



Friends of Merrymeeting Bay

Friends of Merrymeeting Bay is a 501(c)(3) non-profit organization. Our mission is to preserve, protect and improve the unique ecosystems of the Bay through:

Education

Conservation & Stewardship

Research & Advocacy

Member Events

Support comes from members' tax-deductible donations and gifts.

Merrymeeting News is published seasonally by Friends of Merrymeeting Bay (FOMB), and is sent to FOMB members and other friends of the Bay.

For more information call:
Ed Friedman
Chair of Steering Committee
666-3372



Read all about
Hands Around the Bay on
Page 2

Every So Often, We Win One (or Two!)

Despite *state* legislators in the Natural Resources and Inland Fisheries & Wildlife Committees turning a collective blind eye (and worse in IF&W) this session to two fish passage bills submitted for us by Senator Dennis Damon, we recently achieved two substantial victories in the *federal* arena. It continues to remain troubling that leadership at the state level does not either understand or act in a positive way to revitalize the important connections between healthy river systems and the economic and cultural well-being of the entire state.

Please see links to press and other coverage in the "Legal Documents" section of our website "Cybrary."

Chops Tidal Power Project Sinks

At the beginning of June, Oceana Energy, who had proposed an underwater tidal power project of up to 50 large windmill type structures for the Chops, filed a letter of surrender with the Federal Energy Regulatory Commission (FERC) in order to give up their Preliminary Permit.

While the official reason Oceana Energy gave in their FERC filing was that environmental sensitivity of the site precluded them developing as they intended, they took a shot at us in the Times Record as "local hostility" having an influence. Not that we shouldn't work actively against a project like this, but more than anything, the economics of a bad project in the wrong place sank the whole affair (they also surrendered their Penobscot permit).

Kathleen McGee former Steering Committee and active Research & Advocacy Committee member crafted a well-written op-ed response for us submitted under the Chair's name that spoke to environment/economic/alternative energy issues, in the end noting it was credibility not hostility that carried the day.

Atlantic Salmon Receive Expanded Protection Under the ESA

Late Monday, June 15, the National Marine Fisheries Service (NMFS) and US Fish & Wildlife Service (USFWS) announced the expanded endangered species listing to include Kennebec, Androscoggin and Penobscot Atlantic salmon. This is now published in the Federal Register along with designated Critical Habitat which offers an extra layer of salmon protection in projects requiring federal permits.



38% of Maine's water drains through The Chops and thanks in part to FOMB members, fish are still welcome!

Photo: Jesse Miller

As you recall, in 2005, FOMB joined with Doug & Tim Watts and the Maine Toxics Action Coalition in filing a citizen's petition under the Endangered Species Act to list salmon on the Kennebec. A multi-agency panel found merit in our petition and in their Status Review, recommended extending protection to fish on the other two rivers as well.

With the agencies (NMFS & USFWS) two years past the legal deadline in coming to any decision we joined with Doug Watts and the Center for Biological Diversity last year in filing a lawsuit to compel a decision. We won the suit and it's probably safe to say we would not be seeing this decision as quickly without the pressure our petition and lawsuit brought to bear.

While we are obviously very happy with the listing, we are very unhappy with the agency decision not to use historical range as the basis for Critical Habitat. It seems if a species is in dire enough straits an ESA listing is called for, they should be given every opportunity to access the full extent of their former range both for access to necessary spawning and rearing habitat and to maximize genetic variation needed to cope with future climate and other changes..

It is apropos that with these two victories comes the opportunity to announce our new digs across from the Town Landing on the Cathance River in Bowdoinham. While this space is not going to be an office in the traditional sense (neither Misty nor I will be working there) it does offer a range of other uses. Please stop in Saturday mornings and celebrate with us. Bring a boat!

Thanks so much for your support!

