

# NEERS SPRING 2008 MEETING PROGRAM

## Meeting Synopsis

Thursday, May 1: 12:00 PM – 7:00 PM

Meeting Registration, Tipping Points Symposium, Welcoming Social

Friday, May 2: 9:00 AM – 9:00 PM (or beyond)

Meeting Registration, Contributed Oral Presentations, Lunch, Poster Session, Business Meeting, NEERS Awards Banquet, Dancing

Saturday, May 3: 9:00 AM – 11:45 AM plus optional Portsmouth Harbor Cruise

Contributed Oral Presentations, Concluding Remarks, Portsmouth Harbor Cruise

## Thursday, May 1, 2008

all events in Gregg Center Main Hall

12:00 PM – 1:00 PM Meeting Registration  
1:00 PM – 5:40 PM Tipping Points Symposium  
5:40 PM- 7:00 PM Meeting Registration  
5:40 PM- 7:00 PM Welcoming Social and Symposium Posters

## SPECIAL SYMPOSIUM

### Tipping Points

Session Chair = David Burdick, Univ. of New Hampshire

- 1:00** Welcome and Introductory Remarks – Peter Wellenberger, Manager, Great Bay National Estuarine Research Reserve; David Burdick, Univ. of New Hampshire
- 1:20** Brawley, John W.  
Saquish Scientific, Duxbury, MA 02332  
LOSS OF RESILIENCE, TIPPING POINTS, AND ALTERNATIVE STABLE STATES IN ESTUARINE AND NEARSHORE ECOSYSTEMS
- 1:40** Trowbridge, Philip R.  
New Hampshire Estuaries Project, University of New Hampshire, Durham, NH, 03824  
THE STATE OF NEW HAMPSHIRE'S ESTUARIES
- 2:05** Short, Frederick T.  
Jackson Estuarine Laboratory, University of New Hampshire, Durham, NH 03824  
EELGRASS LOSSES INDICATE DECLINING ESTUARINE HEALTH IN GREAT BAY ESTUARY, NH-ME
- 2:30** Mills, Katherine E.  
Great Bay National Estuarine Research Reserve, Durham, NH 03824  
STRENGTHS AND LIMITATIONS OF STATISTICAL APPROACHES FOR DETECTING MOVEMENT TOWARDS ECOSYSTEM TIPPING POINTS
- 2:55** **BREAK and WORKSHOP** – Teams will discuss scenarios of ecosystem change
- 3:35** Report out by group

**3:50** Geoghegan\*, Paul<sup>1</sup>, C. Gurshin<sup>1</sup>, and A. Legendre<sup>2</sup>

<sup>1</sup>Normandeau Associates, Bedford, NH 03110

<sup>2</sup>FPLE Seabrook Station, Seabrook, NH, 03874

IS THE NEARSHORE DEMERSAL FISH COMMUNITY OF NEW ENGLAND IN AN ALTERNATE STEADY STATE?

**4:15** Grizzle, Ray

Jackson Estuarine Laboratory, 85 Adams Point Road, Durham, NH 03824

RECOVERY OF SEAFLOOR HABITATS IN THE WESTERN GULF OF MAINE FISHING CLOSURE AREA

**4:40** Brawley, John W.

Saquish Scientific, Duxbury, MA 02332.

WAQUOIT BAY'S CRITICAL NITROGEN LOADING THRESHOLD(S)

**5:05** Wigand\*, Cathy, R. McKinney, E. Davey, and M. Holt

US EPA, NHEERL, Atlantic Ecology Division, 27 Tarzwell Drive, Narragansett, RI, 02882

DETERIORATING COASTAL SALT MARSHES – LESSONS LEARNED

**5:30** Closing Remarks – Susan Adamowicz, US Fish and Wildlife Service

**5:40 – 7:00 PM** NEERS Welcoming Social and Tipping Points Posters

### **SYMPOSIUM POSTER PRESENTATIONS**

Donnelly, Grace M.

