SPRING 2000
To Preserve, Protect and Improve the Unique Ecosystems of Merrymeeting Bay.

Friends of Merrymeeting Bay is a 501(c)(3) nonprofit organization. Support comes from members' tax-deductible donations and grants.

Education
Hands Around the Bay, Speaker Series, field trips.

Conservation & Stewardship
Protecting natural resources through private and public ownership, easements and stewardship.

Membership Events
Paddle tours of the Bay, field trips, conservation meetings, potluck suppers and shoreline clean-ups.

Research and Advocacy
Water quality, data collection, toxics, fisheries restoration.

2000 Steering Committee
Frank Burroughs, Bowdoinham
Jenn Cost, Brunswick
Andy Cutko, Bowdoinham
Steve Eagles, Richmond
Ed Friedman, Bowdoinham
Kathleen Kenny, Dresden
Kathleen McGee, Bowdoinham
Al Mesrobian, Bath
Bill Milam, Woolwich
Steve Pelletier, Richmond
Steve Taylor, Bowdoinham

On-Line
http://www.col.k12.me.us/mmb/fomb@gwi.net

MARK YOUR CALENDAR

JUNE 10       ANNUAL SPRING CLEANUP ON THE BAY
We're going to focus on the eastern side of the Bay this year. Dilapidated ice shacks, tires, abandoned rowboats and more. Knee-high rubber boots a must. If you're a "big kid" and need an excuse to get muddy, this event is for you. We'll start at 1:30pm so we can hit the low tide. Call 666-3376 for directions.

JULY 22       ANDROSCOGGIN RIVER SOURCE TO THE SEA CANOE TREK: MERRymeeting BAY SECTION.
Meet in Brunswick at 8:00am on Saturday, 7/22/00. Paddle to Chops Point with the tide (very sure), wind at our backs (less sure) and good times (guaranteed). Stay for the cookout and post trip entertainment. See article on pg. 8 or call 666-3376 for more information.

JULY 26       WORK TRIP AT THE COFFIN WILD FLOWER SANCTUARY TO REMOVE INVASIVE PLANTS.
10am-2pm. Bring gloves. Call Chris Mattrick at 508-877-7630 for more information.

SUMMER 2000       FOMB SUMMER PADDLE SERIES
Join us for a series of informal evening paddles on the Bay or surrounding rivers. Bring your own boat and picnic dinner, enjoy a leisurely paddle and a brief talk by a local expert on some aspect of the Bay.

JUNE 6TH      SWAN ISLAND JAUNT
JUNE 20TH     SUMMER SOLSTICE ON THE CATHANCE
JULY 6TH      LINES ISLAND CIRCUMNAVIGATION
JULY 18TH     WEST BRANCH OF THE CATHANCE
AUGUST 15TH   DINNER AND FULL MOON WATCHING ON THE SANDS

Call 666-3376 for meeting times and places.
The stewards are back out on the rivers and the Bay for another season of water quality monitoring. In April we completed our first QAQC field session and first (and coldest) scheduled monitoring. Our current sites where both water quality and fecal coliform are being monitored are Waterville, Hallowell, Richmond, Motherwell Point on the Kennebec and Pejepscot Landing and Pleasant Point on the Androscoggin. The Kennebec Valley Chapter of Trout Unlimited has funded another location on the Kennebec at Skowhegan and we have new KVCTU volunteers, Dave and Don LaChapelle, for this location. Starting in May we will have volunteers, Justin Smith, Phil Brzozowski, Bryce Muir and Don Herbert joining us on the Eastern and Cathance rivers.

Along with new monitoring locations some new partners will be joining the effort to protect our watershed. Merrymeeting Bay Chapter of Trout Unlimited (TU) will be funding a kit for the upper portion of the Cathance. Don Herbert from TU will be working with area teens from Mt Ararat who are interested in fishing and hence, protecting habitat quality. I also joined Justin Smith, who has a great interest in teaching area school children about their local river through water quality monitoring, at Pittston Elementary School for demonstration to the 4th and 5th grades. Some of these students are forming a science club that will be participating in Justin’s water quality monitoring activities.

