



NEERS SPRING 2011 MEETING
May 5 – 7, 2011
Danfords Hotel and Marina, Port Jefferson, NY

Hosted By
School of Marine and Atmospheric Sciences of Stony Brook University

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New York Sea Grant

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MEETING PROGRAM

All events at the Danfords Hotel and Marina unless noted otherwise
All oral and poster sessions are in the Diplomatic Ballroom

Thursday, May 5th

12:00 – 1:30 pm	Meeting registration (G-Library)
1:30 – 5:30 pm	Long Island Sound Symposium
5:30 – 6:30 pm	Meeting Registration (G-Library)
5:45 – 8:00 pm	Welcoming Social (Brookhaven Ballroom)

Friday, May 6th

7:00 – 8:00 am	Meeting registration (G-Library)
8:15 – 10:10 am	Oral presentations: Ecology of Phytoplankton
10:30 – 11:50 am	Oral presentations: Conservation Planning
11:50 am – 1:10 pm	Lunch (Bayles Room and Wilse Room)
11:50 am – 1:10 pm	Executive Committee Meeting
1:00 – 5:00 pm	SoMAS R/V available for tours (Harbor Front Park)
1:15 – 2:35 pm	Oral presentations: Ecosystem and Landscape Interactions
2:35 – 4:00 pm	Poster presentations
4:00 – 5:00 pm	Oral presentations: Ecology and Management of Fish(eries)
5:00 – 6:00 pm	NEERS Business Meeting
6:00 – 9:30 pm	Social and NEERS Awards Banquet (Brookhaven Ballroom)
9:30 pm - ??	Music and dancing at Port Jazz (201 Main Street)

Saturday, May 7th

8:15 – 10:10 am	Oral presentations: Estuarine Habitats
10:30 am – 12:15 pm	Oral presentations: Estuarine Variability
12:30 pm	Field trip to Riverhead Foundation (meet at Danfords front desk)
12:30 pm	Field trip to Wertheim Natl. Wildlife Ref. (meet at Danfords front desk)



Thursday, May 5th

**SPECIAL SYMPOSIUM:
Long Island Sound Science and Management: A Quarter Century Synthesis**

Chair: Jim Latimer

* Presenter

- 1:30** Welcome and Introduction – Jim Latimer
EPA Office of Research and Development, Narragansett, RI
- 1:45** Weigold, Marilyn E.
Department of Economics, History and Political Science, Pace Univ., Pleasantville, NY
LONG ISLAND SOUND: ITS PEOPLE, PLACES AND ENVIRONMENT
- 2:10** Lewis, Ralph S.
Long Island Sound Resource Center, UCONN-Avery Point, Groton, CT
GEOLOGIC INVESTIGATIONS IN THE LIS BASIN: AN OVERVIEW
- 2:35** O'Donnell, J.¹, Robert Wilson*², K. Lwiza² and M. Whitney¹
¹University of Connecticut, Groton, CT; ²Stonybrook University, Stonybrook, NY
PHYSICAL OCEANOGRAPHY OF LONG ISLAND SOUND
- 3:00** Cuomo*, Carmela¹, J. K. Cochran², R. A. Aller², and J. A. Aller²
¹Dept. of Biology & Environmental Sci., Univ. of New Haven, New Haven, CT
²School of Marine & Atmospheric Sciences, Stonybrook University, Stony Brook, NY
LONG ISLAND SOUND GEOCHEMISTRY: PAST, PRESENT AND FUTURE
- 3:25** **BREAK**
- 3:50** Varekamp*, Johan (Joop) C.¹, A. E. McElroy², J. R. Mullaney³, B. J. Brownawel², V. T. Breslin⁴, M. A. Altabet⁵, and M. R. Buchholtz ten Brink⁶
¹EES, Wesleyan University, Middletown CT; ²SoMAS, SBU, Stony Brook, NY
³USGS, Hydrology, Hartford CT; ⁴ENVS, SCU, New Haven CT
⁵SMAS, University of Massachusetts, Dartmouth MA; ⁶EPA, Narragansett, RI
CONTAMINANTS IN SEDIMENT FROM LONG ISLAND SOUND
- 4:15** Lopez, Glenn R.
School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
BIOLOGY AND ECOLOGY OF LONG ISLAND SOUND
- 4:40** Tedesco*, Mark A.¹, C. Garza², J. Latimer³, R. L. Swanson⁴, and C. Yarish⁵
¹EPA Long Island Sound Office, Stamford, CT; ²California State Univ. Monterey Bay
³EPA Office of Research and Development, Narragansett, RI
⁴University of Connecticut, Stamford, CT; ⁵Stony Brook University, Stony Brook, NY
SCIENCE AND ADAPTIVE MANAGEMENT FOR LONG ISLAND SOUND
- 5:05** Discussion
- 5:45 – 8:00** **NEERS WELCOMING SOCIAL** – Brookhaven Ballroom
- 8:00** Dinner on your own in Port Jefferson

