Captain’s Corner

Greetings from Spring Island! It's now been over a month since the 6th Annual SCMEA Conference held at Seabrook Island. The conference was a great success! We had 120 participants with quite a few new members! Here things have finally settled down. Our Wood Storks and White Ibis have headed south and plump pecans are dropping in everywhere.

Your evaluations are still coming in and the majority of them are very favorable. Julie Cliff, our new President-Elect, will find them very useful in her planning of next year's conference. Comments such as "super workshops," "let's do it here again," and "the food was scrumptious" made the reading enjoyable.

Ken Alfieri and his energetic staff at the Barrier Island Environmental Education Center made everything go so smoothly and Chef Steve kept our stomachs full and our taste buds happy. One more final "Thanks!" to all of them.

Julie Cliff outdid herself and helped raise a record $2,200 with her auctioned items ranging from living reptiles to a cruise on a naval destroyer. The bidding process did get a little long, even with Fred James and Mr. Fish as auctioneers! We will work to shorten this event.

One area that needs improvement is "Marine Mergingue," a sea swap where participants barter/trade items of marine or aquatic origin. We only had eight participants as I did not fully explain the activity in the conference materials. I promise in the future we will promote this better as it really is a lot of fun and you can acquire quite a few wonderful "treasures."

For all SCMEA members that could not make it - you sure missed a great performance by Mr. and Mrs. Fish (Jeff and Deb Sandler). The Fishes and their daughter, Coral, stated that they would love to come back and entertain us again. All three had a great time in Charleston (their first visit) and are "hooked" on the South Carolina coast.

I want to thank you all for making the conference a success. Please take note of our three new Board Members: Ken Alfieri (Barrier Island Environmental Education Center), Leslie Sautter (Department of Geology, College of Charleston), and Robin Sheek (Devon Forest Elementary School, Goose Creek).

Our next Board of Directors meeting will be held on December 9th in Charleston. If you have any suggestions or would like to attend, please contact me or any of the Board Members.

Bruce

SCMEA President

SCMEA Presents SC Outstanding Marine Science Teacher of the Year Award

Cindy Renkas is recipient of SCMEA’s "South Carolina Outstanding Marine Science Teacher of the Year" Award. The award was presented at the sixth annual meeting of the South Carolina Marine Educators Association at Camp St. Christopher on Seabrook Island, is given to a marine science teacher who exhibits outstanding talents in developing creative teaching strategies to increase South Carolina students' awareness of our coastal and marine environments.

Cindy has not only proven her ability in promoting marine science in the schools, but she has also developed unique family science enrichment opportunities for families throughout the Charleston area. Her programs, called "MasonFest," consist of hands-on parent/child science exploration activities led by local scientists who can effectively relay scientific information in exciting ways to children and parents.

Betty B. Disher, Principal of Mason Preparatory School, says, "Cindy's work is not limited to her successful teachings and MasonFest programs here at Mason Prep. Her diligence, interest, and concerns extend into the community and beyond to include not only our students, but students from the public school system as well. She has shared her rare wealth of knowledge, experience, and the results of her networking among scientists with our children."

Congratulations Cindy!
New Products from the Center for Science Education at USC

One of the Center's missions is to develop, test, and distribute teaching materials for use in elementary and middle school classrooms. We hope that many of you have seen our activity books, field guides, collections, and videos. We know that some of you have been using them for quite a while. New materials are appearing all the time and we wanted to tell you about some of the most recent.

Middle School Earth Science Sourcebook Phase III: Melany Nussbaumer from Riverside Middle School in Saluda has just finished editing a third book of earth science activities for middle school. Known as "Phase III," this book contains 16 new activities for geology, oceanography, astronomy, and meteorology.

Field Trip Guides: John Carpenter has worked with Alan Weekes of Pickens Junior High and several of the ESTRAs (Earth Science Teacher Resource Agents) to create a series of field trip guides to interesting sites in the state. These guides are complete with instructions for the teacher, student sheets, and suggestions for assessment. Guides are available for Peachtree Rock, Hunting Island State Park, Congaree Swamp, and Forty Acre Rock.

Videos: Four new videos have recently been completed and are available on a single tape. Three of the videos deal with the major geologic processes of mountain building, coastal change, and erosion. Designed to introduce these subjects in the classroom, the videos compare local examples of each process with well known sites nationwide. The fourth video describes the major landforms of South Carolina.

Professional Assistance Directories: More professional assistance directories are on the way. Last year we published a directory of individuals in the state's mining industry who were interested in providing classroom visits, mine tours, and special programs which would help students understand mines and mining. In the next few months we expect to add similar directories of resource people in Astronomy, Marine Science, Geology, and Meteorology.

