



SOUTHEASTERN ESTUARINE RESEARCH SOCIETY

SPRING PROGRAM - AERS and SEERS

April 9-11, 1992 North Topsail Shores, NC

General Program

Thursday - April 9	1700	Social Begins
	1800-2200	Registration
	1900-2200	Poster Session
	2000	AERS and SEERS Board Meetings
Friday - April 10	0730-0930	Registration and Information
	0800-1215	Paper Session I
	1215-1330	Lunch
	1330-1730	Paper Session II
	1730-1740	Joint Business Meeting and Awards
	1740-1800	Individual society meetings (elections)
	1800	Social (poolside)
Saturday - April 11	1930	Barbecue Pig Pickin' (poolside)
	0800-1200	Paper Session III
	1200-1300	Lunch
	1300-1440	Paper Session IV
	1440-1630	Field Trip - Topsail Island Dynamics

Meeting Announcements

* The spring meeting of AERS and SEERS will be held jointly on April 9-11 at the St. Regis Resort on North Topsail Beach. Registration and poster and paper sessions will be held at the resort. You should have made room reservations already, but if you have not, reservations can be made by calling 800-682-4882. When making your reservation, inform the hotel you are participating in the SEERS/AERS meeting.

* Reminder to attendees: no restaurants are in the immediate vicinity of the Resort, but the Resort's restaurant will be open. Your suite includes a kitchen, so you might plan to bring along some food. In Snead's Ferry about 8 mi North of the St. Regis, there is a Food Lion and Drug store.

* **Registration:** All attendees will be required to register. A registration fee of \$30 (\$15 for students) will include the socials, coffee breaks, meeting expenses, and the poolside barbecue pig pickin' on Friday evening.

* **Note:** All oral papers will be limited to 15 minutes with 5 minutes for questions. Please prepare your talk so that you will not run over this allotted time. There will be a one minute warning at 14 minutes, so you will know to wrap it up.

* Titles and abstracts for Posters will be accepted until registration on Thursday evening, but please don't wait until the meeting. Call titles to Ginger Ogburn-Matthews (SEERS program chairperson) (803-546-6219) by April 3rd, so that an updated list can be distributed at registration.

* **Note to poster presenters:** Posters will not be allowed to be pinned up on the wall, but may be able to be taped up on the wall. Easels will be provided for your poster at the meeting site. Please plan your poster setup accordingly.

* Paper and poster abstracts will be available for distribution at the registration table. Pick up your copy any time during the meeting.

* A bulletin board will be available to post items of interest. If you have job announcements, special photographs, new publications or brochures that you would like to share, bring them to the registration desk.

* AERS AND SEERS ELECTIONS will be held at the end of Friday's Paper Session II. Be sure to vote at the individual society's business meeting. Biographical information on the candidates will be available at registration.

* We gratefully acknowledge Hydrolab and the Sanctuaries and Reserves Division of NOAA for their monetary contributions to this meeting. Meeting participants should stop by the Hydrolab exhibit to examine their latest equipment.

* We also gratefully acknowledge our local arrangements chairperson, Tom Jones of the North Carolina Environment, Health, and Natural Resources Department, for his hard work organizing this meeting.

* After the last paper session on Saturday, Keith Robertson, UNC-Chapel Hill Institute of Marine Sciences, will conduct a field trip on Topsail Island to demonstrate the island dynamics, research efforts, and other issues affecting the island. The trip is limited to 35 people and will last about 2 hours. The island is a focus for coastal land-use controversy and is undergoing intensive erosion. We hope the St. Regis will be there in April!

