



South Carolina
Sea Grant Consortium
1999-2004

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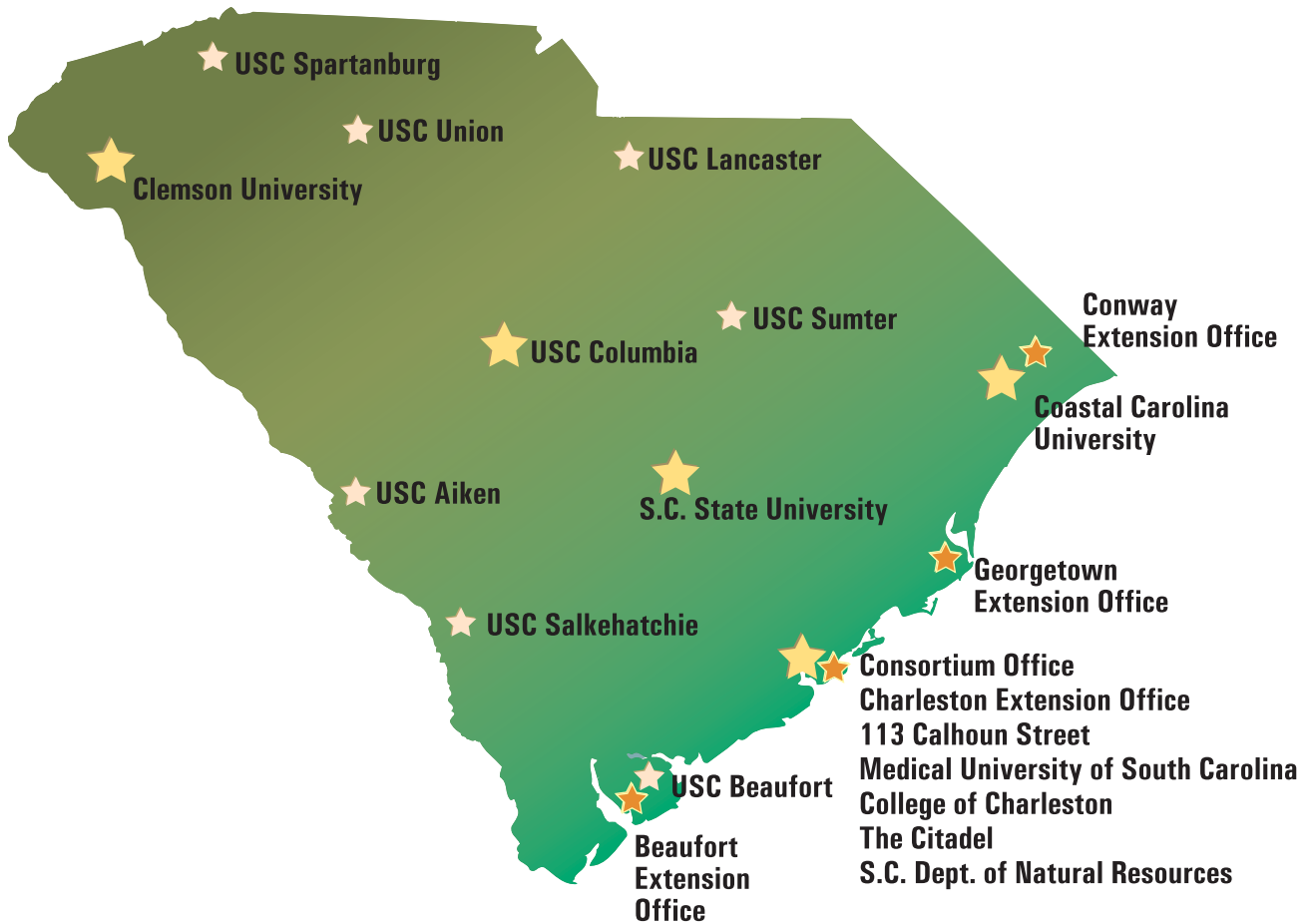
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Table of Contents

Map of South Carolina	iii
Sea Grant in South Carolina	1
1999 PAT Recommendations and Response	2
Program Overview, Accomplishments, and Outcomes	
Organization and Management	3
Brief History of Sea Grant in South Carolina	3
Leadership of the S.C. Sea Grant Consortium	3
Consortium Membership and Interactions	4
Internal Organization and Management	5
Proposal and Project Management	6
Recruiting Institutional Talent	7
Integrated Program Components	8
Integration of Research, Extension, and Education	8
Leveraging Sea Grant Dollars	8
Connecting with Users	9
Staff Leadership	9
Involvement of Users in Planning and Review	9
Partners in Partnerships	10
Regional Program Engagement	10
Long-Range Planning	11
Sea Grant Program Goals	11
Consortium Planning and Evaluation	11
Strategic Planning Process	12
Strategic Plan 2000-2004 and Beyond	13
Nurturing New Ideas and Programs	14
Producing Significant Results	14
Contributions to Science and Technology	14
Contributions to Education and Outreach	14
Success in Achieving Planned Program Outcomes	15
Implementation Planning—Work Plans, Results, and Outcomes	15
Consortium Recognition	15
Impact on Society, the Economy, and the Environment	15
Coastal Ocean Processes	15
Ecosystem Dynamics	17
Coastal Natural Hazards	21
Emerging Technologies	22
Marine Aquaculture and Fisheries	23
Coastal Communities and Economies	25
Public Awareness and Outreach	27
Marine Education and Training	28
Supporting Documentation	
Organization	
Organizational Chart	31
Board of Directors and Alternates	32
Institutional Liaisons	33
Consortium Staff	34
Sea Grant Extension Program— Memorandum of Understanding	35
Advisory Mechanisms	
Concept Letter and Proposal Review Panel Members	37
SCSGEP Specialist Advisory Committees	38
Program Management Indicators	
Project Selection Core Funding	41
Sea Grant and Extramural Funding Trends—1999-2004	42
Integrated Program Components	
Core Funding—Sea Grant and Matching Funds	43
National Competition Funding Success	43
Connecting Sea Grant with Users	
Staff Leadership 1999-2004	44
Partners in Partnership	48
Producing Significant Results	
Research Projects, Principal Investigators, and Institutions ..	52
Core Sea Grant	52
Sea Grant National Competitions	56
Extramural	57
Journal Articles, Book Chapters, Proceedings, and Patents ..	59
Major Conferences and Workshops	70
Education	
Graduate Dissertations and Theses	71
South Carolina Fellows	74
Sponsorship of Education Programs	75
Public Awareness	
<i>Coastal Heritage</i> magazine	76
<i>Inside Sea Grant</i> newsletter	76
<i>S.C. Task Group on Harmful Algae</i> newsletter	76
<i>Curriculum Connection</i> K-12 classroom supplements	77
Fact Sheets	77
Publication Listing	77
Web Publications	78
Web Statistics	79
Staff, PI, Program, and Product Awards	80
Supplemental Information on CD	
South Carolina Sea Grant Consortium 1999-2004 Strategic Plan 2000-2004 Development Projects—Core Funding Graduate and Undergraduate Students Supported by Sea Grant Conferences, Workshops, and Seminars—Sponsorship Media Releases and Placements	

South Carolina Map

SCSGC, Member Institutions, and Extension Offices



Sea Grant in South Carolina

The natural features of the State of South Carolina are diverse and striking. South Carolina contains 2,876 miles of tidal shoreline, 10,000 square miles of continental shelf, 500,000 acres of tidal bottoms, 504,450 acres of salt marsh, and some 4.5 million acres of freshwater wetlands. The South Carolina coastline is characterized by more than 165 linear miles of beaches and dotted with more than 40 barrier and sea islands. Five large estuaries drain major watersheds originating from as far away as western North Carolina. Plantation lands and managed wetlands, remnants of the once-flourishing rice culture industry of the late eighteenth and nineteenth centuries, remain remarkably intact today; many form the basis for significant refuge holdings and hunting and agricultural pursuits, others have provided the “raw material” for resort development and tourism, and collectively they represent the importance of the state’s coastal heritage in shaping growth and development along the coast.

Over 30 percent of the state’s more than 4.5 million residents live in eight coastal counties. While the population of South Carolina increased by more than 15 percent from 1990 to 2000, it exploded by more than 28 percent along the coast, where population is expected to increase to over one million people by the year 2010. Between 1983 and 1998 South Carolina’s eight coastal counties have averaged a 61 percent increase in urbanization. People are taking advantage of the opportunities that the state’s natural and cultural resources provide, as well as the pleasant climate and overall high quality of life. Population growth is, however, placing greater pressure on these natural areas, especially at the margins of the three highly urbanized areas of Myrtle Beach, Charleston, and Beaufort. In a 2001 survey of business leaders conducted by the Charleston Metro Chamber of Commerce, growth management was ranked second only to public education among the most important issues facing the region.

The economy of coastal South Carolina is also changing. Although it represents a decreasing portion of the state’s economy, the commercial fishing industry (fish, oysters,

clams, shrimp, and crabs) remains an important component of local, coastal economies and ways of life. More than 2,000 commercial fishermen harvest an average (since 1993) 14.7 million pounds of seafood worth about \$33 million (ex-vessel price) annually. Aquaculture represents a relatively new commercial enterprise in South Carolina, but stable operations in marine shrimp and hard clam culture have been established. Recreational fishing and boating are making an ever larger contribution to the state’s economy. According to the S.C. Department of Natural Resources (SCDNR), the annual impact of marine recreational fishing in South Carolina significantly exceeds \$300 million. Tourism has become the largest industry in coastal South Carolina; in 2002, tourism was a \$15.6 billion dollar industry, with the coastal counties accounting for more than 60 percent of the statewide total. In terms of volume, the Port of Charleston is ranked as the third largest container port on the East and Gulf coasts, the largest on the Gulf and Southeast coasts, sixth in the nation, and fifteenth in the world.

The quality of South Carolina’s coastal and marine resources is greatly influenced by natural forces such as hurricanes and coastal erosion. Historically, major tropical storms have struck the South Carolina coast every seven to eight years. Many long-range climate forecasters claim that we are now entering a cycle of more severe and frequent coastal storms. Given the growth in coastal population and the importance of coastal tourism to the state’s economy, just to name two factors, the potential for severe storms to adversely impact the state’s economy is considerable.

The S.C. Sea Grant Consortium is committed to maximizing the economic, social, and environmental potential of the state’s coastal and marine resources through the support of integrated research, education, and extension programs. It does so by engaging the talents and expertise found at South Carolina’s leading university and research institutions to increase our knowledge about the natural, cultural, and social environments of South Carolina and the region.

1999 PAT Recommendations and Consortium Response

The initial Program Assessment Team evaluation of the S.C. Sea Grant Consortium occurred on June 14-18, 1999. Upon review of the 1999 PAT results and its internal deliberations, the National Sea Grant College Program Office issued its final report on the Consortium's performance on May 8, 2000, which included two recommendations for improvement. The Consortium has addressed these recommendations as follows:

Recommendation #1: *The PAT recommends that a more formal system of coordination between the SCSGC and Cooperative Extension Service be incorporated into the new MOU between the Consortium and the Clemson University Cooperative Extension Service. The committee recommends that the SG Extension Program Leader be given a formal coordination role with the specialists and be appointed to an appropriate administrative position within the CES structure. In addition, the PAT also recommends that the SCSGC Executive Director have a formal role in hiring, evaluating, and setting the salary of the SG Extension Program Leader.*

Status: The leadership at Clemson University—the Vice President for Agriculture and Public Service, the Director of Cooperative Extension, and the Assistant Director of Extension—agreed to the need to strengthen the Consortium-Clemson CES relationship. A series of meetings were held to review, update, and revise the existing MOU. General agreement on the major points raised by the PAT was reached and, on March 26, 2002, an executed Memorandum of Understanding was signed by Dr. John

Kelly, Clemson University VP for Public Service and Agriculture, Dr. Doris Helms, Clemson University Provost, and the Consortium Executive Director. The MOU, which can be found in Appendix 5, addresses the issues identified by the Program Assessment Team.

Recommendation #2: *The Consortium's strategic planning process consisting of a series of subject area planning meetings facilitated by a professional is a significant benefit programmatically. However, the current strategic and implementation plans lack meaningful milestones.*

Status: On July 31, 2002, the Executive Director along with the Consortium Core Group (Assistant Director, Extension Leader, Program Manager, and Communications Coordinator) met with Dr. James C. Cato, Florida Sea Grant Director, and Dr. Fritz Schuler, National Sea Grant Office Executive Director, to discuss options for developing a process to create an implementation plan that incorporated milestones. As a result of the meeting, the Consortium has implemented an annual work plan and outcomes documentation process. The Work Plan concept was presented to and formally approved by the Consortium Board of Directors during its annual meeting on December 3, 2002. To date, the Consortium has prepared Work Plans and Outcomes reports for calendar years 2002 and 2003, and is finalizing the Work Plan for 2004. The documents are prepared in hard copy and also placed on the Consortium's Web site.

Program Overview, Accomplishments, and Outcomes

I. Organization and Management

Brief History of Sea Grant in South Carolina

Sea Grant activities in the State of South Carolina began in 1972 at the S.C. Wildlife and Marine Resources Department (SCWMRD). SCWMRD administered the coherent Sea Grant program for its Marine Resources Division and participating marine programs at Clemson University, University of South Carolina, The Citadel, College of Charleston, and Medical University of South Carolina.

Following several years of informal interaction among the marine programs of these institutions, and recognizing the needs and opportunities embodied by the state's vast array of ocean and coastal resources, the S.C. General Assembly formally united the state's marine programs through the creation of the S.C. Sea Grant Consortium in 1978 (Code of South Carolina, Section 48-45-10:100). The S.C. Sea Grant Consortium is unique among Sea Grant programs in that it is an academically-based state agency. The S.C. General Assembly set out three main tenets upon which the Consortium operates:

1. "To provide a mechanism for the development and management of the Sea Grant Program for the State of South Carolina and adjacent regions which share a common environment and resource heritage."
2. "To support, improve, and share research, education, training, and advisory services in fields related to ocean and coastal resources."
3. "To encourage and follow a regional approach to solving problems or meeting needs relating to ocean and coastal resources in cooperation with appropriate institutions, programs, and persons in the region."

The S.C. Sea Grant Consortium became an operating entity in January 1980. With the submission and acceptance of its initial program proposal for Sea Grant support, the S.C. Sea Grant program was designated an Institutional Program that year. In April 1985, application was made to the Secretary of Commerce for Sea Grant College designation; Sea Grant College status was conferred on the Consortium in August 1986 by then-Secretary of Commerce Malcolm Baldrige.



Leadership of the S.C. Sea Grant Consortium

Consortium Board of Directors. The S.C. Sea Grant Consortium is structured to optimize communication and feedback linkages necessary for the proper development and implementation of its programs. Its offices are located in Charleston, S.C. Activities of the Consortium are governed by authorizing committees of the S.C. General Assembly and a Board of Directors to which the Executive Director reports (see Appendix 1 for an organizational chart). The Board of Directors includes the chief executive officers of the Consortium's member institutions (Appendix 2).

The Board meets annually to review Consortium program policies and procedures. The Board also provides a direct line of communication between the Consortium Executive Director and the higher administrative levels of its eight member institutions.

Consortium Executive Director. The legislation creating the S.C. Sea Grant Consortium also established the position of Executive Director. The Executive Director is responsible for managing the Sea Grant program for South Carolina, including development and implementation of Sea Grant proposals, oversight of the proposal solicitation and review process, communication with the National Sea Grant College Program office, management and oversight of all Sea Grant projects and programs, and management of fiscal resources. The Consortium is also expected to seek funding from a variety of extramural sources, which represents an ever-increasing percentage (now over 70 percent) of total Consortium support.

Consortium Membership and Interactions

Consortium Member Institutions. Institutions that hold charter membership in the Consortium include The Citadel, Clemson University, College of Charleston, Medical University of South Carolina, S.C. State University, S.C. Department of Natural Resources, and University of South Carolina. The Consortium Board adopted a “New Member Policy” in 1995 to provide a mechanism for the Consortium to add additional members upon approval of the Board. Subsequently, upon its petitioning of the Consortium Board, Coastal Carolina University was accepted as the eighth member of the S.C. Sea Grant Consortium in 1996. Consortium institutions provide the expertise of their respective faculty and professional staffs, as well as a wide range of facilities and equipment, necessary to carry out the diversity of programs supported by the S.C. Sea Grant program. *As an indication of their support and commitment to the Sea Grant program, each Consortium-member institution waives indirect costs on all Sea Grant-funded projects.*

Consortium Institutional Liaisons. Institutional liaisons provide a direct administrative link between the Consortium and each of its member institutions (see Appendix 3). There are two designated liaisons for each

Consortium member institution: one from the sponsored program office to address program development and proposal preparation matters, and one from the budget office that fosters communication about post-award grants and contracts. The Consortium’s *External Procedures Handbook: A Faculty and Institutional Guide for Consortium Proposals and Projects*, first prepared in 1985 and most recently revised in 2004, provides documentation on the administrative processes the Consortium employs in managing its extramural programs, and is made available to faculty and staff at the Consortium’s member institutions.

Consortium Project Advisory Bodies. Program Area Advisory Groups are convened as needed to provide assistance in programmatic matters (see Section III: Long-Range Planning). The Consortium also engages state and federal agencies, the user community, and the external scientific community in the review and evaluation of Sea Grant concept letters and full proposals. Representatives of state and federal agencies and user groups are convened to review and evaluate Sea Grant concept letters submitted to the Consortium in response to its biennial Request for Proposals, and to provide input to the Consortium on the conceptual and timeliness of the efforts proposed. An external technical committee is formed each biennial cycle to conduct an intensive review and evaluation of full Sea Grant proposals. Members of the panels for the period 2000-2004 are included in Appendix 6.

Extension and Communications. The S.C. Sea Grant Consortium maintains direct contact with coastal and marine user groups and the general public, and serves as a conduit between institutional knowledge-seekers and coastal and marine knowledge-users through S.C. Sea Grant Extension Program Advisory Committees (see Appendix 7) and Communications and Information Services activities.

The S.C. Sea Grant Extension Program (SGEP) is a joint program of the Clemson University Extension Service and the S.C. Sea Grant Consortium. It is administered through a memorandum of understanding (Appendix 5) that outlines the institutional roles and responsibilities with regard to the program. The SGEP has five specialists (with another expected to be hired in 2004) and a Program Leader located in offices in southern, central, and northern coastal communities (see Map, page *iii*). These specialists help create two-way linkages between university-based scientists

and people who live and work on the coast by offering outreach education programs that provide information to solve problems and address coastal resource management issues. Extension education programs take many forms, including workshops, videos, brochures, CDs, media interviews, posters, demonstrations, tours, and individual user consultations. These programs are conducted for user audiences on a wide variety of topics. S.C. Sea Grant Extension Program information and materials are distributed widely within the state to individual citizens, community groups, user associations, coastal resource management agencies of local and state government, within the national Sea Grant network, and among other NOAA offices and programs.



The Communications and Information Services (CIS) program provides a key element in accomplishing the Consortium's mission. CIS serves a two-way communications function. First, it provides timely and accurate information to target audiences in a way that enables them to make informed decisions that lead to the sustainable use of our coastal resources. Second, CIS assesses the communications needs of coastal users/managers and serves as a conduit to feed that information back into Sea Grant's management and programmatic development process.

These outreach programs assure that (1) problems and needs of those who live and work along the coast are accurately identified, (2) research projects and programs are effectively providing the necessary information, and (3) this information is delivered to target audiences in a timely fashion and "user-friendly" format.

Internal Organization and Management

Staffing. The Consortium's fourteen full-time equivalents are evenly divided among the Consortium's Outreach, Program Administration, and Program Management activities (Appendix 4). Of these FTEs, 5.63 are state slots and 8.37 are federal slots. The total number of Consortium FTEs has remained relatively constant over time, even though the Consortium's activities have significantly expanded.

While the Consortium's programmatic activities continue to increase, administration costs remained level over time until the last four years when state budget cuts began to affect the Consortium. Administration costs for the period 2001-02 decreased 15 percent compared to FY00-01, and another eight percent in FY02-03. Since FY00-01, the Consortium has seen its state budget reduced by 33 percent.

Internal Communications. Several internal mechanisms have been established by the Consortium to facilitate a programmed team approach to address coastal and marine resource issues. For example, the Consortium's "Core Group" supports communication and information exchange among the Consortium's internal program components: staff members of the Core Group represent program policy, program development, program management, extension services, communications, and administration. Meetings, held on a monthly basis, help ensure efficient and effective program component interaction. Using a team approach, the Core Group develops and coordinates Consortium programs and activities (see section on Integrated Program Components on page 8).

Information Management. Other mechanisms established by the Consortium include internal task groups to deal with information technology, mailing lists, and the Consortium Management Information System (CMIS). During 2001-2002, the CMIS, operational since 1987, was converted from the outdated database system running on Unisys equipment and a text-oriented database software package called TXBASE 2.0, to a Windows-based platform utilizing Microsoft Access. CMIS addresses one of the Consortium's major management objectives—the evaluation

of organizational performance against goals and standards. Ultimately, this will permit the Consortium's Management Information System to become more fully Web-based and interactive with Consortium-funded researchers and other stakeholders. In the immediate future, the new Access database will be further refined to facilitate querying and generate useful management reports.

Internal Procedures. The Consortium first produced its *Internal Procedures Handbook: A Staff Guide for Consortium Operations, Proposals, and Projects* in 1992. Last updated in 2004, this document details the Consortium's programmatic, staff, and administrative policies.

Proposal and Project Management

Developing the Sea Grant Program. The S.C. Sea Grant Consortium supports research, education, and extension activities encompassing many coastal and marine disciplines. Priority needs and opportunities examined through S.C. Sea Grant programs are established in consultation with the S.C. General Assembly, the business and user communities, state and federal resource management agencies and the S.C. Sea Grant Extension Program (SGEP). The Consortium's standing as a state agency responsible to the same legislative committees as South Carolina's natural resource and economic development agencies requires a pragmatic approach to addressing priority issues. These issues form the basis for developing the Consortium's biennial Sea Grant Request for Proposals (RFP).

Consortium RFP. The RFP, which outlines priority needs in each of the agency's strategic goal areas, is disseminated to the Consortium's Board, institutional liaisons, and research administrators who announce its availability throughout their respective institutions, and directly to more than 200 faculty. Input from the Consortium's Program Area Advisory Groups, SGEP specialists, communications staff, and program managers help to refine and target the list of priority needs identified in the Request for Proposals. The Consortium encourages both innovative research proposals and the involvement of young scientists in proposal submission. In addition, the expertise necessary to

accomplish high priority and multidisciplinary tasks is actively identified and drawn together from Consortium member institutions.

Proposal Review and Selection. Proposals are selected for the program during a biennial, dual-level review and development process and through continual interaction among researchers, extension service personnel, communication specialists, and program managers. Concept letters (= preproposals) are solicited through the RFP process and are evaluated by a Concept Letter Review Panel convened by the Consortium. Consortium staff also seek out opportunities to link similar concepts and prospective PIs when appropriate. Full proposals are then solicited by the Consortium and are rigorously evaluated through the use of outside scientific and management experts (written peer reviews) and a National Science Foundation-type Review Panel. Technical (written) peer reviewers are selected based on their area of expertise and knowledge of the Sea Grant concept. Our objective is to obtain at least three detailed, written reviews of every proposal. The Review Panel, who in the aggregate have the expertise necessary to analyze the proposals submitted for funding consideration, consists of nationally recognized scientists (Appendix 6) who are invited to the Consortium office to review and critique each proposal submitted for consideration. The Consortium's NSGO program monitor participates *ex-officio* on the panel as well. Typically, the Review Panel process is completed over a two-day period. Input from the panel and the written peer reviews is then used to guide the decision-making process of the Core Group, in consultation with the National Sea Grant Office, with final decisions made by the Executive Director.

On occasion, formal technical panels are convened to review major extramural research efforts, such as the Land Use-Coastal Ecosystem Study (LU-CES) and the USGS-funded Coastal Erosion Study.

The FY00-02, FY02-04, and FY04-06 Omnibus Proposal process resulted in the funding of 40 full Sea Grant projects. Some 174 concept letters (pre-proposals) in total were submitted by prospective PIs. Of those, the PIs on 84 concept letters were invited to submit full proposals and, from those, 39 projects were selected for funding (see Appendix 8). All decisions on concept letters and full

proposals are made based upon the Consortium's rigorous proposal review process.

Conflict of Interest Policy. Another important feature of the Consortium's review process is its Conflict of Interest Policy, which is designed to protect the integrity of all peer reviews. It asks prospective reviewers to recuse themselves if they have: (1) a major professor/student relationship with the Principal Investigator (PI); (2) published with the PI in the last five years; (3) been a colleague of the PI in the same academic department or served directly or indirectly in a supervisory role over the PI in the last year; (4) grants, contracts, or any financial interest with a PI; and/or (5) a relationship (by blood or by marriage) to the PI.

Project Management. Consortium staff track projects and proposals from start to finish. A number of mechanisms are used to accomplish this—progress reports, annual reports, final reports, and on-site visits are the most significant. Reports form the basis for documenting accomplishments in the S.C. State Accountability Report as well as the annual National Sea Grant Office Progress Report. Results are evaluated against Malcolm Baldrige excellence criteria. Published papers, presentations, retreats, planning workshops, and site visits are other means for monitoring projects and providing guidance so that projects achieve desired results in support of the Consortium's strategic plan.

Institutional Commitment. Three other aspects of the S.C. Sea Grant Program also contribute to its ability to field an innovative and cost-effective program:

1. The State of South Carolina continues to demonstrate its commitment to Sea Grant through an annual appropriation of state funds.
2. Since its inception in 1980, the Consortium Board of Directors maintains a policy that waives overhead costs on Sea Grant projects; instead, overhead costs can be used by PIs to offset the matching requirements of the program.
3. The S.C. Sea Grant Consortium itself charges no overhead; therefore, 100 percent of each Sea Grant dollar for Sea Grant projects goes to support programmatic efforts.

Recruiting Institutional Talent

The Consortium does not deliberately attempt to create "turnover" in principal investigators. Concept letters are judged solely on their conceptual merits and proposals are judged solely on their scientific merit and the extent to which they address the Consortium's strategic goals. Nevertheless, a desirable result is to bring new investigators into the mix. Of the principal investigators in the Consortium's FY02-04 Sea Grant Omnibus Program Plan, 53 percent were new as compared to the FY00-02 Omnibus



proposal. Of the principal investigators in the FY04-06 Program Plan, 56 percent were new investigators (compared to FY02-04).

Consortium staff attempt to identify new faculty and staff by maintaining continuous contact with campus representatives. These "prospects" are encouraged to contact the Consortium to discuss their research/outreach interests and ideas and how they fit with Consortium priorities. In some cases, the Consortium will suggest that a new faculty member submit a Program Development proposal for consideration. Over the past five years, PIs on eight of the Consortium's Omnibus Sea Grant projects were provided development funding prior to receiving full Sea Grant support.

Integrated Program Components

Integration of Research, Extension, and Education.

The Consortium's primary internal mechanism to ensure that integration of research and outreach occurs, from both a strategic and tactical planning perspective, is its "Core Group." The Core Group includes the Consortium Director (DeVoe), Assistant Director (Knight), Extension Leader (Bacon), Communications Director (Blackwell), and Program Manager (Dwyer). The Core Group meets at least once per month to review ongoing program activities, plan future efforts, and address important programmatic and administrative issues—with the express purpose of enhancing the linkages among research, extension, education, and communications. The Core Group also performs the final phase of the Consortium's biennial proposal review process, deliberating on what research and outreach projects to support and, further, developing strategies to build these linkages into the proposed efforts.

Each Core Group member is also expected to represent members of his/her staff at the monthly meetings. For instance, Sea Grant Extension staff meetings are convened on a quarterly basis, while Sea Grant communications staff hold weekly meetings. The Consortium uses this approach to ensure that both "top-down" and "bottoms-up" communication among and between program element staff occurs.

Strategic and Work Plans. Program "element" integration is incorporated into the framework of the Consortium's strategic and work (implementation) planning processes (see Section III: Long-Range Planning). The Consortium's nine strategic goals incorporate research and outreach elements; we do not segregate extension as a separate goal area for instance. The Consortium's work plan development process also provides a mechanism which allows the Consortium's Core Group to integrate program elements on an annual basis.

Staff Meetings and Retreats. To ensure that all Consortium staff understand the agency's strategic plan and quality expectations, a Consortium-wide planning session (typically in a retreat setting; annually when feasible) is conducted in which information about the agency's mission, goals, and objectives is provided and discussed, and staff are encouraged to share their ideas about ways to improve the agency's performance. Monthly staff meetings provide

another forum for sharing information and discussing the Consortium's progress toward strategic goals.

S.C. Sea Grant Extension Specialist Offices. The office locations of several of the S.C. Sea Grant Extension Specialists also enhances the integration of research with outreach. The Aquaculture Specialist is located at the Belle W. Baruch Institute in Georgetown, S.C. (also located adjacent to the North Inlet-Winyah Bay NERR) where a number of faculty from both Clemson University and University of South Carolina work and conduct field research efforts. The soon-to-be-hired Coastal Economics and Business Specialist will have an office on the campus of Coastal Carolina University, within its Center of Marine and Wetland Studies.

Outreach in Research Proposals. The Consortium instituted a new requirement, with the release of its FY04-06 Request for Proposals, that all PIs must include a detailed outreach plan in their proposals. The Consortium is placing increasing emphasis in its concept letter and proposal review process on how well prospective PIs include outreach and educational efforts in their proposed plan of work. Prospective PIs will now be expected to (a) document the target audiences for their research, education, and extension proposals, (b) describe how they are engaged in the proposals, and (c) specifically identify how results from the proposals will be delivered to them. These criteria have also been incorporated into the Consortium proposal review process. In addition, all proposals received in response to the RFP are reviewed and evaluated by Sea Grant Extension Program and communications staff, as has occurred in the past.

Leveraging Sea Grant Dollars. The S.C. Sea Grant Consortium receives funding from three principal sources: the State of South Carolina, the National Sea Grant College Program, and extramural sources. Appendix 9 contains the Consortium's complete program funding portfolio for the last five years (2000-2004). The Consortium's total annual budget for FY03-04 broke the \$6 million mark for the first time in the agency's history, at \$6,026,986.

State of South Carolina Appropriations. The State of South Carolina provides, through its budget and appropriations process, an annual budget to the Consortium to administer the agency. The Consortium's state appropriation for FY03-04 is \$440,505, which has been

reduced by \$210,252 since FY00-01 due to the state's poor budget climate. These funds are used both to support the management functions of the Consortium's marine and coastal research, education, and extension programs, and as matching funds for federal Sea Grant funding.

Sea Grant Core and National Competition Funding. Appendix 10 includes the distribution of core Sea Grant funding in South Carolina by program elements (research, extension, education, communications, program development, and administration) over the last five years.

For FY03-04, the Consortium received \$1,261,670 in core Sea Grant funding. The Consortium also secured \$1,607,252 from the National Sea Grant Office in FY03-04 for National Strategic Investment (NSI) projects, the National Media Relations Program, *Sea Grant Abstracts*, Knauss Fellows, and national Sea Grant Communications activities.

During the performance assessment period, the Consortium submitted a total of 30 full proposals to NSI competitions (Appendix 10). Ten proposals were funded—a 33 percent success rate. Proposals were funded in the areas of Marine Aquaculture, Applied Technology, Marine Biotechnology, Fisheries Extension Enhancement, Minority Serving Institutions, Oyster Disease, and Gulf Oyster Industry Program.

Extramural Programs and Funding. The S.C. Sea Grant Consortium has been very effective in securing non-state, non-Sea Grant funding in support of its strategic program areas. Over the last five years, the Consortium acquired \$19,073,000 in non-state, non-core Sea Grant funding, while core Sea Grant support totaled \$6,134,000, a *311 percent return on the core Sea Grant investment.*

Major funding has been secured from the NOAA/NOS/NCCOS Coastal Ocean Program, NOAA Coastal Services Center, NOAA Office of Ocean Exploration, U.S. Geological Survey, National Science Foundation, and Centers for Disease Control. For the FY03-04 period, the Consortium received \$4,766,986 in non-state, non-core Sea Grant funding.

II. Connecting with Users

S.C. Sea Grant Consortium programs and activities are driven by input and guidance it receives from a variety of stakeholders throughout South Carolina and the southeast United States, and it establishes these relationships in a number of ways.

Staff Leadership

One critical way that Consortium staff engage and interact with the agency's diverse stakeholder community is through its involvement in leadership roles with a number of public, private, and non-governmental organizations. Consortium staff play key leadership roles in organizations, professional societies, and activities that advance the mission of the Consortium and the visibility of Sea Grant in the state, region, and country, and enable it to better serve the needs of its constituencies. Appendix 11 provides a selective list of Consortium staff leadership roles.



Involvement of Users in Planning and Review

The S.C. Sea Grant Consortium consistently seeks involvement and input from its constituencies to help shape Consortium priorities and programs. This ensures that our activities are responsive to the needs of the Consortium's stakeholders and allows us to determine:

- Priority needs in South Carolina pertaining to coastal and ocean resources use and conservation;

- Current activities in South Carolina that are underway to address these needs;
- Priority needs that are not being adequately addressed by current activities; and
- Most importantly, specific potential actions that the Consortium can take to address these unmet needs.

The goal of the Consortium's strategic planning process is to provide a framework upon which to maximize the effectiveness of our research, education, and outreach programs to address the coastal and marine resource needs of South Carolina. In addition to its on-going strategic planning process, the Consortium utilizes other means to enhance its ability to identify constituent groups and their needs. It does this through interaction with members of the Consortium's Board of Directors, liaisons at the Consortium's member institutions, Blue Ribbon Committees, its Sea Grant Extension Program specialists, and its Communications and Information Services staff.

S.C. Sea Grant Extension Program. The S.C. Sea Grant Extension Program involves users in formal and informal ways in its program planning and evaluation process. It begins with S.C. Sea Grant Extension specialists, who live and work in coastal communities and interact daily with their program clientele. This informal daily interaction creates a special relationship of trust between the specialists and the communities they serve, and provides the specialist with a deep knowledge of the issues and concerns among members of the user community. In addition, each specialist establishes a formal program area advisory committee consisting of local and state government agency representatives, business owners, representatives of community organizations, individual citizens, and the Program Leader, an *ex officio* member of each specialist's committee (see Appendix 7). The information, advice, and guidance received through these informal and formal means is then fed into the formal Consortium strategic planning process through focus groups in which members of the Extension advisory committees and others participate.

Communications. The Consortium's staff continues to enhance the agency's Web site (www.scseagrant.org) by expanding its interactive features, making the site more accessible to people with disabilities, and keeping the information up-to-date and relevant. Nevertheless, traditional means of communication are still extremely

important for information delivery; the Consortium's communications staff produced over 290 publications from 2000-2004, which informed our constituents about coastal issues and, where appropriate, facilitated the transfer and exchange of information.

Partners in Partnerships

A major element of the Consortium's mandate from the S.C. General Assembly is to interact with other state natural resource agencies as an information provider, broker, facilitator, and catalyst on coastal and marine resource conservation, management, and utilization issues. Just by virtue of its structure as a consortium, the agency must operate in partnership with its eight member institutions in planning, implementing, and administering its research, education, and outreach programs.

The involvement of a variety of stakeholders is crucial to the success of those programs. It is increasingly a fact of life that neither Sea Grant nor its partners individually have the resources to implement effective programs for the ever-increasing complex needs of stakeholders. So having their support and involving them in program development and implementation is a necessity. The recent hiring of the S.C. Sea Grant Extension Fisheries Specialist provides a good example of how users have been involved in S.C. Sea Grant program planning, support, and delivery (see page 23).

The Consortium actively engages in collaborative programming with state and federal government agencies, universities, community-based non-governmental organizations, local and regional governments, businesses, and a variety of industry user groups. Coordinating program development and implementation with partners and customers is, therefore, a necessity. Examples of collaborative partnerships are illustrated by a number of program highlights included in Section IV (starting on page 14). For a selected listing of agencies, organizations, and user groups with which the Consortium is or has collaborated over the past five years, see Appendix 12.

Regional Program Engagement

Results from the past five years have demonstrated that the S.C. Sea Grant Consortium has become a true regional partner and leader in a number of innovative and emerging arenas, all of which focus on the engagement of users. For

example, the Consortium's role in managing and performing outreach with the Land Use-Coastal Ecosystem Study—a South Carolina-Georgia research and outreach program funded by NOAA-COP—established its reputation as a credible regional science management and outreach program. The designation of the Consortium by the National Science Foundation in 2003 as the programmatic hub for



the SouthEast Center for Ocean Sciences Education Excellence has significantly broadened the agency's role in formal and informal marine education activities regionally, as well as enabled it to tap a much wider range of user groups and stakeholders. The S.C. Sea Grant Extension Program, together with its counterparts in North Carolina, Georgia, and Florida, are providing extension and educational support to the SouthEast Atlantic Coastal Ocean Observing System (SEACOOS), an emerging area that holds great promise in providing valuable products and services to a diversity of clientele. Relatedly, the Consortium was awarded a grant from the NOAA Coastal Services Center to facilitate the creation of the Regional Association for Coastal Ocean Observing Systems in the southeastern United States. These and other regional Consortium efforts have enhanced the visibility (and responsibility) of the Consortium in addressing coastal and marine issues of importance to stakeholders in the southeastern United States.

III. Long-Range Planning

Sea Grant Program Goals

The S.C. Sea Grant Consortium is committed to maximizing the economic, social, and environmental potential of the state's coastal and marine resources. Through continuing improvements in internal and external structures (e.g., communications networking, formal extension feedback mechanisms, long-range program planning), the Consortium continues to contribute to the realization of this potential. Early in its 25-year history, the Consortium identified three concepts that provide the foundation for its Sea Grant activities:

1. To develop and maintain an integrated Sea Grant Program for South Carolina that seeks to provide for future economic opportunities, improve the social well-being of its citizens, and ensure the sustainable use and development of its marine and coastal natural resources.
2. To continue to build an effective and efficient research, communications and extension network among academia, business, government, and the general public to ensure that Consortium activities are responsive to marine and coastal users, and that information generated is delivered in a timely fashion.
3. To remain an integral component of the National Sea Grant College Program where Consortium activities are responsive to regional and national needs, as well as to those of South Carolina.

The S.C. Sea Grant Consortium strives to achieve this end by delivering programs which bridge the gap between science and policy, wherein effective management of resources, both physical and human, requires resolution of diverse scientific, economic, social, and environmental questions.

Consortium Planning and Evaluation

The Consortium's programmatic emphases have shifted over the years from broad-based, short-term projects to focused, long-term programs. This transition implies a commitment to address the major needs and concerns of coastal and marine users and managers through objective-oriented, integrated efforts in research, education, and extension services.

Because the need for information and assistance along the South Carolina coast is increasing, the Consortium has initiated efforts to improve the focus of its future programmatic activities. Periodically the Consortium invites representatives of its “coastal constituency” (those people whose professional or vocational interests are closely connected to the Consortium’s mission) to discuss issues and trends of most pressing concern to them. In facilitated workshop settings, these constituents voice their concerns on issues and opportunities facing the citizens and visitors to coastal South Carolina. This information, along with guidance provided by NOAA, the National Sea Grant College Program, and other sources, is then incorporated into the S.C. Sea Grant Consortium’s strategic plan. For instance,

- The S.C. Sea Grant Consortium established several special programmatic advisory groups during 1986 and 1987. These small groups were convened with the express purpose of working with the Consortium staff to define long-range goals and objectives for the Consortium.
- In 1988, the Consortium Board of Directors called for the establishment of a Blue Ribbon Committee to review and evaluate the progress and activities of the Consortium over the period 1983 to 1988, and to produce a blueprint for Consortium programs and activities through the 1990s. As part of its charge, the Blue Ribbon Committee addressed a number of issues unique to an academically based state agency with a consortial arrangement.
- In April 1992, the Consortium’s Sea Grant Extension Program underwent a formal evaluation and review. This exercise involved three Sea Grant Extension Service leaders from East Coast Sea Grant programs.
- In 1997, the Consortium convened a second Blue Ribbon Committee at the direction of the Consortium Board of Directors. This committee was charged with evaluating progress made by the Consortium during the 1990s, and assessing the strengths and weaknesses of Consortium administration, organization, programs, and staffing, given recent changes at both the national Sea Grant Office and the state in terms of accountability and program management.
- Over the last five years, the Consortium has incorporated findings from topical conferences and workshops held in South Carolina and the region into its planning process

and RFP. For example, Consortium efforts have been shaped by the outcomes of a targeted planning workshop on marine education (April 2002), the SouthEast Coastal Ocean Science conference and workshop (January 2003), and the International Conferences on Shellfish Restoration (2000; 2002).

- Of course, input received from the review of the Consortium by its National Sea Grant Program Assessment Team in June 1999 has also been extremely beneficial. The Consortium received its “Excellent” rating in 2000.

Strategic Planning Process

The goal of the Consortium’s strategic planning process is to maximize the ability of S.C. Sea Grant’s research, education, and outreach programs to address the coastal resource needs of South Carolina. The Consortium’s ability to anticipate and respond to constituent’s needs is critical to its success in serving the state. The Consortium employs several planning tools to ensure that its programs are achieving the maximum possible benefits. These include both formal and informal mechanisms.

Strategic Planning Workshops. To determine how the Consortium’s previous strategic plan (1997-2001) addressed the needs of the state, the Consortium’s Core Group, in the fall of 1998, reviewed that plan and agreed to initiate an update. The Core Group felt that the major program areas identified in the existing plan remain relevant; however, suggestions of specific action steps were needed for how best to achieve the plan’s goals. The Sea Grant strategic planning processes in Florida, Maryland, Rhode Island, Delaware, and Hawaii were reviewed to determine how best to receive input regarding our existing plan. Advice was received on how to maximize the effectiveness of the strategic planning process and successful techniques for soliciting stakeholder input were duplicated. The result was a series of focused workshops in six topics areas (K-12 Marine Science Education, Coastal Hazards, Coastal and Ocean Processes, Coastal Historical, Cultural, and Natural Tourism, Aquaculture, and Ecosystem Dynamics) that were held in 1999 and 2000.

Workshop Process. The Consortium invites academic and laboratory faculty and staff as well as policymakers, users, business and industry representatives, and other stakeholders to the workshops. Significant effort is spent to

include all possible categories of stakeholders in each topic area. Invitees are sent background materials related to the topic under discussion prior to the workshop, including descriptions of both the National Sea Grant Program's objectives and current S.C. Sea Grant objectives and activities.

Following each workshop, a summary of the discussions and presentations is produced. Summaries are mailed to all attendees as well as those who were invited but could not attend; comments were requested. These summaries, and any subsequent comments received, serve as the basis for updating the Consortium's Strategic Plan. The Consortium's current Strategic Plan (2000-2004) can be found on the accompanying CD.



Strategic Planning 2000-2004 and Beyond

During 2002, the Consortium's Core Group conducted an internal planning process to review its programmatic areas and update strategic goals. Previous program area designations were evaluated and reorganized into a performance-based set of nine strategic goals. These nine goals reflect the Consortium's desire that it address the relevant and pressing coastal and marine resource needs of South Carolina.

The Consortium's current strategic goals are:

Strategic Goal 1: Maintain and enhance a management system and engaged administrative staff which supports the programmatic goals of the research, education, and extension programs of the Consortium.

Strategic Goal 2: Identify and understand the processes dominating the coastal ocean of the South Atlantic Bight as they affect coastal processes, pollution of the coastal zone, fisheries dynamics, and mineral resources management, and are influenced by global climate change.

Strategic Goal 3: Enhance the availability and quality of marine, estuarine, and freshwater resources that can support the economic and quality-of-life needs of South Carolina's public and private sectors.

Strategic Goal 4: Examine the forces of climate and hazards, and to provide information to the public and private sectors on the nature of hazards and how to plan for them.

Strategic Goal 5: Develop techniques, technologies, and new products based on marine systems for use in commercial and industrial applications, and to continue to apply low-cost technologies to coastal and marine resource problems.

Strategic Goal 6: Enhance the development of viable and sustainable aquaculture and fisheries in South Carolina and the region.

Strategic Goal 7: Develop and implement activities to assist coastal communities and small businesses

with growth management and sustainable economic development strategies.

Strategic Goal 8: Design and implement educational programs that foster a more scientifically and environmentally informed citizenry.

Strategic Goal 9: Promote the development of a diverse and technically trained workforce.

The Consortium intends to incorporate these strategic goals, and employ the process described above, to update its Strategic Plan for 2004-2008.

Nurturing New Ideas and Programs

The Consortium administers Sea Grant program development funds to address opportunities and needs that arise subsequent to program planning. Through the availability and use of program development funds, the Consortium is able to:

- Maintain a Sea Grant program that is responsive to the needs of the state, the region, and marine and coastal resource users;
- Allow for program flexibility and prompt response to high priority needs; and
- Encourage innovative ideas and approaches to coastal and marine resource problems and opportunities.

All program development project proposals are received and reviewed throughout the year by the Consortium. Agency and peer reviews are solicited on technical proposals; non-technical proposals are reviewed in-house by the Consortium staff and Sea Grant Extension specialists.

IV. Producing Significant Results

A complete listing of S.C. Sea Grant Consortium's core, national competition, and extramural projects, programs, and principal investigators can be found in Appendix 13. The Consortium also supported 88 Program Development projects, which are listed on the accompanying CD.

Contributions to Science and Technology

Journal Publications and Patents. S.C. Sea Grant Consortium projects funded during 1999-2004 resulted in 101 Sea Grant and 82 extramural scientific publications and two patents, which are listed in Appendix 14. In addition, the Consortium supported 42 graduate student dissertations and theses (Appendix 16).

Contributions to Education and Outreach

Graduate and Undergraduate Education. S.C. Sea Grant Consortium research projects support graduate and undergraduate students in the marine sciences. Over the last five years, Consortium funding support has led to the training and education of more than 200 graduate and undergraduate students at South Carolina universities (see accompanying CD for a listing), and more than 500 graduate and undergraduate students since 1985.



2004 Dean John A. Knauss fellows Noel Turner, Rebecca Shuford, and Susannah Sheldon pose with Vice Admiral Conrad C. Lautenbacher.

Graduate Student Fellowships. Since 1990, the Consortium has placed 18 South Carolina graduate students (of the 49 students that applied to the program) in the highly competitive Dean John A. Knauss Marine Policy Fellowship Program. The Consortium has also been successful in placing South Carolina students in Coastal Zone Management Fellowships around the country; 7 of the 13 students nominated by the Consortium were placed in the CZM fellows program. Appendix 17 includes a listing of the South Carolina students selected for these fellowships during the last 20 years.

Sponsored and Co-sponsored Conferences and Workshops. The Consortium is a leader in organizing and convening conference and workshops that address critical coastal and marine resource issues and opportunities at the state, regional, and national levels. The Consortium has been the primary convenor of 24 major conferences and workshops from 1999-2004 (see Appendix 15). A complete listing of conferences and workshops with which the Consortium has played a role can be found on the accompanying CD.

Consortium Education. The COASTeam program, the Consortium's K-12 teacher training program managed at the College of Charleston, conducted 10 COASTeam courses and workshops over the past five years (Appendix 18).

Consortium Publications. The Consortium's Communications and Information Services program produced more than 290 publications and products from 1999-2004 (Appendix 19 provides a selected list of major products). Twenty issues of the Consortium's *Coastal Heritage* magazine have been produced, as well as 10 issues of *Inside Sea Grant*, a newsletter directed at state and regional leaders, and nine issues of the *S.C. Task Group on Harmful Algae* newsletter. Some 84 news releases were also prepared and distributed to the media; over the last five years, there have been 692 media placements about the Consortium as a direct result of these releases, and an additional 351 media placements occurred without Consortium influence (the accompanying CD contains a complete listing of the releases and the placements).

For each of the past three years, the Consortium's Web site has had an average of nearly 45,000 unique visits. Total hits since the Web site was revitalized in 2001 are over 1.5 million. A chart illustrating the use of the Consortium Web site over time can be found in Appendix 19.

Consortium Outreach. In the past 10 years, it is estimated that S.C. Sea Grant Extension Specialists have served 34,104 South Carolina citizens with 1,639 extension workshops and training programs.

The Communications program also encourages volunteer participation in state natural resource conservation education. Over the last 15 years, the Consortium has engaged thousands of volunteers in its Beach Sweep/River Sweep litter clean-up program, which is conducted jointly with the SCDNR. More than 58,000 South Carolina citizens have participated as volunteers since 1996, saving state taxpayers more than \$2,927,000 in the same time period. Beach Sweep/River Sweep won numerous awards, including the State of South Carolina "Watchdog for the Taxpayers" award in 1998.

Success in Achieving Planned Program Outcomes

Implementation Planning – Work Plans, Results, and Outcomes. Based on the recommendation of the Consortium's 1999 PAT review, the Consortium Core Group developed an annual Work Plan, Results, and Outcomes documentation process, organized according to the Consortium's nine strategic goals and designed to serve as the agency's implementation planning, tracking, and evaluation tool. All agency staff have assigned responsibilities in developing the Work Plan, and each has similar responsibilities for completing and documenting the tasks identified in the annual plan—truly a team effort guided by the Consortium's vision, mission, and strategic plan.

The annual Work Plans and Work Plan Results and Outcomes documents are posted on the Consortium's Web site, and are provided to the National Sea Grant Office in hard copy and electronic formats. Work Plans and Work Plan Results and Outcomes documents have been prepared for calendar years 2002 and 2003, and the 2004 Work Plan is being finalized.