—Ed Friedman

Guiding Environmental Stewards with Hands Around the Bay

An Environmental education cornerstone today helps form the keystone of our future. Environmental literacy allows for educated, sound decisions to be made regarding the future development of our communities and open spaces as well as the sustainable use of our resources. By educating children at a young age of the interconnected relationships within the natural environment they will grow with this knowledge and learn how we as humans are a part of the environment, not as the poet Robinson Jeffers wrote, "...man apart from that."

FOMB is actively educating the next generation of decision makers to be wise stewards to the environment. Our hands-on education program enhances critical thinking among young children and increases their engagement and enthusiasm while allowing them to connect what they are learning towards their lives and community. This path of learning provides children with ownership and confidence enabling them to expand their knowledge base and create a stronger desire to further it. Not only are children expanding their knowledge of Merrymeeting Bay and the resources around them but developing valuable skills- problem solving, consensus building, information management, communication, and creative thinking skills that will benefit them throughout their lives.

Hoping to continue this increase in environmental literacy FOMB continues strengthening our Hands Around the Bay Program to better serve students, teachers, and parents while reaching more individuals throughout the Bay area. As our program grows, the need for additional volunteers grows as well. If you feel you have creative ideas that would compliment our program or would like to make in school visits and share information with students please contact FOMB at 582-5608 or fomb@zwi.net. We welcome all ideas and hope you will share your knowledge and time to help guide the future stewards of our communities.

A recapitulation of Hands Around the Bay so far this year...

Bringing Our Education Together at Bay Day Spring 2009!

May 19th was no ordinary day for students from Woolwich, Chop Point, Bowdoinham and Harpswell Islands. For these fourth grade classes this spectacular spring day was full of fresh air and a full experience of Merrymeeting Bay. By the end of this day each student walked away tired, sad to leave the Bay, but full of history, ecology, and a deeper understanding the uniqueness of the Bay.

Twice a year, with the help of numerous volunteers lending their time and knowledge, we are able to create an outdoor classroom for local fourth grade students on the shores of Merrymeeting Bay. We were even more excited this year to have a mix of new workshops as well as a few of the classics. New additions to Bay Day this year were *Where Are We?* – a fantastic exercise in orientation and navigation with the aid of maps, compasses and GPS devices; *Wigwams*- a hands-on exercise in local native Americans and the structures they built and *Coyotes*- biology lessons, hands on role playing of coyote behavior, and poetry reflecting coyote experiences and the importance of canine carnivores.

From wetlands to fish printing our volunteers



Local students learned about Native Americans through a new hands-on wigwam building exercise at Spring Bay Day.

We owe a very special thank you to all those who helped with Spring Bay Day:

Guides: Steve Musica, Mark Holden, Denise Blanchette, Tom Weddle, Jay Robbins, George Sergeant, Nate Gray, David Whittlesey, Tom Walling, Abby Drew, Sarah Cowperthwaite, Kathleen McGee, Kent Cooper, Steve Eagles, Sue Westlake, Ed Friedman, Scott Allen, Geri Vistein

Chaperones: Joan Llorente, Pippa Stanley, Milo Stanley, David Barber, Ann Hartzler, Dana Cary, Carole Dyer, Richard Nickerson, Fred Barstow, Doffie Barstow, John Ambrose, Petey Ambrose, Betsy Steen and Monique Lucarelli.

Last but certainly not least- **Wild Oats Bakery** for our delicious lunches and **Chop Point School** for hosting our event!

Thank you all!

take HAB to the classroom!

This has been a dynamite school year for our Hands Around the Bay Program (HAB). Since September, we visited 12 area schools, a couple of libraries and presented several other community outreach events for children, reaching more than 1100 students overall. Though school visits have come to a close with the arrival of summer we will be expanding our well-known critter visits to area libraries! Ask your local librarian to schedule a visit by FOMB. For more information or to volunteer with this program contact Misty Gorski, Executive Coordinator, at 582-5608 or fomb@zwi.net.