How to get to the St. Regis Resort

From the south:

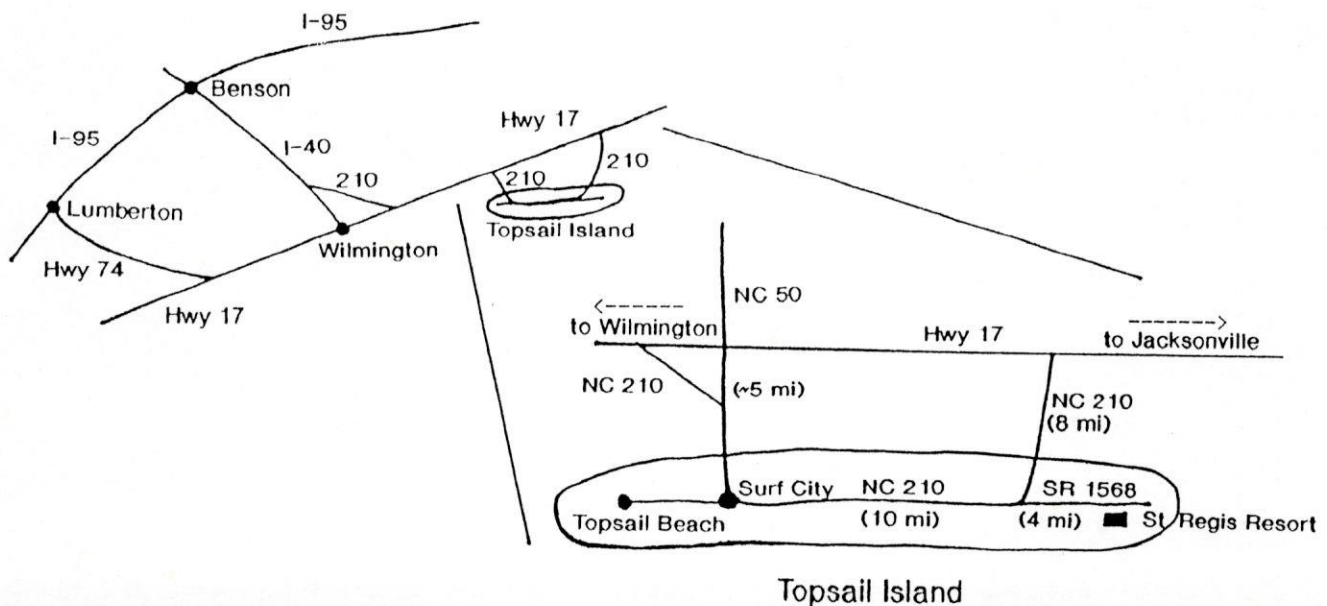
From I-95: Take U.S. 74 East (near Lumberton, NC) to Wilmington. It joins U.S. 17 some miles before Wilmington. Take 17 N to and through Wilmington.

From U.S. 17 N: Turn right on NC 210 (approx. 25 mi. N of Wilmington). Follow signs to Surf City (approx. 5 mi) crossing the Intracoastal Waterway (ICWW). Hwy 210 turns left (north) in Surf City. Follow 210 for about 10 mi. until it curves sharply to the left. Turn right at the curve on SR 1568 (at St. Regis Sign). If you cross the ICWW again, you have gone too far! The Resort is < 4 mi on right.

From the north:

From I-95: I-95 at Benson, NC take I-40 East to Wilmington. Go about 80 miles and take Exit 408 East (left) on NC Hwy 210 (sign to Hampstead). Hwy 210 joins 17 in Hampstead. Take left (north) on Hwy 17/210. Proceed as directed From US 17N (see above).

From U.S. 17 S: Approx. 13 mi south of Jacksonville, NC take a left on NC Hwy 210 at Dixon (very rural town). About 8 mi after crossing the ICWW, take first left on SR 1568 at the St. Regis Sign. The Resort is < 4 mi on right.



