



Friends of Merrymeeting Bay (FOMB) 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 and is sent to FOMB members and other friends of the Bay.

For more information, contact:

Dup Crosson  
Coordinator/Organizer  
207-666-1118  
fomb@comcast.net



## Tracking Carp in Merrymeeting Bay

On August 25th FOMB used an electro-fishing rig to capture two common carp from each tributary of the Bay. Following capture, radio tags were surgically implanted in each fish and, after a recovery period, fish were released. Tags should last three to five years. By October 30th we successfully relocated eight of the twelve fish, some of whom returned to their capture point.



Common carp. Photo: Ed Friedman

Carp were introduced into the Kennebec/Merrymeeting Bay system in the 1880s and have since proliferated, rooting for food in our extensive mud flats and shallow, warm water. While pollution, log drives, and erosion, all far less than they once were, also create turbidity, carp populations may be the most prominent current cause. It has long been surmised by locals that carp are the primary source of excessive turbidity in the rivers and Bay. Older citizens remember when local rivers ran relatively clear (early in the 20th century) and while other possible sources of excessive turbidity have been eliminated, carp remain and have increased.

Carp-originated sediments tend to stay suspended due to wind and limited tidal exchange [note our extensive current study in previous newsletters and on the website]. Excessive turbidity limits photosynthesis to waters of less than a meter in depth. This, in turn, limits the growth and distribution of submerged aquatic vegetation (SAV). SAV provides spawning and nursery habitat for local and diadromous fish populations increasing fish productivity substantially. Invasive carp populations are controlled successfully in other areas (usually via seine or gill netting) during their winter and spawning aggregations with resultant increases in water clarity and SAV growth. Winter aggregations are found by following radio-tagged fish, often termed a "Judas fish." This project begins to investigate where our carp go and whether such control measures might be implemented here.



A radio tag. Photo: Ed Friedman

**Thanks to:** Nate Gray, Toby Bonney, Craig King, and Jason Bartlett from DMR; Steve and Lisa Pelletier; Mike Johnson, Jessica Costa, Nathan Henderson, and Jake Riley of Stantec; Cam and John Grant of Sigma-Eight; Denis Sayce and Heather Wright of IF&W; Peter Mekaletos of York County Helicopter; The Merrymeeting Bay Trust and Bowdoin College Common Good program; and Kathleen McGee and Ed Friedman of FOMB.

## Dresden Falls Conservation Update

After about six years our final Dresden Falls or Houdlette parcel was transferred to The Archaeological Conservancy (TAC) on September 25th. FOMB retained a four acre section of the archaeological and high-value habitat site until a conservation easement could be completed for the entire approximately 31 acres most of which was conveyed to TAC a couple of years ago. This site is considered the most important prehistoric archaeological site in Maine and has the largest stand of the rare plant spongy arrowhead seen in the Bay area.

Between 4,500 and 9,000 years ago, when river levels were lower than now and rising, there was probably a major waterfall or rapids at Goodwin Narrows across from the northern end of Little Swan Island in the Kennebec. With the falls hampering anadromous fish runs, native Americans developed a major seasonal fishing camp on this adjacent site. The Dresden site is reported to be the largest and most intensively occupied site of its age known in the state of Maine, and produced more stone tools than any other Early to Middle Archaic site in New England.



Aerial view. Photo: Point of View Helicopter Services.

The four acre section we retained until now contains the high ground overlooking portions of the Dresden site with confirmed intact prehistoric archaeological features. This section also contains confirmed intact 18th century archaeological features, and historical maps show several structures on the property at the time of the Revolutionary War. Had we not protected it, the site would have been developed into an eight home subdivision.