147 Sixth Stret, Providence, RI 02906-3733

SEEKONK RIVER ESTUARY: SHORELINE AND SALT MARSH CHANGES RELATED TO A LANDSLIDE EVENT

Hollister\*, Jeffrey W. and H. A. Walker

Atlantic Ecology Division, National Health and Environmental Effects Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Narragansett, RI 02882

LANDSCAPE THRESHOLDS AND THE CONDITION OF NORTHEASTERN ESTUARIES

### **Friday, May 2, 2008**

8:20 AM Car pool from Hilton Garden Hotel to Gregg Center

8:30 AM – 9:30 AM Meeting Registration (Gregg Center Main Hall)

9:00 AM – 11:50 AM Oral presentations (Gregg Center Main Hall)

11:50 AM – 1:30 PM Lunch (Gregg Center Main Hall)

1:30 PM – 3:00 PM Oral presentations (Gregg Center Main Hall)

3:00 PM – 4:30 PM Break and poster session (Gregg Center Grotto)

4:30 PM – 5:30 PM NEERS Business Meeting (Gregg Center Main Hall)

5:45 PM Car pool from Gregg Center to Hilton Garden Hotel

7:00 PM – 9:00 PM Banquet and Awards Presentations (Hilton Garden Hotel Restaurant)

9:20 PM Convene in Hilton Garden Lobby to head off for post-banquet enjoyment

## ORAL PRESENTATIONS

Session Chair = Robert Buchsbaum, Mass Audubon

\* denotes presenter, **(K)** denotes Ketchum Prize candidate

**9:00** Welcome and Introductory Remarks – Robert Buchsbaum, NEERS President

**9:10** **(K)** Wilson\*, Kristin R.<sup>1</sup>, J. T. Kelley<sup>2</sup>, D. F. Belknap<sup>2</sup>, E. S. Allen<sup>3</sup>, and B. R. Tanner<sup>3</sup>

<sup>1</sup>Program in Ecology and Environmental Sciences, Univ. of Maine, Orono, ME 04469

<sup>2</sup>Department of Earth Sciences, Univ. of Maine, Orono, ME 04469

<sup>3</sup>Department of Geosciences and Natural Resources Management, Western Carolina Univ., Cullowhee, NC 28723

IDENTIFYING A UNIQUE, STRATIGRAPHIC SIGNATURE FOR MAINE'S SALT POOL ENVIRONMENTS

**9:30** **(K)** Brin\*, Lindsay D., and I. Valiela

Boston Univ. Marine Program, Marine Biological Laboratory, Woods Hole, MA 02543

NITROGEN RETENTION AND LOSS IN EXPERIMENTAL SALT MARSH PLOTS EXPOSED TO CHRONIC NUTRIENT ADDITION

**9:50** Franz\*, David R.

Biology Department, Brooklyn College CUNY, Brooklyn NY 11210

RIBBED MUSSEL POPULATIONS IN JAMAICA BAY – CURRENT CONDITION AND FUTURE PROSPECTS

**10:10** **(K)** Volson, Barry

Dept. of Fisheries, Animal & Veterinary Sci., Univ. of Rhode Island, Kingston, RI 02881

DOES ZOOPLANKTON SPECIES BIOCHEMICAL COMPOSITION AFFECT REPRODUCTIVE PERFORMANCE OF *MENIDIA* SPECIES FISH IN TWO RHODE ISLAND ESTUARIES?

**10:30 BREAK**

**10:50** Smith, R. C.<sup>1</sup>, and Veronica M. Berounsky\*<sup>1,2</sup>

<sup>1</sup>Narrow River Preservation Association, Saunderstown, RI 02874

<sup>2</sup>Graduate School of Oceanography, Univ. of Rhode Island, Narragansett, RI 02882

WHAT'S THAT SMELL? DOCUMENTING THE OVERTURN OF THE NARROW RIVER (PETTAQUAMSCUTT RIVER ESTUARY) IN THE FALL OF 2007

**11:10** Berounsky\*, Veronica M., L. T. Green, D. Borkman, S. D. Pratt, and R. J. Bell University of Rhode Island, Narragansett, RI 02882

