**SPRING 2001**

*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.

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**MARK YOUR CALENDAR**

**JULY 18TH**

**Evening Paddle on the West Branch of the Cathance River. 6:00-8:00pm.**

Bring a picnic dinner and your boat of choice for a leisurely, summer evening paddle. Call Whit at 666-3376 for more information.

**JULY 24TH**

**Androscoggin River Source to the Sea Canoe Trek.**

Paddling through the Bay to North Bath. See article in this newsletter. Call Whit at 666-3376 to sign up.

**JULY 24TH**

**Shipbuilding and Shipping in the Merrymeeting Bay and Lower Kennebec Region.**

Nathan Lipfert, Library Director of the Maine Maritime Museum. Talk and slide show at 2:00pm, or as soon as the canoe trekkers can finish paddling from Brunswick (see above), at the Maine Maritime Museum in Bath.

**AUGUST 1ST**

**Evening Paddle on the Muddy River. 6:00-8:00pm.**

Call Whit at 666-3376 for more information.

**AUGUST 15TH**

**Evening Paddle on the Abagadassett River. 6:00-8:00pm.**

Call Whit at 666-3376 for more information.

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**MERCURY IN MERRIMEETING BAY SEDIMENTS**

In November of 1999 FOMB volunteers collected fine-grained sediments from six areas of tidal mud flats in the Bay. The sediments were analyzed by the Department of Environmental Protection for arsenic, lead, zinc, mercury, pesticides, PCBs, and we are still awaiting analysis for dioxin. A more detailed look at results will be discussed in a future issue but in light of the mercury amalgam legislation, (see article, pg. 6) it is important to note mercury levels here.

Levels are relatively high and are typical of those found near a local source. Levels ranged from .195 parts per million (ppm) to .451ppm. From areas of lowest concentrations to areas of highest concentrations the sites were: Swan Island, Kennebec, Abbagadassett, Androscoggin, Muddy, Whiskeag Creek. Our levels reflect 18 samples and average out to .323ppm. 10% of scientific literature considers the toxic level of mercury to begin at .15ppm while a level of .71ppm is considered toxic in 50% of the studies. To put these numbers in perspective sediments from five lakes downwind of municipal solid waste incinerators in Maine ranged from .199ppm-.310ppm or a mean of .223ppm. In estuarine sediments the mean value for Mill Cove in Boothbay was .245ppm, for Back Cove in Portland .502ppm, Fore River, South Portland was .025ppm, Plummer Island, Scarborough was .014ppm and Hospital Point, St. George River was .069ppm.

As is pointed out in the amalgam article a sizable portion of mercury used in dentistry ends up in the waste water system and from there our rivers, sediments, and fish from which we are then re-exposed. as we have found lead, dioxin, etc., the more we learn about a toxin, the less we can tolerate without serious ill effects.

*Ed Friedman*
To my knowledge this Atlantic sturgeon caught by E. Roydeon Browne (Rod), July 3, 1949 was the first one caught since the 1920s. It was a female, 9' 6" long, weighed 145 pounds and was estimated to be 35-40 years old.

Centuries ago sturgeon “were everywhere”. They live in the sea and seek fresh water to spawn, as do salmon, shad, and alewife. It is recorded that all of the rivers and streams emptying into the Gulf of Maine had sturgeon runs in May, June and July. The Kennebec River led fish to Merrymeeting Bay, a large area of fresh tidewater. Old records show sturgeon were caught and cured in an area now called Brunswick and shipped to Europe in 1628.

Woolwich had a sturgeon fishery that ran intermittently for several years in the mid 1700s. In 1880 the rivers of Merrymeeting Bay had a catch of 250 fish yielding 10,875 pounds. That was the peak year. Catches declined downward and approached zero in 1920.

Sturgeon grow very slowly in their early years, about 3' in 10 years, but growth becomes much faster with age. The males do not become “ripe” until 14-16 years old, females 17-23 years. They have been known to live to be 80 years old. It is said the life cycle of sturgeon compare with that of people.