Many thanks to our in-school visit volunteers for the 2008/2009 school year: Steve Pelletier, Kathie Duncan, Joan Llorente, Tom Walling, Ed Friedman, Kathleen McGee, Kevin Doran, Jay Robbins, Dana Pratt and Wayne Robbins.

Thanks for a great year!

Introducing Healthy Rivers/Healthy Gulf!

"...Of a more serious character are the changes resulting from the erection of dams. Almost every stream in the populated parts of the State large enough to turn a saw-mill has been thus obstructed at from one to a dozen points in its course. The dams were with scarcely an exception built in utter disregard of their effect upon the fish, and in the majority of cases no adequate fish-ways were provided. The breeding grounds of salmon, shad, and alewives were therefore greatly curtailed in all the rivers, while in others they were entirely cut off. For example, in the Kennebec River the building of the dam at Augusta in 1837 completed a chain of obstructions that reduced the range of shad in that river and its tributaries from 150 to 50 miles, and that of salmon from about 300 to 50 miles. These figures do not however, represent the injury done to those fisheries, which is measured rather by the reduction of the area of spawning-ground. This, in the case of the salmon, was from perhaps 50 miles of rapids to less than half a mile, and in the case of shad from 100 miles of gently flowing water to about 25 miles. It would be difficult to arrive at an exact estimate of the amount of injury thus done, but I deem it safely within bounds to estimate the diminution of the productive capacity of the rivers at 90 per cent from this cause alone.

The revival of interest in the river fisheries which began in Maine in 1867, has given rise to renewed efforts to facilitate the passage of fish up the rivers. Improved forms of fish-ways have been devised and constructed in many places yet but a small proportion of the waters affected have as yet been reopened.^{1"}

One Hundred and Seventy-two years after Fisheries Commissioner Atkins wrote the above words, not much has changed. Dams can block upwards of 90% (American eel) of historic habitat for diadromous fish. There are between 650 and 950 dams in Maine and only about 100 are hydro-electric dams. Demonstrating their resiliency, a few fish remain. Eels however, appear extirpated on the Androscoggin above Gulf Island Pond dam in Turner though their range once extended to the Rangeley Lakes², the endangered status of Atlantic salmon has just been expanded and the disappearance of discrete cod populations has been correlated with loss of spawning habitat for and subsequent collapse of their river herring food source.³ And still, operators like FPLE (now NextEra) say "we are not convinced there is a problem."⁴

Diadromous fish (fish requiring both marine habitat and freshwater to complete their life cycle) create an intricate balance between terrestrial, river, estuarine, and marine systems as forage species, prey buffers, habitat conditioners, and nutrient transporters. These species coevolved, working collectively, ensuring the vitality of all species within each ecosystem they inhabit.⁵ Presently, most diadromous fish populations are at historical lows with several species currently listed under the Endangered Species Act. Critical forage species to the Gulf of Maine fisheries, including alewives, American eel, and blueback herring are declining on account of dams, overfishing, and pollution. Declining diadromous fish play a critical role in the decreasing near-shore ground fish populations, a vital fishery to Maine's economy. Currently, laws are in place limiting overfishing and pollution; however there are no current laws ensuring safe, effective fish passage passed dams.

The vitality of the Gulf of Maine is dependent on the threatened migratory fish of Maine's rivers. To address this, we have launched **Healthy Rivers/Healthy Gulf!** (HRHG) in 2008. HRHG uses community organizing around the Bay and statewide to advance efforts providing diadromous fish passage passed dams, species and habitat restoration and improve water quality (physical, chemical and biological integrity). Our program will accelerate feasible community-driven action and long-term-solutions to what is now an untenable, unsustainable environment in Maine's rivers, the Gulf of Maine and its fishery.

Healthy Rivers/Healthy Gulf!, is mobilizing concerned citizens to
1) increase public support for safe fish passage and improved water

quality throughout our rivers, 2) pass legislation/regulations improving water quality standards and migratory fish passage on rivers, 3) take corrective legal action where appropriate, 4) upgrade volunteer water quality monitoring equipment 5) strengthen our current Volunteer Water Quality Monitoring Program through developing an EPA certified Quality Assurance Project Plan that we can share with other groups.

