



Swallow Tales

Hirundo Summer Newsletter

The Alewives are Coming, the Alewives are Coming! Bucky Owen

Inside this issue:

Alewives Return	1
Summer Intern	1
Adventures of Alex and Nick	2
• Tell tales of scat	
• Aquatic insects	
Quarterly Recap & News	3
Upcoming Programs	3
Hirundo Wildlife Refuge	4
Question of the Quarter	4

It's true; after being absent for more than 150 years alewives will be heading up Pushaw Stream next spring. Until now, pollution and dams have blocked this small river herring's ability to reach its ancestral breeding areas throughout the Penobscot drainage. With the advent of the Clean Water Act and removal of the lower main stem dams on the Penobscot, all that has changed.

A new fishway has been built in the outlet dam of Pushaw Lake and 45,000 adult alewives were put into Pushaw Lake over the past two years to facilitate this restoration. In 5-10 years, 1.5 million alewives will pass through Hirundo, passing by the 7,000 years old native American fishing village site, on their way to Pushaw and Little Pushaw Lakes and Perch Pond.

Alewives were a mainstay for coastal Mainers in colonial times. Now they are sought after for lobster bait and are providing an income for towns where runs have been restored. Everyone loves to eat alewives: otter, mink, ospreys, eagles, herons, bass, pickerel, gulls and, yes, even pike, gorge on the adults and young.

Adults ascend the rivers in May, spawning in the lakes shortly thereafter and return to the ocean. The eggs hatch quickly and the young return to the ocean in August-October when 3-4 inches in size. They will return as adults 2-3 years later and the cycle continues. So let's hear it for the alewife; certainly one of the most exciting developments in our rivers in decades!



Alewives at Damariscotta Mills by Pete Stetson



Herring gull with alewife by Robert F. Bukaty

Megan Dood— Summer Intern

I am a Wildlife ecology major with an interest in raccoons, and a new found appreciation for birds. One of my tasks is check all the nest box in the refuge. Our goal is to establish the success of the swallows, and determine the ideal nest box placement at Hirundo. I carefully open each of the boxes count the number of eggs, or hatchlings in the nest. Most of the boxes are used by Tree Swallows, but this year one nest box is occupied by a Black-capped Chickadee.

Periodical checks do not cause nest abandonment, as long as visits are properly spaced. Some females only leave the box when you open the door. When this happens it usually ends in the bird dive-bombing you with her silent graceful swoops as you're trying to peer into the box.

This year 24 out of 50 nest boxes are occupied with 93 total nestlings. During the first check on May 19th, we found 20 nests with a range of 0 to 6 eggs. Now, in late June, the tree swallow nests have 4 to 6 fledglings, while the chickadee nest had all 7 of their eggs hatch. Fledging is now underway.

Special points of interest:

- Seeking paddlers for Community Paddle and Cook-out - call 944-9259 for more info
- Quarterly newsletter published spring, summer, fall and winter

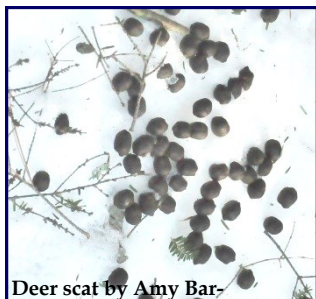


Nest box check

The adventures of Alex and Nick:

Who we are — My brother Nick, 10, and I, 13, have always been interested in wildlife. We love learning about the environment, how animals interact, and the ecosystem. We have been participated in many nature programs since we were young and have started volunteering in Acadia National Park and Hirundo Wildlife Refuge.

The Science of SCAT Alex Baron



Deer scat by Amy Bar-

Scat is the scientific term for animal feces or poop, and it can be found anywhere. There are two kinds of scat: herbivore scat and carnivore scat.

Herbivore scat is the scat of vegetation-eating animals, such as, deer or grouse. This kind of poop is more degradable and fibrous, still containing cellulose and other plant material. Since some herbivores, such as rodents, rabbits, and hares (rabbits and hares are not rodents, as they are in the order *Lagomorpha*, not *Rodentia*), excrete digestible plant material in their scat, they re-

consume it to get as much nutriment as they can.

Carnivore scat is the scat of meat-eating animals, such as, foxes, coyotes, otters, or weasels. The scat of meat-eaters is more compact and connected, because of the indigestible matter interlaced in it. Carnivores do not re-digest their poop because it contains few nutrients and also because when digested the first time, a meat meal provides a lot more energy than consuming vegetation.



