

Program for Fall Meeting of AERS and SEERS
November 7-9, 1996
Royal Pavilion Resort, Morehead City, NC

Thursday evening

- 6:00 AERS Board Meeting
6:00- 10:00 Meeting Registration
7:00-10:00 Posters and Registrant Beverage Consumption Event

Friday Morning

- 7:50 Announcements
Session Chair: Mark Luckenbach
8:00 Rebach, S., Wowor, D. Latitudinal variation of claw attributes in east coast Cancrids. AERS
8:15 Block, J., Rebach, S. Analogs for claw strength in the rock crab, *Cancer irroratus*. M.S., AERS
8:30 Walther, S., Rebach, S., Habitat related variations in fiddler crab populations due to feral horse activity. M.S., AERS
8:45 Schuyler, Q., Tanner C., Hatch, W. Effects of eutrophication on phenolic content and herbivory of the tropical seagrass *Thalassia testudinum*. UNDERGRAD, AERS
9:00 Celestino, M., Levine, L., Hales, L., Stanton, Jr.. Some Aspects of the Life History of the Japanese Shore Crab, *Hemigrapsus sanguineus*, in New Jersey. UNDERGRAD, AERS
9:15 Nestlerode, J.A.1, Luckenbach, M.W.2, Coates, G.M.2. Oyster reef restoration: developing relationships between structure and function. Ph.D., AERS
9:30 Connors, D.E., Ringwood, A.H.. Tissue distribution, seasonal variation, and toxicological relevance of glutathione in oysters, *Crassostrea virginica*. M.S., SEERS
9:45 Vandersea, M., Fleming, P., McCarthy, R., Smith, D. Disruption of Retinoic Acid Signaling Pathways in *Fundulus heteroclitus* and *Danio rerio* Embryos. M.S., SEERS
10:00 Ruhl, S.1, Hales, L. S., Jr. 1,2. Diel and site-specific assessment of seine efficiency in a southern New Jersey estuary. AERS
10:15 Johnson J.M., Thayer G.T., Posey, M.H.. Effects of Predation on the Benthic Macrofaunal Communities Present Along an Environmental Gradient in Florida Bay, Fl.. M.S., SEERS

10:30 BREAK

Session Chair: Linda Blum

- 10:45 Swistak, J.G., Piehler, M.F., Paerl, H.W.. Sub-lethal Effects of Diesel Fuel on Naturally-occurring Marine Microbial Communities. M.S., SEERS

- 11:00 Przystup, J.E.. An Analysis of the Shelfbreak Current of the Mid-Atlantic Bight. UNDERGRAD, SEERS
- 11:15 Tilley, D.R. Value of wetlands used to process stormwaters in coastal zones. Ph.D., SEERS
- 11:30 Knowles, S.C., Wells, J.T.. In situ photographic systems for fine-grained suspended sediment analysis. SEERS
- 11:45 Smith, N.P. Observational Evidence of Wind and Tide Forcing in Florida Bay. SEERS
- 12:00 Pitts, P.A. Tidal and nontidal volume transport through Jewfish Creek, Florida Keys. SEERS
- 12:15 LUNCH

