

# Baruch Briefs

Belle W. Baruch Institute for Marine Biology and Coastal Research • University of South Carolina • Columbia, SC 29208

## Institute Welcomes Fletcher as New Director

Dr. Madilyn Fletcher was named director of the Baruch Institute, only the second permanent director in 28 years. She filled the vacancy left when Dr. F. John Vernberg retired.



Her appointment, following a nationwide search, had the broad support of faculty and staff. "We reviewed scores of applicant files and brought four people to campus," said Bruce Coull, a marine science professor and chair of the search committee that recommended Fletcher for the director's position. "She was far and away the top candidate and had the unanimous support of the committee and faculty and staff members and students who took part in the interviews."

Dr. Fletcher, who assumed the director's position on September 1, will wear several hats, including researcher, administrator, and fundraiser. Formerly director of the Center of Marine Biotechnology, she was attracted to USC by the "strength and diversity of Baruch Institute-associated faculty." She sees tremendous opportunities for research, education outreach, and collaborative projects, and looks forward to building and enhancing multidisciplinary marine and estuarine research at USC.

## and Says Farewell to Vernberg

After 28 years as director of the Institute, which he founded, Dr. F. John Vernberg retired. Naturally, we did not let him leave "quietly." More than 150 friends of Dr. Vernberg gathered at the Marine Field Laboratory on Labor Day weekend to recognize his many accomplishments, to wish him well in his future endeavors, and to seize the opportunity for a good-natured "roast." As Mary Beth Sawyer, his long-time administrative assistant noted, "He's been roasting us for all these years, now it's our turn!"

The day was a tremendous success. Like a family reunion, memories were shared, stories and a few tall tales were told, and friendships renewed. What would such festivities be without food, which included a crab feast on the back porch (talk about feeding frenzies) and a catered shrimp and chicken buffet. The celebration culminated in a most memorable roast and accompanying skits, with Bruce Coull as master of ceremonies.



Dr. John Vernberg and Dr. Dennis Allen

Although officially retired, Dr. Vernberg is involved in a multidisciplinary research project focused on sustainable development in the coastal zone. It's obvious that this Professor Emeritus won't be resting on his laurels.

## In Memorium

The Institute lost two family members with the passing of Bettye W. Dudley and Paul E. Johnson. While both of them had retired, after 26 and 17 years of dedicated service respectively, they each remained interested and involved in the Institute through volunteer efforts.

Bettye, although trained as a chemist, had spent most of her career involved in meiofauna research. She not only kept the meiofauna laboratory running smoothly but was mentor, trainer, and "mother" to the students who studied and worked there.

As maintenance mechanic at the Field Laboratory, Paul was a master craftsman, able to fix all manner of broken items and correct problems before they arose! His help extended beyond his professional duties to people and animals in need.

Bettye and Paul will be remembered for their knowledge, skill, and pride in a job well done, and equally as important, for their caring hearts.

## Apply

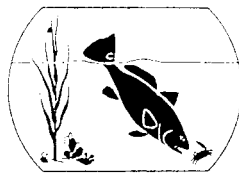
### **Undergraduate & Graduate Student Travel Awards**

Graduate and undergraduate USC students presenting (oral or poster) marine- or coastal-related research at scientific meetings are eligible for travel awards from the Baruch Institute. Application deadlines are December 1, April 1, and August 1, each year, and awards of up to \$800 will be made for each cycle. Kevin Fielman, Chris Finelli, Barbara McCraith, and Courtney Richmond received the awards for the December cycle. For further information, contact Dr. Madilyn Fletcher, director.

## "A Day at the Coast With Friends"

Blustery, chilly winds, a Beaufort Boil, and nature with Rudy Mancke sum up a fun fall social, "A Day at the Coast With Friends." About 40 or so Friends of the Baruch Institute gathered for this special event on November 16. Early arrivals ventured out in near freezing temperatures with Wendy Allen, director of Continuing Education. These hardy individuals explored the salt marsh from the recently constructed marsh boardwalk near the Baruch Marine Field Laboratory and, among other things, observed shorebirds hunkered down along the marsh edge and tasted the succulent and salty pickle plant. Although the cold temperatures did not dampen their enthusiasm, the field group was happy to escape to the comforts of the marine laboratory where Dr. Dennis Allen, director of the Marine Field Laboratory, showed slides, discussed the Institute's research and education programs, and led the group on a tour of the facility.

