

SouthEast Center for Ocean Sciences Education Excellence: Building Connections Between Ocean Scientists and Educators Through Partnerships

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Abstract: The vision of the SouthEast Center for Ocean Sciences Education Excellence (SouthEast COSEE) is for citizens of all ages to have a scientifically grounded understanding and appreciation of the oceans and their relevance to everyday life. Our mission is to significantly enhance ocean learning opportunities by incorporating the work of ocean science researchers into high-quality educational products and services; provide opportunities for networking between oceanographic researchers and educators; and increase the access of underrepresented groups to ocean science. The SouthEast COSEE network will serve as a window to ideas, information, and resources that connect and celebrate ocean sciences teaching, learning, and scientific discovery at all levels.

Over the past decade, the scientific community has been challenged to become more involved in reform of science education through development of innovative pedagogy, specifically to integrate research and education and bring results of these effective collaborations to educators, students, media, and the general public. The National Research Council's (NRC) publication, *The Role of Scientists in the Professional Development of Educators*, points to issues related to perceptions, misconceptions, and a lack of understanding between scientific and education communities of what teachers "do" in the classroom as teaching professionals and what scientists "do" as researchers in the laboratory and/or the field (NRC, 1996a). This lack of understanding has long been a barrier to broad-reaching effective collaborations between the two groups and thus, the routine integration of scientific research into high quality,

engaging educational products and experiences. As NRC states, "Although there are many effective partnerships between teachers and scientists, to expand effective programs, teachers' and scientists' understanding and appreciation of each other's responsibilities must be improved."

The value of including educators and students in ocean science research, and translating these experiences into materials and resources for classroom and/or general public use, has been successfully demonstrated in various programs throughout the country. While providing educators with first-hand experiences in the process of ocean science research and discovery is an obvious and very natural avenue for integration of ocean science research in the classroom, programs that provide opportunities for educators to become involved in ocean science research have been limited and, for the most part, disconnected. Furthermore, the ocean science community often is not aware of pedagogical approaches that lead to effective teaching and learning, the needs of educators and school administrators, and the responsibility of the education community to meet accountability standards set forth by state Departments of Education. The interdisciplinary nature of ocean science education has also created a perceived lack of common ground for collaborations, and thus has served as more of a hindrance than an asset to integrating results of ocean science research into education.

SouthEast COSEE is developing a series of leadership institutes to open doors between educators and scientists.

In addition, the southeastern states have a rich coastal heritage, based on African American culture. More doors are going to be opened to increase the access of African American students to the ocean sciences both from stewardship and career perspectives. According to demographic research compiled by Dr. Ashanti Pyrtle, the number of African American, Hispanic American and Indian American ocean scientists are very few, a strong, proactive program will have to be designed to foster more engagement.

Results from the first year of endeavors will be presented to the MTS audience.

The SouthEast Center for Ocean Science Education Excellence (COSEE) is hosting the first Ocean Science Education Leadership Institute for middle and high school educators at the University of North Carolina at Wilmington, June 22 – 27, 2003. This Institute is being co-sponsored by NOAA/Ocean Exploration, NC Sea Grant, NOAA/National Undersea Research Center, and NC Aquarium at Fort Fisher. The objectives is to bring regional ocean science research to educators, introduce existing curricula and resources, and facilitate the development of geographically disperse satellite centers where these teachers will initiate an Ocean Awareness Day for local teachers. These satellite centers should connect the teachers with local nonformal institutions, scientists, and SouthEast COSEE.

May 21-23, 2003, SouthEast COSEE will host a charrette, "Multicultural Pathways to Ocean Science Education," designed to bring experience, passion and expertise together for a common purpose. The major goal is to assist SouthEast COSEE meet its objective to increase access of ocean sciences and ocean sciences education to underrepresented groups. SouthEast COSEE partners will include Avery Research Center/ College of Charleston, SC Sea Grant Consortium, Savannah State University, and Florida COSEE/FAMU

The format is to invite twenty participants who have academic experience with past programs/projects for underrepresented groups in science in precollege programs; academic experience with programs/projects for the undergraduate minority population; precollege teaching experience in multicultural classrooms; and/ personal experience of what worked. With the aid of a facilitator, this group will pull common threads of workable strategies in the past--successful projects, students and programs. Then, through the facilitator the group will develop a list innovative or "tried and true" projects/ programs to recommend for SouthEast COSEE to initiate, partner or promote.