To arrange for a **Healthy Rivers/Healthy Gulf!** presentation for your group, please contact Misty Gorski at 582-5608 or fomb@gwi.net.

1. Atkins, C. *The River Fisheries of Maine*, in Goode, G. *Fisheries and Fishery Industries of America*, 1887

2. Yoder, C. 2006. *The Spatial and Relative Abundance Characteristics of Fish Assemblages in Three Maine Rivers: [Kennebec, Androscoggin and Sebasticook]*. *Midwest Biodiversity Institute. Tech. Report MBI 12-05-1*

3. Trefis, D. C. 2006. *Dams, Overfishing, and Environmental Crises: The Historic Link between New England's Declining Anadromous and Groundfish Fisheries. 1500-1900*. *Penobscot River Restoration Trust. 1-27*

4. Wiley, Allen. 2005. *Pers comm.*

5. Fay, C. et al., *Status Review for Anadromous Atlantic Salmon (Salmo salar) in the United States*. *Atlantic Salmon Biological Review Team. 2006*
Saunders, R., Hachey, M., and Fay, C. 2006; *Fisheries VOL 31 NO 11, November, 2006*
www.fisheries.org

Thwings Point Archaeology

This Phase 2 archaeology survey is another joint venture between Friends of Merrymeeting Bay [FOMB], and the Maine Historic Preservation Commission [MHPC]. Our dig this summer follows a Phase 1 survey in 2007 that revealed an area of concentrated 17th-18th century artifacts.

Thwings Point in Woolwich was supposedly site of the first European settler government in the Merrymeeting Bay area as citizens met here at the home and trading post of Thomas Ashley in 1654. Our dig was underway as this issue went to print during the week of July 12.

Like Fish in a Barrel

Well actually, fish in an elevator...or a ladder, pool or a chute. It's May in Maine and remnant spawning runs of once mighty diadromous fish populations have begun, starting with alewives, one of the river herring species. Even though today's runs are a shadow of those in the past they can be amazing to watch and are a reminder of what could be again, given free access to necessary habitat. By mid-May more than 1 million alewives had been passed over the Benton Falls Dam on the Sebasticook River, now the lower-most dam since Ft. Halifax was removed last year. Seeing this prolific and primal life force moving upriver one can't help but wonder at the actual potential possible.

Even now, the Sebasticook may well be the largest river herring run in North America according to Nate Gray, speculating while tending the Benton elevator or fish lift for the Maine Department of Marine Resources (MDMR). Nate, a fisheries biologist (and FOMB SC member), is in charge of the Kennebec Fish Restoration program for the State and during the *spring running*, pretty much lives at Benton Falls from 7 am to 8 pm everyday where he and his crew work alongside Calvin Neal who manages the dam for Essex Hydro.

Calvin came to Benton several years and several owners ago. During that first year he encountered Doug Watts seething amidst a sea of dead out-migrating silver eels, victims of turbine mortality. Pressure from Doug and FOMB has changed things since then. Bar grate has been installed to block access to turbines for emigrants, an eel ramp is installed for young eels moving up river (in 2008, 18,395 eels were passed via the ramp in 85 days) and the fish lift is in place. Credit is due Calvin and Essex for taking the fish passage issue quite seriously and doing a commendable job in managing their hydro operation around the fish. As we have always said in response to those who use the inaccurate phrase "payroll vs. pickerel" to paint environmentalists in a bad light: "to the contrary, we can have eels and electricity."

While there are enough alewives moving at Benton (and at Webber Pond and Damariscotta Mills) to resume limited commercial harvests (for lobster bait), there are still major issues. One question not much discussed is should alewives be harvested in these locations? There is little question that there are enough fish getting upstream in these areas to sustain populations in the spawning ponds and lakes, but would the Gulf of Maine fishery be better served by allowing those harvested to out-migrate as forage stocks for the ground fish? It's a ground fish v. lobster debate. And, arguably, ground fish are in much worse shape than lobster stocks.