POSTER SESSION
Thursday Night (1900-2200) - April 9

On the subtidally driven flushing of the Peconics Estuary

Rhett Fisher and Mário E.C. Vieira. Oceanography Department, US Naval Academy, Annapolis, MD

Transitions between *Juncus roemerianus* patches and neighboring communities in a high marsh

Robert R. Christian*, Laura Stasavich, Karen Atkins, and Mark M. Brinson. Biology Department, East Carolina University, Greenville, NC

Predicting tidal inundation in North Inlet, SC

Susan K. Dailey*, Dan L. Childers, and Fred H. Sklar. Baruch Marine Field Lab, University of South Carolina, Georgetown, SC

Effect of Cadmium on regenerating arm tips of a burrowing brittlestar

Anthony F. D'Andrea* and Stephen E. Stancyk. Belle W. Baruch Institute for Marine Biology and Coastal Research, University of South Carolina, Columbia, SC

Environmental resource information in oil spill contingency plans

Janet H. Kucklick* and Jacqueline Michel. Research Planning, Inc., Columbia, SC

The effects of predation and nutrient addition on the infaunal community in a North Carolina estuary

C.M. Powell, M.H. Posey*, D.G. Lindquist, L.B. Cahoon and J.F. Parnell. University of North Carolina at Wilmington, Wilmington, NC

Suspended and depositional sediment dynamics at two sites in the North Inlet Estuary, SC

Cindy Roberts*, Fred H. Sklar, Patrick Webster, Steve Hutchinson, and Dan Childers. Baruch Marine Field Lab, University of South Carolina, Georgetown, SC

Protecting North Carolina's coastal resources through the Coastal Area Management Act (CAMA) permit program: Major Development Permits

Stephanie Spence Briggs*. NC Division of Coastal Management, Raleigh, NC

Thin-layer dredge disposal baseline studies of macrofaunal communities in Mississippi Sound

Stefan R. Schulze and James K. Culter. Mote Marine Lab, Sarasota, FL

FRIDAY MORNING - PAPER SESSION I

Session Chair: Liz Noble (SEERS)

0800 Welcome and Announcements

0815 **Periodic, behaviorally controlled benthopelagic coupling in a coastal plain estuary with semidiurnal tides**

Donald E. Stearns* and Alexander A. Sharp. Department of Biology, Rutgers University, Camden, NJ

- 0835 **Predator encounter rates across a salinity gradient in mangrove habitats of northeastern Florida Bay**
Janet A. Ley**. University of Florida, Gainesville, FL
- 0855 **Sublethal effects of cupric ion activity on the behavior of two estuarine copepods**
Alexander A. Sharp** and Donald E. Stearns. Department of Biology, Rutgers University, Camden, NJ
- 0915 **Microhabitat segregation of juvenile fish in a shallow water marsh**
Amy E. Innes** and Martin H. Posey. Department of Biological Sciences, University of North Carolina at Wilmington, Wilmington, NC
- 0935 **Effects of light and sulfide treatments on photosynthesis and respiration in eelgrass, *Zostera marina* L., in Chincoteague Bay**
Jill L. Goodman**. Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA
- 0955 - 1015 **COFFEE BREAK**

Session Chair: Frank Reilly (AERS)

- 1015 **Growth and survival of larval striped bass related to zooplankton abundance and age at stocking into growout ponds.**
Martha Supp**¹, John Mark Dean¹, James Bulak², and Tom Curtis². ¹University of South Carolina, Columbia, SC and ²SC Wildlife and Marine Resources Department, Charleston, SC
- 1035 **Pesticides and polycyclic aromatic hydrocarbons in microlayer and subsurface waters of two South Carolina estuaries**
John Kucklick** and Terry F. Bidleman. Marine Science Program and Department of Chemistry. University of South Carolina, Columbia, SC
- 1055 **Zooplankton dynamics in an intertidal salt marsh basin**
Dorian S. Houser** and Dennis M. Allen. Coker College, Hartsville, SC and Baruch Marine Field Lab, University of South Carolina, Georgetown, SC
- 1115 **Seasonal nitrogen dynamics in an eelgrass meadow of lower Chesapeake Bay**
Christopher P. Buzzelli**. Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA
- 1135 **Effects of atrazine in subsurface groundwater discharge on the growth and production of *Zostera marina* L. (eelgrass)**
Arthur C. Schwarzschild**. Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA
- 1155 **Meteorological and hydrological control of estuarine primary production**
Michael A. Mallin**, Hans W. Paerl, Joseph Rudek, and Paul W. Bates. University of North Carolina Institute of Marine Sciences, Morehead City, NC

