



Swallow Tales

Hirundo Fall Newsletter

Inside this issue:

Alewives River Restoration

Rory Saunders (National Marine Fisheries Service) and Richard Dill (Maine Department of Marine Resources)

| | | |
|----------------------------------|---|---|
| Alewives and River Restoration | 1 | We were fortunate to work closely with Clem Fay before he passed away in October of 2005. Clem was a Fisheries Manager for the Penobscot Indian Nation for about 17 years. He was a good friend to many of us and among the most knowledgeable ecologists around. Clem helped many of us begin to understand the importance of an often-overlooked (and sometimes maligned) species: the alewife (<i>Alosa pseudoharengus</i>). Clem knew that historically most rivers in Maine were “fueled” by alewives (and their close relative, the blueback herring; <i>Alosa aestivalis</i>). Because the abundance of alewives has declined so much over the last couple hundred years, many people are not aware of the many ecosystem services that alewives provide throughout their life cycle. |
| Fall Family Fun | 2 | |
| Invasive Plants | 3 | |
| Invasive Insects | 3 | |
| Business Sponsors And Membership | 4 | Alewives are born in freshwater and migrate out to the ocean when they are just a few inches long. They return about four years later at about 12 inches in length (just shy of one-half pound); these little silvery fish represent a feast to many species of fish (like striped bass), birds (like ospreys), and mammals (like otters) throughout every phase of their life. Alewives are also known as excellent lobster bait near the coast. A recent project led by Maine Sea Grant (www.seagrant.umaine.edu/oral-histories-alewife-eel) is chronicling the relationship between the alewife (and American eel, <i>Anguilla rostrata</i>) and fishing communities in coastal Maine. |
| Upcoming Programs | 5 | |
| Volunteer Thank You | 5 | |
| Question of the Quarter | 5 | Unfortunately, many people don’t realize that alewives were historically found throughout the watersheds of Maine including well into the headwaters of some of its largest rivers like the Penobscot. Dams directly limit access to the lake and pond habitat that alewives need to complete their life cycle. Thus, most alewife runs today only occur in places close to the coast, where there are few or no dams impeding their migrations. So today, much of our work restoring these fish to their native habitat includes reintroducing them to the people that live, work and recreate in these watersheds. |

Special points of interest:

- Seeking paddlers for Community Paddle and Cook-out – for summer 2015
- Quarterly newsletter published spring, summer, fall and winter



Pushaw Dam, fish ladder far left and chute in center

See Alewives page 2

Alewives River Restoration Continued

Today, we are fortunate to see the alewives returning to more places that they used to call home. It has taken a lot of effort. Consider the Pushaw Lake (and Pushaw Stream) example where alewives are now returning in good numbers. Just what, exactly, did it take to get these fish back to their old homes?

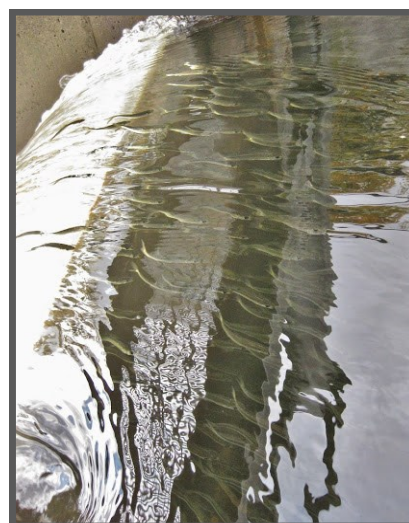
- The removal of Veazie Dam and the removal of Great Works Dam (www.penobscotriver.org);
- Stocking efforts led by the Maine Department of Marine Resources (<http://www.maine.gov/dmr/searunfish/alewife/>);
- Fishway improvements at Milford Dam (<http://www.penobscotriver.org/content/5031/milford-fishlift-2014>);
- Construction of a fishway at the outlet of Pushaw Lake (<http://www.fws.gov/northeast/PDF/ME/pushaw.pdf>)

These efforts culminated this spring with the successful passage of adult alewives into Perch Pond (Mud Pond) and Pushaw Lake.