Currently we are working on developing a database for our 1999 monitoring data and will have a summary of our preliminary observations this summer. We have had some very good feedback on our data at this time. It will take a few years of data collection to really be able to make strong observations but we are able to begin looking at general conditions. We are also working on our program this year to get it in place for EPA quality assurance approval by next winter. We have had enormous support from Peter Milholland of Friends of Casco Bay who has provided procedures and loans of metering equipment needed to perform our field quality assurance session, an essential piece in receiving our approval.

We are seeking water quality monitors for two sites in Bath. The Department of Marine Resources has added fecal coliform testing sites at the boat landing and the museum and it would be beneficial to have water quality information as well. If you’re interested in being a water quality monitor in this area and/or are interested in sponsoring one of the kits in the area, please contact me.

In addition, I am recruiting volunteers who would be willing to be "backup monitors" for many of our locations around the Bay. Finally, one person is needed to "bag" fecal coliform samples at two locations on the Androscoggin once a month. If you would like to donate your time or a kit to the program please let me know! I can be contacted at 666-5803(h) or 287-2351(w).

Theresa Torrent-Ellis
Daylight Savings Time went into effect this past Sunday. Even so, robins were singing Monday morning before 5 AM, EDT. They had returned in big numbers in late March, while I was away for a week, and had taken possession of Cathance Neck with a sense of entitlement I can only imagine. They are here because it is spring; it is spring because they are here. They sing because the sky is growing light; the sky grows light because they sing. The same is true for the wood frogs that began their guttural serenade last week, and for the peepers that now reign in desperate unison every night from every pond and puddle in midcoastal Maine.

Once we were much less insulated than we are now from the fact that we inhabit a planet that rotates diurnally and orbits annually, altering our relation to the sun minute by minute and week by week. Once our own lives moved to those cyclical rhythms. Our myths and rituals and customs, our feasts and fasts and holidays still preserve some fossilized vestiges of this old biological synchronicity. And inwardly, most of us notice, to a greater or a lesser degree, a kind of cheerfulness when the peepers start, the lifting of a gloom that had come to seem perfectly normal.

So Daylight Savings Time went into effect on Sunday, and the robins are singing and the peepers are peeping. And on Tuesday evening, April 4, 2000, somewhere about 8:45 PM, Eastern Daylight Time, Pedro Martinez, out in Seattle, Washington, threw the first signifiant pitch—an unhittable and hissing fastball, outside corner--of the new season. Such is his name and fame that this was an event of some importance to all baseball fans everywhere, but in northern New England, it is something deeper, the beginning of a narrative whose episodes are unpredictable but whose conclusion is not.

On the face of it, the Red Sox are a professional baseball team. They play their games in real time, which translates into real money. Their players come from all over, and the rate of turnover among them is high. Most of them are migratory, packing their bags and leaving Boston in early October, and traveling to wintering grounds in the lower latitudes.

But a tree remains a tree even though all its leaves abandon it in the fall, and are replaced by an entirely new set in the spring. The Red Sox remain the Red Sox, a collective entity of replaceable parts, a set of apparently random and generally discordant variations on one theme. That theme is not random. It rises like upwelling sap in cities and towns and villages and lonely little isolated farms all across northern New England. It brings back the robin and awakens the peeper. It is, to give it a name, the Triumph of Hope over Experience.

Not that Hope ever really triumphs, of course. Experience gains the upper hand every year: the peepers fade out a few voices at a time, the chorus growing more ragged and plaintive as April passes; the robins sing later and less ardently. By midsummer, the grass is turning brown and things take on a tired and dusty look, as the earth tilts away from the sun.