The biggest *problem* in the face of the *potential* is of course *biolotics*, wherein the science of biology combines with the art of politics (biology typically comes out the loser). Biolotics is the number one problem in fish passage today and always has been. Benton Falls provides a case in point where Nate and Calvin have had to reduce the number of or even prevent fish from passing because of capacity issues at the next dam upstream-Burnham. The operators/owners here, Ridgewood Hydro, are not doing a good job managing passage and the dam presents some serious challenges to passage that Benton does not. In the case of Burnham, the canal carrying exhaust water from the turbines (the *tail race*) extends some distance downstream of the dam itself. The fish lift is located at the dam.

Continued on opposite page



“Diadromous species represent a vital ecological link connecting inland river basins with coastal marine and estuarine ecosystems and valuable fisheries. Restoring productive marine fisheries for future generations of Americans may not be possible without also restoring diadromous fish populations.”
 —Prescott Brownell,
 National Marine Fisheries Service



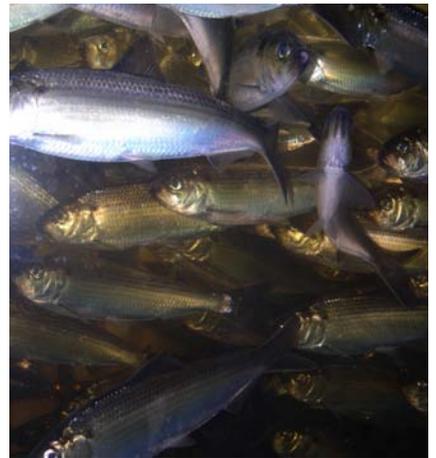


Clockwise from far left:
The Benton Falls dam uses a fish lift to move spawning fish.

Alewives are required to use a chute to migrate above the Webber Pond dam.

Two photos of alewives at Benton Falls

Elegantly simple pools are used to help fish migrate above the Damariscotta Mills dam.



Continued from previous page

Because fish seek predominant flow to find their way upstream, operators release an *attraction flow* from the lift area to lead fish to the elevator.

The problem at Benton (and Lockwood-first dam on the Kennebec) is that fish are attracted by the tail race they first encounter downriver from the dam, and working their way up to a dead end in the power canal, they don't make it to the attraction flow of the fish lift at the dam face. Short of shutting down the turbines to kill the tail race, one can manage flows by reducing power generation such that the *fish lift attraction flow* becomes the dominant flow. A diversion barrier at the outlet of the power canal shunting fish upstream to the lift can also be installed. Burnham would not/could not do this properly and so after several warnings from USFWS, they are enacting periodic shut-downs as the power canal fills with fish. Here, finally, the fish got some relief as they must back down and reroute to the attraction flow at the dam.

Benton and Burnham each use lifts to move fish. Other methods include, pools (Damariscotta Mills), chutes (the steppass at Webber Pond), and

ladders (with vertical slots-and a lift, plus trap and truck all combined at Brunswick). Aside from simple pools and steppass, the systems are very expensive, labor intensive and limited in scope. What's needed for true recovery are more passive methods emulating natural conditions-typically bypass canal type structures with gradients allowing fish to swim up them. More of these are being seen and they work pretty well for all species which is not the case for ladders, lifts and pools.

FOMB is one of the few groups really focusing on the connection between healthy rivers and a healthy Gulf. In order for our Gulf of Maine fishery to recover, we need to get the forage stocks in and out of their inshore spawning habitat. Ironically, because Gulf stocks are now so low, the chances of forage fish survival at sea are higher. This presents an excellent opportunity for diadromous fish recovery, given access to habitat. To paraphrase virtually all old-school transportation planners: Give them habitat (a highway) and they will come.

Phragmites: Coming to Your Marsh Soon !