Consortium Recognition. Another means by which to determine success is through recognition from colleagues and peers for outstanding contributions to the goals and objectives of the Sea Grant program; Consortium staff, programs, and products have been frequently cited for their contributions (Appendix 20).

Impact on Society, the Economy, and the Environment

Information presented in the previous sections of this document provides the reader with an overview of the nature of the Consortium and its program activities, and a collective view of results and outcomes. The following selection of specific program outcomes provides on-the-ground evidence of the impacts Consortium activities have had on society, the economy, and the environment.

Coastal Ocean Processes

Strategic Goal: To identify and understand the processes dominating the coastal ocean of the South Atlantic Bight as they affect coastal processes, pollution of the coastal zone, fisheries dynamics, and mineral resources management, and are influenced by global climate change.

Predicting and Managing Coastal Erosion

The onshore/offshore migration of sand is an extremely important component of the dynamic system that is not well understood or quantified; thus, the overall goal of the Coastal Erosion Study, a cooperative program of the U.S. Geological Survey and the S.C. Sea Grant Consortium, is to develop an understanding of the factors and processes that control coastal sediment movement within critical areas of erosion along the South Carolina/Georgia coast. Results of the Coastal Erosion Study and Sea Grant-funded research are leading to better predictions of changes and cost-effective mitigation and management of future erosion and accretion patterns. Policymakers are provided with scientific information needed for enhanced protection of valuable coastal resources of the U.S. and its territories. Participating Institutions include the S.C. Sea Grant Consortium, Coastal Carolina University, College of Charleston, University of South Carolina, Clemson University, Skidaway Institute of Oceanography (Georgia), Georgia Institute of Technology, Scripps Institution of Oceanography, and University of New Hampshire. The Coastal Erosion Study and Sea Grant coastal processes projects have been greatly enhanced by the availability of ship-time aboard the NOAA vessels *Ferrel* and *Nancy Foster*. Selected accomplishments include:

- The GIS and database management program element continues to define and maintain program data sets and is working towards full data accessibility via digital data and internet access. The Web site has been redesigned (<http://camelot.coastal.edu>), and it is providing principal investigators and the public access to the high-levels of data created during the first three and a half years of the project.
- Historical shoreline data have been completed, and files have been forwarded to the USGS for inclusion into the national shoreline change database. The BCAM project, supported partially through this grant, is providing real-time imagery of the coast, and short-term analyses are indicating very interesting results with respect to historical and short-term shoreline and coastal modifications.

- Data from this project, including examples of data collection and barrier island architecture, were integrated into a standards-based, Web exercise designed for high school students as part of the Rising Tide Project, previously funded as a seed project by the National Science Foundation, and now funded as a S.C. Sea Grant project. The Rising Tide Project provided Mr. Poland (a teacher with North Myrtle Beach High School) and Ms. Rachel Peterson (Coastal Carolina University



undergraduate) with research experience, and allowed for transfer of current research into the classroom through the Web site <http://kingfish.coastal.edu/marine/risingtide/activities.htm>.

- S.C. DNR and U.S. Army Corps of Engineers requested geophysical imaging of the Ocean Dredged Materials Disposal Site (ODMDS) offshore of Charleston. As the equipment and personnel were already mobilized for the work in the Grand Strand, a few additional days of surveying was completed to assist with the documentation of the changes in the sea floor associated with the disposal site in Charleston.
- The U.S. Army Corps of Engineers and the City of Folly Beach requested assistance in search for sand resources for future nourishment of Folly Island. As the equipment and personnel were already mobilized for the work in the

Grand Strand, a few additional days of surveying was completed.

- The private contractor for the cities of Myrtle Beach and North Myrtle Beach requested guidance on the framework within the shoreface where excavation and construction of storm drain pipelines are being installed across the beach and shoreface within the study area. Borings and interpreted seismic lines from this project have been supplied to assist with the logistics and operation of that project.
- A cooperative effort was established with the U.S. Army Corps of Engineers-Charleston District entitled SCWAVES. This is a USACE program of collecting site-specific wave data along the South Carolina coast to assist district efforts at planning and design of coastal engineering projects in the state. CMWS staff assisted with the fabrication of ADCP mounts and work began in the surf zone in July 2003.
- The results of the Coastal Erosion Study continue to be extended to local communities for their use in planning beach nourishment projects. Scientists are gaining new understanding of shoreline erosion processes, which enable community resource managers and government officials to better manage and mitigate beach erosion. The work has been of critical importance to communities like Myrtle Beach, where coastal tourism is a significant component of the local economy, and Folly Beach, where nourishment is necessary to provide recreational opportunities and protect oceanfront residences. Several public workshops involving study scientists, students, the media, community representatives, and others have been held over the last two years.
- Sea Grant scientists are in the process of quantifying impacts of proposed dredging at Folly Island, S.C. Like Myrtle Beach, Folly Island's economy is heavily dependent on tourism (beachgoers). Through modeling, optimal dredging plans for the site are being developed. Several "footprints" of the dredge borrow area are now being considered to investigate best-and worst-case configurations.



Establishing the Southeast Regional Association for COOS

The S.C. Sea Grant Consortium is serving as the lead organization, under the terms of a grant awarded by the NOAA Coastal Services Center, to foster the establishment of a "Regional Association" for the coastal ocean observing system network in the southeastern coastal ocean region of the United States. Workshops are now being planned to facilitate engagement of the existing sub-regional coastal

Ocean observing tools

Photos of the South Atlantic Bight Synoptic Offshore Observational Network (SABSOON) courtesy of the Skidaway Institute of Oceanography.

ocean observing systems (e.g., CORMP; Caro-COOPS; SABSOON; COMP; PORTS; etc.), SEA-COOS (a "Regional COOS" effort funded through the Office of Naval Research), near-coastal and estuarine monitoring and observing systems (e.g., USGS water level stations; federal and state water quality monitoring programs; southeastern NERRS and National Marine Sanctuary monitoring efforts; etc.), state and federal natural resource agencies (marine resources; water quality; emergency preparedness; military; weather), public/interest user groups (NGOs; municipal governments), and private sector user groups (marine transportation; fishing; energy; utilities; sand and minerals; weather providers; commercial value-added data providers; etc.). The Southeast Coastal Ocean Observations Regional Association, (SECOORA: see <http://secoora.org>), will ultimately be responsible for administrative, operational, and budgetary aspects of the southeastern observing system network, and will be a member of the emerging National Federation of Regional Associations that will serve as the network for the OceanUS office.

Ecosystem Dynamics

Strategic Goal: To enhance the availability and quality of marine, estuarine, and freshwater resources that can support the economic and quality-of-life needs of South Carolina's public and private sectors.

Linking Land Use and Coastal Ecosystems

Ten “state-of knowledge” reports on the interactions of land-use change and marine ecosystem condition in the southeastern United States and the results from a regional, multi-institutional research effort will serve as the basis for publication by Springer Verlag of a new book titled *Implications of Land-Use Change to Coastal Ecosystems: Challenges to Effective Resource Management*. Sea Grant initiated the regional South Atlantic Bight Land Use-Coastal Ecosystem Study (LU-CES) in 1997 to address one of the region’s most pressing problems—coastal land-use change.

This multidisciplinary research program, which is supported by NOAA’s Coastal Ocean Program and engages more than 20 scientists from the Southeast, is generating information on direct cause-and-effect linkages between population and development trends and their impacts on the region’s ecosystems. LU-CES information has already been used by five municipalities in the inner South Atlantic Bight region in establishing growth policies and planning new development. The LU-CES Web site (www.lu-ces.org) is now being modified to include an Interactive Management System which will allow viewers to query the LU-CES database.

Nonpoint Education for Municipal Officials (NEMO)

The S.C. Sea Grant Extension Program has assisted South Carolina municipal officials in reducing non-point source pollution through implementation of the NEMO (Nonpoint Education for Municipal Officials) Program. S.C. NEMO programs have been presented to communities within 27 of the state’s 46 counties (Horry, Georgetown, Charleston, Berkeley, Dorchester, Colleton, Beaufort, Marlboro, Marion, Florence, Dillon, Darlington, Chesterfield, Anderson, Pickens, Oconee, Greenville, Greenwood, Abbeville, Laurens, Lexington, Richland, Newberry, Saluda, York, Chester, and Lancaster counties); many of them are located inland. Some highlights of the program include:

- As a direct result of the program, the City of Conway adopted a new zoning ordinance in February 2001 designed to help protect water quality in and around stormwater retention ponds. Also, Anderson County Council has established new parking-lot standards to reduce stormwater runoff.
- A series of fact sheets for the S.C. NEMO Program were

developed. The fact sheet topics include a program briefing; elements of nonpoint source water pollution; impacts of development on waterways; strategies for coping with polluted runoff; protecting a watershed from polluted runoff; raising the issue of polluted runoff at public meetings; reviewing site plans for stormwater management; NPDES Phase II Stormwater Program; funding sources; open space planning; techniques for developing an open space plan; conservation easements; and transfer of development rights. The fact sheet series has been distributed to local officials within all S.C. NEMO program watersheds, and it is also available for download from the S.C. NEMO Web site.

- The S.C. Sea Grant Extension Program, in partnership with the Berkeley-Charleston-Dorchester Council of Governments, created a toolbox, *Taming Stormwater*, as part of the NEMO program for the S.C. Coastal Watershed. The publication outlines the planning, zoning, land development, and best management practices and techniques that can be used to mitigate nonpoint source pollution. The toolbox is divided into four main sections including: compact developments and land preservation/conservation; zoning techniques; land development design techniques; and, stormwater best management practices, and has been distributed to all local government officials in Berkeley, Charleston, and Dorchester Counties.
- In 2002, the S.C. NEMO Web site (www.scseagrant.org/scnemo.htm) was completed and made accessible to the public. The S.C. NEMO Web site includes watershed presentations, NEMO Fact Sheets, GIS maps illustrating land cover and water quality impairments, and specific project information on project partners, advisory committees, and workshops. In the spring of 2003, the S.C. NEMO Web site was awarded the Communication 1st Place Award from AT&T. The most important reason for its existence, however, is to be able to provide timely and important information to South Carolina citizens.

Disposal System Inspector Training and Certification Program

In collaboration with the S.C. Department of Health and Environmental Control (SCDHEC) Office of Ocean and Coastal Resource Management, the S.C. Sea Grant Extension Program developed an On-site Disposal System Inspector

Training and Certification Program and implemented a pilot program to train and certify local governments in the inspection and management of septic systems. The Sea Grant Environmental Quality Specialist served on the program development team, assisting with the design and development of the training module, and as one of the instructors for the pilot program workshops. Septic System Inspector Training Academy workshops, conducted in three coastal counties, provided a thorough understanding of the components of a conventional septic system and how they function as well as a general knowledge of what wastewater is composed of and how soil treatment processes work. The curriculum covered detailed knowledge about the inspection process, sources of information, and tools to use. Each attendee received a workshop manual complete with lecture notes, fact sheets, regulations, and many additional resources. Also, field trips were scheduled to provide workshop attendees hands-on experience with actual inspections. Following the field inspections, all participants were administered a qualifying exam. Collectively, forty-five workshop participants representing home inspections, local government, and wastewater utility professions were in attendance. Septic System Inspector Training Academy Workshops were held in Charleston, S.C. (March 25-26, 2003), Conway, S.C. (April 16-17, 2003), and Beaufort, S.C. (April 22-23, 2003).

South Carolina Clear Water Contractor Program

The S.C. Sea Grant Extension Program took the lead in establishing the South Carolina Clear Water Contractor Program, an educational program addressing erosion control practices. The program objective is to train contractors and heavy machinery operators involved in land clearing activities in erosion control best management practices (BMPs). The S.C. Clear Water Contractor program teaches methods that will help protect surface waters. By utilizing the information presented, contractors may also be able to minimize regulatory penalties, such as work stoppage due to failed inspections. This program is an adaptation of North Carolina's successful Clear H2O



Contractor, which has targeted its program at persons clearing land on jobs not requiring a permit or erosion control plan. The S.C. Clear Water Contractor program focuses on recruiting larger commercial operators who are usually required to submit erosion control plans and obtain permits. The training sessions teach methods that minimize erosional events. Two sessions were held in 2003 in Greenville and Summerville. This first class of Clear Water Contractors was pleased with class structure and materials, indicated by 98 percent of attendees rating the course as "excellent" or "very good." According to Ron Carr of Poinsett Homes, LLC, the curriculum was "...well prepared and presented. A program all grading and utility contractors should participate in." Randall Horne, Greenville County SWCD said, "This program is helpful because of the future functionality of our drainage ways." Finally, Ken McDaniel of Appalachian Grading Service stated of the instructors, "...excellent diversity and knowledge." In 2004, the program will work with the S.C. Department of Transportation (SCDOT) to conduct over 20 training sessions for their employees and contractors. Currently over 480 participants are registered for the planned courses. S.C. Clear Water Contractor is a partnership among Clemson Extension, the S.C. Department of Health and Environmental Control, the S.C. Sea Grant Extension Program, and SCDOT.

S.C. Task Group on Harmful Algae

In autumn 1997, the S.C. Task Group on Harmful Algae was created to mitigate negative effects of potential outbreaks in South Carolina. With support from the Centers for Disease Control and Prevention (CDC), National Oceanic and Atmospheric Administration (NOAA), and other sources, the task group has sought to understand what, where, and why harmful algal events occur and develop strategies to keep them from becoming an environmental and public-health problem in South Carolina. The task group has worked to build better collaborative networks regarding harmful algal blooms among scientists, medical professionals, natural-resource managers, communications staff, and extension personnel.

This multi-institutional program is the first statewide effort to assess South Carolina waters for the distribution, causes, and environmental and human impacts of harmful algal blooms. The program is also the foundation for all harmful

algal bloom research in South Carolina waters. Program teams are monitoring and documenting the distribution of potentially harmful algae in the state, determining their prevalence and the factors that trigger and sustain them. Teams are also learning how and to what extent they affect fish and shellfish and their potential effects on human health. Response teams have been established to immediately investigate all reports of fish kills and algal blooms for potential toxicity. The teams identify, isolate, and culture potentially harmful algae, and test for biotoxin production. To date, program scientists have documented harmful algal blooms from 16 species previously undocumented in the state.

Outreach and education are important elements of the program's work. A volunteer effort, the Southeast Phytoplankton Monitoring Network, is led by the NOAA/NOS/Center for Coastal Environmental Health and Biomolecular Research. Volunteers help extend the coverage of surveillance by sampling water for phytoplankton distribution and abundance. Volunteers comprise members of conservation and community groups, plus middle- and high-school marine biology students. The program also produces the *S.C. Task Group on Harmful Algae* newsletter three times a year and maintains a Web site (www.scseagrant.org/schab.htm) to provide further information to the public. A textbook, *Algae: A Sourcebook for Teaching about Harmful Algal Blooms*, developed in North Carolina, has been supplied to about 300 science teachers and librarians in coastal South Carolina schools, and is available through the Consortium.

Science-based Rice Field Management and Policy Development

A team of Sea Grant researchers is investigating the effects of water management on tidal freshwater wetlands and rice field impoundments along the Cooper River and have active roles in the current policy review meetings being conducted by SCDHEC/Office of Ocean and Coastal Resource Management on how Cooper River former rice impoundments should be managed. Based on these investigations, OCRM and Berkeley County (S.C.) have initiated Special Area Management Plan (SAMP) planning meetings involving stakeholders and regulatory agencies. The group, which includes landowners, river-related businesses, recreational interests, conservation

organizations, and citizen groups, as well as officials of OCRM, Berkeley County, SCDHEC-Water Quality, U.S. Army Corps of Engineers, USEPA, SCDNR, USF&WS, and Santee-Cooper, has met once a month since October 2003.

The scientists have been invited to present Sea Grant research findings on wetlands successional processes, water quality and quantity, vegetation, fish, and birds. Two Sea Grant researchers have been invited to serve as technical advisors to the planning group. Votes are taken by stakeholders and agencies at each meeting on what the management objectives for the various components of the SAMP should be. The goal of the process is to develop a set of management objectives for the upper basin of the Cooper River. OCRM and Sea Grant are also cooperating on a vegetative survey of all tidal rice fields in South Carolina, a state-of-knowledge review of impoundment ecology and management, and a test of the Cooper succession model on other river systems to see how policy recommendations resulting from the Cooper River studies might be applied coastwide.

Shellfish Health Biomarkers

Sea Grant research has examined cellular biomarkers in the Eastern oyster (*Crassostrea virginica*) and mussel (*Geukensia demissa*) to validate potentially valuable biomarkers of anthropogenic perturbations on the health of these two common estuarine bivalve species. Data suggest that lysosomal destabilization rates and glutathione levels of hepatopancreatic tissues may be valuable indices of pollutant exposure. These biomarkers may function as valuable sensitive signals of pollutant exposure as well as early indicators of chronic stress and potential reproduction success, and may be used by resource managers to monitor habitat condition and to better manage fishery resources.

Serving the South Carolina Boating Public

As a result of collaborative efforts among S.C. Sea Grant Extension, the S.C. Marina Association, and S.C. Department of Natural Resources staff and other partners, funding was secured for development, publication, and distribution of *The Complete Guide to Coastal Boating in South Carolina*. The guide was written to provide the South Carolina boating community with important phone numbers, state and federal regulations, safety information,

environmentally sound boating practices, access maps, and other pertinent information. This focused educational effort provides state boaters with the information they need to make conscientious decisions regarding their practices on the water. The guide also includes an overview of state coastal ecosystems, pathways and impacts of pollution, pump out and fuel dock sites, important notices to mariners, a boater's directory, as well as the location of marinas along the coast. Project partners include the S.C. Department of Health and Environmental Control, S.C. Department of Natural Resources, S.C. Department of Parks, Recreation, and Tourism, S.C. Marine Association, SCDHEC Office of Ocean and Coastal Resource Management, S.C. State Ports Authority, U.S. Army Corps of Engineers, U.S. Coast Guard, and U.S. Coast Guard Auxiliary.

Coastal Natural Hazards

Strategic Goal: To examine the forces of climate and hazards, and to provide information to the public and private sectors on the nature of hazards and how to plan for them.

Low-cost Methods for Reducing Storm Damage

Since Hurricane Hugo struck South Carolina in 1989, Sea Grant has worked with wind engineers from the Department of Civil Engineering at Clemson University to research and develop low-cost methods and materials to reduce the loss of lives and property associated with coastal storms. This research has allowed the scientific community to advise building code organizations on code improvements for high hazard areas, and provided guidance to coastal homeowners on effective methods and materials for strengthening roofs and shuttering windows. In one instance, the developer of Sun City, a 15,000-home coastal retirement community, changed the windows specified for all the new homes and fortified their installation based on the recommendations of Sea Grant-funded engineers.

The "Hazards" House

As a result of Sea Grant-supported structural engineering research on wind, flood, and seismic impacts on coastal homes, an extension demonstration project was undertaken in partnership with local, state, and federal governments and the private sector to guide coastal residents on how to build and retrofit hazard-resistant homes. Many of these solutions

can now be observed at *113 Calhoun Street: A Center for Sustainable Living* in downtown Charleston. The 113 Calhoun Street Web site (www.113calhoun.org) includes a virtual tour. The Consortium and its partners retrofitted an old Charleston single house to demonstrate to homeowners a variety of options for window and roof protection, as well as ways to protect against flood and earthquake. The Center provides a conduit for transferring research-based information on hazard-resistant building techniques to the community.

Since its opening, Center staff have provided over 450 guided tours, advice and assistance to more than 1,500 individuals, singly and in groups, and made over 60 presentations at meetings, conferences, and workshops. This project received the national Association of State Flood Plain Managers "Excellence in Floodproofing" award and has been featured on the CBS Morning News and the Bob Villa "Home Again" program.



113 Calhoun Street: A Center for Sustainable Living

Providing Wind Data during Hurricane Isabel

Sea Grant research paid off during Hurricane Isabel—mobile wind tower data transmitted in real-time provided critical information to the NOAA National Hurricane Center. Researchers with S.C. Sea Grant Consortium and Florida Sea Grant recently collaborated on the deployment of mobile wind towers at four locations near the projected path of Hurricane Isabel. The wind towers were deployed within two days of Hurricane Isabel's projected landfall in the Outer Banks region of North Carolina. One tower was set up in Elizabeth City, the second in Wilmington, the third in Atlantic Beach, and the fourth in Frisco, which is near Cape Hatteras. Dr. Tim Reinhold of Clemson University and Dr. Kurt Gurley with the University of Florida worked with a team of graduate students to design, construct, and deploy the mobile wind

towers, which measure wind speed at 15 and 33 feet off the ground, wind direction, and barometric pressure. The real-time data were available via a wireless Internet connection that performed flawlessly. NOAA hurricane researchers, forecasters, and emergency preparedness managers were able to access the data every 15 minutes, preparing the community as far in advance as possible.

The mobile wind towers were invaluable to NOAA hurricane researchers and forecasters during this particular storm. For the first time ever, detailed coastal wind tower data were transmitted in real-time from the field to the NOAA Hurricane Center in Miami, Florida. “The placing of the towers appeared just about optimal, and the reliability of the real-time reports... was fantastic,” said Dr. Peter Black, a research meteorologist with the NOAA Atlantic Oceanographic and Meteorological Laboratory’s Hurricane Research Division. “The data from the mobile wind towers were the only wind reports from the coast that were coming in. I was able to relay the reports to the National Hurricane Center forecasters, giving them a sense for how quickly conditions on the coast were deteriorating as Isabel approached. This effort is a terrific example of how a research project can make a significant contribution to operations while at the same time gather a research data set that will be studied for years.” The observations represent the highest wind speed for which continuous, high-frequency digital observations have been recorded in a U.S. landfalling hurricane.

Inland Flood Observation and Warning

The S.C. Sea Grant Consortium and its partners, The National Sea Grant Office, North Carolina Sea Grant, and the NOAA National Severe Storms Laboratory (NSSL), are leading a regional project, IFLOW (Inland Flood Observation and Warning), to pilot a new flood detection and monitoring system. Using Doppler radar, a NSSL-developed rainfall estimation algorithm, GIS, digital elevation maps, and an advanced hydrological run-off model, project partners are creating real-time estimates of flooding for key geographic locations along the Tar River Basin test area in North Carolina. Test results are being used in conjunction with National Weather Service flood projects to improve flash flood detection and warning capabilities. IFLOW is also being integrated by N.C. State University researchers into a hurricane storm surge model to provide more accurate inputs from riverine flooding.

Emerging Technologies

Strategic Goal: To develop techniques, technologies, and new products based on marine systems for use in commercial and industrial applications, and to continue to apply low-cost technologies to coastal and marine resource problems.

New Uses for Oyster Proteins

Sea Grant research on the protein shell matrix of the Eastern oyster, *Crassostrea virginica*, led to the creation of a multi-million dollar company, more than two dozen patents, and continued public/private sector R&D. The discovery of polyaspartic acid, based on the study of oyster protein matrix, has led to the development of a number of environment-friendly uses. It helps plants absorb additional nutrients from the soil, giving farmers greater crop yields with smaller amounts of fertilizer—a new fertilizer that is biodegradable. Polyaspartic acid is also being used on offshore drilling platforms to reduce mineral growth. A private company, The Donlar Corporation, located just outside of Chicago, was created to market these uses and has experienced continuing growth. The Mayo Clinic in Rochester, MN is also involved in studying other aspects of polyaspartic acid.

Phytoremediation of Salt Marsh Systems

A low-cost technological approach to the remediation of halogenated organic pollutants, which are severely toxic to vertebrates, was developed through Sea Grant-supported research, a technology that is now being pursued by industry. A genetics-based phytoremediation strategy is being used to develop transgenic plants with enhanced remediation abilities. The genetically engineered plants exhibit increased degradation activity against halogenated phenols, e.g. trichlorophenol (TCP), which is a priority pollutant. The dehalogenation gene and *Spartina*’s own gene is being introduced into *Spartina alterniflora* in order to enhance *Spartina*’s natural dehalogenating abilities. TCP degradation by *Spartina* in hydroponic cultures is now documented.

The significance of these achievements is that these genetically modified plants can be used in haloorganic cleanup technologies. Sea Grant scientists are currently working with private industry to develop business markets for the technology. LandRec, Inc., in Lexington, S.C. is currently subcontracted. Applied Phytogenetics, Inc. and

Plantaforce Consortium (Budapest, Hungary) have expressed interest in partnering and developing business applications.

Marine Aquaculture and Fisheries

Strategic Goal: To enhance the development of viable and sustainable aquaculture and fisheries in South Carolina and the region.

S.C. Shrimpers Association Supports Fisheries Extension

In January 2003, the Consortium was asked to host a meeting of S.C. commercial shrimping interests to develop a strategy in response to the fishing industry crisis with a goal of building a sustainable shrimp industry in the state. The U.S. Congress provided emergency funding nationwide to the industry for this purpose. In the meantime, the S.C. Shrimpers Association had written to support the Consortium's FY03 Fisheries Extension Enhancement (FEE) proposal, which was submitted to the National Sea Grant office in 2003. In the face of the industry crisis and the delay in Congressional funding for the FEE program, the S.C. Shrimpers Association offered to use a portion of its emergency assistance money to support a full-time Sea Grant Fisheries Extension Specialist for one year. The S.C. Shrimpers Association was represented on the search committee, helped to develop the specialist's annual plan of work, and is now working closely with the specialist, hired in the fall of 2003, to implement that plan of work. It was soon thereafter that the Consortium received word that National Sea Grant funding for its FEE proposal was approved for 2004.

General Aquaculture Permit for NPDES

Working closely with state public health officials and aquaculture industry representatives, S.C. Sea Grant aquaculture specialists helped formulate a general National Pollution Discharge Elimination System (NPDES) aquaculture permit in South Carolina. Creating a permit specifically for aquaculture discharges streamlined the regulatory process, reducing costs for each producer by 85 percent, from \$2,000 to \$300, per point source discharge.

Sea Grant aquaculture specialists also assisted with the development of Best Management Practices for environmentally sound discharge management under the new permitting system.

Easing Hard Clam Seed Importation Regulations

As a result of Sea Grant information, the Virginia Marine Commission (VMC) reversed and amended an emergency ban on the importation of clam seed from southern states, allowing the continuation of an industry valued at \$500,000 per year to commercial aquaculture in South Carolina. VMC imposed emergency regulations that prohibited the importation of seed clams originating from other states based on research that showed seed clams from those states were more susceptible to QPX disease than its native clams. The S.C. Sea Grant aquaculture extension specialist presented evidence to the VMC documenting that much of the clam seed grown in



Red Drum

Photo courtesy of the Regulatory Fish Encyclopedia, Office of Seafood and Office of Regulatory Affairs, U.S. Food and Drug Administration.

southern states originated from a hardier northern stock even less susceptible to disease. The commission reversed its decision thus ensuring that hard clam seed commerce between the states continued, saving South Carolina clam growers half a million dollars in annual sales.

Enhancing Red Drum Stocks

Initiated in March 2002, SCDNR scientists and their colleagues are assessing the impacts of stocked red drum on the recreational fishery in Murrells Inlet, S.C., with a focus on evaluating effectiveness of improving coastal fisheries through stocking and documenting the impact of a healthy red drum stock on the local economy of a community with a strong recreational fishery base. Red drum juveniles were artificially spawned and a total of 553,088 small juveniles

were skeletally-marked and stocked during three stocking events in September/October 2002. Stocking events were publicized by the local press and TV, and members of local fishing clubs, the local economic revitalization committee, and a local state representative viewed and supported the stocking activities. Sites in the local community have been identified for placement of freezers to collect skeletons of captured red drum next fall as stocked fish begin to recruit to the fishery. Analysis of the skeletons will be used to help assess impacts of stocked red drum on local abundance in Murrells Inlet and the potential and economic feasibility to expand stock enhancement efforts throughout the state and region.

International Conference on Shellfish Restoration

The success of the biennial International Conference on Shellfish Restoration (ICSR), held since 1996 in South Carolina, has spawned ICSR conferences both in Cork, Ireland (1999) and in British Columbia, Canada (2001).

Organized by the S.C. Sea Grant Consortium and co-sponsored by 12 Sea Grant College Programs, NOAA-NMFS, NOAA-NOS, NOAA Coastal Services Center, Environment Canada, Fisheries and Oceans Canada, and the International Shellfish Sanitation Conference, ICSR provides an opportunity for government officials, resource managers, users, and residents to discuss approaches to restore coastal shellfish ecosystems through remediation and pollution abatement, habitat restoration, and stock enhancement. The unique feature of ICSR is the diversity of individuals who participate. ICSR also provides the opportunity for internationally and nationally recognized restoration experts to interact with local town planning officials. Plans are underway for the next domestic conference in South Carolina in November 2004 and possibly at an international venue in Chile in 2005.

Oyster Reefs as Critical Habitat

Oysters have been identified by Sea Grant scientists as critical habitat in South Carolina's estuarine ecosystems. An extensive environmental data set has been collected at two reef sites and is being analyzed. Over 300 native oysters have been examined for Dermo and MSX disease. Biomass was quantified, and an analysis was done of reef resident successional communities. Five papers have been published,

and numerous published abstracts and over 20 scientific presentations have been given at professional meetings. Sea Grant support has allowed the PI to successfully seek funding from other sources such as CICEET, S-K, NOAA Restoration Funds, state revenue funding, FishAmerica, and the U.S. Fish and Wildlife Service. Additionally, the U.S. Army Corps of Engineers have invited the PIs to assist them in creating a habitat suitability model for oysters. The PIs currently have a major Community Based Oyster Restoration Program in South Carolina and are planning to use the results of this Sea Grant project in relation to several mitigation sites.

Molecular Tools for Fisheries Management

The Comparative Institute for Fisheries Molecular Biology (FISHTEC), managed by the Consortium, has employed new genetic techniques to study important commercial species such as tunas and swordfish. These advanced approaches have produced new discoveries about the populations of Atlantic species. FISHTEC investigators, in collaboration with two Spanish groups, developed strong evidence that the Mediterranean, North Atlantic, and South Atlantic populations of swordfish are genetically distinct. Additional polymorphic microsatellite loci were identified for striped bass. Six ICCAT reports were presented in Spain, and four manuscripts have been accepted for publication in peer-reviewed journals. Stock structures for many species of coastal fishes along the southeastern U.S. have been determined by molecular techniques. PCR-based technologies are now being used to better understand shark population genetics as these fishes become threatened. Other research is beginning to focus on issues related to "Ecologically Significant Areas." Techniques developed by FISHTEC scientists are now being formally employed in the fisheries forensics program at the NOAA/NOS Center for Coastal Environmental Health and Biomolecular Research.

Sustainable Marine Shrimp Aquaculture

Sea Grant researchers at the SCDNR Waddell Mariculture Center and at Clemson University are examining future expansion and development of the U.S. commercial shrimp farming industry by the application of zero exchange, biosecure, super-intensive shrimp production systems. Preliminary financial analyses suggest the importance of intensification and growth rate for a successful industry. The

present research project has provided a key breakthrough in efforts to increase production above 3kg/m² through the use of filtration technologies. The cropping of organic material and collection as sludge allows significant improvements in growth and survival in the microcosm tanks, particularly as densities are increased. Through complementary support provided by the USDA's U.S. Marine Shrimp Farming Program, further analyses indicate correlations between increasing net ecosystem production in treatments and improved survival and growth.

Coastal Communities and Economies

Strategic Goal: To develop and implement activities to assist coastal communities and small businesses with growth management and sustainable economic development strategies.

Coastal Community Initiative Grants

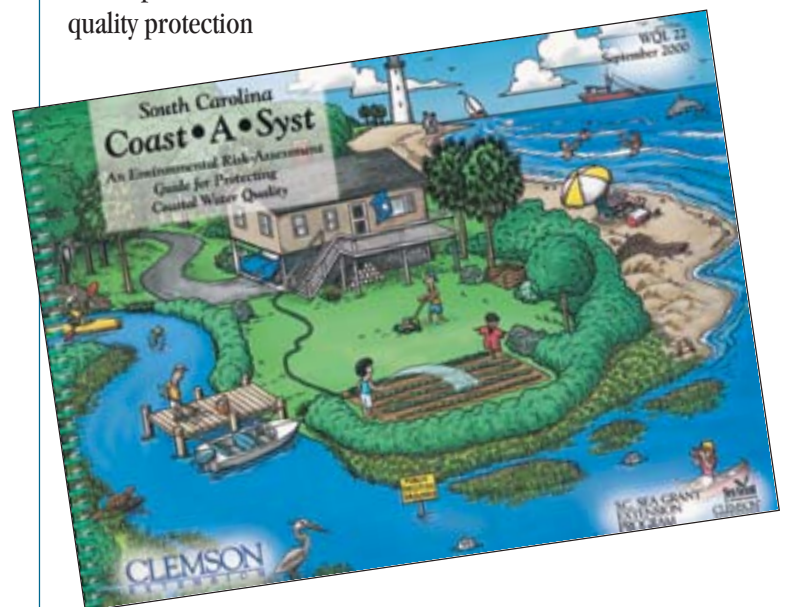
The S.C. Sea Grant Consortium provided 2003 S.C. Coastal Community Initiative grant awards to the Town of Edisto Beach and the Town of Bluffton as part of the Coastal Growth Initiative. This grant program serves as a support framework to enhance the S.C. NEMO program. Proposals were solicited from coastal municipalities and counties to participate in an educational program aimed at assisting communities in the development and implementation of land-management policies and practices to reduce polluted stormwater runoff, protect local natural resources, and encourage sustainable development.

As a provision of the grant S.C. Sea Grant Extension staff provided water quality educational and technical assistance training to the local officials. The SCSGEP staff provided input and recommendations on the best management practices for reducing polluted runoff. These recommendations included information on the newest types of pervious and semi-pervious surfaces and how best to address the issues of erosion controls, subdivision regulations, maintenance of roads and storm drains, open space plans, and buffer requirements. For the Town of Edisto Beach these recommendations were included under the comprehensive plan sections for new development regulations and water quality. Since the adoption of the comprehensive plan revisions, the Town has adopted some ordinance changes that encourage on-site treatment of polluted runoff with landscaping and buffer requirements,

and the reduction of impervious surfaces through the use of limitations on lot size and dwelling size. They are in the process of completing an area-wide stormwater management plan and are developing more code recommendations for zoning changes in order to further control runoff. The Town of Bluffton, faced with overwhelming development pressures, used the grant funding to research and develop a critical resources map and natural resource protection ordinances for wetlands, floodplains, trees, wildlife habitat, and stormwater.

Coast-a-Syst for Homeowners

The Consortium's Sea Grant Extension Program developed and implemented a homeowner-focused water quality protection



program. Coast-A-Syst is a series of environmental self-assessments, or checklists, that can easily be used by all homeowners located in coastal regions to help them implement responsible practices for protecting surface and ground water quality. Highlights of the effort include:

- *S.C. Coast-A-Syst Guide* - The first edition of *South Carolina Coast-A-Syst: An Environmental Risk-Assessment Guide for Protecting Coastal Water Quality* was published in September 2000, and more than 1,500 copies have been distributed throughout the state. SGEP efforts lead to South Carolina being the first state to develop and implement a Coast-A-Syst program.
- *S.C. Coast-A-Syst as a Model* - As a result of the S.C. Coast-A-Syst program, several other coastal states

expressed interest in developing similar programs for their jurisdictions. The Environmental Quality specialist worked with the representatives from North Carolina and Delaware, providing consultation for the development and implementation of the N.C. Coast-A-Syst and Delaware Coast-A-Syst programs.

- *Coast-A-Syst Web site* (www.clemson.edu/sccoastasyst) - The Web site allows each participant to interactively engage in the risk assessments. If an individual identifies an area of medium-or high-risk, the result is automatically downloaded into an action checklist table. The tables can be printed out and posted where a homeowner will be prompted to make the appropriate changes to their identified risk activity. The user can leave the site and return at any time to complete the assessments.
- *Coast-A-Syst Program Forums* - Since delivery of the Coast-A-Syst publication, there have been numerous forums used to disseminate the educational message. More than 50 Coast-A-Syst presentations and workshops have been conducted for local, state, and federal government organizations, citizen groups, civic associations, university partners, and at state, regional, and national conferences. Since the program's inception in 2000, over 1,000 people have undergone some sort of Coast-A-Syst introduction or training along the coast and throughout the state of South Carolina. Workshops were held at Edisto Beach, Beaufort, Sun City, Charleston, Georgetown, Hilton Head, Bluffton, Mt. Pleasant, Summerville, Columbia, Isle of Palms, Myrtle Beach, Atlanta, GA, and Portland, OR.
- *Coast-A-Syst Demonstration Projects* - The Coast-A-Syst team conducted a demonstration project at the Grand Strand Home Show in Myrtle Beach, SC where team members provided demonstrations on the use of alternative cleaners, the processes of composting and vermicomposting, safe selection and storage of household hazardous chemicals, and more. An EPA Coast-A-Syst Workshop was also conducted at the Watershed Planning Conference in Atlanta (4/12/00). This three hour workshop focused on development, design, delivery, and implementation of Coast-A-Syst in the pilot area of Horry County. Of those participating in the workshop evaluation, 100 percent found the information extremely useful, and

87 percent would use the material in their own programs. Attendees included personnel from state and federal natural resource agencies, extension programs, and regional universities.

- *Coast-A-Syst Train-the-Trainer Workshops* - In-service training and "train-the-trainers" sessions were conducted for coastal extension agents from North and South Carolina, Master Gardeners from Horry, Georgetown, and Williamsburg counties, nonprofit organizations and citizen groups in Beaufort County, and other interested parties. Participants were supplied with copies of the Coast-A-Syst guide and a CD-ROM that included sample workshop announcements, evaluations, copies of the Coast-A-Syst presentations, and blank press releases which could be used to promote future programs.

Ashley Scenic River Management Plan

The S.C. Department of Natural Resources in partnership with the Ashley Scenic River Advisory Council received assistance from the S.C. Sea Grant Consortium in producing 500 copies of *The Ashley Scenic River Management Plan*. The plan reflects public values, concerns, and desires for the river, defines problems and opportunities, and advocates goals and recommendations to promote good stewardship of the Ashley River. It also serves as a guide for ongoing program activities of the advisory council and SCDNR for the Ashley Scenic River.

African-American Heritage Guide

The S.C. African-American Heritage Council and the S.C. Heritage Program (Region 4) received assistance from the S.C. Sea Grant Consortium in producing and distributing 40,000 copies of *Touring the S.C. African-American Trail of Charleston, Colleton, and Dorchester Counties*. The guide, now in its second printing, directs tourists to sites of African-American cultural and historical importance and to African-American owned businesses throughout the region.

"The Living Soul of Gullah"

More than 1,500 copies of the Consortium's award-winning *Coastal Heritage* magazine, "The Living Soul of Gullah," have been used by the National Park Service (NPS) to assist them in conducting community meetings in coastal

counties of South Carolina, Georgia, and Florida. The NPS is developing a regional educational program plan on the interpretation of Gullah culture that will contribute to the understanding and preservation of the culture for the benefit of its members and their communities in the southeastern United States.

Nature-Based Tourism Association

Sea Grant was instrumental in the establishment of a South Carolina Nature-Based Tourism Association (SCNBTA) for the purpose of promoting low-impact uses of natural resources for rural economic development. Sea Grant and SCNBTA collaborated in bringing this new tourism niche to

Public Awareness and Outreach

Strategic Goal: To design and implement educational programs that foster a more scientifically and environmentally informed citizenry.

Coastal Heritage, Curriculum Connection in the Midwest

Coastal Heritage, the magazine of the S.C. Sea Grant Consortium, is used as a central element in school curriculum of the Midwest World Fest program, which is providing arts enrichment and cultural education in 10 communities in nine Midwestern states during 2003-2005. Midwest World Fest features four musical ensembles—one each from Israel, Japan, Mexico, and the Gullah community

of the South Carolina Sea Islands. The ensembles offer weeklong cultural education through school workshops, school concerts, and public concerts. Midwest World Fest, funded by state arts organizations, provides each school with a total of 40 compact discs that include detailed lesson plans and educator resources about the Gullah people. The lesson plans encourage teachers and students to read “Living Soul of Gullah,” the Spring 2000 issue of *Coastal Heritage*, described as “an excellent, thoughtful, clear, and detailed overview of Gullah culture and the difficulties it faces.” *Coastal Heritage* is also the source of much of the information for the introductory lesson plan on Gullah history. *Coastal Heritage* is required reading for lesson plans that address topics such as ecology of islands, cultural and natural change, and cultural tourism. “Riches to Ruin: Pharaohs of the New World,” the Fall

1999 *Coastal Heritage* issue, is described as providing “an extremely clear and useful introduction to the history of the region . . . including the roles of slavery, rice, cotton, environmental changes, technology, and more.” In the “Cultural and Natural Change” lesson plan, students are assigned to read and synopsise one of six issues of *Coastal Heritage*. Over several class periods, students are instructed to develop 15-minute presentations based on their reading. On the topic of ecological and cultural impacts of sprawl,



the attention of the state’s tourism industry at an annual Governor’s conference on tourism. As a result of this effort, the state Parks, Recreation, and Tourism department expanded its Heritage Corridor Program in 14 rural counties to include a “nature corridor” that helps direct nature-based tourists along country roads, through small towns, and into local businesses.

teachers are guided to the Consortium's lesson plans and educator resources at the Web site featuring the *Coastal Heritage Curriculum Connection*, a supplemental classroom resource that accompanies each issue. The states served by Midwest World Fest include Illinois, Indiana, Iowa, Michigan, Minnesota, North Dakota, Ohio, South Dakota, and Wisconsin.

Beach Clean-Up Saves South Carolina Taxpayers

The annual Beach Sweep/River Sweep litter clean-up program has saved taxpayers more than \$3 million over the last 15 years. The program (www.scseagrant.org/education/education_bsr.htm) is funded entirely by private donations, and citizen volunteers do the actual work. Over the past 15 years, more than 80,000 volunteers have collected 750 tons



2003 Beach Sweep/River Sweep

of trash in South Carolina. Another benefit is that the Sweep helps pinpoint sources of aquatic debris—volunteers log their findings on data cards that are included in an international database of marine debris, as part of the International Coastal Cleanup campaign of The Ocean Conservancy. Beach Sweep/River Sweep won numerous awards, including the South Carolina's "Watchdog for the Taxpayers" award in 1998.

Volunteers for Oyster Restoration

Since its initiation in fall 2000, the South Carolina Oyster Restoration and Enhancement (SCORE) program has engaged more than 900 volunteers in restoration activities, building 53 reefs at 20 sites along the South Carolina coast. Sea Grant researchers are coordinating a statewide program to recycle oyster shells and rebuild oyster reefs, which provide habitat for dozens of fish and shellfish species. With funding from Sea Grant, NOAA, and other partners, the SCDNR Marine Resources Division is coordinating this community-based oyster restoration program. Researchers work with volunteers through all stages of restoration, from selecting a site to monitoring and assessment. This program (see www.3.csc.noaa.gov/scoysters/) is part of a much larger effort throughout the eastern seaboard that seeks to reverse declines in oyster stocks and harvests.

Marine Education and Training

Strategic Goal: To promote the development of a diverse and technically trained workforce.

Coastal and Ocean Awareness for Southeastern Teachers

The Sea Grant-supported COASTeam science education program has to date trained more than 300 elementary and middle school teachers from the private school system and 13 public school districts in South Carolina. For the past 10 years, the COASTeam (Coastal and Ocean Awareness for Southeastern Teachers) program has offered professional development courses for K-12 teachers. The interdisciplinary courses are offered through the Office of Professional Development at the College of Charleston. Courses include COASTeam Elementary, Middle School Marine Science, COASTeam Middle School Institute, and the most recent addition, COASTeam Aquatic Workshops. COASTeam Aquatic Workshops are grade-specific courses for Kindergarten-5th grade teachers. Aquatic Workshops have been developed and offered in partnership with the South Carolina Aquarium. As a result of the combined COASTeam courses, thousands of South Carolina schoolchildren have been exposed to marine science content, and the interdisciplinary nature of marine science has introduced them to a broad spectrum of science concepts in the life, earth, and physical sciences. As a part of the COASTeam Program,

- The Consortium has published a compilation of over 45 marine science activities for elementary school students,

Sea Things...Objectively (second edition), edited by P. Keener-Chavis, C. Camp, and L. Sautter.

- A middle school activity sourcebook of 30 activities, *Explore the Oceans*, was completed as part of the COASTeam Middle School Marine Science program, also funded by the Consortium. A team of middle and high school teachers and other marine science educators compiled and tested these activities in 1998.
- The Consortium also published a marine science text for teachers, co-authored by P. Keener-Chavis and L. Sautter (2000), *Of Sand and Sea: Teachings from the South Carolina Shoreline*. This book was written as the accompanying text for teachers in all COASTeam courses. It is currently in its second printing and is being used in several high school marine science classes as well. More than 3,200 copies have been distributed to educators across the state and throughout the Southeast.
- To date, over 300 teachers representing approximately 150 public and private schools in 13 public school districts have taken one of the two 3-credit graduate courses designed for elementary and middle school teachers (COASTeam Elementary or COASTeam Middle School Marine Science) or the 1-credit graduate course for elementary teachers (COASTeam Aquatic Workshops).

Coastal Heritage Curriculum Connection

The S.C. Sea Grant Consortium has developed a series of classroom supplements prepared in conjunction with each issue of the program's *Coastal Heritage* magazine. Titled *Curriculum Connection*, the classroom supplements are targeted to grades 5-12. Each *Curriculum Connection* contains a set of questions to stimulate higher-order thinking and a list of resources so that middle and high school teachers can utilize the information presented in *Coastal Heritage* in the classroom. *Curriculum Connection* is aligned to the South Carolina State Curriculum Standards for science and, where applicable, social studies.

SouthEast Center for Ocean Sciences Education Excellence

The SouthEast Center for Ocean Sciences Education Excellence (SouthEast COSEE) has been established at the S.C. Sea Grant Consortium through a three-year grant provided by the National Science Foundation, with additional

funding from NOAA Office of Ocean Exploration and NOAA Coastal Services Center. One of seven regional centers established nationwide, the mission of SouthEast COSEE is to strengthen partnerships and forge new ones, to provide opportunities to learn from each other's experiences, to collaborate to leverage limited resources, and to work together to systematically build capacity for integrating ocean science into education in novel ways (see www.scseagrant.org/se-cosee). The initial year one grant of \$300,000 was supplemented by an additional one-time allocation of \$75,000 from NSF. In addition, approximately \$60,000 per year is being provided to SE-COSEE from the SEACOOS (SouthEast Atlantic Coastal Ocean Observing System) program to enhance the educational outreach programs related to COOS.

Enhancing Diversity in the Marine Sciences

South Carolina State University, a Consortium member institution, was awarded a three-year, \$135,000 grant from NOAA in a national competition among Minority Serving Institutions. The major focus of the grant is to encourage minority students to pursue education and careers in marine and related sciences. Minority students have been supported with internships and mentored by scientists from SCDNR, Oakridge National Laboratories, and the federal Orangeburg (S.C.) fish hatchery. The project's lead scientist mentored another minority student from the Governor's School for Science and Mathematics in Hartsville, S.C. During the summer of 2003, five students were supported by internships. The Orangeburg National Fish Hatchery was able to accept three students, while two were mentored in the biology lab at SCSU. Three interns worked on the optimal requirements for the spawning of the redbreast sunfish *Lepomis auratus* and the blue gill sunfish *Lepomis macrochirus* under the supervision of Willie Booker, Orangeburg National Fish Hatchery Manager. Another student worked on the effect of naturally occurring microbes on the production of the redbreast sunfish *Lepomis auratus* in the South Carolina State University Biological Science Laboratory. The fifth student worked on the construction of a demonstration project for the economic evaluation of small scale aquaculture/vegetable farms in South Carolina at South Carolina State University's 1890 Green House. The project will serve as a pilot demonstration to small fish farmers in the state of South Carolina.