Geodysssey: Also hot off the press is a new edition of the Center's catalog of science resources known as "Geodysssey." The catalog lists all of the resources, old and new, which are currently available, and it even contains a convenient order blank. If you would like a copy, call us at (803) 777-6920, or write: The Center for Science Education, University of South Carolina, Columbia, SC, 29208.

SCMEA Member Wins State Farm Award

SCMEA member Melanie Nussbaumer of Riverside Middle School in Saluda received the State Farm Good Neighbor Award. The award, which is given monthly, consists of a $5,000 grant given to the winning teacher's school in his/her name. Melanie and her students have appeared in several national magazines as a result of the award. A total of 31 teachers from throughout the country have received the award thus far. Congratulations Melanie!
NMEA’s 1994 CONFERENCE
UNIVERSITY OF TENNESSEE
KNOXVILLE, TENNESSEE AUGUST 7-11, 1994

The National Marine Educators Association (NMEA) is meeting with the American Institute of Biological Sciences (AIBS) this year. Some 3,000 biologists will be looking forward to sharing sessions with you. To help teachers, AIBS is offering half-price registration for K-12 classroom teachers! NMEA will have its own sessions and social events, culminating in an evening at the wonderful new Tennessee Aquarium, but you can also attend sessions and symposia of other groups like the Ecological Society of America. Early registration is essential. Registration fees increase June 1. Knoxville, located on the Tennessee River, is the gateway to the Great Smokies and has museums, parks, and entertainment for spouses and kids. It is a one-day drive from half of NMEA’s chapters.

Registration will be about $130 ($65 for K-12 teachers), air conditioned dorms with breakfast are $25 (single) and $21.50 (double), and field trips range from those that are free to $45/day, depending on distance, food, and other costs. Field trip sites include the Oak Ridge National Laboratory as well as natural habitats. Don't miss this chance to mix with scientists while enjoying traditional NMEA events like Sea Swap, the auction, and a special performance from Mr. and Mrs. Fish who will teach us about that great freshwater fish, THE PIKE. See the Call for Papers on page 6 of this issue of Seascrrips.

Please Note: NMEA members will receive registration materials automatically. If you are NOT a NMEA member and want registration materials, contact: Valerie Chase, National Aquarium in Baltimore, Pier 3, 501 E. Pratt St., Baltimore, MD 21202-3194.

Marine Education Programs

South Carolina Wildlife and Marine Resources Department
The Education Section of the South Carolina Wildlife and Marine Resources Department provides educational opportunities to teachers and students throughout the state. Programs are listed below.

Marine Education Programs: Tours of the Marine Resources Research Institute, "A Coastal Adventure," "Marsh Classroom Adventure," Educational Outreach Activities, and Touch Tank Activities. For more information on the marine education programs, call (803) 795-6350. To schedule a tour of the James M. Waddell Mariculture Research & Development Center, call (803) 837-3795.

Also available are Project WILD, Aquatic WILD, Conservation Education Programs, Whale Program, and WILD School Sites (grants available). For more information on these programs, call (803) 734-3888.

Harborwatch
Located in Charleston, Harborwatch offers citizen water quality monitoring, in-service training for environmental curriculum enrichment, participatory theatre on environmental issues for elementary and middle school, slide shows, and graduate-level teacher training. For more information, call Sharon Robles at (803) 577-2103.

North Inlet - Winyah Bay National Estuarine Research Reserve Programs
A variety of programs on estuarine resources are offered. Call Wendy Allen at (803) 546-6219 for more information.

University of South Carolina - Beaufort: Coastal Zone Education Center
Near Hilton Head, the Coastal Zone Education Center offers beach and salt marsh field study programs during the fall and spring and outreach programs during winter months for school groups K-12. Various community awareness programs are also available. To receive free newsletters, contact staff at 285 Sawmill Creek Road, Bluffton, SC 29910, (803) 837-4848.

Complied with assistance from the Staff of the South Carolina Aquarium
Marine Happenings:
Charleston County Parks and Recreation Commission:
Winter Walk at Tea Farm - An informed guide will lead you to an intimate and very special viewing of this incredible county park site. January 23, 1994. Audience: All ages.

From Surface to Sea Floor and More - Learn ocean adaptations by creating a mobile and then see some of the creatures up-close in a touch tank program. February 5, 1994. Audience: 6-12 years old.

The Cherokee and Our Feathered Friends - Join nationally known environmental educator, puppeteer, and storyteller Dave Gulick as he combines American Indian lore, bird lore, and live birds into a powerful program. February 21, 1994. Audience: Two shows, pre-school-K; two shows first grade and up.


Contact: Irene Bennett, Charleston County Parks & Recreation Commission, 861 Riverland Drive, Charleston, SC 29412, (803) 762-2172.

The Charleston Museum:

Riverbanks Zoo:

Contact: Annette Matyniak, Riverbanks Zoological Park & Botanical Garden, P.O. Box 1060, Columbia, SC 29202-1060, (803) 256-4773.

