



**NEERS FALL 2016 MEETING**

**OCTOBER 20-22**

**SPRING HOUSE HOTEL, BLOCK ISLAND, RI**

**Hosted By**

The Graduate School of Oceanography, University of Rhode Island

*Local organizers:*

*Veronica Berounsky, Walter Berry, Autumn Oczkowski, and Charles Roman*

**Platinum Supporter**

University of Rhode Island, Graduate School of Oceanography

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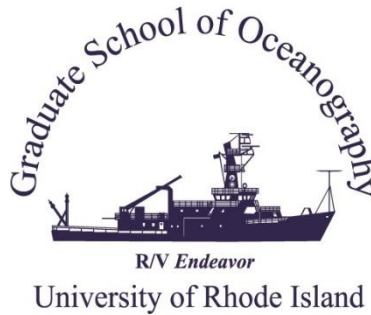
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## NEERS FALL 2016 MEETING

### MEETING PROGRAM

*All oral presentations are in Victoria's Parlor,  
all posters and exhibits are in the Sunroom Wing, and  
all meals are in the Dining Room of the Spring House Hotel*

#### Thursday, October 20<sup>th</sup>

6:00 am	Be at ferry dock in Pt. Judith for 6:30 Block Island ferry OR
10:30 am	Be at ferry dock in Pt. Judith for 11:00 Block Island ferry
12:15 pm – 1:25 pm	Buffet lunch (included in registration fee) and Hotel Check In
12:15 pm – 1:25 pm	Meeting registration (Spring House foyer)
1:30 pm – 5:45 pm	Special Symposium: "Next questions and future directions: Emerging perspectives in Estuarine and Coastal Marine Science".
4:15 pm	Still on the mainland? Catch the 4:45 pm ferry to the meeting.
5:15 pm – 6:30 pm	Welcoming social and poster set-up
6:00 pm	Be at ferry dock on Block Island for 6:30 ferry back to mainland
6:30 pm – 8:30 pm	Buffet dinner (must sign-up during pre-registration)
8:30 pm - ?	Informal Discussion of Options in Marine Career Pathways in Newport Guesthouse

#### Friday, October 21<sup>st</sup>

7:00 am – 7:55 am	Continental Breakfast (included with hotel room), Poster set-up
7:00 am – 8:00 am	Meeting registration (Spring House Foyer)
8:30 am	Be at ferry dock in Pt. Judith for 9:00 Block Island ferry
8:00 am – 10:10 am	Oral presentations: Marshes, Macroalgae and Eelgrass
10:25 am -12:10 pm	Oral presentations: Salt marsh ecology
12:10 pm – 1:15 pm	Buffet lunch (included in registration fee)
1:15 pm – 2:45 pm	Oral presentations: Soils, Benthos and Aquaculture
3:00 pm – 4:30 pm	Poster presentations on Estuarine Science, Management, and Policy
3:30	Be at ferry dock on Block Island for 4:00 ferry back to mainland (last ferry of the day)
4:30 pm – 5:45 pm	Oral presentations: Waste Water Treatment Studies
5:45 pm – 6:30 pm	NEERS Business Meeting
6:30 pm – 7:00 pm	Social and continued poster viewing
7:00 pm – 9:00 pm	NEERS Student Awards Banquet: Dinner, awards, games, entertainment and acknowledgement of changing of the NEERS Guard
9:00 pm - ?	Make our own Music, Victoria's Parlor

#### Saturday, October 22<sup>nd</sup>

7:00 am – 7:55 am	Continental Breakfast (included with hotel room), poster takedown
8:30 am – 9:45 am	Oral presentations: "Need to know science: Turtles, Strandings, and Plastics
9:50 – 10:00 am	"Ignite" Hot Topics
10:10 am – 11:50 am	Oral presentations: "Environmental Management, Monitoring and Assessment"
11:50 am	Presentation of 3x3 and Stickleback awards; Meeting adjourns
12:30 pm	Spring House Pond Field Trip (walking)
1:00 pm	Around Block Island Field Trip: Llamas, and Turbines, and Beach Profiles, Oh My!
1:30 pm	Be at ferry dock for 2 PM ferry to Pt. Judith OR
5:00 pm	Be at ferry dock for 5:30 PM ferry to Pt. Judith

Thursday, October 20<sup>th</sup>

**SPECIAL SYMPOSIUM:**

**Next questions and future directions:  
Emerging perspectives in Estuarine and Coastal Marine Science**

Where will we find the answers to the complex environmental problems we are presently facing? A good place to look is to the up and coming scientists that are examining these issues and using approaches, insights, perspectives, and tools new to estuarine and coastal science, especially those that are combining the natural and social sciences. We will be hearing from five “science young” researchers and challenging them to speak on some of the big emerging environmental questions they are working on, and propose new research and methods to answer them. The local planning committee has deliberately invited speakers with a wide range of disciplines, from sediment transport to fisheries biology, and using a variety of techniques ranging from coring to remote sensing.