Additional Friends joined the field party at the Kimbel Lodge for lunch and a feature presentation by Rudy Mancke, star of the popular South Carolina Educational Television show NatureScene. Rudy was truly the highlight of the day as he shared a number of his favorite nature objects with the group, told stories, raised curiosity, and answered questions about our natural world. And, of course, this was all delivered in his uniquely engaging style!



## **North Inlet-Winyah Bay Reserve Program Continues Growth and Success**

Now in its fifth year, the North Inlet-Winyah Bay National Estuarine Research Reserve (NERR) has become a visible and productive entity within the national system of sites as well as in the Georgetown community. Shared funding between the National Oceanic and Atmospheric Administration and USC has enabled the Reserve to achieve full staffing for education and monitoring activities, purchase equipment, construct an educational marsh boardwalk, and acquire long-term data on physical, chemical, and biological conditions in North Inlet and Winyah Bay. Additional funding has been used to initiate a study evaluating the effectiveness of best management practices in reducing nonpoint pollution runoff from golf courses. Another award supports the NERRS Centralized Data Management Office, which provides data management and communication services for the 22 sites participating in the System-wide Monitoring Program. We also receive support for Estuary-Net, a telecommunications-based project in which local high school classes collect water quality data and share and interpret the information with the Reserve and other Estuary-Net teams around the country.

In keeping with the educational component of its mission, the Reserve has provided technical and financial support for students and visiting investigators, and we are excited by being able to offer two graduate student fellowships in 1997. The Reserve was a major sponsor of Georgetown County's Bayfest, a local celebration of the community's coastal history, which brought thousands of people to the city's waterfront. We staffed an exhibit booth with hands-on activities and provided more than 300 people with narrated trips on local tour boats. This year, the Reserve will continue programs for all ages and also design and construct an educational kiosk at Georgetown's public boat landing. Environmental education at the community level

(see NERR p. 3)

**NERR** (from p. 2)

continues to increase awareness of local natural resources.

Diverse skills are necessary to satisfy the needs and goals of the Reserve program, and we are fortunate to have a dedicated, energetic, and interactive staff. The efforts of these individuals are witnessed by the results of our federal review: a complimentary report with no required remedial actions.

### **News from Pritchards**

The loggerhead turtle project continues, with various groups (e.g., Elderhostel, Sierra Club, Audubon Society) helping with the nest census and egg relocation efforts. Participants in these efforts also learn about barrier island ecology. Several studies by student groups are underway. The Marine Science Undergraduate Society, whose members are marine science majors at USC Columbia, are conducting long-term studies of the island's rate of migration, differences between local and predicted tide levels, marsh sediment accretion rates, and the ecology of surf-zone fish. USC Beaufort students are engaged in a study of the rate at which washover areas become ecologically functional.

Two new docks will benefit the education and research programs by enabling transportation between Pritchards and Fripp islands at all times; shuttles had been limited to around high tides.

Thanks to Mr. and Mrs. Robert Wardle of Fripp Island for funding the docks, and the Turner Foundation for providing some support for Pritchards programming. For program information, contact Lynn Corliss, director of Pritchards Island Programs (803) 521-4148.

## **The Hobcaw Summit— A Meeting about Future Academic and Research Programs**

The future use of Hobcaw Barony by all public and private four-year colleges and universities in South Carolina was the subject of a meeting hosted by USC's Baruch Institute, Baruch Forest Science Institute of Clemson University, and the Belle W. Baruch Foundation. The institutes and the Foundation wanted to convey the message that researchers, educators, and students from all institutions of higher education are welcome. The meeting's focus was on encouraging and facilitating the use of this 17,500-acre tract for educational and research programs on coastal ecosystems and history.