Belleville Nature Center:
Tour of Hobcaw Barony - This general tour of the property highlights Hobcaw's history, current research projects, and education programs. Every Thursday, advance reservations (3 months) are needed. Audience: General adult public.

Field Studies for School Groups - Field studies of the salt marsh, coastal forest, freshwater swamp, and pond. Includes local history. Conducted during school year. Audience: Students.

Winter Outreach - Hands-on nature programs are presented to classes in local schools. January and February, (September registration suggested.) Audience: Students.


Bluebirds - Learn all about bluebirds, including ways to attract them as we build bluebird houses. February 18, 1:30-3:30 pm. Audience: Ages 10 to adult.

The Baruch at Hobcaw - Video and tour of Baruch Home and surrounding grounds. March 4, 2:00-4:00 pm. Audience: General adult public.

Wildlife at Dusk - A van ride around Hobcaw Barony Wildlife Refuge looking for wildlife. April 19, 5:30-7:00 pm. Audience: All ages.

Songbirds of Hobcaw - Walk through the forests of Hobcaw Barony Wildlife Refuge and look and listen for the songbirds that make the woods come to life in the spring. May 14, 8:30-11:30 am. Audience: All ages.

Contact: Hope Smiley or Scott Kennedy at (803) 546-4623.

Complied with assistance from the Staff of the South Carolina Aquarium
A Marine Habitat: Floating Docks - Part 2
by
Dr. Fred James
Presbyterian College

The larval stage of the barnacle Conopea (Balanus) galeatus attaches to the Leptogorgia. As it develops into the mature barnacle, it is covered by the living coenenchyme of the sea whip. The only part of the barnacle not covered is a small circular area through which it extends its appendages and kicks food into its mouth. When the barnacle dies it is completely entombed by coenenchyme tissue! The living coenenchyme looks like a bumpy road with its covered barnacles. As the sea whip dies the shells of the barnacle attached to the black protein are exposed. The barnacle larvae often can be found attached on the egg masses of the snail Simnia (Neosimnia). The barnacles rarely seem to attach directly on the living coenenchyme. The barnacles are hermaphroditic (both sexes) and require cross-fertilization but they are widely separated on the sea whip. There is no way the penis of one barnacle could reach the other barnacle so evolution has provided dwarf males which cluster around openings of the larger hermaphroditic barnacles.

With the exposure of the black protein it is not unusual to see a thick gray coating of the bryozoan, Alcyonidium haufl. The black protein is sometimes covered with the white encrusting bryozoan, Membranipora arborescens. Both organisms are not usually associated with Leptogorgia but will use it as a substrate when it becomes available. These organisms are filter feeders. The skeleton shrimp, Caprella equilibra, is found exclusively on the sea whip. It waves back and forth on the branches and captures food in a fashion similar to the praying mantis.

A small shrimp, Neopontonides beaufortensis, is a scavenger living on the surface materiel of the sea whip. This shrimp will sometimes leave its host and swim away for short distances in search of food, later returning to the colony. The females are very inactive and bear both red and yellow chromatophores (bags of pigment) that can be used to match the color of the host. The males are more active and have fewer chromatophores and are basically translucent. The females, camouflaged and less active, seem to be at an evolutionary premium compared to the lesser adapted males!

Sea whip tissue appears to be distasteful to fish and most marine organisms. This may offer some protection to the symbionts. In conclusion, the blending pattern of the symbionts, along with the distasteful sea whips, provide a very protective habitat for this amazing assemblage of organisms!

Illustrations by Carol Holmes

Seascrpts • Winter 1993
CALL FOR PAPERS • NMEA 1994 CONFERENCE

The 1994 NMEA meeting will be held in association with the American Institute of Biological Sciences (AIBS) and some one dozen scientific societies in Knoxville, TN, August 7-11, 1994. There are many formats in which you are invited to submit proposals for presentations. You are limited to one presentation of a contributed paper or a symposium paper. Please call Valerie Chase if you have a question at (410) 567-3887, 9am-5 pm EST. Various formats for presentations follow.

CONTRIBUTED PAPER: 15 minutes
This is the most common format. Slides or overheads are used to give a quick report on your project. Plan for about 12 minutes followed by 3 minutes of discussion. Handouts and conversation allow interested parties to gain additional information. Program chairs will arrange papers into related topics presented together to attract people who will stay for the whole session.

SYMPOSIUM: Series of 30-minute papers
Four to seven papers (2 to 4 hrs total) organized by one or several people and submitted AS A UNIT. Presentations should be planned to complement each other. Need to be of general interest and related to a "hot" current topic. Would be nice if scientists and local teachers are involved as well as NMEA members. Need to identify organizers who will moderate and present during the session and who will submit title and abstract for each paper. NMEA can sponsor several symposia.