- 1:30** Welcome – URI-GSO’s Dean Dr. Bruce Corliss
- 1:45** Introduction to the symposium – Walter Berry, Veronica Berounsky, Autumn Oczkowski and Charles Roman
- 2:00** **Austin T. Humphries**, University of Rhode Island, Department of Fisheries, Animal, and Veterinary Sciences. **RESEARCH AT THE BORDERLANDS: DIVERGENT THINKING ON THE EDGE OF DISCIPLINES TO ACHIEVE EFFECTIVE INTERDISCIPLINARITY**
- 2:30** **Elizabeth B. Watson**<sup>1</sup>, and A. M. Woolfolk <sup>2</sup>, <sup>1</sup>Drexel University, Department of Biodiversity, Earth, and Environmental Science and the Academy of Natural Sciences, Philadelphia, PA. <sup>2</sup>Elkhorn Slough National Estuarine Research Reserve, Watsonville, CA.  
**LESSONS FROM THE PAST TO PREPARE FOR THE FUTURE: THE VALUE OF ESTUARINE HISTORICAL ECOLOGY IN A CHANGING WORLD**
- 3:00** **Colleen B. Mouw**, University of Rhode Island, Graduate School of Oceanography, Narragansett, RI.  
**COLOR RADIOMETRY REMOTE SENSING OF COASTAL SYSTEMS**
- 3:30** BREAK
- 3:50** **Neil K. Ganju**, Woods Hole Coastal and Marine Science Center, U.S. Geological Survey, Woods Hole, MA  
**ASSESSING ESTUARINE VULNERABILITY THROUGH MODEL AND DATA SYNTHESIS**
- 4:20** **Lora A. Harris**, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, Solomons, MD  
**ESTUARINE ECOLOGICAL DISCOVERY IN THE ANTHROPOCENE: IMPROVING BASIC SCIENCE THROUGH OPPORTUNITIES IN APPLIED RESEARCH**

- 4:50** PANEL DISCUSSION – All speakers. Moderator -Walter Berry
- 5:15** NEERS Welcoming Social
- 5:45** Ferry arrives from Pt. Judith
- 6:00** If you must leave today, head to the ferry. New arrivals join social at Spring House Hotel.
- 6:30** Ferry departs for Pt. Judith.
- 6:30** Dinner at Spring House Hotel for those who are staying
- 8:30** Informal Discussion on Options of Marine Science Career Pathways in Newport Guest House

### **Biographies of Symposium Speakers (in speaker order)**

Austin T. Humphries is an assistant professor at University of Rhode Island, Dept. of Fisheries, Animal, and Veterinary Sciences. He is interested in ecological and social outcomes that arise from fisheries and coastal management. He conducts field and lab experiments as well as engaging in socioeconomic interviews, performing synthetic statistical analyses, and designing models to understand these coupled interactions. This work is both local and international, often studying oysters in estuaries and tropical coral reef fishes, as well as the human dimension aspect which involves the people that depend on these resources. Before coming to URI in 2015, he completed a Postdoctoral Fellowship at the US Environmental Protection Agency in Narragansett, RI. He finished his PhD at Rhodes University (South Africa) in 2014. His doctoral research was based in Kenya and in collaboration with the Wildlife Conservation Society. Before his time in Africa, he earned a MS degree at Louisiana State University in 2010, and a BS degree at the University of Vermont in 2006.

Elizabeth B. Watson is an assistant professor in the Department of Biodiversity, Earth & Environmental Sciences at Drexel University, and the wetland section leader at the Patrick Center for Environmental Research at the Academy of Natural Sciences in Philadelphia. She received her PhD in physical geography from the University of California, Berkeley, and prior to coming to Drexel, worked as an ecologist for the U.S. Environmental Protection Agency in Narragansett, RI

Colleen B. Mouw is an Assistant Professor of Biological Oceanography at the Graduate School of Oceanography, University of Rhode Island. Her areas of expertise include algal blooms, biology, biooptics, climate change, coastal and estuarine health, ecosystem dynamics, in-situ sensing, optics in the ocean, phytoplankton ecology, remote sensing, and satellite imagery. She received a B.S. Biology from Western Michigan University, a

M.S. in Oceanography from the University of Rhode Island and a Ph.D. in Oceanography from the University of Rhode Island.

Neil K. Ganju is currently a Research Oceanographer at the USGS Woods Hole Coastal and Marine Science Center. He received his B.S. in Civil Engineering from the University of Michigan, followed by his M.S. in Coastal Engineering from the University of Florida. He then worked as a hydraulic engineer at the USGS in Sacramento, CA focusing on sediment transport and geomorphic change in San Francisco Bay. Dr. Ganju attended the University of California-Davis and received his Ph.D. in Civil Engineering in 2007. He joined the Woods Hole Center in 2008 and has worked on observations and modeling of estuarine and coastal processes along the Atlantic and Pacific coasts, specializing in observations and numerical modeling of hydrodynamics, sediment transport, water quality, and bio-physical feedbacks.

Lora A. Harris is an associate professor at the University of Maryland Center for Environmental Science, based at the Chesapeake Biological Laboratory. She is an estuarine ecologist who applies field and modeling approaches to address important questions regarding nutrient dynamics, primary production and ecosystem structure and function in a range of estuarine ecosystems. She is interested in climate impacts on estuaries and lagoons, with a particular focus in wetland and seagrass ecosystems. Some of her most recent work has involved participatory modeling efforts with stakeholders and managers seeking solutions to improve water quality and restore seagrasses in Delmarva coastal lagoons, and a collaboration with wastewater engineers to understand the restoration trajectories of hypoxic estuaries. Dr. Harris works closely with federal, state, and regional agencies in both a research and advisory capacity, and currently serves on the National Academy of Sciences and Engineering Committee in support of the Edwards Aquifer's Habitat Conservation Plan. She received her B.S. from Smith College and her Ph.D. from the University of Rhode Island's Graduate School of Oceanography.

