

Diadromous Species Restoration Research Network

***An NSF Research Coordination Network
2008-2014***

DSRRN - a joint project of the Senator George J. Mitchell Center for Environmental & Watershed Research at the University of Maine and the University of Southern Maine. Funding for the project was received from the National Science Foundation.



The DSRRN Team

- **Karen Wilson**, University of Southern Maine *Research Coordinator*
- **Barbara S. Arter**, UM Senator George J. Mitchell Center for Environmental & Watershed Research, *Science Information Coordinator*
- **David Hart**, UM Sustainable Solutions Institute, *Principal Investigator*
- **Adria Elskus**, U.S. Geological Survey, School of Ecology and Biology, University of Maine, *Principal Investigator*
- **Core Partners**, twelve representatives from state and federal agencies, academic institutions, and conservation organizations

The DSRRN Partners



UNIVERSITY OF SOUTHERN MAINE



ACADIA UNIVERSITY

UNIVERSITY of NEW HAMPSHIRE

Plymouth State UNIVERSITY



The Nature Conservancy



GOAL

- Maximize opportunities for science exchange, networking, and collaborations via workshops, conferences, and meetings.
- Provided staff, graduate student stipends, input from agencies, academia, and organizations, and the development of communication tools and resources.
- DSRRN became the lead convener and collaborative-capacity builder for Northwest Atlantic diadromous species research and restoration.

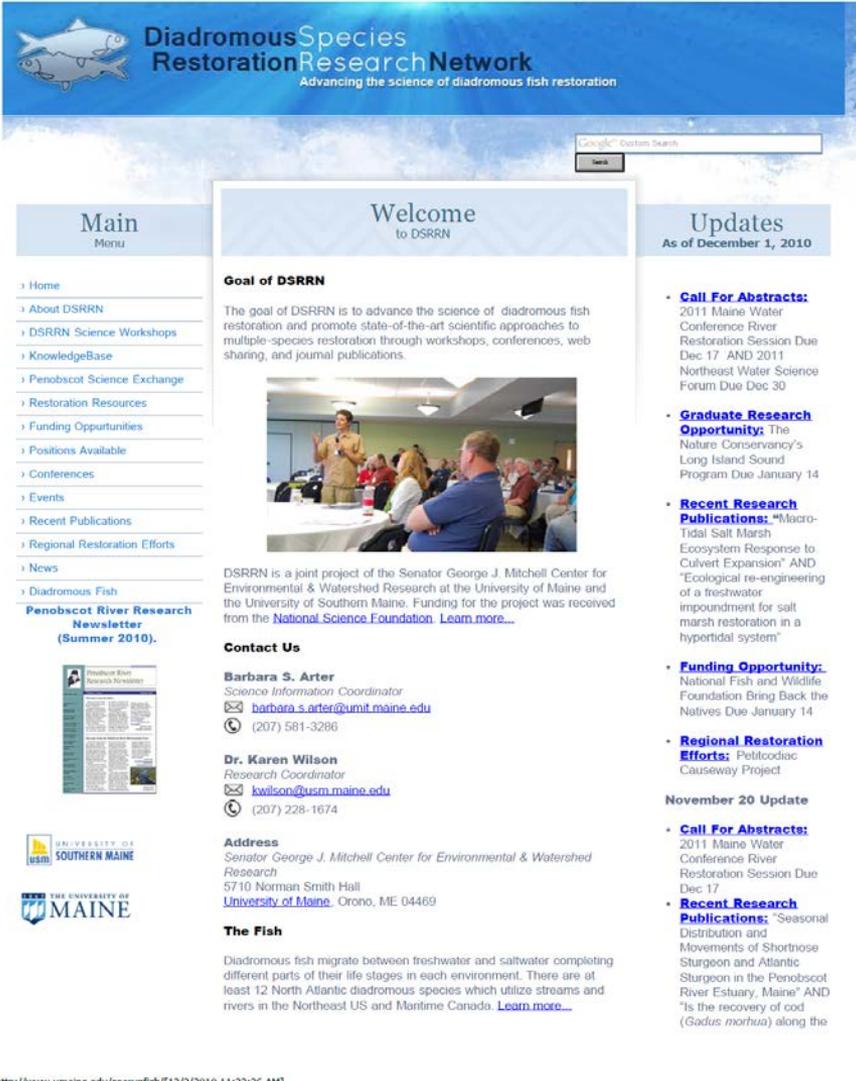
DSRRN Participation Stats

- 54% researchers, 32% managers, and 20% practitioners.
- 33% from state agencies, 26% academic institutions, 25% with federal agencies, and 21% with conservation organizations.
- 72% involved with DSRRN since its creation in 2008 and 57% learned about the Network through a colleague and 38% through a DSRRN conference or workshop. About 15% annual recruitment