Phragmites, or Common Reed (*Phragmites australis*) is a perennial grass which grows 10-15 feet tall with plume-like seed heads. Although small concentrations of native Phragmites have been noted in North American fossil and sediment records for roughly the last 4000 years, an invasive European strain has arrived and is now spreading rapidly. This genotype overwhelms native Phragmites stands and threatens wetlands on a wide scale in the northeastern United States, including areas where it was not present before 1900. At least eleven stands of invasive Phragmites have been identified in the New Meadows embayment, five at the head of the Muddy River, and one near the head-of-tide of the Abagadasset River. FOMB has launched a new project to eradicate the stand on the Abby this year. Fortunately, invasive Phragmites does not appear to have reached Merrymeeting Bay itself – but the threat is clearly on our doorstep.

Phragmites prefers fresh or brackish water systems, and was historically confined to the terrestrial borders of marshes which feature low soil salinities and high soil oxygen levels. However, in recent decades Phragmites has begun to invade low marsh habitats with higher salinities and soils where dissolved oxygen is depleted. Although disturbed landscapes are most likely to be invaded by Phragmites, the new European strain has now

reached even pristine areas, such as the fens in the Berkshires of western Massachusetts. Tolerance of an increasingly wide range of salinity and nutrient levels allows invasive Phragmites to threaten a broad spectrum of landscapes.

For the last 200 years Merrymeeting Bay has experienced ecosystem degradation due to deforestation, overfishing, dam building, pollution, and agricultural run-off. Pollution from mills, sedimentation, and wastewater has increased nutrient levels. Despite recent improved water quality in the rivers entering the Bay, this long history of abuse with associated stressors on native species creates an environment well suited to invasion by Phragmites. Continued recovery in the Bay is essential in light of the habitat it provides for plant species which are threatened or of special concern.

The Historical Record

Archaeological sites in the American southwest as well as rhizomes preserved in New England peat bogs indicate that Phragmites has

been present in both coastal and inland marshes for thousands of years. These native populations grew in mixed plant communities of sedges and forbs, where Phragmites was either not common or rare. In contrast, today Phragmites usually occurs in large monocultures. This change in growth pattern suggests that an exotic, invasive strain has been introduced. Indeed, genetic analysis using molecular markers¹ has identified eleven Phragmites strains native to North America, as well as a non-native population (specifically haplotype M). The distribution of the native strains on the North Atlantic coast has become rare, as this invasive strain out-competes all native lineages and has increased dramatically.

Exotic Phragmites was likely introduced to America ca. 1800 via

trans-Atlantic shipping using soil as ballast - just as purple loosestrife arrived. This soil was dumped in coastal marshes near the major northeastern port cities. As more roads and railroads were built, the range of the invasive Phragmites expanded. From a New England perspective, this invasion has come from the south. Phragmites expansion appears to have accelerated in the last thirty years, leading to the suggestion that the invasive genotype has been able to reduce the



Kermit Smyth gives the Abby a “spring haircut,” removing invasive phragmites.

energy expended on defending itself from some 170 species of herbaceous insects in Europe (which are largely absent here) and is now using this extra energy to expand through its rhizomes². Who said that plants do not have brains?

Large, monoculture stands of invasive Phragmites have a striking impact upon wetland communities. Plant biodiversity is sharply reduced due to shading and reduced germination rates. In many instances Phragmites chokes out all other vegetation (witness the invasion of Scarborough marsh) and thus reduces the value of wetland habitat to most wildlife. Invasive phragmites can affect the nitrogen cycle, alter sedimentation rates, limit the exchange of energy between trophic levels, and may lower the water table due to high transpiration rates. It is no wonder that along the North Atlantic coastline Phragmites has become the signature of wetland alteration, i.e., the symbol of “biological pollution”.