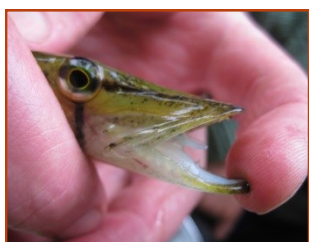
The journey of these fish back to their rightful spawning grounds included extensive migrations throughout the Gulf of Maine and Penobscot Bay, a journey up the Penobscot River, a trip over the new fish lift at the Milford Dam, and a swim up Pushaw Stream right through the Hirundo Wildlife Refuge. We think that Clem would be proud.



Young alewives at Pushaw Dam



Alewives at Pushaw Dam tailing out to the sea



Chain Pickerel

Fall Family Fun



Looking for spiders



Electrofishing catch



Mask Making with Sally Jones



Macro invertebrates Greg Innes



Silk screening with Kris Sader

Invasive Plants: Alex and Amy Baron

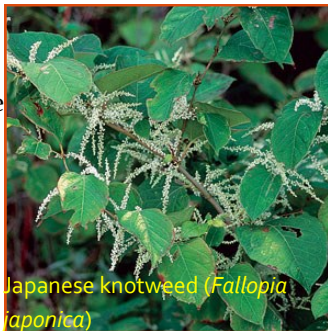
Many people like flowers. They put them in vases or plant directly in their yard. If the yard is a right habitat, the plant thrives and spreads, taking over the habitat.

This is how purple loosestrife came to Maine. After the flowers were pollinated, its seeds dispersed, entered many more habitats, germinated, and new plants grew. Soon, the purple flowers were a common sight. They can grow in shallow water, vernal pools, and ponds, eventually decreasing the size of the pond, leaving less space for other plants and animals. Purple loosestrife is only one example of invasive plants.



Purple loosestrife (*Lythrum salicaria*)

Japanese knotweed, a large bamboo-like plant, can grow quickly and almost anywhere due to its tolerance to a wide range of soil types and temperatures, even -35°F. It forms dense colonies that completely crowd out other herbaceous plants and keeps them from regenerating.



Japanese knotweed (*Fallopia japonica*)

Removal of invasive plants is difficult, involving completely digging out their roots. They tend to be resilient to cutting; leaving a small root behind will result in the plant quickly growing back. Japanese knotweed has a large underground network of roots, called rhizomes, that can extend deep in the ground up to 10 ft deep!

Buckthorn can also be dispersed by birds that eat the fruit and leave the seeds in new areas. To prevent introducing another species, don't buy or plant non-native plants in your yard. We have plenty of beautiful native plants and flowers in Maine.



European buckthorn (*Rhamnus cathartica*)

For more information visit: the Maine Cooperative Extension website:

<http://extension.umaine.edu/invasivespecies/>

Invasive Insects: Nick Baron

Invasive insects have been a great concern to biologists since 1960's. At first, we thought to get rid of them, we would just spray that area with pesticide. Soon we started to realize that other non-insect animals that were beneficial were also affected by pesticides.

Invasive insects are finding ways to invade different countries around the globe. For example, insects that live in wood can easily be transported by people who bring wood with them on their camping trips. A lot of these insects are very harmful to plants because of how they live in the plants or how they eat as well as to other native insects because they outcompete the native insects for food. Emerald ash borers outcompeted native beetle species in Massachusetts, therefore they are now free of competitors in the area.

See Invasive Insects page 4

Asian Longhorned Beetle, Pest Tracker



Round exit hole



Invasive Species Continued

We have been having many great concerns about invasive insects coming to Maine. Some of the most harmful species include the Asian longhorned beetle, the hemlock woolly adelgid, and the emerald ash borer. All of these insects target trees.

Asian longhorned beetle larvae tunnel deep into the cambium of American beech and chestnut. Hemlock woolly adelgids (HWA), a type of aphid, suck the juices from hemlocks. Emerald ash borer larvae damage mainly the sapwood and heartwood of white ash.



HWA Infested branch

To prevent this, the best way is to make sure you don't let them have access to the area in the first place, and don't let them get free rides on people transporting firewood or any type of plant. So, please don't carry any thing that they can hitch a ride on with you out of state, even if you can't see them!



D-shaped exit hole

Emerald ashborer, adult & galleries.

Find more information on invasive insects at: *The University of Maine Senator George J. Mitchell Center for Sustainability Solutions*

Business Sponsors and Membership Information

Hirundo relies on investments of time and money donated by the local community. Thank you for your support. We could not do it without you!