## Friday, October 21<sup>th</sup>

**8:00** Welcome and Introductory Remarks – Jamie Vaudrey, NEERS President

### Marshes, Macro-algae and Eelgrass

Chair: Sara Grady

\* Presenter; **(K)** Ketchum Prize candidate for best graduate student presentation,

**(R)** Rankin Prize candidate for best undergraduate student presentation

**8:05** (R) Mollie R. Yacano\*<sup>1,2</sup>, Foster, S.Q. <sup>1</sup>, and Fulweiler, R.W. <sup>1,2</sup>

<sup>1</sup>Earth and Environment Department, Boston University, Boston, MA, USA

<sup>2</sup>Biology Department, Boston University, Boston, MA, USA.

ASSESSING THE ROLE OF MACROPHYTES IN ESTUARINE SILICON CYCLING

- 8:20** Jillian Carr\*<sup>1</sup> and K. Ford<sup>2</sup>  
 Massachusetts Division of Marine Fisheries  
<sup>1</sup>Annisquam Marine Fisheries Field Station, Gloucester, MA;  
<sup>2</sup>Quest Center, New Bedford, MA.  
 HISTORIC EELGRASS TRENDS IN TWO MASSACHUSETTS EMBAYMENTS
- 8:35** (K) Ashley R. Norton\*<sup>1</sup> and Dijkstra, S.J.<sup>1</sup>  
<sup>1</sup>Center for Coastal and Ocean Mapping, University of New Hampshire, Durham, NH.  
 OBSERVATIONS OF ACOUSTIC BACKSCATTER AND CURRENT VELOCITY  
 ABOVE AN EELGRASS CANOPY OVER MULTIPLE TIDAL CYCLES
- 8:50** (R) Caroline R. Kanaskie\*<sup>1,2</sup>, N. R. Moore<sup>1,3</sup>, T. D. Hill<sup>1</sup>, and A. J. Oczkowski<sup>1</sup>  
<sup>1</sup>U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
<sup>2</sup>Dickinson College, Carlisle, PA  
<sup>3</sup>College of William and Mary, Williamsburg, VA.  
 ABOVEGROUND NITROGEN USE EFFICIENCY AND GROWTH DYNAMICS IN  
*SPARTINA ALTERNIFLORA* AND *DISTICHLIS SPICATA*
- 9:05** (R) Nathalie R. Moore\*<sup>1,3</sup>, Kanaskie, C.R.<sup>2,3</sup>, Hill, T.D.<sup>3</sup>, and Oczkowski, A. J.<sup>3</sup>  
<sup>1</sup>Department of Biology, College of William and Mary, VA,  
<sup>2</sup>Dickinson College, PA;  
<sup>3</sup> U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
 BELOWGROUND NITROGEN UPTAKE AND ALLOCATION BY *SPARTINA*  
*ALTERNIFLORA* AND *DISTICHLIS SPICATA*
- 9:20** (K) Danielle C. Perry \*<sup>1</sup>, Thornber, C.<sup>2</sup>, and S. Moseman-Valtierra<sup>1</sup>.  
<sup>1</sup>Department of Biological Sciences, University of Rhode Island, Kingston, RI.;  
<sup>2</sup>Department of Natural Resources Science, University of Rhode Island, Kingston, RI.  
 IMPACTS OF BLOOM-FORMING *ULVA* AND ECADS ON SALT MARSH  
 VEGETATION AND GREENHOUSE GASES
- 9:35** DISCUSSION
- Ignite!***
- 9:50** (K) Gretchen Grebe<sup>1,2</sup>  
<sup>1</sup>School of Marine Sciences, University of Maine, Orono, ME; <sup>2</sup>Ocean Food Systems  
 Group, University of New England, Biddeford, ME.  
 IMPROVED SITING OF KELP AQUACULTURE USING N-15 STABLE ISOTOPE  
 ANALYSIS
- 9:55** Tay Evans\* and J.L. Carr  
 Massachusetts Division of Marine Fisheries, Annisquam Marine Fisheries Field Station,  
 Gloucester, MA  
 UNDERWATER VIEW OF CONSERVATION MOORINGS: ARE THEY REALLY  
 EELGRASS FRIENDLY?
- 10:00** DISCUSSION
- 10:10** BREAK

## Salt Marsh Ecology

Chair: Jamie Vaudrey

\* Presenter; **(K)** Ketchum Prize candidate for best graduate student presentation,