Friday, May 6th

8:15 Welcome and Introductory Remarks – Steve Hale, NEERS President

Ecology of Phytoplankton

Chair: Steve Hale

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

8:30 Gobler*, Christopher J. and T. K. Hattenrath-Leman
School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
PHASE SHIFTS AMONG PRIMARY PRODUCERS WITHIN LONG ISLAND
SOUND: WILL ANTHROPOGENIC STRESSORS CONTINUE TO EXPAND THE
NICHE OF PSP- AND DSP-PRODUCING DINOFLAGELLATE BLOOMS?

8:50 **(K)** George*, Jennifer, C. J. Gobler, and D. J. Lonsdale
School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
IMPACTS OF CLIMATE CHANGE ON THE SPRING BLOOM IN LONG ISLAND
SOUND

9:10 **(K)** Koch*, Florian and C. J. Gobler
School of Marine and Atmospheric Sciences, Stony Brook University, Southampton, NY
IMPORTANCE OF B-VITAMINS AS NUTRIENTS CONTROLLING
PHYTOPLANKTON COMMUNITIES IN COASTAL ECOSYSTEMS

9:30 **(K)** Bell*, Sheryl L.¹, E. A. Walker^{1,2}, C. J. Gobler^{1,2}, and J. L. Collier¹
¹School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
²School of Marine and Atmospheric Sciences, Stony Brook Univ., Southampton, NY
INTERACTIONS BETWEEN PLANKTON COMMUNITY STRUCTURE AND
ENVIRONMENTAL FACTORS IN BROWN TIDE IMPACTED LONG ISLAND
EMBAYMENTS

9:50 **(K)** Liu*, Yuan and J. L. Collier
School of Marine and Atmospheric Sciences, Stony Brook University, NY
HOW DOES THE PLANKTONIC MICROBIAL COMMUNITY STRUCTURE
DIFFER IN GREAT SOUTH BAY WITH AND WITHOUT *AUREOCOCCUS*
ANOPHAGEFFERENS (BROWN TIDE)?

10:10 BREAK

Conservation Planning

Chair: Steve Hale

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

10:30 **(K)** Torio*, Dante D. and G. L. Chmura
Department of Geography and Global Environmental and Climate Change Centre,
McGill University, Montreal, QC
USING FUZZY LOGIC TO MAP THE THREAT OF COASTAL SQUEEZE TO
MARSHEs AT WELLS RESERVE AND PORTLAND, MAINE

- 10:50 (K)** Kras*, Lauren A. and G. E. Moore
 Department of Biological Sciences, University of New Hampshire, Durham, NH
 THE STATUS OF FIVE STATE-LISTED TIDAL PLANT SPECIES IN NEW HAMPSHIRE WITH EMPHASIS ON POTENTIAL IMPACTS OF SEA LEVEL RISE
- 11:10 (K)** Landi*, Alicia¹, J. Vokoun¹, P. Auster², and P. Howell³
¹Dept. of Natural Resources and the Environment, University of Connecticut, Storrs, CT
²Dept. of Marine Sciences, University of Connecticut at Avery Point, Groton, CT
³Marine Fisheries Div., Connecticut Dept. of Environmental Protection, Old Lyme, CT
 SELECTION OF SPAWNING HABITATS BY HORSESHOE CRABS (*LIMULUS POLYPHEMUS*) ALONG THE COMPLEX CONNECTICUT COAST
- 11:30 (K)** O'Connell, Christine A.
 School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
 IDENTIFYING SOCIAL PERSPECTIVES AS THE BASIS FOR COASTAL AND MARINE SPATIAL PLANNING (CSMP) FOR LONG ISLAND SOUND
- 11:50 – 1:10 LUNCH** - Bayles Room and Wilse Room

