

New England Estuarine Research Society



PROGRAM OF THE SPRING 2004 MEETING

March 7 -9, 2004

Wyndham Burlington, Burlington, VT

Hosted by

Rubenstein Laboratory and School of Natural Resources, University of Vermont

Sponsored By

Battelle Memorial Institute

Environmental and Energy Development Solutions (ENSR)

MEETING SITE: The Spring 2004 New England Estuarine Research Society (NEERS) (<http://www.neers.org/>) meeting will be held at the Wyndham Burlington (formerly the Radisson Hotel) in Burlington, Vermont. The hotel is located along the shoreline of Lake Champlain and offers a spectacular view of beautiful Lake Champlain and the breathtaking Adirondack Mountains of New York. Sessions on Sunday, Monday, and Tuesday will be held in the Wyndham Burlington.

NEERS decided to head inland for Spring 2004 for many reasons. Not only is Burlington a terrific city offering an eclectic mix of things to do (from Ben & Jerry's to Beowulf) and plenty of winter sports choices, it is also a center for research and education. Our host, the Rubenstein Laboratory and School of Natural Resources, University of Vermont, will give NEERS' old salts a taste of fresh water along with insight into another thread of research. Also the Great Lakes and Hudson Bay are all that much closer to Burlington and hopefully NEERS Spring '04 will bring many new people working on Indicators, our special Tuesday session, and other pertinent topics. Many great opportunities await us in Burlington.

The meeting will begin **Sunday afternoon at 2:30 PM** (registration desk opens at 1:00 pm). Sunday afternoon and all day Monday will feature contributed papers from NEERS and scientists from Vermont and the Great Lakes region. Tuesday will feature a symposium entitled "The Status of Aquatic Monitoring and Indicator Development" beginning at 8:30AM, please see program schedule at the end of this mailing for details.

NEERS WELCOMING SOCIAL: NEERS has arranged to have its traditional social at the beautiful ECHO Aquarium and Science Center at the Leahy Center for Lake Champlain (**Leahy Center for Lake Champlain** www.echovermont.org) at 5 PM on Sunday. The ECHO Lake Aquarium educates and entertains visitors with exhibits highlighting the Ecology, Culture, History, and Opportunities for stewardship of the Lake Champlain Basin. Enjoy drinks and hors d'oeuvres as you visit with old and new colleagues, and learn more about aquatic systems research and activities within Vermont, New York,

Canada, and the Great Lakes Region. The ECHO Center is very “kid-friendly.”

The Leahy Center is home to the:

- University of Vermont Rubenstein Ecosystem Science Laboratory
- Lake Champlain Basin Program Resource Room
- LakeNet international lake conservation exchange in coordination with St. Michael's College
- Lake Champlain Sea Grant Watershed Alliance
- Lake Champlain Navy Memorial
- UVM's Melosira and visiting research vessels

The NEERS Social will allow us to enjoy the hospitality of this unique science center and learn more about Lake Champlain. We will also be provided an opportunity to visit the adjacent Leahy Center, get a taste for the Center’s Lake Champlain research and education endeavors. In addition to these exceptional surroundings there is the typical NEERS Social congeniality, fascinating conversation and company.

REGISTRATION: The pre-Registration fee for this meeting is **\$75.00** for NEERS members, **\$95.00** for non-members, and **\$40.00** for students. Included in this fee: all coffee breaks, Monday lunch, Sunday night reception at the new ECHO Center, and Monday poster social. All this in addition to the presentations! The pre-registration deadline is **February 26, 2004**. Pre-register on the web at www.neers.org (select “meetings”, then “date of meeting”). It is a HUGE help to the organizing committee to know about how many people will attend, plus you save money. PLEASE PRE-REGISTER, Print your WEB registration form or fill out the attached registration form and Mail with a check made out to NEERS to Dr. David Burdick, Jackson Estuarine Laboratory, 85 Adams Point Road, University of New Hampshire, Durham, NH 03824. Use this opportunity to make sure your NEERS dues are paid. If you didn’t pay last year – it was \$15 for 2003 and now is \$20 for 2004 or \$5.00 for students.

