

Two concurrent workshops rounded out the conference. The education session was geared towards teachers and focused on using aquaculture in the classroom. Instructors from the educational field held workshops focusing on incorporating aquaculture into the classroom, developing lesson plans, and exploring themes in a mini-workshop.

The industry session targeted aquaculture representatives, regulators, and others interested in the business aspect of the industry. Business and organization representatives conducted workshops on management issues, freshwater culture, marine culture, and marketing strategies.

Conference goers also took part in a lively roundtable discussion about the possibilities and pitfalls affecting the aquaculture industry. And a Sunday night reception in Ochre Court on the Salve Regina campus featured raw oysters from the participating states, as well as fresh sushi, spicy "stuffies" and luscious lobster bisque from the Rhode Island Quahog Company.

"The conference provided a great opportunity for educators, fishermen, suppliers and manufacturers to exchange information with scientists, researchers and legislators," said Representative Naughton. "Rhode Island has not been working on this idea alone. It is time to widen the circle and invite others inside to help make it work."

The conference was sponsored by the R.I. Legislative Commission on Aquaculture, the Pell Center at Salve Regina University, the University of Rhode Island, the Rhode Island Coastal Resources Management Council (CRMC), the Rhode Island Department of Environmental Management (DEM), and the New England Board of Higher Education.

Conference collaborators include the Rhode Island, Connecticut and Massachusetts Sea Grants and Cooperative Extensions, as well as the New York Cooperative Extension, the R.I. Agricultural Experiment Station, the Narragansett Bay Commission, and Roger Williams University. ✦



CRMC to Consolidate Data for Eelgrass in Rhode Island's Coastal Waters

By
Laura M. Ernst

In an effort to incorporate all existing data coverages for eelgrass (*Zostera marina*) habitats, the CRMC is working with the URI Environmental Data Center to produce one complete map. Four datasets

will be used from projects including the CRMC shoreline survey (1999 and 2000), the RIDEM Narragansett Bay Project (1988), the RI Sea Grant Historical Survey of Narragansett Bay (1995) and the Narragansett Bay National Estuary Program Marine and Estuarine Habitat Maps (1996). The data from these previous studies will be projected into one uniform cartographic format that will distinguish the different sources and datasets. In addition, these data will also be integrated into a prototype internet mapping server system, which will allow the GIS coverages to be directly viewed, queried, and plotted from any computer with access to the internet.

A consolidated map of eelgrass in Rhode Island coastal waters will provide CRMC staff, applicants and consultants with the most up to date and complete source of data for eelgrass in Narragansett Bay and RI coastal embayments. Although these maps will not preclude the necessity of field site visits, they will offer CRMC staff and others an understanding of where eelgrass exists today and has existed in the past.

Understanding where Rhode Island's eelgrass resources are is an important step to educating the public and managing the resource. Eelgrass is a valuable resource to Rhode Islanders because it produces organic material that becomes part of the food cycle, provides a settling substrate for scallops, helps cycle nutrients, prevents shoaling and erosion by binding sediments and provides nursery habitat for many finfish and shellfish. Both state and federal resource agencies are working to provide regulations that manage land and water uses that impact eelgrass beds in Rhode Island. For further information please contact Laura M. Ernst at 401-783-3370.



Habitat Restoration Educational Poster Available

"Restoring Coastal Habitats for Rhode Island's Future"

The RI Coastal Resources Management Council, RIDEM Narragansett Bay Estuary Program and Save The Bay have collaborated with the NOAA Restoration Center, the US Fish and Wildlife Service, the NOAA Coastal Services Center and Rhode Island Sea Grant to produce an educational poster on habitat restoration in Rhode Island. The product is the result of efforts by the Rhode Island Habitat Restoration Team, a group dedicated to creating a plan and finding funds to complete habitat restoration projects around the state. The poster spotlights efforts around the state to restore coastal habitats with a focus on anadromous fish passage, salt marsh and seagrass restoration. On one side, photographs of sites like the Galilee salt marsh restoration in Narragansett and the Echo Lake fishway in Barrington, are included with a description of the site and various partners. The reverse side of the map includes potential, ongoing and completed restoration sites around the state that were compiled as part of the Narragansett Bay Estuary Program's Habitat Restoration Charrette in December 1998. To obtain copies of the poster please contact Laura M. Ernst at 401-783-3370.