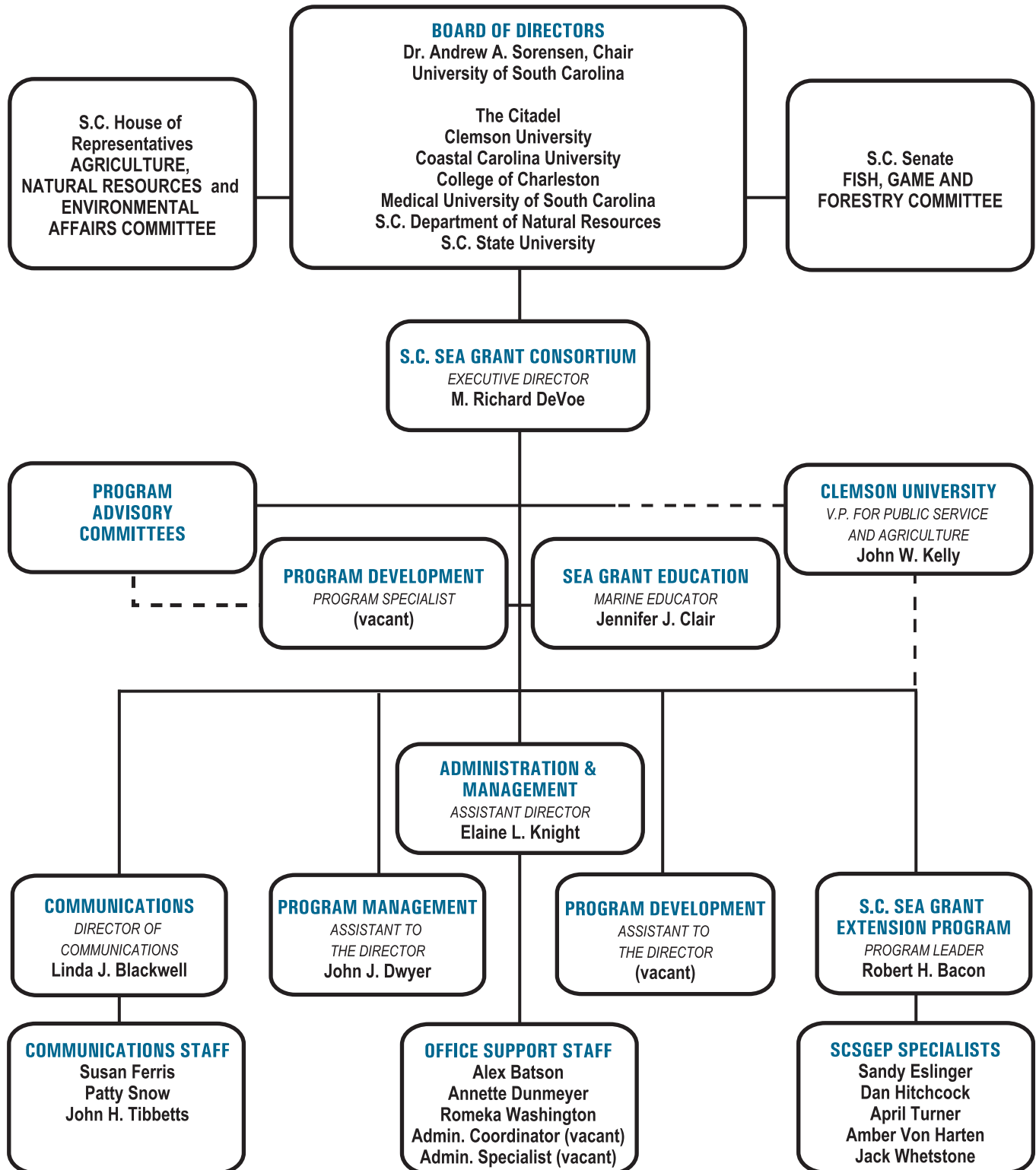
Supporting Limited Resource Children in Marine Camps

Over the last five years, the S.C. Sea Grant Consortium has sponsored the participation of children from limited resource families in Marine Camp experiences. In the early 1990s, the Consortium, through its Sea Grant Extension Program, collaborated with the Clemson University Extension 4-H summer camping program to establish, for the first time in the state, a Marine Science Camp for children ages nine to 17. During this time, the S.C. Sea Grant Extension Program staff developed and taught the activity-based, hands-on marine science education curriculum. The Clemson 4-H program provided facilities, transportation, and staff for the camp in Cherry Grove, S.C. By 2000, the 4-H camping program had evolved into the Clemson Youth Leadership program and the Consortium's role evolved as well, from active participation in curriculum development and delivery, to one of providing scholarships for children from limited resource families statewide. Over the past four years, the Consortium has provided in excess of \$10,000 in camp scholarships for 64 children from every corner of the state—children who otherwise would not have been financially able to attend the marine camp.



Marine Science Camp

S.C. Sea Grant Consortium Organizational Chart



S.C. Sea Grant Consortium Board of Directors - 2004

Dr. Andrew A. Sorensen
Consortium Board Chairman
President
University of South Carolina
Columbia, SC 29208

Alternate:

Dr. Madilyn Fletcher
Director, Belle W. Baruch Institute

Mr. James F. Barker
President
Clemson University
Clemson, SC 29633

Alternate:

Dr. John Kelly
VP for Public Service and Agriculture

Mr. John E. Frampton
Executive Director
S.C. Department of Natural Resources
Columbia, SC 29202

Alternate:

Mr. Robert Boyles
Deputy Director, Marine Resources Division

Dr. Raymond S. Greenberg
President
Medical University of South Carolina
Charleston, SC 29425

Alternate:

Dr. John Raymond
Provost

Major General John S. Grinalds
President
The Citadel
Charleston, SC 29409

Alternate:

Dr. Joseph Kelley
Department of Biology

Mr. Leo I. Higdon, Jr.
President
College of Charleston
Charleston, SC 29424

Alternate:

Dr. Norine Noonan
Dean, School of Science and Math

Dr. Andrew H. Hugine, Jr.
President
South Carolina State University
Orangeburg, SC 29117

Alternate:

Dr. James Arrington
VP for Academic Affairs (retired)

Dr. Ronald R. Ingle
President
Coastal Carolina University
Conway, SC 29526

Alternate:

Dr. Paul T. Gayes
Director, Center for Marine and Wetland Studies

**S.C. Sea Grant
Consortium
Institutional
Liaisons - 2004**

Research

Dr. Richard Moore, Grants and Sponsored Research
Coastal Carolina University
Conway, SC 29526

Ms. Barbara Gray, Office of Sponsored Programs
College of Charleston
Charleston, SC 29424

Mr. Mike Strickland, Office of University Research
Clemson University
Clemson, SC 29634

Ms. Laurie Chamness, Office of Sponsored Research
Medical University of South Carolina
Charleston, SC 29425

Mr. Robert Boyles, S.C. Department of Natural Resources
Marine Resources Research Institute
Charleston, SC 29422

Dr. David H. Reilly, Dean of Graduate Studies
The Citadel
Charleston, SC 29409

Mr. Steven Etheredge, Office of Sponsored
Programs and Research
University of South Carolina
Columbia, SC 29208

Mr. Elbert R. Malone, Office of Sponsored Programs
South Carolina State University
Orangeburg, SC 29117

Accounting and Finance

Ms. Tammy Holt, Grants Accounting
Coastal Carolina University
Conway, SC 29526

Ms. Ruby Flateau, Comptroller
College of Charleston
Charleston, SC 29424

Mr. William Hallums, Sponsored Programs
Accounting and Compliance
Clemson University
Clemson, SC 29634

Mr. Dillard Marshall, Grants Accounting
Medical University of South Carolina
Charleston, SC 29425

Ms. Chantal Rice
S.C. Department of Natural Resources
Marine Resources Research Institute
Charleston, SC 29422

Ms. Carol Mayweather, Office of the Treasurer
The Citadel
Charleston, SC 29409

Mr. Tony Huggins, Grants Accounting
University of South Carolina
Columbia, SC 29208

Mr. John A. Middleton, Office of Grants and
Contract Accounting
South Carolina State University
Orangeburg, SC 29117

S.C. Sea Grant Consortium Staff

Administration

M. Richard (Rick) DeVoe
Executive Director

Elaine L. Knight
Assistant Director

(Vacant)
Assistant to the Director for Program Development

John J. Dwyer
Assistant to the Director for Program Management

Romeka S. Washington
Accountant/FA III

(Vacant)
Administrative Coordinator I

Annette E. Dunmeyer
Administrative Assistant

Alex L. Batson
Administrative Specialist II

(Vacant)
Administrative Specialist II

Communications

Linda J. Blackwell
Director of Communications

John H. Tibbetts
Public Information Coordinator

Patty A. Snow
Art Director/Web

Susan E. Ferris
Public Information Specialist

Sea Grant Extension Program

Robert H. Bacon*
Extension Program Leader

Sandy L. Eslinger
Coastal Hazards/Observations Specialist

Dan R. Hitchcock*
Coastal Environmental Quality Specialist

April L. Turner
Coastal Communities Specialist

Amber E. Von Harten
Coastal Fisheries Specialist

Jack M. Whetstone*
Marine Aquaculture/Ponds Specialist

(Vacant)
Coastal Economics/Business Specialist

Sea Grant Education Program

L. Lundie Spence
Marine Education Specialist/SECOSEE Director

Jennifer R. Jolly-Clair
Marine Education Specialist (P/T)

*Employees of Clemson University Extension Service.

Memorandum of Understanding

between

The Clemson University Cooperative Extension Service

and

The South Carolina Sea Grant Consortium

with regard to

The South Carolina Sea Grant Extension Program

The South Carolina Sea Grant Extension Program (SCSGEP) is a joint program of the S.C. Sea Grant Consortium (SCSG) and the Clemson University Cooperative Extension Service (CUCES). The SCSGEP works in close cooperation with units of local, state and Federal government, as well as businesses and not-for-profit organizations in the private sector to develop and deliver extension education programs on a broad range of coastal and marine issues of importance to the state, region and nation.

This Memorandum of Understanding outlines the primary roles and responsibilities of SCSGC and the CUCES with regard to their joint program, the SCSGEP. This document replaces an earlier MOU that has been in effect since 1987.

It is understood that:

The Clemson University Extension Service will:

1. Formally employ SCSGEP specialists. Recruitment, selection, supervision and evaluation of SCSGEP specialists will be conducted in cooperation with the SCSG Director and with formal involvement of the SCSGEP Program Leader.
2. Fully integrate the SCSGEP into its administrative structure and its ongoing program planning, reporting and delivery systems.
3. Prepare and submit a SCSGEP program proposal and detailed budget to SCSG as a part of its biennial omnibus program proposal to the National Sea Grant Office. The proposal will be prepared according to National and SCSG guidelines, with appropriate input provided by the SCSG Director, the SCSG strategic planning process and SCSGEP specialist advisory committees.
4. Prepare and submit required program and financial reports to SCSG.
5. Provide matching funds that equal at least one-third of the total core budget. (Clemson University waives all indirect costs associated with this program.)
6. Provide appropriate recognition of the SCSGEP, its personnel and activities, in CUCES presentations and publications describing the CUCES network.

The S.C. Sea Grant Consortium will:

1. Formally participate in the recruitment, selection, supervision and evaluation of SCSGEP personnel in cooperation with the CUCES. The SCSGEP Program Leader shall serve as a member of all search committees established to recruit and select SCSGEP specialists.
2. Fully integrate the SCSGEP into its administrative structure and its ongoing program planning, reporting and delivery systems.
3. Provide overall programmatic guidance and direction for the SCSGEP.
4. Provide funds to support the SCSGEP based upon a mutually agreed upon SCSGEP proposal submitted by CUCES.
5. Provide appropriate recognition of the SCSGEP, its personnel and activities, in SCSG presentations and publications describing the Sea Grant network.

It is mutually agreed that Clemson University Extension Service and S.C. Sea Grant Consortium will jointly:

1. Recruit, select, supervise and evaluate the SCSGEP Program Leader.
2. Discuss, negotiate and enter into third party partnerships with other Consortium member institutions in the recruitment and hiring of SCSGEP specialists as the need and opportunity arises.
3. Acknowledge, in all SCSGEP activities, publications, products, announcements, information releases, etc. the joint sponsorship by SCSGC and CUCES in language and indicia mutually agreed upon by SCSGC and CUCES.
4. Put forth a diligent effort to make the SCSGEP operate as smoothly as possible and accelerate the delivery of high quality educational programs.
5. Meet in formal session at least once a year or as necessary to review policies and procedures for operating the core component, and discuss overall program interactions.
6. Review this agreement at least annually, and at other times when either feels reconsideration is necessary.

This agreement may be terminated by either party for just reason upon formal written notification to the other at least 60 days in advance of termination date.

Signatures to the Memorandum of Understanding:

For the South Carolina Sea Grant Consortium

M. Richard DeVoe
Executive Director

For the Clemson Cooperative Extension Service

John W. Kelly
Vice President
Public Service and Agriculture

Doris R. Helms
Provost

March 26, 2002

Concept Letter and Proposal Review Panel Members (Composite for 2000 - 2004)

Concept Letter Panelists

Mr. Robert Bacon, SCSGEP, Charleston, SC

Dr. Roger Banks, U.S. Fish and Wildlife Service,
Charleston, SC

Mr. Robert Boyles, Deputy Director, SCDNR-Marine
Resources Division, Charleston, SC

Dr. Michael Crosby, Executive Director,
Science Advisory Board-NOAA, Washington, DC

Mr. William Eiser, S.C. Dept. of Health and Environmental
Control (SCDHEC), Office of Ocean and
Coastal Resource Management, Charleston, SC

Mr. Steve Gilbert, U.S. Fish and Wildlife Service,
Charleston, SC

Ms. Debra Hernandez, P.E., S.C. Dept. of Health and
Environmental Control (SCDHEC), Office of Ocean
and Coastal Resource Management, Charleston, SC

Dr. Fred Holland, NOAA Hollings Marine Lab,
Charleston, SC

Dr. Eugene Olmi, NOAA Coastal Services Center,
Charleston, SC

Mr. Steve Olsen, North Carolina Sea Grant College Program,
Raleigh, NC

Dr. Geoff Scott, NOAA/NOS Center for Coastal
Environmental Health and Biomolecular
Research (CCEHBR), Charleston, SC

Mr. Steve Snyder, S.C. Dept. of Health and
Environmental Control (SCDHEC), Office of Ocean
and Coastal Resource Management, Charleston, SC

Dr. Lundie Spence, North Carolina Sea Grant College
Program, Raleigh, NC

Mr. David Whitaker, Office of Fisheries Management,
SCDNR-Marine Resources Division, Charleston, SC

Technical (Full Proposal) Panelists

Dr. John Ahlquist, Medical University of
South Carolina (ret.), Charleston, SC

Dr. David Armstrong, Water Science and Engineering
Laboratory, University of Wisconsin, Madison, WI

Dr. B.J. Copeland, North Carolina State University,
Raleigh, NC

Dr. Michael Crosby, Executive Director,
Science Advisory Board-NOAA, Washington, DC

Dr. Dave Gordon, U.S. Fish and Wildlife Service,
Charleston, SC

Dr. Fred Holland, NOAA Hollings Marine Lab,
Charleston, SC

Mr. Chris Jones, P.E., consultant, Charlottesville, VA

Dr. Lauriston King, East Carolina University, Greenville, NC

Dr. Mark Luckenbach, Virginia Institute of Marine Science,
Eastern Shore, VA

Dr. Roger Mann, Virginia Institute of Marine Science,
Gloucester, VA

Dr. Gerardo Vasta, Center of Marine Biotechnology,
University of Maryland, Baltimore, MD

Dr. Priscilla Weeks, Department of Anthropology,
University of Houston, Clear Lake, TX

Dr. Kristine Willett, Department of Pharmacology,
University of Mississippi, University, MS

Dr. Chuck Wilson, Department of Oceanography,
Louisiana State University, Baton Rouge, LA

Dr. Gerardo Vasta, Center of Marine Biotechnology,
University of Maryland, Baltimore, MD

S.C. Sea Grant Extension Program Extension Specialist Advisory Committees

Marine Aquaculture Extension Specialist - Advisory Committee

Mr. Bob Baldwin

Low Country Seafood
McClellanville, SC 29458

Mr. Bill Cox

Island Fresh Seafood
Yonges Island, SC 29449

Mr. Clay Chappell

Southland Fisheries Corp.
Hopkins, SC 29061

Mr. Rick Eager

Swimming Rockfish and Shrimp Farm
Meggett, SC 29449

Mr. Steve Krueger

Southern States Coop.
Woodstock, GA 30188

Ms. Alice Weathersbee

Pinewood, SC 29125

Mr. Knox Grant

Atlantic Farms, Inc.
Charleston, SC 29412

Mr. Larry Taylor

Aquatic Ventures
Gaston, SC 29053

Coastal Environmental Quality Extension Specialist - Advisory Committee

Dr. John Hayes

Department of Agricultural and Biological Engineering
Clemson University
Clemson, SC 29634

Ms. Anne Marie Johnson

S.C. Department of Health and Environmental Control
Bureau of Water
Columbia, SC 29201

Mr. Steven de Kozlowski

Aquatic Nuisance Species Program
S.C. Department of Natural Resources
Columbia, SC 29205

Ms. Nancy Schilling

S.C. Marina Association
Hilton Head Island, SC 29925

Dr. Barbara Speziale

Clemson Extension Water Quality Coordinator
Clemson University
Clemson, SC 29634

Ms. Nancy Vinson

S.C. Coastal Conservation League
Charleston, SC 29402

Ms. Priscilla Wendt

SCDNR/Marine Resources Division
Charleston, SC 29422

Mr. Ron Mitchum

Executive Director
B-C-D Council of Governments
North Charleston, SC 29406

Coastal Communities Extension Specialist - Advisory Committee

Mr. Bill Steiner

S.C. Downtown Development Association
Columbia, SC 29211

Mr. Jeffrey Allen

The Strom Thurmond Institute
Clemson University
Clemson, SC 29634

Dr. Chris Sieverdes

Agricultural and Applied Economics
Clemson University
Clemson, South Carolina 29634

Mr. Eric Meyer

S.C. Coastal Conservation League
Charleston, SC 29403

Mr. Steve Moore

Director of Planning
SCDHEC/Ocean and Coastal Resource Management
Charleston, SC 29405

Dr. M. Grant Cunningham

Dept. of Planning and Landscape Architecture
Clemson University
Clemson, SC 29634

Ms. Andrea Pietras

Planner
Charleston County Planning Dept.
North Charleston, SC 29405

Ms. Heather Landry

Director, Friends of the Rivers
The LowCountry Institute
Okatie, SC 29909

Ms. Laura Bailey

Natural Resources and Trails Planner
Community Development Dept.
Bluffton, SC 29910

Mr. John Tarkany, ASLA

Principal
DesignWorks, LC
Charleston, SC 29401

Coastal Hazards Extension Specialist - Advisory Committee

Dr. Madilyn Fletcher

Director, Belle W. Baruch Institute
University of South Carolina
Columbia, SC 29208

Mr. Chris Mack

Coastal Engineer
U.S. Army Corps of Engineers - Charleston District
Charleston, SC 29403

Dr. Jack Thigpen

Extension Director
North Carolina Sea Grant
Raleigh, NC 27695

Ms. Ann Roberson

Assistant Director
S.C. Department of Insurance
Columbia, SC 29201

CDR Merrick

Commanding Officer
U.S. Coast Guard/Marine Safety Office
Charleston, SC 29401

Dr. Tim Reinhold

Department of Civil Engineering
Clemson University
Clemson, SC 29634

Ms. Joni Rennhack

Charleston Area SC Project Impact
Charleston County Building Services
North Charleston, SC 29405

Mr. Matt Goodrich

Coastal Engineer
Applied Technology and Management, Inc.
Mt. Pleasant, SC 29464

Mr. William Eiser

Staff Oceanographer
SCDHEC/Ocean and Coastal Resource Management
Charleston, SC 29405

Ms. Lisa Holland

SC State Coordinator
SCDNR/SC Flood Mitigation Programs
Columbia, SC 29205

**Coastal Recreation and Tourism
Extension Specialist - Advisory
Committee**

Dr. Sharon Gilman

Center for Marine and Wetland Studies
Coastal Carolina University
Conway, SC 29528

Ms. Carol Mullis

SC Heritage Program
S.C. Department of Parks, Recreation, and Tourism
Columbia, SC 29201

Dr. Bill Norman

Recreation, Travel, and Tourism Institute
Clemson University
Clemson, SC 29634

Ms. Mary Ann Mellor

Thoroughbred Country
Aiken, SC 29802

Mr. Tim Todd

Discover Upcountry Carolina Association
Greenville, SC 29602

Mr. Richard Mikell

Adventure Carolina, Inc.
Cayce, SC 29033

Ms. Faye Creel

Myrtle Beach Chamber of Commerce
Murrells Inlet, SC 29576

**Fisheries Extension Specialist -
Advisory Committee (est. 2004)**

Donald "Chip" Boling, Jr.

Community, Leadership, and Economic Development
Clemson Extension Service
Charleston, SC 29401

Clay Cable

Vice President
South Carolina Shrimper's Association
Isle of Palms, SC 29451

Kim Iverson

Public Information Officer
South Atlantic Fishery Management Council
Charleston, SC 29407

Laura Jodice

Research Associate
Recreation, Travel, and Tourism Institute
Clemson University
Clemson, SC 29634

Raymond Rhodes

Resource Economist
Marine Resources Division
S.C. Department of Natural Resources
Charleston, SC 29422

Mark Smith

President, Southern Chapter
South Carolina Shrimper's Association
Port Royal, SC 29935

Richard Vendetti

Georgia Marine Extension/Sea Grant
Brunswick, GA 31520

David Whitaker

Director, Office of Fisheries Management
S.C. Department of Natural Resources
Marine Resources Division
Charleston SC 29422

Program Management Indicators

Project Selection - Core Funding

	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	TOTAL
Concept Letters	49	0	61	0	64	174
Full Proposals Submitted	26	0	29	0	29	84
Full Proposals Funded	11	2	14	1	11	39
% Success – Full Proposals	42%	-	48%	-	52%	N/A
Continuing Projects	4	10	3	11	2	30
New Projects	7	2	11	1	9	30
Institutions (Concepts)	8	-	9	-	7	N/A
Institutions (Full Proposals)	6	-	7	-	6	N/A
Institutions (Funded)	5	2	5	1	6	N/A

Funding Trends

1999-2004

Source of Funds	1999-00	2000-01	2001-02	2002-03	2003-04*
Core Sea Grant	1,169,000	1,191,210	1,254,000	1,260,000	1,260,000
Sea Grant - Knauss Fellows	72,000	38,000	38,000	76,000	38,000
Sea Grant - Industrial Fellows			85,000		
Theme Team - Coastal Hazards		15,000	15,000	15,000	15,000
Sea Grant NSI - Coastal Communities			50,000	50,000	50,000
Sea Grant - Fisheries Extension				56,938	
Sea Grant NSI - MSI		45,000	45,000	45,000	
Sea Grant NSI - Aquaculture Tech.			208,200	70,010	30,000
Sea Grant NSI - Black Sea Bass	80,186	80,186	300,000	137,100	20,000
Sea Grant NSI - Cobia			60,459	28,531	10,300
Sea Grant NSI - Coral Reefs		125,000			
Sea Grant NSI - Oyster J.O.D.			60,029	94,522	
Sea Grant Media Relations		189,828	195,014	195,044	
Sea Grant Abstracts		91,900	98,952	98,952	98,952
Sea Grant NSI, etc. - Combined	355,324			23,700	
Sea Grant GOIP					85,000
FISHTEC (NOAA/NOS)	388,500	388,500	388,500	388,500	388,500
USES (NOAA/NOS)	700,000	697,320	698,744	682,900	682,837
LU-CES (NOAA/NOS)	600,000	600,000	1,195,440	1,200,000	1,170,000
Coastal Erosion (USGS)	750,000	500,000	500,000	500,000	500,000
113 Calhoun Street (NOAA)		30,000	30,000	30,000	
S.C. Aquarium (NOAA)	322,420	167,580			
NOAA Ship Time					22,800
HABs (CDC through SCDHEC)		11,082	4,000	12,000	
HABs (NOAA through SCDNR)	8,000	26,175	25,390	25,390	25,390
Pfiesteria and HABS (CDC)					523,890
NEMO (EPA through SCDHEC)		57,237	57,237	57,237	
NEMO (EPA through BCD-COG)			2,833	2,833	2,833
SECOSEE (NSF; NOAA)				294,136	370,000
SEA-COOS (ONR through NC State)				29,500	110,000
SERA-COOS (NOAA CSC)					98,979
Council Coastal Futures (OCRM)					5,000
Shrimpers Outreach (NMFS-CU)					64,000
Beach Sweep/River Sweep	12,000	20,000	15,000	12,000	15,000
Total Sea Grant Funds	1,676,510	1,776,124	2,409,654	2,150,797	1,607,252
Total Other Funds	2,780,920	2,674,787	2,917,144	3,234,496	3,979,229
State Appropriation	591,536	650,757	524,638	499,873	440,505
TOTAL	5,048,984	5,101,668	5,851,436	5,885,166	6,026,986

* Partial

Integrated Program Components

Distribution of Core Federal and Matching Funds (\$) among Program Elements*

Year	Sea Grant	Match	Research**	Extension	Education	Comm.	Prog. Dev.***	Admin.
98-99	1,169,000	685,231	968,620	434,184	56,253	136,634	125,390	133,150
99-00	1,195,210	679,823	974,608	434,184	68,687	136,634	124,460	136,460
00-01	1,191,210	733,982	1,002,273	456,178	74,406	142,702	111,126	138,507
01-02	1,253,970	753,364	978,909	465,630	77,222	147,712	164,829	173,156
02-03	1,261,000	732,723	1,006,403	475,786	48,516	157,452	109,819	195,745
03-04	1,261,670	714,944	962,728	475,786	47,787	159,027	133,720	197,566

*The distribution of funds over the last six years was: Research – 50%; Extension – 24%; Education – 3%; Communications – 8%; Program Development – 7%; and Administration – 8%.

**Includes support for undergraduate and graduate students.

***Funding for off-year full project starts is included in years 01-02 and 03-04.

National Competition Funding - Proposals Submitted vs. Funded*

	99-00	00-01	01-02	02-03	03-04	TOTALS
Marine Aquaculture			2/2			2/2
Aquatic Nuisance Species			2/0			2/0
Applied Technology			1/1		2/1	3/2
Marine/Environ. Biotechnology	6/2			4/0		10/2
Fisheries Extension Enhancement				1/1		1/1
Fisheries Habitat	5/0					5/0
Minority Serving Institutions		1/1				1/1
Oyster Disease			4/1	1/0		5/1
Gulf Oyster Industry Program					1/1	1/1

*S.C. Sea Grant Consortium's NSI funding success rate is 33% for the five years combined.

S.C. Sea Grant Consortium Staff Leadership 1999 - 2004

The S.C. Sea Grant Consortium staff have played key leadership roles in organizations, professional societies, and activities that advance the mission of the Consortium and enable it to better serve the needs of its constituencies.

Leadership Activities (Selected) - Executive Director

State Activities

- Invited Moderator, Public Opinion Panel, Governor's Summit on Growth, Myrtle Beach, SC, March 11-13, 2001.
- Invited Moderator, Transportation Panel, Governor's Summit on Growth, Columbia, SC, March 3-5, 2002.
- Organizer and Chair, S.C. Task Group on Harmful Algae, an organization of state and federal agencies, universities, and others to develop strategies to deal with harmful algal blooms (1999-present).
- Member, Advisory Board, Water Resources Center, Strom Thurmond Institute, Clemson University (1999-present).
- Member, Board of Directors, S.C. Downtown Development Association.
- Vice President, 113 Calhoun Street Board of Directors (1999-present).
- Member, Management Committee, State of the Harbor - Charleston Harbor Project (under the auspices of SCDHEC/OCRM).
- Chair, coastal and ocean research discussion group (with representatives of SCDNR/MRD, University of South Carolina, Clemson University, Coastal Carolina University, College of Charleston, and NOAA/NOS/CCEHBR) to explore the development of a coordinated state coastal and ocean research strategy.
- Organizer and Co-chair, S.C. Aquatic Nuisance Species Task Force.
- Member, Board of Trustees, LowCountry Institute (Spring Island Trust).
- Graduate, Leadership South Carolina, Class of 1998.
- Moderator, South Carolina-Georgia National Ocean Sciences Bowl Regional competition (2000-present).
- Invited Participant, President's Summit on Public Service, Clemson University, April 23, 2002.
- Adjunct Professor, Marine Biology Graduate Program, Graduate School, College of Charleston.
- Adjunct Faculty Member, Marine Environmental Studies Graduate Program, Graduate School, College of Charleston.
- Member, Study Team to assist the South Carolina Shrimp Industry.
- Invited Speaker, Clemson University Biodiversity Seminar Series, on *The Land Use-Coastal Ecosystem Study (LU-CES): An Attempt to Bridge the Science-Policy-Decision-Making Gap*, Clemson, SC, February 20, 2003.

Regional Activities

- Co-chair, Southeast Coastal Ocean Science Conference and Workshop, organized by the Consortium, NOAA Coastal Services Center, College of Charleston, and others, January 27-31, 2003, Charleston, SC.
- Co-Principal Investigator and Executive Committee Member, SouthEast Center for Ocean Sciences Education Excellence (SE-COSEE).
- Member, Governing Board and Associate Investigator, SEA-COOS (the SouthEast Atlantic Coastal Ocean Observing System).
- Principal Investigator and Program Manager, NOAA Coastal Services Center-funded project titled "Southeast Regional Association for Coastal Ocean Observations (SERA-COOS): Building a Regional Association Framework for the Coastal Ocean Observing System of the Southeastern United States."
- Invited Speaker and Panelist, Annual Conference of the Tri-state (FL, GA, SC) Soil and Water Conservation Society, Jekyll Island, GA, May 29, 2003.
- Co-editor (with Gary S. Kleppel and Mac Rawson), *Implications of Land-use Change to Coastal Ecosystems: Challenges to Effective Management*, a book to be published by Springer-Verlag in 2004.

National Activities

- Past President and External Relations Committee Chair, national Sea Grant Association, a federation of the 30 Sea Grant College Programs located in every coastal and Great Lakes state (2001-2002).
- Formal participant, as SGA president, National Sea Grant Review Panel (NSGRP).
- Organizer and host, Sea Grant Week 2001, Hilton Head Island, SC, March 2001.
- Invited member, National Sea Grant Program Assessment Team, University of Wisconsin Sea Grant College Program, June 4-7, 2001.
- Co-chair, National Sea Grant Theme Team on Coastal Natural Hazards.
- Charter member; Secretary/Treasurer (1989-91); Vice President (1992); co-chair, Annual Meeting (1993); President-Elect (1996); President (1997); Past-President (1998), U.S. Chapter - World Aquaculture Society.
- Member, Steering Committees, Aquaculture America Conferences (1997-2000).
- Panelist, North Carolina Sea Grant College Program External Review Panel, North Carolina State University (2001; 2003).
- Organizer, SGA Executive Board Retreat, St. Louis, MO, October 23-25, 2001.
- Member (as SGA President), Coastal Coordination Committee (a group comprised of the Acting Assistant Administrator of NOAA's National Ocean Service, the National Sea Grant College Program Director, and the Executive Director of the Coastal States Organization).
- Invited Panelist/Presenter (on behalf of the SGA), U.S. Commission on Ocean Policy, Charleston, SC, January 16, 2002.
- Invited Moderator, Formal Education Panel, Capitol Hill Oceans Week, Washington, DC, June 5-6, 2002.
- Organizer, Leadership Retreat of SGA, National Sea Grant office, National Sea Grant Review Panel, Charleston, SC, July 29-30, 2002.
- Invited Participant, Workshop on Ocean Education, NOAA Office of Ocean Exploration, Charleston, SC, September 4-6, 2002.

- Invited Panelist, *The Importance of Extension and Outreach in Homeland Defense* - "Homeland Security: A New Paradigm for Universities," a program of the Board on Oceans and Atmosphere – NASULGC Annual Meeting, Chicago, IL, November 11, 2002.
- Prepared and submitted, on November 18, 2002, a paper titled *Marine Aquaculture in the United States: Policy Options* at the formal request of the U.S. Commission on Ocean Policy.
- Co-convener, Special Session on *Impacts of Changing Land Use on Aquatic Ecosystems*, American Society of Limnology and Oceanography (ASLO), Salt Lake City, UT, February 8-14, 2003.
- Invited Speaker, ASLO, on *The Land Use-Coastal Ecosystem Study: Minimizing Ecological Impacts in Rapidly Urbanizing Coastal Regions*, American Society of Limnology and Oceanography (ASLO), Salt Lake City, UT, February 8-14, 2003.
- Prepared and submitted, on May 5, 2003, a chapter section for the U.S. Commission on Ocean Policy final report titled *Marine Aquaculture* at the formal request of the U.S. Commission on Ocean Policy.
- Invited Speaker, Panel on Coastal Natural Hazards before the House Oceans Caucus, Washington, DC, June 10, 2003.

Other Activities

- Co-founder and co-chair, International Conference on Shellfish Restoration (ICSR) (1996, 1998, 2000, 2002, 2004).
- Past President of the National Shellfisheries Association.
- Program Chairman (2000-2001) for the international Aquaculture 2001 Triennial Conference and Trade Show, attended by more than 3,500 people. Invited Speaker and Author, special session on responsible aquaculture.
- U.S. Chapter representative, Conference Committee for Aquaculture America 2000, New Orleans, LA.
- Member, United States-Japan Natural Resources (UJNR) Aquaculture Panel (1995-present).
- Program Chair, Aquaculture 2001 Triennial Conference and Trade Show.

Leadership Activities (selected) - Consortium Staff

Employees are encouraged to join and actively participate in professional organizations. Examples include:

Local

- Charleston 2000 Plan – chair, Economic Development Committee.
- Charleston Tourism Commission – chair, Long-Range Planning.
- Charleston Area Small Business Development and Resource Network - founding member.
- Charleston County World of Wonders Family Science Program – instructor.
- Beaufort County Stormwater Ordinance Advisory Committee – co-chair; staff.
- Maritime Association of the Port of Charleston - member
- Nonpoint Education for Municipal Officials - program coordinator.
- Wind-Aid Program – coordinator (2001).
- Winyah Bay Task Force – Technical Committee.
- Fort Johnson Seminar Series – committee member.
- S.C. Native Plant Society – member, Lowcountry chapter.

State

- Public Relations Society of America, S.C. Chapter - member.
- S.C. Aquaculture Association – charter member and advisor.
- S.C. Shrimp Growers Association – advisor.
- S.C. DHEC/DNR Mariculture Regulatory Committee - member.
- S.C. Department of Health and Environmental Control - member, Nonpoint Source Task Force.
- S.C. Farm Bureau – advisor, Aquaculture Commodities Committee.
- ACE (Ashepoo-Combahee-Edisto) Basin Economic Forum - member.
- North Inlet-Winyah Bay National Estuarine Research Reserve – member, Advisory Board.
- Clemson University Extension Senate (Jack Whetstone) – president-elect (1998-99); president (1999-00).

- Clemson University Extension Senate (Bob Bacon) – senator (2002-03); president-elect (2003-04).
- Clemson/S.C. DNR Cooperative Fisheries Unit – coordinator.
- Clemson Extension, Natural Resources Initiative Team – member.
- S.C. Governmental Finance Officers – member.
- S.C. Rural Economic Development Council – member.
- S.C. Nature-Based Tourism Association Annual Conference - program chair (1994-99), advisory board (1994-2004).
- S.C. Information Resources Council – member, Standing Committee on Geographic Information.
- S.C. Mapping Advisory Committee – member.
- S.C. Economic Development Association – member.
- S.C. Chapter, American Planning Association – member.
- S.C. DNR Marine Advisory Committee, Disease Introductions Subcommittee – advisor.
- S.C. Association of Environmental Professionals – member.
- S.C. Marine Educators Association – member.
- Leadership South Carolina (Elaine Knight), Class of 2001.
- Leadership South Carolina (Bob Bacon), Class of 2003.
- Coastal Pesticide Advisory Committee (CPAC).
- Tidelands Birding Festival – principal organizer (2001).
- S.C. Aquatic Plant Management Society Board of Directors (2001).
- S.C. DNR Natural Resources-Aquaculture Legislation Committee (2000-2004).
- S.C. DNR Exotic Species Introductions Sub-Committee
- South Carolina Aquarium – Technical Committee (2000-01).
- S.C. Government Webmasters Association (2002-present).
- S.C. Task Group on Harmful Algae, communications officer (2001-present).
- fiscal manager, 113 Calhoun Street Foundation (2000-present).
- S.C. Farm Bureau - advisor, Aquaculture Commodities Committee.

National and Regional

- International Conference on Shellfish Restoration Committee, co-chair (2000, 2002, 2004).
- Coastal Zone '01 conference – Planning Committee, (2001).
- Atlantic States Marine Fisheries Commission – Aquaculture Committee.
- Southern Task Force on Wetlands and Endangered Species Issues, Cooperative Extension Service – member.
- National Marine Educators Association – logistical coordinator and registrar, 1999 conference.
- Sea Grant Week conference – Logistical coordinator and registrar (2001), member.
- Assembly of Sea Grant Extension Program Leaders (ASGEPL) – executive committee (1999), chair-elect (2000), chair (2001), past-chair (2002).
- National Sea Grant Publications Task Force, chair (2001-2004).
- Sea Grant Communicator's Network Steering Committee (2001-present).
- Sea Grant Hazards Theme Team (2001-present).
- Sea Grant Media Relations Advisory Committee (1999-2003).
- Sea Grant Web Committee (2002-present).
- Southeastern Estuarine Research Society – member.
- Society of Research Administrators – member.
- Sea Grant Association – fiscal officer.
- International Personnel Managers Association – member.
- The Coastal Society – registrar (2000, 2002, 2004).
- Sea Grant Finance Officers – chair (1999-2000).

Partners in Partnership

Following are selected examples of public/private organizations with which the S.C. Sea Grant Consortium has interacted in research, extension, communications, and education program planning and implementation.

State of South Carolina

Carolinas Coastal Ocean Observing and Prediction System (Caro-COOPS)

S.C. Advisory Commission on Intergovernmental Relations

S.C. Association of Counties

S.C. Building Codes Council

S.C. Center for Technological Innovation

S.C. Department of Agriculture

S.C. Department of Education

Office of the Science Coordinator

S.C. Department of Health and Environmental Control

Office of Ocean and Coastal Resource Management

Bureau of Water

Trident and Waccamaw Health Districts

S.C. Department of Insurance

S.C. Department of Natural Resources

Marine Resources Division

Marine Resources Research Institute

Office of Fisheries Management

Waddell Mariculture Center

Land and Water Resources Division

Flood Program

Law Enforcement Division

S.C. Department of Parks, Recreation, and Tourism

Heritage Program

Edisto Beach State Park

S.C. Department of Revenue

S.C. Emergency Management Division

S.C. General Assembly

S.C. Government Webmasters Association

S.C. Heritage Corridor, Region IV

S.C. Higher Education Commission

S.C. Information Resources Council

S.C. Non-Point Source Task Force

S.C. Office of the Governor

S.C. Ports Authority

S.C. Rural Economic Development Council

S.C. Seafood Alliance

S.C. Shellfish Association

S.C. Shrimp Crisis Initiative

S.C. Shrimpers Association

S.C. Soil and Water Conservation Service

S.C. Task Group on Harmful Algae

Santee Cooper

South Carolina Science Council

Local Governments, Schools, and Educational Programs

113 Calhoun Street Foundation

Beaufort County Planning Commission

Berkeley County School District

Project Inquiry

COASTeam

Berkeley-Charleston-Dorchester Council of Governments

Charleston County Parks and Recreation Commission

Caw Caw Interpretive Center

Charleston County School District

Office of the Science Curriculum Coordinator

Project Inquiry

COASTeam

City of Charleston

City of Folly Beach

City of Myrtle Beach

City of North Myrtle Beach

City of Surfside Beach

Colleton County School District

COASTeam

Dorchester County School District

COASTeam

Hilton Head Island Planning Commission

Lowcountry Council of Governments

Lowcountry Science Fair

Public schools in coastal South Carolina

communities (>180)

S.C. Marine Educators Association

Town of Bluffton Planning Council

Town of Hilton Head Island

Town of Kiawah Island

Waccamaw Regional Council of Governments

Universities

29 Sea Grant College Programs
Clemson University
 Cooperative Extension Service
 Strom Thurmond Institute
 Recreation, Travel, and Tourism Institute
 Department of Parks, Recreation and Tourism Management
 Department of Agricultural and Biological Engineering
 Department of Civil Engineering
 S.C. Water Resources Research Institute
Coastal Carolina University
 Center for Marine and Wetland Studies
 Marine Science Department
College of Charleston
 Master of Environmental Policy Program
 Grice Marine Laboratory
 Department of Geology
 The Avery Center
 Lowcountry Hall of Science and Math
Georgia Institute of Technology
Medical University of South Carolina
 Marine Biomedicine Program
National Association of State Universities and Land-Grant Colleges
North Carolina State University
S.C. Sustainable Universities Initiative
Skidaway Institute of Oceanography
South Carolina State University
 1890 Program
State University of New York – Albany
Texas A&M University
The Citadel
University of Connecticut Extension Service
University of Georgia
 Research Foundation
University of Massachusetts – Dartmouth
University of New Hampshire
University of North Carolina – Wilmington
University of South Carolina
 University of South Carolina – Beaufort
 Institute for Public Service and Policy Research
 Earth Science and Resources Institute
 Center for Public Policy

Baruch Institute / Marine Lab
School of the Environment
Center for Science Education
University of Texas – El Paso

Business & Industry

Alcoa Mt. Holly
Andersen Corporation
Applied Phytogenetics, Inc.
Applied Research Associates
Atlantic Farms
B&M Aquaculture
BASF
Berkeley Electric Cooperative
BMW Manufacturing Corp.
BP Cooper River Plant
Bull's Bay Seafood
Coastal Discovery Museum
Coastal Expeditions
Coastal Landscape Construction
Design Works
Deweese Island Development
Donlar Corporation
Duke Power Company
Gold Kist, Inc.
Great Bay Farms (NH)
Griffin BioSafe Systems
Ilderton Contractors, Inc.
Island Fresh Seafood
Lockheed Corporation
Low Country Seafood, Inc.
Magnolia Plantation and Gardens
Marine Terminals of S.C.
Mayo Clinic, Rochester
Mistyvale Crawfish Farm
Palm Key Resort
Palmetto Aquaculture Corporation
Paradise Seafarm
Parsons Nursery
Philips Lighting Corporation
Piggly Wiggly Carolina Company
Planteforce Consortium (Budapest, Hungary)
Professional Lake Management, Inc.
Ripley's Aquarium

S.C. Farm Bureau
SCANA Corporation
SePro
Shutter Systems, Inc.
Solar Reflection, Inc.
Sonoco Products, Inc.
Southland Fisheries Corporation
Swimming Rock Fish & Shrimp Farm
Thickwater Clam Farm
Universal Data Solutions
Wyeth-Ayerst

Non-Governmental Organizations

Ashley Scenic River Advisory Council
Beaufort County Water Quality Task Force
Boy Scouts of America, Coastal Carolina Council
Charleston Bar Association
 Real Estate Practice Section
Charleston Homeownership Center
Charleston Metro Chamber of Commerce
Friends of Hunting Island
Friends of the Edisto
Friends of the Rivers
Girl Scouts of Carolina Low Country
Institute for Business and Home Safety
Keep South Carolina Beautiful
Low Country Institute (Spring Island, S.C.)
Maritime Association of the Port of Charleston
Palmetto Pride
S.C. African-American Heritage Council
S.C. Aquaculture Association
S.C. Aquatic Plant Management Society
S.C. Association for Hazard Mitigation
S.C. Chamber of Commerce
S.C. Chapter of the American Planning Association
S.C. Coastal Conservation League
S.C. Community Development Association
S.C. Council for Conflict Resolution
S.C. Crab Industry Association
S.C. Downtown Development
 Association/Community Builders
S.C. Economic Developers Association
S.C. Marine Association
S.C. Municipal Association
S.C. Nature-Based Tourism Association

S.C. Seafood Alliance
S.C. Shellfish Association
S.C. Shrimp Growers Association
S.C. Shrimpers Association
S.C. Steering Committee of the Southern Passages project
S.C. Wildlife Federation
South Carolina Aquarium
Spring Island Trust
Upstate Forever

National/Regional

American Association of Limnology and Oceanography
American Business Woman's Association
American Society of Civil Engineers
Atlantic States Marine Fisheries Commission
Coastal States Organization
Consortium for Oceanographic Research and Education
Estuarine Research Federation
National Estuarine Research Reserve Association
National Homebuilders Association
National Marine Educators Association
National Marine Sanctuaries Foundation
National Nonpoint Education for Municipal Officials
(NEMO) Network
National Ocean Sciences Bowl
 South Carolina/Georgia Region (Annual)
 National (2004)
National Science Foundation
National Science Teachers Association
Ocean.US
South Atlantic Fisheries Management Council
SouthEast Atlantic Coastal Ocean Observing System
(SEACOOS)
SouthEast Center for Ocean Sciences Education Excellence
(SECOSEE)
Southeastern Estuarine Research Society
Southeast Phytoplankton Monitoring Network
Southern Building Code Council International
Southern Shrimp Alliance
U.S. Army Corps of Engineers, Charleston District
U.S. Centers for Disease Control and Prevention
U.S. Coast Guard
U.S. Department of Agriculture
 Natural Resources and Conservation Service
 Southern Regional Aquaculture Center

Farm Service Agency
Risk Management Agency
Cooperative State Research, Education, and Extension
Service (CSREES)
Foreign Agriculture Service
U.S. Department of Commerce
NOAA Atlantic Oceanographic and Meteorological
Laboratories
Hurricane Research Division
NOAA National Marine Fisheries Service
NOAA National Ocean Service
Coastal Ocean Program
Coastal Services Center
Center for Coastal Environmental Health and
Biomolecular Research
Hollings Marine Laboratory
Office of Ocean Exploration
National Estuarine Research Reserve Program
ACE Basin Coastal Training Program
North Inlet/Winyah Bay Coastal Training Program
NOAA National Sea Grant College Program
Sea Grant Association
Assembly of Sea Grant Extension Program Leaders
Sea Grant Communicators Network
Sea Grant Educators Network
Sea Grant Fiscal Officers Network
Hazards Theme Team
Coastal Communities Theme Team
NOAA National Severe Storms Laboratory
NOAA National Weather Service
U.S. Department of the Interior
U.S. Geological Survey
Marine and Coastal Geology Program
U.S. Environmental Protection Agency
Region IV, Southeast
Office of Policy, Economics, and Innovation
U.S. Federal Emergency Management Agency
Region IV
U.S. Fish and Wildlife Service
U.S. National Park Service
World Aquaculture Society

Core Sea Grant Research and Outreach Projects

1999

Coastal Ocean Studies

R/CO-3 – “Transport Mechanisms and Estuary/Tidal Creek Exchanges of White Shrimp in Contrasting High and Low Discharge Southeastern Estuaries” – Elizabeth Wenner & Charles Barans (SCDNR-MRRI)

Ecosystem Dynamics

R/ER-10 – “An Examination of Oyster Reefs as ‘Biologically Critical’ Estuarine Ecosystems” – Loren Coen (SCDNR-MRRI)

R/ER-15 – “Development of a Molecular Genetics-Based Bioassay of Sediment Contaminant Effects on Benthos” – Thomas Chandler and Bruce Coull (University of South Carolina)

R/ER-16 – “Structure and Functions of Tidal Freshwater Wetlands on the Cooper River, S.C.: Effects of Water Management on Succession, Nutrient Cycling, and Fish Habitat” – James Morris and Henry McKellar (University of South Carolina), Joseph Kelley and Richard Porcher (The Citadel), and James Bulak (SCDNR-Freshwater Fisheries and Wildlife)

R/ER-17 – “Adenosine Phosphates and Ecosystem Health: A New Approach to Environmental Assessment” – Gary Kleppel (University of South Carolina)

Climate and Hazards

R/CE-3 – “Development of Low-Cost and Self-Help Retrofit Techniques for Reduction of Damage and Losses in Severe Windstorms” – Timothy Reinhold (Clemson University)

Emerging Technologies

R/MT-1 – “Developing the Foundations of a Heavy Metal Waste Processing Technology by Genetic Engineering of *Spartina alterniflora* for Constructed Wetlands” – Laszlo Marton (University of South Carolina)

R/MT-2 – “Development of Aquatic Bioassay Models for Evaluating Physiologically-Based Biomarkers of Exposure to Environmental Contaminants” – Richard Pollenz and Pamela Morris (Medical University of South Carolina)

Sustainable Economic Development

R/A-28 – “Development of Aquaculture Techniques for Southern Flounder: Phase I – Spawning and Nursery Techniques” – Theodore Smith *et al.* (SCDNR-MRRI)

Marine Education

E/O-13 – “Testing and Evaluating a Teaching Model in Marine Science at the Middle School Level: The COASTeam Program” – Leslie Sautter (University of Charleston, S.C.)

2000

Ecosystem Dynamics

R/ER-10 – “An Examination of Oyster Reefs as ‘Biologically Critical’ Estuarine Ecosystems” – Loren Coen (SCDNR-MRRI)

R/ER-16 – “Structure and Functions of Tidal Freshwater Wetlands on the Cooper River, S.C.: Effects of Water Management on Succession, Nutrient Cycling, and Fish Habitat” – James Morris and Henry McKellar (University of South Carolina), Joseph Kelley and Richard Porcher (The Citadel), and James Bulak (SCDNR-Freshwater Fisheries and Wildlife)

R/ER-18 – “DNA Analysis of Pesticide Resistance in Marine Nematodes” – Joseph Staton, Bruce Coull, Thomas Chandler, and Joseph Quattro (University of South Carolina)

Climate and Hazards

R/CE-3 – “Development of Low-Cost and Self-Help Retrofit Techniques for Reduction of Damage and Losses in Severe Windstorms” – Timothy Reinhold (Clemson University)

R/CE-4 – “Characterization of Surface Level Winds in Hurricanes” – Peter Sparks and Timothy Reinhold (Clemson University)

Emerging Technologies

R/MT-2 – “Development of Aquatic Bioassay Models for Evaluating Physiologically Based Biomarkers of Exposure to Environmental Contaminants” – Richard Pollenz and Pamela Morris (Medical University of South Carolina)

R/MT-3 – “Genetic Engineering of Heavy Metal Processing in *Spartina alterniflora*” – Laszlo Marton (University of South Carolina)

R/MT-4 – “Remediation of Haloorganic Pollutants with *Spartina alterniflora*” – Laszlo Marton (University of South Carolina)

Sustainable Economic Development

R/A-31 – “Development of Aquaculture Techniques for Southern Flounder: Phase II” – Theodore Smith (SCDNR-Marine Resources Research Institute)

R/A-32 – “Nitrogen Assimilation and Gut Evacuation Time in Penaeid Shrimp Fed Different Quality Food: Promoting Environmentally Safe Shrimp Culture” – Robert Feller (University of South Carolina)

Marine Education

E/O-15 – “Testing and Evaluating a Teaching Model in Marine Science at the Middle School Level: The COASTeam Program” – Leslie Sautter (University of Charleston, S.C.)