SCIENTIFIC PRESENTATIONS: Oral presentations will be limited to 15 minutes with an additional 5 minutes for discussion. Poster presentations will be on display for the duration of the meeting, and highlighted during specified poster sessions. NEERS Students may compete for the Ketchum and Rankin awards for oral presentations, or the Dean and Warren Prizes for posters (see below). Every presenter must be, or become a NEERS member. To become a NEERS member, please contact NEERS Treasurer David Burdick (dburdick@cisunix.unh.edu), 603-862-5129; you may pay for membership with your pre-registration check – just add \$20 (regular) or \$5 (student) to the conference costs.

PROJECTION: To facilitate the smooth running of the meeting, we are requesting that everyone intending to use PowerPoint plan to submit their presentation by **MONDAY, FEBRUARY 23rd**. We plan to be strict about this timetable. This may be done by mailing a CDROM, zip disk, or sending the file as an attachment of an email to:

John Brawley
Battelle
397 Washington St., Duxbury, MA 02332
brawleyj@battelle.org

No one should plan to use their own computer for their presentation. Everyone should plan to bring overheads as a back up in case of a technological crisis. Please let us know if you need an overhead or slide projector for your presentation.

NEERS STUDENT PRIZES: Prizes will be awarded to students chosen by the judging panel in the following categories: graduate student oral presentation (Buck Ketchum Prize, \$100), undergraduate student oral presentations (Stubby Rankin, \$100), graduate student poster presentation (David Dean Prize, \$100) and undergraduate student poster presentation (Scott Warren Prize, \$100). Papers and posters are judged by a committee in terms of overall effectiveness, scientific content, and quality of the presentation. *Students are encouraged to review the scoring criteria on the NEERS website (www.neers.org and select “student center” then “presentation judging criteria”).* Students who have won an award are not eligible for that award again. NEERS appreciates contributions towards the endowment fund for these prizes, so give generously when you pre-register. **Free Banquet tickets are provided for students who are competing for the awards.**

NEERS STUDENT TRAVEL AWARDS: Three travel awards, each for \$100, will be awarded to help cover costs associated with attending this meeting. Both graduate and undergraduate students may apply. Selection will be made by lottery and does not affect eligibility for student presentation prizes. To be considered for a travel award, you must be a member of NEERS (by the meeting time) and have your faculty advisor send an e-mail to David Burdick (dburdick@cisunix.unh.edu) by **February 22nd** to certify that you are a student in good standing, are presenting (include abstract) and you would benefit from the financial assistance. As always, NEERS greatly appreciates donations to the Bill Niering Student Travel Endowment fund.

NEERS POSTER TRIVIA CONTEST: Contest forms with questions based on information on the posters will be distributed, and a lucky winner drawn from those with correct answers. The winner will receive a \$25 prize, consisting of a year of NEERS dues and the balance in cash.

OTHER SOCIAL ACTIVITIES:

Monday will feature a **Poster Viewing Social** at the **Wyndham Burlington** from 5:00-7:00PM, we will be offering hors d’oeuvres and a cash bar during this viewing, followed by the **Awards Banquet** from 7:00-9:00 PM at the **Wyndham Burlington**. After dinner enjoy a night of dancing and exploring among any of Burlington’s infamous venues (a list of options is forthcoming).

OTHER MEALS: The cost for lunch on Monday and coffee breaks (Sunday, Monday, and Tuesday) will be included in the registration fee. Without the pressure of finding off-site dining, the lunch break should be a good opportunity to look at posters and the waterfront view of Lake Champlain.

NEERS BUSINESS MEETING: The Business meeting will be held after the last presentation on Monday afternoon.

