



**SPRING 2018 MEETING OF THE
NEW ENGLAND ESTUARINE RESEARCH SOCIETY (NEERS)
Co-hosted with New England's National Estuarine Research Reserves**

**April 26 – 28, 2018
Portsmouth, NH**

Meeting Hosts

Sara Grady –NSRWA MassBays Program
Jennifer West – NBNERR
Cory Riley - GBNERR

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NEERS and NERRS Joint meeting, Schedule-at-a-glance

Thursday, April 26th

All sessions are in the Ballroom

Registration and all breaks are in the Ballroom Lobby

8:30 am – 9:30 am	Meeting registration
9:30 – 4:30 pm	Special NERRS Symposium: Salt Marsh Response and Resilience to Changing Conditions - Prospects for Management
1:00 – 1:45	Lunch
4:30 – 6:00 pm	Meeting registration
5:00 – 7:00 pm	Welcoming social at Martingale Wharf
7:00 pm	Dinner on your own in Portsmouth

Friday, April 27th

All sessions are in the Ballroom

Registration and all breaks are in the Ballroom Lobby

7:00 – 8:00 am	Meeting registration
8:00 – 10:00 am	Oral sessions: Education; Blue Carbon; Sediment dynamics
10:15 – 10:45 am	Break
10:45 am – 12:30 pm	Oral sessions: Estuarine habitats; Aquaculture
12:30 am – 1:30pm	Lunch
1:30 – 3:00 pm	Poster Session
3:00 – 5:30 pm	Oral sessions: Nitrogen dynamics; IGNITE; OWWTS
5:30 – 6:15 pm	NEERS Business Meeting
6:00 – 8:00	Social at The Portsmouth Brewery
8:00 pm	Dancing in Portsmouth

Saturday March 18th

All sessions are in the Prescott Room

8:30 – 9:45 am	Oral sessions: Marsh structure; Marsh birds
9:45 – 10:00 am	Break
10:00 – 11:30 am	Oral sessions: Mapping coastal change; Water quality
11:45 am	Awards Presentation
12:00 pm	Adjourn and Field Trips

Thursday, April 26th

**National Estuarine Research Reserve System (NERRS)
Special Symposium: Salt Marsh Response and Resilience to Changing Conditions
– Prospects for Management**

8:30 AM WELCOME AND OVERVIEW - Jennifer West, Narragansett Bay NERR

SALT MARSH SUSTAINABILITY IN NEW ENGLAND: PROGRESS AND REMAINING CHALLENGES - Cathy Wigand, EPA

HOW ARE COASTAL MARSHES FARING IN NEW ENGLAND?

- Coastal wetland loss in Rhode Island: 1850s-present - Beth Watson, Drexel University
- Marsh Impairment and Future Considerations: A Massachusetts Overview - Marc Carullo, MA Office of Coastal Zone Management
- Maine: State of the State's salt marshes -Susan Adamowicz, USFWS
- Prospects and uncertainties for tidal marshes in New Hampshire - Dave Burdick, UNH
- Long Island Sound tidal marshes in the Anthropocene - Scott Warren

BREAK

HOW ARE WE BUILDING COASTAL MARSH RESILIENCE THROUGHOUT THE REGION?

- No management is active management: a regional evaluation of salt marsh conservation and restoration opportunities in a changing climate.- Rachel Stevens, Great Bay NERR
- A soils/landscape perspective to salt marsh migration -Mark Stolt, URI
- Upland vegetation removal as a potential strategy for facilitating salt marsh migration - Kenny Raposa, Narragansett Bay NERR
- Increasing salt marsh surface elevations as an adaptation strategy- will it work in New England?- Caitlin Chaffee, RI Coastal Resources Management Council
- Ditch remediation pilot studies in National Wildlife Refuges of the Northeast - Dave Burdick, University of New Hampshire
- Marsh response to shallow drainage or runnels - Wenley Ferguson, Save The Bay

1:00 PM LUNCH

WHAT MONITORING AND ASSESSMENT STRATEGIES ARE BEING USED IN THE REGION?