(Continued from page 1)

Estuary Program (NBEP) to sponsor a rapid assessment survey (RAS) of marine bioinvasive species in Narragansett Bay.

RAS research was pioneered by Dr. James Carlton during the 1990's along the U.S. West Coast. RAS research teams include top experts that represent as wide a range of marine phyla as possible. The team can therefore collectively sample a coastal water body to produce a "snapshot" of the marine organisms present at a given time. This results in baseline data that helps to identify both the native and non-native, or, bioinvasive species present.

This data also provides insight regarding the possible pathway(s) by which bioinvasive species may have been introduced, often accidentally, into a particular coastal water body. In turn, this information forms the basis for management plans that address ways to prevent the introduction of marine bioinvasive species.

CRMC and NBEP have taken the first step to address the problem of marine bioinvasive species in RI by co-sponsoring the first RAS in Narragansett Bay. The findings will follow. ✦

The 19th Annual International Submerged Lands Management Conference Thanks its Sponsors!

- Coastal Resources Management Council
- Roger Williams University,
Papitto School of Law
- Narragansett Bay Commission
- Rhode Island General Assembly
- Citizens Bank
- Environmental Science Services, Inc.
- Rhode Island Seafood Council
- Washington Trust Bank
- Law Offices of
Goldman and
Biafore



(Continued from page 1)

All of these issues and many more were woven together under the banner of submerged lands management, and subsequently unraveled with great interest by about 150 conference attendees at the Newport Marriott Hotel, October 1-5, Newport, RI.

The diverse audience of government, private sector, university, and non-profit representatives was welcomed by Michael M. Tikoian, Chair, CRMC, and Peter Ginaitt, Chair, Joint Committee on the Environment and Energy, RI General Assembly.

Given the recent attention garnered by various proposals to develop a container port at Quonset Point— and the attendant possibility of a significant re-thinking of the role of dredging in Narragansett Bay – the conference opened appropriately with a session on dredged material disposal that was moderated by Sandra Thornton Whitehouse, RI House of Representatives Policy Office.

Seminal coastal zone management issues, riparian rights and the public trust doctrine, were widely discussed and shown to be just as pertinent to submerged lands managers in land-locked Utah as they are to those who wrangle with their special nature along coastlines where submerged lands lie beneath ocean waves.

Stephen G. Boyden, the Utah Assistant Attorney General who represents the Utah Division of Forestry, Fire and State Lands in litigation involving the submerged lands of Utah Lake and the Great Salt Lake gave an interesting talk on agricultural leases and grazing permits in Utah Lake.

CRMC's Laura Ernst moderated a lively discussion on habitat restoration, an issue that is gaining importance as a central facet of coastal zone management in RI (see articles in this issue). Andy Lipsky, of Save The Bay, who with Ms. Ernst is a member of RI's coastal habitat restoration team, discussed seagrass restoration in RI. James Turek, from the NOAA Restoration Center in Narragansett, RI outlined the Damage



John Henningson, HartCrowser, Inc., CRMC's Jeff Willis, and RI State Representative Peter Ginaitt, Chair Joint Committee on the Environment and Energy (l-r), take a break between sessions at the 19th Annual International Submerged Lands Management Conference. Kudos to Jeff whose attention to every detail, large and small, ensured the conference's success.

Assessment and Restoration Program which centers on litigation-related damage settlements resulting from oil spills under the federal Oil Pollution Act, and other contaminant releases under CERCLA or Superfund.

Other presentations covered essential fish habitat, submerged cables and lease fees, submerged lands impacts from private residential docks, public access, and harbor management. Michael M. Tikoian, Chair, CRMC, moderated the session on private residential docks. Grover J. Fugate, Executive Director, CRMC, moderated a session on the public trust and submerged lands uses. ✦

Thank You! To Each and Every Speaker Who Made the 19th Annual International Submerged Lands Management Conference Such a Success.

Dredged Material Disposal

Moderator: Sandra Thornton Whitehouse, RI House of Representatives Policy Office

Tom Fredette, US Army Corps of Engineers

David Risilia, NJ Dept. Environmental Protection

John C. Henningson, HartCrowser, Inc.