LOCAL ATTRACTIONS:

- I. Tour the Champlain Thrust Fault (it’s a one-of-a-kind experience), which is located along Lone Rock Point, a short distance north of North Beach in Burlington (<http://www.anr.state.vt.us/geology/pubint3.htm>).
- II. Visit the ECHO Lake Aquarium and Science Center (across the street from the Wyndham).
- III. Church Street Marketplace in Burlington offers several blocks of traffic-free browsing, shopping, eating, drinking and entertainment (<http://www.churchstmarketplace.com>).
- IV. Skiing at Stowe, Sugarbush, Mad River, Smuggler’s Notch, Bolton Valley (night skiing!), and Jay

Peak.

V. Cross country skiing in Centennial Woods (Burlington) or travel out to the Trapp Family Lodge (35 minutes east) and hear the sound of music.

VI. Nightclubs/nightsspots are abundant in Burlington:

- Nectar's (where the band Phish performed before their first shave)
- RiRa's
- Ake's Place
- Club Metronome
- Pearl's

I. The Vermont Pub and Brewery – the first brew pub in Vermont (1988). Tours by famous brewer and author, Greg Noonan, available.

II. Ben and Jerry's Ice Cream (Waterbury – 30 minutes east) - <http://www.benjerry.com/>

III. Winter hiking/camping on Camel's Hump and Mount Mansfield (35 minutes east).

IV. Shelburne Farms (<http://www.shelburnefarms.org>).

V. Shelburne Museum (<http://www.shelburnemuseum.org/>).

VI. Magic Hat Brewery (<http://www.magichat.net/main.html>)

VII. UVM Theatre will be presenting the play "The Art of Dining" by Tina Howe at the Royall Tyler Stage, a hilarious culinary classic about America's fascination with food.

<http://www.uvm.edu/theatre>

VIII. Flynn Theatre will be presenting "Beowulf" and the Vermont Symphony Orchestra in March (<http://www.flynntheatre.org/>)

ACCOMMODATIONS: A block of rooms has been reserved at the Wyndham Burlington (www.wyndham.com or www.radisson.com/burlingtonvt), 60 Battery Street, Burlington, Vermont 05401. Phone: (802) 658-6500. The room rate for this block is \$89.00 per room + tax. You must reserve the room by **February 13th** in order to get the group rate. The room block is under the name "NEERS". A limited block of rooms have been reserved at the conference rate for the evening of Tuesday, March 9 for those who prefer to stay another night.

Other recommended hotel in the area: Sheraton Burlington, 870 Williston Rd., South Burlington, VT

GETTING to the Wyndham Burlington:

FROM ALL AREAS: Route I-89 to Burlington. Take Exit 14-W (Route 2 West – Burlington) and follow through the UVM campus. This turns into Main St. Follow Main St. past UVM campus, down a long hill (view of lake) to downtown Burlington. Continue on Main St. to end and take a right onto Battery St. Go past College St. and Wyndham Burlington is on right side (60 Battery St.). Parking garage entrances on Battery St. (south side of hotel) and on Cherry St. (north side of hotel).

NEERS LISTSERVER SIGNUP: Future conference updates will occur via the electronic NEERSLIST in addition to the hardcopy mailings. It is highly recommended that you sign up on the NEERSLIST in order to receive conference updates and other important NEERS communications in a timely manner. NEERS has changed its webhost this fall, including the managing of the NEERSLIST listserver. Unfortunately we

were unable to move over the address book, so you'll need to visit our web site to sign up again. Go to www.neers.org and click on the link to the LISTSERVER (just to the right of the beautiful eelgrass photo). Good instructions for signing up (quick and painless) are contained on the listserver page.

