

Draft Program for 9th BoFEP Workshop (Revised September 21, 2011)

September 27 (Tuesday)

- 18:30 Workshop registration open; poster/display set up
19:30 Workshop opening reception

September 28 (Wednesday)

- 8:00 Registration open. Poster/display set up
8:30 Welcome and opening of Workshop (P.G. Wells and Tim Vickers)
8:45 9:30 **Plenary Session** (Marsh Creek Restoration Initiative - Tim Vickers)

Session A - Intertidal biodiversity and ecology

Chair: Gerhardt Pohle

- 9:40 A1 Monitoring Marine Biodiversity: Testing the Effects of the Substrate of a Site on Recruitment in Cobble-Filled Collectors. *Lauren Ellis, Rémy Rochette and Heather Hunt*
- 10:00 A2 Variability in Taxonomic Diversity of Epifauna at Two Spatial Scales in the Shallow Rocky Sub-tidal Zone of the Southwestern Bay of Fundy. *Brent M. Wilson, H. Hunt and R. Rochette*
- 10:20 A3 Mercury Methylation and Demethylation by the Polychaete Worm *Nereis diversicolor* in Intertidal Mudflats of the Minas Basin. *Tom Sizmur, S. Edmonds, A. Godfrey, J. Canário, and N. O'Driscoll*
- 10:40 Nutrition break - view posters/displays
- 11:10 A4 Winter Population Dynamics of *Corophium volutator* on Mudflats of the Upper Bay of Fundy, New Brunswick, Canada. *Kelan G. Kennedy, Myriam Barbeau, and David Drolet*
- 11:30 A5 Diurnal and Nocturnal Foraging Behaviours of Staging Semipalmated Sandpipers in the Upper Bay of Fundy. *Melissa A. Hebert, Jenna T. Quinn and Diana J. Hamilton*
- 11:50 A6 An Overview of Food Habits and Foraging Behaviour of Semipalmated Sandpipers in the Upper Bay of Fundy: is *Corophium* Still the Key? *Diana J. Hamilton, Jenna T. Quinn, Matthew G. Ginn, and Elizabeth C. MacDonald*

Session B - Human Impacts - tidal power/climate change/Aquaculture.

Chair: Peter Fenety

- B1 Gaps, Challenges & Opportunities for Researching the Environmental Impacts of Tidal Energy in the Bay of Fundy. *Lisa Isaacman and Anna M. Redden*
- B2 Potential Far Field Effects of Tidal Energy Extraction on Intertidal Ecosystems of the Bay of Fundy. *Danika van Proosdij, Casey O'Laughlin, Tim Milligan and Ryan Mulligan*
- B3 Shorezone Characterization for Climate Change Adaptation in the Bay of Fundy. *Barbara Pietersma and Danika van Proosdij*
- Nutrition break - view posters/displays
- B4 The Application of Airborne & Ground-based Laser Scanning to Coastline Analysis (Flood Risk & Erosion) around the Bay of Fundy. *Tim L. Webster, K. McGuigan, C. MacDonald, and N. Crowell*
- B5 Climatic Change Adaptation Measures for Greater Moncton Area, New Brunswick, Canada. *Jacques Paynter*
- B6 Spatial and Temporal Analysis of Storm Surge Flooding of Dykelands in the Bay of Fundy. *M. Fedak, D. van Proosdij and T. Webster*

- 12:10 A7 *Discussion Intertidal Biodiversity and Ecology*
- 12:30 Lunch - on your own
- 14:15 **Field Trip to Marsh Creek**
Leader: Tim Vickers
- 17:30 Supper - on your own
- 19:30 Informal meetings of Working Groups *(if required)*

- B7 Temporal and Geographic Trends in Annual Environmental Monitoring Results at Salmon Farms in Southwestern New Brunswick, Bay of Fundy, 2002-2010. *B.D. Chang and F.H. Page*

Lunch - on your own

Mini Workshop - "Ecosystem Indicator Tools for the Gulf of Maine - a Hands-on Learning Experience". *Christine Tilburg, Susan Russell-Robinson and Kathryn Parlee*. [Registration required - limited number of participants - bring your own laptop]