To understand the deep and mystical connection between the Red Sox and the whole breathing and animate world, you need only read the sports pages of The Boston Globe and pay attention to your surroundings. In April, the message from the gurus of the Globe and peepers in the pond is the same. Stand beside the pond and listen to that crying that is almost painful in its urgency. Listen and hear it become language, desperate as the calling of so many men in lifeboats in the middle of the night, with the wind rising. This year, they say, over and over, faster and faster: this year; this year; this year; this year; this year. Pennant Fever Grips Hub shrills the Globe, helplessly in the grip of Hope.

In the same pond in July you hear a different tune. Traditionally, bullfrogs say jug-o-RUM, jug-o-RUM, a warning or an invitation to drunkards. But since 1918, the last year the Red Sox won the World Series, they say not-a-HOPE, not-a-HOPE. Here and there around the fringes of the pond a green frog answers, a single twanging note: NOPE. NOPE.

There are other teams in other parts of the country, and every year one of them wins the World Series and the citizens in that part of the country rejoice, with a vulgar jubilation that we who are said to live in New England do not really envy. The triumph of that team is mere strut and swagger, signifying nothing. The endlessly self-renewing failure of the Red Sox is an annual pageant and a myth, an acting out of the graver realities of everything that is born, lives, and dies. It is hard on the players, coaches, and fans, of course, but that's life.

I heard a story years ago, about a man many years my senior. I had just moved to Maine. The man I heard about was a lawyer from Philadelphia. All his life he had been what in Maine is known as a "sport:" a rich fellow with a college education who liked to come up north, hire a guide, and hunt or fish. He belonged to the vanished generation of men who considered a tweed jacket and a Donegal hat and knickerbockers to be recreational attire.

So he was attired that way and riding the train up to Bangor one evening in June. He would be met there by his guide and driven to the lakeside camp that was his eventual destination. A very fine, calm evening it was, and he was happy to be headed up into the north woods again, toward the days of gentlemanly yet simple pleasure that lay ahead of him. At a stop fifteen or twenty miles west of Bangor a small, haggard-looking man got on and, there being no other seats available, he sat down beside the lawyer. He did not return the lawyer's smile or even meet his eyes as he took his seat. They rode stiffly on for a while, but the influence of the mild evening and his own good mood were too much for the lawyer. He felt a humane sympathy for the haggard-looking man and wished to divert him from (con't on pg 5)
HABITAT PROJECT SUMMARY

The largest part of the FOMB research project assessing aquatic and upland habitat changes between 1956 and 1998 has just been completed. This project has been funded in large part by a Maine Outdoor Heritage Fund [MOHF] grant sponsored by the State Planning Office [SPO]. Other project partners contributing financially or in-kind have included The Nature Conservancy [TNC], United States Fish and Wildlife Service [USFWS], Maine Natural Areas Program [MNAP], United States Geological Survey [USGS], and of course FOMB. Historical aerial photography on which the project was built and that the 1998 photography compared to was provided courtesy of Maine Department of Inland Fisheries and Wildlife [MDIF&W].

The largest pieces of the project, that of the photo interpretation, mapping and trend analysis, were contracted out to the James W. Sewall Company whose report in large part serves as the basis for this article. While a very brief written summary is presented here it is important to remember the power of the actual maps to show graphically and obviously the broader trends as well as specific geographic locations. We hope in the near future to have the full report and map products available on our web site.

In geologic terms the Bay is considered an inland delta and as such might be expected to fill in over time with sediments. This may be borne out in analyzing the photography, which shows an increase of 1338 acres of silt and sand between 1956 and 1998 corrected to 850 acres for differences in water level in the photography. Alternatively, this sand/silt change could represent a de-vegetation of existing areas rather than areas of new fill. Sedimentation can be influenced by normal sediment transport, routine erosion, storm events, runoff, dams, and flood events that while bringing in more sediment can also flush the system to some extent.