QUESTIONS? Contact any of the following:

John Brawley (Co-Organizer): brawleyj@battelle.org (General questions)

Cindy Delpapa (Co-Organizer): cindy.delpapa@state.ma.us (General questions)

Hilary Neckles (Program Chair): hilary_neckles@usgs.gov (Abstracts or other program concerns)

David Burdick (Treasurer): dburdick@cisunix.unh.edu (registration, student travel awards)

SPECIAL SYMPOSIUM DESCRIPTION

Title: Aquatic Monitoring and Indicator Development

Date: March 9, 2004

Place: Wyndham Burlington, 60 Battery St., Burlington, VT 05401

Sponsors: Battelle Memorial Institute

Any agency, institution or corporation interested in supporting the Symposium should contact either of the co-organizers, John Brawley (brawleyj@battelle.org) or Cindy Delpapa (cindy.delpapa@state.ma.us), for details on how to contribute.

Purpose:

The purpose of this special session is to focus on the topic of environmental indicators, their development, and the status of monitoring programs that effectively support long-term indicator use. The organizing committee is seeking participation from aquatic scientists, state environmental departments/agencies, and federal agencies associated with the Northeast U.S. region.

Indicators should provide information about the environment (ecological, cultural, economic) such that change from current conditions can be described or that movement towards or from a desired state or condition can be observed. Desired conditions may be defined as an unimpacted, or pristine, condition developed from theoretical constructs or historic information that defines an acceptable condition/status. Some examples:

- Dissolved oxygen levels (system metabolism)
- Primary production
- Algal biomass distribution
- Seagrass bed distributions
- Benthic habitat quality
- Fisheries production
- Pathogen exposure frequency
- Land use patterns
- Shoreline types (e.g., rocky, wetlands, etc.)

Indicators are important in providing information necessary for long-term resource management decision making and in the coordination of monitoring programs among agencies and research institutions.

All States are to submit draft monitoring strategy documents this year to help meet their Clean Water Act reporting requirements. A number of issues are in play related to Clean Water Act reporting, including: appropriate use of probabilistic sampling, use of fixed station monitoring networks, hybrid monitoring designs that build in fixed stations from state programs into probabilistic designs for regional assessment, targeted sampling to confirm impairment, monitoring designs that support monitoring of source reductions (e.g. TMDLs), etc.

NEERS Spring 2004 MEETING PROGRAM

Sunday, March 7, 2004

1:00 – 2:30 PM Meeting Registration, Wyndham Burlington
2:30 – 4:20 PM Oral Presentations, Wyndham Burlington
5:00 – 8:30 PM Reception, ECHO Lake Aquarium and Science Center
Dinner on your own

ORAL PRESENTATIONS

Session Chair = Pam Neubert, ENSR

* Presenter

2:30 Welcome and Introductory Remarks – Marshall Pregnall, NEERS President

2:40 Kremer, J.* and J. Vaudrey
Department of Marine Sciences, University of Connecticut, Groton, CT 06340
SYSTEM METABOLISM USING A(NOTHER) MOORED WATER QUALITY PROFILER
IN SHALLOW EMBAYMENTS

3:00 Vaudrey, J.M.P.
Department of Marine Sciences, University of Connecticut, Groton, CT 06340
ECOSYSTEM METABOLISM IN SMALL COASTAL EMBAYMENTS – AN
ANALYSIS OF FIELD METHODS.

3:20 Dahlen*, D. T.¹, S. Emsbo-Mattingly¹, C. Hunt¹, and K. Keay²
¹Battelle Memorial Institute, Duxbury, MA 02332; ²MWRA, Boston, MA 02129
COMPOSITIONAL CHANGES IN MASSACHUSETTS COASTAL SEDIMENTS
ATTRIBUTED TO THE MWRA WASTEWATER DISCHARGE: A
COMPREHENSIVE COMPARISON OF PRE- AND POST-DIVERSION PERIODS

3:40 Swenarton*, J.T., J.F. Foertch, J.M. Vozarik, D.F. Landers, and M. Keser
Millstone Environmental Laboratory, Dominion Nuclear Connecticut, Inc., Rope Ferry Rd.,
Waterford, CT 06385
LONG-TERM (1985-2003) MONITORING STUDIES OF EELGRASS (*ZOSTERA
MARINA* L.) POPULATION DYNAMICS IN EASTERN LONG ISLAND SOUND

