

## Atlantic Salmon Science Outreach: Peers, Partners, and Public

The Atlantic Salmon Research and Conservation Task (ASRCT) has engaged with diverse audiences in numerous communications, outreach, and education. Our primary goal is to raise awareness of Atlantic salmon and their associated ecosystems and promote the stewardship of healthy rivers, estuaries, and oceans. Audiences vary and range from school-age children to the general public to multidisciplinary groups of scientists and resource managers. Outlets range from small, targeted audiences (e.g., classroom presentations and conferences) to mass media (e.g., television interviews, press releases). Feedback has routinely been positive and continues with requests for ASRCT participation in future events.

Since 2002 NOAA Fisheries has sponsored a biennial Atlantic salmon research forum with the goal of *bringing together researchers, managers and stakeholders* to discuss recent advances and emergent issues in conservation, management, and restoration of the species. Over twelve years, the **Atlantic Salmon Ecosystems Forum (ASEF)** has grown in scale from a 15-presentation meeting dedicated almost exclusively to Atlantic salmon to a 40-presentation, 11-poster meeting, with a keynote and invited presentations and panel discussions on diverse topics pertaining to a suite of diadromous and marine species. Once sponsored exclusively by NEC, the 2014 conference sponsorship and coordination has grown to include partners from both NEC and GARFO and sponsors including Project SHARE, the Diadromous Species Restoration Research Network, the U.S. Fish and Wildlife Service, The Nature Conservancy, and The Atlantic Salmon Federation. As the meeting evolved to broad-scope ecosystem conference, the ASEF now draws a diverse array of participants including government researchers and managers (state, federal, tribal), non-government conservation and restoration organizations, university professors and students, industry representatives and landowners (forestry, timber, paper, energy, transportation, aquaculture), as well as the general public. In 2014, with over 165 participants, this meeting facilitated exchanges on novel research results, restoration techniques, ideas and concepts pertaining to improving management, conservation and restoration of diadromous species throughout Northwest Atlantic watersheds and coastal waters. The 2014 ASEF agenda, program, and presentation abstracts are available at [atlanticsalmonforum.org](http://atlanticsalmonforum.org) and in Renkawitz and Trinko (In Press). A press release was issued by the NEC upon the conclusion of the conference (Dawicki 2014) highlighting the central themes of the delivered presentations. Archives of the first 10 years of meetings were compiled by MacLean ([2012](#)) in a Center Reference Document.

Numerous **web-based information products** have been issued highlighting NEC protected species research related to Atlantic salmon. Primary among these is the [task website](#) which provides information on Atlantic salmon biology and recovery program and highlights of Northeast Salmon Team activities. Other news media has also highlighted our work including: the listing of the Gulf of Maine Atlantic salmon Distinct Population Segment as “endangered”

under the Endangered Species Act; the expansion of the Gulf of Maine Distinct Population Segment ([Fradley 2009](#)); NEC partnerships with international researchers studying the high seas movement patterns of Atlantic salmon at Greenland (Dawicki 2012); and high priority domestic and international research and management issues, including low marine survival, the importance of river restoration, and international governance (International Affairs 2013). One of the more innovative web pages contains animations of salmon migration data created by a NOAA Office of Education Hollings Scholar ([Lowder 2015](#)).

The ASRCT also engages with several **natural resource stakeholders** and managers including the Maine Fisherman's Forum, various watershed councils, the Maine chapter of American Association of General Contractors, and the New Hampshire Department of Environmental Services Dredge Management Task Force in Maine and New Hampshire to relay topical information to promote conservation and restoration of diadromous species and the habitats they utilize.

Finally, organizing **outreach activities and interacting with non-scientific audiences** is an important component of ASRCT communication and education strategy. The ASRCT maintains a consistent classroom presence at several academic levels in the Bangor, ME area (in the grade-school classroom, giving college-level seminars, and presenting research at graduate-level symposia). ASRCT staff members also participate at local fairs and festivals (See list below), maintaining booths with literature on relevant issues related to research, conservation, management and restoration issues, and ASRCT activities.

