

The Atlantic Salmon Ecosystems Forum

Are we moving the needle?

January 17-18, 2018
Orono, Maine USA
University of Maine, Wells Conference Center

Donations making the 2018 ASEF possible
were generously provided by the following:



*Recognizing the International Year of the Salmon (core) in 2019,
watch for activities beginning in 2018 and extending into 2020*



Begin End

11:35 11:50 Habitat condition changes and biological implications for Atlantic salmon at sea
- *Katherine E. Mills, Gulf of Maine Research Institute*

11:50 12:05 Impacts of a changing ecosystem on Atlantic salmon growth
- *Felix Massiot-Granier, Gulf of Maine Research Institute*

In memorium - Jed Wright, United States Fish and Wildlife Service

12:05 13:20 **LUNCH** - *lunch at the Student Union (not provided)*

Session II: Estuarine and Marine Ecology

Patrick Dockens, Wildlife Biologist, US Fish and Wildlife Service, Moderator

13:20 13:35 Using otolith microchemistry to infer habitat use of American shad prior to dam removal in the Penobscot River, Maine
- *Kevin Job, University of Maine, Department of Wildlife, Fisheries and Conservation Biology*

13:35 13:50 Verification of circulus deposition rates in Atlantic salmon (*Salmo salar*) smolts from three Maine rivers
- *Erin Peterson, University of Maine, Department of Wildlife, Fisheries and Conservation Biology*

13:50 14:05 Estimating annual consumption rate of Atlantic salmon smolt (*Salmo salar*) by striped bass (*Morone saxatilis*) in the Miramichi Estuary
- *Jason Daniels, Atlantic Salmon Federation*

14:05 14:20 The problem may not be where we think it is: A critical review of the critical period hypothesis in salmon
- *Marc Trudel, Fisheries and Oceans Canada, St. Andrews Biological Station & University of Victoria, Department of Biology*

14:20 14:35 Relating fluctuations in fish abundance to river restoration efforts and environmental conditions in the Penobscot River, Maine
- *Gayle B. Zydlewski (for Constantin C. Scherelis), University of Maine, School of Marine Sciences*

14:35 14:50 Partitioning the big blue box: A synthesis of marine and estuary action team science
- *John F. Kocik, ASERT Chief, NOAA-Fisheries, Northeast Fisheries Science Center of Biology*

14:50 15:30 **BREAK** - *refreshments provided*

Session III: Habitat Restoration, Conservation and Management
Patrick Dockens, Wildlife Biologist, US Fish and Wildlife Service, Moderator

Begin	End	
15:30	15:45	Status Update: three years of restoration and project development using the NOAA Penobscot habitat focus area grant - <i>Jeremy Bell, The Nature Conservancy</i>
15:45	16:00	Prioritizing barriers to aquatic connectivity in the Penobscot River watershed - <i>Erik H. Martin, The Nature Conservancy</i>
16:00	16:15	Restoring riverine habitat in the upper Narraguagus watershed - <i>Joan G. Trial, Project SHARE</i>
16:15	16:30	PIT-tagged particle study of bed mobility on the Narraguagus River - <i>Douglas M. Thompson, Connecticut College, Environmental Studies Program</i>
16:30	16:45	Maine Atlantic Salmon in-lieu fee program for compensatory mitigation - <i>Ruth M. Ladd, US Army Corps of Engineers</i>
16:45	17:00	The Maine Atlantic salmon programmatic (MAP) for transportation projects: a success story for consultation process streamlining and ecological benefits - <i>Eric Ham, Maine Department of Transportation</i>
17:00	19:00	Poster Session and Social - <i>refreshments provided, beer and wine are available</i>
19:00		An evening with George Pess, NOAA-Fisheries, Northwest Fisheries Science Center: An informal presentation and slideshow of the Elwha River Restoration Project - <i>Black Bear Brewing Co.</i>

Poster Presentations

Watershed-scale connectivity analysis: An applied GIS model towards the strategic management of barriers to Atlantic salmon migration

- *Michael Arsenault, University of New Brunswick, Department of Biology*

Optimizing strategies to hydraulically plant Atlantic salmon eggs based on fry dispersal patterns

- *Ernie Atkinson, Maine Department of Marine Resources*

International Year of the Salmon

- *Kristen Bronger, Integrated Statistics, Woods Hole, MA (Duty Station is GARFO)*