**(R)** Rankin Prize candidate for best undergraduate student presentation

- 10:25** Scott Warren\*, R. S.<sup>1</sup>, D. S. Johnson<sup>2</sup>, L. A. Deegan<sup>3</sup>, and T. J. Mozdzer<sup>4</sup>  
<sup>1</sup>Connecticut College, New London, CT;  
<sup>2</sup>Virginia Institute of Marine Science, Williamsburg, VA;  
<sup>3</sup>Woods Hole Research Center, Falmouth MA;  
<sup>4</sup>Bryn Mawr College, Bryn Mawr, PA.  
PLOT LEVEL RESULTS TO ECOSYSTEM LEVEL RESPONSES: EXTRAPOLATE WITH CAUTION
- 10:40** Ron Rozsa  
210 Amidon Road, Ashford, CT 06278.  
BARN ISLAND SALT MARSH COMPLEX – EIGHT DECADES OF CHANGE
- 10:55** Camilo Salazar\*<sup>1</sup>, J. Cochran<sup>2</sup>, and C. Heilbrun<sup>2</sup>  
<sup>1</sup>100 Veterans Memorial Hwy, 2nd floor, Hauppauge, NY 11788.  
<sup>2</sup>School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY  
AN APPROXIMATION TO TIDAL MARSH DRAINAGE AND POREWATER RESIDENCE THROUGH SHORT-LIVED RADIUM ISOTOPES
- 11:10** Inke Forbrich\*<sup>1</sup>, Anne E Giblin<sup>1</sup>, James T Morris<sup>2</sup>, and Charles Hopkinson<sup>3</sup>  
<sup>1</sup>Marine Biological Laboratory, Woods Hole, MA, United States  
<sup>2</sup>University of South Carolina Columbia, Columbia, SC, United States  
<sup>3</sup>University of Georgia, Athens, GA, United States.  
EFFECTS OF DROUGHT ON MARSH CO<sub>2</sub> EXCHANGE
- 11:25** Dorothy M. Peteet<sup>1,2</sup>, Nichols, J.<sup>2</sup>, Kenna, T.<sup>2</sup>, Lamb, A.<sup>1</sup>, Taylor, M.<sup>1</sup>, Reza, M.<sup>1</sup>, O'Connor, J.<sup>1</sup>, Kolvari, S.<sup>1</sup>, Chang, C.<sup>1</sup>, Reguyal, S.<sup>1</sup>, and Stern-Protz, S.<sup>1</sup>;  
<sup>1</sup>NASA/Goddard Institute for Space Studies, New York, NY &  
<sup>2</sup>Lamont Doherty Earth Observatory, Palisades, NY.  
JAMAICA BAY MARSHES, NEW YORK – VEGETATION, SEDIMENT, AND POLLUTION HISTORY
- 11:40** E. Christa Farmer<sup>1</sup>, James P. Browne<sup>2</sup>, Dorothy Peteet<sup>3\*</sup>, Nika Chery<sup>1</sup>, Vanessa Fernandes<sup>1</sup>, and Tamunoisoala LongJohn<sup>1</sup>  
<sup>1</sup>Geology Dept., Hofstra University  
<sup>2</sup>Conservation and Waterways Dept., Town of Hempstead  
<sup>3</sup>Lamont Doherty Earth Observatory, Columbia University.  
RESOLVING DISCREPANCIES IN THE CHRONOSTRATIGRAPHY OF A SALT MARSH SEDIMENT CORE FROM NORTH CINDER ISLAND IN THE TOWN OF HEMPSTEAD, LONG ISLAND, NY, USING RADIOCARBON AND POLLEN
- 11:55** DISCUSSION
- 12:10** LUNCH

## Soils, Benthos and Aquaculture

Chair: Tay Evans

\* Presenter; **(K)** Ketchum Prize candidate for best graduate student presentation,  
**(R)** Rankin Prize candidate for best undergraduate student presentation

- 1:15** (K) Ryan K. Sullivan \*<sup>1</sup>, and Tunstead, R.<sup>2</sup>.  
<sup>1</sup>Department of Civil and Environmental Engineering, University of Rhode Island, Kingston, RI.  
<sup>2</sup>United States Department of Agriculture, Natural Resource Conservation Service, Hammonton, NJ.  
SUBAQUEOUS SOIL SURVEY AND TRACE METAL ANALYSIS OF THE BARNEGAT BAY, NEW JERSEY
- 1:30** (K) Chelsea Duball\*, M.H. Stolt, and J.A. Amador  
Department of Natural Resources Science, University of Rhode Island, Greenhouse Road, Kingston, RI 02881.  
ASSESSING IMPACTS OF OYSTER AQUACULTURE IN RHODE ISLAND COASTAL LAGOONS USING SUBAQUEOUS SOILS AND BENTHIC MACROINFAUNA
- 1:45** (K) Nicholas E. Ray\*<sup>1</sup>, Henning, M.C.<sup>2</sup>, Al-Haj, A.N.<sup>2</sup>, and Fulweiler, R.W.<sup>1,2</sup>  
<sup>1</sup>Department of Biology, Boston University, Boston, MA;  
<sup>2</sup>Department of Earth and Environment, Boston University, Boston, MA.  
N<sub>2</sub>O AND CH<sub>4</sub> FLUXES FROM OYSTER AQUACULTURE
- 2:00** Mark Borrelli\*, M.<sup>1</sup>, B. Legare<sup>2</sup>, T.L. Smith<sup>2</sup>, and H. Love<sup>1</sup>  
<sup>1</sup>University of Massachusetts, Boston, 100 Morrissey Blvd, Boston, MA 02188,  
<sup>2</sup>Marine Geology, Center for Coastal Studies, 5 Holway Ave, Provincetown, MA 02657.  
EXTREME SHALLOW WATER, VESSEL-BASED ACOUSTIC SEAFLOOR MAPPING IN ESTUARINE ENVIRONMENTS
- 2:15** (K) Emily J. Chua\*, E. J.<sup>1</sup>, Short, R. T.<sup>2</sup> Cardenas-Valencia, A. M.<sup>2</sup>, Savidge, W.<sup>3</sup> and Fulweiler, R. W.<sup>1,4</sup>  
<sup>1</sup>Department of Earth and Environment, Boston University, Boston, MA;  
<sup>2</sup>Sensing and Domain Awareness Laboratory, SRI International, St. Petersburg, FL;  
<sup>3</sup>Skidaway Institute of Oceanography, University of Georgia, Savannah, GA;  
<sup>4</sup>Department of Biology, Boston University, Boston, MA.  
DEVELOPMENT OF AN *IN SITU* POREWATER SAMPLER COUPLED TO AN UNDERWATER MASS SPECTROMETER FOR HIGH-RESOLUTION BIOGENIC GAS MEASUREMENTS IN PERMEABLE SEDIMENTS
- 2:30** (R) Darby L. Pochtar\*<sup>1</sup> D.M. Hudson<sup>2</sup>, T.E. Moll<sup>3</sup>, E. Baker<sup>4</sup>, and J.S. Krumholz<sup>5</sup>  
<sup>1</sup>University of Rhode Island, Kingston, RI  
<sup>2</sup>Atlanta Metropolitan State College, Atlanta, GA  
<sup>3</sup>Naval Undersea Warfare Center, Newport, RI  
<sup>4</sup>University of Rhode Island Graduate School of Oceanography, Narragansett, RI  
<sup>5</sup>McLaughlin Research Corporation, Middletown, RI.  
THE EFFECTS OF BOAT NOISE ON RESOURCE COMPETITION IN THE BLUE CRAB (*CALLINECTES SAPIDUS*).



