



SPRING *Online Conference*
of the
NEW ENGLAND ESTUARINE RESEARCH SOCIETY

June 4-6, 2020

Thursday June 4, 2020

NEERS Special Symposium (Part I): Long term changes in New England estuaries: A celebration of the 50th Anniversary of NEERS.

Symposium Chair (MC): **Robert Buchsbaum, Mass Audubon, Retired**
Moderator (monitors chat bar): **Tay Evans, MA Division of Marine Fisheries**
Technical support: (Works in the background to make the Zoom go smoothly):
Courtney Schmidt, Narragansett Bay Estuary Program

12:30 PM Log on early to get settled and greet colleagues
Find the link to the Zoom meeting in your meeting registration email

1:00 PM Introduction – Robert Buchsbaum, Mass Audubon, Retired

1:10 PM Alan Young

NEERS AT 50 – A HISTORICAL SYNOPSIS
Young, A.M.
NEERS Historian, Salem State University, Salem, MA.

1:40 PM Courtney E. Schmidt

A SYNTHESIS OF CASE STUDIES HIGHLIGHTING 40 YEARS OF WATER QUALITY IMPROVEMENTS IN NARRAGANSETT BAY EMPHASIZING THE CLEAN WATER ACT
Schmidt*, C.E. (1), E. Monroy (2), M. Cantwell (3), J. Bancroft (1), and J. Twichell (1)
(1) Narragansett Bay Estuary Program, Providence, RI
(2) Massachusetts Division of Ecological Restoration, Boston, MA
(3) USEPA-ORD, Narragansett, RI.

- 2:10 PM Stephen Hale
- FIFTY YEARS OF BENTHIC INVERTEBRATE STUDIES IN NARRAGANSETT BAY
Hale*, S.S. (1,2), H.W. Buffum (1) and M.M. Hughes (1)
(1) ACESD, National Health and Environmental Effects Research Laboratory, Office of Research and Development, U.S. EPA, Narragansett, RI.
(2) Retired
- 2:40 PM Michelle Staudinger
- HOW ARE CLIMATE-INDUCED SHIFTS IN PHENOLOGY EFFECTING NEW ENGLAND ESTUARIES?
Staudinger, M.D. , DOI Northeast Climate Adaptation Science Center, USGS, University of Massachusetts Amherst
- 3:10 PM Judith Pederson
- MARINE NON-NATIVE SPECIES DON'T NEED PASSPORTS: A BRIEF HISTORY OF INVASIVES IN NEW ENGLAND ESTUARIES
Pederson, J., MIT Sea Grant College Program, Cambridge, MA
- 3:40 PM Phil Colarusso
- 50 YEARS OF EELGRASS (DID EELGRASS REALLY EXIST BEFORE FRED SHORT?)
Colarusso, P. United States Environmental Protection Agency
- 4:10 PM BREAK
- 4:30 PM **NEERS Welcoming Social** – grab your virtual drink ticket and BYO to this fun gathering of old and new colleagues
- 5:30 – 6:30 PM **"Stories of our Careers"**- Panel Discussion

Friday June 5, 2020

**SPRING Online Conference
Of the
NEW ENGLAND ESTUARINE RESEARCH SOCIETY**

8:30 AM Log on early for coffee and conversation – BYO coffee

Please find the link to the meeting in your registration email

9:00 AM Welcome and President's Introductory Remarks – Susan C. Adamowicz,
Rachel Carson NWR

NUTRIENT CYCLING AND WATER QUALITY

Session Chair: Claudia Mazur, Boston University

Moderator: Courtney Schmidt, Narragansett Bay Estuary Program

*Presenter, (K) Ketchum Prize for best graduate student oral presentation

9:15 AM (K) Alia Al-Haj

ENVIRONMENTAL DRIVERS OF CARBON EMISSIONS FROM TEMPERATE
EELGRASS MEADOWS

Al-Haj*, A.N. (1) and R.W. Fulweiler (1,2)

(1) Department of Earth & Environment; Boston University, Boston, MA

(2) Department of Biology; Boston University, Boston, MA

9:30 AM Jordan Mora

WATER QUALITY TRENDS IN A CHANGING CLIMATE: LESSONS FROM
WAQUOIT BAY

Mora, J.W.

Waquoit Bay National Estuarine Research Reserve

9:45 AM BREAK

RESTORATION AND SUSTAINABILITY

Session Chair: Tay Evans, MA Division of Marine Fisheries

Moderator: Courtney Schmidt, Narragansett Bay Estuary Program

*Presenter, (K) Ketchum Prize for best graduate student oral presentation

10:00 AM
Lightning!

Ellen Bartow-Gillies

IDENTIFYING TIDAL RESTRICTIONS AND RESTRICTED SALT MARSH IN MAINE Bartow-Gillies*, E, S. Moore and C. Enterline
Maine Coastal Program, Department of Marine Resource, Boothbay Harbor, ME

10:10 AM

(K) G. McKown

LIVING SHORELINES IN NEW HAMPSHIRE: IF YOU BUILD IT, WILL THEY COME?