Format for Contributed Papers and Symposium Proposals:
Contributed Papers
1. a) Title; Presenter and Affiliation; Brief description
   (this part will be printed in the program which EVERYONE from all societies gets; it is all you have to attract people to your talk from outside NMEA, so make it good.)
   b) ABSTRACT for paper - 100 words maximum; will be printed in NMEA News prior to the meeting.

Symposia
2. a) Title for Symposium; Moderator's Name and Affiliation
   b) Then follow guidelines for Papers (see above) for each paper in the symposia and submit as a package

AV equipment routinely provided for papers and symposia are overhead projector and 35 mm slide projector; no video.

OTHER TYPES OF SESSIONS:

WORKSHOP: 1/2 to 1 day; given on or before August 7
Workshops may provide participants with hands-on experience with equipment or materials; alternately, they may provide extended time to hold discussions. Discussions often include breaking into small groups for specific work. Workshops range from highly structured presentations such as "How to use a new computer program" to broad discussions such as "How to teach oceanography inland." A "Sharathon" or "Make and Take" might fit here. This is a good format for combining curricula.

Format for Workshop Proposal:
Title, organizer(s) and address(es), phone number(s), and detailed description of space and other needs plus 200-word abstract for NMEA News. See format for symposium.

DISCUSSION: 1-2 hrs on a specific topic
Held during the meeting, roundtable discussions generally focus on a topic of interest to a subset of the organization.

Format for Discussion Proposal:
Title, organizer(s) and address(es) and description of space and 100-word abstract for NMEA News. See format for symposium.

SECTION MEETING: 1-2 hours
Meeting of NMEA members who need to organize activities among themselves for future projects such as: Sea Grant educators, aquarium educators, chapter meetings, etc.

Section Meeting Proposal:
Title, organizer(s) and address(es), and a description of space and 50-word abstract for NMEA News. See format for symposium.

NMEA will have a meeting office and will sponsor social events to include: 1) a business meeting and a no-host mixer (early in meeting), 2) the auction with a special entertaining twist (fee to cover beverages, entertainment, and site), 3) Tennessee Aquarium trip by bus for tour, dinner, awards; 4) passing of the gavel and special programs from the Tenn. Aquarium Education staff (fee for bus, food, and beverage), and 5) final event of meeting hosted by the Tennessee Aquarium.

This meeting is a chance to reach out to classroom teachers and to scientists. PLEASE submit a proposal. We have lots of room and want to hear from everyone. BE SURE TO INCLUDE YOUR PHONE NUMBER.

MAIL or FAX to: Dr. Valerie Chase, National Aquarium in Baltimore, Pier 3, 501 E. Pratt St., Baltimore, MD 21202-3194.
FAX (410) 659-0116 PHONE (410) 576-3887.
Become a Member of the

South Carolina Marine Educators Association

and join a group of dedicated teachers, naturalists, scientists and others interested in studying and teaching about the world of water, both fresh and salt. SCMEA provides a communication network for members to share information and ideas through newsletters and an annual statewide conference. Membership dues are $10.00 a year and include three newsletters, a discount on the registration fee for the annual conference, and an opportunity to interact with some of the most dynamic educators in the state!

Date:____________________

Name__________________________________________________________

Occupation______________________________________________________

Home Address____________________________________________________

Place of Employment____________________________________________

_______________________________________________________________

Address________________________________________________________

_______________________________________________________________

Home Telephone Number________________________Work Telephone Number_________

Are you currently a member of the National Marine Educators Association (NMEA)? _____yes _____no

Please send completed form with the $10.00 membership fee
(make checks payable to SCMEA) to:

Stan Ratchelson, Secretary-Treasurer, SCMEA
Center for Science Education, University of South Carolina, Columbia, SC 29208

Join NMEA...

...and begin to network with educators around the country sharing a common love and concern for our water world. Membership benefits include a subscription to Current: The Journal of Marine Education; the newsletter, NMEA News; and registration discounts for some of the best annual conferences you will ever attend!

Name:__________________________________________________________

Occupation or Title:______________________________________________

Address:________________________________________________________

(Street or POB)____________________________________________________

(City)___________________________________________________________

(State)_________________________________________________________

(Zip)___________________________________________________________

--- Individual Memberships ---

___ Student - $15      ___ Associate - $40
___ Active, 1 year - $25   ___ Sustaining - $100 or more
___ Active, 2 years - $48   ___ Life - $300 or more
___ Active, 3 years - $68   ___ Patron - $500 or more

--- Institutional Memberships ---

___ Affiliate (includes libraries) - $35
___ Corporate - $250 or more

Are you currently a member of a regional chapter? _____yes _____no. If yes, which one? __________________________

Please make check payable to NMEA and mail to: National Marine Educators Association
POB 51215, Pacific Grove, CA 93950

SCMEA WINTER 93