THE PETTAQUAMSCUTT ESTUARY OVERTURN OF OCTOBER, 2007: CAUSES & CONSEQUENCES

**11:30** **(K)** Fogarty\*, Caitlin E.<sup>1</sup>, S. Brown<sup>1</sup>, R.W. Fulweiler<sup>2</sup>, S.W. Nixon<sup>3</sup>, and B.D. Jenkins<sup>1,3</sup>

<sup>1</sup>Dept. of Cell and Molecular Biology, Coll. of the Environment and Life Sciences, Univ. of Rhode Island, Kingston, RI

<sup>2</sup>Dept. of Oceanography and Coastal Sciences, School of the Coast and Environment, Louisiana State Univ., Baton Rouge, LA

<sup>3</sup>Graduate School of Oceanography, Univ. of Rhode Island, Narragansett, RI

FOLLOWING THE NITROGEN-FIXING AND DENITRIFYING COMMUNITIES WITH MOLECULAR TOOLS IN A CHANGING ESTUARY, NARRAGANSETT BAY

**11:50 – 1:30 LUNCH****ORAL PRESENTATIONS**

Session Chair = Pam Morgan, University of New England

- 1:30** Konisky, Ray  
The Nature Conservancy, Great Bay Field Office, 112 Bay Road, Newmarket, NH 03857  
NATURE CONSERVANCY PLANNING FOR GREAT BAY ESTUARY, NH: WHAT'S LOST, WHAT'S LEFT, WHAT'S NEXT
- 1:50** Martin\*, Paul D.<sup>1</sup>, A Pembroke<sup>2</sup>, H. Thurston<sup>3</sup>, and R. Kropp<sup>3</sup>  
<sup>1</sup>TRC Companies, 650 Suffolk Street, Lowell MA 01854  
<sup>2</sup>Normandeau Associates, 25 Nashua Street, Bedford, NH  
<sup>3</sup>Battelle, 397 Washington Street, MA 02332  
POST-CONSTRUCTION MARINE RESOURCE MONITORING RESULTS FOR THE HUBLINE PIPELINE PROJECT IN MASSACHUSETTS BAY
- 2:10** Freeman\*, Aaren S.<sup>1</sup>, F. T. Short<sup>1</sup>, I. Isnain<sup>2</sup>, F. Razak<sup>2</sup>, and R. Coles<sup>3</sup>  
<sup>1</sup>Jackson Estuarine Laboratory, Univ. of New Hampshire, Durham, NH 03824  
<sup>2</sup>Sabah Parks, Marine Research Unit, Kota Kinabalu, Sabah, Malaysia  
<sup>3</sup>Northern Fisheries Center, Queensland, Australia  
SEAGRASSNET FINDINGS ABROAD: LOCAL LAND-USE PRACTICES THREATEN COASTAL SEAGRASS COMMUNITIES IN SABAH (MALAYSIA)
- 2:30** Buchsbaum\*, Robert<sup>1</sup> and P. Neubert<sup>2</sup>  
<sup>1</sup>Massachusetts Audubon Society, 346 Grapevine Road Wenham, MA  
<sup>2</sup>ENSR, 89 Water Street, Woods Hole, MA  
MEASURING DIVERSITY AND ABUNDANCES IN SALT MARSH BIRDS: COMPARISONS OF DIFFERENT METRICS AND METHODS, PART I
- 2:45** Neubert\*, Pam<sup>1</sup> and R. Buchsbaum<sup>2</sup>  
<sup>1</sup>ENSR, 89 Water Street, Woods Hole, MA  
<sup>2</sup>Massachusetts Audubon Society, 346 Grapevine Road Wenham, MA  
MEASURING DIVERSITY AND ABUNDANCES IN SALT MARSH BIRDS: COMPARISONS OF DIFFERENT METRICS AND METHODS, PART II