4:00 Spencer, L. T.
Department of Biological Sciences, Plymouth State University, Plymouth, NH 03264
NEW ZEALAND ESTUARIES, A VISITOR'S VIEW

5:00 – 8:30 SOCIAL RECEPTION (ECHO Lake Aquarium and Science Center)

Monday, March 8, 2004

9:10 – 12:10 PM	Oral Presentations
12:10 – 1:30 PM	Lunch
1:30-3:00 PM	Poster Session
3:00 – 4:00 PM	Oral Presentations
4:00 PM	Business Meeting
5:00 – 7:00 PM	Social and poster viewing
7:00 – 9:00 PM	Banquet

ORAL PRESENTATIONS

Session Chair = Marshall Pregnell, Vassar College

*Presenter, (K) denotes Ketchum prize candidate, (R) denotes Rankin prize candidate

- 9:10 (K)** Casper, Andy F. and L. E. Johnson. Québec-Océan and Departement de Biologie, Pavillion Vachon, Université Laval, Québec, Québec J1K 7P4, Canada
LIFE ON THE EDGE: GROWTH AND ECOPHYSIOLOGY OF *DREISSENA* IN THE ESTUARINE TRANSITION ZONE OF THE ST. LAWRENCE RIVER
- 9:30** Abbe, J., Z. Adams, R. Boumans*, J. Cerretti, J. Clark, T. Coe, J. DAgostino, B. Davis, K. Davis, G. deGooyer, S. DeLano, J. Errecart, C. Friede, E. Geczi, M. Hey, B. Huggett, B. Kirk, M. Kreider, S. Lovitz, K. McCutcheon, W. Morgan, L. Noa, J. Roberts, and S. Wheeler
The Rubenstein School of Environment and Natural Resources, The University of Vermont, George D. Aiken Center, 81 Carrigan Drive, Burlington, VT 05405-0088
EXPLORING THE POTENTIAL FOR INTEGRATED WATERSHED PLANNING IN THE LEWIS CREEK BASIN, VERMONT
- 9:50** Turek, J.G.
NOAA Restoration Center, Narragansett, RI 02882
DIADROMOUS FISH RESTORATION IN THE CONNECTICUT RIVER WATERSHED: PROGRESS THROUGH NOAA'S COMMUNITY-BASED RESTORATION PROGRAM PARTNERSHIPS
- 10:10** Neubert, M. G.
Biology Department MS 34, Woods Hole Oceanographic Institution, Woods Hole, MA 02543-1049
MARINE RESERVES AND OPTIMAL HARVESTING:
CHARGOGGAGOGGMANCHAUGGAUGGAGOGGCHAUBUNAGUNGAMAUGG
- 10:30 BREAK**
- 10:50** Zogg, G.P.
Dept. of Biological Sciences, University of New England, Biddeford, ME 04005
EFFECTS OF NUTRIENT LOADING AND FLOODING ON NITROGEN MINERALIZATION IN A HIGH MARSH ECOSYSTEM

11:10 Sheldon*, S. P.¹, S. Twichell¹, and L. A. Deegan²

¹Department of Biology, Middlebury College, Middlebury VT 05753;

²Ecosystems Center, MBL, Woods Hole MA 02543

THE EFFECTS OF LONG TERM NUTRIENT ADDITION ON A SALT MARSH
COMMUNITY

11:30 (R) Freeman*, C.J.^{1, 2}, H. Haas¹, S. Warren², L. Deegan¹, and J. Logan¹

¹The Ecosystems Center, Marine Biological Laboratory Woods Hole, MA 02543

²Connecticut College, New London, CT 06320

WHAT MAKES MUMMICHOGS GROW?- THE RELATIONSHIP BETWEEN
GROWTH RATES AND GUT CONTENTS OF *FUNDULUS HETEROCLITUS* HELD IN
ENCLOSURES ALONG A SALINITY GRADIENT IN A NEW ENGLAND SALT MARSH

11:50 (K) Graf, M.-T.* and G. L. Chmura

Department of Geography and Centre for Climate and Global Change Research, McGill
University, Montreal, QC, Canada

JOHN LUSBY MARSH: A DIKELAND'S RETURN TO SALT MARSH
CONDITIONS

12:10 – 1:30 LUNCH (provided at hotel)

1:30 – 3:00

POSTER PRESENTATIONS

*Presenter, (D) denotes Dean prize candidate, (W) denotes Warren prize candidate

General Session

Abdelrhman, M. A.