**“I want you to know what a pleasure it was working with Friends of Merrymeeting Bay these last five years to protect the Dresden Falls site. Considering all of the land trusts we have partnered with, FOMB has set a new standard, raising the bar of excellence to new heights. We certainly are eager to work with you again in the future and encourage you to contact us if The Conservancy can help protect another site near the Bay.” Andy Stout, Eastern Regional Director; TAC**

While The Archaeological Conservancy will own the entire property, our easement will protect conservation and archaeological values. Additionally, the Maine Historic Preservation Commission (MHPC) will hold a Preservation Agreement on about 60% of the property. Two grants from the Land for Maine’s Future (LMF) program helped the acquisition and the parcel is open to non-motorized use by the public. No disturbance of the land surface is permitted. Protecting this property was a long-term goal for FOMB and a major accomplishment! Substantial benefits accrue for Bay communities, state and federal agencies, and anyone with wildlife and archaeological interests. Thanks to TAC, MHPC, LMF, and all donors and grantors who made this possible.

## Changing Seasons: What is Phenology?

Look around and ask yourself what time of year or season it is. How do you know? Each autumn, we sense the drop in air and water temperatures, observe less daylight hours, and watch as leaf coloration paints an impressionistic New England landscape. These hallmarks of the season, coupled with bird and animal migration patterns, are instinctual cues telling us the season has changed. As we mark the arrival of each season with a calendar date, does mother nature coincide with our fixed dates?

For hundreds of years, historical observations were collected by farmers and naturalists recording the first appearance of birds, flowers and other natural phenomenon. Today, a branch of ecology termed phenology, is concerned with studying the seasonal timing of natural events. Phenology is becoming an increasingly important tool scientists can use to understand the impacts of climate change.

It works like this – scientists have to think more like naturalist observers. To recognize subtle changes in long-term patterns of phenology, scientists need a large record of historical observations. Weather observations, bird migration timing, and other records collected by farmers and public groups become data to scientists who can use the dates to track changes in event



timing from year to year. Over a number of years, data scientists can run statistical models to detect trends, determining whether a shift in phenology occurred. Naturalists are the new “citizen scientists” in the eyes of the ecology community and are an important link confirming observations with climate models.

So what exactly does phenology have to do with climate change and why is it important? If the timing of one natural population changes (as a result of a climatic factor, temperature, oxygen, salinity, carbon dioxide concentrations, etc.), there is a subsequent repercussion in another population. For example, many bird populations are timed with the emergence of insects which are a food source for hatchlings. The phenology of insect emergence (appearance) is also timed with their host plants either in leaf out or flowering phenology. If the timing of a plant or insect population is altered, the survival of dependent bird species may in turn be altered. There are numerous examples of species interactions in every ecosystem which are vulnerable to changes in their phenology.

What can we do to monitor phenology and aid scientists in their understanding of environmental change? In Maine an established phenology monitoring program, Signs of the Seasons, provides a great resource to involve citizen science volunteers. There are training opportunities available and resources for classroom teachers to establish a monitoring program with their classes. This program is part of the U.S.A. National Phenology network (USAnpn) coordinating the efforts of national monitoring projects in the scientific community. Local bird counts, migration monitoring, and other citizen science programs are emerging as a valuable asset for scientists. In collaboration with Acadia National Park, the Schoodic Institute provides ample citizen science opportunities. Fortunately for many of us with a love of nature, it also encourages a new generation of naturalists and lends increasingly more credibility to the science of observing.

*Heather Anne Wright*

## Merrymeeting: Found

When Captain George Weymouth set sail from England on March 31st, 1605 aboard the Archangel, I couldn't have been happier. I was 17 and headed to the New World. My parents knew the Earl of South Hampton, our galleon's financiers, and I was to report on the native population. Better yet, we'd be exploring areas never encountered by my countrymen, and from what I understood, keep an eye out for what those pesky French were up to.

Following a fairly smooth eight week crossing we landed on Monhegan Island. After a brief layover we sailed west and found safe anchorage in coves near Pemaquid Point. My first impressions involved an abundance of great trees: soft and hard woods, generous fish stocks, and thousands of huge clawed crustaceans with a delicate sweet meat. I was ill and couldn't go ashore to meet and interact with the natives of a summer village on the Sheepscot River. The First Mate returned with Greylock, an Abenaki native, and his son Sabbattis, who for various metal utensils, would guide us up a great river to the west.