Sturgeon have been caught all over Merrymeeting Bay. One well-known section many years ago got named “The Valley.” That reach ran up the Kennebec from Chops Point 1-3/4 miles to Abbagadassett Point. Nautical charts show a channel minimum depth of 23'. The east shore, (Woolwich side) has a high, straight, ledge bank. On the west side one of the larger tidal flats in the Bay runs from Abbagadassett Point to the Sands opposite Chops Point. As the tide ebbs, all fish on the grounding out flats are driven to water. This tends to concentrate fish in the channel area. Sturgeon are basically bottom feeders but also eat small fish. It is likely a sturgeon could be scrubbing along bottom with its vacuum cleaners, its toothless mouth finding a worm here, a mussel there, glances up, sees small fish drifting along up top, decides to turn on the jet and with a 23' runway and a barrel roll comes up and the momentum carries male or female full length out of the water. With that splash came the end of who knows how many sturgeon. The Valley was well named.

If no splash is seen it does not mean there are no sturgeon, but if a splash was seen it was proof positive. Being familiar with The Valley’s surroundings, splash locations could be pin-pointed by "right opposite the Big Guzzle" or just above "Trott's Rocks" or something. One calm evening in early July, 1949, Rod Browne, a fourth generation fisherman living at Browne’s Point saw a big splash about half way between Browne’s Point and Jack’s Point (CMP power line towers). Rod had never been involved with catching a sturgeon, but had heard many stories from his father and his father’s father, etc. He had learned a lot and remembered well. Rod’s father (Earle) had caught many sturgeon, one weighing 460 pounds. He often told about another fisherman he knew that caught a sturgeon weighing over 500 pounds at South Gardiner.

Fisherman in the Gulf of Maine caught sturgeon with otter trawls while fishing deep for other fish. In the rivers of Merrymeeting Bay sturgeon were caught with gill nets. A dictionary definition of a gill net read "a gill net catches fish by its gills”. It does that by having the proper mesh size for the species of fish you’re trying to catch. The mesh must be large enough for the fish to get its nose in and allow swimming only to where the mesh has slipped behind its gills, but no further. As fish try to back out the twine slips under the gills, making it impossible to go either way. The net must be lifted
up to allow removing the fish by hand. Sturgeon are large fish that required mesh made of heavy twine. Rod’s net had a 10” bar length, making an 18” stretched mesh (diagonally). The net was 60’ long and hung 8’ deep. All the way across its top a 5/8” rope was strung with a buoy (floater) every 6’. They were made of softwood shaped like a big lemon with a hole bored through the long way and painted white. Each end had a float board 1-1/2’ long painted white that would float flat, making it easy to see at night where the ends were. The buoys would make the net float. The net bottom line was similar except instead of buoys pieces of lead the size and shape of a very small lemon were strung on the bottom every 6’ opposite the top buoys making the net hang straight up and down. It was a drift net, not anchored or tied to anything.

Rod’s sturgeon hit his net about 10:00pm. It was dark; he was alone with one kerosene lantern and a two-cell flashlight. The floaters were bobbing crazily, and the water was swirling. He could not see all of the sturgeon, but enough to know it was a big one. There was no possible way to get it into the boat, a 14’ square stern canvas type boat with a small outboard.

So he started the routine that he had heard so many times before. Go to the long end of the net (furthest from the fish). Pick up the end float with enough slack to secure it to the boat. Tow the whole net in a semi-circle back of the fish, making sure you are behind the fish. Keep towing until the float on the other end is reached. Grab it and secure it to the boat. Make sure the boat is free of the net and the sturgeon is still there.

Sturgeon are known to be very fast swimmers, but have little fight when caught. Get headed right and tow home. He followed directions and all went well, in the dark.

The sturgeon was hauled up on the shore with a slight incline toward the tail. A board was placed under the tail (see photo) and a slash next to the tail for the blood to drain was cut with an axe.

Rod’s father came home, and after telling him what a great job he had done he supervised cutting, packing, and shipping 46 pounds of meat in an iced up barrel to Boston. A $40 check was received.

The female had not spawn. She had 15 pounds of eggs that were too big and would not go through the hole in the colander. As the saying goes, "she’d gone by".