Ecosystem and Landscape Interactions

Chair: Darcy Lonsdale

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

- 1:15 (K)** Coverdale*, Tyler C.¹, A. H. Altieri¹, M. D. Bertness¹, N. C. Herrmann¹, and C. Holdredge²
¹Department of Ecology and Evolutionary Biology, Brown University, Providence, RI
²Department of Biology, University of Florida, Gainesville, FL
 RECREATIONAL FISHING TRIGGERS SALT MARSH DIE-OFF ON CAPE COD, MA
- 1:35 (K)** Carroll*, John M. and B. J. Peterson
 School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
 BALANCING THE EDGE EFFECTS BUDGET: BAY SCALLOP SETTLEMENT AND RECRUITMENT ALONG A SEAGRASS EDGE
- 1:55 (K)** Cao*, Zhenrui R., Q. Z. Zhu, R. C. Aller and J. Y. Aller
 School of Marine and Atmospheric Sciences, Stony Brook University, NY
 ANNUAL EXTRACELLULAR ENZYME ACTIVITIES REVEALED BY HIGH RESOLUTION TWO-DIMENSIONAL PLANAR FLUOROSENSORS IN GREAT PECONIC BAY
- 2:15 (K)** Brown, D. Steven and R. Zajac
 Dept. of Biology and Environmental Science, Univ. of New Haven, West Haven, CT
 THE INFLUENCE OF HABITAT HETEROGENEITY ON FAUNAL COMMUNITIES IN NEARSHORE SOFT SEDIMENTS, NEW HAVEN HARBOR, LONG ISLAND SOUND
- 2:35 BREAK AND POSTER SESSION**
Tours of the SoMAS Research Vessel – Harbor Front Park
 Poster titles are listed at the end of the program

Ecology and Management of Fish(eries)

Chair: Darcy Lonsdale

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

4:00 (K) Gao*, Jin¹ and S. B. Munch²

¹Department of Ecology and Evolution, Stony Brook University, NY

²School of Marine and Atmospheric Sciences, Stony Brook University, NY

ESTIMATING GENETIC CORRELATION BETWEEN SIZE AT AGES AND
FECUNDITY IN ATLANTIC SILVERSIDES

4:20 (K) Divver*, Martha M., G. Frisk, and R. M. Cerrato

School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY

ASSESSMENT OF THE ECOLOGICAL ROLE OF ADULT WHITE PERCH
(MORONE AMERICANA) USING HYDROACOUSTIC TELEMETRY IN THE
GREAT SOUTH BAY SYSTEM