- Long-term tidal wetland changes at Barn Island, Stonington, CT - Ron Rozsa, plant community ecologist
- Overview of salt marsh losses on Cape Cod, with special emphasis on crab-driven vegetation losses and consequences Steve Smith, National Park Service
- Multimetric indices for integrated assessments of salt marsh integrity- Hilary Neckles, United States Geological Survey
- Drone applications for estuarine monitoring and assessment - Bob Hartzel, Comprehensive Environmental Inc.
- Appropriate use of numerical models for simulating salt marsh geomorphic evolution - Neil Ganju, United States Geological Survey

BREAK

3:25 PM GROUP DISCUSSION AND WRAP UP

4:30 PM ADJOURN

Friday, April 27th

New England Estuarine Research Society Spring 2018 meeting

8:00 AM WELCOME AND INTRODUCTORY REMARKS – Susan Adamowicz, NEERS President

EDUCATION

Session Chair: Brett Branco

8:15 AM **Walter J. Berry*** and K.K. Mulvaney
U.S.EPA, Narragansett, RI.
NEERS: NATURALLY, EFFECTIVE EDUCATION REQUIRES SILLINESS

8:30 AM **Larry T. Spencer**
Biological Sciences, Plymouth State University, Plymouth, NH.
A LOOK BACK IN HISTORY: THE INTRODUCTION TO THE MARINE SCIENCES COURSE
AND ITS RAMIFICATIONS ON MARINE SCIENCE EDUCATION IN NH.

BLUE CARBON

Session Chair: Brett Branco

8:45 AM **Mark H. Stolt**
Department of Natural Resources Science, University of Rhode Island, Kingston, RI.
CARBON ACCOUNTING IN ESTUARIES (BLUE CARBON)

9:00 AM **Inka Forbrich***¹, A.E. Giblin¹ and C.S. Hopkins²
¹Marine Biological Laboratory
²University of Georgia.
CONSTRAINING MARSH CARBON BUDGETS USING LONG-TERM C BURIAL AND
CONTEMPORARY ATMOSPHERIC CO² FLUXES

9:15 AM **(K) Aidan B. Barry***¹, S.K. Ooi¹, A.M. Helton^{1,2}, C.S. Elphick³, B. Steven⁴, and B.A. Lawrence^{1,2}
¹Department of Natural Resources and the Environment, University of Connecticut, Storrs, Connecticut; ²Center for Environmental Science and Engineering, University of Connecticut, Storrs, Connecticut; ³Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, Connecticut; ⁴Department of Environmental Sciences, Connecticut Agricultural Experiment Station, New Haven, Connecticut.
SALT MARSH VEGETATION INFLUENCE ON CARBON-BASED SERVICES

SEDIMENT DYNAMICS IN COASTAL SYSTEMS

Session Chair: Tay Evans

9:30 AM **(R) Cody J. Murphy*** and B.A. Oakley
Department of Environmental Earth Science, Eastern Connecticut State University.
POST-1900 SEDIMENT ACCUMULATION IN THE POINT JUDITH HARBOR OF REFUGE,
POINT JUDITH, RHODE ISLAND

9:45 AM **Gregg E. Moore** *^{1,2} D.M. Burdick ^{1,3} M.R. Routhier ⁴, A. Novak ⁵, and P. Phippen ⁶
¹Jackson Estuarine Laboratory, University of New Hampshire, Durham, NH; ²Dept. of Biological Sciences; ³Dept. of Natural Resources; ⁴Geospatial Science Center Earth Systems Research Center, Institute for the Study of Earth, Oceans, and Space; ⁵Dept. of Earth and Environment, Boston University, Boston, MA; ⁶MassBays National Estuary Program, Merrimack Valley Planning Commission, Haverhill, MA.
DOCUMENTING THE EFFECTS OF A LARGE-SCALE NATURALLY-OCCURRING SEDIMENT DEPOSITION EVENT ON PLANT COMMUNITY STRUCTURE AND PRODUCTIVITY IN SALT MARSHES IN MASSACHUSETTS