2001

Ecosystem Dynamics

R/ER-10 – “An Examination of Oyster Reefs as ‘Biologically Critical’ Estuarine Ecosystems” – Loren Coen (SCDNR-Marine Resources Research Institute)

R/ER-16 – “Structure and Functions of Tidal Freshwater Wetlands on the Cooper River, S.C.: Effects of Water Management on Succession, Nutrient Cycling, and Fish Habitat” – James Morris and Henry McKellar (University of

South Carolina), Joseph Kelley and Richard Porcher (The Citadel), and James Bulak (SCDNR-Freshwater Fisheries and Wildlife)

R/ER-18 – “DNA Analysis of Pesticide Resistance in Marine Nematodes” – Joseph Staton, Bruce Coull, Thomas Chandler, and Joseph Quattro (University of South Carolina)

R/ER-19 – “Linkages between Cellular Biomarker Responses and Reproductive Success in Oysters (*Crassostrea virginica*) and Mussels (*Geukensia demissa*)” – Amy Ringwood (SCDNR-Marine Resources Research Institute)

Climate and Hazards

R/CE-4 – “Characterization of Surface Level Winds in Hurricanes” – Peter Sparks and Timothy Reinhold (Clemson University)

R/CE-5 – “Nearshore Impacts of Offshore Dredging for Beach Nourishment” – Paul Work (Clemson University)

Emerging Technologies

R/MT-2 – “Development of Aquatic Bioassay Models for Evaluating Physiologically Based Biomarkers of Exposure to Environmental Contaminants” – Richard Pollenz and Pamela Morris (Medical University of South Carolina)

R/MT-3 – “Genetic Engineering of Heavy Metal Processing in *Spartina alterniflora*” – Laszlo Marton (University of South Carolina)

R/MT-4 – “Remediation of Haloorganic Pollutants with *Spartina alterniflora*” – Laszlo Marton (University of South Carolina)

Sustainable Economic Development

R/A-31 – “Development of Aquaculture Techniques for Southern Flounder: Phase II” – Theodore Smith (SCDNR-Marine Resources Research Institute)

R/A-32 – “Nitrogen Assimilation and Gut Evacuation Time in Penaeid Shrimp Fed Different Quality Food: Promoting Environmentally Safe Shrimp Culture.” – Robert Feller (University of South Carolina)

Marine Education

E/O-15 – “Testing and Evaluating a Teaching Model in Marine Science at the Middle School Level: The COASTeam Program” – Leslie Sautter (University of Charleston, S.C.)

2002

Coastal Ocean Studies

R/CE-5 – “Nearshore Impacts of Offshore Dredging for Beach Nourishment” – Paul Work (Clemson University/Georgia Institute of Technology)

R/CP-11 – “Towards Quantifying Coastal Erosion in South Carolina: Offshore Shoals as Sediment Sinks and Controls for Shoreline” – George Voulgaris (University of South Carolina)

Ecosystem Dynamics

R/ER-19 – “Linkages between Cellular Biomarker Responses and Reproductive Success in Oysters and Mussels” – Amy Ringwood (SCDNR – Marine Resources Research Institute)

R/ER-20 – “Succession of Tidal Freshwater Wetlands on the Cooper River, S.C.: Ecological Functions and Management” – James Morris and Henry McKellar (University of South Carolina), and Joseph Kelley (The Citadel)

R/ER-21 – “Development of a Cross-Linked Copepod Life-Cycle and Molecular-Genetic Assay for Examining Exposure and Effects of Coastal Use Insecticides” – Joseph Staton (University of South Carolina)

R/ER-22 – “A Novel Foraminiferal-Based Method to Determine Sublethal Toxicological Risks of Metal Mixtures in Estuarine Sediments” – Timothy Shaw (University of South Carolina)

R/ER-23 – “Groundwater-Derived Nitrogen and Phosphorous Inputs to the Satilla River Estuary: Impact on Coastal Ecosystem Health” – Willard Moore (University of South Carolina)

Climate and Hazards

R/CE-6 – “Determination of Hurricane Wind Loads and Wind Effects” – Timothy Reinhold (Clemson University)

Emerging Technologies

R/MT-4 – “Remediation of Haloorganic Pollutants with *Spartina alterniflora*” – Laszlo Marton (University of South Carolina)

R/MT-5 – “Marine Evolutionary Ecotoxicology – Using Genomics and Population Genetic Theory to Infer Impact of Contaminants on Natural Populations” – Joseph Quattro (University of South Carolina)

R/MT-6 – “Development of cDNA Micro-arrays for Analysis of Environmental Stressors and Disease in Local Populations of Atlantic White Shrimp” – Paul Gross and Jonas Almeida (Medical University of South Carolina)

Sustainable Economic Development

A/CG-1 – “Addressing the Challenges of Coastal Growth in South Carolina: A S.C. Sea Grant Consortium Initiative” – M. Richard DeVoe, Robert Bacon, Calvin Sawyer, and April Turner (S.C. Sea Grant Consortium)

R/SE-1 – “Impacts of Stocked Red Drum on the Recreational Fishery in Murrells Inlet: Phase I Biological Considerations” – Theodore Smith (SCDNR – Marine Resources Research Institute)

R/A-33 – “Application of Emerging Marine Water Treatment Technologies for Use in Zero Exchange Biosecure Super-Intensive Shrimp Production Systems” – Charles Weirich (SCDNR – Marine Resources Research Institute)

Marine Education

E/O-16 – “COASTeam Aquatic Workshops – A School-Wide Approach to Integrating Marine and Aquatic Concepts into the K-5 Science Curriculum” – Leslie Sautter (University of Charleston, S.C.)

2003

Coastal Ocean Studies

R/CP-11 – “Towards Quantifying Coastal Erosion in South Carolina: Offshore Shoals as Sediment Sinks and Controls for Shoreline” – George Voulgaris (University of South Carolina)

Ecosystem Dynamics

R/ER-20 – “Succession of Tidal Freshwater Wetlands on the Cooper River, S.C.: Ecological Functions and Management” – James Morris and Henry McKellar (University of South Carolina), and Joseph Kelley (The Citadel)

R/ER-21 – “Development of a Cross-Linked Copepod Life-Cycle and Molecular-Genetic Assay for Examining Exposure and Effects of Coastal Use Insecticides” – Joseph Staton (University of South Carolina)

R/ER-22 – “A Novel Foraminiferal-Based method to Determine Sublethal Toxicological Risks of Metal Mixtures in Estuarine Sediments” – Timothy Shaw (University of South Carolina)

R/ER-23 – “Groundwater-Derived Nitrogen and Phosphorous Inputs to the Satilla River Estuary: Impact on Coastal Ecosystem Health” – Willard Moore (University of South Carolina)

Climate and Hazards

R/CE-6 – “Determination of Hurricane Wind Loads and Wind Effects” – Timothy Reinhold (Clemson University)

Emerging Technologies

R/MT-4 – “Remediation of Haloorganic Pollutants with *Spartina alterniflora*” – Laszlo Marton (University of South Carolina)

R/MT-5 – “Marine Evolutionary Ecotoxicology – Using Genomics and Population Genetic Theory to Infer Impact of Contaminants on Natural Populations” – Joseph Quattro (University of South Carolina)

R/MT-6 – “Development of cDNA Micro-arrays for Analysis of Environmental Stressors and Disease in Local Populations of Atlantic White Shrimp” – Paul Gross and Jonas Almeida (Medical University of South Carolina)

Sustainable Economic Development

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R/SE-1 – “Impacts of Stocked Red Drum on the Recreational Fishery in Murrells Inlet: Phase I Biological Considerations” – Theodore Smith (SCDNR – Marine Resources Research Institute)

R/A-33 – “Application of Emerging Marine Water Treatment Technologies for Use in Zero Exchange Biosecure Super-Intensive Shrimp Production Systems” – Craig Browdy (SCDNR – Marine Resources Research Institute)

Marine Education

E/O-16 – “COASTeam Aquatic Workshops – A School-Wide Approach to Integrating Marine and Aquatic Concepts into the K-5 Science Curriculum” – Leslie Sautter (University of Charleston, S.C.)

Sea Grant National Competition Projects

Ecosystem Dynamics

R/OD-1 – Molecular and Pathobiology Studies to Identify the Causative Agent of Juvenile Oyster Disease – (2001 to 2003) – Cheryl M. Woodley and Eric R. Lacy (Medical University of South Carolina)

Coastal Natural Hazards

R/TP-1 – Sea Grant Technology Program Initiative to Accelerate Implementation of Retrofit Measures for Improving the Wind Resistance of Houses – (2001 to 2002) – Timothy A. Reinhold (Clemson University)

A/NO-1 – Sea Grant HazNet – (2000 to 2001) – R. Bacon (SCSG Extension Program)

Emerging Technologies

R/MB-1 – Examination of Altered Gene Expression in the Mummichog (*Fundulus heteroclitus*) Due to Chronic Exposure to Estuarine Pollutants – (2000 to 2002) - Lisa J. Bain *et al.* (Clemson University)

R/MB-2 – Environmental Marine Biotechnology - Assessing the Health of Coral Reef Ecosystems in the Florida Keys Using an Integrated Molecular Biomarker System – (2000 to 2002) – Cheryl M. Woodley & Eric R. Lacy (Medical University of South Carolina)

Marine Aquaculture and Fisheries

R/MA-1 – Technology Transfer to Establish Black Sea Bass Aquaculture as a Commercial Reality – (1999 to 2001) – Theodore I.J. Smith (S.C. Department of Natural Resources)

R/MA-2 – Development of Reliable Spawning, Nursery, and Juvenile Production Techniques for Commercialization of Black Sea Bass Aquaculture – (2001 to 2004) – Theodore I.J. Smith (S.C. Department of Natural Resources)

R/MA-3 – Engineered Ecosystems for High Rate Sustainable Marine Shrimp and Bivalve Production – (2001 to present) – David E. Brune (Clemson University)

R/MA-4 – Development of Cobia Culture in the United States - NOAA National Sea Grant College Program – (2001 to 2004) – Theodore I.J. Smith (S.C. Department of Natural Resources)

R/FE-1 – S.C. Sea Grant Fisheries Extension - FISHTECH Outreach – (2002 to 2003) – R.H. Bacon (SCSG Extension Program) and J. Dwyer (S.C. Sea Grant Consortium)

R/FE-2 – South Atlantic Regional Fisheries Extension Enhancement Work Plan - South Carolina – (2002 to 2003) – R.H. Bacon (SCSG Extension Program)

E/OD-2 – Assisting Gulf States in the Development of Risk Management Plans, Including Education, PHT, Promotion, and Regular Controls – (2003-2004) – K. Moore (Interstate Shellfish Sanitation Conference, Columbia, SC)

Coastal Communities and Economies

R/NP-1 – Wise Investments/Shared Benefits: Development of a Sustainable Infrastructure Planning Model in a Coastal Region – (2000 to 2002) – C. Prince and W. Peters (University of South Carolina)

Marine Education and Public Awareness

E/F-X – National Sea Grant Knauss Marine Policy Fellowship Program – (2000 to 2004) – M. Richard DeVoe (S.C. Sea Grant Consortium)

N/A – SG-MSI Partnership Program: Strategic Partnership to Enhance Experiential Learning in Marine Sciences - (2000 to 2003) – D.I. Anadu (South Carolina State University)

Extramural Projects

Program Management and Outreach

A/NO-2 – The *Communicator*: Creating a More Cohesive and Informed Sea Grant Network through an Educational Newsletter for Internal Audiences – Phase III – NOAA National Sea Grant College Program – (1998 to 2002) – L.J. Blackwell (S.C. Sea Grant Consortium)

E/C-1 – Sea Grant National Media Relations Project - NOAA National Sea Grant College Program – (1999 to 2003) – L.J. Blackwell (S.C. Sea Grant Consortium)

E/C-2 – Sea Grant Abstracts - NOAA National Sea Grant College Program – (2000 to present) - F. Shephard (WHOI)

P/M-6 – Building Communications Capacity to Ensure Program Accountability and to Address Emerging Coastal Issues - NOAA National Sea Grant College Program – (2001 to 2002) – L.J. Blackwell (S.C. Sea Grant Consortium)

N/A – Support for Beach Sweep/River Sweep Activities - Private Donations – (2000 to present) – L.J. Blackwell (S.C. Sea Grant Consortium)

Coastal Ocean Studies

R/GS-2 – SC/GA Coastal Erosion Study - Phase II - U.S. Geological Survey – (1999 to present) – M.R. DeVoe (S.C. Sea Grant Consortium)

E/COOS-1 – Southeast Atlantic Coastal Ocean Observing System – Initial Implementation” – Office of Naval Research (through the University of North Carolina – Chapel Hill) – (2002 to present) – M.R. DeVoe (S.C. Sea Grant Consortium)

E/COOS-2 – SEA-COOS South Carolina: Coastal Hazards Outreach – Office of Naval Research (through the University of North Carolina – Chapel Hill) - (2003 to 2004) – R.H. Bacon (SCSG Extension Program)

R/COOS-1 - Southeast Regional Association for Coastal Ocean Observations: Building a Regional Framework for the Coastal Ocean Observing System of the Southeastern United States – (2003 to present) – M.R. DeVoe (S.C. Sea Grant Consortium)

R/SF-1 – Towards Quantifying Coastal Erosion in South Carolina: Offshore Shoals as Sediment Sinks and Controls for Shoreline Change – Ship Time – (2003 to 2004) – G. Voulgaris (University of South Carolina)

Ecosystem Dynamics

R/COP-7 – South Atlantic Bight Land Use - Coastal Ecosystem Study (LU-CES) – NOAA Coastal Ocean Program Office - (1999 to present) – M.R. DeVoe (S.C. Sea Grant Consortium)

R/COP-6 – Urbanization and Southeastern Estuarine Systems (USES) – NOAA Coastal Ocean Program – (2000 to present) – E.J. Vernberg/D. Porter (University of South Carolina)

R/HAB-1 – A Proposed Harmful Algal Bloom Initiative for South Carolina: Assessing the Potential Impacts of Red Tides, *Pfiesteria*, and Toxic Algae” – S.C. Department of Natural Resources – (2001 to 2003) – M.R. DeVoe and S. Ferris (S.C. Sea Grant Consortium)

R/HAB-2 – Expanding Existing Surveillance Systems to Include *Pfiesteria*, Other Harmful Algae Blooms, and Marine Toxins – Centers for Disease Control and Prevention – (2003 – present) – M.R. DeVoe (S.C. Sea Grant Consortium)

Climate and Hazards

R/CH-1 – Establishing the Operational and Management Functions of 113 Calhoun Street: A Center for Sustainable Living” – NOAA/NOS Coastal Services Center – (2000 to 2003) – M.R. DeVoe (S.C. Sea Grant Consortium)

Emerging Technologies

R/FT-2 – Cooperative Program in Fisheries Molecular Biology (FISHTEC)” – NOAA National Ocean Service – (2000 to present) - M.R. DeVoe (S.C. Sea Grant Consortium)



Marine Education and Public Awareness

E/A-1 – Seaworthy Education Program - NOAA National Sea Grant College Program – (1999 to 2002) – C. Andrews (South Carolina Aquarium)

E/NSF-1 – Southeastern Center for Ocean Sciences Education Excellence: A Systematic Approach to Forming Ocean Science Education Partnerships – National Science Foundation (with partial funding provided by the National Oceanic and Atmospheric Administration) – (2003 to present) – L. Spence (S.C. Sea Grant Consortium)

Training and Outreach

N/A – Implementation of a Nonpoint Education for Municipal Officials Program – S.C. Department of Health and Environmental Control – (2000 to 2003) – M.R. DeVoe (S.C. Sea Grant Consortium)

Journal Articles, Book Chapters, Proceedings, and Patents

S.C. Sea Grant-Supported Scientific Publications

Coastal Ocean Studies

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Major Conferences and Workshops Sponsored by the S.C. Sea Grant Consortium

2000

- 4th International Conference on Shellfish Restoration (ICSR) – November – Hilton Head Island, SC

2001

- Sea Grant Association (Sea Grant Week) – April – Hilton Head Island, SC
- National Marine Educator's Association Meeting – June – Charleston, SC
- Sea Grant Association Fall Meeting – November - Washington, DC

2002

- Eastern United States Interstate Shellfish Seed Transport Workshop – February – Charleston, SC
- Sea Grant Association Spring Meeting – March – Washington, DC
- The Coastal Society Meeting – May - Galveston, TX
- Land Use-Coastal Ecosystem Study/Beaufort Special Area Management Plan Presentation/Reception – June – Spring Island, SC
- Sea Grant Association Fall Meeting – November - Santa Barbara, CA
- 6th International Conference on Shellfish Restoration (ICSR) – November – Charleston, SC

2003

- Southeast Coastal Ocean Science Conference and Workshop (SECOS) – January – Charleston, SC
- Sea Grant Association Spring Meeting – March – Washington, DC
- SouthEast Center for Ocean Sciences Education Excellence (SECOSEE) (Board of Advisors Meeting) – April – Savannah, GA
- SECOSEE Charrette at Avery Research Center – May – Charleston, SC
- SECOSEE Ocean Leadership Institute – June - Wilmington, NC
- Sea Grant Association Fall Meeting – November - Seattle, WA

2004

- Sea Grant Association Spring Meeting – March – Washington, DC
- SECOSEE IOOS-Education Workshop – March – Charleston, SC
- The Coastal Society Meeting – May – Newport, RI
- Oyster Reef Restoration Workshop – May - Myrtle Beach, SC
- SERA-COOS Organizational Workshop – June – Jekyll Island, GA
- Sea Grant Association Fall Meeting – October – Newport, RI
- 7th International Conference on Shellfish Restoration (ICSR) – November – Charleston, SC

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Taylor, W. 2000. Low temperature tolerance of Southern Flounder: Effects of salinity. Thesis for Bachelors in Biology, Clemson University.

Knauss Marine Policy, Coastal Management, and Industrial Fellows

Dean John A. Knauss Marine Policy Fellowship

Initiation Date	Name	Institution	Degree
1984	David Pyoas	CofC	M.A. Public Administration
1986	Stephanie Sanzone	USC	M.S. Marine Science
1989	Grant Cunningham	Clemson	Ph.D. Parks, Recreation, and Tourism Mgmt.
	Paul Scholz	USC	M.S. Marine Science
1990	Frances Eargle	USC	M.S. Biology
1991	Edward Cyr	USC	Ph.D. Marine Science
1992	Wendy Whitlock	Clemson	M.S. Parks, Recreation, and Tourism Mgmt.
1993	Erik Zobrist	USC	Ph.D. Biology
	Jenny Plummer	Clemson	M.A. City and Regional Planning
1994	Ellen Hawes	CofC	M.A. Public Administration
1996	Lisa DiPinto	USC	Ph.D. Marine Science
1998	Mara Hogan	CofC/MUSC	M.S. Environmental Policy
1999	Elizabeth Day	USC	Ph.D. Marine Science
	Robyn Wingrove	CofC	M.S. Marine Biology
2000	Barbara Bach	USC	M.S. Earth and Environ. Resources
2001	Julianna Weir	USC	M.S. Marine Science
2002	Kathy Tedesco	USC	Ph.D. Geological Sciences
	Elizabeth Fairey	CofC	M.S. Marine Biology
2003	Jennifer Jefferies	CofC	M.S. Marine Biology
2004	Susannah Sheldon	CofC	M.S. Environmental Studies
	Rebecca Shuford	USC	Ph.D. Marine Biology
	Noel Turner	CofC	M.S. Marine Biology

Coastal Management Fellowship

Initiation Date	Name	Institution	Degree
1997	Doug Marcy	UNC-Wilmington	M.S. Geology
	Brian Voight	Clemson	M.A. City and Regional Planning
1998	Katherine Busse	Oregon State	M.S. Marine Resource Management
2001	Peter Slovinsky	USC	M.S. Geological Sciences
	Bonnie Willis	USC	M.S. Marine Science
	Kate Ardizone	Indiana University	M.A. Public Affairs
2002	Susan Fox	CofC	M.S. Environmental Policy

National Sea Grant Industrial Fellowship

Initiation Date	Name	Institution	Degree
1997	Brian Michot	Clemson	M.S. Civil Engineering

Marine Education - Listing of COASTeam Courses and Workshops

Summer 1999

- COASTeam Middle School Marine Science, offered to 21 Charleston/Berkeley/Dorchester teachers.

Fall 2000

- COASTeam Middle School Marine Science, offered to 25 Charleston/Berkeley/Dorchester teachers.

Summer 2001

- COASTeam Middle School Marine Science, offered to 10 Charleston/Berkeley/Dorchester teachers.

Summer 2002

- COASTeam Middle School Marine Science, offered to six Colleton County School District Teachers through the Educate Colleton Outdoors grant from the Donnelley Foundation.
- COASTeam Middle School Marine Science, offered through Project Inquiry to 23 teachers.

Fall 2002

- COASTeam Aquatic Workshops: Oceans (grade K), offered to approximately 11 teachers from Charleston/Berkeley/Dorchester.

Winter 2003

- COASTeam Aquatic Workshops: the Coast (grade 1), offered to seven teachers from Charleston/Berkeley/Dorchester.
- COASTeam Aquatic Workshops: Coastal Plain (grade 2), offered to 10 teachers from Charleston/Berkeley/Dorchester.

Winter 2004

- COASTeam Aquatic Workshops: the Mountains (grade 4), offered to 14 teachers from school districts across the state.
- COASTeam Aquatic Workshops: Oceans (grade 5), offered to 12 teachers from school districts throughout the state.

Public Awareness Efforts 2000-2004

Periodicals

Coastal Heritage magazine – 20 issues

- “Nature’s Lessons: A Closer Look.” *Coastal Heritage*, Spring 1999.
- “Storm Front ” *Coastal Heritage*, Summer 1999.
- “Riches to Ruin: Pharaohs of the New World ” *Coastal Heritage*, Fall 1999.
- “Reviving Eden ” *Coastal Heritage*, Winter 1999-2000.
- “Living Soul of Gullah ” *Coastal Heritage*, Spring 2000.
- “S.C. Sea Grant Consortium Five-Year Report.” *Coastal Heritage*, Summer 2000.
- “The Beauty of Sprawl.” *Coastal Heritage*, Fall 2000.
- “The Salty Dogs.” *Coastal Heritage*, Winter 2000-01.
- “The Bird Chase.” *Coastal Heritage*, Spring 2001.
- “Shrimp Aquaculture: Challenges and Potential ” *Coastal Heritage*, Summer 2001.
- “Coastal Growth Hits Home.” *Coastal Heritage*, Fall 2001.
- “Triumph of the Weed.” *Coastal Heritage*, Winter 2001.
- “Where have all the joiners gone?” *Coastal Heritage*, Spring 2002.
- “Floyd Follies: What We’ve Learned.” *Coastal Heritage*, Summer 2002.
- “Rise and Fall and Rise... South Carolina’s Maritime History.” *Coastal Heritage*, Fall 2002.
- “The Freeway City.” *Coastal Heritage*, Winter 2002-03.
- “Nature or Nurture?” *Coastal Heritage*, Spring 2003.
- “Hothouse Planet?” *Coastal Heritage*, Summer 2003.
- “Rebuilding the Green Old Party?” *Coastal Heritage*, Fall 2003.
- “A Line in the Sand: Nourishing South Carolina’s Beaches.” *Coastal Heritage*, 2003-04.

Inside Sea Grant newsletter (10 issues)

- “Sanders elected as board chair.” *Inside Sea Grant*, Summer 1999.
- “New Sea Grant staff addresses hazards, tourism, marine education.” *Inside Sea Grant*, Winter 1999.
- “Sanders elected new board chair.” *Inside Sea Grant*, Summer 2000.

- “Consortium Web site open.” *Inside Sea Grant*, Winter 2000.
- “*Coastal Heritage* wins award.” *Inside Sea Grant*, Summer 2001.
- “S.C. Sea Grant Board of Directors elects Ingle as chair.” *Inside Sea Grant*, Winter 2001.
- “Consortium receives National Sea Grant award for 2002-2003.” *Inside Sea Grant*, Summer 2002.
- “Volunteers clear away tons of trash” *Inside Sea Grant*, Winter 2002.
- “Ingle re-elected as board chair of S.C. Sea Grant Consortium.” *Inside Sea Grant*, Summer 2003.
- “Thousands turn out for statewide cleanup.” *Inside Sea Grant*, Winter 2003.

South Carolina Task Group on Harmful Algae newsletter (9 issues)

- “SC ready if a *Pfiesteria* bloom should occur.” *South Carolina Task Group on Toxic Algae*, Summer 1999.
- “Officials laud task group’s work.” *South Carolina Task Group on Toxic Algae*, Winter/Spring 2000.
- “Initiative moves into next phase.” *South Carolina Task Group on Harmful Algae*, Summer 2000.
- “NOAA Grant Awarded for Research, Education, and Outreach.” *South Carolina Task Group on Harmful Algae*, Summer 2001.
- “CDC Awards Grant for Coastal Estuarine Pond Research.” *South Carolina Task Group on Harmful Algae*, Fall 2001.
- “NOAA’s HAB Analytical Response Team.” *South Carolina Task Group on Harmful Algae*, Spring 2002.
- “Site Visit Updates CDC.” *South Carolina Task Group on Harmful Algae*, Fall 2002.
- “Why Are the Eagles Dying?” *South Carolina Task Group on Harmful Algae*, Spring 2003.
- “Massive ‘Red Tide’ in Bulls Bay.” *South Carolina Task Group on Harmful Algae*, Spring 2004.

Coastal Heritage Curriculum Connection

(4 issues)

- “Floyd Follies: What We’ve Learned.” *Coastal Heritage Curriculum Connection*, Summer 2002.
- “Rise and Fall and Rise. . . South Carolina’s Maritime History.” *Coastal Heritage Curriculum Connection*, Fall 2002.
- “The Freeway City.” *Coastal Heritage Curriculum Connection*, Winter 2002-03.
- “A Line in the Sand: Nourishing South Carolina’s Beaches.” *Coastal Heritage Curriculum Connection*, Winter 2003-04.

Fact Sheets

- *Examining the Effects of Coastal Erosion*. 2004.
- *South Carolina Sea Grant Consortium, Budget Facts and Impacts*. 2004.
- *Understanding our Coastal Resources: Program Overview*. 2003.
- *Monitoring the Effects of Harmful Algal Blooms*. 2003.
- *Addressing the Pressures of Coastal Growth*. 2002.
- *LU-CES: Examining the Effects of Changing Land Use*. 2002.
- *S.C. Nonpoint Education for Municipal Officials Coastal Fact Sheet Series*. 2002.
- *S.C. Nonpoint Education for Municipal Officials Statewide Fact Sheet Series*. 2001.
- *S.C. Nonpoint Education for Municipal Officials Pilot (Waccamaw) Fact Sheet Series*. 2000.

Publication Listing (by Strategic Goal Area)

Coastal Ocean Processes

- “A Line in the Sand: Nourishing South Carolina’s Beaches.” *Coastal Heritage*, Winter 2003-04.
- *Examining the Effects of Coastal Erosion*. 2004. Fact sheet.

Ecosystem Studies

- “Nature’s Lessons: A Closer Look.” *Coastal Heritage*, Spring 1999.
- “SC ready if a *Pfiesteria* bloom should occur.” *South Carolina Task Group on Toxic Algae*, Summer 1999.

- “Officials laud task group’s work.” *South Carolina Task Group on Toxic Algae*, Winter/Spring 2000.
- “Initiative moves into next phase.” *South Carolina Task Group on Harmful Algae*, Summer 2000.
- *South Carolina Coast-A-Syst: An environmental risk-assessment guide for protecting coastal water quality*. Book. September 2000.
- “NOAA Grant Awarded for Research, Education, and Outreach.” *South Carolina Task Group on Harmful Algae*, Summer 2001.
- “CDC Awards Grant for Coastal Estuarine Pond Research.” *South Carolina Task Group on Harmful Algae*, Fall 2001.
- *The Complete Guide to Coastal Boating in South Carolina*. Book. 2001.
- “Triumph of the Weed.” *Coastal Heritage*, Winter 2001.
- *LU-CES: Examining the Effects of Changing Land Use*. 2002. Fact sheet.
- “NOAA’s HAB Analytical Response Team.” *South Carolina Task Group on Harmful Algae*, Spring 2002.
- “Site Visit Updates CDC.” *South Carolina Task Group on Harmful Algae*, Fall 2002.
- “Why Are the Eagles Dying?” *South Carolina Task Group on Harmful Algae*, Spring 2003.
- *Monitoring the Effects of Harmful Algal Blooms*. 2003. Fact sheet.
- *Taming Stormwater Toolkit*. Book. 2003.
- “Massive ‘Red Tide’ in Bulls Bay.” *South Carolina Task Group on Harmful Algae*, Spring 2004.

Coastal Natural Hazards

- “Raising Up and Moving Out, Elevation and Buyout of Floodprone Buildings: Do they Work?” *America’s Hurricane Threat*, Summer 1999.
- “Storm Front.” *Coastal Heritage*, Summer 1999.
- *Holding on to Your Roof*. 2000. Booklet.
- *113 Calhoun Street: A Center for Sustainable Living*. 2000. Brochure.
- *Q&A on Purchasing Real Estate in South Carolina*. 2001. Brochure.
- *Not Ready to Re-Roof?* 2001. Brochure.
- *Re-Roofing?* 2001. Brochure.
- *Window and Door Protection*. 2001. Brochure.
- “Floyd Follies: What We’ve Learned.” *Coastal Heritage*, Summer 2002.

- *History with a Twist*. 2002. Rack card.
- “Hothouse Planet?” *Coastal Heritage*, Summer 2003.

Marine Aquaculture and Fisheries

- “Shrimp Aquaculture: Challenges and Potential.” *Coastal Heritage*, Summer 2001.

Coastal Communities and Economies

- “Riches to Ruin: Pharaohs of the New World.” *Coastal Heritage*, Fall 1999.
- “Reviving Eden.” *Coastal Heritage*, Winter 1999-2000.
- “Living Soul of Gullah.” *Coastal Heritage*, Spring 2000.
- “The Beauty of Sprawl.” *Coastal Heritage*, Fall 2000.
- “The Salty Dogs.” *Coastal Heritage*, Winter 2000-01.
- “The Bird Chase.” *Coastal Heritage*, Spring 2001.
- “Coastal Growth Hits Home.” *Coastal Heritage*, Fall 2001.
- *Addressing the Pressures of Coastal Growth*. 2002. Fact sheet.
- “Where have all the joiners gone?” *Coastal Heritage*, Spring 2002.
- “Rise and Fall and Rise... South Carolina’s Maritime History.” *Coastal Heritage*, Fall 2002.
- “The Freeway City.” *Coastal Heritage*, Winter 2002-03.
- “Nature or Nurture?” *Coastal Heritage*, Spring 2003.
- “Rebuilding the Green Old Party?” *Coastal Heritage*, Fall 2003.
- *Understanding our Coastal Resources: Program Overview*. 2003. Fact sheet.

Public Awareness and Outreach

- *Touring the SC African American Trail of Charleston, Colleton and Dorchester Counties*. 1999. Brochure.
- *Beach Sweep/River Sweep*. 1999. Newspaper insert.
- *Sea Sweepers*. 1999. Brochure.
- “S.C. Sea Grant Consortium Five-Year Report.” *Coastal Heritage*, Summer 2000.
- *Beach Sweep/River Sweep*. 2000. Newspaper insert.
- *South Carolina Sea Grant Consortium, Budget Facts and Impacts*. 2004. Fact sheet.

Marine Education and Training

- *Of Sand & Sea: Teachings from the Southeastern Shoreline*. 2000. Book.
- “Floyd Follies: What We’ve Learned.” *Coastal Heritage Curriculum Connection*, Summer 2002.
- “Rise and Fall and Rise... South Carolina’s Maritime History.” *Coastal Heritage Curriculum Connection*, Fall 2002.
- “The Freeway City.” *Coastal Heritage Curriculum Connection*, Winter 2002-03.
- “A Line in the Sand: Nourishing South Carolina’s Beaches.” *Coastal Heritage Curriculum Connection*, Winter 2003-04.

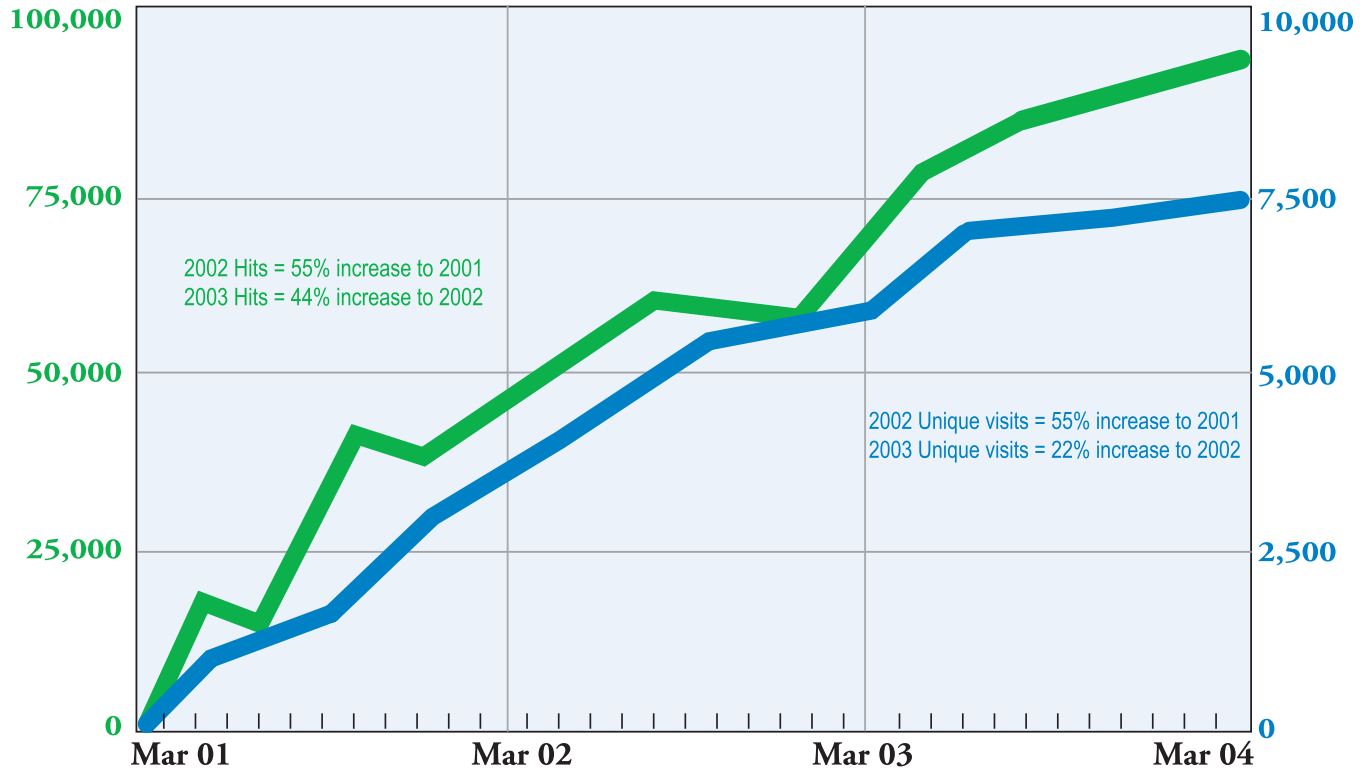
S.C. Sea Grant Consortium Web Publications

- South Carolina Sea Grant Consortium
www.scseagrant.org
- HAZNET.org
www.haznet.org
- 113 Calhoun Street: A Center for Sustainable Living
www.113calhoun.org
- South Carolina Nonpoint Education for Municipal Officials (SCNEMO)
www.scseagrant.org/scnemo.htm
- SouthEast Center for Ocean Sciences Education Excellence
www.scseagrant.org/se-cosee/
- S.C. Task Group on Harmful Algae
www.scseagrant.org/schab.htm



total hits —
 unique visits —

S.C. Sea Grant Consortium Monthly Web Site Activity 2001–2004



Total Hits = A hit is a single request made to a Web server for an object on a web site. (page, image, sound file, etc.)
 Unique Visits = A visit to a Web site represents one unique viewer (or search engine) who has visited the site.

Staff, PI, Program, and Product Awards

Consortium Staff Awards

- *1999 President's Award* – Presented to M. Richard DeVoe by the Sea Grant Association
- *1999 President's Award* – Presented to Elaine Knight by the Sea Grant Association
- *1999 Hammer Award* – Presented to Cal Sawyer by the National Partnership for Reinventing Government and the Office of the Vice President
- *1999-2001 Award of Appreciation* – Presented to Elaine Knight by the Sea Grant Association
- *2000 President's Award* – Presented to M. Richard DeVoe by the Sea Grant Association
- *2000 President's Award* – Presented to Elaine Knight by the Sea Grant Association
- *2000 Certificate of Appreciation* – Presented to M. Richard DeVoe by Aquaculture America
- *2000 Certificate of Appreciation* – Presented to Robert Bacon by the 113 Calhoun Street Board of Directors
- *2000 Certificate of Appreciation* – Presented to Jack Whetstone by the USDA Cooperative State Research, Education and Extension Service for Outstanding service to the shellfish industry and U.S. Department of Agriculture agencies as a leader in developing the nation's first ever federal crop insurance for a sector of the U.S. aquaculture industry
- *2001 Certificate of Achievement* – Presented to Elaine Knight by Leadership South Carolina
- *2001 Award for Faculty Excellence* – Presented to Jack Whetstone by the Clemson University Board of Trustees
- *2001-2002 Award of Appreciation* – Presented to M. Richard DeVoe by the Sea Grant Association
- *2002 Award of Appreciation* – Presented to Elaine Knight by the Sea Grant Association
- *2002 Certificate of Appreciation* – Presented to Robert Bacon by the Extension Disaster Education Network
- *2002 Certificate of Appreciation* – Presented to Robert Bacon by the Charleston County, S.C. Area Project Impact for participating as a Property Protection Committee Member
- *2002 Certificate of Appreciation* – Presented to Robert Bacon by the Charleston County, S.C. Area Project Impact

- for participating as a member of the Charleston Regional Hazard Mitigation Program Committee
- *2003 Certificate of Achievement* – Presented to Robert Bacon by Leadership South Carolina
- *2003 National NEMO Conference Haiku Contest, 3rd Place* – Awarded to Cal Sawyer by National NEMO
- *2003 Fellow* – Awarded to Lundie Spence by the American Association for the Advancement of Science (AAAS)

PI Awards

- *2001 Outstanding Wind Engineering Ph.D. Award* – Presented to S.C. Sea Grant-supported research student Edward G. Sutt, Jr. by Friends of Dr. Marshall, Dr. Scanlan, and the organizing committee for the Americas Conference on Wind Engineering.

Program Awards

- *2001 Project Impact Livability Award for Historic Preservation* – Presented to the 113 Calhoun Foundation by FEMA, who noted efforts toward integrating historic preservation and disaster resistance at *113 Calhoun Street: A Center for Sustainable Living*.
- *2001 AT&T Communication Award, 1st Place in Presentation Category for State of South Carolina* – Presented to the Statewide Nonpoint Education for Municipal Officials Program
- *2001 S.C. Association of County Agricultural Agents Communication Award - 1st Place in Slide, Transparencies or Computer Graphics* – Presented to the Statewide Nonpoint Education for Municipal Officials Program
- *2001 S.C. Association of County Agricultural Agents Communication Award - 3rd Place in Publications* – Awarded to the S.C. Coast-A-Syst Publication
- *2002 Certificate of Merit* – Awarded to the SC NEMO Program by the National NEMO Program
- *2003 Communication Award, 1st Place for Slide Set, Transparencies, Computer Generated Presentation* – Awarded to the SC NEMO Program by the S.C. Association of County Agricultural Agents

- *2003 Communication Award, 1st Place, Web Site* – Awarded to the SC NEMO Program by the S.C. Association of County Agricultural Agents
- *2003 Communication Award, 2nd Place, Fact Sheet* – Awarded to the SC NEMO Program by the S.C. Association of County Agricultural Agents
- *2003 Communication Award, 3rd Place, Direct Mail Piece* – Awarded to the SC NEMO Program by the S.C. Association of County Agricultural Agents
- *2003 AT&T Communication Award, 1st Place* - Awarded to the SC NEMO Web site by AT&T in South Carolina

Product Awards

National Sea Grant College Program Biennial Report, 1996-97

- 1999 Blue Ribbon Award (*Sea Grant Week 1999*)
- 1999 Blue Pencil/Gold Screen competitions (*National Association of Government Communicators*)
- 2001 Blue Ribbon Award (*Sea Grant Week 2001*)

Coastal Heritage Magazine

- 2000 Notable State Document Award (*S.C. State Library*)
- 2001 People's Choice Award (*Sea Grant Week 2001*)
- 2001 APEX Grand Award
- 2001 APEX Award of Excellence
- 2002 APEX Award of Excellence
- 2003 Blue Ribbon Award (*Sea Grant Week 2003*)
- 2003 APEX Grand Award
- 2003 CASE Region III Award for Special Merit

Web site of the S.C. Nonpoint Education for Municipal Officials (SC NEMO)

- *2003 Clemson Extension Web Site Communications Award*

South Carolina Sea Grant Consortium
“Science Serving South Carolina’s Coast”

STRATEGIC PLAN
2000-2004

Introduction

South Carolina’s coast is one of the state’s most valuable resources, featuring 2,876 miles of tidal shoreline, 504,450 acres of salt marsh (20 percent of the East Coast’s total), 10,000 square miles of continental shelf, and 500,000 acres of tidal bottomlands. This diverse, complex network of near-shore waters, beaches, and wetlands supports a wide range of marine life and human activity, including shipping, tourism, fishing, manufacturing, residential and commercial development, just to name a few. Over the past four decades, coastal South Carolina has seen unprecedented development and population growth, a trend that will continue well into the new millennium. With growth come change and an increased demand on our resources. Already, pollution, erosion, coastal storms, and poorly planned development have left their mark along the state’s coast. Accommodating the many varied needs of those who use and enjoy its coastal and marine resources presents an enormous challenge. Sea Grant can help generate information and provide outreach programming to address questions such as:

- “How can we continue increasing our demands on these resources without stressing them beyond their limits to be productive?”
- “How do we balance conflicting needs among diverse users?”
- “How do we protect life and property from coastal natural hazards?”
- “How can we generate sustainable, resource-based economic opportunities?”
- “How do we maintain and improve the quality of life for all citizens of and visitors to the state?”

The Vision

The S.C. Sea Grant Consortium is committed to maximizing the economic, social, and environmental potential of the state's coastal and marine resources. Through continuing improvements in internal and external structures (e.g., communications networking, formal extension feedback mechanisms, long-range program planning), the Consortium will continue to realize this potential. The Consortium has identified three concepts that provide the foundation for its future activities:

1. To develop and maintain an integrated research, education, and extension program for South Carolina that seeks to provide for future economic opportunities, improve the social well being of its citizens, and ensure the wise use and development of its marine and coastal natural resources.

2. To continue to build an effective and efficient communications and marine extension network among academia, business, government and the general public to ensure that Consortium activities are responsive to marine and coastal users and that information generated is delivered in a timely fashion.
3. To remain an integral component of the National Sea Grant College Program and other organizations where Consortium activities are responsive to regional and national needs, as well as to those of South Carolina.

The S.C. Sea Grant Consortium is “Science Serving South Carolina’s Coast.”

What is the Consortium?

The S.C. Sea Grant Consortium is unique among the nation’s 35 Sea Grant programs. Created by the S.C. General Assembly, the Consortium undertakes a diverse range of initiatives to improve understanding of the regions coastal resources and our ability to manage them for long-term benefit. Recognizing the needs and opportunities embodied by the state's vast array of ocean and coastal resources, the S.C. General Assembly formally united the state's various marine programs through the creation of the S.C. Sea Grant Consortium in 1978 (Code of South Carolina, Section 48-4510:100). This legislative mandate sets out three main tenets upon which the Consortium operates:

"To provide a mechanism for the development and management of the Sea Grant Program for the State of South Carolina and adjacent regions that share a common environment and resource heritage."

"To support, improve and share research, education, training and advisory services in fields related to ocean and coastal resources."

"To encourage and follow a regional approach to solving problems or meeting needs relating to ocean and coastal resources in cooperation with appropriate institutions, programs, and persons in the region."

Consortium Membership and Interactions

Institutions that hold charter membership in the Consortium include The Citadel, Clemson University, the University of Charleston, S. C., the Medical University of South Carolina, S. C. State University, S. C. Department of Natural Resources, Coastal Carolina University, and the University of South Carolina. Consortium institutions provide the expertise of their respective faculty and professional staffs, as well as a wide range of facilities and equipment, necessary to carry out the diversity of programs supported by the S.C. Sea Grant program.

The S.C. Sea Grant Consortium became an operating entity in January 1980. With the submission and acceptance of its initial program proposal for Sea Grant support, the S.C. Sea Grant program was designated an Institutional Program that year. In April 1985,

application was made to the Secretary of Commerce for Sea Grant College designation; Sea Grant College status was conferred on the Consortium in August 1986 by then-Secretary of Commerce Malcolm Baldrige.

Consortium Organization

The S.C. Sea Grant Consortium is structured to optimize communication and feedback linkages necessary for the proper development and implementation of its programs. Its offices are located in Charleston, S.C. Activities of the Consortium are governed by authorizing committees of the S.C. General Assembly and a Board of Directors to which the Executive Director reports. The Board of Directors includes the chief executive officers of the Consortium's member institutions:

S.C. Sea Grant Consortium **Board of Directors**

Dr. Ron Ingle, Chairman
President
Coastal Carolina University
Conway, SC 29526

Gen. John Grinalds
President
The Citadel
Charleston, SC 29409

James Barker
President
Clemson University
Clemson, SC 29634

Dr. Raymond Greenberg
President
Medical University of South Carolina
Charleston, SC 29403

Dr. Paul A. Sandifer
Director
S. C. Department of Natural Resources
Columbia, SC 29202

The Honorable Ernest Finney
President
S. C. State University
Orangeburg, SC 29117

Leo Higdon
President
College of Charleston
Charleston, SC 29424

Dr. Andrew Sorensen
President
University of South Carolina
Columbia, SC 29208

The Board meets annually to review Consortium program policies and procedures. The Board also provides a direct line of communication between the Consortium Executive Director and the higher administrative levels of its eight member institutions.

The S.C. Sea Grant program maintains direct contact with coastal and marine user groups and the general public, and serves as a conduit between institutional knowledge-seekers and coastal and marine knowledge-users, through S.C. Sea Grant Extension Program (SGEP) and Communications and Information Services (CIS) activities. These outreach programs assure that (1) problems and needs of those who live and work along the coast are accurately identified, (2) research projects and programs are effectively providing the necessary information, and (3) this information is delivered to target audiences in a timely fashion and "user-friendly" format.

Program Organization

These management and organizational structures support S.C. Sea Grant Consortium efforts to maximize the potential of state marine and coastal resources. The Consortium strives to deliver programs that bridge the gap between science and policy, wherein effective management of both physical and human resources requires resolution of diverse scientific, economic, social, and environmental questions.

Throughout the 1980s, Consortium efforts had been organized into six program areas: Living Marine Resources, Marine Environmental Research, Coastal Resources Development and Management, Bioengineering and Marine Technology, Coastal Processes and Marine Outreach. The efforts of the program advisory groups, a Blue Ribbon Committee (established in the mid-1980s to make recommendations for reorienting Consortium program areas) and the Sea Grant Extension Program review helped shape the program during the late 1980s and early 1990s.

Priority needs within each area continue to fluctuate from year to year, based on changing resource management and state and regional use issues. Thus, Consortium program staff regularly convenes planning meetings to reassess program area emphases and efforts.

In the summer of 1995, the Consortium convened a day-long workshop with more than 40 representatives of the state's "coastal constituency." This issue-identification session was designed to gather input from as broad a spectrum as possible for use in developing and updating the Consortium's strategic plan. Several half-day working sessions with Consortium and Sea Grant Extension staff have followed, with emphases ranging from refining program areas to improving internal communications and management.

The consensus of the "constituents" workshop was that S.C. Sea Grant should continue to focus its efforts toward providing information to help ensure South Carolina's economic growth and quality of life by maximizing the potential of coastal and marine resources. Constituents identified the most pressing concern as the need for solid information to help manage the effects of a growing coastal population. Sustaining the resources and lifestyles that are integral to the state's economic engine will continue to serve as the guiding

principle that determines Sea Grant priorities. Closely related issues follow from this principle, namely supporting, through the delivery of objective, science-based information, the management of our state's waters and the natural habitats so closely related to those waters.

The goal of maximizing the potential of our coastal and marine resources is a broad one. To effectively direct our day-to-day activities toward this goal, we established (in 1999) and reaffirmed (in 1999-2000) six program areas, each of which supports the sustainable use of our coastal and marine resources. Sustaining our resources will help guarantee benefit streams for this and future generations of South Carolinians, thereby maximizing the potential of those resources. We tend to think of it as 'living off the 'interest' of our natural endowment,' or, as others put it, ensuring the well-being of 'the goose that laid the golden egg.'

The Consortium organizes our research, education, and extension activities around six program areas. A balanced program, including efforts distributed among the following six areas, is the key to achieving the three major goals of the agency.

