

NEW ENGLAND ESTUARINE RESEARCH SOCIETY

Fall 1998

THURSDAY, October 22, 1998

SPECIAL SESSION:
IS SCIENCE HELPING IN COMMUNITY DECISION-MAKING?
QUALITY INN
FALMOUTH, MASSACHUSETTS

- 0900-1100 MEETING REGISTRATION, QUALITY INN, FALMOUTH, MASSACHUSETTS
- 0930 WELCOME/OPENING REMARKS
Sandra Macfarlane, Town of Orleans, and Margaret Geist, Waquoit Bay NERR, Session Chairs
- 0940 GETTING SCIENCE TO THE COMMUNITY
Linda Bireley, Northeast Utilities
- 1010 TRANSFERRING SCIENCE TO USERS: RISK ASSESSMENT AND CRITICAL LOADING OF ESTUARIES
Ivan Valiela, Boston University Marine Program
- 1040 ~ BREAK ~
- 1100 ASSESSING CRITICAL NUTRIENT LOADS BY MODELING ESTUARINE RESPONSES IN WAQUOIT BAY, MASSACHUSETTS
James Kremer and John Brawley, University of Connecticut
- 1 130 VERIFICATION OF THE WAQUOIT BAY NITROGEN LOADING MODEL
Gabrielle Tomasky and Ivan Valiela, Boston University Marine Program, and Margaret Geist, Waquoit Bay National Estuarine Research Reserve
- 1200 ~ LUNCH ~
- 1330 DEVELOPMENT OF REGIONAL NUTRIENT CRITERIA
Matthew Liebman, U.S. EPA Region I, New England
- 1400 COMMUNITY DECISIONS ABOUT MOLLUSCAN SHELLFISH CONTROLS IN MAINE AND MASSACHUSETTS
Dana Wallace, Chance Along Shellfish Farms
- 1430 HISTORIC RECONSTRUCTION OF ECOLOGICAL EFFECTS: A USEFUL TOOL
Carol Pesch and Richard Voyer, US Environmental Protection Agency
- 1500 ~ BREAK ~
- 1520 TO SITE OR NOT TO SITE A PRIVATE DOCK: A NEW METHODOLOGY BASED ON NATURAL AND HUMAN RESOURCES FOR PLEASANT BAY, MA
Sandra Macfarlane, Town of Orleans (retired), Julie Early, Island Foundation, Truman Henson, Coastal Zone Management, Tian Balog, Brewster Conservation Department, and Alan McClennen, Bayplan Steering Committee
- 1550 CLOSING REMARKS
Margaret Geist, and Sandra Macfarlane
- 1900 THURSDAY NIGHT SOCIAL AND REGISTRATION
CLARK 507, QUISSETT CAMPUS, WOODS HOLE OCEANOGRAPHIC INSTITUTION,
WOODS HOLE, MASSACHUSETTS

FRIDAY, October 23, 1998

SESSIONS OF CONTRIBUTED PAPERS
QUALITY INN
FALMOUTH, MASSACHUSETTS

(K indicates Ketchum Prize Candidate)

0830-1130 MEETING REGISTRATION, QUALITY INN

JEFFREY HUGHES, SESSION CHAIR

0900 WELCOME

Frederick Short, NEERS President, University of New Hampshire

0910 HISTORICAL CHANGES IN ATMOSPHERIC NITROGEN DEPOSITION, AND ITS IMPACT ON COASTAL SYSTEMS

K Jennifer Bowen and Ivan Valiela, Boston University Marine Program

0930 NITROGEN ENRICHMENT OF ESTUARIES: UNDERSTANDING THE SHIFT FROM EELGRASS- TO SEAWEED-DOMINATED COMMUNITIES

K Jennifer Hauxwell, Just Cebrian and Ivan Valiela, Boston University Marine Program

0950 RESPONSES OF EELGRASS SEEDLINGS TO DECREASED LIGHT

K Joanne C. Bintz, Stephen Granger and Scott W. Nixon, University of Rhode Island

1010 ~ BREAK ~

1030 INFLUENCE OF WATERSHED-DERIVED NITROGEN LOAD AND WATER RESIDENCE TIME ON ZOOPLANKTON ABUNDANCE, WAQUOIT BAY, MASSACHUSETTS

K David Lawrence, Chris Furlong and Ivan Valiela, Boston University Marine Program