4:40 (K) Nichols*, Owen C.¹, E. Eldredge², and S. X. Cadrin¹

¹School for Marine Sci. and Technol., Univ. of Mass. – Dartmouth, Fairhaven, MA

²Chatham Fisheries/Monomoy Trap Company, West Chatham, MA

NOCTURNAL SEAL DEPREDATION IN A NEARSHORE FISHERY AND
IMPLICATIONS FOR ANALYSES OF ENVIRONMENTAL EFFECTS ON CATCH

5:00 NEERS BUSINESS MEETING

6:00 SOCIAL AND NEERS AWARDS BANQUET – Brookhaven Ballroom

Presentation of Awards for Best Student Papers

9:30 Music and dancing at Port Jazz, 201 Main Street, Port Jefferson

Saturday, May 7th

Estuarine Habitats

Chair: John Brawley

* Presenter

8:15 Gather for session

8:30 Peterson*, Brad J. and A. M. Stubler

School of of Marine and Atmospheric Sciences, Stony Brook University, NY

CUMULATIVE IMPACTS OF MULTIPLE STRESSORS ON *ZOSTERA MARINA*
POPULATIONS IN NEW YORK ESTUARIES

8:50 Davey*, Earl¹, C. Wigand¹, R. Johnson¹, A. Hanson¹, C. Roman² and N. Maher³

¹US EPA NHEERL, Atlantic Ecology Division, 27 Tarzwell Drive, Narragansett, RI

²National Park Service, University of Rhode Island, Narragansett, RI

³The Nature Conservancy, 250 Lawrence Hill Road, Cold Spring Harbor, NY

APPLICATION OF COMPUTER-AIDED TOMOGRAPHY (CT) TECHNOLOGY TO
VISUALLY COMPARE BELOWGROUND COMPONENTS OF SALT MARSHES IN
JAMAICA BAY AND LONG ISLAND, NEW YORK

- 9:10** Adamowicz*, Susan C.¹, D. Burdick², J. Kramer¹, and L. Wagner¹
¹ US Fish and Wildlife Service, Rachel Carson National Wildlife Refuge, Wells, ME
²University of New Hampshire, Jackson Estuarine Laboratory, Durham, NH
 THE EFFECTS OF DITCH PLUGGING ON SALT MARSHES: 2005 AND 2009
- 9:30** Rochlin, I.¹, M.J. James-Pirri², S. C. Adamowicz³, M. E. Dempsey⁴, T. Iwanejko¹, and Dominick V. Ninivaggi^{1*}
¹Division of Vector Control, Suffolk County Dept. of Public Works, Yaphank, NY
²Graduate School of Oceanography, University of Rhode Island, Narragansett, RI
³Rachel Carson National Wildlife Refuge, Wells, ME
⁴Suffolk County Dept. of Environment and Energy, Yaphank, NY
 INTEGRATED MARSH MANAGEMENT AT WERTHEIM NATIONAL WILDLIFE REFUGE (NWR), LONG ISLAND, NEW YORK, 2003-PRESENT: EFFECTS ON NEKTON AND VEGETATION
- 9:50** da Silva Quintal*, Sara N. and Lara Pomi-Urbat*
 Nelson, Pope & Voorhis, Melville, NY
 A METHOD FOR MAPPING AND PRIORITIZING DIADROMOUS FISH HABITAT RESTORATION

10:10 BREAK

Estuarine Variability

Chair: John Brawley

* Presenter

- 10:30** Liebman*, Matthew¹ and E. Dettmann²
¹US EPA New England, Five Post Office Square, Boston, MA
²US EPA, NHEERL, Atlantic Ecology Division, Narragansett, RI
 COASTAL NUTRIENT CRITERIA AND TREND MONITORING IN NEW ENGLAND
- 10:50** McNamara*, Marianne E., D. J. Lonsdale, and R. C. Aller
 School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
 SEASONAL DIFFERENCES IN C:N:P CONTENTS OF THE CTENOPHORE *MNEMIOPSIS LEIDYI* (AGASSIZ) IN RESPONSE TO CHANGES IN POPULATION SIZE STRUCTURE AND NUTRITIONAL STATUS
- 11:10** Zarnoch*, Chester B.¹ and T. J. Hoellein²
¹Dept. of Natural Science, Baruch College, City University of New York, NY
²Department of Biology, Loyola University Chicago, Chicago, IL
 THE INFLUENCE OF OYSTER FEEDING AND BIODEPOSITION ON SEDIMENT NITROGEN CYCLING IN JAMAICA BAY, NEW YORK
- 11:30** Thomas, Ellen^{1,2} and J. C. Varekamp²
¹Geology and Geophysics, Yale University, New Haven, CT
²Earth and Environmental Sciences, Wesleyan University, Middletown, CT
 BENTHIC FORAMINIFERA IN LONG ISLAND SOUND