Friday Afternoon

Session Chair: David Osgood

- 1:30 Hansen, S., Landau, B.J., Skaradak, W, Fournier, M., Straub, P. F.. Randomly Amplified Polymorphic DNA (RAPDs) to Distinguish Genotypes of American Beach Grass (*Ammophila breviligulata*). UNDERGRAD, AERS
- 1:45 Mallin, M.A., Shank, G.C., McIver, M.R., Ensign, S.H. Hurricane Effects on Water Quality of the Cape Fear Estuary. SEERS
- 2:00 Schuyler, Q., Tanner C., Hatch, W. Effects of eutrophication on phenolic content and herbivory of the tropical seagrass *Thalassia testudinum*. UNDERGRAD, AERS
- 2:15 Touchette, B.W., Burkholder, J.M., Glasgow, H.B., Jr. Environmental and Physiological Control of Enzymes Involved in Carbohydrate Allocation and Nitrogen Assimilation in Eelgrass (*Zostera marina*). Ph.D., SEERS
- 2:30 Piehler, M.F., Swistak, J.G., Paerl, H.W.. Addition of Particulate Organic Carbon to Stimulate Biodegradation of Diesel Fuel in Coastal Waters. Ph.D., SEERS
- 2:45 Buzzelli, C. P. Dynamic modeling of primary production and material exchange in the Goodwin Islands National Estuarine Research Reserve (York River, Virginia). Ph.D., AERS
- 3:00 Peierls, B.L., Pinckney, J.L., Paerl, H.W.. Atmospheric Organic Nitrogen as a Nutrient Source for Coastal Marine Phytoplankton. M.S., SEERS
- 3:15 Lajoie, C.L., Dunstan, W.M.. Impacts of External Nutrient Loading on the Water-Column Dynamics of a Coastal Watershed. Ph.D. AERS
- 3:30 BREAK - Sponsored by EAST CAROLINA UNIVERSITY BIOLOGY DEPARTMENT
- Session Chair: Jay Pinckney
- 3:45 Miller, W. D., Neubauer, S. C., Anderson, I. C.. The Effect of Wrack Deposition and Increased Tidal Inundation on Carbon Cycling in a Virginia Saltmarsh. M.S., AERS
- 4:00 Neubauer, S.C., Miller, W.D., Anderson, I.C.. Carbon Cycling and Plant Community Composition in a Tidal Freshwater Marsh. Ph.D., AERS
- 4:15 Cannon, T.A., Blum, L.K. Carbon flow through primary producers and bacteria in two estuaries. M.S., AERS
- 4:30 Groszkowski, K.M., Cornwell, J. C., Kana, T.M.. Denitrification in a

Tidal Freshwater Marsh. M.S., AERS

4:45 Steppe, T.F., Paerl, H.W.. Diazotrophic Role of Sulphate Reducers in Marine Microbial Mats. M.S., SEERS

5:00 Sin, Y., Webb, K.L., and Sieracki, M.E. *. Carbon and nitrogen densities of the marine heterotrophic flagellate, *Paraphysomonas* sp. during different phases of growth. Ph.D., AERS

5:15 Olson, J., Steppe, T., and H. Paerl. Nitrogen Fixing Consortia in Microbial Mats. Ph.D., SEERS

5:30 AERS and SEERS Business Meetings

Friday evening

7:30 Tribute to Dr. Donald Lear: A new temperature-tolerant amoeba, *Learamoeba waccamawensis*, from soil. T.K. Sawyer, T.A. Nerad, L.B. Cahoon, and J.E. Nearhoof. Rescon Assoc. Inc., Royal Oak, MD, American Type Culture Collection, Rockville, MD and University of North Carolina, NC.

7:50 Banquet

Saturday Morning

7:50 Announcements

Session Chair: Judy Heath

8:00 Cambalik, J. J., Currin, C. A. A preliminary characterization of food sources utilized by larval and juvenile flounder: a stable isotope approach. SEERS

8:15 Hartwell, I. Correlation of Ambient Toxicity and Fish Community Effects-Three Years of Combined Lab/Field Data. AERS

8:30 Hales, L. S., Jr., 1,2 Clymer, J. P., III,1,3 and Allen, D. M.4 Long-term changes in a southern New Jersey estuary and its ichthyofauna. AERS

8:45 Christmas, J.F.1, McGinty, M.R.1, Randle, D.A.1, Smith, G.F.2, Jordan, S.J.2. Oyster shell disarticulation in three Chesapeake Bay tributaries. AERS

9:00 Noble, L.. North Carolina's Shellfish Mapping Program: A Shellfish Habitat and Abundance Survey. SEERS