- Coastal Ocean Studies
- Ecosystem Dynamics
- Climate and Hazards
- Emerging Technologies
- Sustainable Economic Development
- Marine Education

Strategic Planning

1999 Strategic Planning Process

The Consortium's ability to anticipate and respond to constituent's needs is critical to its success in serving the state. The Consortium employs several planning tools to ensure that its programs are achieving the maximum possible benefits. These include both formal and informal mechanisms.

To determine how the Consortium's most recent strategic plan (1997-2001) addressed the needs of the State, in the fall of 1999 the Consortium's management team reviewed that plan and agreed to initiate an update. The Core Group felt that the major program areas identified in the existing plan remain relevant; however suggestions of specific action steps were needed for how best to achieve the plan's goals.

Strategic planning efforts of other Sea Grant programs including those in Florida, Maryland, Rhode Island, Delaware, and Hawaii were reviewed to determine how best to receive input regarding our existing plan. Advice was received on how to maximize the effectiveness of the strategic planning process and successful techniques for soliciting stakeholder input were duplicated. The result was a series of focused workshops planned in seven topic areas:

Workshop Topics:

- Coastal and Ocean Studies
- K-12 Marine Science Education
- Coastal Hazards
- Coastal Historical, Cultural, and Rural Tourism
- Aquaculture
- Ecosystem Dynamics
- Emerging Technologies/Biotechnology

Workshop Objectives:

The workshops were designed to achieve four primary objectives:

- Identify priority needs in South Carolina pertaining to the area of concern.
- Identify current activities in South Carolina in the area of concern.
- Identify priority needs in the area of concern that are not being adequately addressed by current activities.
- Identify specific potential actions that SC Sea Grant could take to address these unmet needs.

Goal of the Strategic Planning Process:

The goal of the Consortium's strategic planning process was to 'Maximize the ability of S.C. Sea Grant's research, education, and outreach programs to address the coastal resource needs of South Carolina.'

Objectives of the Strategic Planning Process:

To achieve the Consortium's strategic planning goal, three objectives were developed:

- Receive input from constituents and stakeholders
- Update the existing strategic plan based on the input received, and
- Use the updated strategic plan to guide programs

Strategic Goals

The Consortium's efforts are focused within six strategic issue areas.

Strategic Issue - *Coastal Ocean Studies*

The South Atlantic Bight (SAB) forms a distinct hydrographic and biogeographic region of the Atlantic Ocean off the coast of the southeastern United States. The region is transitional between the Mid Atlantic Bight to the north and tropical waters to the south, lying between Cape Hatteras, North Carolina and Cape Canaveral, Florida. The offshore boundary of the SAB has not been well-defined, but is often referred to as the western wall

of the Gulf Stream or the shelf break which occurs at about the 3-meter isobath. The continental shelf throughout the SAB ranges from 50 km in width at Cape Hatteras to 10 km wide at Savannah, Georgia.

The Coastal Ocean Boundary Interactions and Assessment Program (COBIA)

COBIA (Coastal Ocean Boundary Interactions and Assessment) is a joint S.C. Sea Grant Consortium-University of Georgia Sea Grant College Program effort initiated by the Consortium to encourage regional, cooperative, and multidisciplinary studies and research within the coastal ocean of the South Atlantic Bight. For the past eight years, the Consortium has been working with member institutional scientists and staff to organize and implement COBIA programs. Scientists, resource managers and educators are working within the COBIA network to (1) increase communication between and among research institutions and individual scientists, (2) identify research needs in the coastal ocean, (3) initiate new programs of research to fulfill these needs, (4) collect, process and distribute information regionally and (5) effectively incorporate results into future research development and management strategies for the South Atlantic Bight.

COBIA studies examine the exchange of materials across boundaries in the coastal ocean of the southeastern United States, including sediment-water interfaces, land-water margins and frontal zones. This requires an understanding of the relationships of the physical, chemical, geological and biological systems, and a regional approach to provide a common framework for the coordination of coastal research in the SAB. The general research goals of COBIA include:

- Identification of the processes dominating the coastal ocean of the SAB;
- Quantification of the spatial and temporal variability of these processes; and
- Ultimately, modeling of the exchanges of water, particulates, nutrients, contaminants, energy and organisms across coastal boundaries within the SAB.

COBIA addresses five basic and interrelated issues pertinent to the interactive nature of estuarine watersheds and the coastal continental shelf environments. These issues include effects of coastal development, pollution and eutrophication of the coastal zone; fisheries recruitment and dynamics, potential mineral resources management and global climate change. Each issue encompasses unique political, economic and scientific aspects, and a major goal of COBIA is to develop the necessary scientific basis for effective policy development. COBIA has adopted an approach that examines the exchange of materials across the boundaries in the coastal region of the SAB as the most effective means of achieving this goal.

Program Area Goal

To identify and understand the processes dominating the coastal ocean of the South Atlantic Bight (SAB) as they affect coastal processes, pollution of the coastal zone, fisheries dynamics and mineral resource management, and are influenced by global climate change.

Program Area Objectives

Coastal Processes Subprogram

The Consortium's objectives under the Coastal Processes Subprogram are to:

- Generate and analyze information on the major physical factors (e.g., erosion and accretion, weather events, river runoff, sand budgets) affecting coastal resources, especially tidal inlets, tidal shoals, and beach maintenance and rehabilitation
- Evaluate and extend coastal process information and make it available to coastal constituents, coastal resource managers, and municipal leaders for use in decision-making.
- Gather and, where necessary, generate and disseminate information on natural forces of hurricanes and storms, coastal erosion, and sea level rise.

Ocean Processes Subprogram

The Consortium's objectives under the Coastal Processes Subprogram are to:

- Characterize the coastal boundary layer in the SAB with respect to dynamic processes which lead to its stability and role in materials transport and cycling.
- Determine the influence of the deep North Atlantic Ocean, particularly the Gulf Stream, on hydrography in the SAB.
- Define and assess the pathways and mechanisms for cross-shelf and along-shore transport of chemicals, particulates, pollutants, and organisms within the SAB.
- Examine and model biogeochemical pathways for carbon and other pertinent elements within the SAB.
- Develop models of the interactions among hydrography, primary and secondary productivity, and sediment transport in estuaries and the coastal zone, and the dynamics of living and non-living resources in the SAB.
- Examine the role of the ocean with respect to long-term global climate change, with particular emphasis on understanding the impacts of climate change on the coastal zone of the southeastern United States.
- Translate and extend resultant information for users, resource managers, and policy-makers.

Strategic Issue - *Ecosystem Dynamics*

Continued interest in the marine and coastal environment is based primarily on its natural resource potential and economic value. Exploitation of the various resources available along the coast has led to increasing demand and competition for the right and access to those resources. Coupled with increased usesuburbanization,industrial development, agriculture,shipping,fishing,and recreationimpacts on the marine environment are inevitable. Encouraging harmony and fostering consensus among all users of the coastal and marine environment must be among the goals of managers responsible for ensuring the wise use and controlled development of the state's natural resources.

Program Area Goal

The Consortium is committed to providing information and data to natural resource agencies and users for use towards minimizing and mitigating environmental effects resulting from these increasing pressures. A major area of concern has been identified by the Consortium—the study of estuarine systemswhich for the last decade has formed the basis for Consortium ecosystem research. The Consortium's goal in this program area is to enhance the availability and quality of marine,estuarine,and freshwater resources that can support the economic and quality-of-life needs of the public and private sectors in South Carolina.

Program Area Objectives

To meet this goal,the Consortium has identified the following objectives for its Estuarine Studies sub-program:

- Generate information on the effects of land uses and point and non-point source pollution on watersheds (coastal rivers,wetlands,estuaries)to improve the availability and application of such information among government decision makers,community organizations,and homeowners.
- Develop and extend wetlands management (e.g.,impoundments)strategies to encourage multi-species use and enhance water quality.
- Develop information on the chronic and more subtle effects of pollutants on marine and estuarine resources.
- Extend information management strategies to ameliorate impacts on water quality from non-point sources.
- Examine the relationships between fisheries production in estuaries and the quality of habitat areas with particular emphasis on the relationships between the availability and utilization of food and vegetative cover and subsequent growth and mortality of the stock.

- Determine the relationships between upland ecosystems and estuarine productivity.
- Identify species or suites of species that are indicative of specific levels of estuarine productivity or habitat quality.

Strategic Issue - *Climate and Hazards*

Most coastal residents have chosen to move to the coastal zone within the last three decades and thus are not experienced with rapid or subtle changes in climate and the resultant hazards. Coastal hazards range from short-term (six to 12 hours) storm surges which can exceed six meters in elevation to the slow but pervasive rise in sea level and resultant shoreline retreat over a period of decades.

South Carolina has exposure to most known natural hazards. These hazards, including hurricanes, flooding, and earthquakes, have the potential to cause substantial damage. Even a modest increase in the rate of sea level rise will have profound impacts on low-lying coastal areas along South Carolina. These areas are presently subject to short-term processes that significantly affect natural systems. When global phenomena are superimposed, the range of possible impacts is augmented and includes increased risk of hurricanes, more frequent and severe flooding, accelerated erosion of ocean and waterfront areas, saltwater intrusion of surface and groundwater supplies, marsh destruction and habitat alteration. While their occurrence cannot be prevented, there is much that can be done to minimize exposure to these damages and facilitate recovery processes. However, response is constrained by many factors; most important among these are:

- The lack of access to baseline information from which accurate projections can be made as to when and how physical impacts are likely to be manifested;
- Recognition that geological time scales vary significantly from the useful lives of structures and infrastructures, and the political tenure of decision makers at the local level; and
- The fact that local responses will be dictated by financial considerations in allocating scarce resources to deal with pervasive impacts.

The Consortium's Climate and Hazards program is geared toward developing and delivering information and technology useful to decision-makers, planners, emergency preparedness officials and the general public in preparing for and recovering from such natural events.

Sustainable economic development of the coastal zone requires protection of both the natural and built environments. When hurricanes or severe wind storms destroy large portions of the built environment, severe social and economic dislocation occurs to individuals, families and communities, and the wide-spread destruction frequently results in severe impacts to the natural environment through the creation of mountains of debris and the release of toxic materials.

Recent long-range predictions indicate that we are now entering a period, similar to that of the 190s and early 60s, in which a greater number of high intensity tropical storms are expected to occur. As coastal populations continue to grow, new residents, with no direct experience of coastal storms, build homes and accumulate property unaware of the extent of the risks they face.

Program Goal

To provide technical and educational programs that examine the forces of climate and hazards and provide information to the public and private sectors on the nature of hazards and how to plan for them.

Program Objectives

To meet this goal, the Consortium has identified the following objectives:

- Develop and evaluate innovative construction techniques to enable residential and commercial structures to better withstand a variety of coastal hazards, including wind, waves, and earthquakes.
- Develop and deliver informational materials for coastal residents and businesses that address beach and water safety, coastal storm planning and preparedness, coastal construction techniques, and coastal hazard mitigation.
- Develop educational and awareness programs for the state's citizens, business, and industry on how to better anticipate and plan for short-term and long-term climate variability and hazardous events.

Strategic Issue - *Emerging Technologies*

In an increasingly competitive environment, industry spends billions of dollars each year on the research and development of new and better products, with increased attention given to 'environmentally friendly' products, as well as natural products." This attention includes a growing focus on marine sources for these products. Such explorations have been enhanced by the development of a new field of scientific activity called biotechnology.

Arising out of new developments in molecular biology and biochemical engineering, advances in biotechnology have allowed scientists to study biological phenomena as they apply to the manufacturing and service industries. Biotechnology research within the marine environment has focused on the effect of technological processes upon marine organisms and the effect of these organisms and their metabolites upon marine technologies. Marine biotechnology has already made significant contributions to the energy, food, pharmaceutical, biomaterial, and pollution control industries.

Program Area Goal

To foster the development of emerging marine technologies, the Consortium's goal in this program area is to "develop techniques, technologies, and new products based on marine systems for use in commercial and industrial applications, and to continue to apply low-cost technologies to coastal and marine resource problems."

Several of the Consortium's member institutions are uniquely positioned to address this goal owing to the research capabilities of these institutions and the diverse marine environment of South Carolina's coast.

Program Area Objectives

To meet this goal, the Consortium has identified the following objectives:

- To develop effective and biodegradable substances and materials that can be used to control biofouling in the marine environment and mineralization in medicine and dentistry.
- To develop effective and biodegradable superabsorbant substances that can be used in the home, at work, and in industry.
- To develop and apply new technologies toward:
 - Improvements in the development and genetic structure of commercially important marine animals
 - Protection of marine animals from disease
 - Production of vaccines and the use of monoclonal antibodies
- To develop low-cost technological applications to coastal resource opportunities such as aquaculture, erosion control, and soil and water remediation.

Strategic Issue - Sustainable Economic Development

Coastal resource management and economic development issues in South Carolina continue to overwhelm coastal zone planners, resource managers, developers, and those involved in commerce, industry, recreation and tourism. The state has an approved Coastal Zone Management Program, administered by the Office of Clean and Coastal Resource Management in the S.C. Department of Health and Environmental Control, to encourage the preservation and wise development of coastal and marine resources while providing for orderly economic development. While certain forms of development tend to conflict with federal and state resource protection programs, sustainable economic development, which treats natural resources as an integral component of development plans, is being encouraged. This approach also provides for opportunities in rural areas, where natural resources may be the only available raw material." The Consortium's role is to develop and extend information and data to support decision-making processes at the state and local level.

The Consortium plans to continue examining coastal management issues and exploring sustainable economic development opportunities in cooperation with state and local management agencies and coastal resource users. Research, education and extension projects dealing with production and resource economics, policy, law, regulation, preservation and development of coastal resources will provide the basis for the generation of future Consortium efforts. Needs of the state and region will thus be served simultaneously in terms of decision-making, planning, and assessment related to coastal development.

Program Goal:

To establish and enhance economically viable business and municipal opportunities which are compatible with the long-term conservation of natural and cultural resources of the South Carolina and southeastern coast.

Program Objectives:

Aquaculture and Seafood Production Subprogram

The objectives for this subprogram are to:

- Enhance the development of viable and sustainable aquaculture industries in South Carolina.
- Assist the S.C. commercial fishing and aquaculture industries as they cope with rapidly changing economic and regulatory environments.
- Promote the safe handling, processing, transportation, sale and storage of seafood by harvesters, processors, truckers, wholesale and retail vendors, and consumers.

Coastal Business and Community Development Subprogram

The Consortium has identified the following objectives for this subprogram:

- Define alternative strategies for economic development that are compatible with long-term conservation of natural and cultural resources.
- Assist coastal communities with identification of growth management and sustainable economic development objectives, and with the definition and implementation of strategies to achieve these objectives.
- Develop and implement activities to assist small coastal and marine businesses as they cope with changing demographic, economic, and regulatory environments.

- Assist local communities in dealing with increased pressures on human, fiscal, infrastructure, and natural resources due to population growth and development.
- Assist local communities and small businesses in planning and developing coastal recreation and tourism activities and enterprises which contribute to a vigorous economy and healthy natural resources.
- Promote the avoidance and resolution of environmental, natural resource, growth management, and other conflicts in the public and private sectors through the use of consensus-building, negotiation, and mediation techniques.
- Support the initiation of resource-related small businesses and other economic development opportunities that include provisions for coastal resource conservation.
- Translate information on sustainable economic development opportunities to businesses, municipalities, students, and the public.

Strategic Issue - *Marine Education*

The Marine Education Program at the S.C. Sea Grant Consortium has undergone considerable metamorphosis during the last fifteen years (1989-1999). In the 1980s, efforts focused on development of information products targeted at the general public and K-12 teachers. Educational products were generated through contracts with some of South Carolina's leading marine science educators. In the early 1990s these early efforts served as the foundation for development of marine science educational programs and the first funded Consortium biennial proposals for education. These programs have continued since 1992 and have spawned numerous additional products and projects available to all educators. Throughout the past fifteen years, Sea Grant-funded research has also provided research opportunities for college and graduate students.

Program Area Goal

The goal of the Consortium's marine education initiative is to:

- Provide an effective mechanism for exchanging information required to address both long- and short-term issues and opportunities related to the conservation of marine and coastal resources.

Program Area Objectives

To achieve this goal, the Consortium's objectives are to:

- Improve the capability and opportunity of teachers to deliver marine science education to South Carolina elementary, middle, and high school students.

- Support the development of model curricula and projects that are inquiry based, interdisciplinary, and adhere to the state science standards.
- Provide South Carolina K-12 pre-service and in-service teachers with the professional development needed to effectively improve their students' understanding and stewardship of the marine environment.
- Provide exposure to and experience in coastal and marine research to graduate and undergraduate students in South Carolina's colleges and universities.
- Enhance the knowledge and awareness of adult coastal residents and visitors on the importance of coastal resources and means for their effective management.

Strategic Issue - *Management and Administration*

Maintaining and fostering a relevant, timely, and integrated coastal education, research, and extension program is necessary for the long-term conservation of the state's coastal and marine resources. The Consortium continuously seeks opportunities to enhance its mission through partnerships with other state, federal, and private organizations and individuals. By leveraging its available state and federal Sea Grant funding, the Consortium is able to bring the considerable talents and expertise of its member institutions to bear on a variety of coastal and marine resource issues.

Program Area Goal

Through research, education, and extension programs, the S.C. Sea Grant Consortium ensures that coastal and marine issues and opportunities are rigorously researched and understood, and that the resulting information is communicated to those who use and manage these resources.

Program Area Objectives

To achieve this goal, the Consortium's objectives are to:

- Increase the level of non-state financial support to further the Consortium's program goals.
- Increase the number of faculty, professionals, and students supported through sponsored programs and activities.
- Increase the number of K-12 science teachers and students exposed to and/or using marine education materials.

- Service requests for information and/or assistance on coastal and marine resource issues and opportunities.
- Deliver information through conferences, workshops, and special programs.

Sea Grant Development Projects and Principal Investigators

1999

P/M-2a – Coastal Ocean Boundaries, Interactions and Assessments (COBIA) Gary Kleppel (University of South Carolina)

P/M-2c – Support for the 3rd International Conference on Molluscan Shellfish Safety”- Sandra Shumway (Long Island University)

P/M-2d – Biology and Distribution of a Newly Discovered Non-Indigenous Anomuran Crab, *Petrolisthes armatus*: Evaluation of a Major Population Explosion” Loren Coen (S.C. Department of Natural Resources)

P/M-2e – Sponsorship of the Southeast Regional Conference Aquatic Invasive Species: A Focus on the Southeast” Steven de Kowowski (S.C. Department of Natural Resources)

P/M-2f – Technical Editing of the ICSR Proceedings for Publication in the *Journal of Shellfish Research*” Anne Miller (University of South Carolina)

P/M-2g – Travel Support for the Aquaculture America 2000 Conference” Nancy Hadley (S.C. Department of Natural Resources)

P/M-2h – Sponsorship of the Sixth International Conference: Remote Sensing for Marine and Coastal Environments” John Wharton

P/M-2i – Publication Support for The Complete Guide to Coastal Boating in South Carolina” Charles Moore (S.C. Department of Natural Resources)

P/M-2j – Publication Support for Sea Grant Marine Education Publication *Sand and Sea . . . Teachings from the Southeastern Shoreline*” Paula Keener-Chavis (College of Charleston, Charleston Math and Science Hub)

2000

P/M-2k – Support for 3rd Annual South Carolina-Georgia Regional Competition of the National Ocean Sciences Bowl” Robert Feller (University of South Carolina)

P/M-2l – Support for National Shellfisheries Association Spring 2000 Meeting in Seattle, Washington” Christopher Langdon (Oregon State University)

P/M-2m – Wind Field Modeling and Hurricane Loss Estimation in South Carolina, Part II: Development of Hurricane Hazard Analysis Program” David Rosowsky (Clemson University)

P/M-2n – Source Tracing of Fecal Coliforms in the Waccamaw Watershed Using Multiple Antibiotic Resistance Testing”Susan Libes (Coastal Carolina University)

P/M-2o – Examination of Altered Gene Expression in the Mummichog (*Fundulus heteroclitus*) Due to Exposure to Chromium”Lisa Bain (Clemson University)

P/M-2p – Support for Professional Development in Aquatic and Marine Science Education”Rhet Wilson (S.C. Aquarium)

P/M-2q – Support for Conference East Coast Live: The Business of Marketing Live Aquatic Products 2000”John Ewart (University of Delaware)

P/M-2r – Support for Video Hookup for Conference on Shrimp Viruses”Jack Whetstone (S.C. Sea Grant Extension Program)

P/M-2s – Support for Student and Printing of Report of 8th Annual Meeting of the Assateague Shelf and Shore Workshop”Scott Harris (Coastal Carolina University)

P/M-2t – Applied Immunogenetics of the Atlantic Bottlenose Dolphin, *Tursiops truncatus*”Gregory Warr (Medical University of South Carolina)

P/M-2u – Student Support for Attending Marine Microbial Ecology Course”Marie DeLorenz (National Ocean Service)

P/M-2v – Support for 4-H Marine Science Camp Scholarship”Patricia Ardern (Clemson University)

P/M-2w – Support for South Carolina 4-H Leadership Centers Summer Marine Science Program: Camp Sewee”R. Frager (Clemson University)

P/M-2x – Support for Fort Johnson Seminar Series”Amy Ringwood (SCDNR-Marine Resources Research Institute)

P/M-2y – Sponsorship support for Open Ocean Aquaculture IV: An International Symposium”Barry Costa-Pierce (Mississippi-Alabama Sea Grant)

P/M-2z – Coastal Applications of Advanced Weather Technology”Robert Bacon (S.C. Sea Grant Extension Program)

2001

P/M-2a – Community-Based Oyster Restoration”Loren Coen (SCDNR)

P/M-2b – Recombinant Polypeptides Based on Oyster Shell Proteins for Medical, Specialty and Chemical and Agricultural Applications”A.P. Wheeler (Clemson University)

P/M-2c – East Coast Live:Business of Marketing Live Aquatic Products”John Ewart (University of Delaware)

P/M-2d – Evaluation of Airborne Photography and Remote Sensing on Katie River” Dwayne Porter (University of South Carolina)

P/M-2e – Minorities in Marine and Environmental Science”Charles Barans (SCDN-Marine Resources Research Institute)

P/M-2f – Spatially Important Macrofauna off South Carolina”Philip Dustan (College of Charleston)

P/M-2g – Development and Application of Microsatellites in Red Drum”Timothy Mousseau (University of South Carolina)

P/M-2h – H.L. Hunley:Integrating Science and Archeology”Pamels Morris (Medical University of South Carolina)

P/M-2i – Analysis of Immune Genes in Penaeid Shrimp”Paul Gross (MUSC)

P/M-2j – Technical Forum: *Phragmites australis*”Michael Weinstein (Marine Sciences Consortium)

P/M-2k – Sullivan Science and Engineering Award”Mitchell Colgan (College of Charleston)

P/M-2l – Structure,Dynamics and Functional Relationships between Phytoplankton, Microalgae and Foodwebs in a Salt Marsh”Richard Zingmark (University of South Carolina)

P/M-2m – Zebra Mussel Brochure”Steven de Kolowski (SCDN-Land,Water and Conservation Division)

P/M-2n – Workshop:Evolutionary Immunobiology -New Approaches and Paradigms”Gregory Warr (Medical University of South Carolina)

P/M-2o – Molecular Biology Techniques Workshop”Jill Stewart (NA-S-CCEHBR)

2002

P/M-2a – Southeastern Marine Industry Conference and Expo”Thomas Murray (Virginia Institute of Marine Science)

P/M-2b – Touring the SC African-American Trail of Charleston, Colleton and Dorchester Counties’ Baldwin S.C. National Heritage Corridor)

P/M-2c – ‘AMISTAD – A Reconciliation to the Past and a Bridge to the Future’ – Richard Moore (Coastal Carolina University)

P/M-2d – ‘Second Annual Tidelands Birding Festival’ – Charles Lucas (Tidelands Birding Festival)

P/M-2e – ‘Earth-Sky Radio Sponsorship Series’ – Benjamin Sherman (National Sea Grant Media Relations)

P/M-2f – ‘Morphological and Molecular Characterization of the SC Red Tide Dinoflagellates’ – Alan Lewitus (Belle Baruch Marine Institute – University of South Carolina)

P/M-2g – ‘SC Community Oyster Restoration Program (SCORE) An Enhancement’ – L. Coen (SCDNR – Marine Resources Research Institute)

P/M-2h – ‘Aqua 2002 Exhibit Support’ – T. Reid (MS-AL Sea Grant Consortium)

P/M-2i – ‘Governor’s Summit on Growth: New Choices for South Carolina’ – W. Lennox (Palmetto Conservation Foundation)

P/M-2j – ‘Reprint of Gullah Issue of *Coastal Heritage*’ – Linda Blackwell (SCSGC)

P/M-2k – ‘National Ocean Sciences Bowl’ – Anne Miller (Belle Baruch Marine Institute – University of South Carolina)

P/M-2l – ‘Travel Support for National Shellfisheries Association Meeting’ – Loren Coen (SCDNR – Marine Resources Research Institute)

P/M-2m – ‘Implementation of a S.C. Sea Grant Marine Education Program’ – Jennifer Jolly-Clair (College of Charleston)

P/M-2n – ‘Impact of Mosquito Control Agents on Grass Shrimp and Hard Clams: Preliminary Laboratory Assessment’ – John Weinstein (The Citadel)

P/M-2o – ‘Travel Support to International Workshop on Application of Passive Acoustics in Fisheries’ – Chrys Chryssostomidis (Massachusetts Institute of Technology)

P/M-2p – ‘Restoration of Sweetgrass Habitats in South Carolina’ – Angela Halfacre (College of Charleston)

P/M-2q – ‘Support for 14th International Pectinid Workshop’ – Norman Blake (University of Florida)

P/M-2r – Support of National Urban Aquaculture Symposium”Barry Costa-Pierce (Rhode Island Sea Grant College Program)

P/M-2s – The Reproductive Behavior and Habitat Requirements of the Diamondback Terrapin”David Owens (College of Charleston)

P/M-2t – Printing Support for S.C. Seafood Alliance Brochures”Bubba Green (SC Seafood Alliance)

P/M-2u – Effects of a Lipid-regulating Drug on Estuarine Organisms”Marie DeLorenz (University of South Carolina)

P/M-2v – Impact of Coastal Counties on the S.C. Economy”Mark Henry (Clemson University)

P/M-2w – Support for Southeastern Marine Industry Conference and Expo”Thomas Murray (Virginia Institute of Marine Science)

P/M-2x – Co-Sponsor 2003 Inaugural National Conference on Coastal and Estuarine Habitat Restoration”R. Bates (Restore America’s Estuaries)

P/M-2y – Development of Water Map Visually Depicting Major Water Issue in SC”Jeffrey Allen (Clemson University)

P/M-2z – CSR Conference Support”SCSGC)

P/M-2aa – Support of SGA’s Charleston Leadership Meeting”Sea Grant Association)

P/M-2bb – Atlantic Coast Eel Workshop”Paul Anderson (University of Maine Sea Grant)

P/M-2cc – National Ocean Sciences Bowl”Anne Miller (University of South Carolina)

P/M-2dd – Mayor’s Institute for Community Design”Irene Tyson (South Carolina Arts Commission)

P/M-2ee – Production of Graduate Program in Marine Biology Colloquium Booklet and Abstracts”John Weinstein (College of Charleston)

P/M-2ff – SECOS Conference and Workshop Support –January 21, 2004 (Charleston, SC)”SCSGC)

P/M-2gg – 4-H Camp Sewee Marine Science Camper Scholarships for Disadvantaged Children”Christopher Przembel (Clemson University)

P/M-2hh – Program to Test Soil Samples for the South Carolina Shrimp Industry”J. Whetstone (Clemson University;SCSGEP)

P/M-2jj – Support for the Marine Fundamentals 2004 Meeting”James Cato (University of Florida and Florida Sea Grant)

2003

P/M-2a – Fisheries Extension”Robert Bacon (SCSGC)

P/M-2b – Participant Support Costs for COSTeam Aquatic Workshops”Leslie Sautter (College of Charleston)

P/M-2c – Philometrid Nematode Parasite of the Southern Flounder in South Carolina: Pathology, Abundance and Impact on Mariculture”Isabel de Buron (College of Charleston)

P/M-2d – Kathy Sullivan Award”J. Stuckey (University of South Carolina)

P/M-2e – Analysis and Completion of the Oyster Restoration Program on the Functional Role of Oyster Reefs as Biologically-critical Estuarine Habitats”Loren Coen (SCDNR-Marine Resources Research Institute)

P/M-2f – “Coastal Heritage Curriculum Connection”Jennifer Jolly-Clair (College of Charleston)

P/M-2g – Sea Grant Booth at the Annual WAS Aquaculture America Conference, Louisville, KY, February 18, 2003”T. Reid (Mississippi-Alabama Sea Grant)

P/M-2h – Development of Interactive Marine Mollusk Educational Display at South Carolina Aquarium”Leslie Sautter (College of Charleston)

P/M-2i – Conference Support for Southeast Coastal Ocean Science Conference and Workshop, January 21, 2003, Charleston, SC” (SCSGC)

P/M-2j – Publication of the Ashley Scenic River Management Plan”William Marshall (SCDNR-Land, Water and Conservation Division)

P/M-2k – Conference Support for Southeast Coastal Ocean Science Conference and Workshop, January 21, 2003, Charleston, SC” (SCSGC)

P/M-2l – Evaluation of Fosmidomycin as a Chemotherapeutic Agent to Treat Eastern Oysters, *Crassostrea virginica*, Infected by *Perkinsus marinus*: A Potential Cure for Dermo Disease”Andrew Mount (Clemson University)

P/M-2m – Maintaining a S.C. Sea Grant Marine Education Program”Jennifer Jolly-Clair (College of Charleston)

Marine Education and Training

Graduate and Undergraduate Students Supported by S.C. Sea Grant Consortium Activities

Students Supported – Core Sea Grant Projects

Project #	Name	Institution	Degree
R/CE-3	M. Sutt	CU	M.S. Civil Engineering
R/CE-4	Shiraj Bhinderwala	CU	M.S. Civil Engineering
	A. Isom	CU	M.S. Civil Engineering
R/CE-5	Jiamou Chen	USC	Ph.D. Geological Sciences
	Tim Clinkscales	CU	M.S. Civil Engineering
	Fairlight Fehrenbacher	Georgia Tech	M.S. Civil/Environ. Eng.
	Susan Monroy	CU	M.S. Civil Engineering
	Shams Riffat	CU	M.S. Civil Engineering
	W. Rogers	CU	M.S. Civil Engineering
	Yukong Zhang	CU	M.S. Civil Engineering
R/CE-6	Amanda Blackwell	CU	B.S. Civil Engineering
	Martin Bowen	CU	B.S. Civil Engineering
	Anne Cope	CU	M.S. Civil Engineering
	Adam D'Alessandro	CU	B.S. Civil Engineering
	Bryan Dick	CU	B.S. Civil Engineering
	Alvin Galloway	CU	B.S. Civil Engineering
	Cos Gardner	CU	B.S. Civil Engineering
	Steven Hardee	CU	B.S. Civil Engineering
	Christian Horton	CU	B.S. Civil Engineering
	Viet Huynh	CU	B.S. Civil Engineering
	Jonathan Lamb	CU	B.S. Civil Engineering
	Tara Pagano	CU	B.S. Civil Engineering
	Warren Rholoff	CU	B.S. Civil Engineering
	Mary K. Phillips	CU	M.S. Civil Engineering
	William DeLoach	CU	M.S. Civil Engineering
	Charles Atkins	CU	M.S. Civil Engineering
	Deepa Kulkarni	CU	M.S. Civil Engineering
	Matt McCann	CU	M.S. Civil Engineering
	Jeff Sciandone	CU	M.S. Civil Engineering
	Edward Sutt	CU	M.S. Civil Engineering
R/ER-10	Joanie Fleniken	Math & Science Magnet High School	
	Rachel Giotta	CofC	M.S. Marine Biology
	Mary Jo Hartman	USC	Ph.D. Marine Science
	Mark Thompson	CofC	M.S. Marine Biology
R/ER-16	Jacoby Davis	The Citadel	B.S. Biology
	Luke Hardison	The Citadel	B.S. Biology
	David Van Houten	The Citadel	B.S. Biology
	Ryan Parker	The Citadel	B.S. Biology
	Timothy Stanley	The Citadel	B.S. Biology
	Paul Bradley	USC	Ph.D. Marine Science
	Xiao Huang	USC	Ph.D. Biology
	Shepard MacInnich	USC	B.S. Biology
	P. Sundareshwar	USC	Ph.D. Biology
	Michelle Alford	USC	M.S. Public Health

	Purwasto Saroprayogi	USC	M.S. Earth and Environ. Resource Mgmt.
	Bryan Olson	USC	B.S. Marine Sciences
	Jay Kalahashty	USC	M.S. Computer Science
R/ER-18	Joseph Griffitt	USC	M.S. Marine Science
R/ER-19	Jennifer Hoguet	CofC	M.S. Marine Biology
	Michel Gielazyn	USC	Ph.D. Marine Biology
R/ER-20	Jay Kalahashty	USC	M.S. Computer Science
	Paul Bradley	USC	M.S. Marine Science
	Xiao Huang	USC	Ph.D. Ecology
	Shepard Macinnich	USC	B.S. Biology
	Megan McKnight	USC	M.S. Earth and Environ. Resource Mgmt.
	Purwasto Saroprayogi	USC	M.S. Earth and Environ. Resource Mgmt.
R/ER-21	Tawnya Cary	USC	M.S. Biology
R/ER-22	Todd Cowan	USC	M.S. Biology
	Chris Hintz	USC	Ph.D. Marine Science
	Steven Johnson	USC	M.S. Biology
R/ER-23	Sarah Boatrite	CofC	B.A. Communications
	Brian Shiels	USC	B.S. Chemistry
	Beth Simmons	CofC	B.A. Political Science
R/MT-2	Thomas Lockwood	USC	M.S. Biology
	O. Lazar	USC	M.S. Biology
R/MT-3	Thomas Lockwood	USC	M.S. Biology
	Jiangie Sun	USC	M.S. Biology
	Melissa Hamilton	USC	B.S. Biology
R/MT-4	S. Gallapudi	USC	Ph.D. Biology
	Jiange Sun	USC	M.S. Biology
	Shanon Mount	USC	B.S. Biology
	Brooke Gay	USC	B.S. Biology
R/MT-5	CJ Anderson	USC	Ph.D. Biology
	Rosemary Bennetts	USC	Biology
	William Jones	USC	Marine Science
	KJ Oswald	USC	Ph.D. Biology
R/MT-6	Ann Chen	MUSC	Ph.D. Biochemistry
	Adrian Grimes	MUSC	Ph.D. Biochemistry
	Javier Robalino	MUSC	Ph.D. Biometry
	Cynthia Tallant	CU	B.S. Biology
	Jerel Tyler	CofC	B.S. Biology
R/A-30	Lisa Carter	CofC	B.S. Biology
R/A-30	Heidi Atwood	CU	B.S. Toxicology
	Robert Grant	Charleston	M.S. Marine Biology
R/A-31	Dan Ash	CU	M.S. Aquaculture, Fisheries and Wildlife
	Lisa Carter	CofC	M.S. Marine Biology
	John Clark	CofC	B.S. Biology
	Paul Fleming	CofC	B.S. Biology
	Ben Hall	CofC	M.S. Marine Biology
	Carol Seals	CU	M.S. Aquaculture, Fisheries, and Wildlife
	Sarah Tavora	CofC	M.S. Marine Biology
	Mark Vandersea	CofC	B.S. Biology
R/A-32	Jennifer Beseres	USC	M.S. Marine Science
	Johnathon Cowart	USC	M.S. Marine Science
	Teresa McTigue	USC	M.S. Marine Biology

	Amber Shemetek	USC	M.S. Marine Science
	Jessica Stephen	USC	M.S. Marine Science
	Gregory Zagursky	USC	Ph.D. Biology
R/A-33	Jennifer Clark	U of Florida	B.S. Agricultural Economics
	Will Dillsaver	Oklahoma State	B.S. Wildlife Sciences
	Marina Nimrod	Savannah State	B.S. Marine Sciences
R/SE-1	Dan Ash	CU	M.S. Aquaculture, Fisheries and Wildlife
	Lisa Carter	CofC	M.S. Marine Biology
	John Clark	CofC	B.S. Biology
	Paul Fleming	CofC	B.S. Biology
	Ben Hall	CofC	M.S. Marine Biology
	Carol Seals	CU	M.S. Aquaculture, Fisheries and Wildlife
	Sarah Tavora	CofC	M.S. Marine Biology
	Mark Vandersea	CofC	B.S. Biology
E/O-15	Jennifer Jolly	CofC	M.Ed. Science and Math
	Megan Shropshire	CofC	M.Ed. Science and Math
	Kim Owens	CofC	M.Ed. Science and Math
E/O-16	Stephen Schabel	CofC	M.S. Environmental Studies

Students Supported - National Competitions and Extramural Projects

Project #	Name	Institution	Degree
R/MB-1	Nikki Maples	UT	M.S. Biology
	Janis Peterson	CU	M.S. Environmental Engineering
R/MB-2	Elizabeth Fisher	USF	M.S. Biological Oceanography
R/COP-7	Tarek Aziz	USC	Ph.D.
	Jen Coor	CCU	B.S. Marine Science
	Sarah Fischer	UGA	B.S. Marine Sciences
	Jeff Kauffman	USC	M.S. Earth/Environmental Resource Management
	Rosalynn Lee	UGA	Ph.D. Marine Sciences
	Frank Nemeth	USC	M.S. Environ. Health Sciences
	Anika Mahoney	UGA	B.S. Marine Sciences
	Trent McKenzie	USC	M.S. Civil/Env. Engineering
	Bill Porubsky	UGA	Ph.D. Marine Sciences
	Sam Sibley	GA Tech	M.S. Earth and Atmospheric Sciences
	Liliana Velasquez	UGA	M.S. Marine Sciences
	Yongchen Wang	Georgia	Ph.D. Marine Science
	Nathaniel Weston	UGA	Ph.D. Marine Science
	Bobbie Wright	USC	Ph.D.
	Aleck Zwang	Georgia	Ph.D. Marine Sciences
R/GS-2	Matt Starr	CCU	B.S. Marine Science
	Bob Pender	CCU	B.S. Marine Science
	Jamie Phillips	CCU	B.S. Marine Science
	Katie Moses	CCU	B.S. Marine Science
	Kristen Headley	CCU	B.S. Marine Science
	Ty Hesser	CCU	B.S. Marine Science
	Benjamin Gutierrez	USC	Ph.D. Geological Sciences

Huseyn Demir	Georgia Tech	Ph.D. Civil/Env. Engineering
Jennifer Kuykendall	CCU	B.S. Marine Science
Kathleen Moses	CCU	B.S. Marine Science
Shelley Poteet	CCU	B.S. Marine Science
Heather Young	CCU	B.S. Marine Science
Jennifer Schertzer	CCU	B.S. Marine Science
Meghan Willis	CCU	B.S. Marine Science
Dany Pase	CCU	B.S. Marine Science
Jason Ferrante	CCU	B.S. Marine Science
Ryan Day	CCU	B.S. Marine Science
Brandon Kramer	CCU	B.S. Marine Science
Kyle Kelso	CofC	B.S. Geology
Tom Putney	CofC	M.S. Environmental Studies
Anna Austin	GSU	B.A. Geology
Peter Dolan	GSU	M.S. Biology
Kresha Jones	GSU	B.A. Geology
Chester Jackson	UNC-W	M.S. Geology
Crystal Wilson	State U.-W. Ga.	B.S. Geology
Jaime Gibson	State U.-W. Ga.	B.S. Geology
Stephen Barrett	State U.-W. Ga.	B.S. Environmental Studies

Students Supported – Program Development Projects

1999-2000

Project #	Name	Institution	Degree
P/M-2d	Joanie Flenniken	Math & Science Magnet High School	
	Rachel Giotta	CofC	M.S. Marine Biology
	Mary Jo Hartman	USC	Ph.D. Marine Science
	Mark Thompson	CofC	M.S. Marine Biology
P/M-2i	Sarah Boatrite	CofC	B.A. Communications
	Beth Simmons	CofC	B.A. Political Science
P/M-2m	Zhigang Huang	CU	Ph.D. Civil Engineering
P/M-2o	Nikki Maples	CU	Ph.D. Environmental Toxicology
P/M-2t	Theresa Vance	MUSC	Ph.D. Marine Biomedicine and Environmental Sciences

2000-2001

Project #	Name	Institution	Degree
P/M-2a	Joanie Flenniken	Math & Science Magnet High School	
	Rachel Giotta	CofC	M.S. Marine Biology
	Mary Jo Hartman	USC	Ph.D. Marine Science
	Mark Thompson	CofC	M.S. Marine Biology
P/M-2b	Christina Bird	Duke	M.S. Environmental Management
	Diana Alford	CU	M.S. Chemical Eng.
	Kevin McCarthy	CU	Ph.D. Biology
	Mary Beth Johnstone	CU	Ph.D. Biology

	Munir Kort	CU	M.S. Chemical Eng.
	Jorig Mosig	CU	M.S. Chemical Eng.
	Jody Myers	CU	Ph. D. Biology
	Kurt Rusenko	CU	Ph. D. Biology
	Debbie Swift	CU	Ph. D Biology
P/M-2f	David Burdick	CofC	M.S. Environmental Studies
P/M-2i	Cynthia Tallant	CU	B.S. Biology
	Jerel Tyler	CofC	B.S. Biology
P/M-2l	Gabriella Jackson	USC	Ph.D. Biology

2001-2002

Project #	Name	Institution	Degree
P/M-2f	Mary Beth Abel	CofC	B.S. Biology
	Christopher Bain	CofC	B.S. Biology
	Paul Pennington	CofC	B.S. Biology
	Neville Yoon	CofC	B.S. Biology
P/M-2g	Christina Bird	Duke	M.S. Environmental Management
P/M-2i	Cynthia Tallant	CU	B.S. Biology
	Jerel Tyler	CofC	B.S. Biology
P/M-2j	Luke Baxley	Citadel	B.S. Biology
	David DeLoach	Citadel	B.S. Biology
P/M-2n	Luke Baxley	Citadel	B.S. Biology
	David DeLoach	Citadel	B.S. Biology
P/M-2p	Zac Hart	CofC	M.S. Environmental Studies
P/M-2s	R.L. Estep	CofC	M.S. Marine Biology

2002-2003

Project #	Name	Institution	Degree
P/M-2e	Christina Bird	Duke	M.S. Environmental Mgmt.
P/M-2n	Luke Baxley	Citadel	B.S. Biology
	David DeLoach	Citadel	B.S. Biology
P/M-2p	Zachary Hart	CofC	M.S. Environmental Studies
P/M-2u	Jennifer Emblidge	CofC	M.S. Marine Biology
P/M-2y	Charles Lee	CU	M.S. Tourism Management

Conferences, Workshops and Seminars Sponsored or Co-sponsored by the S.C. Sea Grant Consortium

Sponsored or Co-sponsored Conferences

Coastal Ocean Processes

Assateague Shelf and Shore Workshop

April 7-8, 2000 - Conway, South Carolina

Partners: Coastal Carolina University (lead); S.C. Sea Grant Consortium

6th International Conference on Remote Sensing for Marine and Coastal Environments

May 1-3, 2000 - Charleston, South Carolina

Partners: NOAA Coastal Services Center (lead); S.C. Sea Grant Consortium; NOAA National Environmental Satellite, Data, and Information Service; Veridian ERIM International; Environment Canada; Texaco Exploration and Production, Inc.

Southeast Coastal Ocean Science Conference and Workshop

January 27-31, 2003 - Charleston, South Carolina

Partners (co-leads): S.C. Sea Grant Consortium; NOAA Coastal Services Center; College of Charleston

Ecosystem Dynamics

Aquatic Nuisance Species: A Focus on the Southeast

October 12-14, 1999 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium (lead); N.C. Sea Grant; Louisiana Sea Grant; S.C. Department of Natural Resources; U.S. Army Corp of Engineers; U.S. Fish and Wildlife Service; Tennessee Valley Authority; U.S. Geological Survey; Florida Department of Environmental Protection; N.C. Division of Water Resources

Coastal Mosquito Abatement Conference

June 28, 2001 - Charleston, South Carolina

Partners: Mosquito Abatement Programs, Beaufort, Charleston, and Georgetown counties (lead); S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources; S.C. Department of Pesticide Regulation; S.C. Clam Farmers Association

Technical Forum and Workshop: *Phragmites australis*: A Sheep in Wolf's Clothing

January 6-9, 2002 - Vineland, New Jersey

Partners: New Jersey Sea Grant (lead); S.C. Sea Grant Consortium; Maine Sea Grant; Connecticut Sea Grant; New Hampshire Sea Grant; Rhode Island Sea Grant; Delaware Sea Grant; Mississippi-Alabama Sea Grant; National Sea Grant Office; Cumberland County College; Hudsonia Ltd.; Maryland Department of the Environment; New Jersey Water

Resources Research Institute; National Park Service; NOAA National Ocean Service, Restoration Center; Society of Wetland Scientists, Mid-Atlantic Chapter

Restore America's Estuaries

April 13-16, 2003 - Baltimore, Maryland

Partners: Restore America's Estuaries (lead); S.C. Sea Grant Consortium; U.S. Army Corps of Engineers; U.S. Department of Agriculture, U.S. Environmental Protection Agency, National Estuary Program; U.S. Fish and Wildlife Service, Coastal Program; National Oceanic and Atmospheric Administration; The Cooperative Institute for Coastal and Estuarine Environmental Technology; U.S. Geological Survey; American Littoral Society; American Oceans Campaign; Chesapeake Bay Foundation; Coastal States Organization; Galveston Bay Foundation; Estuarine Research Foundation

S.C. Aquatic Plant Management Society Conference

August 13-15, 2003 - Moncks Corner, South Carolina

Partners: S.C. Aquatic Plant Management Council (lead); S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management and Environmental Quality Control; S.C. Department of Agriculture; Santee Cooper; Cerexagri Corporation; Future Horizons; Brewer International; BASF Inc.; Cygnet Enterprises; Palmetto Aquatic Plant Management; Helena Chemical Company; Applied Biochemists Inc.; Timberland Enterprises; Aquatic Vegetation Control Inc.; Syngenta Corporation; Dow Agrosiences; Naturchem Inc.