*Photo: Wayne Hamilton.*

The Italian Giovanni da Verrazzano, sailing for France, first recorded sailing this coast in 1524. Using rudimentary maps of his river encounters and the local knowledge of our tall, athletic guide we found the mouth of our subject river on the east end of a long, beautifully sanded land. My health had recovered and on a fine June day we sailed on a westerly breeze and incoming tide to explore and hopefully claim for the crown unknown lands with reddish-brown-skinned inhabitants dressed in animal skins and with hair designs I'd never imagine. Very exciting, and so much to learn.

The river was a treasure of trees with many rocky ledges and bluffs. The crew hooked large fish that went straight to the cook. I attempted to learn the tongue and mannerisms of our guides. The captain sailed about 15 miles in pursuit of a large “lake” where many rivers emptied. Using words, gestures, and hand signing, Greylock explained different clans of the Kennebec Tribe of the Abenaki would take river routes to what I translated as a “merry meeting place” and set up summer camps. They'd utilize the resources of these waters and trade stories of the winter months.

After passing an island to the west we came to a narrow channel with a very swift outward current. Captain set into a cove to the east and dismissed a tender with six oarsmen to evaluate our situation. I observed a native people following our doings. We eventually sailed and rowed into a fine expanse of water—fresh, not salt. Waterfowl could be seen in all directions. Majestic white-headed eagles circled above. After circling and encountering a conflict of currents we headed in a northerly direction. We approached what appeared to be a settlement of thatch and wood-domed structures, populated by a people exhibiting no threat of violence.

I had befriended on our trip Sir Thomas Arundel, a relative of our sponsor. Sabbattis and I pleaded our case to him and the captain to leave us at this compound to be retrieved on their return. After all, it was my Father's wish. We were rowed to their landing where I presented a bayonet to Escumbuit, their elder chief. He agreed and assigned us to his teenaged grandson and daughter Metallak and Mali Agate. The Archangel left and proceeded north to report on potential trading opportunities and navigability of the waters.



Eastern River, native encampment site. *Photo: Ed Friedman.*

What we found and learned I wrote within a sheaf of papers. Our hosts were amazed as they only communicated verbally and with drawings. We would sleep in a smaller, round wigwam to the side of our host family's longer, higher one. The ingenuity of using just stone, bone, and wood tools with local flora of all sizes and with various preparation techniques to create this community aroused deep impulses in me I didn't fully understand. Perhaps I was born in the wrong country.

Abenaki body structure, muscle tone, and general health was quite a contrast to our motley crew. Metallak explained their inland and upriver homes have gardens and dome and cone-shaped insulated wigwams. Many river "roads" fed into their bay, each with areas of fertile growing soil. Families came when the leaves began to green and small flying creatures descended. Women could be seen weaving a variety of mats and baskets. They used indigenous reeds, hemp, inner fibers of hardwood, and root strips of flat leaf trees. We slept, sat, and ate on mats. Large, thicker ones covered our wigwam. Such artists. We ate a fish and mollusk stew with roots, plants, and tastes unknown to me. A flat bread of the dried, pulverized root of a tall thin swamp plant was baked somehow on hot rocks. Wild berries provided a tasty dessert. Apparently it was too early for their staples of corn, beans, and squash. My father will appreciate this knowledge and the seeds I shall bring.

In the morning we set off in uniquely crafted double ended boats, one constructed of birch bark sewn over broad leaf wood frames, the other a long dug out pine log that Metallak proudly said he helped burn and chip out. I was impressed with their craftsmanship. For catching fish we saw natives using nets of handmade cordage, a variety of bone-pointed spears, and bait-smearred plummet weights. Due to a five to six foot tide, intricate systems of interwoven sticks forming weirs were strategically placed to capture a wealth of fish. Many species of fish went through the bay to breed within inland waters. Rows of drying racks holding fish could be seen. Another winter food. We also paddled to great expanses of a wild rice, never before seen by me. Apparently planted long ago from rice stock of tribes to the west, the alluvial mud of the bay was a perfect medium for its growth. Besides its diet importance the harvesting played a ceremonial role in their society and religious life. Ducks and geese that fattened on this grain were expertly killed with bow and arrows and ended up over their fires.