1050 RECENT, RAPID DECLINES OF EELGRASS IN SOUTHEASTERN MASSACHUSETTS ESTUARIES, AND EFFECTS ON FISH ABUNDANCE AND DIVERSITY

Jeff Hughes, Linda Deegan, Jason Wyda and Greg Breed, Marine Biological Laboratory

1110 GROWTH OF *FUNDULUS HETROCLITUS* AND *MENIDIA MENIDIA* IN ESTUARIES OF WAQUOIT BAY, MASSACHUSETTS EXPOSED TO DIFFERENT RATES OF NITROGEN LOADING

K Joanna Tober and Ivan Valiela, Boston University Marine Program

1130 USE OF $\delta^{15}\text{N}$ STABLE ISOTOPE TO UNDERSTAND MIGRATIONS DURING THE LIFE HISTORY OF *MENIDIA MENIDIA* IN WAQUOIT BAY, MASSACHUSETTS

K Martin Griffin and Ivan Valiela, Boston University Marine Program

1150 ~ LUNCH ~

JENNIFER HAUXWELL, SESSION CHAIR

1330 AN APPROACH TO TEACHING ECOLOGY: LINKING THEORY, RESEARCH AND MANAGEMENT ISSUES

K Marci Cole and Ivan Valiela, Boston University Marine Program

1350 THE RELATIVE SIZES OF ATMOSPHERIC DEPOSITION, FERTILIZER USE, AND WASTE WATER FROM SEPTIC SYSTEMS AND A SEWAGE TREATMENT PLANT AS NITROGEN LOADS TO GREEN POND, CAPE COD, MASSACHUSETTS

K Kevin Kroeger, Devin Corcoran, Jesse Moorman, Jennifer Michalowski and Ivan Valiela, Boston University Marine Program

1410 SAMPLING FOR RIVER NUTRIENT FLUXES DURING STORM EVENTS

K Erin Penfold and Ted Loder, University of New Hampshire

1430 ~ BREAK AND POSTER SESSION ~

(D indicates Dean Prize candidate)

NITRIFICATION IN WATER AND SEDIMENTS OF THE CASPERKILL, A TRIBUTARY OF THE HUDSON RIVER ESTUARY

D *Alissa Burge and Marshall Pregnall, Vassar College*

SITE SELECTION OF CREATED SALT MARSHES: TESTING THE INFLUENCE OF SLOPE AND ORIENTATION ON THE GROWTH OF *SPARTINA ALTERNIFLORA*

D *Pamela Morgan and Fred Short, University of New Hampshire*

EFFECTS OF MARSH RESTORATION ON THE JUVENILE CHINOOK SALMON OF THE SALMON RIVER ESTUARY, OREGON

D *Cate O'Keefe, Hampshire College*

TRACE METAL CONCENTRATIONS IN THE ANNULI OF FRESHWATER OTOLITHS

D *Ryan Kerney and Cate O'Keefe, Hampshire College*

THE CURTAIN OF DEATH: PREDATION BY THE MEDUSA *CYANEA CAPILLATA* ON CTENOPHORES *PLEUROBRACHIA PILEUS* AND *MNEMIOPSIS LEIDYI*

Patricia Kremer, University of Connecticut

HISTORY OF NEW BEDFORD: ECOLOGICAL CONSEQUENCES OF URBANIZATION

Richard Voyer and Carol Pesch, U.S. Environmental Protection Agency

CONTROLLING PHRAGMITES GROWTH IN MESOHALINE TIDAL MARSHES OF THE LOWER HOUSATONIC RIVER: A FIELD TEST

Randy Chambers, Fairfield University, David Osgood and T. Winger, University of New Haven, K Dasher and J. Peabody, Fairfield University

HYDROLOGIC AND CHEMICAL CONTROL OF PHRAGMITES GROWTH IN TIDAL MARSHES

David Osgood, University of New Haven, R. Chambers, Fairfield University, and N. Kalapasev, University of New Haven

BASKET WEAVING 2001: A HANDS-ON APPROACH TO TEACHING UNDERGRADUATES ABOUT CHANGING ESTUARINE RESOURCE PATTERNS USING PHRAGMITES