10:00 AM **(K) Amber Hardy** * and M. Stolt
Department of Natural Resources Science, University of Rhode Island.
TIDAL MARSH RECOVERY AFTER NATURAL STORM-SURGE DEPOSITION AND INTENTIONAL DEPOSITION IN THIN-LAYER PLACEMENT MANAGEMENT

10:15 AM BREAK

ESTUARINE HABITATS

Session Chair: Megan Tyrell

10:45 AM **Giancarlo Cicchetti** *¹ and E.J. Shumchenia ²
¹U.S. EPA, Atlantic Ecology Division, Narragansett RI; ²Great Lakes Environmental Center, Traverse City MI.
THE CHANGING ECOLOGY OF NARRAGANSETT BAY AS TOLD BY HABITAT

11:00 AM **Patrick D. Barrett***¹, W.S.K. Helt ², H.A. Kinney ², J.H.Grabowski ³, A.R. Hughes ³, E.G. Schneider¹.
Division of Marine Fisheries, Rhode Island Department of Environmental Management, Jamestown, RI 02835, USA; (2) The Nature Conservancy, Providence, RI 02906; (3) Marine Science Center, Northeastern University, Nahant, MA 01908, USA.
IMPROVING JUVENILE FISH POPULATIONS BY ENHANCING FISH HABITAT – EVALUATING THE USE OF OYSTER REEFS AS A TOOL TO INCREASE FISH PRODUCTIVITY

11:15 AM **Heather A. Nuhn**, *¹, W.Helt¹, C.Deacutis², E.Shneider², and P.Barrett²
¹The Nature Conservancy, Providence,RI; ²Rhode Island Department of Environmental Management, Division of Fish & Wildlife, Jamestown, RI.
BENTHIC VIDEO MONITORING IN THE PROVIDENCE RIVER ESTUARY: APPLYING CMECS TERMINOLOGY TO EVALUATE SITE SUITABILITY FOR HABITAT RESTORATION

11:30 AM Sebens, K. P. ¹ and **Ted .J. Maney Jr.** *²
¹Department of Biology, University of Washington, Seattle, WA ²Department of Biology, Salem State University, Salem, MA.
DECADAL SCALE RESEARCH IN ROCKY SUBTIDAL HABITATS, MASSACHUSETTS BAY

AQUACULTURE

Session Chair: Tay Evans

- 11:45 AM** (R) **Katherine Parker**,*¹, M. Condon ¹, C. Jones ¹, C. Byron², and A. St.Gelais²
¹Center for Excellence in the Marine Sciences, University of New England, Biddeford Maine, USA;
² Department of Marine Sciences, University of New England, Biddeford Maine, USA.
HISTOPATHOLOGICAL ANALYSIS OF PARASITES AND ENVIRONMENTAL STRESS
RESPONSES OF FARMED BLUE MUSSELS (*MYTILUS EDULIS*) IN CASCO BAY, MAINE
- 12:00 PM** (R) **Mary G. Hollandbeck**,*¹, A. St. Gelais², O. Barberi¹, G. Grebe³, K. Burkholder⁴, and C.J. Byron¹
¹Marine Science Department, University of New England, Biddeford, ME; ²Center for Excellence in the Marine Sciences, University of New England, Biddeford, ME; ³School of Marine Science, University of Maine, Orono, ME; ⁴Biological Science, University of New England, Biddeford, ME.
ESTABLISHING THE RELATIONSHIP BETWEEN COLIFORM AND VIBRIO BACTERIA SPECIES ON THE SURFACE OF FARMED SUGAR KELP *SACCHARINA LATISSIMA* AND IN SURROUNDING SEAWATER
- 12:15 PM** (K) **Pooja Potti**,
University of Massachusetts, Dartmouth, SMAST.
COMPARING HISTORIC OYSTER POPULATIONS TO PRESENT DAY AQUACULTURE
ACTIVITIES IN EAST COAST ESTUARIES
- 12:30 PM** LUNCH
- 1:30 – 3:00 PM** POSTER SESSION