2:45 DISCUSSION

3:00 -4:30

**POSTER SESSION**

\* Presenter; **(D)** Dean Prize candidate for best graduate student poster presentation,  
**(W)** Warren Prize candidate for best undergraduate student poster presentation

**Eutrophication, Sediments and Water Quality Management**

- P-1 Nicole L. Cantatore\*, Crosby, S.C. and Cooper, J.R.  
Harbor Watch, Earthplace Inc., Westport CT.  
BACTERIA BONANZA: USING WATER QUALITY INDICATORS TO REDUCE  
THE IMPACT OF SEWAGE POLLUTION ON ESTUARIES
- P-2 **(W)** Farzana Rahman\*<sup>1</sup>, Wasson, K.<sup>2</sup>, and Watson, E.B.<sup>1</sup>  
<sup>1</sup>Department of Biodiversity, Earth & Environmental Sciences and The Academy of  
Natural Sciences, Drexel University, Philadelphia, PA, USA;  
<sup>2</sup>Elkhorn Slough National Estuarine Research Reserve, Watsonville, CA, USA.  
SEDIMENT NITROGEN STABLE ISOTOPE RATIOS AS AN INDICATOR OF  
HISTORIC EUTROPHICATION TRENDS IN A CALIFORNIA ESTUARY
- P-3 Sarah C. Crosby\*, Cantatore, N.L. and Cooper, J.R.  
Harbor Watch, Earthplace Inc., Westport CT.  
WATER QUALITY IN SOUTHWESTERN CONNECTICUT'S RIVERS AND  
EMBAYMENTS AND IMPLICATIONS FOR THE HEALTH OF LONG ISLAND  
SOUND
- P-4 Amber Unruh\*, M. Labrie, P. Mancuso, A. Austin, B. L. Howes, and M. Sundermeyer.  
University of Massachusetts-Dartmouth School for Marine Science and Technology, New  
Bedford, Massachusetts, USA.  
CASE STUDY FOR POTENTIAL SOFT INFRASTRUCTURE SOLUTIONS VERSUS  
TRADITIONAL INFRASTRUCURE SOLUTIONS IN COCKEAST POND,  
WESTPORT, MASSACHUSETTS, USA
- P-5 **(W)** Emily A. Santos\*<sup>1,2</sup>, Oczkowski, A.<sup>3</sup>, Wigand, C.<sup>3</sup>, Hanson, A.<sup>3</sup>, Huertas, E.<sup>4</sup>  
<sup>1</sup>ORISE Contractor for the United States Environmental Protection Agency  
<sup>2</sup>Department of Geosciences, University of Rhode Island, Kingston RI  
<sup>3</sup> U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
<sup>4</sup>U.S. Environmental Protection Agency, Region 2 Caribbean Office, San Juan, PR.  
CHARACTERIZING THE ORGANIC MATTER IN SURFACE SEDIMENTS FROM  
THE SAN JUAN BAY ESTUARY
- P-6 Justin Siddhartha Hayes\*<sup>1</sup>, N. Noori <sup>2</sup>C. Roble<sup>1</sup>, and B. Branco<sup>2</sup>  
<sup>1</sup>Hudson River Park Trust, New York, NY  
<sup>2</sup>Aquatic Research and Environmental Assessment Center, Brooklyn College, Brooklyn,  
NY.  
MICROPLASTIC DISTRIBUTION IN THE HUDSON RIVER PARK, NEW YORK  
CITY

- P-7 Sara J. Sampieri-Horvet\*, and B.L Howes  
Department of Estuarine and Ocean Sciences, School for Marine Science and  
Technology, UMASS Dartmouth.  
EFFECTS OF NUTRIENT ENRICHMENT ON ESTUARINE BENTHIC  
COMMUNITIES IN SOUTHEASTERN MASSACHUSETTS ESTUARIES

### Nitrogen

- P-8 (W) Lyla O'Brien\*, L.<sup>1</sup> and Ayvazian, S.<sup>2</sup>  
<sup>1</sup>Department of Biology, University of Hartford, Hartford, CT;  
<sup>2</sup> U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
COMPARING AND DETERMINING THE CAUSES OF RIBBED MUSSEL  
NITROGEN ISOTOPE SIGNATURES IN THREE NEW ENGLAND SUB-  
WATERSHEDS
- P-9 (D) Katelyn Szura, \*<sup>1</sup> Moseman-Valtierra, S.<sup>1</sup> Gonneea, M.E. <sup>2</sup> and Tang, J.<sup>3</sup>  
<sup>1</sup>Department of Biological Sciences, University of Rhode Island, Kingston, RI  
<sup>2</sup>Coastal and Marine Science Center, U.S. Geological Survey, Woods Hole, MA  
<sup>3</sup>The Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA.  
SUMMER GREENHOUSE GAS FLUXES ALONG A 100-FOLD NITROGEN  
GRADIENT IN NARRAGANSETT BAY
- P-10 (W) Breanna Whittemore, Martin, T., Brady, D., O'Neill, S. and Rich J.  
School of Marine Science, University of Maine, Orono, ME.  
CAN WE MEASURE NITRATE IN REAL TIME IN MAINE ESTUARIES?  
DETERMINING THE ACCURACY OF *IN SITU* MEASUREMENTS OF NITRATE.