- 
- 100% agreed they had expanded their professional network and involvement in new research.
 - 64-81% agreed that they would collaborate on research with contacts made through DSRRN.
 - 80% of members said that they prefer to use listserv or organizational news – and NOT social media
 - 73% of members said they would stay involved if DSRRN continued as a Network – less structure

Information Exchange

Diadromous Species Restoration Research Network (DSRRN)



The screenshot shows the DSRRN website with a blue header featuring a fish icon and the text "Diadromous Species Restoration Research Network Advancing the science of diadromous fish restoration". A search bar is located in the top right. The main content area is divided into three columns: a left sidebar with a "Main Menu" listing various resources; a central "Welcome to DSRRN" section with a "Goal of DSRRN" paragraph, a photo of a conference, and contact information for Barbara S. Arter and Dr. Karen Wilson; and a right "Updates" section dated December 1, 2010, listing several calls for abstracts, research opportunities, and funding opportunities. Logos for the University of Southern Maine and the University of Maine are visible at the bottom left.

Diadromous Species Restoration Research Network
Advancing the science of diadromous fish restoration

Google Custom Search

Main Menu

- Home
- About DSRRN
- DSRRN Science Workshops
- KnowledgeBase
- Penobscot Science Exchange
- Restoration Resources
- Funding Opportunities
- Positions Available
- Conferences
- Events
- Recent Publications
- Regional Restoration Efforts
- News
- Diadromous Fish
- Penobscot River Research Newsletter (Summer 2010)

Welcome to DSRRN

Goal of DSRRN

The goal of DSRRN is to advance the science of diadromous fish restoration and promote state-of-the-art scientific approaches to multiple-species restoration through workshops, conferences, web sharing, and journal publications.



DSRRN is a joint project of the Senator George J. Mitchell Center for Environmental & Watershed Research at the University of Maine and the University of Southern Maine. Funding for the project was received from the [National Science Foundation](#). [Learn more...](#)

Contact Us

Barbara S. Arter
Science Information Coordinator
✉ barbara.s.arter@umit.maine.edu
☎ (207) 581-3286

Dr. Karen Wilson
Research Coordinator
✉ kwilson@usm.maine.edu
☎ (207) 228-1674

Address
Senator George J. Mitchell Center for Environmental & Watershed Research
5710 Norman Smith Hall
[University of Maine](#), Orono, ME 04469

The Fish

Diadromous fish migrate between freshwater and saltwater completing different parts of their life stages in each environment. There are at least 12 North Atlantic diadromous species which utilize streams and rivers in the Northeast US and Maritime Canada. [Learn more...](#)

Updates
As of December 1, 2010

- Call For Abstracts:** 2011 Maine Water Conference River Restoration Session Due Dec 17 AND 2011 Northeast Water Science Forum Due Dec 30
- Graduate Research Opportunity:** The Nature Conservancy's Long Island Sound Program Due January 14
- Recent Research Publications:** "Macro-Tidal Salt Marsh Ecosystem Response to Culvert Expansion" AND "Ecological re-engineering of a freshwater impoundment for salt marsh restoration in a hypertidal system"
- Funding Opportunity:** National Fish and Wildlife Foundation Bring Back the Natives Due January 14
- Regional Restoration Efforts:** Petlicodiac Causeway Project

November 20 Update

- Call For Abstracts:** 2011 Maine Water Conference River Restoration Session Due Dec 17
- Recent Research Publications:** "Seasonal Distribution and Movements of Shortnose Sturgeon and Atlantic Sturgeon in the Penobscot River Estuary, Maine" AND "Is the recovery of cod (*Gadus morhua*) along the

UNIVERSITY OF SOUTHERN MAINE

THE UNIVERSITY OF MAINE

<http://www.umaine.edu/searunfish/>[12/2/2010 11:22:26 AM]

KnowledgeBase: Catalogue of documents and data sets for the Gulf of Maine watershed.

General Information Exchange: staff available to assist

DSRRN Website: clearinghouse of resources, news, funding, employment, publications, meeting and conferences

DSRRN E-newsletter: on funding, publications, etc



Penobscot River Research Newsletter

Volume 1, Issue 1

Summer 2010

Inside this issue:

Welcome From the Editor	1
Message from the Penobscot Trust	1
Shortnose Sturgeon Spawning Habitat	2
Dam Removal Effects on Fish Assemblages	2
Restoration Impacts on Bird Assemblages	3
Monitoring Sea Lamprey in Tributaries	3
Iron Ore Impacts on Water Quality	4
Alewife Population Structure	4
Alewife Upstream Migration Study	5
Adult Atlantic Salmon Returns	5
Marine-Freshwater Food Web Linkages	6
Species Distribution & Habitat	6
Sea Lamprey & Salmon Interaction	7
Fish Assemblage Survey	7
Shortnose Sturgeon Movement	8

Welcome From the Editor

Welcome to the first edition of the Penobscot River Annual Research Newsletter!