Incorporating geomorphology and applying large wood science and channel design in habitat restoration

- *Michael Burke, Interfluve*

Lipid content of Atlantic salmon (*Salmo salar* L.) sampled at West Greenland

- *Audrey Dean, University of Waterloo, Department of Biology*

Comparative analysis of estuarine fish diets after restoration of Alewife populations in Penobscot River Watershed

- *Emma Dennison, University of Southern Maine, Department of Environmental Science and Policy*

The effects of post-surgical recovery time and time of day release on the performance and survival of emigrating Atlantic salmon (*Salmo salar* L.) smolts from the Miramichi River

- *Heather J. Dixon (Eric B. Brunsdon presenting), The Atlantic Salmon Federation*

Temporal change and variation in marine growth of North American Atlantic salmon sampled from West Greenland

- *Brandon C. Ellingson, Biologist, Integrated Statistics, Woods Hole, MA*

Getting Over the Dam: Overcoming institutional barriers to the recovery of Atlantic salmon by navigating the social-science/policy interface

- *Melissa E. Flye, University of Maine, Department of Ecology and Environmental Science*

Alternative aging methods for Atlantic Sturgeon: Research to improve management of a pre-historic natural resource

- *Tarren Giberti, University of Maine, School of Marine Sciences*

Prey availability and diet of Sturgeon in the Gulf of Maine

- *Rachel Howland, University of Maine, Department of Marine Science*

Effects of alewife predation on zooplankton communities in three Maine lakes

- *Ericka A. Hutchinson, University of Southern Maine, Department of Environmental Science and Policy*

Evaluating morphometric techniques to determine sex of Shortnose Sturgeon in the Penobscot River, Maine

- *Samantha Nadeau, University of Maine, School of Marine Science*

Developing an ecosystem-based fisheries management framework for the Eastern Maine Coastal Current

- *Joshua Stoll, University of Maine and Maine Center for Coastal Fisheries*

Artificial selection on reproductive timing in hatchery salmon drives potential maladaptation to warming waters

- *Michael D. Tillotson, University of Washington School of Aquatic and Fishery Sciences*

Where did all the salmon go? The combined impacts of acid rain and forestry are preventing Atlantic salmon recovery in Downeast Maine

- *Mark C. Whiting, Downeast Salmon Federation*

Reducing Acidification in Endangered Atlantic Salmon (*Salmo salar*) Habitat

- *Emily Zimmermann, Maine Department of Environmental Protection*

Begin End January 18, 2018

7:00 8:00 **REGISTRATION** – refreshments provided

Session IV: Emerging Partnerships

Joshua Royte, Senior Conservation Scientist, The Nature Conservancy, Moderator

- 8:05 8:20 The importance of effective partnerships to aquatic restoration efforts
- Benjamin Naumann, U.S. Department of Agriculture - Natural Resources Conservation Service
- 8:20 8:35 An update on the species in the spotlight initiative for Atlantic salmon
- Julie Crocker, Acting Assistant Regional Administrator of Protected Species, NOAA-Fisheries, Greater Atlantic Regional Fisheries Office
- 8:35 8:50 The Atlantic salmon research joint venture - “Shaping the future of wild Atlantic salmon science and conservation”
- Patricia Edwards, Department of Fisheries and Oceans, Gulf Region Fisheries Centre
- 8:50 9:05 International year of the salmon – why it matters for Maine
- Kimberly Damon Randall, Acting Deputy Regional Administrator, NOAA-Fisheries, Greater Atlantic Regional Fisheries Office
- 9:05 9:20 The World Fish Migration Foundation
- Joshua Royte, The Nature Conservancy
- 9:20 10:00 Developing, maintaining, and sustaining lasting partnerships (*Discussion*)
- Josh Royte, The Nature Conservancy
- 10:00 10:40 **BREAK** - refreshments provided