**3:00 – 4:30****BREAK AND POSTER PRESENTATIONS**

\* denotes presenter, (W) denotes Warren Prize candidate, (D) denotes Dean Prize candidate

apRoberts-Warren, N.<sup>1</sup>, D. Bowring.<sup>1</sup>, T. Carr.<sup>1</sup>, C. Lanni.<sup>1</sup>, M. Kahn.<sup>1</sup>, T. Ratliff.<sup>1</sup>, and John Brawley\*<sup>2</sup>

<sup>1</sup>Wheaton College, Norton, MA 02766-2322

<sup>2</sup>Saquis Scientific, Duxbury, MA 02332

STATISTICAL ANALYSIS OF COLIFORM LEVELS FOR THE PECONIC BAY REGION

(D) Beem\*, Nora T. and F.T. Short, Jackson Estuarine Laboratory, University of New Hampshire, Durham, NH 03824

EELGRASS IN THE GREAT BAY: HUMAN GROWTH, EELGRASS DECLINE, AND THE NEED FOR EDUCATION

(D) Eberhardt\*, Alyson<sup>1</sup>, B. Johnson<sup>2</sup>, D. Burdick<sup>1</sup>, and M. Dionne<sup>3</sup>

<sup>1</sup>Jackson Estuarine Laboratory, University of New Hampshire, Durham, NH 03824

<sup>2</sup>Bates College, Department of Geology, Lewiston, ME 04240

<sup>3</sup>Wells National Estuarine Research Reserve, Wells, ME 04090

CAN TIDAL RESTRICTIONS IN SALT MARSHES LIMIT PREY ITEMS FOR THE AMERICAN EEL, *ANGUILLA ROSTRATA*?

(W) Fonseca\*, Cindy<sup>1</sup>, G. W. Brace<sup>1</sup>, R. N. Buchsbaum<sup>2</sup>, and M. E. Hines<sup>1</sup>

<sup>1</sup>Department of Biological Sciences, Univ. of Massachusetts Lowell, Lowell MA 01854

<sup>2</sup>Massachusetts Audubon Society, Wenham, MA 01984

EFFECTS OF HAYING ON NITROGEN ACQUISITION AND SEDIMENT BIOGEOCHEMISTRY IN *SPARTINA PATENS*

(W) Johnson\*, Cara<sup>1</sup>, A. Eberhardt<sup>2</sup> and K. Olivera<sup>3</sup>

<sup>1</sup>Marine and Freshwater Biology Program, Univ. of New Hampshire

<sup>2</sup>Natural Resource and Earth Systems Science Ph.D. Program, Univ. of New Hampshire

<sup>3</sup>Biology Department, Univ. of Massachusetts, Dartmouth

THE PREVALENCE OF THE NEMATODE PARASITE *ANGUILLICOLA CRASSUS* IN AMERICAN EELS (*ANGUILLA ROSTRATA*) OF GULF OF MAINE ESTUARIES

(W) Mitchell\*, Elizabeth E. and P.A. Morgan

Department of Environmental Studies, Univ. of New England, Biddeford, ME 04005

COMPARISON OF DISTURBED/UNDISTURBED UPLAND-SALT MARSH BORDERS AND THE PRESENCE OF INVASIVE/NATIVE HAPLOTYPES OF *PHRAGMITES AUSTRALIS*

Sarrette\*, Nicole H.<sup>1</sup>, K. E. Mills<sup>2</sup>, and F. T. Short<sup>1</sup>

<sup>1</sup>Jackson Estuarine Lab., Univ. of New Hampshire, 85 Adams Point Road, Durham, NH 03824

<sup>2</sup>Great Bay National Estuarine Research Reserve, 225 Main Street, Durham, NH 03824

COMPARING MONITORING METHODS TO DETECT EELGRASS CHANGE IN GREAT BAY, NEW HAMPSHIRE

Tilburg\*, Charles E., P.O. Yund, S. Zeeman, and S.M. Gill

Marine Science Center, Univ. of New England, 11 Hills Beach Rd., Biddeford, ME 04005