National Estuarine Research Reserve Association Annual Meeting

October 25-30, 2003 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve

Emerging Technologies

Evolutionary Immunobiology: New Approaches, New Paradigms Workshop

February 23-25, 2002 - Charleston, South Carolina

Partners: Medical University of South Carolina, Marine Biomedicine and Environmental Sciences (lead); S.C. Sea Grant Consortium; Massachusetts Sea Grant; Hawaii Sea Grant; South Carolina Aquarium; The National Science Foundation; Charles River Endosafe

Marine Aquaculture and Fisheries

National Shellfisheries Association Meeting

March 19-23, 2000 - Seattle, Washington

Partners: National Shellfisheries Association (lead); S.C. Sea Grant Consortium; National Aquaculture Association; U.S. Shrimp Farming Association; Aquaculture Engineering

Society; Western Regional Aquaculture Center; Washington Fish Growers Association; Alaska Shellfish Growers Association; 15 Sea Grant College Programs

3rd International Conference on Molluscan Shellfish Safety

June 19-23, 2000 - Southampton, New York

Partners: National Shellfisheries Association (lead); S.C. Sea Grant Consortium; New York Sea Grant; Connecticut Sea Grant; Maine Sea Grant; Rhode Island Sea Grant; Virginia Sea Grant; Florida Sea Grant; Louisiana Sea Grant; National Sea Grant College Program; Marine Institute; Great Eastern Mussels; United Nations Educational, Scientific, and Cultural Organization

East Coast Live: The Business of Marketing Live Aquatic Products 2000

November 1-4, 2000 - Annapolis, Maryland

Partners: Maryland Sea Grant (lead); S.C. Sea Grant Consortium; Delaware Sea Grant; Northeastern Regional Aquaculture Center; Aquaculture in the Mid-Atlantic; Maryland Department of Aquaculture

4th International Conference on Shellfish Restoration

November 15–18, 2000 - Hilton Head Island, South Carolina

Partners: S.C. Sea Grant Consortium (lead); Maine Sea Grant; New York Sea Grant; New Jersey Sea Grant; New Hampshire Sea Grant; Delaware Sea Grant; WHOI Sea Grant; Maryland Sea Grant; Virginia Sea Grant; Florida Sea Grant; Mississippi-Alabama Sea Grant; Oregon Sea Grant; California Sea Grant; NOAA National Marine Fisheries Service; NOAA National Ocean Service, Center for Coastal Environmental Health and Biomolecular Research; NOAA Coastal Services Center; NOAA Sea Grant Oyster Disease Research Program; Department of Fisheries and Oceans, Canada; Environment Canada; Interstate Shellfish Sanitation Conference

International Open Ocean Aqua IV Symposium

June 17-20, 2001 - St. Andrews, New Brunswick, Canada

Partners: Massachusetts Institute of Technology (lead); S.C. Sea Grant Consortium; Mississippi-Alabama Sea Grant; Texas Sea Grant; Hawaii Sea Grant; Centre for Aquaculture and Seafood Development; Department of Fisheries and Oceans, Canada

South Carolina Aquaculture Association Conference

November 15, 2001 - Columbia, South Carolina

Partners: S.C. Aquaculture Association (lead); S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources; S.C. Department of Agriculture

Eastern United States Interstate Shellfish Seed Transport Workshop

February 21-22, 2002 - Charleston, South Carolina

Partners: S.C. Department of Natural Resources (lead); S.C. Sea Grant Consortium; WHOI Sea Grant; New Jersey Sea Grant; Virginia Sea Grant; North Carolina Sea Grant; Florida Sea Grant; NOAA National Ocean Service, Center for Coastal Environmental Health and Biomolecular Research; S.C. Aquaculture Association, S.C. Shellfish Association

National Urban Aquaculture Symposium

November 16, 2002 - New York, New York

Partners: New York Sea Grant (co-lead); Rhode Island Sea Grant (co-lead); S.C. Sea Grant Consortium

6th International Conference on Shellfish Restoration

November 20-24, 2002 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium (lead); Maine Sea Grant; New York Sea Grant; MIT Sea Grant; WHOI Sea Grant; Connecticut Sea Grant; Rhode Island Sea Grant; Delaware Sea Grant; Maryland Sea Grant; Virginia Sea Grant; North Carolina Sea Grant; Florida Sea Grant; NOAA, NMFS Restoration Center; NOAA/Sea Grant Oyster Disease Research Program; NOAA Coastal Services Center; NOAA National Ocean Service, Center for Coastal Environmental Health and Biomolecular Research; Environment Canada; Department of Fisheries and Oceans, Canada; Interstate Shellfish Sanitation Conference

South Carolina Aquaculture Association Conference

January 15, 2003 - Columbia, South Carolina

Partners: S.C. Aquaculture Association (lead); S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources; S.C. Department of Agriculture

14th International Pectinid Workshop

April 23-29, 2003 - St. Petersburg, Florida

Partners: Florida Sea Grant; University of Florida; University of South Florida, College of Marine Science; Florida Department of Agriculture; S.C. Sea Grant Consortium; National Sea Grant College Program; Maine Sea Grant; New York Sea Grant; Connecticut Sea Grant; Rhode Island Sea Grant; WHOI Sea Grant; Virginia Sea Grant; N.C. Sea Grant; Southeastern Fisheries Association; FBL Development; Aqua Sun Properties; Pinellas County Environmental Foundation

South Carolina Aquaculture Association Conference

February 5, 2004 - Columbia, South Carolina

Partners: S.C. Aquaculture Association (lead); S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources; S.C. Department of Agriculture

Marine Ornaments '04

March 1-5, 2004 - Honolulu, Hawaii

Partners: Hawaii Aquaculture Development Program (co-lead); Center for Tropical and Subtropical Aquaculture (co-lead); Hawaii Sea Grant; S.C. Sea Grant Consortium; New York Sea Grant; Virginia Sea Grant; North Carolina Sea Grant; Florida Sea Grant; Texas Sea Grant; Oregon Sea Grant; National Sea Grant College Program

Coastal Communities and Economies

Southeastern Marine Industry Conference & EXPO

December 11-13, 2001 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium (lead); Virginia Institute of Marine Science

NEMO University II Conference

January 28-30, 2002 - Charleston, South Carolina

Partners: University of Connecticut Cooperative Extension Service (co-lead); S.C. Sea Grant Consortium (co-lead); NOAA Coastal Services Center (co-lead)

Southeastern Marine Industry Conference & EXPO

November 10-12, 2002 - Norfolk, Virginia

Partners: Virginia Association of Marine Industries (lead); S.C. Sea Grant Consortium; Virginia Sea Grant; Virginia Tidewater Marine Trade Association; NC Waterways; South Carolina Marine Industry Association

The South Carolina Low Impact Development Conference

October 22-23, 2003 - Columbia, South Carolina

Partners: S.C. Sustainable Universities Initiative (lead); S.C. Sea Grant Consortium; Clemson University; University of South Carolina, School of the Environment; S.C. Department of Health and Environmental Control, Bureau of Water and Office of Ocean and Coastal Resource Management; S.C. Chapter of the Soil and Water Conservation Society; S.C. Department of Natural Resources; Upstate Forever; U.S. Department of Agriculture, Natural Resources Conservation Service

Marine Education and Training

S.C. Marine Educators Association

March 14-16, 2003 - Myrtle Beach, South Carolina

Partners: S.C. Marine Educators Association (lead); S.C. Sea Grant Consortium; University of South Carolina, Center for Science Education and College of Science and Math; Coastal Carolina University; Ripley's Aquarium; County Park and Recreation Commission

S.C. Marine Educators Association

March 19-21, 2004 - Ridgeland, South Carolina

Partners: S.C. Marine Educators Association (lead); S.C. Sea Grant Consortium; LowCountry Institute; University of South Carolina, Center for Science Education; S.C. Department of Natural Resources; Palm Key Resort; Spring Island Trust; Town of Ridgeland; Jasper Soil and Water Conservation District; Waste Management, Inc.

Sponsored or Co-Sponsored Workshops

Coastal Ocean Processes

Remote Sensing of Intertidal Shellfish Habitats

June 27-28, 2003 - Georgetown, South Carolina

Partners: S.C. Sea Grant Consortium; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; S.C. Department of Natural Resources, Marine Resources Division

Ecosystem Dynamics

Aquatic Pesticide Training Workshop

May 18, 1999 - Conway, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources

Aquatic Plant Management In-Service Training

June 22, 1999 - Columbia, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources

Assessing the Health of South Carolina's Coast-Part 1

December 8, 2000 - Georgetown, South Carolina

Partners: S.C. Sea Grant Consortium; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; S.C. Department of Natural Resources; University of South Carolina; University of Maryland

Assessing the Health of South Carolina's Coast-Part 2

May 3, 2001 - Georgetown, South Carolina

Partners: S.C. Sea Grant Consortium; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; S.C. Department of Natural Resources; University of South Carolina; University of Maryland

Successful Pond Management: Timely Information and New Research

December 7, 2001 - Georgetown, South Carolina

Partners: S.C. Sea Grant Consortium; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; University of South Carolina; DDC Engineering; Davis & Floyd Engineering

**Land Use-Coastal Ecosystem Study/Beaufort Special Area Management Plan
Presentation and Reception**

June 26, 2002 - Spring Island, South Carolina

Partners: S.C. Sea Grant Consortium; NOAA, Coastal Ocean Program; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; The LowCountry Institute (host)

South Carolina Harmful Algal Bloom Workshop

July 18, 2002 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; NOAA National Ocean Service, Center for Coastal Environmental Health and Biomolecular Research; S.C. Department of Natural Resources; University of South Carolina, Belle W. Baruch Institute; S.C. Department of Health and Environmental Control

Commercial Aquatic Applicators In-service Training

February 27, 2003 - Conway, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Pesticide Regulation

Aquatic Estuarine Invasive Species in South Carolina

June 24, 2003 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Natural Resources; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; University of South Carolina

ACE Basin NERR Coastal Training Program Workshop

November 6, 2003 - Edisto Island, South Carolina

Partners: S.C. Sea Grant Consortium; Clemson University Cooperative Extension; ACE Basin National Estuarine Research Reserve; S.C. Department of Natural Resources, Marine Resources Division; NOAA, Coastal Services Center; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management

Coastal Natural Hazards

Saving Money, Saving Homes: Hurricane-Resistant Retrofit Techniques for Residential Construction

February 4, 2000 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service

Mitigation Expo '00

2000 - A series of workshops at four Home Depot locations in Charleston and Beaufort counties

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; Federal Emergency Management Agency; Home Depot

Hazard Resistant Housing In-Service Training

May 16, 2000 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service

Coastal Hazards Continuing Education Course

June 8, 2001 - Greenville, South Carolina

October 16, 2001 - Columbia, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Real Estate Commission

Homeowner Training Class

June 20, 2001 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; Clemson University Cooperative Extension Service; Charleston Habitat for Humanity

Hurricane Workshops: Retrofit of an Existing House to Minimize Damage

August 7, 2001 - Savannah, Georgia

August 8, 2001 - Brunswick, Georgia

Partners: S.C. Sea Grant Consortium; Clemson University Cooperative Extension Service; Georgia Sea Grant

Coastal Erosion Study Workshops

October 11, 2001 - Savannah, Georgia

October 18, 2001 - Myrtle Beach, South Carolina

Partners: S.C. Sea Grant Consortium; Coastal Carolina University; College of Charleston; Clemson University; U.S. Geological Survey; Skidaway Institute of Oceanography; Ripley's Aquarium

Coastal Hazard Issues, Mitigation and Resources in South Carolina

February 21, 2002 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve; NOAA Coastal Services Center

Coastal Erosion Study Briefing

September 26, 2003 - South Carolina, offshore aboard NOAA research vessel *Nancy Brown*

Partners: S.C. Sea Grant Consortium; U.S. Geological Survey; Coastal Carolina University; National Oceanic and Atmospheric Administration (host)

Coastal Erosion Study Public Workshop

February 25, 2004 - Conway, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Coastal Carolina University; U.S. Geological Survey

Coastal Communities and Economies

Coast-A-Syst Workshops

April 12, 2000 - Atlanta, Georgia

November 6, 2000 - Mt. Pleasant, South Carolina

November 9, 2000 - Georgetown, South Carolina

February 28, 2001 - Myrtle Beach, South Carolina

March 7, 2001 - Columbia, South Carolina

May 12, 2001 - St. Helena Island, South Carolina

July 19, 2001 - Cleveland, Ohio

October 6, 2001 - Bluffton, South Carolina

April 11, 2002 - Charleston, South Carolina

September 17, 2002 - Edisto Beach, South Carolina

October 24, 2002 - Bluffton, South Carolina

November 10, 2002 - Hilton Head, South Carolina

February 5, 2003 - Isle of Palms, South Carolina

March 5, 2003 - Summerville, South Carolina

Partners: S.C. Sea Grant Extension Program; Clemson University; Clemson Cooperative Extension Service; S.C. Department of Health and Environmental Control; The LowCountry Institute; The Friends of the Rivers

Nonpoint Education for Municipal Officials Workshops

(Waccamaw Watershed [Pilot] Project)

June 28, 1999 - Georgetown, South Carolina

June 19, 2000 - Myrtle Beach, South Carolina

September 20, 2001 - Conway, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; Waccamaw Regional Council of Governments

Nonpoint Education for Municipal Officials Workshops

(S.C. Statewide Project [Catawba, Pee Dee, Saluda, Seneca Watersheds])

April 3, 2001 - Florence, South Carolina

April 12, 2001 - Darlington, South Carolina

May 22, 2001 - Dillon, South Carolina

June 19, 2001 - Bennettsville, South Carolina

June 20, 2001 - Chesterfield, South Carolina

February 7, 2002 - Walhalla, South Carolina

March 26, 2002 - Clemson, South Carolina

March 27, 2002 - Anderson, South Carolina

August 20, 2002 - Laurens, South Carolina

August 21, 2002 - Greenville, South Carolina
August 27, 2002 - Abbeville, South Carolina
August 28, 2002 - Greenwood, South Carolina
December 9, 2002 - Anderson, South Carolina
July 22, 2003 - Lancaster, South Carolina
July 23, 2003 - Rock Hill, South Carolina
July 24, 2003 - Chester, South Carolina
July 28, 2003 - Newberry, South Carolina
July 29, 2003 - Lexington, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; University of South Carolina, Institute for Public Service and Policy Research and Earth Science and Research Institute

**Nonpoint Education for Municipal Officials Workshops
(S.C. Coastal Watershed [Berkeley-Charleston-Dorchester] Project)**

September 24, 2002 - Moncks Corner, South Carolina
October 01, 2002 - Awendaw, South Carolina
October 10, 2002 - Johns Island, South Carolina
October 15, 2002 - St. George, South Carolina
October 29, 2002 - Summerville, South Carolina
May 15, 2003 - Summerville South Carolina
May 16, 2003 - North Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; Berkeley-Charleston-Dorchester Council of Governments; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management

Application of Remote Sensing to Enhance Planning in Coastal Communities

June 16, 2000 - Charleston, South Carolina
Partners: S.C. Sea Grant Consortium; ACE Basin National Estuarine Research Reserve; North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; NOAA Coastal Services Center; Waccamaw Regional Planning and Development Council

Extension Water Quality Education Workshop

November 9, 2000 - Conway, South Carolina
Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; N.C. Sea Grant; N.C. Sea Grant Extension Program; N.C. State University

Successful Extension Coastal Environmental Programs

February 28-March 2, 2001 - Myrtle Beach, South Carolina
Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service

Oyster Restoration Workshop

March 6, 2001 - Pawleys Island, South Carolina

Partners: S.C. Sea Grant Consortium; S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; S.C. Department of Natural Resources; University of South Carolina

Stormwater BMP Academy

March 18-20, 2002 - Gastonia, South Carolina

October 3-4, 2002 - Charleston, South Carolina

Partners: S.C. Sea Grant Extension Program; Clemson University; Clemson Cooperative Extension Service; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; N.C. State University; NOAA Coastal Services Center

GIS Data Availability and Function for Coastal Decision Makers

June 7, 2002 - Charleston, South Carolina

Partners: S.C. Sea Grant Consortium; North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; The LowCountry Institute

Stormwater Phase II: Positioning Extension to Take the Lead Training Conference

November 14-15, 2002 - Wilmington, North Carolina

Partners: S.C. Sea Grant Extension Program; Clemson University Cooperative Extension Service; Clemson University; N.C. State University; N.C. Sea Grant; University of Georgia

The Ashley Scenic River Management Plan Public Presentation

April 24, 2003 - Summerville, South Carolina

Partners: S.C. Department of Natural Resources - Land, Water, and Conservation Division; S.C. Sea Grant Consortium; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; Lowcountry Open Land Trust; Berkeley-Charleston-Dorchester Council of Governments; Summerville Commission of Public Works; S.C. Department of Parks, Recreation, and Tourism; National Trust for Historic Preservation; Charleston Natural History Society; Historic Charleston Foundation; Design Works; MeadWestvaco Corporation; Ashley River Conservation Coalition; Ashley River landowners

South Carolina Clear Water Contractor Sediment and Erosion Control Training

May 28, 2003 - Summerville, South Carolina

Partners: S.C. Sea Grant Extension Program; Clemson Cooperative Extension Service; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; Dorchester Public Works; Town of Summerville

S.C. NEMO Natural Resource Based Planning Workshop for Bluffton and Beaufort County

October 7, 2003 - Bluffton, South Carolina

Partners: S.C. Sea Grant Consortium; The LowCountry Institute; The Friends of the Rivers

The Ashley Scenic River Management Plan Conservation and Land Use Strategies Workshop for Ashley River Landowners

November 6, 2003 - Charleston, South Carolina

Partners: Ashley River Advisory Council, Conservation & Land Use Management Subcommittee; S.C. Department of Natural Resources - Land, Water, and Conservation Division; S.C. Sea Grant Consortium; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; Lowcountry Open Land Trust; Design Works, Inc.; S.C. Department of Parks, Recreation, and Tourism; Ashley River Conservation Coalition

Coastal Development and Watershed Planning: Collaborative Problem Solving to Protect Water Resources

November 20, 2003 - Conway, South Carolina

Partners: S.C. Sea Grant Consortium; Coastal Carolina University (host); North Inlet-Winyah Bay National Estuarine Research Reserve; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management; S.C. Coastal Conservation League

Septic System Inspector Training Workshops

March 25-26, 2003 - Charleston, South Carolina

April 16-17, 2003 - Conway, South Carolina

April 22-23, 2003 - Beaufort, South Carolina

Partners: S.C. Sea Grant Extension Program; Clemson Cooperative Extension Service; S.C. Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management and Division of Onsite Wastewater Management

Marine Education and Training

Multicultural Pathways to Ocean Sciences Education

May 21-23, 2003 - Charleston, South Carolina

Partners: SouthEast Center for Ocean Sciences Education Excellence (lead); S.C. Sea Grant Consortium; NOAA Coastal Services Center; College of Charleston Avery Research Center for African American History and Culture

Ocean Sciences Education Leadership Institute

June 22-27, 2003 - Wilmington, North Carolina

Partners: SouthEast Center for Ocean Sciences Education Excellence (lead); S.C. Sea Grant Consortium; University of North Carolina-Wilmington

Coastal Ocean Observing Systems and Education

March 22-24, 2004 - Charleston, South Carolina

Partners: SouthEast Center for Ocean Sciences Education Excellence; S.C. Sea Grant Consortium; NOAA Coastal Services Center; OceanUS

Media Releases and Placements

News Releases (84 releases)

- 3/99, “S.C. Knauss Fellows”
- 3/99, “Sawyer is new extension specialist”
- 3/99, “DeVoe elected President-elect of SGA”
- 4/99, “Peg Alford hired as new communicator”
- 5/99, “Researchers Find Inexpensive Techniques to Fight Hurricane Winds”
- 5/99, “The 113 Calhoun Street Foundation Receives 1999 John R. Sheaffer Award for Excellence in Floodproofing”
- 6/99, “New program for community decision makers, NEMO”
- 8/99, “Beach Sweep/River Sweep”
- 8/99, “S.C. Sea Grant hires new employees”
- 8/99, “Monitoring on coastal homes to provide hurricane data”
- 9/99, “Beach Sweep/River Sweep announces new Sweep date”
- 10/99, “1999 S.C. Environmental Awareness Awards announced”
- 12/99, “Shrimp Mystery Explored”
- 12/99, “S.C. Grant Consortium Board of Directors to meet”
- 2/00, “Oyster shell research leads to fertilizer enhancer”
- 2/00, “Davis elected chair”
- 2/00, “New red tide discovered”
- 2/00, “Tiny creatures find South Carolina more than a nice place to visit”
- 3/00, “Building Safety Week: April 2-8, 2000”
- 4/00, “The Sustainable Boat Program benefits South Carolina waters”
- 4/00, “Thanks to Sweep volunteers”
- 7/00, “S.C. Sea Grant hires administrative specialist”
- 11/00, “International Shellfish Conference set for Nov. 18-15, 2000”
- 11/00, “Minority students to receive internship aid”
- 11/00, “S.C. Sea Grant Consortium holds board meeting”
- 1/01, “South Carolina Sea Grant Consortium hires two new staff”
- 1/01, “Knight selected for Leadership South Carolina”
- 1/01, “And the sea will grant each man new hope”
- 1/01, “Davis re-elected S.C. Sea Grant Consortium board chair”
- 1/01, “Charleston community receives two national honors”
- 1/01, “USC student wins Sea Grant fellowship”
- 4/01, “Volunteering for Beach Sweep”
- 6/01, “Two New Hires at S.C. Sea Grant Consortium”
- 6/01, “*Coastal Heritage* Wins Notable State Document Award”
- 8/01, “Beach Sweep/River Sweep Fact Sheet”
- 8/01, “Beach Sweep/River Sweep Call Fact Sheet”
- 8/01, “New video series helps homeowners hold on to their roof”
- 9/01, “Beach Sweep/River Sweep Cleanup Scheduled”
- 10/01, “Beach Sweep/River Sweep 2001 Preliminary Results”
- 10/01, “Coastal Erosion Study Workshop”
- 11/01, “Workshops Highlight Coastal Erosion”

- 11/01, “Consortium to hold board of directors meeting”
- 12/01, “S.C. Sea Grant Board of Directors Elects Ingle as Chair”
- 12/01, “H.L. Hunley: Integrating microbiology and underwater archaeology”
- 1/02, “Sea Grant Project to Be Highlighted At Ocean Commission Meeting”
- 1/02, “Sea Grant to Testify Before U.S. Ocean Commission: South Carolina Officials to Explain Benefits of University-Based Partnerships”
- 1/02, “Free publication available on purchasing coastal real estate”
- 1/02, “South Carolina students win Sea Grant fellowship”
- 3/02, “USC student wins Sullivan Science and Engineering Fellowship”
- 4/02, “2002 Beach Sweep/River Sweep calendar listing”
- 4/02, “Hurricane test houses to be chosen on Carolina coast”
- 4/02, “Beach Sweep Thank You, Letter to the Editor”
- 4/02, “South Carolina Sea Grant receives \$1.6 million Federal grant”
- 4/02, “S.C. Sea Grant Hires New Staff Members”
- 5/02, “S.C. Sea Grant Fiscal Manager Receives MBA”
- 5/02, “Sharks in Perspective: From Fear to Fascination”
- 5/02, “6th International Conference on Shellfish Restoration Announcement”
- 6/02, “Hurricane Preparation Publications from S.C. Sea Grant”
- 6/02, “2002 Beach Sweep/River Sweep set for September 21”
- 7/02, “*Coastal Heritage* wins national publication excellence award”
- 8/02, “DeVoe named to national board”
- 9/02, “Beach Sweep/River Sweep Call for Volunteers”
- 9/02, “Volunteers Needed for Beach Sweep/River Sweep”
- 11/02, “6th International Conference on Shellfish Restoration Set for November 20-24, 2002”
- 11/02, “S.C. Sea Grant Board of Directors Meeting Scheduled”
- 12/02, “Ingle Re-Elected as Board Chair of S.C. Sea Grant Consortium”
- 2/03, “New Center to Bridge Gap between Ocean Science Research and Education”
- 4/03, “Beach Sweep calendar”
- 4/03, “Thanks to volunteers”
- 5/03, “What We Do from a Kid’s Point-of-View,”
- 5/03, “DeVoe appointed Sea Grant External Relations Chair”
- 6/03, “S.C. Sea Grant-nominated student wins fellowship”
- 6/03, “Hurricane information from S.C. Sea Grant”
- 6/03, “15th annual Beach Sweep/River Sweep set for September 20”
- 7/03, “*Coastal Heritage* wins National Publication Excellence Award”
- 8/03, “15th Annual Beach Sweep/River Sweep Set for September 20”
- 9/03, “Beach Sweep/River Sweep volunteers still needed and hurricane/rain date set”
- 10/03, “Sea Grant research pays off during Hurricane Isabel”
- 10/03, “DeVoe Appointed to Ocean Observing Board”
- 10/03, “S.C. Sea Grant Consortium employees recognized”
- 11/03, “S.C. NEMO Web site wins award”
- 12/03, Letter to the Editor of the *Island Packet* regarding the shrimp industry and giving credit to Hollings
- 12/03, “S.C. Sea Grant-nominated students awarded fellowships”
- 1/04, “S.C. Sea Grant Board of Directors meeting scheduled”

Media Hits (June 1999 – April 2004)

692 placements due to releases and news items; 351 placements media mentions due to activities.

June 1999 – 1 hit due to media releases and news items

- 6/99, Sea Technology magazine, “Fish Deformities May Be Linked to Inhibitors”

July 1999 – 1 hit due to media releases and news items

- 7/5/99, *Charleston Regional Business Journal*, “113 Calhoun Street Foundation receives award for excellence in floodproofing”

July 1999 – 9 hits mentioning S.C. Sea Grant activities

- 7/99, *Coastal Services* magazine, “Sea Grant Web Site Puts Hazards Information at Your Fingertips”
- 7/1/99, *The Coastal Observer*, “Pollution study shows officials ‘paradise’ will be paved”
- 7/4/99, *The State*, circ. 8,612, “Researchers find ways to fight hurricane winds”
- 7/8/99, *Greenville News*, circ. 123,559, “Clemson wind study ready for hurricane”
- 7/20/99, *Beaufort Gazette*, circ. 12,252, “Alien vegetation invades S.C.”
- 7/21/99, *Messenger* (Clemson), circ. 2,184, “Clemson engineers receive award for rebuilding 125-year old house”
- 7/21/99, *Journal/Tribune*, circ. 8,615, “Clemson engineers receive award for rebuilding 125-year old house”
- 7/23/99, *Sun News*, circ. 43,667, “Report to discuss hurricane damage”
- 7/30/99, *The Chronicle of Higher Education*, “Calculating Havoc: Using Computer Model of Wind Flow, Clemson U. Researchers Hope to Predict Hurricane Paths”

August 1999 – 9 hits due to media releases and news items

- 8/8/99, *Times and Democrat*, circ. 18,197, “Cleaning up the coast”
- 8/15/99, *The Post and Courier*, circ. 109,614, “It’s volunteer time for the 11th annual Beach Sweep/River Sweep”
- 8/25/99, *Newberry Observer*, circ. 6,150, “Our throwaway society – Beach Sweep River Sweep is one way all of us can protect the environment”
- 8/25/99, *Goose Creek Gazette*, circ. 4,500, Article on Beach Sweep River Sweep by Rick DeVoe.
- 8/25/99 Sections of Summer 1998 CH on hurricane history were read on WSC News/Talk 730 radio.
- 8/25/99, John Tibbetts interviewed by South Carolina Public Radio about Summer 1999 *Coastal Heritage* “Storm Front” for news-break-in story.
- 8/31/99, Distributed 8 page 4-color educational insert for Beach Sweep/River Sweep to every daily newspaper in the state.
- 8/99, The Weather Channel, local station, crawl line announcing Beach Sweep/River Sweep.
- 8/31/99, Rick DeVoe was interviewed by public radio host Joan Mack on the show "Conversations" about Beach Sweep/River Sweep.

August 1999 – 2 hits mentioning S.C. Sea Grant activities

- 8/16/99, *Crain's Business Insurance*, "High Technology Brings New Tools to Loss Control"
- 8/30/99, CBS Morning News, S.C. Sea Grant Extension Program's Hazard Mitigation Project featured. Bob Bacon interviewed by reporter Jose Diaz-Balart.

September 1999 – 44 hits due to media releases and news items

- 9/1/99, *News & Reporter*, circ. 6,650, "Litter is more serious than just an eyesore" Beach Sweep/River Sweep article by Rick DeVoe.
- 9/2/99, *Manning Times*, circ. 3,750, "Trash is choking our waterways and oceans" Beach Sweep/River Sweep article by Rick DeVoe.
- 9/2/99, The New Irmo News, "Litter is a threat to many parts of environment" Beach Sweep/River Sweep article by Rick DeVoe.
- 9/2/99, *Channel 5 Midday Show*, Dawn Hammer, Beach Sweep/River Sweep coordinator was interviewed live.
- 9/3/99, *Florence Morning News*, circ. 32,428, "Beach Sweep/River Sweep volunteers needed"
- 9/5/99, *Times and Democrat*, circ. 18,197, "Beach Sweep/River Sweep volunteers needed"
- 9/5/99, *Independent-Mail*, circ. 44,024, "Volunteers needed"
- 9/5/99, *The Post and Courier*, circ. 109,614, "Beach and River Sweep"
- 9/6/99, *Union Daily Times*, circ. 6,697, "Volunteers sought to help clean up area rivers"
- 9/8/99, *Island Packet*, circ 15,105, "Beach Sweep needs more helpers this year"
- 9/8/99, *The Post and Courier*, circ. 109,614, "Dennis, drought leave plenty for Cleanup"
- 9/8/99, *Journal, Inc.*, circ. 5,412, "Beach, river sweep director says thanks"
- 9/8/99, *Lee County Observer*, circ. 4,000, "River sweep volunteers needed"
- 9/8/99, *Keowee Courier*, circ. 2,500, "Fall 'sweep' of Keowee set for September 18-26"
- 9/8/99, *Keowee Courier*, circ. 2,500, "Volunteers for 'River Sweep' being sought"
- 9/8/99, *Allendale County Citizen Leader*, circ. 2,171, "Volunteers sought for cleaning waterways"
- 9/8/99, *People-Sentinel*, circ. 6,492, "Volunteers sought for cleaning waterways"
- 9/8/99, *Hanahan News*, circ. 21,000, "Beach Sweep/River Sweep volunteers needed"
- 9/8/99, *Berkeley Independent*, circ. 10,485, "Swamp Sweep"
- 9/8/99, *Moultrie News*, circ. 11,700, "Beach Sweep/River Sweep volunteers are needed"
- 9/8/99, *Moultrie News*, circ. 11,700, "Beach Sweep slated for IOP"
- 9/9/99, *The Middle Tyger Times*, "River sweep volunteers needed for Middle Tyger River clean-up"
- 9/9/99, *Dispatch-News*, circ. 7,504, "Beach Sweep/River Sweep volunteers needed"
- 9/9/99, *The Journal*, circ, 1,700, "Beach Sweep scheduled for September 18"
- 9/11/99, *The Island Packet*, circ. 13,008, "Volunteers needed for clean-up"

- 9/12/99, *Times and Democrat*, circ. 18,197, “Beach Sweep/River Sweep cleanup to be held Sept. 18”
- 9/12/99, *The State*, circ. 123,559, “Beach Sweep/River Sweep”
- 9/13/99, *The Post and Courier*, circ. 109,614, Article announcing hiring of Miles Phillips and Beth Judge to Sea Grant Extension Program.
- 9/12/99, *Herald-Journal*, circ, 64,450, “Annual River/Beach Sweep”
- 9/13/99, *The Post and Courier*, circ. 109,614, “Sweeping our shores clean”
- 9/13/99, *Chronicle-Independent*, circ. 8,286, “Beach Sweep/River Sweep cleanup on tap Saturday”
- 9/15/99, *The News Journal*, circ. 37,000, “FMU Ecology Club to clean Jeffries Creek Park”
- 9/15/99, *Tribune-Times*, circ. 6,508, “Cleanup scheduled Saturday”
- 9/15/99, *Santee Stripper*, circ. 5,730, “Boat club to hold lake ‘sweep’ Sept. 18”
- 9/15/99, *News-Era*, circ. 2,511, “Volunteers needed for River Sweep”
- 9/15/99, *Beaufort Gazette*, circ. 12,252, “Beach/River Sweep plans up in the air”
- 9/16/99, *The New Irmo News*, “Beach Sweep/River Sweep coming September 18”
- 9/16/99, *Times and Democrat*, “Annual cleanup ”
- 9/16/99, *Northeast News*, circ. 10,000, “Beach Sweep/River Sweep coming”
- 9/16/99, *Myrtle Beach Herald*, circ. 10,000, “Beach Sweep - the solution to pollution!”
- 9/16/99, *North Myrtle Beach Times*, circ. 8,500, “Squad needs volunteers for Beach Sweep”
- 9/16/99, *The New Irmo News*, “Clean-up volunteers sought for Lake Murray project”
- 9/18/99, *The Post and Courier*, circ. 109,614, “Beach Sweep/River Sweep postponed”
- 9/24/99, *Journal-Scene*, circ. 8,500, “Ashley River clean-up scheduled tomorrow”

September 1999 – 10 hits mentioning S.C. Sea Grant activities

- 9/13/99, *Charleston Regional Business Journal*, “Sea Grant research on retrofitted coastal homes will provide hurricane data”
- 9/15/99, *Greenville News*, circ. 97,407, “Sea Grant group works to make buildings safer”
- 9/19/99, *Rick Hill Herald*, circ. 30,534, “Storm Front”, reprint of Summer 1999 *Coastal Heritage*
- 9/19/99, *Times & Democrat*, circ. 18,197, “Storm Front”, reprint of Summer 1999 *Coastal Heritage*
- 9/21/99, *The Post and Courier*, circ. 109,614, “Effort joined to blunt disasters”
- 9/21/99, *The Post and Courier*, circ. 110,833, “Book tells how to build strong homes”
- 9/22/99, *Greenville News*, circ. 97,407, “Clemson helping make hurricane-proof homes”
- 9/30/99, *Beaufort Gazette*, circ. 12,252, “Beach Sweep rescheduled”
- 9/30/99, *The Lake Murray News*, circ. 6,000, “Cleanup of Lake Murray rescheduled after Floyd”
- 9/26/99, *The State*, circ. 123,559, “Clemson researchers glean new information with passing of Floyd”

October 1999 – 14 hits due to media releases and news items

- 10/2/99, *Times and Democrat*, circ. 18,197, “Beach Sweep, River Sweep set for Oct. 16”
- 10/6/99, *Newberry Observer*, circ. 6,150, “Beach /River Sweep Makes a Difference”
- 10/6/99, *Moultrie News*, circ. 11,700, “Beach Sweep rescheduled”
- 10/6/99, *Blacksburg Times*, circ. 1,900, “Beach Sweep, River Sweep volunteers needed”
- 10/6/99, *Cowpens-Pacolet Tribune*, circ. 1,141, “Beach Sweep, River Sweep volunteers needed”
- 10/6/99, *Journal/Tribune*, circ. 8,615, “Fall sweep completed”
- 10/6/99, *Pickens Sentinel*, circ. 6,900, “Ambler students clean up Table Rock during Beach Sweep, River Sweep”
- 10/8/99, *Georgetown Times*, circ. 8,612, “Beach Sweep/River Sweep rescheduled for Oct. 16”
- 10/13/99, *Moultrie News*, circ. 11,700, “Mount Pleasant is doin’ the sweep”
- 10/14/99, *Post & Courier*, circ. 109,614, “Beach/River Sweep”
- 10/15/99, *The Monitor*, circ. 1,420, “Ambler students do ‘beach sweep’ “.
- 10/20/99, *Hanahan News*, circ. 21,000, “Sea Sweeper comes to College Park”
- 10/27/99, *Jasper County Sun & Hardeeville Times*, circ. 3,100, “WHES Young Scholars Clean Up”
- 10/27/99, *Dispatch-News*, circ.7,504, “Volunteers sweep litter from lower Saluda River”

October 1999 – 5 hits mentioning S.C. Sea Grant activities

- 10/10/99, *Post & Courier*, circ. 109,614, “S.C. Environmental Award nominations sought”
- 10/10/99, *Greenville News*, circ. 97,407, “Horry County launches air war on hurricane-spawned mosquitoes”
- 10/24/99, *Island Packet*, circ. 15,105, “State seeking nominations”
- 10/28/99, *Northeast News*, circ. 10,000, “Nominations being sought for SC Environmental Award”
- 10/31/99, *Post & Courier*, circ. 109,614, “S.C. Environmental Award nominations sought”

November 1999 – 23 hits due to media releases and news items

- 11/03/99, *Sun News*, circ. 43,667, “A clean sweep”
- 11/03/99, *Greenville News*, circ. 97,407, “Palmetto Pride Campaign aims to reduce state’s litter problem”
- 11/03/99, *Georgetown Times*, circ. 8,612, “Palmetto Pride: It’s time you get involved in state’s beautification”
- 11/03/99, *Hartsville Messenger*, circ. 6,536, “Governor’s litter task force taking firm stand in South Carolina”
- 11/03/99, *Newberry Observer*, circ. 6,150, “Devote Some of Your Time to Cleaning SC”
- 11/03/99, *Easley Progress*, circ. 10,000, “Litter trashes everyone”
- 11/04/99, *The Cherokee Chronicle*, circ. 5,060, “Litter hurts all of us”

- 11/05/99, *Journal-Scene*, circ. 8,500, “Litter hurts all of us”
- 11/05/99, *Journal-Scene*, circ. 8,500, “Ashley River: Thanks for the clean-up”
- 11/06/99, *Beaufort Gazette*, circ. 12,252, “Show Palmetto Pride, stop litter”
- 11/10/99, *Pickens Sentinel*, circ. 6,900, “Lake Keowee cleaned during Fall Lake Sweep”
- 11/10/99, *Georgetown Times*, circ. 8,612, “Bay Sweep”
- 11/10/99, *Marion Star & Mullins*, circ. 6,479, “Don’t trash your life with litter”
- 11/10/99, *News*, circ. 4,515, “Take pride in South Carolina: Don’t Litter”
- 11/11/99, *Clover Herald*, circ. 2,900, “Don’t let uncaring people who litter spoil state’s beauty for the rest of us, says senator”
- 11/11/99, *News and Press*, circ. 5,575, “State working to address litter problem”
- 11/11/99, *Northeast News*, circ. 10,000, “Get involved in the Palmetto Pride Campaign”
- 11/11/99, *Yorkville Enquirer*, circ. 3,553, “Don’t let uncaring people who litter spoil state’s beauty for rest of us, says senator”
- 11/12/99, *Lancaster News*, circ. 12,637, “Earn ‘Pride’ by cleaning up S.C.”
- 11/16/99, *Messenger*, circ. 2,184, “Fall lake sweep nets the usual suspects”
- 11/16/99, *Journal/Tribune*, circ. 8,615, “Fall lake sweep nets the usual suspects”
- 11/17/99, *Goose Creek Gazette*, circ. 4,500, “Sea Sweepers”
- 11/17/99, *The News Journal*, circ. 37,000, “Litter trashes everyone, don’t do it”

November 1999 – 6 hits mentioning S.C. Sea Grant activities

- 11/8/99, *The Post and Courier*, circ. 109,614, “Black History on Map”
- 11/17/99, *News & Reporter*, circ. 6,650, “All Americans need to show their Palmetto Pride”
- 11/17/99, *Journal-Scene*, circ. 8,500, “African heritage profiled in new guide”
- 11/18/99, *Hampton County Guardian*, circ. 4,564, “Nominations sought for Environmental Awards”
- 11/99, *Uptown*, Municipal Association of S.C., “Residences learn how to prepare houses for hurricanes”
- 11/99, *Clemson World Magazine*, “On CBS News” Story on 113 Calhoun project.

December 1999 – 5 hits mentioning S.C. Sea Grant activities

- 12/6/99, *The Post and Courier*, circ 109,614, “Elightening trail of recognition” editorial
- 12/12/99, *Times and Democrat*, circ. 18,197, “S.C. environmental award nominations due by Dec. 31”
- 12/15/99, *Dispatch-News*, circ. 7,504, “Nominations sought for environmental awards”
- 12/19/99, *The Item*, circ. 21,671, “S.C. seeking nominations”
- 12/22/99, *Dispatch-News*, circ. 7,504, “South Carolina Aquaculture 2000”

January 2000 – 3 hits due to media releases and news items

- 1/12/00, *Berkeley Independent*, circ. 10,485, “Litter reduction starts with education”
- 1/12/00, *Clinton Chronicle*, circ. 5,000, “Attacking litter”
- 1/19/00, *Greer Citizen*, circ. 10,525, “Thomas challenges every S.C. citizen to help fight litter”

January 2000 – 3 hits mentioning S.C. Sea Grant activities

- 1/05/00, *Dispatch-News*, circ. 7,504, “South Carolina Aquaculture 2000”
- 1/05/00, *Greer Citizen*, circ. 10,525, “Focusing on the Environment”
- 1/29/00, *Post and Courier*, circ. 109,614, “S.C. Aquarium sets up research, education base”

February 2000 – 2 hits due to media releases and news items

- 2/2/00, *Journal-Scene*, Circ. 8,500, “Marine life”, Sea Sweepers story
- 2/23/00, *Moultrie News*, circ. 11,700, “Sea Sweepers sweeps into MPA”

February 2000 – 2 hits mentioning S.C. Sea Grant activities

- 2/9/00, *Times and Democrat*, circ. 18,197, “Environmental award to be presented by Gov. Hodges”
- 2/9/00, *The Chronicle*, circ. 6,000, “Three Local Groups Will Focus on Economics of Gullah-Geechie Culture”

March 2000 – 3 hits mentioning S.C. Sea Grant activities

- 3/2/00, “Scientists expects bloom of red tide in North Inlet”
- 3/15/00, “Toler’s Cove reefs help scientists learn about Lowcountry oysters”
- 3/29/00, “Building Safety Week to raise awareness”

April 2000 – 10 hits due to media releases and news items

- 4/9/00, *Post and Courier*, circ. 109,614, “Beach Sweep Volunteer Opportunities”
- 4/9/00, *Post and Courier*, circ. 109,614, “Sea Sweepers Volunteer Opportunities”
- 4/14/00, *Beaufort Gazette*, circ. 12,252, “Volunteers helped make Beach Sweep successful”
- 4/19/00, *Goose Creek Gazette*, circ. 4,500, “Annual River/Beach Sweep”
- 4/19/00, *Journal-Scene*, circ. 8,500, “Beach Sweep”
- 4/20/00, *The Chronicle*, circ. 6,000, “Scientists Locate Disappearing Sand”
- 4/21/00, *Georgetown Times*, circ. 8,612, “Researchers discover reason for chronic beach erosion”
- 4/22/00, *Herald*, circ. 30,534, “Want to help with next beach, river cleanup?”
- 4/22/00, *Island Packet*, circ. 15,105, “Time to think Beach Sweep”
- 4/25/00, *Aiken Standard*, circ. 14,688, “Sweep event helps keep our state clean”

April 2000 – 1 hit mentioning S.C. Sea Grant activities

- 4/5/00, *Georgetown Times*, circ. 8,612, “DNR studying restoration of oyster refs in state”

May 2000 – 4 hits due to media releases and news items

- 5/2/00, *Moultrie News*, circ. 11,700, “Thanking Volunteers”
- 5/2/00, *Post and Courier*, circ. 109,614, “Beach/River Sweep”
- 5/8/00, *Times and Democrat*, circ. 18,197, “SCSU president chairs Sea Grant Consortium”
- 5/25/00, *Coastal Observer*, “Clean Sweep”

May 2000 – 4 hits mentioning S.C. Sea Grant activities

- 5/21/00, *Times and Democrat*, circ. 18,197, “June is Rivers Month in South Carolina”
- 5/23/00, *Post and Courier*, circ. 109,614, “Middle school teachers get marine science resource”
- 5/24/00, *Newberry Observer*, circ. 6,150, “June is Declared Rivers Month in South Carolina”
- 5/24/00, *News & Reporter*, circ. 6,650, “June is Rivers Month in South Carolina”

June 2000 – 1 hit due to media releases and news items

- 6/29/00, *Myrtle Beach Herald*, circ. 10,000, “NEMO workshop”

June 2000 – 16 hits mentioning S.C. Sea Grant activities

- 6/4/00, *Post and Courier*, circ. 109,614, “A decade of hurricane research bearing results”
- 6/4/00, *Times and Democrat*, circ. 18,197, “Educators author coastal science book”
- 6/19/00, *Sun News*, circ. 43,667, “Leaders to learn of runoff’s effects”
- 6/19/00, *The State*, circ. 123,559, “Horry County to navigate Waccamaw River trail”
- 6/19/00, *Sun News*, circ. 43,667, “Trail would let paddlers explore Waccamaw”
- 6/22/00, *Post and Courier*, circ. 109,614, “Horry County building canoe trail”
- 6/22/00, *Island Packet*, circ. 15,105, “This trail won’t be for hiking, it’ll be for paddling”
- 6/22/00, *Greenville News*, circ. 97,407, “This trail you won’t hike, you’ll paddle”
- 6/22/00, *Times and Democrat*, circ. 18,197, “This trail you won’t hike, you’ll paddle”
- 6/25/00, *Beaufort Gazette*, circ. 12,253, “*Of Sand and Sea* explores marine environments”
- 6/25/00, *The Post and Courier*, Home & Garden section, circ. 109,614, “An historic house demonstrates weather stability”
- 6/28/00, *The City Paper*, “Local Water Quality: How safe is the water we are playing in?”
- 6/29/00, *The Journal*, circ. 1,700, “West Ashley Educator Authors Coastal Science Book”
- 6/00, *The Energy Connection*, Summer 2000, “113 Calhoun Street Update”
- 6/00, *Extension Chords*, Summer 2000, “113 Calhoun to be featured on Bob Vila’s ‘Home Again’”
- 6/00, *Sea Technology*, July 2000, “A new beginning with oyster restoration”

July 2000 – 2 hits due to media releases and news items

- 7/17/00, *Post and Courier*, circ. 109,614, “Sea Grant, new staff”
- 7/27/00, *The Lake Murray News*, circ. 6,000, “Lake clean-up set for September 16”

July 2000 – 26 hits mentioning S.C. Sea Grant activities

- 7/2/00, *Moultrie News*, circ. 11,700, “Clemson 4-H camp a living science project”
- 7/2/00, *Moultrie News*, circ. 11,700, “Mount Pleasant educator authors coastal science book”
- 7/3/00, *Cronicle-Independent*, circ. 8,286, “Clemson 4-H camp”
- 7/5/00, *The Times Examiner*, circ. 3,000, “Clemson 4-H camps offered”

- 7/5/00, *Daily Messenger*, circ. 2,184, “Youth learn marine science by studying coastal environment”
- 7/5/00, *Daily Journal*, circ. 8,615, “Youth learn marine science by studying coastal environment”
- 7/12/00, *Berkeley Independent*, circ. 10,485, “Living Science project studied”
- 7/12/00, *Berkeley Independent*, circ. 10,485, “Living Science project studied”
- 7/12/00, *Advertiser-Herald*, circ. 3,500, “Sewee 4-H camp a living science project”
- 7/12/00, *Inman Times*, circ. 3,233, “Four H Camp is living science project”
- 7/12/00, *Woodruff News*, circ. 4,068, “Clemson 4-H camp is living science project”
- 7/13/00, *Herald Independent*, circ. 5,645, “4-H camps give kids hands-on experience with S.C. ecosystem”
- 7/16/00, *Times and Democrat*, circ. 18,197, “DNR takes active role in state litter control”
- 7/16/00, *The Item*, circ. 21,671, “DNR attacks litter”
- 7/17/00, *Beaufort Gazette*, circ. 12,252, “Few openings at Clemson 4-H camp”
- 7/19/00, *Lee County Observer*, circ. 4,000. “DNR picking up trash”
- 7/19/00, *Allendale County Citizen Leader*, circ. 2,171, “Natural resources agency fights litter”
- 7/19/00, *Moultrie News*, circ. 11,700, “DNR takes active role in litter control”
- 7/19/00, *People-Sentinel*, circ. 6,492, “Natural resources agency fights litter”
- 7/20/00, *Marlboro Herald Advocate*, circ. 6,800, “DNR takes an active role in litter control”
- 7/20/00, *Coastal Observer*, circ. 5,000, “Wildlife officers get tough on litter in waterways”
- 7/21/00, *Index-Journal*, circ. 18,250, “DNR active in litter control”
- 7/23/00, *Lancaster News*, circ. 12,637, “DNR takes key role in litter control”
- 7/24/00, *Post and Courier*, circ. 109,614, “Weathering the storm: hurricane protection bring changes to business, insurance”
- 7/26/00, *Georgetown Times*, circ. 8,612, “DNR takes active role in state litter control”
- 7/31/00, *Georgetown Times*, circ. 8,612, “Waccamaw trail could link heritage, wildlife”

August 2000 – 7 hit due to media releases and news items

- 8/9/00, *Hanahan News*, circ. 21,000, “Swamp Sweep Saturday, September 16”
- 8/10/00, *Lexington County Chronicle*, circ. 6,000, “It’s a dirty job, but it needs doing”
- 8/16/00, *Keowee Courier*, circ. 2,500, “FOLKS volunteers plan “Fall Sweep” of Keowee”
- 8/26/00, *Rock Hill Herald*, circ. 30,354, “Lake Wylie campaign to sweep away litter”
- 8/29/00, Special 8-page Beach Sweep insert circulated to every daily newspaper in the state, “Volunteer for Beach Sweep/River Sweep”
- 8/30/00, *Island Packet*, circ. 15,105, “Volunteers needed for beaches”
- 8/31/00, *Beaufort Gazette*, circ. 12,252, “Beach Sweep 2000 will nab garbage before it hits water”

August 2000 – 5 hits mentioning S.C. Sea Grant activities

- 8/2/00, *Kingstree News*, circ. 4,515, “Potential for Waccamaw River canoe trail studied”
- 8/3/00, *Horry Independent*, circ. 6,000, “Waccamaw River may get state’s next canoe trail”
- 8/16/00, *Citizen News*, circ. 4,950, “Landscaping for water conservation book”
- 8/30/00, *Goose Creek Gazette*, circ. 4,500, “Dept. of Natural Resources takes active role in state litter control”
- 8/00, *Business Monthly*, “Semaphore, Inc. awarded web maintenance contract with Sea Grant National Media Relations Office”

September 2000 – 76 hit due to media releases and news items

- 9/1/00, *Beaufort Gazette*, circ. 12,252, “Beach Sweep 2000 seeks volunteers”
- 9/1/00, *Journal-Scene*, circ. 8,500, “River Sweep planed”
- 9/2/00, *Sun News*, circ. 43,667, “Surfside residents, students plan cleanup”
- 9/3/00, *Times and Democrat*, circ. 18,197, “Beach Sweep/river Sweep 2000 set for Sept. 16”
- 9/6/00, *Allendale County Citizen Leader*, circ. 2,171, “Beach, river clean-up”
- 9/6/00, *People-Sentinel*, circ. 6,492, “Beach, river clean-up”
- 9/6/00, *Moultrie News*, circ. 10,485, “Beach Sweep/River Sweep 2000 set for September 16”
- 9/6/00, *Berkeley Independent*, circ. 30,354, “Beach Sweep/River Sweep 2000 scheduled”
- 9/6/00, *Hartsville Messenger*, circ. 6,536, “Beach Sweep/River Sweep set for Sept. 16”
- 9/7/00, *Post and Courier*, circ. 109,614, “Swamp Sweep”
- 9/7/00, *Coastal Observer*, circ. 5,000, “Beach Sweep’s value is in the numbers”
- 9/7/00, *Beaufort Gazette*, circ. 12,252, “Beaches, rivers to be subject of trash sweep”
- 9/7/00, *The Lake Murray News*, circ. 6,000, “Lake Murray clean-up set for September 16”
- 9/8/00, *Beaufort Gazette*, circ. 12,252, “Beach/Rifer Sweep”
- 9/9/00, *Sun News*, circ. 43,667, “Giving your effort”
- 9/12/00, *Dillion Herald*, circ. 6,186, “Support Beach Sweep/River Sweep”
- 9/13/00, *Goose Creek Gazette*, circ. 4,500, “South Carolina gears up for Beach Sweep/River Sweep 2000”
- 9/13/00, *Georgetown Times*, circ. 8,612, “Beach Sweep is Saturday”
- 9/13/00, *Pickens Sentinel*, circ. 6,900, “FOLKS to clean Lake Keowee in fall lake sweep”
- 9/13/00, *People-Sentinel*, circ. 6,492, “Volunteers will clean up boat landings”
- 9/13/00, *Daily Journal*, circ. 8,615, “Volunteers needed”
- 9/13/00, *The State*, circ. 123,559, “Groups to sweep litter from around waterways”
- 9/13/00, *Daily Messenger*, circ. 2,184, “Volunteers needed”
- 9/13/00, *Adversizer-Herald*, circ. 3,500, “Beach Sweep/river Sweep: South Carolina’s largest one-day cleanup of our beaches and waterways”
- 9/13/00, *Newberry Observer*, circ. 6,150, “Beach Sweep/River Sweep is scheduled for Sept. 16”