9:15 Schwarzschild, A.C., Kenworthy, W. J. Vertical growth of *Syringodium filiforme* : Clues to leaf formation, productivity, resource allocation and shoot ageing. SEERS

9:30 Kenworthy, W. J., Terrados, J., Duarte, C.M. Experimental evidence for apical dominance in the seagrass *Cymodocea nodosa* (Ucria) Ascherson. SEERS

9:45 Burns, J., Chapman, A., Messer, E.E., Campbell, D.. The ecological characterization of submersed aquatic vegetation in a blackwater estuary. SEERS

10:00 Miller, R.R., Virnstein, R.W. Testing the use of an epiphyte photo-index as a tool for quantifying visual estimates of epiphyte biomass on the seagrass *Halodule wrightii* within the Indian River Lagoon, Florida. SEERS

10:15 Virnstein, R.W., Tepera, M.F. Patterns of changing seagrass abundance in Indian River Lagoon, Florida. SEERS

10:30 Morris, L.J., Virnstein, R.W., Miller R.R., Miller, J.D., Short-term

changes in seagrass density in the Indian River Lagoon, FL. using *Halophila johnsonii* as an example. SEERS

10:45 BREAK

Session Chair: Alan Lewitus

11:00 Toffer K.L., Rublee, P.A., Ribosomal DNA primers and probes from the toxic dinoflagellate *Pfiesteria piscicida*. SEERS

11:15 Burkholder, J.M.1, Glasgow, H.B. Jr.1, Lewitus, A.J.2, E. E. Fensin1, Mallin, M.A.3. Nitrogen and Phosphorus Stimulate the Toxic Dinoflagellate, *Pfiesteria piscicida*: Evidence from Lab and Field. SEERS

11:30 Glasgow, H.B. Jr.1, Burkholder, J.M.1, Lewitus, A.J.2 Feeding Behavior of the Ichthyotoxic Estuarine Dinoflagellate, *Pfiesteria piscicida*, Given Algal Prey. Ph.D., SEERS

11:45 Lewitus, A.J., Glasgow Jr., H.B., Burkholder, J.M. The Role of Cleptoplastidy in the Mixotrophic Nutrition of the Toxic Dinoflagellate, *Pfiesteria piscicida*. SEERS

12:00 Levin, E.D.1, Schmechel, D.E.2,3, Glasgow, H.B. Jr. 4, Burkholder, J.M.4, Deamer-Melia, N.M.4 *Pfiesteria piscicida* effects on cognitive performance in rats. SEERS

12:15 Mountford, K. Chesapeake Bay: The English past as prologue. AERS

12:30 Montague, Clay L.. Suggesting Land Use Principles for a Sustainable Biosphere: What is the Estuarine Point of View? SEERS

12:45 Rudek, J.. The Process of Developing an Environmental Management Strategy: A Case Study of the Neuse River. SEERS

POSTERS

(in alphabetical order)

Allen, D.M., Ogburn-Matthews, V., Kenny, P., Service, S.. Evidence of limited and stable production of fishes and shrimps in a SC salt marsh. SEERS

Anderson, A. Oyster Biomass in the Tidal Creeks of the North Inlet Salt Marsh. UNDERGRAD, SEERS

Casanova, R., Currin, C.A., Piehler, M.F., Paerl, H.W.. Benthic Microbial N₂ Fixation in Natural and Transplanted *Spartina alterniflora* Marshes. UNDERGRAD, SEERS

Cross, R., Osgood, D. Preliminary results of effects of nutrient enrichment on lower trophic levels in a developing barrier island marsh. SEERS

Fensin, E. E., Burkholder, J. M. Seasonal Population Dynamics of the ichthyotoxic dinoflagellate, *Pfiesteria piscicida*, in the mesohaline Neuse River Estuary, North Carolina.. M.S., SEERS

Griffitt, R.J., Sykes, J.B., Alphin, T., Posey, M.. Effects of Structural Complexity on Oyster Reef Utilization by Epibenthic Fauna.. UNDERGRAD, SEERS

Horton, M. Elizabeth, Coull, B.C., Schubauer-Berigan, J.P.. The Ecological and Toxicological Effects of Golf Course Management on Benthic Macroinvertebrates. M.S., SEERS

Humphries, L.F., Lewitus, A.J., Koepfler, E.T., Gregory, L.L., Willis, B.M..