### Food Webs

- P-11 Agnes Mittermayr\*<sup>1</sup>, and Fox, S.E.<sup>2</sup>  
<sup>1</sup>The Ecosystems Center, Marine Biological Laboratory, 7 MBL Street, Woods Hole,  
MA, 02543  
<sup>2</sup>Cape Cod National Seashore, 99 Marconi Site Road, Wellfleet, MA, 02667.  
TRACING EELGRASS (*ZOSTERA MARINA*) FOOD WEBS – SIMULTANEOUS  
ANALYSIS OF  $\delta^{15}\text{N}$ ,  $\delta^{13}\text{C}$  AND  $\delta^{34}\text{S}$  OF LOW BIOMASS SAMPLES
- P-12 Joshua R. Cooper\*, Crosby, S.C. and Cantatore, N.L.  
Harbor Watch, Earthplace Inc., Westport CT.  
CHANGES IN THE JUVENILE BENTHIC FISH COMMUNITY OF A LONG  
ISLAND SOUND EMBAYMENT
- P-13 (D) Jack G. Payette\* and Urban-Rich, J.  
School for the Environment, University of Massachusetts Boston.  
MODELING AND ANALYZING CHLOROPHYLL A DATA FOR TEMPORAL  
TRENDS AND PATTERNS IN PHYTOPLANKTON IN SAVIN HILL COVE,  
BOSTON HARBOR

## Aquaculture

- P-14 (W) Lauren E. Salisbury\*, C. E. Duball, J. A. Amador, and M. H. Stolt  
Department of Natural Resources Science, University of Rhode Island, 1 Greenhouse  
Road, Kingston, RI 02881.  
EFFECTS OF OYSTER AQUACULTURE ON BENTHIC MACROINVERTEBRATES  
IN COASTAL PONDS OF SOUTHERN RHODE ISLAND
- P-15 (D) Micheline S. Labrie\*, D.R. Schlezinger, B.L. Howes, and M.A. Sundermeyer  
Department of Estuarine and Ocean Sciences, University of Massachusetts Dartmouth,  
New Bedford, MA.  
QUANTIFYING THE POTENTIAL FOR NITROGEN REMOVAL THROUGH THE  
HARVEST OF AQUACULTURE OYSTERS FROM SOUTHEASTERN  
MASSACHUSETTS EMBAYMENTS
- P-16 (W) Annie C. Ragan\* and Chelsea Duball  
Department of Natural Resources Science University of Rhode Island, 1 Greenhouse  
Road, Kingston, RI 02881.  
ASSESSING IMPACTS OF OYSTER AQUACULTURE ON THE WATER QUALITY  
OF COASTAL SALT PONDS IN RHODE ISLAND
- P-17 Elizabeth Harvey\*, M. Webb, and T. Safford  
Department of Sociology, University of New Hampshire, Durham, NH;  
THE USE OF SCIENCE IN NEW HAMPSHIRE MARINE AQUACULTURE

## Seagrasses, Salt Marshes and Wetlands

- P-18 M. Nicole Gutierrez\* <sup>1</sup>, Pelletier, M.C.<sup>2</sup>, and McKinney R.M.<sup>2</sup>  
<sup>1</sup>Student Services Contractor, U.S. Environmental Protection Agency, Atlantic Ecology  
Division, Narragansett, RI.  
<sup>2</sup>U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
ASSESSING THE IMPACTS OF SALINITY AND NUTRIENT STRESS TO *RUPPIA*  
*MARITIMA* AND *ZOSTERA MARINA*
- P-19 Grace M. Donnelly\* and M. B. Dennis  
BIOSPEC, INC., Providence, RI.  
*SPARTINA PATENS* : NEW FORMS IN NEW PLACES IN RHODE ISLAND
- P-20 Nathaniel H. Merrill\*<sup>1</sup> and Martin, R.<sup>2</sup>  
<sup>1</sup> U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
<sup>2</sup>ORISE, U.S. Environmental Protection Agency, Atlantic Ecology Division,  
Narragansett, RI.  
VALUING AN INTERVENTION: MARSH MIGRATION AND ECOSYSTEM  
SERVICES