Sedimentation also affects vegetation. Rapidly moving sediments may well impede vegetation growth but certainly would favor annuals [like wild rice] for their quick start over perennials that require a stable substrate in which to become established. Sediments will also harbor nutrients and contaminants that may help or hinder vegetative growth and animal life.

Total vegetation within the Bay has declined about 20% over the study period while sand has increased 215% and silt 140%. Both wild rice and submerged aquatics have increased about 30% over the period, though rice could be wildly variable depending on the year. The bulk of these changes appear to have occurred between 1956 and 1981. Anecdotal reports from those who’ve been on the Bay for years confirm these trends.

In earlier vegetation studies by MDIF&W the Bay was split into 7 sub-sections to observe local trends. These same divisions were delineated in the current study. For the most part there...
were major increases of rice and silt and these were often inversely proportional to decreases in mixed emergent stands [those where a dominant species did not make up at least 70% of the stand]. The Swan Island subsection [Figure 1] saw the largest gain [233 acres] of wild rice and greatest decline in mixed emergents [-414 acres]. The Abbagadassett subsection [Figure 2] encompassing the river itself and an area bounded by the south side of Abby Point, the Chops, Butler Head and Center's Point saw the largest gain in silt [302 acres] and sand [203 acres] combined. The Androscoggin area showed the largest gain in sand [253 acres] while the Chops section [Chops to Thorne Head] in contrast to other areas showed a gain in mixed emergents [88 acres] and decline in wild rice [-156 acres].

While upwards of 9 vegetation species were delineated as they were in earlier studies a number of factors may make comparisons at the species level [with the exception of wild rice] somewhat questionable. Early studies used a dot grid overlay to identify individual species. Each dot on these grids represented 5/8 of an acre. In the current study 1/8-acre polygons were drawn around vegetation stands and as mentioned they needed at least 70% species dominance to be typed to a particular species vs. mixed emergents. Other differences included tide levels [there can be a 3 foot difference between low tides in a given month], scale and quality of photography, film type and interpretation. It is noteworthy that mature wild rice creates a dominate overstory, hiding other species below so that had photos been taken earlier in the summer a very different perception of species composition might occur.

Water quality and Bay related wildlife habitat are both influenced by land use trends in adjacent uplands [Table 1]. Our upland study was limited to 1/2 mile buffer around the Bay. Two changes were very evident here when comparing land cover types and buildings over the years. There has been a significant increase in buildings over the study period, in fact, the number of buildings has more than tripled. Agricultural land on the other hand has declined by about 52% over the study period with some of it transitioning to forest [up 18% for the period] and some to developed areas [up 254% for the period]. As might be expected the subsection showing by far the greatest gain in buildings is the Androscoggin section where growth or sprawl in Brunswick and Topsham is most evident.

This study provides a well-documented and excellent baseline against which future changes may be measured. It also provides a valuable planning tool that illustrates patterns and types of human growth as well as ecological succession. If we are to determine some of how we choose to live in our bayside environment and what it should look like instead of reacting to whatever happens then we must make conscious decisions to utilize tools such as conservation easements, zoning, comprehensive plans, erosion control ordinances, and timber harvesting standards to shape our society and environment. All of these efforts are harder work than just accepting what comes but in meeting the challenge we may pass on to future generations something of this Bay we find so valuable.

Ed Friedman

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<th>Merrymeeting Bay Land Use Summary 1956-1998</th>
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Table 1. "You can use facts to prove anything that's even remotely true."

-Homer Simpson

TIDINGS/SPRING (con't from pg 3)

Ed Friedman

I liked that story when I first heard it, and I like it better with every year that passes. The peepers peep thisyearthisyear, the umpire calls out play ball, the conductor cries all aboard. Against our better wisdom, foreknowing the outcome, we clamber on, and ride the bittersweet promise of another springtime towards the inevitable outcome.