Oyster Reef Impact on Microbial Food Web Dynamics in Tidal Pools in North Inlet Estuary. UNDERGRAD, SEERS
Jones, L. M., Chipouras, E., Montague, C. L. Transplantation of four submersed macrophyte species in both high and low salinity-fluctuation habitats near the northern land margin of Florida Bay. M.S., SEERS
Lance, V.P., Clough, L.M., West, T.L., Syster, D.A.. Food availability in oligohaline sediments: A worm's perspective. SEERS
Leighfield, T.A., VanDolah, F.M.. Involvement of cAMP in Circadian Regulation of the Cell Cycle in the Dinoflagellate, *Amphidinium operculatum*.. M.S., SEERS
Lewis, D.L., Pflanz, K.A., Dauer, D.M. Comparison of two benthic sampling devices among several benthic habitat types. STUDENT, AERS
Pinckney, J., Wyrick, P., Howe, K., Paerl, H.. Short-term Impacts of Hurricane Fran on Water Quality in the Neuse River Estuary, NC. SEERS
Ringwood, Amy H., Deanna Conners, Jennifer Hoguet. Lysosomal destabilization in oysters: laboratory and field studies. M.S., SEERS
Scarboro, C. L., Schratwieser, J.E., Dauer, D.M. Nocturnal Movements of the Macrobenthos of the Lafayette River, Virginia. STUDENT, AERS
Schlenger, P.T., Grimshaw, P.A., Ross, S.W.. Multi-State Assessment of Storm Water Runoff into Estuaries and Management Practices: Preliminary North Carolina Results. SEERS
Smith, Amanda E. A comparison of the effects of various levels of sulfate concentrations on the growth of *Spartina alterniflora* and *Spartina cynosuroides*. UNDERGRAD, AERS
Springer, J. J., Burkholder, J., Glasgow, Howard G. Interactions of flagellated and amoeboid forms of the toxic dinoflagellate, *Pfiesteria piscicida*, with finfish and shellfish tissues. M.S., SEERS
Thompson, M.A.. *Limulus polyphemus* in South Carolina - Preliminary Findings. M.S., SEERS
Thompson, S.P., Paerl, H.W.. Denitrification Dynamics of a Headwater Estuarine Creek Receiving Agricultural Runoff. SEERS
Toomey, W. A., Broome, S. W.. The effect of quality and quantity of soil organic matter on salt marsh functioning and infaunal community structure. M.S., SEERS
Vieira, M.E.C. Observations of a disturbance to estuarine flow during a strong meteorological event. AERS

SPECIAL THANKS:

East Carolina University
for their generous sponsorship of the Friday afternoon break

The Local Arrangement Committee:
Bob Christian, East Carolina University, Greenville, NC, AERS
Judy Heath, Glaxo-Wellcome, Greenville, NC, AERS

Trish Murphey, NC State Fisheries, Morehead City, NC, SEERS
Dana Woodruff, NMFS, Beaufort Laboratory, SEERS

Student Presentation Judges

Iris Anderson, College of William and Mary, VIMS, Gloucester Point VA, AERS
Dan Dauer, Old Dominion University, Norfolk, VA, AERS
David Engel, NMFS, Beaufort Laboratory, SEERS
Stan Hales, Richard Stockton College, Pomona, NJ, AERS
Clay Montague, Univ. of Fla, Dept. Envir. Engr. Sci., Gainesville, FL, SEERS
Liz Noble, NC State Fisheries, Morehead City, NC SEERS