Phragmites colonizes new areas through seed dispersal, although this

Continued on next page

Friends of Merrymeeting Bay · Box 233 · Richmond, Maine 04357

Membership Levels

- \$1,000+ Sturgeon
- \$750 American Eel
- \$500 Wild Salmon
- \$250 Striped Bass
- \$100 Shad
- \$50 Alewife
- \$20 Smelt
- Other

Name _____

RR# or Street Address _____

Town/State/Zip _____

Phone _____ Email _____

- Renewal
- New Member
- Send me information about volunteer opportunities.

\$7 Enclosed for a copy of *Conservation Options: A Guide for Maine Land Owners* [\$5 for book, \$2 for postage].

Friends of Merrymeeting Bay

Steering Committee

- Sarah Cowperthwaite (Topsham)
- Ed Friedman, Chair (Bowdoinham)
- Nate Gray, Secretary (Freeport)
- Vance Stephenson, Treasurer (Wilmington, NC)
- Tom Walling (Bowdoinham)
- David Whittlesey (Bowdoinham)

Research and Advocacy

Ed Friedman 666-3372

Water Quality Monitoring Coordinators

Bill Milam 443-9738
Kermit Smyth 725-8420

Executive Coordinator

Misty Gorski 582-5608
email: fomb@suscom-maine.net

Thanks to Will Everitt for volunteering to design and layout this newsletter edition.

Continued from previous page

is not an especially efficient mechanism. Rather, the primary expansion mode for Phragmites is by clonal integration through its rhizomes³. Once a stand is established, the Phragmites root system does the major work to enlarge its footprint. This expansion is remarkably rapid for invasive Phragmites. For example, modeling studies⁴ predict a four-fold expansion in five years (i.e., 30% per year) in the New Meadows embayment, in agreement with photos from aerial surveys.

FOMB Phragmites Eradication Project

In recent decades numerous attempts have been made to actively manage Phragmites in the Atlantic coastal marshes using methods which include fire, mowing, and the application of herbicide - all of which run the risk of having unintended consequences on non-target plants and animals. FOMB will be using the “Clip and Drip” approach, which involves cutting and bagging the seed heads and then squirting a dose of glyphosate herbicide down each and every hollow stem. Herbicide application must be administered to an entire stand, or clonal expansion will re-establish whatever fraction of the stand was initially treated.

Eradication of Phragmites will be attempted in late August, as the Phragmites is returning nutrients to its root system. The clip and drip method is labor intensive, but very selective – the herbicide is held by the plant itself – and efficient. In western Massachusetts The Nature Conservancy has attacked invasive Phragmites for over a decade, with kill rates of 85-90% and no collateral damage to nearby globally rare plants⁵. On May 31st Ed Friedman and I gave the Abby stand a “spring haircut” – cutting all of the old stems down to waist level or lower. This will facilitate access in August and make the identification of this year’s stems unambiguous.

—Kermit Smyth

The Opportunity:
Invasive plants threaten the functional integrity of ecosystems as well as rare plants and animal communities. Phragmites now has the largest geographical distribution of any flowering plant in the world, and has reached significant populations levels in Maine. Merrymeeting Bay presents a rare opportunity to control this aggressive plant before negative impacts become extreme.

How You Can Help:
We need 10 or more volunteers to cut and bag Phragmites seed heads on Saturday, August 22nd (at low tide) starting at 9 AM; rain date is Sunday, August 23rd. Bring hand dippers, gloves, waterproof boots, and a hat for sun protection – as well as at least two quarts of water and a lunch. Killing invasive plants is not only important for the Bay, but is also fun and rewarding. Let’s do it! Call Kermit Smyth, 725-8420.