As of May 1, 2001 a one-ounce can of sturgeon caviar was selling at Brown’s Trading Company in Portland for $50 per can. Sturgeon meat was selling for $9/pound.*

Linwood Rideout

**Acknowledgements:**

Lou Flagg: Deputy Commissioner, Maine Department of Marine Resources

Hazel Mitchell: Sister of Rod Browne, mother of Rod Mitchell

Rod Mitchell: President, Browne Trading Company

editor’s note--Atlantic Sturgeon are now classified as threatened and Short-nose Sturgeon are endangered species. Fishing for, or possession of, either is illegal.

Before catching the sturgeon described here, Rod Browne was in the Army Air Force in World War II. He flew 27 combat missions as the tail gunner on a B-17. He was awarded the Distinguished Flying Medal with three Oak Leaf Clusters. He came home unscratched.

In March, 1953 the Androscoggin River overflowed its banks and swept a sizable volume of dimension lumber from a bank-side lumber yard in Auburn. Much of the lumber came down to Merrymeeting Bay and was being salvaged by people along the way. Rod Brown and Martin Mitchell, who was a family friend and successful student at Bowdoin College, went out in a boat together to see what could be salvaged.

That is all that is known for certain. They never returned and were never seen alive again. The assumption has been that their boat some how got caught in the pull of The Chops and could not get out. Knowing them, that seems unlikely but possible. The Chops were just not navigable at that time. It can happen quickly and often. They both drowned.

Linwood Rideout
On April 7th, I dug a path from the back door, out around the hawthorn hedge, to the clothesline, then cleared out underneath the line, an area of about ten feet square. The snow was granular and icy; a shovel full of it was a load. The sun was high and strong, about equal to what it will be on Labor Day. The sky was a deep and limitless blue; looking up into it gave you a kind of inverted vertigo, as though you might lose your balance and tumble, in an exalted upward somersault, into the empyrean. For all the brightness of the sun, the air felt moist and cool against the skin, the way it does when you stand above a waterfall. The snow was sublimating, turning itself directly into vapor—going straight to heaven and bypassing mud season altogether.

Two weeks later, on a Friday, I had a cup of coffee with Karin Tilberg, down at the Bowdoinham town landing. We had intended to talk over some local land use issue of mutual concern, but this was not the morning for it. We might as well have tried to have an earnest discussion while the luminous veils of the aurora borealis were shifting and shimmering in the night sky, or while a blizzard was in progress. The sunlight sparkled off the river; ice floes were drifting up with the tide. Mergansers breasted the current, plunged forward to dive, bobbed back up, their fine nuptial plumage as spiffy and dry as though they’d just brought it back from the cleaners. On one floe, just big enough to accommodate them, stood seven cormorants, all facing the same direction. They looked rigidly solemn, uncomfortably out of place, and totally clueless, like seven pallbearers who somehow found themselves adrift on an iceberg in an arctic place, and totally clueless, like seven pallbearers who somehow found themselves adrift on an iceberg in an arctic place, and totally clueless, like seven pallbearers who some-
what we could about alternative energy and energy conservation. Barry Rock, the keynote speaker, talked about climate change.

It has begun. Extrapolating from the present, it will accelerate, and the 21st century will experience a far more drastic alteration of climate than any previous century (or millennium, for that matter) on record. A child born in Boston today, spending her entire life there, and having a normal life span, will die in a place that has the climate of Richmond, Virginia.

It will only be a little different for her country cousin from Bowdoinham or Richmond or Bath. And the children of those children will know the meteorology of old New England only as data: that winters were five degrees colder; that summers were three degrees less hot. They will read that the sugar maple used to grow here, the brook trout and the landlocked salmon to live here, that a great coniferous forest covered the upper third of the state, and that potatoes and blueberries were raised downeast. The world of seasons we know and feel, endure and exult in, will be no more to them than that the meteorological statistics of the Wisconsin Ice Age are to me now. The felt past of the region will slip away, like the memory of a cold, snowy, extraordinary April, once summer has come.

Franklin Burroughs
Tidings is a regular feature of Merrymeeting News

CANOE TREK

Mark your calendars now! The sixth annual Androscoggin River Source to the Sea Canoe Trek is paddling through Merrymeeting Bay on Tuesday, July 24.