Otter scat

Aquatic Insects Nick Baron

Aquatic insects are insects that live in water, e.g., ponds, lakes, river and streams. Very few insects can survive the ocean because of the salt concentrations. Some, such as dragonflies, spend part of their life as aquatic insects and part as terrestrial insects. They emerge from the water, mate, and die. Other aquatic insects spend their entire life, including mating, in water. These are called true aquatic insects.



Water scorpion (*Ranatra fusca*) - breathing tube made up of two filaments at end of abdomen

While non-true aquatic insects in the larval stage breathe through gills, all true aquatic insects breathe air.

For example, water scorpions, a true aquatic insect, breathe air by using a long tube that sticks through the water surface to reach air. The air is then carried down a tube that branches out to connect to breathing organs, called spiracles, under the insect's abdomen. Some insects that breathe through gills simply suck water up into the gill chamber in the abdomen, and the water rushes through the gills and is squirted back out. These gill-breathing aquatic insects have their gills stored internally, which they can use to propel themselves forward by jet propulsion. Other gill-breathing aquatic insects breathe from fan-like gills, stored externally. They sway the gills through the water to absorb oxygen. And if the insects beat their gills very rapidly, they can propel themselves forward. So both types of gills help aquatic insects survive — to escape predators and capture prey.

Volunteers — Thank you!



Cardinal flower— a Native

Dick Andren
Seanna Annis
Raanan Avargil
Larry Beauregard
Angie Bennett
Lois Berg Stack
Finn Bondeson
Melanie Blumentritt
Margo Boyd
Lisa Carter
Stephen Coghlan
Andrew Corson
Sandy Daniels
Ellie Durso
Steve Dunn
Jo Eaton

Patti Ferguson
John Ferland
Jimmy Haller
Alyx Hannigan
Karl Hill
Jeremiah Hobbs
Brenda Jackson
Glen Koehler
Clay Kirby
Gerry Lapointe
Stephanie Larouche
Phil Lock
Jerry Longcore
Paul Markson
Rad Mayfield
Bucky Owen

Nathan Parkhill
Steve Sader
Rori Saunders
Lindsay Seward
Bob Steven
Gloria Vollmers
Diane White
Peter White
Jim Young
Yang Yu
Steven Madera & participants of the Life Jackets program
Sigma Phi Epsilon Fraternity
Art Education Students

Delta Phi Epsilon Sorority
Gamma Sigma Sigma National Service Sorority
UMaine Chapter of The Wildlife Society
UMaine Freshman Volunteers
UMaine Bodwell Center
UMaine Alternative Spring Break Group
UMaine — Main Bound
We apologize should your name be missing.

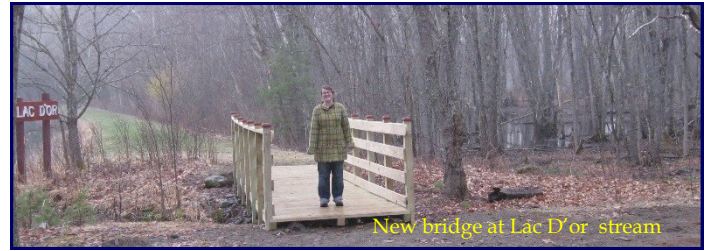
Quarterly Recap & News

Hirundo's caretaker and volunteers have been busy this spring sprucing up the road and the trails. Thank you!

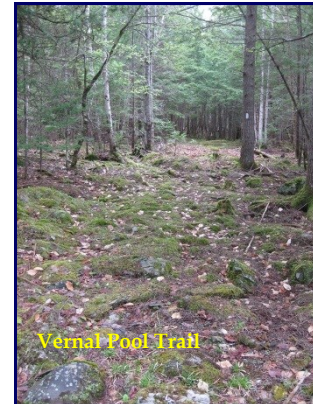
Take a walk on the upgraded Vernal Pool trail, made possible by the participants of Lifejacket Program of Dover-Croft.