With your membership donations, Hirundo works to connect children and their families with the wonders of nature through programming, educational outreach and free open access to trails, both on land and on the water!



Welcome new members:

Deanna Fahey

Patricia P. Kay – summer resident



We thank the following Businesses, Institutions & Organizations for their on-going support:

- Bodwell Center for Volunteers
- Castine Kayak
- Griffin & Jordon, LLC
- La Bree's Bakery
- Old Town Canoe
- Old Town Rotary Club
- Penobscot RiverKeepers
- Stillwater Montessori School
- Gossamer Press
- Cyr Bus Lines
- Rose Bike Shop
- Noonan Chiropractic
- Owen J. Folsom
- University of Maine

See page 6 for details on how to become a member of Hirundo Wildlife

Refuge.



Upcoming Program

Saturday, December 20 at 8:00 am.

Join us for the **Christmas Bird Count** at the Refuge, along Kirkland Road and Poplar Street. Meet at the Parker Reed Shelter.

Call to register at: 394-2171



Thank You Volunteers!

- Jim Young – Invasive species removal
- Kris Sader – Silk Screening
- Rory Saunders & Stephen Coghlan – Electro fishing
- Day of Service University of Maine students from Oxford Hall: Invasive species removal
- Donne Sinderson – spiders
- Kim Robichaud: Dyeing with plants
- Todd Miller & Larry Beauregard – Invasive species removal
- Sarah Pinatti – PR
- Deanna Fahey – Newsletter

We apologize should your name be missing.

Removing invasive species



Argiope egg sac ...

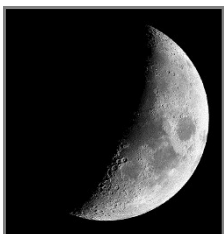


.. and spider



Dyeing with plants

re-



Question of the Quarter:

Can you name the object in the photo?
Remember you have to be very specific!



Send your answer by December 18, 2014 to either:

web@hirundomaine.org

or

Hirundo Wildlife Refuge
P.O. Box 266, Orono, ME 04473

Winner will receive a Senior Hopper Birdfeeder.

Activities

Hirundo Wildlife Refuge had a table at Orono Day. Thank you to the Town of Orono for their support.



Juvenile grey tree frog



Visits Hirundo's kitchen

We are looking for volunteers to join
our committees or lend a hand.

Program Committee

- ◆ Publicity ◆ Brochures ◆ Website updating ◆ Photography
- ◆ Lead walks, present a program

Development Committee

- ◆ Fundraising ◆ Grant writing ◆ Data entry

Stewardship and Trails Committee

- ◆ Trail maintenance ◆ Fauna & Flora inventories

BOARD OF TRUSTEES

Dick Andren, Vice Chair

Laurent Beauregard

Brenda Jackson

Dianne Kopec

Roxane Larouche

Stephanie Larouche, Chair

Veronica Larouche

Rad Mayfield, III

Roger Merchant

Bucky Owen

YOUR SUPPORT

Hirundo Wildlife Refuge is a private, non-profit organization that depends on public donations and volunteers to run our programs.

We receive our funding from grants and donations for the preservation of wildlife and forest management and are not supported financially by the University of Maine, or any other institution.

Your support of Hirundo is greatly appreciated. Thank you!

Please make your tax deductible donation on-line www.hirundomaine.org/support or mail a check to:

*Hirundo Wildlife Refuge
P.O. Box 266
Orono, Me 04473*

Membership Application

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Phone: _____

Email: _____

Membership categories,

please check level of support

- ☐ \$1000 Bull Moose - Life Time Member
- ☐ \$ 500 Eagle -Friend of Refuge
- ☐ \$ 250 Bobcat—Sustaining Member
- ☐ \$ 100 Fox - Supporting Member
- ☐ \$ 50 River Otter - Family
- ☐ \$ 35 Tree Swallow - Individual
- ☐ \$ 15 Spring Peeper - Student



SMILE

— a message sponsored by Hirundo
Wildlife

**"In the end
we will conserve only what we love,
we will love only what we understand,
and we will understand only
what we are taught."**

-Baba Dioum
Senegalese conservationist