McKown, G* (1), McKown,G* (1), Moore, GM (1), Burdick, DM (2), Ballestero, T (3)

(1) Department of Biological Sciences, University of New Hampshire

(2) Department of Natural Resources, University of New Hampshire

(3) Department of Civil and Environmental Engineering, University of New Hampshire

10:25 AM

Slade Moore

COASTWISE: A COMPREHENSIVE APPROACH FOR CLIMATE RESILIENT AND RESTORATIVE TIDAL ROAD CROSSING DESIGN

Moore*, S.B., C.L. Enterline, E. Bartow-Gillies

Maine Coastal Program, State House Station 21, Augusta ME, 04333-0021

10:40 AM

(K) Anna Puchkoff

PLANT-SOIL RESPONSES TO EXPERIMENTAL THIN LAYER PLACEMENT IN A CONNECTICUT SALT MARSH

Puchkoff*, A.L. (1) and B.A. Lawrence (1,2)

(1) University of Connecticut, Dept. of Natural Resources and the Environment, Storrs, CT

(2) University of Connecticut, Center for Environmental Science and Engineering, Storrs, CT

10:55 AM

BREAK

CRABS AND MARSHES

Session Chair: Pam Neubert, AECOM

Moderator: Alia Al-Haj, Boston University

*Presenter, (K) Ketchum Prize for best graduate student oral presentation

- 11:10 AM A few words in memory of Elizabeth (Liz) Beverage Duff
– Robert Buchsbaum & Anne Giblin
- 11:15 AM (K) Chloe Brownlie
- EFFECTS OF A LARGE-SCALE NATURAL SEDIMENT ADDITION EVENT
ON MACROINVERTEBRATE COMMUNITIES IN NEW ENGLAND SALT
MARSHEs
Brownlie*, C. and G.E. Moore
Department of Biological Sciences, University of New Hampshire,
Durham, NH
- 11:30 AM J.M. Karberg
- SALT MARSH DIEBACK ON NANTUCKET, MA HUMANS AS CRAB
PREDATORS Karberg*, J.M.
Nantucket Conservation Foundation, Science and Stewardship
Department, Nantucket MA
- 11:45 AM Judith Weis
- RE EVALUATING ECOSYSTEM SERVICES PROVIDED BY *PHRAGMITES*
AUSTRALIS IN COASTAL ECOSYSTEMS OF THE U.S.
Weis J.S.* (1), E. Kiviat (2), and T. Mozdzer (3)
(1) Department of Biological Sciences, Rutgers University Newark NJ
(2) Hudsonia, Annandale, NY
(3) Bryn Mawr College, Bryn Mawr PA
- 12:00PM Megan Tyrrell
Lightning!
- BURROWING CRABS' INFLUENCE ON TIDAL MARSH VEGETATION
SPECIES COMPOSITION AND ABUNDANCE IN WAQUOIT BAY, MA.
Courtney, S.F. (1) and M.C. Tyrrell (2)
(1) Drexel University, Philadelphia, PA
(2) Waquoit Bay National Estuarine Research Reserve, Waquoit, MA
- 12:10 PM BREAK FOR LUNCH (12:45 – 1:15 Executive Committee Meeting)

NEW METHODS AND TECHNOLOGICAL ADVANCES

Session Chair: Ted Maney, Salem State University

Moderator: Tay Evans, Ma Division of Marine Fisheries

*Presenter, (K) Ketchum Prize for best graduate student oral presentation

1:30 PM
Lightning!

Alison Watts

ENVIRONMENTAL DNA – FOUR FUN THINGS YOU CAN DO WITH eDNA IN ESTUARIES, AND ONE THING YOU CAN'T. Watts, A. (1)*, D. Thomas (1), J. Goldstein (2) L. Crane (2) C. Peter(3)
(1) University of New Hampshire
(2) Wells National Estuarine Research Reserve
(3) Great Bay National Estuarine Research Reserve

1:40 PM
Lightning!

Jackie Collier

A SIMPLE METHOD TO DETECT AND IDENTIFY LABYRINTHULOMYCETES FROM ESTUARINE SAMPLES
Collier*, J.L., L. Halligan, S. Antonawich, C. Bricault, and S. Geraci-Yee
School of Marine and Atmospheric Sciences, Stony Brook University,
Stony Brook, NY

1:50 PM
Lightning!