Session V: Tracking and Telemetry

Daniel McCaw, Fisheries Program Manager, Penobscot Indian Nation, Moderator

- 10:45 11:00 System-wide survival of downstream-migrating Atlantic salmon smolts in the Penobscot River, Maine
- Alejandro Molina-Moctezuma, University of Maine, Department of Wildlife, Fisheries, and Conservation Biology
- 11:00 11:15 Behavioral and physical factors influence migratory success of sockeye salmon smolts in a high-risk landscape
- Nathan B. Furey, University of New Hampshire, Department of Biological Sciences
- 11:15 11:30 Movement and behavior of acoustic tagged Alewife in the Concord and Merrimack River (*Alosa pseudoharengus*)
- Michael Bailey, US Fish and Wildlife Service – CNE Fishery Resources Office

Begin	End	
11:30	11:45	Radio-tracking wild and SAS Atlantic salmon in the Northwest Miramichi River - <i>Ryan Carrow, University of New Brunswick, Canadian Rivers Institute</i>
11:45	12:00	Space matters: effects of a conservation translocation program on Atlantic salmon size-at-age - <i>Danielle Frechette, Institute National de Recherche Scientifique, Centre Eau Terre Environnement, Québec</i>
12:00	12:15	Post-spawned Atlantic salmon (<i>Salmo salar</i>) overwinter behaviour and spring migration in relation to the large reservoir of the Mactaquac Generation Station, NB, Canada - <i>Amanda Babin, University of New Brunswick, Canadian Rivers Institute</i>
12:10	13:30	LUNCH - lunch at the Student Union (not provided)

Session VI: Freshwater Ecology

*Daniel McCaw, Fisheries Program Manager, Penobscot Indian Nation, **Moderator***

13:30	13:45	Monitoring the Atlantic Salmon (<i>Salmo salar</i>) run in the Miramichi River using imaging sonar – first full monitoring season 2017 - <i>Jani Helminen, University of New Brunswick, Canadian Rivers Institute and Department of Biology</i>
13:45	14:00	Habitat selection by juvenile Atlantic salmon (<i>Salmo salar</i>) using a functional regression model - <i>Jeremie Boudreault, Université du Québec, INRS-ETE</i>
14:00	14:15	Water temperature in a changing climate: the response of juvenile Atlantic salmon populations across Eastern Canada - <i>Sébastien Ouellet-Proulx, Institut de la Recherche Scientifique – Centre Eau Terre Environnement, Quebec</i>
14:15	14:30	Population characteristics of sub-adult Atlantic sturgeon (<i>Acipenser oxyrinchus</i>) in the Penobscot River, Maine - <i>Catlin Ames, University of Maine, School of Marine Sciences</i>
14:30	14:45	An overview of 12 Years (2006 – 2017) of sturgeon research on the Penobscot River - <i>Kevin Lachapelle, University of Maine, School of Marine Science</i>
14:45	15:00	“Closing the Loop”: Anadromous sea lamprey carcasses influence larval conspecifics - <i>Daniel M. Weaver, University of Maine, Department of Wildlife, Fisheries and Conservation Biology</i>
15:00	15:35	BREAK – refreshments provided

Session VII: Long Term Strategy and Monitoring

*Daniel McCaw, Fisheries Program Manager, Penobscot Indian Nation, **Moderator***

- 15:35 15:50 Fish passage at hydropower dams on the Penobscot and Kennebec Rivers: A content analysis of the FERC eLibrary Database
- Sarah Vogel, University of Maine, Department of Wildlife, Fisheries, and Conservation Biology
- 15:50 16:05 Acid rain mitigation and complementary initiatives lead to encouraging signs of Atlantic salmon recovery
- Edmund A. Halfyard, The Nova Scotia Salmon Association
- 16:05 16:20 Atlantic salmon in Maine: Assessment of temporal and spatial genetic diversity, and how genetic data is used for to help inform restoration activities in the hatchery and natural environment
- Meredith L. Bartron, US Fish and Wildlife Service - Northeast Fishery Center
- 16:20 16:35 Applying eDNA tools to salmon ecosystems
- Michael T. Kinnison, University of Maine - School of Biology and Ecology
- 16:35 16:50 A collaborative model for Atlantic salmon recovery in Fundy National Park of Canada
- Corey Clarke, Parks Canada - Fundy National Park
- 16:50 16:55 **Student Awards**
*- Karen Wilson, Associate Research Professor, Department of Environmental Science and Policy, **Award Presenter***
- 16:55 17:00 **Closing Remarks**
- Sean Hayes, Protected Species Branch Chief, NOAA-Fisheries, Northeast Fisheries Science Center

ADJOURN