Local and not so local businesses supported Hirundo through in-kind and monetary donations. We would like to thank:

- Jason Folsom of O.J. Folsom in Old Town for donating gravel so we could expand the parking area at Gate 1
- Dana Smith of Yardsmith in Orono, who helped upgrade the dirt road leading to the NEW bridge spanning Lac D'or Stream
- Viking Lumber for providing structural support to the new bridge
- Orono-Old Town Kiwanis Club for School and Public Program support



New bridge at Lac D'or stream



Vernal Pool Trail

Upcoming Programs

PROGRAM	DATE	TIME	PRESENTER
Guided Canoe Tour	6.30.13	2:00PM	Hirundo Staff
Guided Canoe Tour	7.7.13	2:00PM	Hirundo Staff
Canoe Skill Clinic	7.13.13	1:00PM	UMaine Bound
Paddle half-way to the Pole	7.14.13	2:00PM	Hirundo Staff
Guided Canoe Tour	7.21.13	2:00PM	Hirundo Staff
Full Moon Paddle	7.21.13	7:00PM	Hirundo Staff
Kayak Rescue Clinic	7.27.13	1:00PM	Karen Francoeur
Search for Moss Animal by Canoe	7.28.13	2:00PM	Hirundo Staff
Guided Canoe Tour	8.4.13	2:00PM	Hirundo Staff
Aquatic Insect Safari by Canoe	8.11.13	2:00PM	Hirundo Staff
FAMILY DAY	8.18.13	10AM – 4PM	YOU
Full Moon Paddle	8.23.13	6:45PM	Hirundo Volunteer
Moss Animal Survey by Canoe	8.25.13	2:00PM	Hirundo Staff
Guided Canoe Tour	9.1.13	2:00PM	Hirundo Staff
Grandparents Paddle	9.8.13	2:00PM	Hirundo Volunteer
Guided Canoe Tour	9.15.13	2:00PM	Hirundo Staff
Full Moon Paddle	9.19.13	6:15PM	Hirundo Staff
Equinox Paddle	9.22.13	2:00PM	Hirundo Staff

"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

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



SMILE

— a message sponsored by Hirundo Wildlife

Hirundo Wildlife Refuge

Office: P.O. Box 266 Orono, ME 04473
Refuge: 15 Hudson Road, Old Town, ME 04468
Phone: 207-944-9259, Naturalist
207-951-3061, Care Taker
E-mail: web@hirundomaine.org



We're on the Web!

Visits us on

www.hirundomaine.org

and join us on

Facebook !

The mission of the Hirundo Wildlife Trust is to maintain the Hirundo Wildlife Refuge as a sanctuary to preserve and protect wildlife and their habitats. Consistent with this primary purpose, the Trust makes the Refuge available as a living laboratory for education and research, and to promote the public's appreciation of Nature.

Oliver Larouche, founded Hirundo in 1965. Today the Refuge protects 2400 acres of diverse habitat. We offer seven-miles of hiking trails, including self-guided educational trails, canoes, paddles, life vests and a dock to access Pushaw and Dead Streams. Archaeological digs in 1970 discovered remnants of a 7,000 year old fishing village, placing Hirundo on the National Register of Historic Places.

Many people enjoy our public programs and local schools use Hirundo as a living laboratory.

Hirundo Wildlife Refuge serves the Greater Bangor area. Our visitors come from Old Town, Hudson, Bangor, Hawaii and as far as Europe.

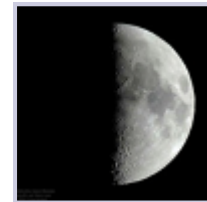
We are happy to answer any questions you might have:

Guðrún Keszöcze, Naturalist: 207-944 -9259

Fred Bryant, Caretaker: 207-951-3061

YES, I WANT TO VOLUNTEER!

We welcome your skill and interest.



Question of the Quarter:

How many beaver lodges are along Pushaw Stream? How many of them are active?

Send your answer by August 15 to either

- web@hirundomaine.org
- Hirundo Wildlife Refuge
P.O. Box 266, Orono, ME 04473

Winner will receive a Swallow Bird Nesting Box during Family Day, August 18.

BOARD OF TRUSTEES

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Roxane Larouche
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Veronica Larouche
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Gloria Vollmers, Treasurer
Rad Mayfield, III

Outdoor Volunteer Activities

- ♦ Trail maintenance
- ♦ Removing non-native invasive species
- ♦ Lead walks, present a program
- ♦ Public Outreach
- ♦ Fauna & Flora inventories
- ♦ Photography

Indoor Volunteer Activities

- ♦ Administrative and technical help
- ♦ Publicity
- ♦ Coordinate Volunteers
- ♦ Fundraising
- ♦ Outreach