- 9/13/00, *Allendale County Citizen Leader*, circ. 2,171, “Volunteers will clean up boat landings”
- 9/14/00, *The Journal*, circ. 1,700, “Beach Sweep/River Sweep planned for Saturday”
- 9/14/00, *Daily Messenger*, circ. 2,184, “Volunteers wanted”
- 9/14/00, *Daily Journal*, circ. 8,615, “Volunteers wanted”
- 9/14/00, *Sun News*, circ. 43,667, “Annual beach-river cleanup set for Saturday”
- 9/14/00, *Island Packet*, circ. 15,105, “Beach Sweep is Saturday”
- 9/14/00, *Times and Democrat*, circ. 18,197, “Rivers, lakes, swamps: Pick place, ‘sweep’ it clean Saturday”
- 9/14/00, *Myrtle Beach Herald*, circ. 10,000, “September 16 - Beach Sweep/River Sweep”
- 9/14/00, *Hampton County Guardian*, circ. 4,564, “Volunteers will clean litter from beaches, boat landings”
- 9/14/00, *Post and Courier*, circ. 109,614, “Beach, river cleanup begins Saturday”
- 9/14/00, *Myrtle Beach Herald*, circ. 10,000, “Beach Sweep/River Sweep 2000 kicks off Saturday”
- 9/14/00, *The Lake Murray News*, circ. 6,000, “Cub Scouts to collect litter at Bundirck Island”
- 9/14/00, *Loris Times*, circ. 2,000, “Beach Sweep needs you”
- 9/15/00, *Harold-Journal*, circ. 61,450, “Volunteers prepare to clean S.C. waterways”
- 9/15/00, *Carolina Morning News*, circ. 3,000, “Beach Sweep/River Sweep 2000”
- 9/15/00, *Hartsville Messenger*, circ. 6,356, “Beach/River sweep set Sept. 16”
- 9/15/00, *Daily Journal*, circ. 8,615, “Beach Sweep/River Sweep scheduled for Saturday”
- 9/15/00, *Daily Messenger*, circ. 2,184, “Beach Sweep/River Sweep scheduled for Saturday”
- 9/15/00, *Post and Courier*, circ. 109,614, “Organizers sweep for clean-up help”
- 9/15/00, *Post and Courier*, circ. 109,614, Editorial, “Beach/River sweeps a worthy effort”
- 9/16/00, *Sun News*, circ. 43,667, “Beach Sweep participants to gather 9:00 a.m.”
- 9/16/00, *Beaufort Gazette*, circ. 12,252, “Beach/River sweeps take effort”
- 9/16/00, *Daily Journal*, circ. 8,615, “Volunteers wanted”
- 9/16/00, *Daily Messenger*, circ. 2,184, “Volunteers wanted”
- 9/16/00, *Greenville News*, circ. 97,407, “Cleaning up the Reedy”
- 9/17/00, *Florence Morning News*, circ. 32,428, “Beach Sweep/River Sweep project takes out the trash”
- 9/17/00, *Herald-Journal*, circ. 61,450, “River Sweep”
- 9/17/00, *Post and Courier*, circ. 109,614, “Beach Sweep”
- 9/17/00, *Sun News*, circ. 43,667, “Cleanup effort nets tons of trash”
- 9/17/00, *The State*, circ. 123,559, “Free of beer, Saluda runs clear”
- 9/17/00, *Times and Democrat*, circ. 18,179, “community participates in annual S.C. Beach Sweep/River Sweep”
- 9/19/00, *The USC Gamecock*, circ. 14,000, “River Sweep cleans up zoo area”
- 9/19/00, *Island Packet*, circ. 15,105, “Community joins forces to clean up beaches”
- 9/19/00, *Sun News*, circ. 43,667, “Thanks to the Sweeps”
- 9/21/00, *Coastal Observer*, circ. 2,000, “Where the rubber meets the sand”

- 9/21/00, *McCormic Messenger*, circ. 2,200, “Volunteers clean up shores of Lake Thurmond”
- 9/21/00, *Beaufort Gazette*, circ. 12,252, “Thumbs Up kids do their part”
- 9/21/00, *Herald*, circ. 30,534, “Volunteers spend Saturday picking up trash at Lake Wylie”
- 9/22/00, *Journal-Scene*, circ. 8,500, “Successful Sweep”
- 9/23/00, *Daily Messenger*, circ. 2,184, “River clean-up nets 700 pounds of litter”
- 9/23/00, *Daily Journal*, circ. 8,615, “River clean-up nets 700 pounds of litter”
- 9/24/00, *Post and Courier*, circ. 109,614, “Caring for our beaches”
- 9/25/00, *Cronicle-Independent*, circ. 8,286, “Volunteers make clean sweep at lake”
- 9/25/00, *GSA Business Journal*, “National river Sweep Program”
- 9/26/00, *Moultrie News*, circ. 11,700, “Beach Sweep”
- 9/27/00, *Clinton Chronicle*, circ. 5,000, “Call to attention (Beach Sweep)”
- 9/27/00, *Westminster News*, circ. 2,100, “6th Annual River Litter Sweep”
- 9/27/00, *Clinton Chronicle*, circ. 5,000, “Showing off trophies (Beach Sweep)”
- 9/27/00, *Lee County Observer*, circ. 4,000, “River Sweep focuses on Lee Natural Area”
- 9/27/00, *Hartsville Messenger*, circ. 6,536, “Boat landing cleaned up during Beach/River Sweep”
- 9/29/00, *Gaffney Ledger*, circ. 10,331, “River Sweepers”

September 2000 – 4 hits mentioning S.C. Sea Grant activities

- 9/10/00, *Post and Courier*, circ. 109,614, “Charleston house: 113 Calhoun on Bob Vila show”
- 9/17/00, *Times and Democrat*, circ. 18,197, “Bob Vila broadcast to feature Charleston’s 113 Calhoun St.”
- 9/27/00, *Berkeley Independent*, circ. 10,485, “High wind damage: Is your house vulnerable?”
- 9/00, *Turning the Tide*, Fall 2000, “Coast-A-Syst”

October 2000 – 18 hit due to media releases and news items

- 10/5/00, *Hampton County Guardian*, circ. 4,564, “Ecology Club participates in River Sweep cleanup”
- 10/5/00, *Beaufort Gazette*, circ. 12,252, “Volunteers removed 3,000 pounds of trash”
- 10/5/00, *Sun News*, circ. 43,667, “SOS volunteers take part in Beach Sweep”
- 10/10/00, *The State*, circ. 123,559, “Efforts being made to keep rivers clean”
- 10/11/00, *Pickens Sentinel*, circ. 6,900, “Sweep 2000 volunteers report less S.C. litter”
- 10/11/00, *Moultrie News*, circ. 11,700, “Program launched to keep creeks and marsh clean”
- 10/12/00, *Hampton County Guardian*, circ. 4,564, “Litter collected from beaches, rivers”
- 10/12/00, *Catholic Miscellany*, “Students serve community”
- 10/13/00, *Index-Journal*, circ. 18,250, “Less litter collected this year in state”
- 10/18/00, *Liberty Monitor*, circ. 1,6000, “Volunteers participated in S.C. beach and waterway clean-up”
- 10/19/00, *Dillion Herald*, circ. 6,186, “Tons of trash hauled away during River Sweep”
- 10/19/00, *The Journal*, circ. 1,700, “S.C. Beach Sweep/River Sweep 2000 a Success”

- 10/20/00, *Post and Courier*, circ. 109,614, “Teaching by Example, On site learning sought”
- 10/20/00, *Florence Morning News*, circ. 32,428, “Sweep 2000 reports less S.C. litter”
- 10/25/00, *Moultrie News*, circ. 11,700, “Making a clean sweep”
- 10/26/00, *Beaufort Gazette*, circ. 12,253, “Beach and river sweeps result in 63,000 pounds of garbage”
- 10/27/00, *Georgetown Times*, circ. 8,612, “Beach Sweep volunteers collect 63,000 pounds of trash”
- 10/28/00, *Post and Courier*, circ. 109,614, “The S.C. Sea Grant celebrates its 20th anniversary”

October 2000 – 2 hits mentioning S.C. Sea Grant activities

- 10/23/00, *Charleston Business Journal*, circ. 20,000, “Interest in Gullah culture a boon for black history heritage”
- 10/28/00, *The Island Packet*, circ. 15,105, “Team develops new marsh grass”

November 2000 – 8 hit due to media releases and news items

- 11/9/00, *Union Daily Times*, circ. 6,697, “River trash”
- 11/15/00, *Island Packet*, circ. 15,105, “Shellfish conference kicks off today”
- 11/17/00, *Sun News*, circ. 43,667, “Group seeks shellfish preservation”
- 11/17/00, *Herald*, circ. 30,534, “Cooperation vital in efforts to restore shellfish grounds”
- 11/17/00, *Beaufort Gazette*, circ. 12,252, “Growth leads to dwindling shellfish beds”
- 11/17/00, *Greenville News*, circ. 97,407, “Coastal growth leads to dwindling shellfish beds”
- 11/17/00, *Post and Courier*, circ. 109,614, “Experts discuss ways to restore shellfish beds”
- 11/20/00, *Post and Courier*, circ. 109,614, “Leadership S.C.”

November 2000 – 7 hits mentioning S.C. Sea Grant activities

- 11/1/00, *Marion Star & Mullins Enterprise*, circ. 6880, “Nominations are now being sought for 2000 South Carolina Environmental Awards”
- 11/8/00, *Goose Creek Gazette*, circ. 4,500, “State accepting environmental award nominees”
- 11/9/00, *Community Times Dispatch*, “Coast-A-Syst program to help protect water”
- 11/16/00, *Horry Independent*, circ. 6,000, “Coast-A-Syst program hopes to save coastal waters”
- 11/23/00, *The Journal*, circ. 1,700, “Nominations Being Sought for SC Environmental Awards”
- 11/29/00, *Berkeley Independent*, circ. 10,485, “‘Green’ gift giving selected theme for the South Carolina Aquarium’s festivities during ‘Holidays Under the Sea’ December 4-15”
- 11/29/00, *Marion Star & Mullins Enterprise*, circ. 6,880, “Minority students to receive internship aid”

December 2000 – 1 hit due to media releases and news items

- 12/6/00, *Journal-Scene*, circ. 8,500, “Hold on to your roof - with glue”

January 2001 – 12 hits due to media releases and news items

- 1/7/01, *Times and Democrat*, circ. 18,197, “SCSU president re-elected chairman of Sea Grant Consortium directors”
- 1/10/01, *Beaufort Gazette*, circ. 12,252, “Davis re-elected to Sea Grant Consortium”
- 1/14/01, *The State*, circ. 123,559, “Romeka Washington and Tom Marino join Sea Grant”
- 1/14/01, *The State*, circ. 123,559, “Knight selected Leadership South Carolina”
- 1/14/01, *Island Packet*, circ. 15,105, “Oyster-habitat project under way”
- 1/14/01, *Beaufort Gazette*, circ. 12,252, “Project hopes to restore SC oyster habitats”
- 1/15/01, *Sun News*, circ. 43,667. “Project aims to restore oyster habitats”
- 1/15/01, *Post and Courier*, circ. 109,614, “Knight selected Leadership South Carolina”
- 1/15/01, *Post and Courier*, circ. 109,614, “Romeka Washington and Tom Marino join Sea Grant”
- 1/20/01, *Smile*, S.C. Parks, Rec. and Tourism annual magazine, circ. 700,000, reprint, *Coastal Heritage*, Fall 1999, “Riches to Ruin: Pharaohs of the New World”
- 1/21/01, *Charleston Business Journal*, circ. 20,000, “South Carolina Sea Grant Consortium hires two new staff”
- 1/21/01, *Charleston Business Journal*, circ. 20,000, “Davis re-elected S.C. Sea Grant Consortium board chair”

January 2001 – 2 hits mentioning S.C. Sea Grant activities

- 1/3/01, *Greet Citizen*, circ. 10,525, “Environmental Achievements”
- 1/20/10, *The State*, circ. 123,559, “Summit to study conservation proposals”

February 2001 – 3 hits due to media releases and news items

- 2/5/01, *Georgetown Times*, circ. 8,612, “USC student wins Sea Grant fellowship”
- 2/12/01, *The State*, circ. 123,559, “Irmo High team goes to science bowl”
- 2/12/01, *Charleston Business Journal*, circ. 20,000, “USC student wins Sea Grant fellowship”

February 2001 – 3 hits mentioning S.C. Sea Grant activities

- 2/15/01, *Twin-City News*, circ. 4,744, “CCA at Ocean Sciences Bowl: Community Christian first in Team Project”
- 2/24/01, *Sun News*, circ. 43,667, “Tidelands Birding Festival: Bird-watchers flock to parks”
- 2/26/01, *County News*, “NEMO program provides tech assistance”

March 2001 – 1 hit due to media releases and news items

- 3/8/01, *Island Packet*, circ. 15,105, “Seafood Alliance needs support for worthy goal”

March 2001 – 2 hits mentioning S.C. Sea Grant activities

- 3/8/01, *Coastal Observer*, “Oyster reefs offer way to clean up waters”
- 3/11/01, *The State*, circ. 123,559, “State spending cuts”

April 2001 – 6 hits due to media releases and news items

- 4/20/01, *Post and Courier*, circ. 107,434, “Sea Grant Consortium’s Beach Sweep/River Sweep”
- 4/20/01, *Post and Courier*, circ. 107,434, “What you can do to fight litter”
- 4/25/01, *Post and Courier*, circ. 107,434, Letter to the editor, “Thanks volunteers”
- 4/25/01, *Island Packet*, circ. 15,105, “Beach Sweep thanks volunteers” (Ferris, letter to the editor)
- 4/30/01, *The Sun News*, circ. 51,300, “Volunteers needed to protect resources” (Ferris, letter to the editor)
- 4/30/01, *The Sun News*, circ. 51,300, “Volunteers collected tons of trash, debris”

April 2001 – 1 hit mentioning S.C. Sea Grant activities

- 4/21/01, *Beaufort Gazette*, circ. 12,525, “Be careful with runoff” (Coast-a-syst)

May 2001 – 1 hit due to media releases and news items

- 5/9/01, *The State*, circ. 123,559, “Beach Sweep/River Sweep: Volunteers needed to protect resources” (Ferris, letter to the editor)

May 2001 – 34 hits mentioning S.C. Sea Grant activities

- 5/1/01, *Beaufort Gazette*, circ. 12,252, “Groups to celebrate, eat mollusks” (Hadley/Coen oyster restoration program)
- 5/1/01, *Island Packet*, circ. 15,105, “Events promote local oysters” (Hadley/Coen oyster restoration program)
- 5/4/01, *Island Packet*, circ. 15,105, “Program will use shells for oyster conservation” (Hadley/Coen oyster restoration program)
- 5/4/01, *Beaufort Gazette*, circ. 12,252, “Shells to aid in restoring oyster reefs” (Hadley/Coen oyster restoration program)
- 5/6/01, *Times and Democrat*, circ. 18,197, “First-ever boating guide for coastal S.C. published”
- 5/9/01, *Laurens County Advisor*, circ. 4,780, “New S.C. boating guide helps with”
- 5/9/01, *Press & Banner*, circ. 7,600, “New S.C. boating guide helps with whatever floats your boat”
- 5/9/01, *Goose Creek Gazette*, circ. 4,500, “Boating guide hits book stands”
- 5/9/01, *Beaufort Gazette*, circ. 12,252, Author to share look at living on the coast” (Coast-A-Syst)
- 5/10/01, *Island Packet*, circ. 15,105, “Coast-A-Syst scheduled”
- 5/11/01, *Beaufort Gazette*, circ. 12,252, “Program to teach residents to reduce water pollution” (Coast-A-Syst)
- 5/13/01, *Island Packet*, circ. 15,105, “Homeowners learn about water quality” (Coast-A-Syst)
- 5/13/01, *Beaufort Gazette*, circ. 12,252, “Expert: People impact water” (Coast-A-Syst)
- 5/16/01, *Union Daily Times*, circ. 6,697, “Hurricane house offers ways to prepare”
- 5/18/01, *Georgetown Times*, circ. 8,612, “Oyster restoration seminar is May 24”
- 5/20/01, *Herald*, circ. 30,534, “Free boating guide”
- 5/20/01, *Augusta Chronicle*, circ. 78,000, “Researchers learn from past storms”

- 5/21/01, *Times and Democrat*, circ. 18,197, Storm Season: As engineers study materials, hurricane house offers ways to prepare”
- 5/22/01, *Beaufort Gazette*, circ. 12,252, “Free seminar set Thursday on Oyster Restoration Project”
- 5/22/01, *Beaufort Gazette*, circ. 12,252, “Volunteers fill oyster bags for SCORE”
- 5/23/01, *Greer Citizen*, circ. 10,525, “Natural Resources Dept. publishes first guide for S.C. coastal boating” (SCSG funded)
- 5/27/01, *The State*, circ. 123,559, “Pricey sand revitalizes beaches” (mentions Paul Gayes’ funding)
- 5/27/01, *The State*, circ 123.559, “Hurricane house offers lessons for the risky months”
- 5/27/01, *Sun News*, circ. 43,667, “Beach Projects Reviewed”
- 5/27/01, *Herald*, circ. 30,534, “Hurricane house offers ways to prepare”
- 5/28/01, *Greenville News*, circ. 97,407, “South Carolina’s beaches aren’t so natural anymore” ” (mentions Paul Gayes’ funding)
- 5/28/01, *Post and Courier*, circ. 109,614, “Some experts oppose beach renourishment” ” (mentions Paul Gayes’ funding)
- 5/28/01, *Times and Democrat*, circ. 18,197, “South Carolina beaches not so natural anymore”
- 5/28/01, *Herald*, circ. 30,534, “Coastal dredging leaving unnatural beaches”
- 5/28/01, *Herald-Journal*, circ. 61,450, “South Carolina beaches not to natural anymore”
- 5/29/01, *The State*, circ. 123,559, “Erosion policy stirs debate” ” (mentions Paul Gayes’ funding)
- 5/30/01, *Star & Beacon*, circ. 8,000, “Summer minority program funded by National Science Foundation” (and S.C. Sea Grant)
- 5/30/01, *Beaufort Gazette*, circ. 12,252, “Former Coastal Council to meet Thursday” (refers to funded coastal ecosystem study)
- 5/30/01, *Island Packet*, circ. 15,105, “Panel to meet Thursday” (refers to funded coastal ecosystem study)

June 2001 – 4 hits due to media releases and news items

- 6/18/01, *Post and Courier*, circ. 109,614, “Sea Grant” (new hires)
- 6/23/01, *Beaufort Gazette*, circ 12, 252, “Residents express skepticism about Knowles Island Park plan” (quote from Susan Ferris)
- 6/24/01, *The State*, circ. 123,559, “New Sea Grant hires” (Ferris and Thompson-Bryant)
- 6/28/01, *Beaufort Gazette*, circ. 12,252, “Award” (Coastal Heritage wins “Notable State Document”)

June 2001 – 5 hits mentioning S.C. Sea Grant activities

- 6/1/01, *Index-Journal*, circ. 18,250, “First boating guide for coast is published”
- 6/1/01, *American Shore and Beach Preservation Association* newsletter, circ. 2,000, Coast-A-Syst mention
- 6/7/ 01, *Hampton County Guardian*, circ. 4,564, “Agency publishes guide to boating in South Carolina”

- 6/13/01, *Georgetown Times*, circ. 8,612, “Oyster restoration: DNR needs volunteers for project”
- 6/24/01, *Beaufort Gazette*, circ. 12,252. Oyster Restoration Project: Volunteers help replenish bivalves in Morgan River”

July 2001 – 1 hit due to media releases and news items

- 7/2/01, *Charleston Business Journal*, circ. 20,000, “New Hires” (Ferris and Thompson-Bryant)

July 2001 – 9 hits mentioning S.C. Sea Grant activities

- 7/15/01, *Times Online*—University of South Carolina publication for USC faculty, staff, and friends “Geologist tracking sand flow on two S.C. beaches,” story about the SC Sea Grant-funded research of P.I. George Voulgaris.
- 7/20/01, *Sun News*, circ. 43,667, “Crafting an Oyster Haven” (SCSGC funded)
- 7/21/01, *Beaufort Gazette*, circ. 12,252, “Volunteers helping build oyster reef” (SCSGC funded)
- 7/21/01, *Herald-Journal*, circ. 61,450, “Oysters to get helping hand from volunteers, scientists” (SCSGC funded)
- 7/24/01, Information about the TaxsmART program on SC Educational Television. Close-up shot of Christian Brown’s artwork describing the SC Sea Grant Consortium’s Beach Sweep/River Sweep program.
- 7/25/01, *Georgetown Times*, circ. 8,612, “Recycled shells to aid oyster growth” (SCSGC funded)
- 7/26/01, *Coastal Observer*, “Raising the reef” (SCSGC funded)
- 7/30/01, *Beaufort Gazette*, circ. 12,252, “Retiree lends hand in habitat protection” (SCSGC funded)
- 7/30/01, *Island Packet*, circ. 15,105, “Project catches resident’s eye” (SCSGC funded)

August 2001 – 9 hits due to media releases and news items

- 8/1/01, *Berkeley Independent*, circ. 10,485, “Be a Solution to Pollution, Fishin’ with Sam Bass”
- 8/9/01, *Post and Courier*, circ. 109,614, “Sea Grant publication wins state award”
- 8/13/01, *Charleston Business Journal*, circ. 20,000, “Sea Grant Consortium awarded \$1.2 million grant”
- 8/16/01, *North Myrtle Beach Times*, circ. 8,500, “Committee sets Beach Sweep”
- 8/16/01, *Loris Times*, circ. 4,500, “Committee sets Beach Sweep”
- 8/20/01, *Parkview*, S.C. State Park Service publication, distribution 75,000 (8,000 mailed), “Beach Sweep 2001,” paragraph about event under 5 coastal state parks, listing under Volunteer
- 8/20/01, *To the Point*, Haig Point Property Owners publication, circ. 1,700, “Beach Sweep/River Sweep 2001”
- 8/20/01, *Town Notes*, Town of Kiawah Island publication, circ. 3,300, “Beach and River Sweep”
- 8/31/01, *Carolina Morning News*, “The 2001 Beach Sweep/River Sweep”
- 8/31/01, *Index-Journal*, circ 18,250, “Volunteers needed for beach cleanup”

August 2001 – 9 hits mentioning S.C. Sea Grant activities

- 8/1/01, *Berkeley Independent*, circ. 10,485, “Adopt-a-Landing program” (mentions Beach Sweep/River Sweep)
- 8/3/01, *Georgetown Times*, circ. 8,612, “‘Marsh-side Chat’ to focus on restoring oyster reef, habitat” (Sea Grant funded project)
- 8/3/01, *Georgetown Times*, circ. 8,612, Growth vs. resources subject of coastal study” (LU-CES)
- 8/8/01, *Hanahan News*, circ. 21,000, “Swamp Sweep XI” (Beach Sweep/river Sweep)
- 8/9/01, *Post and Courier*, circ. 109,614, “Palmetto Island gets artificial oyster beds” (Sea Grant funded project)
- 8/16/01, *Coastal Observer*, “Island’s send search moves back one step” (Mentions Paul Gayes, SCSG funded researcher)
- 8/17/01, *Sun News*, circ. 43,667, “Crew searching for sandy treasure” (Mentions Paul Gayes and SCSGC funded project)
- 8/29/01, *Lee County Observer*, circ. 4,000, “Lynches Riversweep is Sept. 15”
- 8/29/01, *Travelers Rest Monitor*, circ. 6,000, “River Sweep 2001”

September 2001 – 88 hits due to media releases and news items

- 9/01, *Utne Reader*, Reprint of Coastal Heritage Gullah Issue.
- 9/1/01 – 9/15/01, *Carolina Morning News*, circ., 6,000, “2001 Beach Sweep/River Sweep” event listing
- 9/1/01, *Charleston* magazine, circ. 20,000, “Charleston’s Dirty Secret: What We Leave Behind”
- 9/1/01, *Georgetown Day*, International Paper Co. daily newsletter, circ. 900, “Volunteer and Help Make South Carolina’s Litter Disappear Today”
- 9/1/01, *Sandspur*, City of Folly Beach newsletter, circ. 2,000, “Beach Sweep/River Sweep”
- 9/1/01, *Coast* magazine, circ. 25,000, “Beach Sweep/River Sweep”9/2/01, *Times and Democrat*, circ. 18,197, “Beach Sweep/River Sweep volunteers needed”
- 9/4/01, *Carolina Morning News*, circ. 6,000, “It takes a big person to clean up nasty little cigarette butts”
- 9/4/01, *Coastweeks* flyer, circ. 5,000, “Beach Sweep/River Sweep 2001”, 8 mentions
- 9/5/01, *Georgetown Times*, circ. 8,612, “Beach Sweep volunteers are needed for cleanup”
- 9/5/01, *The Berkeley Independent*, circ. 10,485, “Beach Sweep/River Sweep 2001 volunteers needed for cleanup”
- 9/5/01, *Lee County Observer*, circ. 4,000, Beach Sweep/River Sweep scheduled for Sept. 15”
- 9/5/01, *Moultrie News*, circ. 11,700, “Beach/River Sweep slated”
- 9/5/01, *Westminster News*, circ. 2,100, “Volunteers Needed For River Sweep”
- 9/5/01, *Westminster News*, circ. 2,100, “Volunteers needed for Chauga River, Brasstown Creek ‘sweep and cleanup”
- 9/5/01, *Tribune-Times*, circ. 6,508, “River Sweep 2001”
- 9/5/01, *Travelers Rest Monitor*, circ. 6,000, “River Sweep 2001”
- 9/5/01, *Journal Inc.*, circ. 5,412, “Volunteers needed to clean rivers”

- 9/6/01, *Post and Courier*, circ. 109,614, “Volunteer site captain being sought for River Sweep on the Ashley”
- 9/6/01, *Manning Times*, circ. 3,750, “Beach Sweep/River Sweep”
- 9/6/01, *Times and Democrat*, circ. 18,197, “County cleanups kicking off this weekend”
- 9/7/01, *Chronicle-Independent*, circ. 8,286, “Beach Sweep/River Sweep 2001, the annual cleanup”
- 9/8/01, *Sun News*, circ. 43,667, “Annual cleanup of S.C. waterways to be held”
- 9/8/01 – 9/9/01, half-hour interview with Sheri Bernardi aired on 4 Charleston radio stations
- 9/9/01, *The Post and Courier*, circ. 109,614, “Swamp Sweep”
- 9/11/01, *Daily Journal*, circ. 8,615, “River Sweep Litter Cleanup”
- 9/11/01, *Daily Messenger*, circ. 2,184, “River Sweep Litter Cleanup”
- 9/11/01, 15-minute interview with Katrina aired on SC News Network (statewide radio, 50 affiliates)
- 9/10/01, *Sun News*, circ. 43,667, “Friday date for beach, river cleanup” (*date wrong*)
- 9/10/01, *Post and Courier*, circ. 109,614, “Beach Sweep”
- 9/10/01, *Index-Journal*, circ. 18,250, “Beach Sweep/River Sweep”
- 9/11/01, *Florence Morning News*, circ. 32,428, “Waterways clean-up slated for this Saturday”
- 9/11/01, *Beaufort Gazette*, circ. 12,252, “Beach/river sweep volunteers sought”
- 9/11/01, *Beaufort Gazette*, circ. 12,252, “Ready for Beach Sweep/River Sweep”
- 9/11/01, *Press & Standard*, circ. 6,097, “Beach Sweep/River Sweep 2001, the annual cleanup”
- 9/12/01, *Allendale County Citizen Leader*, circ. 2,171, “Volunteers needed for clean-up of rivers, beaches”
- 9/12/01, *Lee County Observer*, circ. 4,000, “Beach Sweep/River Sweep scheduled for Sept. 15”
- 9/12/01, *People-Sentinel*, circ. 6,942, “Volunteers needed for clean-up of rivers, beaches”
- 9/12/01, *Journal Inc.* circ. 5,412, “Volunteers needed for beach, river sweep”
- 9/12/01, *Westminster News*, circ. 2,100, “Volunteers Needed For Annual River Sweep”
- 9/12/01, Ann Wilson (a site captain) did an interview with Cumulus Broadcasting, which has 9 stations in the Myrtle Beach area.
- 9/12/01, *Hanahan News*, circ. 21,000, “Swamp Sweep XI”
- 9/13/01, *Coastal Observer*, “Beaches, river get cleanup”
- 9/13/01, *Star*, circ. 3,400, “Sweep the waterways this Saturday”
- 9/13/01, *Manning Times*, circ. 3,750, “Beach Sweep/River Sweep”
- 9/13/01, *State Neighbors*, “River, lake to be cleaned”
- 9/13/01, *North Myrtle Beach Times*, circ. 8,500, “Sweep is Saturday”
- 9/13/01, *Sun News*, circ. 43,667, “Beach sweep”
- 9/13/01, *Daily Messenger*, circ. 2,184, “Volunteers wanted for River Sweep”
- 9/13/01, *Daily Journal*, circ. 8,615, “Volunteers wanted for River Sweep”
- 9/14/01, *The State*, circ. 123,559, “Clean sweep of Midlands planned”
- 9/14/01, *Post and Courier*, circ. 109,614, “Volunteers to clean up beaches, rivers”
- 9/14/01, *Island Packet*, circ. 15,105, “Beach/River Sweep volunteers sought”

- 9/14/01, *The Item*, circ. 21,671, “Officials ready to kick off Beach Sweep/River Sweep”
- 9/14/01, *Georgetown Times*, circ. 8,612, “Beach/River Sweep: Volunteers set to clean up beaches, waterways this weekend”
- 9/14/01, *Press & Standard*, circ. 6,097, “Beach Sweep/River Sweep 2001”
- 9/14/01, *Journal-Scene*, circ. 8,500, “Help needed for Beach/River Sweep tomorrow”
- 9/14/01, *Beaufort Gazette*, circ. 12,252, “Interact clubs will clean beaches”
- 9/15/01, *Daily Messenger*, circ. 2,184, “Volunteers wanted for River Sweep”
- 9/15/01, *Daily Journal*, circ. 8,615, “Volunteers wanted for River Sweep”
- 9/15/01, *Times and Democrat*, circ. 18,197, “River Sweep kicks off today”
- 9/15/01, *Beaufort Gazette*, circ. 12,252, “Beach/River Sweep volunteers sought”
- 9/15/01, *Sun News*, circ. 43,667, Beach sweep”
- 9/16/01, *Post and Courier*, circ. 109,614, “Volunteers sweep beaches, waterways clean”
- 9/16/01, *The State*, circ. 123,559, “9A.M. Saluda River Cleanup”
- 9/16/01, *Sun News*, circ. 43,667, “Cleanup Consoles Many”
- 9/16/01, *Florence Morning News*, circ. 32,428, “2001 Beach/River Sweep”
- 9/17/01, *Greenville News*, circ. 97,407, “Despite weather, emotions, crews turn out to clean shoreline”
- 9/17/01, *Island Packet*, circ. 15,105, “Bad weather, events don’t stop cleanup”
- 9/17/01, *Independent-Mail*, circ. 44,024, “Crews turn out to clean shoreline”
- 9/17/01, *Times and Democrat*, circ. 18,197, “Despite weather, emotions of week, crews turn out to clean shoreline”
- 9/17/01, *Beaufort Gazette*, circ. 12,252, “Crews pick up trash along shore”
- 9/19/01, *Journal-Scene*, circ. 8,500, “Cleaning up”
- 9/19/01, *Georgetown Times*, circ. 8,612, “Cleaning up the waterways”
- 9/19/01, *Hanahan News*, circ. 21,000, “Swamp Sweep XI”
- 9/19/01, *Hartsville Messenger*, circ. 6,536, “Black Creek River Sweep announced”
- 9/20/01, *North Myrtle Beach Times*, circ. 8,500, “Ready to Begin” (BS/RS photo)
- 9/20/01, *Myrtle Beach Herald*, circ. 10,000, “Cleaning up the beach”
- 9/20/01, *SC Landowner’s Association Home Page*, Link: “Read The Beauty of Sprawl, by John H. Tibbetts”
- 9/21/01, *Union Daily Times*, circ. 6,697, “River Sweep”
- 9/26/01, *Hanahan News*, circ. 21,000, “Swamp Sweep XI”
- 9/26/01, *Hanahan News*, circ. 21,000 “Beach Sweep students clean up environment”
- 9/26/01, *The Whitmire News*, circ. 3,800, “River Sweep nets 1,760 pounds of trash”
- 9/26/01, *Keowee Courier*, circ. 3,500, “River Sweep nets 1,760 pounds of trash”
- 9/26/01, *Lee County Observer*, circ. 4,000, “Volunteers needed for Congaree River Sweep”
- 9/26/01, *Beaufort Gazette*, circ. 12,252, “Beach/River Sweep shows citizen pride”
(*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 9/27/01, *Times and Democrat*, circ. 18,197, “Congaree Swamp to participate in river sweep”
- 9/27/01, *Herald-Journal*, circ. 61,450, “State cleanup efforts” ” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 9/28/01, *Greenville News*, circ. 97,407, “Thanks for keeping Carolina clean” ” (*Letter to Editor: Palmetto Pride neglected to mention partners*)

September 2001 – 5 hits mentioning S.C. Sea Grant activities

- 9/01, *Business Monthly*, “The world watches as the Hunley reveals its secrets”
- 9/4/01, *Post and Courier*, circ. 109,614, “Playground at sea” (S.C. Sea Grant supported project, At Sea!)
- 9/21/01, *Index-Journal*, circ. 18,250, “Oyster project builds reefs, recycling bins” (Sea Grant funded project)
- 9/21/01, *Sun News*, circ. 43,667, “Strand urged to address runoff”
- 9/27/01, *The Journal*, circ. 1,700, “Department of Natural Resources aids in preservation of oyster reef habitats”

October 2001 – 37 hits due to media releases and news items

- 10/3/01, *Clinton Cronicle*, circ. 5,000, “Amazing volunteers” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/3/01, *Hanahan News*, circ. 21,000, “Cleaning up North Charleston”
- 10/3/01, *Lee County Observer*, circ. 4,000, “Beach Sweep/River Sweep success thanks to help from volunteers” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/3/01, *Goose Creek Gazette*, circ. 4,500, “Thanks to Beach Sweep/River Sweep volunteers” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/3/01, *Travelers Rest Monitor*, circ. 6,000, “Please do not litter” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/3/01, *Easley Progress*, circ. 10,000, “Good volunteer response to Beach Sweep/River Sweep 2001” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/3/01, *Marion Star & Mullins Enterprise*, circ. 6,880, “Tremendous support make Beach Sweep/River Sweep 2001 a success” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/4/01, *Coastal Observer*, “Successful clean-up” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/4/01, *North Myrtle Beach Times*, circ. 8,500, “Beach Sweep is successful” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/4/01, *Twin-City News*, circ. 4,744, “Letters” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/4/01, *Loris Times*, circ. 4,500, “Beach Sweep is successful” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/4/01, *Herald Independent*, circ. 5,645, “Letters to the Editor” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/5/01, *Daily Journal*, circ. 8,615, “Volunteers clean river banks”
- 10/5/01, *Daily Messenger*, circ. 2,184, “Volunteers clean river banks”
- 10/5/01, *Beaufort Gazette*, circ. 12,252, “Teens Sweep Beach”
- 10/4/01, *News & Reporter*, circ. 6,650, “Senator thanks citizens for cleaning up litter” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/7/01, *The State*, circ. 123,559, “Volunteers urged to clean up S.C.” (*Letter to Editor: Palmetto Pride neglected to mention partners*)

- 10/8/01, *Island Packet*, circ. 15,105, “To volunteers” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/8/01, *Index-Journal*, circ. 18,250, “Clean-up largest yet” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/9/01, *Florence Morning News*, circ. 32,428, “Thanks for help cleaning up” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/9/01, *News-Era*, circ. 2,511, “Palmetto Pride chairman says Clean Sweep a success” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/10/01, *Tribune-Times*, circ. 6,508, “Thanks for help in River Sweep” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/10/01, *Goose Creek Gazette*, circ. 4,500, “Students hit the beach for sweep”
- 10/10/01, *Advertiser-Herald*, circ. 3,500, “Letter to Editor” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/10/01, *Berkeley Independent*, circ. 10,485, “Over 8,000 participate in Beach Sweep” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/11/01, *Myrtle Beach Herald*, circ. 10,000, “Beach Sweep/River Sweep 2001 support appreciated” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/11/01, *Greenville News*, circ. 97,407, “Take a preventative approach to litter” (*Response to Palmetto Pride letter to editor*)
- 10/17/01, *Sun News*, circ. 43,667, “Erosion workshop held Thursday”
- 10/18/01, *Coastal Observer*, “Beach trash down”
- 10/21/01, *Times and Democrat*, circ. 18,197, “Volunteers report less litter at Beach Sweep/River Sweep”
- 10/21/01, *Island Packet*, circ. 15,105, “Residents participate in state’s largest Beach and River Sweep”
- 10/24/01, *Journal-Scene*, circ. 8,500, “A clean sweep”
- 10/24/01, *News*, circ. 4,515, “Participants thanked for help in Beach/River Sweep 2001” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 10/24/01, *People-Sentinel*, circ. 6,492, “Volunteers report less litter at Beach/River Sweep 2001”
- 10/24/01, *Allendale County Citizen Leader*, circ. 2,171, “Volunteers report less litter at Beach/River Sweep 2001”
- 10/31/01, *Georgetown Times*, circ. 8,612, “Beach Sweep: Not as much litter to pick up”
- 10/31/01, *Sun News*, circ. 43,667, “Sweep 2001: Volunteers clean trash from waterways” (*Letter to Editor: Palmetto Pride neglected to mention partners*)

October 2001 – 8 hits mentioning S.C. Sea Grant activities

- 10/7/01, *Sun News*, circ. 43,667, “Our new frontier”
- 10/9/01, *Carolina Morning News*, “Coast-A-Syst”
- 10/5/01, *Beaufort Gazette*, circ. 12,252, “Aquarium friends sponsor program”
- 10/15/01, *Island Packet*, circ. 15,105, “Wednesday calendar: LU-CES announcement”
- 10/11/01, *Coastal Observer*, circ., 4,800, “Sturgeon Recovery”
- 10/17/01, *Georgetown Times*, circ. 8,612, “On line, live from the estuary” (mentions Beach Sweep)
- 10/19/01, *Sun News*, circ. 43,667, “Study to gauge effects of sea waves”

- 10/28/01, *Sun News*, circ. 43,667, “Student project aims to educate”

November 2001 – 6 hits due to media releases and news items

- 11/8/01, *Calhoun Times*, circ. 2,200, “Beach Sweep/River Sweep” (*Letter to Editor: Palmetto Pride neglected to mention partners*)
- 11/11/01, *Beaufort Gazette*, circ. 12,252, “Video helps homeowners ‘hold on to their roofs’”
- 11/11/01, *Lancaster News*, circ. 12,637, “Cub Scout troop participated in Beach Sweep”
- 11/19/01, *Charleston Regional Business Journal*, circ. 20,000 “New video helps homeowners keep their roofs”
- 11/19/01, 2002 SC Chamber of Commerce business magazine, circ. 10,000, “Environmentally enlightened decision-making” article by Rick DeVoe
- 11/27/01, *Wildlife Pride*, circ. 14,000, November/December 2001, Lead story, “The Bird Chase” reprinted from *Coastal Heritage*, Vol. 15, No. 4, Spring 2001.

November 2001 – 5 hits mentioning S.C. Sea Grant activities

- 11/1/01, *Coastal Observer*, “Endangered lowcountry wetlands”
- 11/7/01, *People-Sentinel*, circ. 6,492, “Nominations sought to honor environmental awareness”
- 11/7/01, *Allendale County Citizen Leader*, circ. 2,171, “Nominations sought to honor environmental awareness”
- 11/7/01, *Santee-Striper*, circ. 5,730, “S.C. Environmental Awareness Award nominations sought”
- 11/26/01, *Post and Courier*, circ. 109,614, “Program for storks stirs debate” (*Quote from Rick DeVoe*)

December 2001 – 6 hits due to media releases and news items

- 12/5/01, *Post and Courier*, circ, 109,614, “Sea Grant board elects Ingle as new chairman”
- 12/13/01, *North Myrtle Beach Times*, circ. 8,500, “Sea Grant Board elects Ingle chair”
- 12/13/01, *The Myrtle Beach Herald*, circ., 10,000, “The Ocean Swallowing Garden City Beaches,” mentions Coastal Erosion Study and the CES workshops held in Savannah and Myrtle Beach
- 12/14/01, *Georgetown Times*, circ, 8,612, “Ingle to chair Sea Grant Board”
- 12/19-01, *Moultrie News*, circ. 11,700, “H.L. Hunley: Integrating Microbiology and Underwater Archaeology Into The Project”
- 12/20/01, *Coastal Observer*, “Sea Grant” (Ingle as new chair)

December 2001 – 4 hits mentioning S.C. Sea Grant activities

- 12/13/01, *Union Daily Times*, circ. 6,697, “Farr named coordinator of Keep S.C. Beautiful” (*mentions Beach Sweep*)
- 12/17/01, *Post and Courier*, circ, 109,614, “Distinctions: Davis receives” (*mentions S.C. Sea Grant*)
- 12/18/01, *Post and Courier*, circ, 109,614, “Algae program seeks to identify health risks” (*S.C. Sea Grant funded project*)

- 1/28/01, *Myrtle Beach Herald*, circ. 10,000, “Clemson rips houses apart in testing”

January 2002 – 3 hits due to media releases and news items

- 1/02, *Coastal Carolina Business Journal*, Vol. 3, No. 4, January 2002, “Those Shifting Sands” Page 48. Story on USGS and S.C. Sea Grant.
- 1/22/02, *Carolina Morning News*, circ. (M-Th) 6,000, “Coastal real estate booklet available”
- 1/28/02, *Charleston Business Journal*, circ. 20,000, “Sea Grant publishes coastal real estate purchasing guide”

January 2002 – 6 hits mentioning S.C. Sea Grant activities

- 1/3/02, *Horry Independent*, circ. 6,000, “Houses Come Crashing Down” (*mentions S.C. Sea Grant*)
- 1/17/02, *Post and Courier*, circ. 109,614, “Ocean policy commission puts premium on partnerships” (*quote from Rick DeVoe*)
- 1/16/02, *The Moultrie News*, circ., 11,700, “Legislative Update-Rep. Chip Limehouse,” mentions Beach Sweep/River Sweep program
- 1/21/02, *Beaufort Gazette*, circ. 12,252, “Exchange Club” (*mentions Beach Sweep*)
- 1/25/02, *Carolina Morning News*, circ. (Fri) 12,000, “Lowcountry Institute, Friends of the Rivers join forces,” mentions S.C. Sea Grant Consortium
- 1/25/02, *Georgetown Times*, circ. 8,612, “Fish Farmers seeking new guidelines” (*mentions Jack Whetstone, Sea Grant Extension Specialist*)

February 2002 – 7 hits mentioning S.C. Sea Grant activities

- 2/1/02, *The Chronicle of Higher Education*, Web site, “Scientists Object to White House Plan to Move Sea Grant Program”
- 2/3/02, *Sun News*, circ. 43,667, “Grasping Geography: Team Combs Beach for Hidden Answers” (*Mentions Paul Gayes and coastal erosion study*)
- 2/5/02, *Westminster News*, circ. 2,100, “Water Quality Education Program Scheduled for Community Leaders” (*Mentions NEMO and Cal Sawyer*)
- 2/7/02, *Coastal Observer*, “Birding festival comes home to roost” (*Mentions S.C. Sea Grant as sponsor*)
- 2/7/02, *The State*, circ. 123,559, “Lou, Louie look to lick litter” (*mentions Beach Sweep/River Sweep*)
- 2/9/02, *Post and Courier*, circ. 109,614 “Center teaches disaster mitigation” (*Letter to the Editor about the 113 Calhoun house written by former employee Peg Alford*)
- 2/28/02, *Post and Courier*, circ. 109,614, “Founder of birds of prey center honored for work with raptors”

March 2002 – 1 hit mentioning S.C. Sea Grant activities

- 3/14/02, *Northeast News*, circ. 10,000, “Birds of Prey founder gets environmental award”

April 2002 – 8 hits due to media releases and news items

- 4/5/02, *Scitech Daily Review*, (scitechdaily.com), Web site points to *Coastal Heritage*, Vol. 16, No. 3, Winter 2001, “Triumph of the Weed” for information about biological invaders.
- 4/19/02, *Journal-Scene*, circ. 8,500, “Beach Sweep/River Sweep” Letter to the Editor from Susan Ferris
- 4/24/02, *Weekly Observer*, circ. 3,000, “Sweep set for September”
- 4/24/02, *Lake City News & Post*, circ. 3,200, “Beach Sweep-River Sweep set for September”
- 4/24/02, *Moultrie News*, circ. 11,700, “Thanks to all who Participated in Beach Sweep” Letter to the Editor from Susan Ferris
- 4/24/02, *Herald-Journal*, circ. 61,450, “Kathryn D. Sullivan Science and Engineering Fellowship”
- 4/25/02, *Myrtle Beach Herald*, circ. 10,000, “Beach Sweep/River Sweep volunteers are appreciated” Letter to the Editor from Susan Ferris
- 4/25/02, *The Journal*, circ. 1,700, “Thanks to all who Participated in Beach Sweep” Letter to the Editor from Susan Ferris

April 2002 – 3 hits mentioning S.C. Sea Grant activities

- 4/1/02, *Post and Courier*, circ. 109,614, calendar section, Chartered Property & Casualty Underwriters meeting, mentions Beth Judge, S.C. Sea Grant Extension Program.
- 4/10/02, *Advertiser-Herald*, circ. 3,500, “Voorhees College to Celebrate Anniversary”
- 4/21/02, *The Item*, circ. 21,671, “Sumter County: Crawdad capital of S.C.” Quote from Jack Whetstone, S.C. Sea Grant Extension specialist.

May 2002 – 13 hits due to media releases and news items

- 5/1/02, *Goose Creek Gazette*, circ. 1,500, “Volunteers gave time in spite of Sept. 11” (Letter to editor from Susan Ferris)
- 5/1/02, *Hanahan News*, circ. 21,000, “clean up effort a sweep” (Letter to editor from Susan Ferris)
- 5/1/02, *Moultrie News*, circ. 11,700 “LaZar earns scholarship”
- 5/1/02, *Charleston County Solid Waste*, spring/summer newsletter. Beach Sweep listed.
- 5/2/02, *Sustainable Universities Initiative* website, a program founded by Clemson, MUSC, and USC. Beach Sweep listed.
- 5/1/02, *SCIWAY* website, with link to SCSGC. Beach Sweep listed.
- 5/3/02, *Florence Morning News*, circ. 32,428, “S.C. Sea Grant Consortium awarded \$1.6 million”
- 5/5/02, *Morning News*, circ. 73,165, “S.C. Sea Grant announces the following” (Clair, Robinson employment announcement)
- 5/6/02, *S.C. Educational Radio* interview with Rick and Gary Kleppel about the LU-CES project
- 5/6/02, *The Post and Courier*, circ. 109,614, Executive Items: Sea Grant (Clair, Robinson employment announcement)
- 5/20/02, *Charleston Business Journal*, circ. 20,000, Executive Items: Sea Grant (Clair, Robinson employment announcement)

- 5/20/02, *Charleston Business Journal*, circ. 20,000, “S.C. Sea Grant Consortium awarded \$1.6 million”
- 5/22/02, *Georgetown Times*, circ. 8,612, “Sea Grant fiscal manager earns MBA”

May 2002 – 3 hits mentioning S.C. Sea Grant activities

- 5/22/02, *Daily Messenger*, circ. 2,184, “Oyster Restoration: Reefs for the future” Photo of Jack Whetstone.
- 5/26/02. *The Item*, circ. 21,671, “Sumter County tourism getting back to nature to attract new visitors” Several quotes from Bob Bacon and mentions S.C. Sea Grant Extension Program.
- 5/30/02, *Coastal Observer*, “Bags will aid litter collection at beaches” Mentions Beach Sweep and date.