The primary purpose of this newsletter is to share research from the Penobscot River with agencies, organizations, and academic institutions in order to strengthen partnerships and opportunities among the broader fisheries and river restoration community.

Inside you will find abstracts from a variety of sources including state agencies, federal agencies, conservation organizations

and academic institutions. Funding, status, and contact information are given for all projects so that you can easily follow up with any researcher.

At 8,570 square miles, the Penobscot is Maine's largest watershed and New England's second largest. This newsletter originated from the Penobscot Science Exchange which meets twice annually to discuss river research plans and results. The Exchange is a collaboration with the Diadromous Species Restoration Research Network

(DSRRN), a five-year, NSF-funded collaborative research effort to advance the science of diadromous fish restoration. For information about the Exchange or DSRRN, please visit our website (www.umaine.edu/searunfish) or contact the Editor at barbara.s.arter@umit.maine.edu

We hope you enjoy the newsletter!

~Barbara S. Arter,
Editor and Science
Information Coordinator

Message from the Penobscot River Restoration Trust

The Penobscot River Restoration Project is a collaborative effort between industry, the Penobscot Indian Nation, seven conservation groups, and state and federal agencies to restore Atlantic salmon, American shad, river herring, and seven other species of sea-run fish to the Penobscot watershed while maintaining hydroelectric energy production.

The Penobscot River Restoration Trust (the Trust) is the non-profit organization charged with implementing the core aspects of the restoration effort, including purchase and removal of the two lowermost dams on the river at Veazie and Great Works, and purchase and decommissioning of a third dam at Howland where a fish bypass will be constructed.

The Trust, with assistance from its member organizations,

the National Oceanic and Atmospheric Administration (NOAA) and other partners, has identified core environmental monitoring parameters that will allow us to document restoration outcomes. These monitoring priorities are further influenced by two guidance documents: a conceptual monitoring framework developed by the Penobscot River Science Steering Committee, and a Gulf of Maine Council protocol for stream barrier removal monitoring.

In June 2009, the NOAA Restoration Center announced a major investment in the Project with funding from the American Recovery and Reinvestment Act of 2009. This award has allowed the Trust to begin implementation of its monitoring program. Component studies are being implemented by coop-

erating investigators from the University of Maine, the U.S. Geological Survey, the Gulf of Maine Research Institute, and private consulting companies. Several of these investigations are among the abstracts included in this watershed research newsletter.

~ Blaine Kopp
bkopp@penobscotrriver.org
207.430.0122
www.penobscotrriver.org



Penobscot River
By Bridget Besaw

Penobscot Science Exchange: Coordination of research projects in preparation for dam removals on the Penobscot 2008-2011

Workshops & Conferences

- **2009 Science Meeting (2009)**
- **Resilience of North Atlantic Diadromous Fish Assemblages (2010)**
- **Natural Variability of North Atlantic Diadromous Fish Populations I (2011)**
- **Natural Variability Part II: River Herring (2012)**
- **Adaptive Management of Diadromous Species Restoration (2013)**
- **2013 Science Meeting (Jan 10-11, 2013)**
- **Supported Other Workshops:**
 - Shad Working Group (2012)
 - NFWF Herring Working Group (2013)
 - NOAA Atlantic Salmon Conference (2014)
 - AFS Herring Symposium (2014)

Results

- 5 DSRRN-related articles have either been published or will be in 2014
- Several more are anticipated
- AFS Herring Symposium Special Section (articles)
- Working Groups such as this one have been created
- There is demand for more workshops and more specific groups.
- DSRRN Listserv is now our primary means of communication.

"DSRRN gave me the opportunity as a **graduate student** to participate in my first organized, task-oriented workshop, and to contribute to its success."

"DSRRN newsletter introduced me/Acadia NP to FWS restoration biologists involved in stream crossing assessments and replacement projects. **A working relationship resulted** and resulted in stream and crossing assessments currently in use to correct problems on more than a dozen streams in the park."

"As a marine fisheries person originally trained in traditional ecology, it was very illuminating to work with colleagues whose interdisciplinary expertise forged a **link between the very different paradigms of inland freshwater ecologists and marine stock assessment scientists.**"

"I began attending DSRRN while I was in New England. I moved to North Carolina and now California, and DSRRN is **a good way for me to keep in touch with researchers** from the East Coast, particularly New England."

"**Contacts made at the first workshop in 2008 and since have been very useful** to our ongoing research on Maine and New England river fish assemblages."

"Increased understanding of diadromous species, **fostered cross-border and cross-state collaboration,** expanded my research network, partnered with collaborators met through DSRRN on proposals, learned new analysis techniques."

DSRRN Current Status

- Grant ended 2014
- Would like to find funding to continue especially with workshops or whatever is needed
- Join the Diadromous Species Restoration Research Network (DSRRN) listserve! (<http://www.umaine.edu/searunfish/>)

- QUESTIONS?