- P-21 Scott A. Rasmussen\*<sup>1</sup>, Neil, A. J.<sup>1</sup>, Bradley, M. J.<sup>1</sup>, LaBash, C.<sup>1</sup>, August, P. V.<sup>1</sup>, Lynch, J. C.<sup>2</sup>, and Stevens, S.<sup>2</sup>  
<sup>1</sup> Environmental Data Center, Department of Natural Resources Science, University of Rhode Island, Kingston, RI;  
<sup>2</sup> Department of the Interior, National Park Service, Northeast Coastal and Barrier Network, Kingston, RI.  
**HIGH RESOLUTION MAPPING OF SALT MARSH SURFACE ELEVATIONS**
- P-22 Mary Schoell\*<sup>1</sup> and Anna Gerber-Williams\*<sup>2</sup>, Ayvazian, S.<sup>3</sup>, Chintala, M.<sup>3</sup>, Grunden, D.<sup>4</sup>, Cobb, D.<sup>3</sup>, Strobel, C.<sup>3</sup>, and K. Rocha<sup>3</sup>.  
<sup>1</sup> Student Services Contractor, U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
<sup>2</sup> ORISE Fellow, U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
<sup>3</sup> U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
<sup>4</sup> Town of Oak Bluffs Shellfish Department, Oak Bluffs, MA.  
**LIVING SHORELINES IN NEW ENGLAND: MONITORING MARSH STABILIZATION, RESTORATION BENEFITS, AND NITROGEN REMOVAL**
- P-23 (W) Jarrod Holgate\*<sup>1</sup>, R. Martin<sup>2</sup>, R. McKinney<sup>3</sup>  
<sup>1</sup> University of Rhode Island, Kingston, RI  
<sup>2</sup> ORISE Fellow, U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
<sup>3</sup> U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
**TESTING FOR ECOLOGICAL CORRELATIONS BETWEEN GREENHOUSE GAS FLUXES AND THEIR POTENTIAL BIOTIC DRIVERS IN COASTAL WETLANDS**
- P-24 (W) Cayla M. Baughn\*<sup>1</sup>, R. Martin<sup>2</sup>, R. McKinney<sup>2</sup>, and C. Wigand<sup>2</sup>  
<sup>1</sup> Department of Geography and Environmental Studies, Western Kentucky University, Bowling Green, KY  
<sup>2</sup> U.S. Environmental Protection Agency, Atlantic Ecology Division, Narragansett, RI.  
**MARSHES ON THE MOVE: TESTING EFFECTS OF SEAWATER INTRUSION ON VEGETATION COMMUNITIES OF THE SALT MARSH-UPLAND ECOTONE**
- P-25 Kirk Raper\*<sup>1</sup>, D. J. Velinsky<sup>1</sup>, D. Kreeger<sup>2</sup>, L. Haaf<sup>2</sup>, A. Padeletti<sup>2</sup>, M. Maxwell-Doyle<sup>3</sup>, T. Elsey-Quirk<sup>4</sup>, and E. B. Watson<sup>1</sup>  
<sup>1</sup> The Academy of Natural Sciences, Drexel University, Philadelphia, PA, USA  
<sup>2</sup> Partnership for the Delaware Estuary, Wilmington, DE  
<sup>3</sup> The Barnegat Bay Partnership, Toms River, NJ  
<sup>4</sup> College of the Coast and Environment, Louisiana State University, Baton Rouge, LA.  
**VARIATION IN RECENT MARSH ACCRETION ALONG DELAWARE AND BARNEGAT BAYS**
- 4:30 Oral Sessions Resume**

## Waste Water Treatment Studies

Chair: Brett Branco

\* Presenter; **(K)** Ketchum Prize candidate for best graduate student presentation,

**(R)** Rankin Prize candidate for best undergraduate student presentation

- 4:30** Eliza C. Moore \*, C. Comeau  
Narragansett Bay Commission, Providence, RI.  
RECEIVING WATERS MONITORING FOLLOWING WWTF UPGRADES TO  
REDUCE NITROGEN LOADING
- 4:45** (K) Timothy J Maguire \*<sup>1</sup> and R.W. Fulweiler <sup>1,2</sup>  
<sup>1</sup>Department of Biology, Boston University, Boston, MA  
<sup>2</sup>Department of Earth and Environment, Boston University, Boston, MA  
URBAN DISSOLVED SILICA: THE IMPACT OF WASTEWATER EFFLUENT  
ON THE COASTAL OCEAN
- 5:00** (K) Elizabeth Brannon\*<sup>1</sup> and Brittany Lancellotti\*<sup>2</sup>, Celeste, G.<sup>1</sup>, Amador, J.<sup>2</sup>, Loomis,  
G.<sup>3</sup>, and Moseman-Valtierra, S.<sup>1</sup>  
<sup>1</sup>Department of Biological Sciences, University of Rhode Island, Kingston, RI  
<sup>2</sup> Department of Natural Resources Science, University of Rhode Island, Kingston, RI  
<sup>3</sup>New England Onsite Wastewater Training Center, University of Rhode Island,  
Kingston, RI.  
GREENHOUSE GAS FLUXES FROM NITROGEN REMOVAL AT  
CENTRALIZED AND DECENTRALIZED WASTEWATER TREATMENT  
SYSTEMS.
- 5:15** Christine Comeau\* and E.C. Moore  
Narragansett Bay Commission, Providence, RI.  
EVALUATION OF BAY BACTERIA AFTER PHASE I AND II OF THE  
NARRAGANSETT BAY COMMISSIONS CSO ABATEMENT PROJECT
- 5:30** DISCUSSION
- 5:45** **BUSINESS MEETING**
- 6:30** Social and continued poster viewing
- 7:00** NEERS Student Awards Banquet
- 9:00** Make our own music- bring your musical instruments! Victoria's Parlor

**Saturday, October 22<sup>th</sup>**

**8:30 AM** Greetings and announcements, description of afternoon field trip options

**Need to Know Science: Turtles, Strandings, and Plastics**

Chair: Veronica Berounsky

\* Presenter

**8:40** A. Marshall Pregnall, M. Corleto, D. A. Davis and K. Voegtlin\*  
Biology Department, Vassar College, Poughkeepsie, NY.  
CAN WE MAKE PREDATOR FORAGING LESS EFFICIENT? MANIPULATION  
OF FOOD REWARDS MAY ALTER TURTLE-NEST-PREDATION BEHAVIOR.