June 2002 – 3 hits due to media releases and news items

- 6/12/02, *Beaufort Gazette*, circ. 12,252, “Hurricane booklets focus on preparation”
- 6/12/02, *Goose Creek Gazette*, circ. 4,500, “Hurricane preparedness publications available”
- 6/13/02, *Sun News*, circ. 43,667, “Hurricane preparation publications from Sea Grant”

June 2002 – 7 hits mentioning S.C. Sea Grant activities

- 6/02, Show Me Results! Success Stories of the Florida Energy Office 2002, “Florida Program Helps South Carolina Promote Solar Alternatives” Feature story on 113 Calhoun.
- 6/2/02, *Times and Democrat*, circ. 18,197, “Fish kills may increase this summer” Harmful algae program, mentions S.C. Sea Grant as partner.
- 6/5/02, *Observer*, circ. 2,000, “Fish kills in coastal areas may increase this summer, public asked to notify DNR” Harmful algae program, mentions S.C. Sea Grant as partner.
- 6/5/02, *Hampton County Guardian*, circ. 4,564, “Public’s help sought in monitoring fish kills” Harmful algae program, mentions S.C. Sea Grant as partner.
- 6/10/02, *Post and Courier*, circ. 109,614, “Exchange” Story features speaker for 113 Calhoun Street project and mentions S.C. Sea Grant Consortium.
- 6/17/02, *Post and Courier*, circ. 109,614, “Exchange” Story features speaker for 113 Calhoun Street project and mentions S.C. Sea Grant Consortium.
- 6/26/02, *Hanahan News*, circ. 21,000, “Zebra Mussels pose risk to most South Carolina waters”

July 2002 – 5 hits due to media releases and news items

- 7/1/02, *Charleston Regional Business Journal*, circ. 20,000, “Accolades & More” Romeka Washington gets degree.
- 7/20/02, *Beaufort Gazette*, circ. 12,252, “Magazine wins APEX Award”
- 7/02/02, Beach Sweep/River Sweep paragraph in the “July News” mass e-mail sent by the S.C. Wildlife Federation
- 7/05/02, Beach Sweep/River Sweep, 113 Calhoun, and Hurricane Preparation workshop (hosted by staff at 113 Calhoun) mentions in Clemson Extension’s *Extension Chords* newsletter

- 7/28/02, *The State*, circ. 123,559, “Coastal Heritage wins award”

July 2002 – 8 hits mentioning S.C. Sea Grant activities

- 7/5/02, *Santee Stripper*, circ. 5,730, “Fish kills in coastal areas may increase this summer, public asked to notify DNR”
- 7/10/02, *Observer*, circ. 2,000, “Zebra mussels pose low risk to most SC waters”
- 7/10/02, *Santee Stripper*, circ. 5,730, “Zebra mussels pose low risk to most SC waters”
- 7/22/02, *Sun News*, circ. 43,667, “Are the Beaches Getting Dirtier?” (Mentions Beach Sweep and S.C. Sea Grant.)
- 7/23/02, *Post and Courier*, circ. 109,614, Letter to the Editor “DHEC fines” (Mentions Beach Sweep.)
- 7/25/02, *Dispatch*, circ. 1,562, “Teachers take to Edisto for workshop” (Mentions Jennifer Clair and COASTeam Program)
- 7/26/02, *Press & Standard*, circ. 6,097, Editorial “DNR project will help youth appreciate outdoors” (Mentions Jennifer Clair and COASTeam Program)
- 7/26/02, *Press & Standard*, circ. 6,097, “Teachers experience the ‘COAST’” (Mentions Jennifer Clair and COASTeam Program)

August 2002 – 10 hits due to media releases and news items

- 8/1/02, *Dillard Herald*, circ. 6,186, “Local effort organizing for September 21st Beach Sweep/River Sweep”
- 8/01/02, BS/RS event listing on SCIway and Earth911 websites
- 8/6/02, *Post and Courier*, circ. 109,614, “Coastal Heritage” (APEX Award)
- 8/6/02, *Charleston Business Journal*, circ. 20,000, “Coastal Heritage” (APEX Award)
- 8/06/02, Beach Sweep/River Sweep paragraph in the “July News” mass e-mail sent by the S.C. Wildlife Federation
- 8/18/02, *Beaufort Gazette*, circ. 12,225, “Swamp Sweep”
- 8/21/02, *Advertiser-Herald*, circ. 3,500, “Two River Cleanup events are planned for the Edisto”
- 8/21/02, *North Trade Journal*, circ. 1,300, “Friends of the Edisto organize cleanup”
- 8/28/02, *Advertiser-Herald*, circ. 3,500, “River sweep and national hunting & fishing day”
- 8/28/02, *Hanahan News*, circ. 21,000, Swamp Sweep XII”

August 2002 – 16 hits mentioning S.C. Sea Grant activities

- 8/02, *The Wind Engineer*, Newsletter of American Association for Wind Engineers, July 2002, “Wind Resistance of Light-Frame Wood Structures”, Article references S.C. Sea Grant, Beth Judge, and Tim Reinhold.
- 8/4/02, *Beaufort Gazette*, circ. 12,252, “Researchers try to better guess hurricanes’ paths” (Mentions S.C. Sea Grant and Coastal Erosion Study)
- 8/4/02, *Greenville News*, circ. 97,407, “Researchers try to better guess paths of hurricanes” (Mentions S.C. Sea Grant and Coastal Erosion Study)
- 8/4/02, *Post and Courier*, circ. 109,614, “Researchers try to better guess hurricane paths” (Mentions S.C. Sea Grant and Coastal Erosion Study)
- 8/4/02, *The Item*, circ. 21,671, “Researchers try to better guess hurricanes’ path” (Mentions S.C. Sea Grant and Coastal Erosion Study)

- 8/4/02, *Augusta Chronicle*, circ. 78,000, “Experts study hurricanes’ paths” (*Mentions S.C. Sea Grant and Coastal Erosion Study*)
- 8/4/02, *Index-Journal*, circ 18,250, “Coastal researchers looking for better ways to predict where hurricanes will make landfall” (*Mentions S.C. Sea Grant and Coastal Erosion Study*)
- 8/4/02, *Herald*, circ 30,534, “Researchers hone hurricane prediction skills” (*Mentions S.C. Sea Grant and Coastal Erosion Study*)
- 8/4/02, *Island Packet*, circ 15,105, “Researchers try to better guess hurricanes’ paths” (*Mentions S.C. Sea Grant and Coastal Erosion Study*)
- 8/02, *Coastal Services* magazine, “Thirty Years under the Coastal Zone Management Act” (*Quoted Rick DeVoe*)
- 8/21/02, *Weekly Observer*, circ. 3,000, “Coastal Cleanup set for Sept. 21” (*Beach Sweep announcement from Ocean Conservancy*)
- 8/25/02, *Post and Courier*, circ. 109,614, “OLN to feature S.C. red drum project” (*features Sea Grant funded project*)
- 8/25/02, *Times and Democrat*, circ. 18,197, “DNR’s red drum projects to be highlighted on TV show” (*features Sea Grant funded project, mentions Charlie Wenner*)
- 8/28/02, *Hanahan News*, circ. 21,000, “DNR Red Drum project to air on national TV show Aug. 31” (*features Sea Grant funded project, mentions Charlie Wenner*)
- 8/30/02, *Index-Journal*, circ. 18,250, “Red drum projects on TV Saturday” (*features Sea Grant funded project*)
- 8/30/02, *Santee Stripper*, circ. 5,730, “SC DNR red drum projects to air on national TV show Aug. 31” (*features Sea Grant funded project, mentions Charlie Wenner*)

September 2002 – 97 hits due to media releases and news items

- 9/1/02, BS/RS multiple mentions in Sept/Oct issue of *Charleston* magazine
- 9/2/02, *Ecology USA*, “6th International Conference on Shellfish Restoration”
- 9/03/02, BS/RS paragraph in the “September News” mass e-mail sent by the S.C. Wildlife Federation
- 9/04/02, BS/RS Calendar of Events listing on NSGO website
- 9/9/02, *Charleston Business Journal*, circ. 20,000, “Robert H. Bacon” (Leadership South Carolina)
- 9/9/02, *Charleston Business Journal*, circ. 20,000, “M. Richard DeVoe” (Executive Committee)
- 9/9/02, *Post and Courier*, circ. 109,614, “DeVoe Named”
- 9/11/02, *Herald*, circ. 30,543, “Sept. 21 is the day to clean up Catawba River”
- 9/11/02, *Gaffney Ledger*, circ. 10,331, “River ‘sweep’ looking for volunteers”
- 9/11/02, *Northeast News*, circ. 10,000, “Beach Sweep/River Sweep needs volunteers”
- 9/11/02, *Georgetown Times*, circ. 8,612, “Beach/River Sweep volunteers needed”
- 9/11/02, *News*, circ. 4,515, “Beach Sweep/river Sweep volunteers needed”
- 9/11/02, *Hanahan News*, circ. 21,000, “Swamp Sweep XII”
- 9/11/02, *Hanahan News*, circ. 21,000, “Beach/river Sweep volunteers needed”
- 9/11/02, *Free Times*, circ. 30,000, “Volunteers interested”
- 9/12/02, *Chapin times*, circ. 4,000 “Beach Sweep calendar item”
- 9/12/02, *Post and Courier*, circ. 109,614, “Beach Sweep 2002”

- 9/12/02, *Post and Courier*, circ. 109,614, “Swamp Sweep XII”
- 9/12/02, *Horry Independent*, circ. 6,000, “River Cleanup is Sept. 21”
- 9/12/02, *Dispatch*, circ. 1,526, “Beach Sweep/River Sweep”
- 9/12/02, *Coastal Observer*, “Cleaner beaches are in the bag”
- 9/12/02, *Times and Democrat*, circ. 18,197, “Swamp Sweep XII”
- 9/12/02, *Post and Courier*, circ. 109,614, “Beach Sweep/River Sweep”
- 9/13/02, *The State*, circ. 123,559, “River Sweep Volunteers”
- 9/13/02, *Journal-Scene*, circ. 8,500, “Beach/River Sweep 2002!”
- 9/14/02, *Beaufort Gazette*, circ. 12,252, “Calendar listing”
- 9/15/02, *Post and Courier*, circ. 109,614, “Beach Sweep 2002”
- 9/15/02, *Post and Courier*, circ. 109,614, “Beach Sweep/River Sweep”
- 9/15/02, *Beaufort Gazette*, circ. 12,252, “Volunteers needed”
- 9/15/02, *Island Packet*, circ. 15,105, “Residents pitch in to clean Battery Creek”
- 9/15/02, *Beaufort Gazette*, circ. 12,252, “Groups clean up Battery Creek”
- 9/16/02, *Post and Courier*, circ. 109,614, “Coastal Cleanup”
- 9/16/02, *Post and Courier*, circ. 109,614, “Swamp Sweep XII”
- 9/16/02, *The State*, circ. 123,559, “River Sweep to include greenway”
- 9/16/02, Live interview with Hollie and John at WJZX 99.7 FM
- 9/17/02, *Post and Courier*, circ. 109,614, “Coastweeks offers variety of events” (mentions BS/RS)
- 9/18/02, *Post and Courier*, circ. 109,614, “7,000 expected for Beach Sweep”
- 9/18/02, *Charleston City Paper*, “2002 River/Beach Sweep”
- 9/18/02, *Times and Democrat*, circ. 18,197, “There’s still time: Volunteers needed to help with beach, river sweeps”
- 9/18/02, *People-Sentinel*, circ. 6,492, “Volunteers needed for ‘sweep’”
- 9/18/02, *Island Packet*, circ. 15, 105, “Annual beach sweep set for this weekend”
- 9/18/02, *Blacksburg Times*, circ. 1,900, “Broad River clean-up”
- 9/18/02, *Allendale County Citizen Leader*, circ. 2,171, “Volunteers needed for ‘sweep’”
- 9/18/02, *Herald*, circ. 30,345, “Government in brief” (mentions Beach Sweep/River Sweep)
- 9/18/02, *Hanahan News*, circ. 21,000, “Swamp Sweep XII”
- 9/18/02, *Goose Creek Gazette*, circ. 4,500, “14th annual Beach Sweep/River Sweep slated for September 21”
- 9/18/02, *Georgetown Times*, circ. 8,612, “Help needed to clean up beaches, rivers”
- 9/18/02, *Keowee Courier*, circ. 2,500, “River Sweep set in Oconee County”
- 9/18/02, *Georgetown Times*, circ. 8,612, “Coastweeks, a celebration of state’s coastal resources, begins Saturday” (mentions BS/RS)
- 9/18/02, *Daily Messenger*, circ. 2,184, “The 8th annual South Carolina River Sweep”
- 9/18/02, *North Trade Journal*, circ. 1,300 “Volunteers needed to help clean area landings”
- 9/18/02, *Moultrie News*, circ. 11,700, “Beach /River Sweep to be held Saturday”
- 9/19/02, *The Columbia Star*, circ. 2,500, “Green Neighbor’s volunteer perform creek sweep”
- 9/19/02, *Dispatch-News*, circ. 7,504, “Group includes Greenway in cleanup”

- 9/19/02, *Dispatch-News*, circ. 7,504, “Beach Sweep/River Sweep set for this Saturday across the state”
- 9/19/02, *Dispatch*, circ. 1,526, “Beach Sweep/River Sweep 2002”
- 9/19/02, *Horry Independent*, circ. 6,000, “Volunteers needed for River Sweep”
- 9/19/02, *Fort Mill Times*, circ. 6,052, “SweepFest set for Saturday”
- 9/19/02, *Beaufort Gazette*, circ. 12,252, “Beach Sweep/River Sweep volunteers needed for Saturday”
- 9/19/02, *Post and Courier*, circ. 109,614, “Beach Sweep 2002”
- 9/19/02, *Post and Courier*, circ. 109,614, “Swamp Sweep XII”
- 9/19/02, *Post and Courier*, circ. 109,614, “Sweeps weekend”
- 9/19/02, *Post and Courier*, circ. 109,614, Editorial: “Reap Beach Sweep’s rewards”
- 9/19/02, *Post and Courier*, circ. 109,614, Preview Calendar: “Beach Sweep/River Sweep”
- 9/19/02, *Herald*, circ. 30,534, “Saturday is the day to clean up Catawba River”
- 9/19/02, *Daily Messenger*, circ. 2,184, “The 8th annual South Carolina River Sweep”
- 9/20/02, *Beaufort Gazette*, circ. 12,252, “BHS Interact club to sweep beach”
- 9/20/02, *The State*, circ. 123,559, “River Sweep volunteers”
- 9/20/02, *The State*, circ. 124,559, “A clean sweep”
- 9/20/02, *Beaufort Gazette*, circ. 12,252, “Volunteers prepare for annual Beach Sweep-River Sweep”
- 9/21/02, *Beaufort Gazette*, circ. 12,252, “Beach Sweep/River Sweep calendar listing”
- 9/21/02, *Sun News*, circ. 43,667, “Volunteer program to sweep beaches gains popularity”
- 9/21/02, *Florence Morning News*, circ. 32,428, “Annual Beach Sweep River Sweep is today”
- 9/21/02, *Beaufort Gazette*, circ. 12,252, “Citizenship, district assessing the future” (BS/RS)
- 9/21/02, *Daily Messenger*, circ. 2,184, “The 8th annual South Carolina River Sweep”
- 9/21/02, *Daily Journal*, circ. 8,615, “The 8th annual South Carolina River Sweep”
- 9/21/02, BS/RS mention in Good Morning Lowcountry section of the *Post & Courier*
- 9/22/02, *Post and Courier*, circ. 109,614, “Benevolent beachcombers” (*Photo and caption about Beach Sweep*)
- 9/22/02, *The State*, circ. 123,559, “Saluda cleanup yields less litter”
- 9/22/02, *Beaufort Gazette*, circ. 12,252, “Volunteers clean up wetlands”
- 9/22/02, *Sun News*, circ. 43,667, “Volunteers unearth less garbage on beach”
- 9/22/02, *Florence Morning News*, circ. 32,428, “Residents tidy up in state annual Beach/River Sweep”
- 9/22/02, *Daily Messenger*, circ. 2,184, “The 8th annual South Carolina River Sweep”
- 9/22/02, *Daily Journal*, circ. 8,615, “The 8th annual South Carolina River Sweep”
- 9/22/02, *Greenville News*, circ. 97,407 “Rain can’t wash out river cleanup”
- 9/23/02, *Charleston City Paper*, Vol. 6, No. 5, “Beach Sweep”
- 9/23/02, *Charleston City Paper*, Vol. 6, No. 5, “Urban Wear is Here And Beach Sweep takes out the trash”
- 9/24/02, Correction in the *Post & Courier* regarding BS/RS Folly stats
- 9/25/02, *People-Sentinel*, circ. 6,492, “Volunteers clean lake”
- 9/25/02, *Journal-Scene*, circ. 8,500, “Keep it clean!”

- 9/25/02, *Herald*, circ. 30,534, “16,800 pounds of trash collected from lake”
- 9/25/02, *Beaufort Gazette*, circ. 12,252, “Lets keep county clean, beautiful”
- 9/26/02, *Myrtle Beach Herald*, circ. 10,000, “Litter hunt seeks to clean beaches”
- 9/26/02, *Horry Independent*, circ. 6,000, “River Cleanup”
- 9/26/02, *Coastal Observer*, “Seasonal sweep clears litter”
- 9/26/02, *Fort Mill Times*, circ. 6,052, “View from the Times” (BS/RS)
- 9/28/02, *Greenville News*, circ. 97,407, “Volunteers collect Reedy trash”
- 9/02, *Chesapeake Quarterly*, Summer 2002, “Shellfish Conference”

September 2002 – 7 hits mentioning S.C. Sea Grant activities

- 9/2/02, *Times and Democrat*, circ. 18,197, “Respecting the river: cleanups designed to rid Edisto of tons of trash” (*Mentions Beach Sweep and S.C. Sea Grant*)
- 9/17/02, *Post and Courier*, circ 109,614, “Coastweeks offers variety of events” (*Mentions Beach Sweep*)
- 9/23/02, *Post and Courier*, circ. 109,614, “Thank you for making our day of caring a huge success” (mentions S.C. Sea Grant)
- 9/25/02, *Lee County Observer*, circ. 4,000, “Peace of mind can be regained at Edisto” (mentions BS/RS)
- 9/29/02, *Times and Democrat*, circ. 18,197, “Zebra mussels pose low risk to most S.C. waters”
- 9/30/02, *Beaufort Gazette*, circ. 12,252, “USV gets \$500,000 research grant” (mentions Sea grant researcher Alan Lewitus)
- 9/02, *Natural Hazards Observer*, “Hurricanes” (*Coastal Heritage, Vol. 17, No. 1, Summer 2002, Floyd Follies: What We’ve Learned* was listed and described)

October 2002 – 14 hits due to media releases and news items

- 10/2/02, *North Trade Journal*, circ. 1,300, “Concerned citizens participate in ‘Edisto River Sweep”
- 10/2/02, *North Trade Journal*, circ. 1,300, “Volunteers pick up trash” (photos of sweepers)
- 10/2/02, *Moultrie News*, circ. 11,700, “Beach Sweep, Penn State style”
- 10/3/02, *Coastal Observer*, “Beach sweepers find medical waste during cleanup”
- 10/3/02, *Fort Mill Times*, circ. 6,052, “Report on RiverSweep”
- 10/5/02, *Sun News*, circ. 43,667, “Medical trash drifts ashore” (BS/RS)
- 10/5/02, *Times and Democrat*, circ. 18,197, “River Sweep: Citizens picked up 600 pounds of trash at three Edisto landings”
- 10/8/02, *Dillion Herald*, circ. 6,186, “Civic Pride working group sponsors Little Pee Dee River clean up”
- 10/16/02, *Clinton Chronicle*, circ. 5,500, “Bell Street sweep”
- 10/16/02, *Jasper County Sun*, circ. 3,100, “Students team up to clean county’s landings”
- 10/16/02, *Hardeeville Times*, circ. 3,100, “Students team up to clean county’s landings”
- 10/18/02, *Sun News*, circ. 43,667, “Debordieu: Beach sweep yields nine bags of trash”
- 10/30/02, *Westminster News*, circ. 2,100, “River Sweep removes 387 pounds of trash along Chattooga, Chauga”

- 10/30/02, *Keowee Courier*, circ. 2,500, “River Sweep removes 387 pounds of trash along Chattooga, Chauga”

October 2002 – 11 hits mentioning S.C. Sea Grant activities

- 10/9/02, *Journal-Scene*, circ. 8,500, “EPA mandate drives stormwater fees” (quote from Cal Sawyer, mentions NEMO and S.C. Sea Grant)
- 10/11/02, *Journal-Scene*, circ. 8,500, “South Carolina Aquaculture 2002” (mentions S.C. Sea Grant Extension and Jack Whetstone)
- 10/16/02, *Sun News*, circ. 43,667, “Stormwater solution key candidate issue” (quote from Cal Sawyer)
- 10/17/02, *Calhoun Times*, circ. 2,200, “South Carolina Aquaculture 2002” (mentions S.C. Sea Grant Extension and Jack Whetstone)
- 10/23/02, *Post and Courier*, circ. 109,614, “Coast growth leads state, report says” (mentions S.C. Sea Grant)
- 10/25/02, *Carolina Morning News*, “Experts say residents must get involved in preserving waterways” (Quote from Cal Sawyer and mentions S.C. Sea Grant)
- 10/25/02, *The Beaufort Gazette*, circ. 12,252 “Friends of the Rivers promotes care, understanding at Okatie presentation” (Quote from Cal Sawyer and mentions S.C. Sea Grant)
- 10/25/02, *Island Packet*, circ. 15,105, “Program educates about waterways” (quote from Cal Sawyer)
- 10/25/02, *Index-Journal*, circ. 18,250, “Red drum numbers being increased” (mentions S.C. Sea Grant)
- 10/25/02, *Morning News*, circ. 73,165, “DNR stocks red drum” (mentions S.C. Sea Grant)
- 10/29/02, *Sun News*, circ. 43,667, “Coastline Erosion Mapped” (mentions S.C. Sea Grant)

November 2002 – 4 hits due to media releases and news items

- 11/5/02, *Daily Journal*, circ. 8,616, “River Sweep”
- 11/5/02, *Daily Messenger*, circ. 2,184, “River Sweep”
- 11/11/02, *Beaufort Gazette*, circ. 12,252, “Shellfish conference set”
- 11/21/02, *Post and Courier*, circ. 109,614, “Shellfish decline, restoration addressed”

November 2002 – 21 hits mentioning S.C. Sea Grant activities

- 11/6/02, *Independent-Mail*, circ. 44,024, “Environmental champions sought” (mentions Sea Grant)
- 11/7/02, *Dispatch*, circ. 1,562, “Nominations sought for environmental award” (mentions S.C. Sea Grant)
- 11/8/02, *Hartsville Messenger*, circ. 6,536, “Nominations sought for S.C. environmental award” (mentions S.C. Sea Grant)
- 11/10/02, *Index-Journal*, circ. 18,250, “Researcher working to ensure future of diamondback terrapins” (S.C. Sea Grant funded project, no mention)
- 11/10/02, *Herald-Journal*, circ. 61,450, “Researchers track diamondback terrapins” (S.C. Sea Grant funded project, no mention)

- 11/10/02, *Sun News*, circ. 43,667, “Biologist’s goal to save turtles” (S.C. Sea Grant funded project, no mention)
- 11/12/02, *Post and Courier*, circ. 109,614, “At Sea” (mentions S.C. Sea Grant)
- 11/13/02, *Clinton Chronicle*, circ. 5,000, “Nominations sought for S.C. environmental award” (mentions S.C. Sea Grant)
- 11/13/02, *Blacksburg Times*, circ. 1,900, “DHEC Seeks Environmental Awareness Award Nominations” (mentions S.C. Sea Grant)
- 11/13/02, *Santee Stripper*, circ. 5,730, “Nominations sought for S.C. environmental award” (mentions S.C. Sea Grant)
- 11/13/02, *The Times Examiner*, circ. 3,000, “Nominations sought for SC environmental award” (mentions S.C. Sea Grant)
- 11/13/02, *Georgetown Times*, circ. 8,612, “Coastal growth leads Palmetto State, report says” (mentions S.C. Sea Grant Consortium)
- 11/13/02, *Observer*, circ. 2,000, “Nominations sought for S.C. environmental award” (mentions Sea Grant)
- 11/18/02, *Augusta Chronicle*, circ. 78,000 “Man fights to save terrapins” (S.C. Sea Grant funded project, no mention)
- 11/20/02, *Star & Beacon*, circ. 8,000, “Nominations sought for S.C. environmental award” (mentions S.C. Sea Grant)
- 11/20/02, *News*, circ. 4,515, “Nominations sought for SC environmental award” (mentions S.C. Sea Grant)
- 11/21/02, *Cheraw Chronicle*, circ. 7,195, “Nominations sought for S.C. environmental award” (mentions S.C. Sea Grant)
- 11/21/02, *Post and Courier*, circ. 109,614, “Shellfish decline, restoration addressed” (mentions S.C. Sea Grant)
- 11/22/02, *Post and Courier*, circ. 109,614, “Shellfish report urges coordination” (mentions ICSR conference)
- 11/25/02, *Georgetown Times*, circ. 8,612, “Coordination of shellfish management urged” (mentions ICSR)
- 11/27/02, *News & Reporter*, circ. 6,650, “S.C. Environmental Awareness Award nominations sought through Dec. 31” (mentions S.C. Sea Grant)

December 2002 – 1 hit due to media releases and news items

- 12/05/02, Bob Bacon and Cal Sawyer interview aired on Clemson’s radio program, “Your Day,” on SC Educational Radio.

December 2002 – 6 hits mentioning S.C. Sea Grant activities

- 12/13/02, *Post and Courier*, circ. 109,614, “Red drum get boost” (mentions S.C. Sea Grant funded project)
- 12/15/02, *Independent-Mail*, circ. 44,024, “Red drum population grows with hatchery work” (S.C. Sea Grant funded project)
- 12/15/02, *Greenville News*, circ. 97,407, “Red drum population grows with state’s hatchery work” (S.C. Sea Grant funded project)
- 12/16/02, *Index-Journal*, circ. 44,024, “More red drum added to waters” (S.C. Sea Grant funded project)

- 12/22/02, *Beaufort Gazette*, circ. 12,252, “Lowcountry waters get red drum infusion” (mentions S.C. Sea Grant funded project)
- 12/25/02, *Moultrie News*, circ. 11,700, “DNR stocks nearly 2 million red drum in estuaries in most productive year” (mentions S.C. Sea Grant funded project)

January 2003 – 4 hits due to media releases and news items

- 1/2/03, *Horry Independent*, circ. 6,000, “Ingle Re-elected Sea Grant Chair”
- 1/2/03, *North Myrtle Beach Times*, circ. 8,500, “Ingle to serve as board chair”
- 1/3/03, *The Loris Scene*, circ. 5,000, “Ingle Re-elected Board Chairman”
- 1/13/03, *Coastal Carolina University Newsletter*, circ. 1,050, “Ingle re-elected to chair Sea Grant Consortium”

January 2003 – 9 hits mentioning S.C. Sea Grant activities

- 1/22/03, *Georgetown Times*, circ. 8,612, “Inlet group looks at water quality, oyster project” (mentions project Sea Grant funded)
- 1/24/03, *The Post and Courier*, circ. 109,614, “Shrimpers to battle imports” (mentions S.C. Sea Grant)
- 1/25/03, *The Post and Courier*, circ. 109,614, “Measure offers relief to state’s shrimpers” (mentions S.C. Sea Grant and quote from Rick DeVoe)
- 1/28/03, *The Post and Courier*, circ. 109,614, “Report on ocean policy stresses regional effort” (mentions Sea Grant and SECOS)
- 1/28/03, *Florence Morning News*, circ. 32,428, “Ocean Commission work will affect next generation” (mentions SECOS)
- 1/28/03, *Index-Journal*, circ. 18,250, “Commissioner: Ocean policy work to affect research” (mentions SECOS conference)
- 1/28/03, *Island Packet*, circ. 15,105, “Ocean commission member: Work will affect next generation” (mentions SECOS conference)
- 1/28/03, *The Item*, circ. 21,671, “Ocean panel member says efforts will impact future” (mentions SECOS conference)
- 1/29/03, *Georgetown Times*, circ. 8,612, “Measure offers relief to shrimpers” (mentions S.C. Sea Grant and quote from Rick DeVoe)

February 2003 – 1 hit due to media releases and news items

- 2/25/03, *Post & Courier*, circ. 109,614, “Ocean science center gets funding from foundation”

February 2003 – 9 hits mentioning S.C. Sea Grant activities

- 2/2/03, *Beaufort Times*, circ. 12,252, “Bill would help area shrimpers” (mentions S.C. Sea Grant)
- 2/2/03, *Island Packet*, circ. 15,105, “Bill would give shrimping \$5M boost” (mentions S.C. Sea Grant)
- 2/8/03, *Island Packet*, circ. 15,105, “Coastal Council outlines goals” (mentions S.C. Sea Grant)
- 2/14/03, *Press & Standard*, circ. 6,097, “African American Trail guide available” (mentions S.C. Sea Grant)

- 2/21/03, *Post & Courier*, circ. 109,614, “Shrimpers likely to net \$5.5 million” (mentions S.C. Sea Grant, quote from DeVoe)
- 2/21/03, *Journal-Scene*, circ. 8,500, “Booklet highlights African-American sites” (mentions S.C. Sea Grant)
- 2/25/03, *Press & Standard*, circ. 6,079, “Shrimpers get relief” (mentions S.C. Sea Grant, quote from DeVoe)
- 2/27/03, *Dispatch*, circ. 1,526, “County seeks more black tourists” (mentions S.C. Sea Grant)
- 2/28/03, *Georgetown Times*, circ. 8,612, “Fishermen hope aid arrives in time” (mentions S.C. Sea Grant, quote from DeVoe)

March 2003 – 11 hits mentioning S.C. Sea Grant activities

- 3/1/03, *Post and Courier*, circ. 109,614, “Shrimpers discussing best uses of federal aid” (mentions S.C. Sea Grant, quote from DeVoe)
- 3/3/03, *Gaffney Ledger*, circ. 10,331, “Camps provide exciting activities for kids” (mentions S.C. Sea Grant)
- 3/3/03, *Georgetown Times*, circ. 8,612, “Shrimpers discussing best uses of aid” (mentions S.C. Sea Grant, quote from DeVoe)
- 3/6/03, *County Observer*, “Beach Sweep/River Sweep, September 20” (mention in advertisement)
- 3/6/03, *The Cherokee Chronicle* circ. 5,600 “Your child can enjoy one of 3 different 4-H champs” (mentions Sea Grant Consortium)
- 3/8/03, *Independent-Mail*, circ. 44,024, “Contractors’ deadline approaches” (mentions S.C. Sea Grant)
- 3/10/03, *Island Packet*, circ. 15,105, “Industry awaits aid” (quote from DeVoe, mentions S.C. Sea Grant)
- 3/10/03, *Beaufort Gazette*, circ. 12,252, “Shrimpers to get federal aid” (quote from DeVoe, mentions S.C. Sea Grant)
- 3/12/03, *Journal-Scene*, circ. 8,500, “Clear Water Contractor Program debuts in Greenville March 20” (mentions S.C. Sea Grant Extension Program, quote from Cal Sawyer)
- 3/18/03, *Press & Standard*, circ. 6,097, “Teaching the environment: Educators learn lessons about the ACE Basin” (mentions COASTeam)
- 3/22/03, *Island Packet*, circ. 15,105, “Center harvests greenhouse shrimp” (mentions S.C. Sea Grant)

April 2003 – 2 hits due to media releases and news items

- 4/2/03, *Journal-Scene*, circ. 8,500, “New Center” (mentions SECOSEE and S.C. Sea Grant)
- 4/30/2003, *Georgetown Times*, circ. 8,612, “Volunteers appreciated”

April 2003 – 3 hits mentioning S.C. Sea Grant activities

- 4/11/03, *Post and Courier*, circ. 109,614, “Yellow ribbons to top cleanup site” (mentions S.C. Sea Grant)
- 4/13, *Extension Answers*, Vol. 17, No. 2, Spring 2003, “Clear Water Contractor Program debuts in Greenville”

- 4/30, *Summerville Journal Scene*, “Clemson offers local clearwater programming”

May 2003 – 8 hits due to media releases and news items

- 5/1/03, *Loris Times*, circ. 4,500, “Volunteer for Beach/River Sweep”
- 5/1/03, *North Myrtle Beach Times*, circ. 8,600, “Volunteer for Beach/River Sweep”
- 5/1/03, *Myrtle Beach Herald*, circ. 10,000, “Volunteers are appreciated”
- 5/7/03, *Goose Creek Gazette*, circ. 4,500, “Get ready to sweep”
- 5/7/03, *Moultrie News*, circ. 11,700, “A real clean sweep”
- 5/8/03, *Journal*, circ. 5,100, “A real clean sweep”
- 5/11/03, *Beaufort Gazette*, circ. 12,225, “Keeping it clean”
- 5/26/03, *Island Packet*, circ. 18,500, “To volunteers” (letter to editor, Beach Sweep)

May 2003 – 2 hits mentioning S.C. Sea Grant activities

- 5/8/03, *Chapin Times*, circ. 4,000, “Chapin Elementary students recognize Revenue Dept.”
- 5/19/03, *Post and Courier*, circ. 109,614, “Business links: Conventions”

June 2003 – 3 hits due to media releases and news items

- 6/18/03, *Loris Scene*, circ. 5,000, “Hurricane Guide Available”
- 6/30/03, *Charleston Regional Business Journal*, “Sea Grant offers hurricane prep publications”
- 6/30/03, *Charleston Regional Business Journal*, “Accolades and more: Rick DeVoe”

June 2003 – 2 hits mentioning S.C. Sea Grant activities

- 6/8/03, *Carolina Morning News*, circ. 60,402, “State budget woes force some departments to make do with less money”
- 6/29/03, *Times and Democrat*, circ. 19,000, “S.C., other states must address water issues”

July 2003 – 1 hit due to media releases and news items

- 7/30/03, *MYSCGov.com*, S.C. State Government Web site “Coastal Heritage wins National Award” (story on front page)

July 2003 – 14 hits mentioning S.C. Sea Grant activities

- 7/9/03, *Georgetown Times*, circ. 9,200, “Coastal gets grant for marine, wetland studies”
- 7/9/03, *Marion Star & Mullins Enterprise*, circ. 7,600, “Coastal Carolina receives grant for marine geophysics software”
- 7/11/03, *Journal-Scene*, circ. 10,500, “New program pushes water protection”
- 7/14/03, *Charleston Business Journal*, circ. 20,000, “Down to earth solutions help preserve resources”
- 7/15/03, *Post and Courier*, circ. 107,591, “CCU receives grant for marine research software”
- 7/17/03, *Sun News*, circ. 50,716, “Falling funding threatens waterway”
- 1/17/03, *Myrtle Beach Herald*, circ. 4,000, “CCU receives \$273,777 grant for marine geophysics software”

- 7/18/03, *Item*, circ. 22,500, “Intracoastal Waterway struggles to survive as funding shrinks”
- 7/18/03, *Island Packet*, circ. 28,500, “Group wants funds for waterway”
- 7/18/03, *Index-Journal*, circ. 16,250, “Shallow waterway needs funding”
- 7/18/03, *Daily Messenger*, circ. 14,000, “Intracoastal Waterway fills with sediment a funding shrinks”
- 7/18/03, *Daily Journal*, circ. 10,000, “Intracoastal Waterway fills with sediment as funding shrinks”
- 7/18/03, *Sun News*, circ. 50,716, “Making a clean sweep”
- 7/28/03, *Charleston Business Journal*, circ. 20,000, “First S.C. Clearwater Contractor session completed”

August 2003 – 8 hits due to media releases and news items

- 8/3/03, *State*, circ. 131,246, “Coastal Heritage”
- 8/6/03, *Sun News*, circ. 50,716, “Volunteers needed for annual Beach Sweep”
- 8/13/03, *Sun News*, circ. 50,716, “New Live for Oysters”
- 8/18/03, *Post and Courier*, circ. 107,591, “Coastal Heritage wins”
- 8/20/03, *Star & Beacon*, circ. 3,000, “‘Your Day’ public radio schedule announced for week of Aug. 18”
- 8/27/03, *Journal-Scene*, circ. 10,500, “Site captains needed for Beach Sweep/river Sweep”
- 8/27/03, *Post and Courier*, circ. 107,591, Go Volunteer Directory insert, lists and describes Beach Sweep/River Sweep”
- 8/27/03, *Post and Courier*, circ. 107,591, Swamp Sweep”

August 2003 – 2 hits mentioning S.C. Sea Grant activities

- 8/3/03, *Post and Courier*, circ. 107,591, “Marine educator honored for work”
- 8/23/03, *Times and Democrat*, circ. 19,000, “Camp Sewee”

September 2003 – 53 hits due to media releases and news items

- 9/1/03, *Times and Democrat*, circ. 19,000, “Time to hit the lakes, rivers, streams, beaches”
- 9/2/03, South Carolina Coastweeks 2003 brochure. Lists Beach Sweep/River Sweep
- 9/2/03, *Press & Standard*, circ. 6,500, “State is searching for volunteers for Beach, river sweep”
- 9/3/03, *The Sandspur*, “Beach Sweep/River Sweep – Saturday, September 20 / 9am-12noon”
- 9/3/03, *Hanahan News*, circ. 21,000, “Beach Sweep/River Sweep set”
- 9/3/03, *Lee County Observer*, circ. 4,200, “Volunteer for Beach/River Sweep Sept. 20”
- 9/3/03, *Berkeley Independent*, circ. 9,000, “Swamp Sweep XIII”
- 9/3/03, *News*, circ. 4,800, “Volunteers needed”
- 9/4/03, *Dispatch*, circ. 1,300, “Beach Sweep needs volunteers”
- 9/4/02, *Myrtle Beach Herald*, circ. 4,000, “Beach Sweep/River Sweep set for Sept. 20”
- 9/5/03, *Press & Standard*, Circ. 6,500, “The 15th annual Beach Sweep/River Sweep”
- 9/5/03, *Georgetown Times*, circ. 9,200, Beach Sweep volunteers needed”

- 9/10/03, *Moultrie News*, circ. 11,700, Advertisement: “Beach Sweep/River Sweep 2003”
- 9/10/03, *Moultrie News*, circ.11,700, “Beach Sweep to be Sept. 20 on local marshes, waterways”
- 9/10/03, *North Myrtle Beach Times*, circ. 8,600, “Become a volunteer in Beach/River Sweep”
- 9/16/03, *Press & Standard*, circ. 6,500, “The 15th annual Beach/River Sweep”
- 9/17/03, *News Leader*, circ. 3,200, “Polk County Big Sweep planned”
- 9/17/03, *Moultrie News*, circ. 11,700, Advertisement: “Beach Sweep/River Sweep 2003”
- 9/17/03, *Moultrie News*, circ. 11,700, “Local marsh cleanup to be part of Beach Sweep/River Sweep”
- 9/17/03, *Herald*, circ. 31,543, “Folks will gather Saturday to clean Lake Wylie”
- 9/17/03, *Loris Scene*, circ. 5,000, “Cleanup targets beaches, rivers”
- 9/17/03, *Georgetown Times*, circ. 9,200, “Black River sweep begins Thursday”
- 9/17/03, *News*, circ. 4,800, “Volunteers needed for scenic Black River sweep”
- 9/17/03, *Jasper County Sun & Hardeeville Times*, circ, 2,800, “Volunteers needed for River Sweep:
- 9/18/03, *Post and Courier*, circ. 107,591, “Preview calendar: Beach Sweep”
- 9/18/03, *State Neighbors*, circ. 131,246, “Volunteers needed...” (photo)
- 9/18/03, *State Neighbors*, circ. 131,246, “Beach Sweep”
- 9/18/03, *State Neighbors*, circ. 131,246, “Make Midlands beautiful this month”
- 9/18/03, *Herald*, circ. 31,543, “River Sweep set for Saturday”
- 9/18/03, *Clover Herald*, circ 6,000, “Riverkeepers to sweep river”
- 9/18/03, *Fort Mill Times*, circ. 6,800, “Riversweep set”
- 9/18/03, *Yorkville Enquirer*, circ. 6,000, “Riverkeepers to sweep river”
- 9/18/03, *Horry Independent*, circ. 6,000, “Riversweep is Sept. 20”
- 9/18/03, *Horry Independent*, circ. 6,000, “Beach Sweep 2003 is September 20”
- 9/18/03, *Coastal Observer*, circ. 4,800, “Beach/River Sweep”
- 9/18/03, *Dispatch*, circ. 1,300, “Beach Sweep needs volunteers”
- 9/18/03, *Beaufort Gazette*, circ. 12,252, “Coastal celebration brings cleanup”
- 9/18/03, *Island Packet*, circ. 18,500, “Beach sweep to clean waterways”
- 9/19/03, *Post and Courier*, circ. 107,591, “Hurricane puts unexpected spin on waterway cleanup”
- 9/19/03, *State*, circ. 131,246, “Time to talk trash...again”
- 9/19/03, *Beaufort Gazette*, circ. 12,252, “Coastal celebration brings cleanup”
- 9/19/03, *Press & Standard*, circ. 6,500, “The 15th annual Beach Sweep/River Sweep”
- 9/19/03, *Herald*, circ. 31,534, “River Sweep set for Saturday”
- 9/19/03, *Journal-Scene*, circ. 10,500, “Volunteers still needed for Beach/River Sweep 2003”
- 9/19/03, *Times and Democrat*, circ. 19,000, “T&D Region Beach Sweep/River Sweep scheduled for Sept. 27”
- 9/20/03, *Daily Journal*, circ. 10,000, “The South Carolina River Sweep”
- 9/20/03, *Sun News*, circ. 50,716, “Black River cleanup volunteers needed”
- 9/21/03, *Post and Courier*, circ. 107,591, “Volunteers tidy up area shorelines”
- 9/20/03, *Daily Messenger*, circ. 14,000, “The South Carolina River Sweep”

- 9/20/03, *Post and Courier*, circ. 107,591, “Big Day”
- 9/21/03, *Sun News*, circ. 50,716, “Sweeps keep local beaches, rivers clean”9/21/03, 9/21/03, *Post and Courier*, circ. 107,591, “Volunteers tidy up area shorelines”
- 9/24/03, *Journal-Scene*, circ. 10,500, “Beach Sweep/River Sweep participation rises like the tide”

September 2003 – 2 hits mentioning S.C. Sea Grant activities

- 9/11/03, *Post and Courier*, circ. 107,591, “Sea Grant Consortium wins NOAA grant”
- 9/25/03, noaa.gov, Web site, “NOAA researchers retrieve wealth of data after chasing hurricane Isabel”
- 9/26/03, *Sun News*, circ. 50,716, “Inlet stocked with red drum”

October 2003 – 8 hits due to media releases and news items

- 10/1/03, *Journal-Scene*, circ. 10,500, “Cubs make clean sweep”
- 10/2/03, *State Neighbors*, “Keep the Midlands Beautiful”
- 10/13/03, *Nathan Callahan.com*, Web site, Mentions Coastal Heritage
- 10/15/03, *Hanahan News*, circ. 21,000, “College Park families turn out to sweep the beach”
- 10/16/03, *North Myrtle Beach Times*, circ. 8,600, “Driftwood Garden Club projects enhance local area”
- 10/16/03, *Loris Times*, circ. 4,500, “Driftwood Garden Club projects enhance local area”
- 10/20/03, *NOAA Office of Oceanic and Atmospheric Research “In the Spotlight ”web publication*, one of the top 25 NOAA urls requested, “Sea Grant Research Pays Off During Hurricane Isabel”
- 10/28/03, *MySCGov.com*, Web site, 4000,000 hits per day, “Sea Grant research pays off during Hurricane Isabel”
- 10/31/03, *Georgetown Times*, circ. 9,200, “Black River Sweep nets 930 pounds of litter”

October 2003 – 5 hits mentioning S.C. Sea Grant activities

- 10/2/03, *Island Packet*, circ. 18,500, “Groups to present educational program”
- 10/18/03, *Island Packet*, circ. 18,500, “Each Lowcountry home must be part of solution” (editorial)
- 10/29/03, *Georgetown Times*, circ. 9,200, “Entries sought for environmental award”
- 10/29/03, *Clinton Chronicle*, circ. 5,000, “Nominations sought for state’s environmental achievement award”
- 10/30/03, *Calhoun Times*, circ. 2,203, “Nominations sought”

November 2003 – 7 hits due to media releases and news items

- 11/3/03, *Charleston Business Journal*, circ. 20,000, “Patty Snow appointed”
- 11/3/03, *Charleston Business Journal*, circ. 20,000, “DeVoe appointed”
- 11/1/03, *Water Lines*, Mt. Pleasant Waterworks newsletter, “2003 Marsh Sweep”
- 11/4/03, *The Post & Courier*, circ. 107,591, “U.S. Senate approves bill for Lowcountry projects,” Coastal Erosion Study mentioned.
- 11/5/03, *News*, circ. 4,800, “Black River Sweep nets 930 pounds of litter”

- 11/03, *E The Environmental Magazine*, cited Coastal Heritage in the feature story “The Reckoning”
- 11/13/03, *Coastal Observer*, circ. 4,800, “Data from N.C. storm helps S.C. researchers”

November 2003 – 9 hits mentioning S.C. Sea Grant activities

- 11/2/03, *Post and Courier*, circ. 107,591, “Boyles named director of Marine Resources Division”
- 11/5/03, *Marion Star & Mullins Enterprise*, circ. 7,600, “Nominations sought for environmental award”
- 11/5/03, *Picken Sentinel*, circ. 8,000, “Nominations are sought for environmental award”
- 11/5/03, *News*, circ. 4,800, “ Environmental Award nominees being sought for this year”
- 11/12/03, *Lee County Observer*, circ. 4,200, “Nominations sought for environmental award”
- 11/26/03, *Georgetown Times*, circ. 9,200, “Venturing” (mentions Beach Sweep)
- 11/26/03, *Pickens Sentinel*, circ. 8,000, “nominations sought for environmental award”
- 11/28/03, *Post and Courier*, circ. 107,591, “Our Changing Coast”
- 11/26/03, *Chronicle-Independent*, circ. 8,500, “Champions of environment to be honored”

December 2003 – 4 hits due to media releases and news items

- 12/1/03, NOAA CSC’s Coastal Connections newsletter, circ. ??, “Accolades: Rick DeVoe...has been appointed to the board of directors of the Southeast Atlantic Coastal Ocean Observing System.”
- 12/1/03, Nonprofit Communications Report, circ. 5,000, “Make Use of Interns In Your Daily Activities,” article by Susan Ferris
- 12/4/03, *Island Packet*, circ. 18,500, “Give credit to Hollings”
- 12/15/03, *GSA Business Journal*, circ. 10,500, “S.C. Shrimpers Caught in Economic Fallout”

December 2003 – 5 hits mentioning S.C. Sea Grant activities

- 12/2/03, *Island Packet*, circ. 18,500, “New effort can give shrimpers more hope”
- 12/15/03, *GSA Business Journal*, “South Carolina shrimpers caught in economic fallout”
- 12/21/03, *Greenville News*, circ. 95493, “State spent millions on out-of-state trips”
- 12/26/03, *Lancaster News*, circ. 13,064, “Nominations sought for environmental award”
- 12/28/03, *Herald-Journal*, circ. 56,929, “PalmettoPride goes to schools to stamp out litter”

January 2004 – 5 hits due to media releases and news items

- 1/21/04, *Moultrie News*, circ. 11,700, “SCDNR stocks nearly 2 million red drum”
- 1/21/04, *Moultrie News*, circ. 11,700, “Researchers to report on development’s effects on estuaries”

- 1/29/04, *Post and Courier*, circ. 107,591, “Lowcountry water study supports ‘smart growth’”
- 1/30/04, *Post and Courier*, circ. 107,591, “Meeting offers ideas to improve water quality”
- 1/30/04, *Sun News*, circ. 50,716, “Water quality, development topic of meeting”

January 2004 – 6 hits mentioning S.C. Sea Grant activities

- 1/6/04, *Post and Courier*, circ. 107,591 “Good steps for cleaner future”
- 1/8/04, *Dillon Herald*, circ. 6,951, “Aquaculture Meeting”
- 1/18/04, *Times and Democrat*, circ. 19,000, “Attention all anglers: DNR stocks nearly two million red drum in coastal waters”
- 1/21/04, *Observer*, circ. 3,000, “Aquaculture meeting Feb. 5”
- 1/21/04, *Journal-Scene*, circ. 10,500, “DNR stocks estuaries with 1.8 million red drum”
- 1/22/04, *Post and Courier*, circ. 107,591, “Town meetings to address estuaries”

February 2004 – 3 hits due to media releases and news items

- 2/1/04, U.S. Geological Survey’s Sound Waves print and web newsletter, print circ. 500, “Investigating Sediment Transport Off South Carolina—Part of the South Carolina Coastal Erosion Study”
- 2/04, *The Green Elephant*, Vol. 7, No. 3, Featured “Rebuilding the Green Old Party?”
- 2/9/04, *Charleston Regional Business Journal*, circ. 8,000, “South Carolina’s ‘money’ fish,” an article about the red drum stocking.

February 2004 – 5 hits mentioning S.C. Sea Grant activities

- 2/1/04, *Sun News*, circ. 50,716, “Meeting to discuss water, development”
- 2/2/04, *Sun News*, circ. 50,716, “Water quality, development topics of meeting”
- 2/4/04, *Georgetown Times*, circ. 9,200, “Area’s water quality up for discussion”
- 2/5/04, *North Myrtle Beach Times*, circ. 8,600, “Waites Island will remain in wilderness state”
- 2/14/02, *Island Packet*, circ. 18,500, “Researchers discuss finding about estuaries”

March 2004 – 2 hits mentioning S.C. Sea Grant activities

- 3/1/04, *Coastal Business Journal*, circ. 1,000, “CCU’s Center for Marine and Wetland Studies One Step Closer to Reality thanks to Generous Gift from B&C:
- 3/9/04, *Post and Courier*, circ. 107,591, “Clemson’s Center for Sustainable Living an invaluable coastal asset”

April 2004 – 1 hit mentioning S.C. Sea Grant activities

- 1/4/04, *The State.com*, “Researchers study sand deposits along the coast”