EDUCATION & STEWARDSHIP

- P-1 **Terry***, **J.P.** ¹ and J. Tucker ²;
(1) Gulf of Maine Institute, West Newbury, MA;(2) The Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA.
GULF OF MAINE INSTITUTE: LEARNING TO STEWARD THE GULF
- P-2 **Mandeville***, **C.** and A. Eberhardt;
NH Sea Grant and University of New Hampshire Cooperative Extension
Lee, NH.
CITIZEN SCIENCE TO ACHIEVE BOTH RESEARCH AND ENGAGEMENT OBJECTIVES:
EXAMPLES FROM THE COASTAL RESEARCH VOLUNTEER PROGRAM

WATER RESOURCES AND COASTAL HABITAT MANAGEMENT

- P-3 **Flickinger**, **S.** Narragansett Bay Commission, Providence, RI.
PROVIDENCE RIVER AND NARRAGANSETT BAY PHYTOPLANKTON POST-
WASTEWATER TREATMENT FACILITY NITROGEN LOAD REDUCTIONS
- P-4 (D) **Wigginton**, **S.K.** ¹, E.Q. Brannon², P.J. Kearns ³, B. Lancellotti¹, G.W. Loomis⁴ and J.A. Amador ¹; ¹Laboratory of Soil Ecology and Microbiology, Univ. of Rhode Island, Kingston, RI. ² Dep. of Biological Sciences, Univ. of Rhode Island, Kingston, RI. ³Dept. of Microbiology and Molecular Genetics; Plant Resilience Institute Michigan State University, East Lansing, MI. ⁴New

England Onsite Wastewater Training Center, University of Rhode Island, Kingston, RI.
BIG PIPE VS. SMALL PIPE: A COMPARISON OF NITROGEN CYCLING MICROBIAL
COMMUNITIES IN A NITROGEN REMOVING WASTEWATER TREATMENT PLANT AND
IN NITROGEN REMOVING SEPTIC SYSTEMS

- P-5 **(D) Alissa H. Cox*** and J. A. Amador;
Department of Natural Resources Science, University of Rhode Island, Kingston, RI.
HISTORIC CHANGES IN GROUNDWATER TABLE HEIGHTS ALONG THE SOUTHERN
RHODE ISLAND COAST
- P-6 **(W) Nimal De Lanerolle***, A. Dries, S. Condit, N. Cormier, A. Guvenc, G. Marino, M.
McNamara. Suffolk County Community College, Selden, NY
RESTORATION OF SALT MARSHES ON LONG ISLAND FOLLOWING HURRICANE
SANDY: INTERN'S PERSPECTIVE
- P-7 **(D) Christopher E. Meyer**; School of Marine and Atmospheric Sciences at Stony Brook
University.
CREPIDULA FORNICATA AS POTENTIAL LIVING FILTERS FOR MICROPLASTICS
- P-8 **Nicholas M. Uline**; Ecosystem Center, Marine Biological Laboratory, Woods Hole, MA.
A DEMONSTRATION IN POLYCULTURE ON CAPE COD, MASSACHUSETTS
- P-9 **Ivy M. Mlsna**^{1,2}; ¹U.S. Environmental Protection Agency, New England Office, Boston, MA;
²Department of Urban and Environmental Policy and Planning, Tufts University, Medford, MA.
A GUIDE TO BETTER PRACTICES FOR TIDAL SALT MARSH CONSERVATION:
CLIMATE CHANGE CONSIDERATIONS FOR RESILIENT INVESTMENTS
- P-10 **Jordan W. Mora**; Waquoit Bay National Estuarine Research Reserve, Waquoit, MA.
BUT WHY THE DECLINE? SHIFTS IN MACROALGAL BIOMASS IN A SHALLOW,
MICROTIDAL ESTUARY
- P-11 **(D) Thomas W. Privott*** and M.H. Stolt; Department of Natural Resources Science, University of
Rhode Island, Kingston, RI. USING A SOILS APPROACH TO IDENTIFY SHALLOW
GROUNDWATER DISCHARGE LOCATIONS IN SOUTHERN NEW ENGLAND COASTAL
PONDS
- P-12 **(W) Jennifer A. Croteau** and B.A. Oakley; Eastern Connecticut State University.
croteauje@my.easternct.edu
GREEN CRAB ABUNDANCE AND IMPACT ON THE FRINGING SALT MARSH OF THE
NAPATREE LAGOON: WESTERLY, RI
- P-13 **(D) James A. Elliott.**; School of Forest Resources, University of Maine, Orono, ME .
FACTORS INFLUENCING HABITAT SUITABILITY AND HIGH PRIORITY TRAPPING
SITES FOR THE EUROPEAN GREEN CRAB (CARCINUS MAENAS) IN THE NORTH
SHORE OF MASSACHUSETTS
- P-14 **(D) Devin Thomas***, J. Haskins, D. Trueblood, A. Watts, and W.K. Thomas; University of New
Hampshire, Durham, NH
ENVIRONMENTAL DNA – AN EMERGING TOOL IN WATER RESOURCES
MANAGEMENT