1215 - 1330 **LUNCH**

FRIDAY AFTERNOON - PAPER SESSION II

Session Chair: Lynn Barker (SEERS)

- 1330 **A new method for sampling benthic and epibenthic zooplankton and planktonic larvae**
Danny Spoon**, Karen Hicks, and Stephen E. Stancyk. Marine Science Program and Belle W. Baruch Institute of Marine Biology and Coastal Research, University of South Carolina, Columbia, SC
- 1350 **Effects of mucous tubes on the distribution of seagrass meiofauna**
Rita P. Longenecker** and Susan S. Bell. University of South Florida, Tampa, FL
- 1410 **Latitudinal reproductive variation of the salt marsh turtle, the Diamondback Terrapin, *Malaclemys terrapin***
Timothy D. Zimmerman**. Grice Marine Lab, College of Charleston, Charleston, SC
- 1430 **Effect of the sediment associated PCB aroclor 1254 on the reproductive capability of a meiobenthic copepod**
Lisa DiPinto**. Marine Science Program, University of South Carolina, Columbia, SC
- 1450 **Bio-optical techniques in the study of coral bleaching**
Brian von Gunten**. Grice Marine Biological Lab, College of Charleston, Charleston, SC
- 1510-1530 **SODA BREAK**

Session Chair: Tom Jones (AERS)

- 1530 **The relative contributions of the three fractions to the bioavailability and toxicity of cadmium on an infaunal copepod**
Andrew S. Green**, G.T. Chandler, and E. Blood. Marine Science Program, University of South Carolina, Columbia, SC
- 1550 **Chloride ion and CO₂ fluxes across the isolated perfused gill of the blue crab**
Louis E. Burnett**. Department of Biology, College of Charleston, Charleston, SC
- 1610 **Seasonality and distribution of juvenile weakfish, *Cynoscion regalis*, in the Cape Fear Estuary, NC**
Thomas E. Thompson*. Carolina Power and Light, Southport, SC
- 1630 **Surf water quality at Assateague Island National Seashore (MD/VA): Design of pilot testing program, initial response, and management implications**
J.P. Kumer and C.E. Furbish*. Assateague Island National Seashore, Berlin, MD
- 1650 **The Secchi Disc: One last time**
Jerome Williams*. Oceanography Department, US Naval Academy, Annapolis MD
- 1710 **Direct and indirect effects of abiotic factors on a salt marsh fish assemblage**
W.A. Dunson*, P. Fricano, and W. Sadinski. Department of Biology, Pennsylvania State University, University Park, PA
- 1730 **Announcements and awards - AERS and SEERS**
- 1740 **Short Business Meeting (independent sessions) AERS & SEERS elections**
- 1800 **Social - poolside**
- 1930 **Barbecue pig pickin' - poolside**

* Presenter / ** Student paper

SATURDAY MORNING - PAPER SESSION III

Session Chair: Richard Moore (SEERS)