On August 22, 1996, 40 individuals representing 20 of the 31 invited institutions were provided with descriptions of ongoing programs and an opportunity to tour Hobcaw Barony. The following day, productive general and break-out group discussions dealt with scheduling and logistics, course planning, funding for new programs, distance education and communication, and research. With a heightened level of awareness of the special resources of Hobcaw Barony and optimism about how so many institutions could benefit from collaborative efforts on site, the participants forecasted considerable increases in visitation. Use of the USC Marine Field Laboratory facilities has increased to record levels since 1993, but we will strive to meet the new logistical and space challenges. All participants agreed that additional resources and assistance will need to be available to satisfy the diverse needs. The anticipated benefits of more inter-institutional activities will inspire efforts to develop new programs and sources of support.

### **Baruch Foundation Adds New Trustees**

The Belle W. Baruch Foundation has four newly appointed trustees: Mr. Hugh C. Lane, Jr. and Dr. Sally Self Harley of Charleston, SC, Dr. Harry M. Lightsey, Jr. of Columbia, SC, and Judge Harold R. Tyler, Jr. of New York, NY. These individuals, who fill long-standing vacancies, join Miss Ella Severin of Georgetown, SC, and Mr. Leonard T. Scully and Mr. Donald Vail of New York, NY.

### **Role of Oyster Reefs in the Structure and Function of Tidal Creek Systems**

Oyster reefs are present in great abundance in small tidal creeks of the southeastern United States. These organisms interact with and modify both the biological and physical characteristics of tidal creek ecosystems by altering water flow, providing increased hard surface area for other organisms, filtering large amounts of particles including phytoplankton and detritus, and increasing the recycling of materials. Baruch Institute USC associates D. Allen, D. Bushek, D. Edwards, B. Kjerfve, A. Lewitus, and J. Schubauer-Berigan are collaborating with Coastal Carolina University (CCU) associates R. Dame and E. Koepfler on a National Science Foundation-funded, multidimensional research project to assess how the presence of oyster populations influence the ecology of tidal creeks.

Initially, eight similar tidal creeks were identified for the ongoing five-year study. The creeks are being surveyed and the hydrography modelled by USC marine (see **Oyster** p. 4)

## Awards Support Graduate Student Research at the Field Laboratory

The Baruch Institute has made four \$2500 awards to support graduate student projects in marine science. The students (and supervising faculty member) receiving these competitive awards were Christine Jones (Miguel Goñi), Jim Krest (Willard Moore), Mark Socaski (Tim Shaw), and Steven Viscido (David Wethey). To be eligible for an award, the research had to be related to marine science, related to the student's thesis or dissertation research, and contain a significant field component involving the Baruch Field Laboratory. The competition for the awards was open to all USC graduate students.

## Oyster (from p. 3)

science graduate student Chris Corbett, and marine science undergraduate students from CCU are surveying the oyster populations. Once these preliminary studies are complete, oyster biomass to creek water volumes will be adjusted and baseline measurements of physical, chemical, and biological variables will begin. Meanwhile, sampling and analytical techniques are being developed.

In phase one, the biotic influences will be assessed by comparing creeks possessing oyster reefs with creeks in which oyster reefs have been carefully removed. In phase two, the influence of oyster dams upon creek flow and water residence time will be addressed. Numerous supportive system-level questions about dissolved oxygen, nutrient, organic, microbial, phytoplankton, zooplankton, and nekton dynamics in the absence and presence of large filter-feeding invertebrates will be addressed by the interdisciplinary team of researchers and students.

The study will also investigate the consequences of the removal of oyster reefs, a process that has occurred on a large scale due to human influences in other areas and will advance our understanding of the impacts of sea-level rise on benthic and pelagic communities in shallow coastal ecosystems.

Finally, this project with its coupling of an undergraduate university, a research university, and a field laboratory will provide up-to-date and hands-on training for a number of excellent undergraduates and future scientists.



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**Baruch Briefs Fall 1996 A. B. Miller and W. B. Allen, editors**

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