USEPA Office Research and Development, National Health and Environmental Effects Research
Lab., Atlantic Ecology Division, 27 Tarzwell Drive, Narragansett, RI 02882

MODELING OF FLUSHING AND LOCAL RESIDENCE TIMES IN 42
EMBAYMENTS IN NEW ENGLAND, USA

(W) Ajaj, J. E.*, J. Eyzaguirre*, A. Rossi*, and D. J. Brousseau

Biology Department, Fairfield University, Fairfield, CT 06824.

DIETS OF THREE SHALLOW-WATER FISH IN LONG ISLAND SOUND: A
FOCUS ON ASIAN CRAB PREDATION

Baker, J.

Massachusetts Office of Coastal Zone Management, 251 Causeway St. Suite 900, Boston, MA
02114

THE MARINE INVADER DATABASE: A STRATEGY FOR TRACKING THE
DISTRIBUTION OF INVASIVE SPECIES IN THE WATERS OF THE
NORTHWEST ATLANTIC

Brawley*, J.W.¹, D.J. Yozzo², W. Pabich³, M. Fobert⁴, and T. Benjamin⁴

¹Battelle Memorial Institute, Duxbury, MA 02332; ²Barry A. Vittor & Associates, Inc., Lake
Katrine, NY 12449; ³Tetra Tech EM Inc., 125 Cambridgepark Drive Cambridge, MA 02140; ⁴M.
Forbert, T. Benjamin, Rizzo Associates, One Grant Street, Framingham, MA 01701
THE DEVELOPMENT OF A RESTORATION PLAN FOR THE WINSEGANSETT
EAST MARSH, FAIRHAVEN, MA

Duff*, E.B.¹, R. Buchsbaum¹, and D. M. Burdick²

¹Mass Audubon; ²Jackson Estuarine Laboratory, Department of Natural Resources, University of
New Hampshire, 85 Adams Point Rd., Durham, NH 03824
INTEGRATING SCIENCE AND EDUCATION AT THE PLUM ISLAND ECOSYSTEM
LONG TERM ECOLOGICAL RESEARCH SITE

(W) Fredericks*, V. L., Williams*, K. E., and P.A. Morgan

Dept. of Environmental Studies, University of New England, Biddeford, ME 04005
MONITORING THE EFFECTS OF A NEW DOCK ON A FRINGING SALT MARSH
AT THE UNIVERSTIY OF NEW ENGLAND

(W) Heffner*, L.R. and A.M. Pregnall

Biology Department, Vassar College, Poughkeepsie, NY, 12604
EFFECTS OF HYPOXIA ON ALGAL GLUTAMINE SYNTHETASE ACTIVITY IN
COASTAL POND CORES

Liang, S.-Y., D. Hersh, and W. Leo*

Environmental Quality Department, Massachusetts Water Resources Authority, Charlestown,
MA 02129
MANAGEMENT AND USE OF A LONG-TERM WATER QUALITY MONITORING
DATABASE FOR BOSTON HARBOR AND MASSACHUSETTS BAY

Mansfield*, A.M., C.D. Hunt, and C.S. Albro.