Franklin Burroughs

Tidings is a regular feature of Merrymeeting News
BUREAU OF HEALTH WEAKENS MERCURY ADVISORY

Mercury is an extremely toxic substance that is prevalent in our environment. While some of the state’s mercury contamination comes from mercury containing products we all use [fluorescent light bulbs, batteries, thermostats, etc.], the majority of mercury pollution comes from industrial sources. Maine is at the end of the wind tunnel that deposits mercury from coal fired utilities in the Mid-west. But we have serious offenders in Maine as well, the worst being HoltraChem, who manufactures chlorine and has over 200,000 pounds of mercury on site. Mercury is so toxic that it only takes a teaspoon, an amount the size of your thumbnail, to pollute a 20-acre lake. Fish can absorb mercury that’s in the water and when humans eat those fish they are absorbing some of the mercury as well. Due to the dangers posed by this scenario the state has issued mercury advisories since 1994.

Mercury is a neurotoxin that actually interferes with the architecture of the brain. It can cause great harm especially to the developing brain of a fetus and to young children. Mercury, as well as other toxics, is more often being implicated in the near epidemic levels of various disorders and learning disabilities. Attention Deficit Disorder [ADD] and Autism are two problems where mercury and possibly other toxics are suspected of being contributors. Even minute levels of exposure to mercury during critical windows can adversely and severely alter brain development.

Unfortunately, the Bureau of Health [BOH], has relaxed the mercury fish consumption advisory in the State of Maine. In previous years the BOH has set, appropriately, a precautionary tone in regards to this potent neurotoxin. It advised that women who are pregnant, nursing, soon to become pregnant and children under the age of 8 eat no warm water fish species from Maine’s lakes and ponds and limit cold water fish species to one meal a month. The mercury revision now suggests that the sensitive population can safely eat one meal of fish a month, regardless of the species. While this does not sound like a big change, a meal a month of fish provides very little, if any, health benefit, while putting the developing fetus at risk.

The revision of the mercury advisory is based on a review of three highly controversial and contradictory epidemiological studies and depends on risk assessment, which requires a great many assumptions from the beginning, assumptions that can often be arbitrary or possibly biased. Some of the assumptions made in the review of these studies can unnecessarily put too much of our population at risk. There are many scientists who agree there is no known safe level of exposure for mercury.

Risk assessment is risky business when used as the primary tool in the creation of public health policy. In a test case of risk assessment, 11 countries put forth their assessment of an ammonia factory that would/could blow up. The answers differed by a million fold. William Ruckelshaus, former Administrator of the US Environmental Protection Agency, once stated, “Risk assessment is like a spy, torture it enough and it will tell you what you want it to.” Risk assessment should only be one tool when determining public health protection, especially when the fish tissue levels of mercury are as high as they are in Maine.

According to Dr. Robert Frakes, Board Certified Toxicologist and former State Toxicologist for the State of Maine, “the only safe advice for the sensitive population is to eat NO fish from these waters. There are simply too many uncertainties, too many risks. There is never compelling reason to put our sensitive population at risk. These numbers [in the revision] do not add up to public health protection.”

Friends of Merrymeeting Bay posted the first fish consumption advisories in the State. The Maine Toxics Action Coalition extended that effort statewide several years ago. MTAC’s posting efforts have been recognized nationally. In a national conference on fish consumption advisories last fall Maine scored highest in public awareness of fish advisories. MTAC has posted because the state refused to do so.

Friends of Merrymeeting Bay, along with MTAC, have requested the BOH rescind its current advisory, protect the sensitive population with No Consumption language, and be proactive about eliminating the sources of these toxins. FOMB in conjunction with MTAC feels an obligation to protect public health, especially for those most vulnerable. MTAC will post a No Consumption advisory for mercury statewide while FOMB will continue to post waters around the Bay for PCB, dioxin and mercury contamination. Anyone wishing further information, other data/studies on mercury, please call Kathleen McGee at 666-3598.