Following an evening feast my ship's crew would die for, I was treated to many fish stories, some traditional, some firsthand. If only my memory would better serve me. And all the while the males consumed the smoke of a sweet smelling leaf of a plant in small bowled devices. Only the men grew this plant. Its effect on me was mystifying. Perhaps our captain will be interested!

In the morning I studied males making pointed heads for arrows and spears from a dark stone that appeared to flake off at desired locations when struck with another stone. It came from a special mountain next to a lake at the head of this Kennebec River. They projected these weapons with great accuracy and secured small game, waterfowl, and certain fish around the bay. Suddenly, word came that our ship was riding the tide to collect Sabbattis and me.

Later, and after we were propelled through the narrow channel emptying this delta of rivers, I exchanged adventures with Captain Weymouth. He called these Abenaki "heathens" but I doubted that. They had their "Great Spirit," terms for good and evil, strong family, and community bonds. What made them so different than us? They also had their beautiful bay, a bountiful crossroads of nature where I could envision myself returning. So much information about the New World to record

for my father's report. I was going to be one busy young lady.

*Author's note: I wrote this in the spirit and style of Kenneth Roberts, who mastered stories of historical fact told through the eyes of fictional characters. His Early American-set novels are classics. Steve Musica*

## Conflicting Smart Meter Decision

As a preface, keep in mind the Public Utilities Commission is, by law, required to “ensure safe, reasonable, adequate, and non-discriminatory services.”

On September 23rd, while the rest of the world enjoyed Bay Day, the two Maine PUC Commissioners finally handed down a preliminary decision ruling smart meters posed no credible risk of harm. The two differed somewhat in that Commissioner David Littell wanted his cake and ate it too; deciding the World Health Organization was quite credible in its decision to list radiofrequency radiation (RF) as a possible carcinogen, but ignoring the classification included all RF, not just that from cell phones. He then proposed granting those with acute sensitivity to RF no-cost opt-outs with a note from their physician. This in contrast to the point Maine Law Court justices made in response (at oral arguments) to the PUC attorney stating opt-outs were available: “What about the safety of all the people not opting out” [or those who may be ill from smart meters and not know it]? Littell drafted a 62 page opinion not yet released. Commissioner Mark Vannoy, on the other hand, noted their duty was to determine if meters are safe or not and felt, despite overwhelming contrary evidence, meters are safe.

We don't believe Central Maine Power (CMP) and their product defense consultants (who have represented, tobacco, asbestos, Monsanto, Toyota, etc.) met the required standard of proof – they never showed smart meters were safe. And it is clear, although Littell admitted RF exposure may cause harm, the Commission refused to meet their statutory requirement to ensure or guarantee safety for all CMP customers.

More evidence is published weekly on harmful effects of RF to people and wildlife. Once the Commissioners have formally issued their reports and order, complainants can consider their next steps. In complainants' words, “Resistance...because harm is not an option and extortion is not a choice.”

Video footage of the deliberations can be found at: [www.mainecoalitiontostopsmartmeters.org](http://www.mainecoalitiontostopsmartmeters.org) thanks to Martha Spiess.

## FALL BAY DAY THANKS



Bay Day archaeology station. Photo: Dup Crosson.

Thanks to our great guides Leslie Anderson, Toby Bonney, Craig King, Bethany Brown, Kent Cooper, Steve Eagles, Hannah and Tina Goodman, Fred Koerber, Jay Robbins, Steve Musica, Priscilla Seimer, Ben Sniffen, Betsy Steen, Ann Thayer, Amy Hamilton Vailea, Heather Wright, and Tom Walling.

Also thanks to our chaperones Tom Hughes, Carole Sargent, Colleen Moore, David Barber, Dana Cary, Heather Cox, Andrew Fiori, Bob Goldman, David Hammond, Pam Hanson, Bill Heaphy, Joan Llorente, Martin McDonough, Barbara O'Hare, Dwight Sholes, Bert Singer, Karen Tilbor, and David Whittlesey.