Battelle, Duxbury, MA, 02332
PLUME TRACKING: LEADING TECHNOLOGIES FOR MONITORING OUTFALL
DILUTIONS AND SEDIMENT RESUSPENSION

(D) Noel, P.E.*, G.A. Hung*, E. L. Heller* and G.L. Chmura

Department of Geography (& Centre for Climate and Global Change Research), McGill
University, 805 Sherbrooke St. W.; Montreal, QC H3A 2K6

SEARCH FOR THE RECLAMATION SURFACE OF A RECOVERING
DYKELAND: SAINTS REST MARSH, SAINT JOHN, NEW BRUNSWICK

(W) Watson, O.J.* , L. D. Sanderson* , and G. L. Chmura
Department of Geography, McGill University, 805 Sherbrooke St. West, Montreal, QC H3A 2K6
VEGETATION PATTERNS IN THE SALT MARSH AT LA POCATIERE,
QUEBEC

Symposium on Aquatic Monitoring and Indicator Development

Hale, S. S.
Atlantic Ecology Division, U.S. Environmental Protection Agency, 27 Tarzwell Drive,
Narragansett, RI 02882
DEVELOPMENT OF AN INDEX OF BENTHIC CONDITION FOR
COASTAL AREAS OF THE GULF OF MAINE

ORAL PRESENTATIONS

Session Chair = Cindy Delpapa, MA Dept. of Fish and Game

- 3:00 (K) Kelly, S.J.**
Dept. of Biological Sciences, University of Rhode Island, Kingston, RI 02881
THE ESTIMATION OF AGE-SPECIFIC DEMOGRAPHIC PARAMETERS FOR
SCUP, *STENOTOMUS CHRYSOPS*, IN LONG ISLAND SOUND
- 3:20 (K) Calabretta, C. J. * and C. A. Oviatt**
University of Rhode Island Graduate School of Oceanography, Narragansett, RI 02882
**BENTHIC MACROFAUNA IN NARRAGANSETT BAY, RHODE ISLAND: AN
EVALUATION OF DIFFERENT APPROCHES FOR DESCRIBING COMMUNITY
ASSEMBLAGES**
- 3:40 (K) Hung*, G.A. and G.L. Chmura.** Dept. of Geography (and Centre for Climate and Global
Change Research), McGill University, 805 Sherbrooke St. W., Montreal, QC H3A 2K6
THE IMPORTANCE OF GEOCHEMICAL NORMALIZATION IN THE
INTERPRETATION OF TRACE METAL SEDIMENT DATA: AN EXAMPLE
FROM SALT MARSHES OF THE BAY OF FUNDY
- 4:00 NEERS BUSINESS MEETING**
- 5:00 SOCIAL AND POSTER VIEWING**
- 7:00 BANQUET**

Tuesday, March 9, 2004

Symposium on Aquatic Monitoring and Indicator Development

Session Co Chairs = John Brawley, Battelle & Hal Walker, USEPA Atlantic Ecology Division

8:30 Welcome and Introductory Remarks – Hal Walker

Indicator Development

8:40 Watzin M.C.*, R.L. Smyth, E.A. Cassell, W.C. Hession, R.E. Manning, and D. Wang
University of Vermont, School of Natural Resources, Burlington, VT, 05405
DEVELOPING ECOSYSTEM INDICATORS AND AN ENVIRONMENTAL SCORE CARD
FOR LAKE CHAMPLAIN

9:00 Hunt, C. D.^{1*}, B. Burgan², D. Keeley³, and L. McLeod¹
¹ Battelle, Duxbury, MA; ²US EPA Ocean Coastal Protection Division, Washington DC; ³Maine
State Planning Office, August, ME
DEVELOPING REGIONAL INDICATORS FOR COASTAL REGIONS– THE
ATLANTIC NORTHEAST COASTAL MONITORING SUMMIT

9:20 Foertch*, J.F., J.T. Swenarton, and M. Keser
Millstone Environmental Laboratory, Dominion Nuclear Connecticut, Inc., Rope Ferry Rd.,
Waterford, CT 06385
ROCKY INTERTIDAL COMMUNITY CHANGES (1979-2003) NEAR MILLSTONE
POWER STATION, CONNECTICUT, RELATED TO LOCALIZED THERMAL
INPUT AND REGIONAL FACTORS

9:40 Rozsa, R.
CT Department of Environmental Protection, Office of Long Island Sound
Programs, Hartford, CT 06106
DECADAL CHANGES OF *ZOSTERA MARINA* IN LONG AND FISHERS
ISLAND SOUNDS.