MAPPING AND MODELLING ESTUARINE SYSTEMS

- P-15 (W) **Madeline R. Varney** and B.A. Oakley; Department of Environmental Earth Science, Eastern Connecticut State University. varneyma@my.easternct.edu
EVALUATION OF SHORELINE CHANGE AND SPIT NAPATREE LAGOON, WATCH HILL, RHODE ISLAND USING HISTORICAL AERIAL PHOTOGRAPHS, DIGITAL ORTHOPHOTOGRAPHS AND DIFFERENTIAL GPS
- P-16 (D) **Kristine T. Erskine***¹ and R. Boger^{1,2}; ¹CUNY Graduate Center; ²Brooklyn College.
A GEOSPATIAL HABITAT SUITABILITY MODEL TO DETERMINE THE SPATIAL AND TEMPORAL VARIATION OF ULVA BLOOMS IN A EUTROPHIC ESTUARY- JAMAICA BAY, NEW YORK.
- P-17 (W) **John Doyle**, B. Johnson, and P. Dostie ; Department of Geology, Bates College, ME.
CARBON STORAGE IN EELGRASS BEDS OF CASCO BAY, GULF OF MAINE

FISH AND INVERTEBRATE PHENOLOGY, FOOD WEBS, AND DISEASE

- P-18 **Darron Kriegel***¹, P. Neubert*¹, J. Ray² and G. Dolan³;
¹AECOM, ²APEX Companies, LLC., ³ Massachusetts Clean Energy Commission.
TEMPERATURE SHIFTS AND WINTER FLOUNDER PHENOLOGY: CLIMATE CHANGE ADAPTATIONS
- P-19 (W) **Emily C. Cox*** and S.C. Wainright; Dept. of Science, U.S. Coast Guard Academy, New London, CT.
TROPHIC RELATIONSHIPS BETWEEN WALLEYE POLLOCK AND THEIR SURROUNDING MARINE FOOD WEB NEAR KODIAK ISLAND, ALASKA
- P-20 (W) **Michaela J. Kenward***, A. Cicia, and M. Frederich; Marine Science Center, University of New England. mkenward@une.edu
AN INVESTIGATION INTO THE PRESENCE AND PREVALENCE OF WASTING DISEASE IN GULF OF MAINE SEA STARS, ASTERIAS FORBESI AND ASTERIAS RUBENS, THROUGH HISTOLOGY AND DNA ANALYSIS

3:00 PM ORAL SESSIONS RESUME

NITROGEN DYNAMICS

Session Chair: Cathy Wigand

- 3:00 PM (K) Sean Khan Ooi***, A. Barry, B. Lawrence, C. Elphick, and A. Helton
University of Connecticut, Storrs CT.
POTENTIAL DENITRIFICATION RATES VARY WITH SALT MARSH VEGETATION ZONES