September 29 (Thursday)

- 8:00 Registration open
- Session C - Salt Marsh/Mudflat Dynamics and Restoration**
Chair: *Jeff Ollerhead*
- 8:40 C1 Intertidal Energy and Sedimentation in the Bay of Fundy, Nova Scotia, Canada. *Casey O'Laughlin and Danika van Proosdij*
- 9:00 C2 Sedimentary Dynamics within a Hypertidal Salt Marsh and Tidal Creek System. *Emma Poirier, Danika van Proosdij and Casey O'Laughlin*
- 9:20 C3 A Conceptual Model for Determining Coastal Vulnerability in a Macrotidal Environment. *Jeremy Tibbetts, Danika van Proosdij, Don Forbes and Philip Giles*
- 9:40 C4 A Bay of Fundy Salt Marsh Restoration at Aulac, NB – The First Year. *Jeff Ollerhead*
- 10:00 C5 Ecological Re-engineering of a Freshwater Impoundment for Salt Marsh Restoration in a Hypertidal System. *Tony M. Bowron, D. van Proosdij, J. Lundholm, N. Neatt and J. Graham*
- 10:20 Nutrition break - view posters/displays
- Session C - Salt Marsh/Mudflat Dynamics and Restoration (continued)**
Chair: *Jeff Ollerhead*

Session D - Managing Coastal and Marine Information

- Chair:** *Michael Butler*
- D1 Atlas in the Clouds: New Methods of Environmental Knowledge Dissemination in the Age of Social Media. *Graeme Stewart-Robertson*
- D2 Organizational Visibility on the Internet through COINAtlantic. *Paul Boudreau, Andrew Sherin and Alexi Westcott*
- D3 A Physiographic Classification of the Nova Scotia Coastline. *M.E. Greenlaw, A.G. Gromack, S. Basquill, D.L. Forbes, J. Hackett, A. Lynds, D. MacKinnon, R.B. Taylor, D. Utting and J. Grant*.
- D4 Coastal and Ocean Management: User Tasks and Archetypes when Searching for Information. *Samantha A. Dutka, Jennifer D. Weldon, and Elaine G. Toms*
- D5 Measuring Awareness, Use and Influence of Marine Environmental Information – Results of Two Case Studies from Coastal Nova Scotia and the Gulf of Maine/Bay of Fundy. *Suzette S. Soomai, B.H. MacDonald, P.G. Wells*.

Nutrition break - view posters/displays

Session E - Conservation and Ecology of Estuarine Fish

Chair: *Jonathan Carr*

- 10:50 C6 The Influence of Drainage Network and Morphological Features on the Vegetation Recovery Pattern of a Macro-tidal Wetland Restoration Project. *Ben Lemieux, D. van Proosdij, J. Lundholm and T. Bowron*
- 11:10 C7 Tidal Creek Hydraulic Geometry for Salt Marsh Restoration in the Upper Bay of Fundy. *Jennifer Graham, D. van Proosdij, J. Lundholm and T. Bowron*
- 11:30 Discussion on salt marsh dynamics, ecology and restoration in the BoF
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12:10 Lunch - on your own

Session F - Aquatic Health and Monitoring

Chair: *Gary Bugden*

- 14:00 F1 State the Gulf of Maine Report. *Melanie MacLean*
- 14:20 F2 Overview of Contaminants in the Bay of Fundy. *Gareth Harding*
- 14:40 F3 An Ecological Risk Assessment of Mercury and DDT for the Bay of Fundy. *Angella Mercer and Karen A. Kidd*
- 15:00 F4 Implications of the Deepwater Horizon Oil Blowout (Gulf of Mexico) to Oil Spill Preparedness and Research in Atlantic Canada, especially the Gulf of Maine and Bay of Fundy. *P. G. Wells*
- 15:20 F5 Modeling of Fecal Bacteria in Annapolis Basin Watersheds, Nova Scotia. *S. Butler, T. Webster, N. Crowell, W. Livingstone, G. Rose*
- 15:40 Nutrition break - view posters/displays

Session F - Aquatic Health and Monitoring (continued)