10:00 Short, F. T. and D. M. Burdick*
Jackson Estuarine Laboratory, Department of Natural Resources, University of New Hampshire,
85 Adams Point Rd., Durham, NH 03824
A NUTRIENT POLLUTION INDICATOR (NPI) FOR ESTUARINE ECOSYSTEMS USING
EELGRASS

10:20 BREAK

Monitoring Design

- 10:40** Switzer, D. I.
Ecosystems Assessment Unit, USEPA New England, 11 Technology Drive, North Chelmsford, MA 01863-2431
EPA'S GOALS AND EXPECTATIONS FOR STATE COMPREHENSIVE MONITORING AND ASSESSMENT STRATEGIES
- 11:00** Paul, J. F.¹, W. Galloway², G. Pesch², M. Charpentier³, J. Heltshe⁴, D. Cobb², C. Strobel², and H. Walker^{2*}
¹National Health and Environmental Effects Research Laboratory, USEPA, Research Triangle Park, NC 27711; ²Atlantic Ecology Division, USEPA, Narragansett, RI 02882; ³ CSC Corporation, Narragansett, RI 02882; ⁴Univ. of Rhode Island, Kingston, RI 02881
THE USE OF EXISTING MONITORING PROGRAM SITES IN A PROBABILITY SURVEY DESIGN – EVALUATION CRITERIA AND APPLICATION IN NORTHEAST U.S. ESTUARIES
- 11:20** Neckles*, H. A., and B. S. Kopp
USGS, Patuxent Wildlife Research Center, 196 Whitten Rd., Augusta, ME 04330
THE NATIONAL PARK SERVICE VITAL-SIGNS MONITORING PROGRAM: REGIONAL PROTOCOLS FOR TRACKING ESTUARINE NUTRIENT ENRICHMENT
- 11:40** Dettmann*, E. H.¹, R. B. Moore², K. W. Robinson², H. A. Walker¹, and J. B. Palter³
¹U.S. Environmental Protection Agency (USEPA), ORD, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, 27 Tarzwell Dr. Narragansett, RI 02882; ² USGS, New Hampshire/Vermont District, 361 Commerce Way, Pembroke, NH 03275; ³ Duke University, School of Environment and Earth Sciences, Division of Earth and Ocean Sciences Durham, NC 27705
USE OF OUTPUT FROM THE NEW ENGLAND SPARROW MODEL TO ESTIMATE CONCENTRATIONS OF TOTAL NITROGEN IN ESTUARIES
- 12:00** Halterman, S.¹, B. Howes^{2*}, and R. Samimy²
¹MA Dept. of Environmental Protection Watershed Management and Permitting
² School of Marine Sciences and TechnologyUMASS/Dartmouth.
THE ROLE OF THE MASSACHUSETTS ESTUARIES PROJECT IN ESTABLISHING NUTRIENT RELATED WATER QUALITY AND ECOLOGICAL HEALTH INDICATORS
- 12:20** Trowbridge*, P. R.¹, Jones, S.H.², Siegel, L.S.¹, Neils, D.¹, and W.G. Comstock¹
¹New Hampshire Department of Environmental Services, Watershed Management Bureau, Concord, NH, 03302-0095; ² Jackson Estuarine Laboratory, University of New Hampshire, Durham, NH 03824.

Warren Prize \$ _____

Niering Travel Award \$ _____

TOTAL AMOUNT ENCLOSED: \$ _____

Meal Preference: Please mark "X" if you prefer vegetarian meals _____.

Judges needed!! Please mark "X" if you are willing to judge NEERS student presentations _____.

Pre-Registration Deadline (February 26, 2004)
and Hotel Reservation Deadline (Feb 13, 2004)