An important component of Task activities is effective communication with diverse audiences, with the goal of promoting science, education and an understanding of topical issues related to diadromous species ecology, management, conservation, and restoration. ASRCT staff effectively convey the NMFS and ASRCT missions, goals, and necessary steps to achieve those goals, while providing information on public actions that can help conserve and restore Maine's rivers and recover the protected diadromous species complex. Through outreach and education, the ASRCT strives to inspire and empower the community with the desire and knowledge to actively participate in conservation, recovery, and restoration initiatives.

**ASRCT Programs, Fairs, and Festivals (partial listing):**

Salmon in Schools, Aquakids, Endangered Species Day, Family Festival Day, Common Ground Fair, Penobscot River Revival Festival, Spawning Spectacular, Great Works Dam Removal, Veazie Dam Removal, Children's Water Festival, World Fish Migration Day



James Hawkes speaking to a group of school children on the Sheepscot River for Earth Day 2002.



James Hawkes explaining the Rotary Screw Trap to general public at the Penobscot River Festival 2008.



Kathy Libby speaking to a group of students at the 2014 Children's Water Festival.



John Kocik giving a diadromous fish lesson to Weatherbee School. 2007



Tara Lake speaking children at the Endangered Species Day event at the Bangor Public Library 2013



Michael O'Malley and Matt Bernier demonstrating stream smart culvert construction using a water table at the 2013 Common Ground Fair.



NOAA presence at the 2014 Veazie Dam removal.



Christine Lipsky demonstrating fin clipping at the Green Lake Fish Hatchery to a group of students in 2006.



Graham Goulette, Justin Stevens, James Hawkes installed a memorial bench on the Ed Hastings Trail. NOAA staff also participated in trail construction and grooming. 2013

## Sample References:

For more information on ASRCT Activities including Fact Sheets visit the Northeast Salmon Team Website - [task website](#).

For a complete archive of ASRCT electronic media please visit:

<http://www.nefsc.noaa.gov/salmon/highlightsandevents.html>

Dawicki, S. 2014. Researchers Discuss Habitat and Life History Diversity of Atlantic Salmon and other Diadromous Fishes at Maine Forum. Available from: [http://www.nefsc.noaa.gov/news/features/salmon\\_forum/](http://www.nefsc.noaa.gov/news/features/salmon_forum/)

Dawicki, S. 2012. Satellite Tags Help Unravel Mysteries of Atlantic Salmon Migration at Sea. Available from: [http://www.nefsc.noaa.gov/press\\_release/2012/SciSpot/SS1202/](http://www.nefsc.noaa.gov/press_release/2012/SciSpot/SS1202/)

Fraday, T. 2009. Federal agencies protect more Gulf of Maine Atlantic salmon to recover imperiled stocks. Available from: [http://www.noaanews.noaa.gov/stories2009/20090615\\_salmon.html](http://www.noaanews.noaa.gov/stories2009/20090615_salmon.html)

International Affairs. 2013. International Research: Working Across the North Atlantic to Restore Atlantic Salmon at Home. Available at: [http://www.nmfs.noaa.gov/ia/slider\\_stories/2013/07/salmon/salmon.html](http://www.nmfs.noaa.gov/ia/slider_stories/2013/07/salmon/salmon.html)

Lowder, K. 2015. Animated Visualizations of Smolt Behavior Aid in Recovery Research. Available from: <http://www.nefsc.noaa.gov/salmon/visualization-html5.html>

MacLean S. 2012. Programs and Abstracts of the Maine Atlantic Salmon Forums 2002-2012. US Dept Commerce, Northeast Fish Science Center Reference Document. 12-12; 232 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/publications/crd/crd1212/>

Renkawitz, M.D., and Trinko-Lake, T.R. *In Press*. Program and abstracts of the 2014 Atlantic Salmon Ecosystems Forum. Northeast Fisheries Science Center Reference Document. XX-XX; XXX p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/publications/>