(K) Andrew Robinson

A LOW-COST RADIO-TRACKED DRIFTER SYSTEM: DESIGN AND APPLICATIONS FOR COASTAL OCEANOGRAPHY
Robinson*, A.R. (1), C. Tilburg (1), M. Esty (2)
(1) School of Marine Programs, University of New England, Biddeford, ME
(2) P.D. Merrill Makerspace, University of New England, Biddeford, ME

2:00 PM

Michael Jakuba

TIDERIDER: TOWARD A \$1000 PROFILING FLOAT
Jakuba*, M.V. and J.W. Partan
Applied Ocean Physics and Engineering Department, Woods Hole
Oceanographic Institution, MA

2:15 PM

Savannah Judge

SEMI-AUTOMATED METHOD FOR PLANKTON RESEARCH AND MONITORING IN U.S. ESTUARIES
Judge*, S.C., H. Nelson, F. Buerkens
Fluid Imaging Technologies, Scarborough, ME

2:30 PM

(K) Sean Terrill

VIDEO IMAGERY TO AUGMENT BENTHIC MACROINVERTEBRATE
SURVEYS AND MAP BIOTOPES

Terrill, S., Mittermayr, A., Legare, B., Borrelli, M. The Center for
Coastal Studies, Provincetown, MA; School for the Environment,
University of Massachusetts Boston, Dorchester, MA

2:45 PM –
3:15 PM

NEERS Business Meeting

5:00 PM Online game night – Log back into the conference with the same link for a fun,
virtual, trivia game hosted by Walter Berry!

NEERS online conference continues...

Saturday June 5, 2020

8:30 AM – Welcome and President’s remarks, Susan C. Adamowicz, Rachel Carson NWR

Please find the link to Saturday’s sessions in your registration email

BIVALVES AND THE THINGS THAT EAT THEM

Session Chair: Pam Neubert, AECOM

Moderator: Abigail Neubert, High School Student

*Presenter, (K) Ketchum Prize for best graduate student oral presentation

8:45 AM (K) Sabrina Geraci-Yee
TAKING THE “X” OUT OF QPX (QUAHOG PARASITE UNKNOWN), A
PARASITE OF THE HARD CLAM: A MICROCOSM EXPERIMENT

Geraci-Yee*, S., J.L. Collier, and B. Allam
School of Marine and Atmospheric Sciences, Stony Brook University,
Stony Brook, NY

9:00 AM (K) Melenia Giakoumis

GENOMIC DATA REVEAL INTROGRESSION IN ATLANTIC SEA-STARS
Giakoumis, M.I. (1,2) and M.J. Hickerson (2)
(1) The Graduate Center, City University of New York. New York, NY
(2) Department of Biology, The City College of New York. New York, NY

9:15 AM J. Stephen Gosnell

PREDATOR PRESENCE REDUCES OYSTER CONTRIBUTIONS TO
DENITRIFICATION BUT NOT GROWTH OR BIODEPOSITION
Gosnell*, J.S. (1,2) and J. Zhu (2,1)
(1) Department of Natural Sciences, Baruch College CUNY, 17
Lexington Avenue, Box A-920, New York, NY 10010
(2) PhD Program in Biology, The Graduate Center of the City University
of New York, 365 Fifth Avenue, Room 4315, New York, NY 10016

9:30 AM (K) Jennifer Zhu
RIBBED MUSSELS CONTINUE TO FEED AND BIODEPOSIT IN THE PRESENCE OF INJURED CONSPECIFICS AND PREDATORS
Zhu*, J. (1,2) and J.S. Gosnell (2,1)
(1) PhD Program in Biology, The Graduate Center of the City University of New York, NY
(2) Department of Natural Sciences, Baruch College CUNY, NY

9:45 AM BREAK

NEERS Special Symposium (Part II): Long term changes in New England estuaries: A celebration of the 50th Anniversary of NEERS.

Symposium Chair: Anne Giblin, Woods Hole Marine Biological Laboratories
Moderator: Courtney Schmidt, Narragansett Bay Estuary Program

10:00 AM Ron Rozsa
LONG TERM VEGETATION CHANGE AT BARN ISLAND, CT
Rozsa, R* (1) and Warren, R.S.(2)
(1) retired Plant Ecologist, Ashford, CT; (2) Professor Emeritus, Connecticut College, CT.

10:30 AM David Burdick and Susan Adamowicz
CHALLENGES FOR SCIENCE AND MANAGEMENT OF ESTUARINE MARSHES OVER 50 YEARS AT NEERS
Burdick*, D.M. (1) and Adamowicz*, S.C. (2)
(1) Jackson Estuarine Laboratory, University of New Hampshire
(2) Rachel Carson NWR, US Fish and Wildlife Service

11:00 AM BREAK

11:15 AM Sandy Macfarlane
SHELLFISH AND NEERS: A FIFTY-YEAR EVOLUTION OF OUR INTERACTION WITH THESE SUCCULENT SHELLED CREATURES
Macfarlane*, S.
Coastal Resource Specialists

11:45 AM Paul E. Stacey

A PRACTITIONER'S PERSPECTIVE ON THE HISTORY OF ESTUARINE
MANAGEMENT IN NEW ENGLAND Stacey, P.E.
Footprints In The Water LLC, Moodus, CT.

12:15 PM Student Awards - Sara Grady, North and South River Watershed
Association

12:30 PM Meeting adjourn