- 16:10 F6 Determination of *Escherichia coli* Decay Rates for Application in a Water Quality Forecast Model for the Annapolis Basin, Nova Scotia, Canada. *Shalon O. MacLellan, J. Rand, T. Webster, A. Redden, M. Brylinsky and N. Crowell*

- E1 Assessment of American eels in Fundy National Park: Evaluation of approaches for surveying elvers. *D. Austin, D.F. Mazerolle and A.C. Plummer*
- E2 Using Acoustic Telemetry to Track the Movements of Alewives (*Alosa pseudoharengus*) in a Freshwater and Coastal Zone. *Jonathan W. Carr*
- E3 Modeling the Dispersal of Shortnose Sturgeon Larvae in the Saint John River, NB, Canada. *Sima Usvyatsov, Jeffrey Picka, Andrew Taylor, James Watmough and Matthew K. Litvak*
- E4 Movement Patterns and Habitat use of Atlantic Sturgeon, *Acipenser oxyrinchus*, from the Saint John River, New Brunswick, Canada. *Andrew D. Taylor and M.K. Litvak*
- Lunch - on your own

Session E - Conservation and Ecology of Estuarine Fish (continued)

Chair: *Jonathan Carr*

- E5 Movement, Behaviour and Diet of Atlantic Sturgeon (*Acipenser oxyrinchus*) Tagged with Acoustic Transmitters in the Minas Basin, Bay of Fundy. *Montana F. McLean, M.J.W. Stokesbury and M.J. Dadswell*
- E6 Effects of saltwater exposure on juvenile shortnose sturgeon. *Faith M. Penny and J.D. Kieffer*
- E7 Small scale movements of *Microgadus tomcod*, tomcod at Musquash, a Marine Protected Area in the Bay of Fundy Canada. *Ingeborg M. Mulder David A. Methven Jonathan W. Carr*
- E8 Shubenacadie River Striped Bass Egg, Larvae and Juvenile Abundance. *Gina M. Stewart and Jim Duston*
- E9 Conservation Biology and Ecology of Cusk, *Brosme brosme*, in the Bay of Fundy and Scotian Shelf. *Dean P. Pelletier and D.A. Methven*
- Nutrition break - view posters/displays

Session E - Conservation and Ecology of Estuarine Fish (continued)

- E10 Conservation Implications of Human-Induced Changes to Diadromous Fish Populations in the Avon River, Bay of Fundy. *Lisa Isaacman and Karen Beazley*

- 16:30 F7 Integrated Watershed Water Quality Forecasting System for the Annapolis Basin, Nova Scotia, Canada. *N. Crowell, T. Webster, S. Butler, W. Livingstone and G. Rose*
- 16:50 F8 Watershed Health and Monitoring – Turtle Creek Watershed. *Heather E. Hawker*
- 17:10 F9 Assessing Aquatic Connectivity in the Annapolis River Watershed and Nova Scotia. *Monik Richard, Levi Cliche, Amy Weston*
- 18:30 Workshop Banquet - Guest speaker Jonathan Smith of Blue Legacy International - "*From Runoff to Renewal...a Watershed Moment*"

- E11 Musquash Estuary, Marine Protected Area (MPA) Fish Surveys for the Development of a Biodiversity Baseline. *Erinn Ipsen, David Methven, Simon Courtenay*
- E12 Restoring Fish Passage to the Moose River Through the Removal of the Clementsport Dam. *Monik Richard, Andy Sharpe*
- E13 The Key Elements of Ecosystem-Based Management and an Assessment of their Application in 3 Fisheries in the Bay of Fundy, Canada. *Rachel D. Long, Tony Charles, and Robert L. Stephenson*

September 30 (Friday)