- 3:15 PM** **Amber D. Unruh***, and B.L. Howes
Department of Estuarine and Ocean Science, UMass Dartmouth SMAST, New Bedford, MA.
QUANTIFYING DENITRIFICATION IN FRESHWATER POND SEDIMENTS AS A
SIGNIFICANT COMPONENT OF NITROGEN ATTENUATION IN CAPE COD, MA
- 3:30 PM** **Jamie M. P. Vaudrey***¹, E. Green-Beach², and R. Karney²
¹Department of Marine Sciences, University of Connecticut, Groton, CT; ²Martha's Vineyard
Shellfish Group, 220 Weaver Lane, Vineyard Haven MA.
EVIDENCE FOR NITROGEN REMOVAL VIA PHYTOREMEDIATION WITH PHRAGMITES
- 3:45 PM** **(K) Micheline S. Labrie***, D. Schlezinger, M. Sundermeyer, and B. Howes
School for Marine Science and Technology, University of Massachusetts Dartmouth, New Bedford,
MA.
EVALUATION OF THE POTENTIAL FOR OYSTER MEDIATED NITROGEN REDUCTION IN
A COASTAL SALT POND: YEAR TWO FINDINGS
- 4:00 PM** **Hillary L. Sullivan***¹, L.A. Deegan¹, B.J. Peterson², and A.E. Giblin².
¹Woods Hole Research Center
²Marine Biological Laboratory.
DETERMINING THE FATE OF LAND-DERIVED NITROGEN IN SALT MARSHES USING A
¹⁵N ISOTOPE TRACER EXPERIMENT
- 4:15 PM** **(K) Jaylyn W. Babitch***, J.A. Nelson and B.A. Stauffer
Department of Biology, University of Louisiana at Lafayette, Lafayette, LA.
THE PLANKTONIC PIECE OF THE PIE: RESOLVING NITROGEN USE BY
PHYTOPLANKTON IN A MESOTIDAL SALT MARSH OF PLUM ISLAND ESTUARY

IGNITE: A WADER FULL OF TOPICS

Session Chair: Christine Feurt

- 4:30 PM** **(K) Nicholas B. Anderson***, D.D. Torio, and F.T. Short.
Jackson Estuarine Laboratory, University of New Hampshire, Durham NH 03824, USA.
THE EFFECT OF SIMULATED CDOM ON ZOSTERA MARINA GROWTH
- 4:35 PM** **Eliza C. Moore**
Narragansett Bay Commission.
BENTHIC VIDEO MONITORING IN THE PROVIDENCE RIVER ESTUARY - WHAT DO WE
SEE?
- 4:40 PM** **Paul E. Stacey**
Footprints In The Water LLC, Moodus, CT.
MAKING NATURE GREAT AGAIN: EPISODE II - THE PHANTOM MENACE
- 4:45 PM** **Michael Bradley***¹, C. Schmidt² and G. Cicchetti³
¹University of Rhode Island ²Narragansett Bay Estuary Program
³U.S. EPA Atlantic Ecology Division.
HISTORICAL CONTEXT OF THE TIER 1 SUBMERGED AQUATIC VEGETATION MAPPING
EFFORTS IN NARRAGANSETT BAY
- 4:50 PM** **QUESTIONS?**