DYNAMICS OF THE DISCHARGE PLUME FROM THE SACO RIVER

**4:30 – 5:30 NEERS BUSINESS MEETNG**

**5:45** Car pool from Gregg Center to Hilton Garden Hotel

**7:00 NEERS AWARDS BANQUET**

**9:20** Convene in Hilton Garden Lobby to head off for post-banquet enjoyment

**Saturday, May 3, 2008**

9:00 – 11:45 AM Oral Presentations (Gregg Center Main Hall)

1:25 – 3:00 PM Field trip – Portsmouth Harbor cruise

## ORAL PRESENTATIONS

Session Chair = Pam Neubert, ENSR

\* denotes presenter

- 9:00** Elmer\*, Wade H. and R. E. Marra  
The CT Agr. Exp. Sta., P. O. Box 1106, New Haven, CT 06504  
TAXONOMY AND PHYLOGENY OF PATHOGENIC AND NONPATHOGENIC  
*FUSARIUM* SPECIES TO *SPARTINA ALTERNIFLORA*
- 9:20** Hazelton\*, Eric L.G.<sup>1</sup> and B. Blossey<sup>2</sup>  
<sup>1</sup>64 Allen Ave, Portland, ME 04103  
<sup>2</sup>Ecology and Management of Invasive Plants Program, Department of Natural Resources,  
Cornell University, Ithaca, NY 14853  
NATIVE *PHRAGMITES AUSTRALIS* DISTRIBUTION IN THE NORTHEASTERN UNITED STATES
- 9:40** Moore\*, Gregg E.<sup>1,3</sup>, C. R. Peter<sup>3</sup>, and D. M. Burdick<sup>2,3</sup>  
<sup>1</sup>Department of Plant Biology, <sup>2</sup>Department of Natural Resources, and <sup>3</sup>Jackson Estuarine  
Laboratory UNH Marine Program, Univ. of New Hampshire, Durham, NH 03824  
STATUS OF THE EASTERN GRASSWORT, *LILAEOPSIS CHINENSIS* (L.) KUNTZE  
(APIACEAE) IN THE GREAT BAY ESTUARY, NEW HAMPSHIRE, USA
- 10:00** Pappal\*, Adrienne L.<sup>1</sup>, and B. G. Warren<sup>2</sup>  
<sup>1</sup>Massachusetts Office of Coastal Zone Management, Aquatic Invasive Species Program, Boston,  
MA 02114  
<sup>2</sup>Salem Sound Coastwatch, Salem, MA 01970  
SQUIRT SURVIVOR: OBSERVATIONS OF *DIDEMNUM SP. A* AT THE BEVERLY PIER,  
BEVERLY, MA
- 10:20 BREAK**
- 10:40** Osher, Laurie J.  
Department of Plant, Soil, and Environmental Sciences, Univ. of Maine, Orono, ME  
ESTUARY & COASTAL SCIENCE EXPERTISE NEEDED IN GLOBAL C STUDIES
- 11:00** Gorokhovich\*, Yuri, and K. Chytalo<sup>2</sup>  
<sup>1</sup>Dept. of Environmental, Geographic and Geological Science, Lehman College, City Univ. of  
New York, Gillet Hall 309, 250 Bedford Park Blvd. West, NY 10468  
<sup>2</sup>Dept. of Environmental Conservation, Division of Marine Resources, 205 N. Belle Mead Rd. E.  
Setawket, NY 10801  
APPLICATION OF GIS-BASED MULTICRITERIA ANALYSIS TO PRIORITIZATION OF  
COASTAL PARCELS ON NEW YORK COAST FOR PRESERVATION
- 11:20** Tilburg, Christine M.  
Gulf of Maine Council on the Marine Environ., 156 Woodman Rd., Buxton, ME 04093  
BRINGING GULF OF MAINE ECOSYSTEM INDICATORS TO THE USERS
- 11:40** Closing Remarks – Robert Buchsbaum, NEERS President
- 1:25** Portsmouth Harbor Cruise – depart from Isles of Shoals Steamship Company parking lot, at the  
salt pile on Market Street in downtown Portsmouth