Jennifer Belcher, Commissioner, WA Dept. Nat. Resources

Riparian Rights

Moderator: Kerry Kehoe, Coastal States Organization

Kerry Kehoe, Esq., Coastal States Organization

Stephen G. Boyden, Esq., Utah Asst. Attorney General

Dennis Esposito, Esq., Roger Williams University

The Public Trust and Submerged Lands Uses I

Moderator: Allen Jernigan, NC Attorney General's Office

David Sitland, Navigable Waters Protection Program, Fisheries and Oceans, Canada

Kendra Beaver, Esq., Save The Bay

Rep. Peter Ginaitt, RI House of Representatives

Allen Jernigan, Esq., NC Attorney General's Office

Habitat Restoration

Moderator: Laura M. Ernst, RI CRMC

Andy Lipsky, Save The Bay

Jim Turek, NOAA Restoration Center

Ron Rozsa, CT Dept. Environmental Protection

Tony Wilbur, MA Dept. Environmental Protection

Essential Fish Habitat

Moderator: Laura M. Ernst, RI CRMC

Carrie Spelberg, Atlantic States Marine Fisheries Council

Marjorie Mooney-Seus, New England Aquarium

Jon Kurland, National Marine Fisheries Service

Wilfred Rodriguez, URI Environmental Data Center

Submerged Cables/Lease Fees

Liz Gowell, Environmental Science Services, Inc.

Maria Peeler, WA Dept. Natural resources

Leonard Nero, FL Dept. Environmental Protection

Bethany Wieczoreck & Richard Bennett, NY State General Services

Sub. Lands Impacts from Private Residential Docks

Moderator: Michael M. Tikoian, Chair, RI CRMC

Donna Frizzera, NJ Dept. Environmental Protection

Steve Bliven, UMass Urban Harbors Institute

Cornelia Pasche Wickar, MD Coastal Zone Management

David Blatt, CT Dept. Environmental Protection

Public Access

Moderator: Jeff Willis, RI CRMC

Matthew P. Harrington, Dean, Roger Williams University, School of Law

Jennifer Belcher, Commissioner, WA Dept. Natural Resources

Dick Buehler, Utah Division of Forestry

Neil W. Ross, Neil Ross Consulting

The Public Trust and Submerged Lands Uses II

Moderator: Grover J. Fugate, Executive Director, RI CRMC

Brian Goldman, Legal Counsel, RI CRMC

Charlotte Taylor, RI Historic Preservation & Heritage Commission

Rep. Eileen Naughton, RI House of Representatives

Michael Rubin, Esq., RI Attorney General's Office

Harbor Management

Moderator: Jeff Willis, RI CRMC

Deerin Babb-Brott, MA Coastal Zone Management

Turner Scott, Newport Harbor Management Commission

Dianne Williamson, Planner, Town of Bristol

Submerged Lands Potpourri

Charlie Chestnutt, US Army Corps of Engineers, The National Shoreline Study

James Gold, Counsel to the Spanish Government, Spain and the Abandoned Shipwreck Act

CRMC Helps Southern RI Conservation District Win Grant to Reduce Nonpoint Source Pollution

by
Kevin R. Cute

NARRAGANSETT— Recognizing their mutual interest in reducing nonpoint source pollution to RI's coastal waters, the RI Coastal Resources Management Council (CRMC) and the Southern RI Conservation District (SRICD) began a collaboration this past summer to tackle stormwater management problems in the Narrow River watershed. After conducting a field survey to identify nonpoint source pollution (NPS) hot spots and consider site specific management measures, CRMC co-authored a successful Aqua Fund grant proposal with SRICD that includes funding to design a best management practice (BMP), develop a stormwater training package, and create a watershed action team (WAT) for the Narrow River watershed.

This project represents a significant step forward in realizing some of the goals of CRMC's recently amended Narrow River Special Area Management Plan (SAMP). As the Narrow River SAMP states, it is CRMC's policy to prevent adverse environmental impacts to the Narrow River's watershed. This project will directly support the SAMP goal of controlling cumulative impacts that threaten water quality in the Narrow River, including stormwater generated NPS that transports sediments, pathogens, and other pollutants to the river.

The BMP design product of this project represents a preliminary step toward reducing nonpoint source sediment and bacterial pollution in the Narrow River. The site chosen for the BMP design, Mettatuxet Beach in the town of Narragansett, includes a large stormwater outfall that drains much of the adjacent heavily developed residential neighborhood. Accumulated sediment is evident at the point where the outfall pipe discharges directly into the Narrow River. And a recent study by the RI Department of Environmental Management (DEM) concluded that the Mettatuxet neighborhood is a hot spot for bacterial pollution to the Narrow River.