Drawing by Bryce Muir

Kathleen McGee
OLD FISH, NEW FISH

FOMB thanks Besty Ham for her years of excellent service to FOMB and the Bay, and wishes her well with her new job at the Natural Resources Council of Maine. Betsy is being replaced by Warren Whitney.

"Whit" has a 20-year background in digital mapping, GIS and project management, most recently at DeLorme Mapping in Yarmouth. He is a former FOMB Steering Committee Member and looks forward to working on Merrymeeting Bay issues on a daily basis. Please feel free to contact Whit anytime by calling 666-3376 or emailing him at fomb@gwi.net.

FOMB VIDEO LIBRARY

FOMB is now taping its Speaker Series presentations. For a list of these and other environmentally-related videos, contact Warren Whitney at 666-3376. There is a deposit and handling fee.

FRIENDS OF MERRYMEETING BAY

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Warren Whitney .............................................................................. 666-3376

Thank you to David Hansen for designing this issue of MMNews.

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

MEMBERSHIP LEVELS.

☐ $15.00 enclosed for individual membership.  ☐ $20 Family
☐ $30 Smelt  ☐ $50 Alewife  ☐ $100 Striped Bass  ☐ $250 Salmon  ☐ $500+ Sturgeon
☐ $_______ enclosed as an additional tax-deductible donation.

NAME
RR# OR STREET ADDRESS
TOWN / STATE / ZIP
PHONE
☐ Renewal  ☐ Gift From:

☐ $6.00 enclosed for a copy of
($5 for the book, $1 for postage)
TRIP TO THE SEA

Mark your calendars now! The fifth annual Androscoggin River Source to the Sea Canoe Trek is paddling through Merrymeeting Bay on Saturday, July 22. Come join other paddlers for a day on the water. The Trek’s mission is to have fun, celebrate and learn about the river and its watershed. Free and open to the public, all you have to do is register beforehand and show up with a boat. Shuttles, some refreshments and informative and fun riverside programs are part of the event. Need a canoe or a paddling partner? We may be able to help!

What is the Source to the Sea Canoe Trek you may ask? A little history will explain: four years ago, some river enthusiasts dreamed up the Trek. Their goal was to draw attention to the beauty, accessibility, and potential of the 170-mile long river and its watershed. They organized a headwaters to tidewater trip, with educational programs along the way, and as much local community participation as they could drum up.

The first Trek was a resounding success. Since then the Trek has hosted both the governors of New Hampshire and Maine, as well as scores of happy paddlers. The Trek has traditionally been hosted on the Brunswick to Chops Point section by Friends of Merrymeeting Bay. The Trek is a real opportunity for FOMB to highlight the work it is doing in this area. If you haven’t yet experienced the Bay from the water, the Trek is a good excuse to get out there and see it.

For the second year in a row, a group coming down the Kennebec River will join Androscoggin River Trekkers at Chop Point. Whether the Kennebec or Androscoggin, just make sure to get out on July 22nd!

The enthusiasm for this now annual event is great, and we are hoping for lots of participation from FOMB members. The Trek will begin July 5 in Lake Umbagog National Wildlife Refuge and will finish up on July 23 at Fort Popham on the coast. You can also support the Trek by buying a raffle ticket or two. We will be raffling off a brand new canoe from Lincoln Canoe and Kayak Co., and other prizes.

Sound like fun? Come join us to explore a piece of the river you haven’t been on before or to enjoy the part you know best.

July 19 Auburn to Durham
July 20 Durham to Lisbon Falls
July 21 Lisbon Falls to Brunswick
July 22 Brunswick to Chops Point
July 23 Bath to Fort Popham

To sign up and get more information about the trips on July 22nd through Merrymeeting Bay, call Warren Whitney at 666-3376 or email him at fomb@gwi.net. For more information on the whole Trek, including a Trek brochure, call Sue Lincoln at 824-0191 or contact her by email at slincoln@nxi.com