11:50 Zajac, Roman¹, R. Whitlatch², B. Gibbons², A. Bergmann¹, L. Stefaniak², and D. Pinho¹
¹Dept. Biology and Environmental Science, University of New Haven, West Haven, CT
²Dept. Marine Sciences, Univ. Connecticut, Groton, CT
DEVELOPMENT OF A LONG ISLAND SOUND (LIS) BENTHIC INDEX FOR ENVIRONMENTAL ASSESSMENT AND ECOSYSTEM MANAGEMENT

12:10 Closing Remarks – Steve Hale, NEERS President

12:30 Field trip to Riverhead Foundation for Marine Research and Conservation departs from Danfords Hotel front desk

12:30 Field trip to Wertheim National Wildlife Refuge departs from Danfords Hotel front desk

POSTER PRESENTATIONS

* Presenter; **(D)** Dean Prize candidate for best graduate student poster

Adamowicz*, Susan C.¹, P. Drobney², G. Guntenspergen³, J. Culpepper⁴, M. Gregg⁵, B. Johnson⁶, J. Reinman⁷, D. Sharp⁸, C. Craft⁹, C. Cambardella¹⁰, J. Kush¹¹, S. Faulkner³, J. Morgan¹⁰, P. Shafroth³, and B. Wang³

¹ Rachel Carson National Wildlife Refuge; ² Neal Smith NWR; ³ USGS; ⁴ Carolina Sandhills NWR; ⁵ Saddle Mountain NWR; ⁶ Tetlin NWR; ⁷ St. Marks NWR; ⁸ White River NWR; ⁹ Indiana University NWR; ¹⁰ USDA-ARS; ¹¹ Auburn University

ASSESSING CARBON SEQUESTRATION IN MULTIPLE ECOSYSTEMS: A NATIONAL LMRD COOPERATIVE PROJECT

(D) Bauer*, Cassandra L., R. L. Swanson, and R. E. Wilson
School of Marine and Atmospheric Sciences, Stony Brook University, Stony Brook, NY
PHYSICAL FACTORS CONTRIBUTING TO SUMMERTIME HYPOXIA IN THE BOTTOM WATERS OF SMITHTOWN BAY, LONG ISLAND SOUND

Bernhard*, Anne E., D. Marshall, and L. Yiannos
Department of Biology, Connecticut College, New London, CT
INCREASED VARIABILITY OF MICROBIAL COMMUNITIES IN RESTORED SALT MARSHES NEARLY 30 YEARS AFTER TIDAL FLOW RESTORATION

Charpentier, M.¹, Cathleen Wigand^{2*}, and J. Hyman³
¹Raytheon, 27 Tarzwell Drive, Narragansett, RI
²US EPA NHEERL, Atlantic Ecology Division, 27 Tarzwell Drive, Narragansett, RI
³University of Rhode Island, Kingston, RI 02881
ESTIMATES OF CARBON SEQUESTRATION AND STORAGE IN TIDAL COASTAL WETLANDS ALONG THE US EAST COAST

(D) Furman*, Bradley T.¹, D. R. Deis², and B. J. Peterson³

¹Department of Marine and Atmospheric Sciences, Stony Brook University, NY

²PBS&J an Atkins Company, Jacksonville, FL

³School of Marine and Atmospheric Sciences, Marine Sci. Research Center, Southampton, NY
TEMPORAL EFFECTS OF INLET MODIFICATION AND PROTECTIVE SIGNAGE ON
THE FRACTAL GEOMETRY OF A SEAGRASS MEADOW: A 3-YR STUDY OF
SEBASTIAN INLET, FL

Gilman, M.¹, D. J. Drew², Beth Patrizzi^{1*}, and S. P. Grace³

¹Cedar Island Marina Research Lab, P.O. Box 181, Clinton, CT

²Peabody Museum, Dept. of Invertebrate Zoology, P.O. Box 208118, New Haven, CT

³Southern Connecticut State University, Biology Department, 501 Crescent St., New Haven, CT
ANNOTATED LIST OF MARINE MACRO FAUNA IN CEDAR ISLAND MARINA,
CLINTON HARBOR, CT, LONG ISLAND SOUND