- 8:00 Registration open
- Session G - Productivity of Anthropogenic Structures in the Coastal Zone**
Chair: Simon Courtenay
- 8:30 G1 Rocky Breakwaters do not Offer the Same Quality of Habitat for Benthic Intertidal Biota as Natural Rocky Environments. *Jordan Musetta-Lambert, Elise Keppel, Ricardo Scrosati, Marc Skinner, Paul MacDonald and Simon*
- 8:50 G2 Effects of Wharf and Breakwater Construction on Coastal Fish Habitat: Net Loss or Net Gain? *Robert Gregory, Corey Morris, and Dan Porter*
- 9:10 G3 Small Craft Harbours, a Boon or a Bane for Coastal Marine Ecosystems? Some Preliminary Observations. *Steve Macdonald, Steve Tang and Herb Herunter*
- 9:30 Nutrition break
- Session H - Management, Planning and Conservation**
Chair: Ashley Sprague
- 9:50 H1 The International Ocean Institute - Canada: Promoting the Bay of Fundy. *Michael J.A. Butler and Claudette LeBlanc*
- 10:10 H2 Revisiting the Role of Integrated Resource and Environmental Management in the Bay of Fundy Ecosystem. *Martin S. Tango*
- 10:30 H3 Tools for Healthy Watersheds: What We Heard from Municipal Planners Around the Bay of Fundy. *Ashley Sprague and Jennifer Graham*
- 10:50 Discussion - How can we work with planners? *Led by Ashley Sprague*
- 11:30 Plenary Synthesis panel discussion? and Wrap Up (*Tim Vickers and P.G. Wells?*)

Session I - Marine Protected Areas

- Chairs: Maxine Westhead & Rodrigo Menafrá**
- I1 Science-based Guidelines for Marine Protected Areas and MPA Networks in Canada. *Rodrigo Menafrá*
- I2 Marine Protected Area Planning in the Bay of Fundy: Current Status and Outlook to the Future. *Maxine C. Westhead, Derek Fenton, Marty*
- Panel and discussion about MPAs in Fundy
- Panel and discussion about MPAs in Fundy

Poster Presentations

- 1 The Influence of Tidal Creek Networks on Wetland Vegetation Colonization in a Macro-tidal System . Alison Bijman, J. Lundholm, *and T. Bowron*
- 2 Conceptualizing Knowledge Worker's Tasks in the Coastal and Ocean Management Field. *Samantha A. Dutka*
- 3 Time-series of Coastal Zooplankton Abundance from Several Maritime Counties. *Frederick J. Fife and Kate E. Malone*
- 4 Factors to Consider in Evaluating the Management and Conservation Effectiveness of a Marine Protected Area for the North Atlantic Right Whale (*Eubalaena glacialis*). *P.R. Hinch and E.M. De Santo*
- 5 A 20 Year Overview of Gulfwatch - A Contaminants Monitoring Program in the Gulf of Maine and Bay of Fundy Utilizing the Blue Mussel, *Mytilus edulis*. *S.H. Jones, G.C.H. Harding, P. G. Wells, and Gulfwatch members.*
- 6 Awareness, Use, and Influence of Coastal and Marine Environmental Information: Case Studies of Governmental and Intergovernmental Organizations. B.H. MacDonald, P.G. Wells, S.S. Soomai, D.M. Cossarini, R.E. Cordes, G.R.G. Hutton, C.E. Delan1, & E.M. De Santo
- 7 Considerations in the Use of High Resolution, Low-altitude Aerial Photography for Coastal Wetland Restoration. *Nancy Neatt, B. Lemieux, G. Baker, D. van Proosdij and T. Bowron*
- 8 An Investigation of Cyanobacteria Dynamics in Two Prominent New Brunswick Lakes, Lake Utopia and Chamcook Lake. *Agata Pawlowski and Rebecca Mersereau*
- 9 10. Comparison of Grain Size Determination Using Coulter Laser Diffraction and Coulter Electrical Sensing Zone Method for Salt marsh Restoration Monitoring. *Christa Skinner and Danika van Proosdij*
- 10 An Overview of the DFO/Fishermen and Scientists Research Society Lobster Collector Project. *Tricia Pearo and John Tremblay*
- 11 Fishermen and Scientists Research Society Lobster Recruitment Index from Standard Traps (LRIST). *Shannon Scott-Tibbets.*

- 12 Using OBIS for the Bay of Fundy: a web portal for marine biogeography data.
Mary Kennedy and Claude Nozères
- 13 Predation Effects on Juvenile Invertebrates in Two Rocky Subtidal
Communities. *Betsy L. Barber and Heather L. Hunt*