ONSITE WASTEWATER TREATMENT

Session Chair: Cathy Wigand

- 5:00 PM** **(R) Alicia M. Boucher***, B. Ross, S. Wigginton, and B. Lancellotti
Laboratory of Soil Ecology and Microbiology, University of Rhode Island, Kingston, R.I.
INVESTIGATING THE EFFECT OF MICROBIAL COMMUNITIES ON THE PERFORMANCE
OF ADVANCED ONSITE WASTEWATER TREATMENT SYSTEMS
- 5:15 PM** **Jose A. Amador***¹, J.H. Görres², G.W. Loomis^{1,3}, and B.V. Lancellotti^{1,4}.
¹Laboratory of Soil Ecology and Microbiology, Univ. of Rhode Island, Kingston, RI; ²Dept. of Plant
and Soil Science, Univ. of Vermont, Burlington, VT; ³New England Onsite Wastewater Training
Program, Univ. of Rhode Island, Kingston, RI ⁴Rubenstein School of Environment and Natural
Resources, Univ. of Vermont, Burlington, VT.
NITROGEN LOADING FROM ONSITE WASTEWATER TREATMENT SYSTEMS IN THE
GREATER NARRAGANSETT BAY WATERSHED: MAGNITUDE AND REDUCTION
STRATEGIES
- 5:30 PM** **(K) Bianca Ross***, A. Boucher, J. Ludovico, K. Hoyt, G. Loomis, and J. Amador
Department of Natural Resources Science, University of Rhode Island, RI.
ASSESSING NITROGEN INPUTS TO THE CHARLESTOWN COASTAL WATERSHED FROM
ADVANCED ONSITE WASTEWATER TREATMENT SYSTEMS

Notes:

*Presenter;

(K) Ketchum Prize candidate – best graduate oral presentation

(R) Rankin Prize candidate -best undergraduate oral presentation

(D) Dean Prize candidate - best graduate poster presentation

(W) Warren Prize candidate – best undergraduate poster presentation

Saturday, April 28th

FACTORS AFFECTING MARSH STRUCTURE

Session Chair: Jamie Vaudrey

- 8:00 AM** (K) **Tessa M. Dowling***, G.P. Zogg, S.E. Travis, and P. A. Morgan
University of New England, Biddeford, ME.
FACTORS INFLUENCING THE GROWTH OF *SPARTINA PATENS* IN UPLAND SOIL
- 8:15 AM** (K) **Andrew R. Payne**
Department of Natural Resources, University of New Hampshire.
EFFECTS OF SEA-LEVEL RISE ON SALT MARSH ELEVATION DYNAMICS IN NEW HAMPSHIRE
- 8:30 AM** **Vitalii A. Sheremet***¹ and J. W. Mora²
¹Graduate School of Oceanography, University of Rhode Island, Narragansett, RI;
²Waquoit Bay National Estuarine Research Reserve, Falmouth, MA.
CORE POROSITY AND CONE PENETRATION TESTING IN WAQUOIT BAY SAGE LOT MARSH
- 8:45 AM** **Susan C. Adamowicz***¹ and G. Wilson²
¹US Fish and Wildlife Service, Rachel Carson National Wildlife Refuge, Wells, ME
²Northeast Wetland Restoration.
FARMERS IN THE MARSH: AN OVERVIEW OF HISTORIC FARMING PRACTICES, PERSISTENT FEATURES, AND LASTING IMPACTS
- 9:00 AM** (K) **Annesia L. Lamb***¹, J.K. Kim², C. Yarish³, and B.F. Branco⁴
¹Department of Earth and Environmental Sciences, The Graduate Center, City University of New York, NY. ²Department of Marine Sciences, School of Natural Sciences, Incheon National University, Republic of Korea;
³Department of Ecology and Evolutionary Biology, University of Connecticut, Stamford, CT ⁴Department of Earth and Environmental Sciences, Brooklyn College, City University of New York, NY.
IDENTIFICATION OF THE BLOOM FORMING ULVA IN JAMAICA BAY, NEW YORK

MARSH BIRDS

Session Chair: Susan Adamowicz

- 9:15 AM** **Bri A. Benvenuti*** and K.M. O'Brien
Rachel Carson National Wildlife Refuge, Wells, ME.
CONSERVATION AND MANAGEMENT OF MAINE'S TIDAL MARSH BIRDS
- 9:30 AM** (K) **Logan M. Maxwell***¹, J. Walsh², B.J. Olsen³, and A.I. Kovach⁴
¹Department of Natural Resources and the Environment, University of New Hampshire, Durham, NH; ²Fuller Evolutionary Biology Program, Cornell Laboratory of Ornithology, Ithaca, NY; ³School of Biology & Ecology, University of Maine, Orono, ME; ⁴Department of Natural Resources and the Environment, University of New Hampshire, Durham, NH.
NESTING ADAPTATIONS AND FITNESS IN A HYBRIDIZING POPULATION OF