References

1. K. Saltonstall, Proceedings of the National Academy of Sciences 99: 2445-2449 (2002). Cryptic Invasion by a Non-native Genotype of the Common Reed, *Phragmites australis*, into North America.
2. B. Blossey, Estuaries 26:607-617 (2003). A Framework for Evaluating Potential Ecological Effects of Implementing Biological Control of *Phragmites australis*.
3. L. Amsberry, M.A. Baker, P.J. Ewanchuk, and M.D. Bertness MD, Ecological Applications 10: 1110-1118 (2000). Clonal Integration and the Expansion of *Phragmites australis*.
4. R.A. Konisky and Woodlot Alternatives, Model Analysis of Expected Plant Communities Response to Potential Tidal Restoration Conditions. Prepared for the Town of Brunswick (April, 2007).
5. See the story about Kamposoa Bog in western Massachusetts: http://www.iberkshires.com/story.php?story_id=12381.

Editor’s note: *The use of herbicides, particularly in the vicinity of water is something we do with great reluctance and not without substantial discussion and precaution. In this case we have the opportunity to eradicate a discrete and isolated stand of a prolific invasive species currently with a minimum presence in the Bay. We are using the very precise application of a commonly used herbicide, experienced and licensed personnel and conducting our operation during the time of the monthly low tide and after discussions with the DEP, Board of Pesticides Control and IF&W. —Ed Friedman*



Friends of Merrymeeting Bay
P.O. Box 233
Richmond, Maine 04357

Return Service Requested

NON-PROFIT
ORGANIZATION

PAID

PERMIT NO. 1
Dresden, ME

 Printed on: Genesis Writing, 100% recycled, 100% post consumer waste, processed chlorine free.

Androscoggin Upgrade Update

Despite overwhelming support from area organizations like Merrymeeting Audubon, Brunswick Topsham Land Trust and the Androscoggin River Alliance [ARA], and the fact the DEP had used our data previously; the Natural Resources Committee would not support an amendment to the river reclassification bill upgrading the lower Androscoggin from C to B. Neither would they commit to a firm date for an upgrade or let us come straight back to them next year (since there have already been several public hearings on this) bypassing the BEP hearing process, something they have done in the past. They did however pass by unanimous vote, an amendment encouraging FOMB and the ARA to gather more data this summer in conjunction with the DEP and go back to the BEP next January.

FOMB has increased dramatically the number of sites we are sampling on the lower Andro and the frequency with which we sample. We have invested substantially in EPA approved equipment for bacteria sampling and have applied for grants to help us with this. DEP has begun a Volunteer River Monitoring Program (VRMP) with nearly impossibly high standards.

Despite our feelings, the VRMP may be little more than an effort to minimize public participation we are cooperating to some extent and data from some of our sites will probably be accepted into their program. It is extremely frustrating to run this gauntlet when 1) we have had a reputable monitoring program for 10 years, 2) the DEP has used our past data to support the Kennebec upgrade, 3) we have seen many examples of the DEP set policy based on astoundingly poor and minimal data, and 4) the Program bars are set unrealistically high for volunteer groups [and the DEP can't do the work themselves]. Such are the high stakes on the Androscoggin where pulp still means power.

Spring Clean Up

As part of National River Clean Up Month, FOMB volunteers again attacked two primary areas in the central Bay where prevailing winds deposit trash. Piers Beirne coordinated a group of 12 who worked the south side of Abbagadasset Point and Abby Bridge in Bowdoinham. David Barber in Bath coordinated a group of 7 covering the Butler Cove area in N. Bath.

Garbage cleaned up included 4 bags of recyclables, 9 bags of mixed trash, 1 propane tank, 8 tires, 1 steel drum, corrugated roofing, tarps, large Styrofoam and blue foam blocks. All told, about 500 pounds of trash.

Thanks to: David Barber, Piers, Geraldine & Simon Bierne, Colin Beckman, Dawna Bowlin, Paul Dumdey, Michael Ebert, Dwaine Evans, Ed Friedman, Chet Gillis, Anne Hammond, Monique Lucarelli, Elizabeth Moloff, Pam McQueeney, Mark Rideout, Kermit & Debbie Smyth, Cheri Suzuki & Meg Zellinger. Thanks also to the Bowdoinham Recycling Center, Bath landfill and Jim Connolly of MDIF&W.