Special thanks to Wild Oats for continued support, Doug Tourtelotte Excavation for the gravel donation and Ed Friedman for filling the worst potholes with it. To our hosts at MDIF&W, thank you again.

## Report of the Maine Commission to Study the Atlantic Salmon

*To his Excellency Horace A. Hildreth, Governor of Maine, State House, Augusta, Maine.*

**Foreword:** “When the first settlers came to this country they found that in the spring virtually all of the rivers from New Jersey northward were alive with countless thousands of salmon that were making their way from the mysterious depths of the sea to their spawning grounds in the upper reaches of these various rivers.

For a great many years they and their descendants enjoyed this harvest that a kind and thoughtful Providence had brought to their doors. But these forbears of ours were unmindful of their blessings. With a thoughtlessness that seems shocking to us, they completely destroyed these fabulous spring runs of fish.

They did it by building dams that were insurmountable thus preventing the fish from reaching the spawning grounds and so procreating their kind. They did it by making the rivers the dumping grounds for all kinds of waste through which the fastidious salmon would not swim.

**“The disappearance of the salmon is a shocking condemnation of man’s stewardship over the bountiful riches of nature with which the Almighty has endowed us.”**

Gradually the Atlantic salmon, the most beautiful and one of the most desirable of all fish, disappeared from the American scene. Today it is extinct in the United States except for a few small runs in some of our eastern Maine rivers. The disappearance of the salmon is a shocking condemnation of man’s stewardship over the bountiful riches of nature with which the Almighty has endowed us. It belongs in the same category as the despoliation of our forests; as the man-created erosion that has ruined forever hundreds of thousands of acres of our land; as the extinction or near extinction of many of the birds, animals and fishes that once populated our country.

We of Maine are the sole arbiters of the Atlantic salmon’s future in this country. We will restore our salmon runs to something approaching their former glory or we will allow the last salmon to die and thus bring to an end ignominiously the history of this magnificent fish in our nation. If we decide upon the latter course we will be holding ourselves up to the contempt of all men from this time forward. We will be looked upon as being stupid, ignorant and totally irresponsible; as being persons God has trusted unwisely.

This report will point out the material advantages that will accrue to Maine if our salmon runs are increased. The evidence presented is incontrovertible. But even though not a single dollar was to be returned for the money spent to preserve the salmon for posterity we would have to do it or admit that in our dealings with God’s creatures we are morally derelict. Our duty is self-evident. We cannot evade it, we cannot temporize it, we cannot pass it off as something that is insignificant. We will be known to historians as a people with the wisdom and foresight to preserve this magnificent fish or we will be known as barbarians who were unmindful of their blessings or too ignorant to preserve them for our children. There is no middle course in the matter.

*Signed Jan. 1st, 1947: Frank L. Baker, Chairman, W. Lloyd Byers, Secretary, Sam. L. Worcester*

## Other Ways You Can Support FOMB

- **Employer matches:** Many businesses will match employee donations to nonprofits like FOMB – an easy way to double the impact of your donation.
- **Gift memberships:** Involve your family and friends by donating on their behalf.
- **Stocks and securities:** Save on year-end capital gains by donating your appreciated stocks or other securities. Please contact us for more details.
- **Legacy gifts/planned giving:** Donors can bequeath donations of land, stocks, or account holdings.
- **Become a volunteer!** Our work continues and expands because of our generous volunteers. Over a third of our members are active volunteers throughout all our programs! Contact us for more information on how you can help.



# We Need You! Please Support Our Important Work

## FOMB Leadership

Our accomplishments are due to the hard work of dedicated volunteers, especially those who serve on our committees. If you want to get involved and serve, please contact the committee chair or Dup Crosson. We always welcome member input and we'd love for you to join us!