Narrow River NPS Pollution Project Funded: Theresa McKinley (NRPA), Kevin Cute (CRMC), and Lisa McGreavy (DEM) (l-r), look on as Rob Swanson (far right), Chair, SRICD Board of Directors, accepts the \$28,000 Aqua Fund grant award from DEM's Jay Manning at SRICD's Annual Dinner Program.

The grant sponsor, SRICD, proposes to design a constructed wetland at this site to control NPS sediments and pathogens. Possible designs being considered include a "pocket" wetland consisting of permanent stands of native vegetation and a small sediment forebay.

The grant will also fund a stormwater training package to educate local volunteers on NPS prevention. The training package will be developed by SRICD and the Narrow River Preservation Association (NRPA), a significant advocacy voice for the Narrow River, and a project partner.

Finally, the WAT will be recruited and trained in stormwater management via the stormwater training package. The WAT will empower local resident volunteers to take ownership of stormwater projects that prevent nonpoint source pollution, often literally, in their own backyards. For more information please contact the SRICD at (401) 822-8832. ✦



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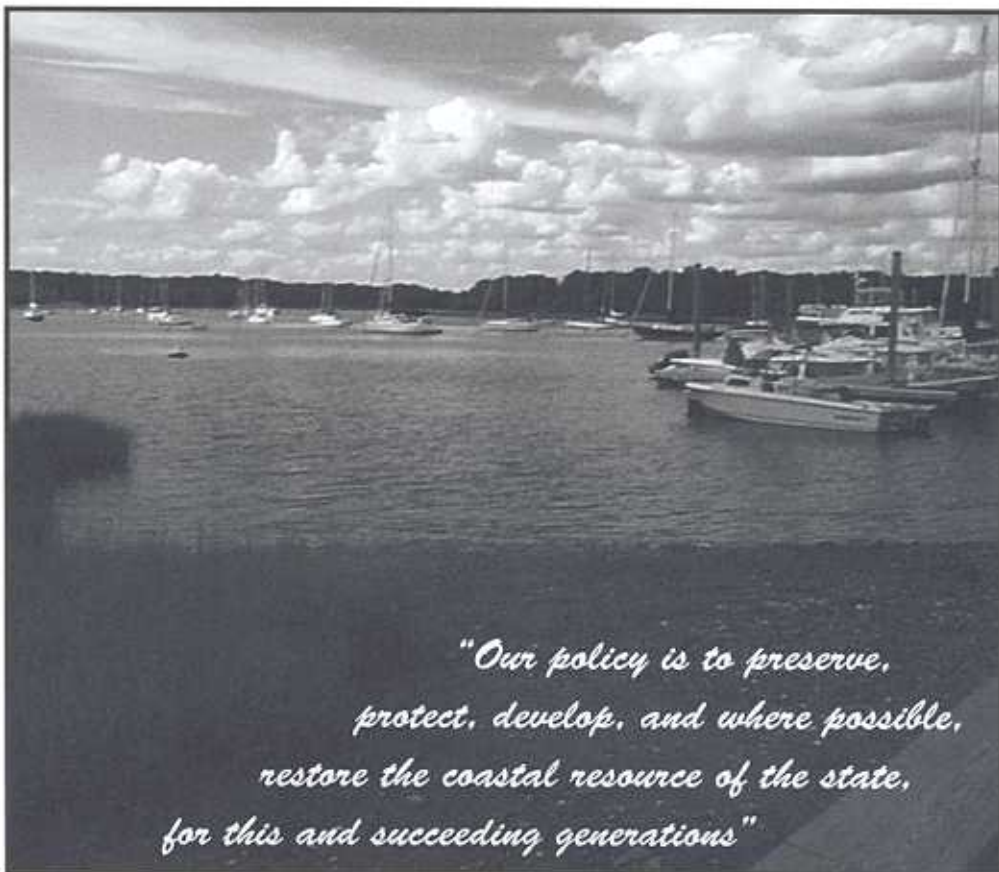
Senator Patrick McDonald

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David Abedon

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protect, develop, and where possible,
restore the coastal resource of the state,
for this and succeeding generations"*

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