Knowles, I.¹, Beverly J. Johnson^{1*}, P. Dostie¹, and W. Locke²

¹Department of Geology; ²Department of Biology; Bates College, ME

A BIOGEOCHEMICAL STUDY OF DITCHPLUG AND NATURAL POOLS IN THE
SPRAGUE RIVER MARSH, PHIPPSBURG, ME

(D) Lamb*, Annesia L.¹, R. B. Boger², and B. F. Branco^{1,2}

¹Aquatic Research and Environmental Assessment Center, Brooklyn College, NY and
Department of Earth and Environmental Sci., The Graduate Center, CUNY, NY

²Department of Earth and Environmental Sciences, Brooklyn College, NY

ANALYZING THE TRENDS OF WATER QUALITY INDICATORS IN JAMAICA BAY, NY

MacLachlan, Andrew

U.S. Fish and Wildlife Service, Coastal Program, Charlestown, RI

EELGRASS IN EASTERN LONG ISLAND SOUND -- ASSESSMENT FROM
INVENTORIES

(D) Mass*, Allison S.^{1,2}, W. G. Wallace², and C. B. Zarnoch³

¹The Graduate Center, City University of New York

²Biology Department, College of Staten Island

³Department of Natural Sciences, Baruch College

THE EFFECTS OF CHRONIC HABITAT DEGRADATION ON THE PHYSIOLOGY AND
METAL ACCUMULATION OF EASTERN OYSTERS, *Crassostrea virginica*

(D) Mora*, Jordan W. and D. M. Burdick

Department of Natural Resources and the Environment, Univ. of New Hampshire, Durham, NH
THE EFFECTS OF BERMS ON NORTHERN NEW ENGLAND TIDAL MARSHES

Poppe*, Lawrence J.¹, W. W. Danforth¹, K. Y. McMullen¹, C. E. Parker² and E. F. Doran³

¹USGS, Woods Hole, MA

²AHB, NOAA, Norfolk, VA

³Connecticut Department of Environmental Protection, Hartford, CT

COMBINED MULTIBEAM AND LIDAR BATHYMETRY DATA FROM EASTERN LONG
ISLAND SOUND AND WESTERNMOST BLOCK ISLAND SOUND – A REGIONAL
PERSPECTIVE

Rochlin, I.¹, M. E. Dempsey², T. Iwanejko¹, and Dominick V. Ninivaggi^{1*}

¹Div. of Vector Control, Suffolk Co. Dept. of Public Works, 335 Yaphank Ave., Yaphank, NY

²Suffolk County Department of Environment and Energy, 335 Yaphank Avenue, Yaphank, NY
AQUATIC INSECTS OF NEW YORK SALT MARSH

(D) Salazar*, Camilo E.

New York Suffolk County Departments of Environment and Energy, Public Works and Division of Vector Control, Health Services, and Parks and Recreation and Dept. of Environment and Energy, School of Marine Sciences, Stony Brook University, NY
TIDAL WETLAND RESTORATION AT THE SUFFOLK COUNTY INDIAN ISLAND PARK, NEW YORK

(D) Suter*, Elizabeth A., G. T. Taylor and K. M. M. Lwiza

School of Marine and Atmospheric Sciences, Stony Brook University, NY
EVIDENCE OF CHANGING NUTRIENT REGIMES IN LONG ISLAND SOUND

Wigand*, Cathleen¹, E. Davey¹, R. Johnson¹, R. S. Warren², and D. S. Johnson³

¹US EPA NHEERL, Atlantic Ecology Division, 27 Tarzwell Drive, Narragansett, RI

²Connecticut College, New London, CT

³Marine Biological Laboratory, 7 MBL Street, Woods Hole, MA

USE OF CT IMAGING TO EXAMINE THE COARSE ROOTS, RHIZOMES, AND PEAT ASSOCIATED WITH CREEK BANK SPARTINA ALTERNIFLORA IN FERTILIZED AND CONTROL CREEKS IN PLUM ISLAND (MA)