### Steering Committee

Ed Friedman, Chair (Bowdoinham)  
 Sarah Cowperthwaite, Secretary (Topsham)  
 Nate Gray, Treasurer (Freeport)  
 Tom Walling (Bowdoinham)  
 Steve Musica (Richmond)  
 Boris Clark (Topsham)

### Education Committee

Betsy Steen, Co-Chair, 666-3468  
 Tom Walling, Co-Chair, 666-5837

### Conservation and Stewardship Committee

Chair Vacancy

### Membership and Fundraising Committee

Nate Gray, Chair, 865-9377

### Research and Advocacy Committee

Ed Friedman, Chair, 666-3372

### Coordinator/Organizer

Dup Crosson, 666-1118

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

### Membership Levels

- |   |   |                                     |
|---|---|-------------------------------------|
| <input type="checkbox"/> \$1,000+ Sturgeon  | <input type="checkbox"/> \$250 Striped Bass | <input type="checkbox"/> \$20 Smelt |
| <input type="checkbox"/> \$750 American Eel | <input type="checkbox"/> \$100 Shad         | <input type="checkbox"/> Other      |
| <input type="checkbox"/> \$500 Wild Salmon  | <input type="checkbox"/> \$50 Alewife       |                                     |

Name \_\_\_\_\_

Address \_\_\_\_\_

Town/State/Zip \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

- |                                     |   |
|-------------------------------------|---|
| <input type="checkbox"/> Renewal    | <input type="checkbox"/> Send information about volunteer opportunities |
| <input type="checkbox"/> New Member | <input type="checkbox"/> I would like a sticker                         |

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



Thanks to Will Zell from Zellous.org for newsletter layout.

## Clean Water Act Salmon and Shad Lawsuit

On July 14th the U.S. Court of Appeals in Boston reversed U.S. District Court Justice Singal in his dismissal of our Clean Water Act claim against Kennebec dam owner(s) Brookfield Power. Our claim maintains dam owners “desire” (a term used in the Kennebec Hydro-Developers Agreement) to pass adult salmon and shad through their turbines as a means of downstream passage, and in so doing violate their water quality certifications which specify dam-specific turbine mortality studies must be done prior to such action.

The appeals court said Singal must weigh the actual evidence we provided (which he did not do) and remanded the case to him for further consideration. On September 5th attorneys from both sides met with Singal who decided to allow a few weeks for parties to submit supplementary materials in support of motions for summary judgment based on further factual review of evidence. As we requested, no new evidence would be allowed. Briefs were submitted on September 29th. Response briefs were submitted October 20th and replies by November 3rd. All filings are available in the legal section of our website’s Cybrary. Continued thanks to Dave Nicholas and Bruce Merrill, and Josh Kratka, Chuck Caldart, and their crew at the National Environmental Law Center.



Friends of Merrymeeting Bay  
P.O. Box 233  
Richmond, ME 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.

## Announcing Winter Speaker Series 2014-2015

- NOVEMBER 12** Searching for Historic Apples of Maine  
*John Bunker, Farmer/Author*  
\* Bridge Academy, Dresden
- DECEMBER 10** The Value of Honey Bees to Maine Agriculture  
*Tony Jadczyk, Maine State Apiarist*  
\* The Old Goat (upstairs): 33 Main St., Richmond
- JANUARY 14** Steve Powell's World of Wildlife: In Film & Photo  
*Jay Robbins, Historian*  
\* FOMB Annual Meeting & Potluck: 6:00pm,  
public welcome at Cram Alumni House,  
Bowdoin College, 86 Federal St., Brunswick
- FEBRUARY 11** Chimney Farm: Words from the Watershed  
*Gary Lawless, Poet*
- MARCH 11** Big Night: Rise of the Frogs and Salamanders!  
*Dan Nein, Wildlife Biologist*
- APRIL 8** Sea Run Alewife Restoration  
*Frank Richards, Webber Pond Association*
- MAY 13** Unseen but Everywhere: Plankton & Particles!  
*Harry Nelson, Fluid Imaging Technologies*  
\* Bowdoinham Town Offices

All talks at 7:00pm at Curtis  
Memorial Library, Brunswick,  
unless noted \*

Sponsored by Friends of  
Merrymeeting Bay with  
support and door prizes from  
Patagonia, Inc. Freeport.

Contact Dup Crosson,  
666-1118 or [fomb@comcast.net](mailto:fomb@comcast.net)  
for more information.