SALTMARSH AND NELSON'S SPARROWS

9:45 AM BREAK

MAPPING COASTAL CHANGE

Session Chair: Susan Adamowicz

- 10:00 AM** **Mark Borrelli**^{1,2}
¹School for the Environment, University of Massachusetts, Boston, MA
²Center for Coastal Studies, Provincetown, MA.
A NEW METHOD FOR CALCULATING RATES OF SHORELINE CHANGE IN A COASTAL EMBAYMENT WITH FRINGING SALT MARSH
- 10:15 AM** **Katerine D. Lavallee*** and M.B. Adams
National Park Service, Cape Cod National Seashore, Wellfleet, MA.
COASTAL CHANGE ALONG THE OUTER CAPE: APPLICATION OF THE DIGITAL SHORELINE ANALYSIS SYSTEM (DSAS) TO MAP THE DYNAMIC SHORELINE OF CAPE COD NATIONAL SEASHORE
- 10:30 AM** **Arnis Mangolds***
C-2 Innovations, Inc.
AUTONOMOUS BROAD AREA SEAFLOOR MAPPING

WATER QUALITY

Session Chair: Walter Berry

- 10:45 AM** **Courtney E. Schmidt***¹ and K. Cortes²
¹Narragansett Bay Estuary Program, Providence, RI.
²Narragansett Bay Commission, Providence, RI.
STANDING ON THE SHOULDERS OF GIANTS (AND PICKING THE LOW-HANGING FRUIT) – UPDATING THE NARRAGANSETT BAY WATERSHED NUTRIENT BUDGET
- 11:00 AM** **Veronica M. Berounsky***¹, A. DeSilva^{1,2}, E. Peterson², R. Sharif², L. Green³, and E. Herron³
¹Graduate School of Oceanography, University of Rhode Island, Narragansett, RI;
²Narrow River Preservation Association, Saunderstown, RI;
³Watershed Watch Program, University of Rhode Island, Kingston, RI.
MONITORING WATER QUALITY AND MANAGING ANTHROPOGENIC INPUTS FOR A QUARTER CENTURY (1992-2017) IN THE PETTAQUAMSCUTT ESTUARY (RI) WITH COMPARISONS TO 1970'S DATA AND LOWER NARRAGANSETT BAY DATA.
- 11:15 AM** **Christine R. Comeau**
Narragansett Bay Commission, Providence, RI.
LONG TERM MONITORING OF TWO WATER QUALITY SITES IN THE UPPER NARRAGANSETT BAY: A TREND ANALYSIS

11:30 AM

Andrea M. Price*¹, R.E. Turner¹, V. Pospelova², G.L. Chmura³, M.R.S. Coffin⁴, J.S. Latimer⁵, and N.N. Rabalais⁶.

¹Department of Oceanography and Coastal Sciences, Louisiana State University, Baton Rouge, LA; ²School of Earth and Ocean Sciences, University of Victoria, Victoria, BC; ³Department of Geography, McGill University, Montreal, QC; ⁴Department of Biology, University of Prince Edward Island, Charlottetown, PEI; ⁵US Environmental Protection Agency, Narragansett, RI; ⁶Louisiana Universities Marine Consortium, Chauvin, LA.
MONITORING WATER QUALITY IN NORTHWEST ATLANTIC COASTAL WATERS USING DINOFLAGELLATE CYSTS

11:45 PM

AWARDS

12:00 PM

ADJOURN AND FIELD TRIPS

Notes:

*Presenter;

(K) Ketchum Prize candidate – best graduate oral presentation

(R) Rankin Prize candidate -best undergraduate oral presentation

(D) Dean Prize candidate - best graduate poster presentation

(W) Warren Prize candidate – best undergraduate poster presentation