Charlene D'Avanzo, Hampshire College

ESTIMATING NITROGEN LOADING TO BOSTON HARBOR AND MASSACHUSETTS BAY FROM PER CAPITA FLUSHING RATES

Wendy Leo-Smith, Massachusetts Water Resources Authority, and Scott Nixon, University of Rhode Island

NEERS-ERF VIDEO SIMULCAST FROM BLOCK ISLAND:

WAITING TO EXHALE: GULF COAST HYPOXIA INCREASES WITH METABOLIC ACTIVITY AND ANXIETY IN ANTICIPATION OF ERF '99 IN NEW ORLEANS

Nancy Rabelais, LUMCON and Angela Bassett

1500 INFLUENCE OF LONG TERM LOCAL AND GLOBAL CHANGES ON WINTERING BIRD ASSEMBLAGES IN A COASTAL AREA

K Erica Stieve and Ivan Valiela, Boston University Marine Program

1520 THE EFFECTS OF WIND-INDUCED SETUP ON TIDALLY AVERAGED VOLUME FLOW THROUGH THE SAKONNET RIVER NARROWS, NARRAGANSETT BAY

K William DeLeo, Chris Kincaid, and Rob Pockalny, University of Rhode Island

1540 MUD, MUD EVERYWHERE — INVERTEBRATE COMMUNITIES, MUD AND ENGINEERED STRUCTURES — HOW DO THEY INTERACT?

K Douglas Hodum, University of Maine

- 1600 TRACKING MARINE MORBIDITY, MORTALITY AND DISEASE IN COASTAL MARINE ECOSYSTEMS
K Benjamin Sherman, University of New Hampshire
- 1630 NEERS BUSINESS MEETING: ELECTION OF OFFICERS, VOTE ON NEERS NAME CHANGE, ETC.
- 1900-2130 NEERS AWARDS BANQUET, FOLLOWED BY DANCING TO THE FABULOUS SOUNDS OF JUMPIN' JEFF HUGHES AND THE MUD STOMPERS, HARBOR ROOM, QUALITY INN, FALMOUTH, MASSACHUSETTS

SATURDAY, October 24, 1998

SESSIONS OF CONTRIBUTED PAPERS

- 500 MANDATORY MORNING SWIM TO MARTHA'S VINEYARD AND BACK
Led by Veronica Berounsky and the U S. Coast Guard Search and Rescue Team
- 501
JUST CEBRIAN, SESSION CHAIR
- 0930 THE SIGNIFICANCE OF HYPISOGRAPHY IN MODELING PRIMARY PRODUCTION IN SHALLOW COASTAL SYSTEMS
John W. Brawley and James N. Kremer, University of Connecticut
- 0950 PAYTTTERNS IN THE SEASONALITY OF PHYTOPLANKTON BIOMASS IN COASTAL ECOSYSTEMS
Just Cebrian and Ivan Valiela, Boston University Marine Program
- 1010 USE OF AQUATIC SURFACE RESPIRATION BY *FUNDULUS HETEROCLITUS* AND *FUNDULUS MAJALIS*
Suzanne McEnroe, Purchase College, SUNY
- 1030 ~ BREAK ~
- 1050 QUANTITATIVE IMPORTANCE OF SPARTINA AND PHRAGMITES DETRITUS AND BENTHIC MICROALGAE TO ESTUARINE FOOD WEBS
Sam Wainright, Charlotte Fuller, Keith Bosley, Institute of Marine and Coastal Sciences, Rutgers University, Michael P. Weinstein, New Jersey Marine Science Consortium, Kenneth W. Able, Rutgers University Marine Field Station, and Carolyn A. Currin, NOAA/National Marine Fisheries Service
- 1110 GLOBAL CLIMATE WARMING AND ITS EFFECTS ON THE WORK OF ESTUARINE SCIENTISTS IN THE NORTHWESTERN ATLANTIC AND ITS EMBAYMENTS: THE BOULDER, COLORADO PERSPECTIVE
Larry Spencer, Natural Science Department, Plymouth State College
- 1130 CLOSING REMARKS
Scott Warren, NEERS President, Connecticut College

SATURDAY AFTERNOON FIELD TRIP:

WAQUOIT BAY NATIONAL ESTUARINE RESEARCH RESERVE

OR

TOUR OF WOODS HOLE OCEANOGRAPHIC INSTITUTION AND THE MARINE BIOLOGICAL LABORATORY