**8:55** Sandy Macfarlane\*  
Coastal Resource Specialists, Duxbury, MA  
HIGH AND DRY: STRANDINGS IN CAPE COD BAY

**9:10** Alan M. Young\*  
Biology Department, Salem State University, 352 Lafayette Street, Salem, MA 01970.  
CHARACTERISTICS OF PLASTIC PARTICLE DEBRIS ON TWO HAWAI'IAN  
BEACHES

**9:25** DISCUSSION

***Ignite! Hot Topics***

**9:35** Paul E. Stacey \*  
Great Bay National Estuarine Research Reserve, 69 Depot Road, Greenland, NH.  
MAKING NATURE GREAT AGAIN

**9:40** Brett F. Branco<sup>\*1,2</sup>, D.L. Alexander<sup>1</sup>, A.L. Lamb<sup>2</sup>, P.J. Sullivan<sup>3</sup>  
<sup>1</sup> Department of Earth and Environmental Sciences, Brooklyn College, Brooklyn, NY;  
<sup>2</sup>Earth and Environmental Sciences, CUNY Graduate Center, New York, NY;  
<sup>3</sup>Department of Natural Resources, Cornell University, Ithaca, NY.  
TWO DECADES OF NITROGEN REDUCTION AND WATER QUALITY IN  
JAMAICA BAY, NEW YORK

**9:45** DISCUSSION

**9:55** BREAK

## Environmental Management, Monitoring, and Assessment

Chair: Autumn Oczkowski

\* Presenter

- 10:10** Ilia Rochlin, Ph.D.\*<sup>1</sup>, Salazar, C.<sup>2</sup>, Dempsey, M.<sup>1</sup>, Castelli, F.<sup>2</sup>, and T. Iwanejko<sup>1</sup>  
<sup>1</sup>Suffolk County Vector Control, DPW, Yaphank, NY 11980  
<sup>2</sup>Suffolk County Dept. of Economic Development and Planning, Hauppauge, NY  
INTEGRATED MARSH MANAGEMENT ON LONG ISLAND: FROM  
DEMONSTRATION PROJECT TO LARGE SCALE IMPLEMENTATION
- 10:25** Kate Longley-Wood\*<sup>1</sup>, N. Napoli<sup>2</sup>; K. Knee<sup>3</sup>, D. Martin<sup>4</sup>, J. Greene<sup>5</sup>; R. Morrison<sup>6</sup>, P. Taylor<sup>7</sup>, E. Shumchenia<sup>2</sup>, M. Ribera<sup>5</sup>, B. Fish<sup>3</sup>, J. Fontenault<sup>3</sup>, J. Ducharme<sup>3</sup>  
<sup>1</sup>SeaPlan, Boston, MA; <sup>2</sup>Northeast Regional Ocean Council; <sup>3</sup>RPS ASA, South Kingstown, RI; <sup>4</sup>NOAA Office for Coastal Management, Scituate, MA; <sup>5</sup>The Nature Conservancy, Boston, MA; (6) Northeastern Regional Association of Coastal Ocean Observing Systems, Portsmouth, NH; <sup>7</sup>Waterview Consulting, Harpswell, ME.  
THE NORTHEAST OCEAN DATA PORTAL: MAPS, DATA, TOOLS, AND INFORMATION FOR REGIONAL OCEAN PLANNING
- 10:40** Larry Thomas Spencer\*  
Dept. of Biological Sciences, Plymouth State University, Plymouth, NH.  
LESSONS FROM THE PAST: WHAT THE US EXPLORING EXPEDITION (1838-1842) TELLS US ABOUT HOW OR HOW NOT TO DO SCIENCE!!
- 10:55** John J. Sheppard\*, C. Denisevich, and M. Roux  
Massachusetts Division of Marine Fisheries, New Bedford, MA.  
MONITORING FOR AMERICAN SHAD (*ALOSA SAPIDISSIMA*) IN SMALL MASSACHUSETTS COASTAL RIVERS
- 11:10** Craig Wood\*  
PWS ESS Group Inc. East Providence, Rhode Island.  
VULNERABILITY ASSESSMENT AND SHORELINE STABILIZATION ALTERNATIVES STUDY, SPRING HOUSE POND NEW SHOREHAM, RHODE ISLAND
- 11:25** Bryan A. Oakley\*  
Department of Environmental Earth Science, Eastern Connecticut State University, Willimantic, CT.  
THE BLOCK ISLAND BEACH PROFILE PROJECT: USING (SUPER) CITIZEN SCIENTISTS TO MONITOR BEACHES AT HARD TO ACCESS FIELD SITES
- 11:40** DISCUSSION
- 11:50** Presentation of 3x3 Poster award and Stickleback award.
- 12:00** Adjourn
- 12:30** Optional Spring House Pond Field Trip (walking) lead by Craig Wood

- 1:00** Board school bus at the Spring House Hotel for optional Around Block Island Field Trip: Llamas, and Turbines, and Beach Profiles, Oh My! Lead by Bryan A. Oakley
- 1:30** If you are not going on the Bus Field Trip, you can catch 2 pm ferry to Pt. Judith if you are at the ferry dock at 1:30
- 4:00** Bus returns to Spring House Hotel, retrieve your luggage, load onto van
- 5:00** Be at ferry dock for last ferry to Pt. Judith at 5:30 pm, wave farewell to Block Island!