- 0800 **Beach dynamics and compartmentalization, North Topsail Beach, North Carolina: A balanced sand budget?**
Keith Robertson*. Institute of Marine Sciences, Morehead City, NC
- 0820 **Metals and molting in the blue crab: Calcium, magnesium, and calcium-binding proteins**
David W. Engel*. National Marine Fisheries Service, SE Fisheries Science Center, Beaufort Laboratory, Beaufort, NC
- 0840 **Long-term variability of zooplankton from a high salinity estuary, North Inlet, SC: 1981-1991**
Lynn Barker*¹, Scott Chapal², and Stephen Stancyk³. ¹National Marine Fisheries Service, Beaufort Laboratory, Beaufort, NC, ²Baruch Marine Field Lab, University of South Carolina, Georgetown, SC, ³Baruch Institute, University of South Carolina, Columbia, SC
- 0900 **Toxicity in waters of Long Island Sound and adjacent harbors indicated by a sea urchin larval bioassay**
Susan A. Huntsman*, William G. Sunda, and Maria E. Bondura. National Marine Fisheries Service, SE Fisheries Science Center, Beaufort Lab, Beaufort, NC
- 0920 **A comparison of tidal and wind-driven flow at two study sites in Indian River Lagoon**
Patrick A. Pitts*. Harbor Branch Oceanographic Institution, Fort Pierce, FL

0940-1000 **COFFEE BREAK**

Session Chair: Steve Rebach (AERS)

- 1000 **An update on the western Pacific crab, *Hemigrapsus sanguineus*, now established along the New Jersey coast**
John J. McDermott*. Department of Biology, Franklin and Marshall College, Lancaster, PA
- 1020 **The benthic boundary layer is a Boojum: Do clams care?**
Jeroen Gerritsen*¹, David E. Irvine², and Jingyee Kou³. ¹Tetra Tech Inc., Columbia, MD, ²Hughes-STX Inc., Greenbelt, MD, ³Versar Inc., Columbia, MD
- 1040 **Long-term changes in sediment elevation in three mid-atlantic estuaries**
Daniel L. Childers* and Fred H. Sklar. Baruch Marine Field Laboratory, University of South Carolina, Georgetown, SC
- 1100 **Observations of heterospecific feeding associations among coral reef fishes**
Richard H. Moore. University of South Carolina-Coastal Carolina College, Conway, SC
- 1120 **Intertidal distribution and population dynamics of the salt marsh amphipod *Uholorchestia spartinophila* at Sapelo Island, Georgia**
Michelle Covi* and Ron Knieb, University of Georgia Marine Institute, Sapelo Island, GA
- 1140 **Tidal and low-frequency flushing of Florida's Indian River lagoon using a box model approach**
Ned P. Smith*. Harbor Branch Oceanographic Institution, Fort Pierce, FL
- 1200 **LUNCH**

SATURDAY AFTERNOON - PAPER SESSION IV

Session Chair: Dan Childers (SEERS)

- 1300 **Storm runoff of polycyclic aromatic hydrocarbons in urban and coastal South Carolina**
Barnabe Ngabe¹, Terry Bidleman^{*2}, and Geoffrey Scott³. ¹Department of Chemistry, University of South Carolina, Columbia, SC ²Department of Chemistry and Marine Science Program, University of South Carolina, Columbia, SC ³National Marine Fisheries Service, SE Fisheries Center, Charleston, SC
- 1320 **A new theory concerning marsh-estuarine ecosystems development**
Richard Dame^{*1}, Daniel Childers², and E. Keopfler¹. ¹University of South Carolina-Coastal Carolina College, Conway, SC and ²Baruch Marine Field laboratory, University of South Carolina, Georgetown, SC
- 1340 **Microhabitat selection by hibernating salt marsh periwinkles, *Littorina irrorata***
Robert W. Paul^{*}. St. Mary's College of Maryland, St. Mary's City, MD
- 1400 **Caprellid amphipods: Shape, size, and ecotypic variability**
Edsel A. Caine. University of South Carolina-Beaufort, Beaufort, SC
- 1420 **A process for defining characteristics of macrobenthic assemblages as goals for environmental restoration**
J.A. Ranasinghe¹, D.M. Dauer², R.J. Diaz³, and L.C. Schaffner³. ¹Versar, Inc., Columbia, MD, ²Department of Biological Sciences, Old Dominion University, Norfolk, VA, ³Virginia Institute of Marine Sciences, Gloucester Point, VA
- 1440-1630 **Field Trip** - Keith Robertson with UNC-CH Institute of Marine Sciences