Come join other canoeists and kayakers for a day on the water. The Trek's mission is to have fun 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.

Because of the tide, we will be having an early start, aiming to be on the water by 7 AM, launching from the Brunswick Bike Path on Water St. We will paddle all the way to Bath, riding the outgoing tide most of the way. We will paddle through The Chops, and then through the beautiful lower Kennebec with its islands and marshes. If you haven't yet experienced the Bay from the water, the Trek is a good excuse to get out there and see it.

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 25 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 the Androscoggin River and Merrymeeting Bay.

For more information about other days on the Trek or a Trek brochure contact Sue Lincoln at 824-4627 or slincoln@nxi.com. To sign up for the Merrymeeting Bay section of the Trek contact Warren Whitney at 666-3376 or fomb@gwi.net.
MERCURY: PUTTING OUR MONEY, AND PROMISES, WHERE OUR MOUTH IS

Mercury is an incredibly toxic substance that has long been known to be a neurotoxin, effecting the very architecture of the brain, and more recently has been indicted as an endocrine disrupter as well (causing harm to the reproductive system). On March 2nd of this year a survey released by the Center for Disease Control stated that 10% of the population, and possibly higher, have blood levels of mercury that are dangerous. Said Kate Mchaffey of the EPA, "We don't consider this to be a trivial finding." These findings amount to an estimated 375,000 babies a year at-risk for neurological, and possibly other, problems.

Another study just released from Canada last month and published in the British journal NeuroReport discovered how neurological damage occurs from mercury exposure. Studies have shown blood mercury levels in Alzheimer patients were more than two-fold higher and as much as three-fold higher in early onset. "What it really means is that we need to be far more concerned about sources of mercury exposure," said Dr. Lorscheider, a scientist involved with the study.

In 1999 our Governor, along with other New England Governors and Eastern Canadian Premiers, pledged to "virtually" eliminate mercury with a short-term goal of a 50% reduction by 2003 through emission reduction, as well as source reduction and safe waste management. We need to hold our Governor and the Legislature accountable for this promise. There is a bill before the legislature that would be an excellent place to put our money where our mouth is. That bill is L.D. 1409, An Act to Require Informed Consent Prior to Using Mercury Amalgam Filling and to Prohibit the Use of Mercury Amalgam Filling in Women of Child-bearing Age and in Children. Why is this important?

It's estimated that a whopping 40-60 metric tons a year of mercury is used by the dental industry. Of that at least 6 tons a year is discharged directly into sewers from dental offices and no less than 8 tons a year are discharged through the excretion of urine and feces from individuals. This ends up in our waters and sediments (see Front Page). The average amalgam filling (which is 50% mercury) has more than 1/2 gram of mercury.

Because of the extreme toxicity of mercury, it only takes 1/2 gram to contaminate a 10-acre lake to the extent that fish consumption advisories would have to be issued. Multiply that by more than 100 million fillings a year (in U.S. alone) and that gives you an idea of the magnitude of the problem.

Mercury vapor, which develops from chewing action and or hot liquids or food in the mouth, quickly and easily crosses the brain barrier and the placenta causing problems both for an adult and for a developing fetus. Dyslexia, ADHD, ADD, retardation, autism and other possible neurological disorders are all implicated. As stated by Herbert Needleman, a pediatrician, "We are conducting a vast toxicological experiment in our society in which our children and our children's children are the experimental subjects."

Mercury concentrations start showing up in amniotic fluid just two days after placement of amalgam, and grow in concentration during term, becoming further concentrated (and excreted) in breast milk. According to one study in the European Journal of Pediatrics, "Fetal exposure should be considered when placing amalgam fillings. The unrestricted application of amalgam for dental restorations in women before and during the child-bearing age should be reconsidered."

Oddly, in spite of the fact that mercury is treated as a hazardous substance when brought into the dental office, and treated as hazardous waste when it leaves the dental office, the American Dental Association (ADA) claims it is somehow safe in the mouth...how can this be?? Very simple. It can't. Mercury is toxic. Period.

This is not just a health or environmental issue, it is economic as well. Amalgam fillings are used mainly because they are "cheap" (and may occasionally hold up better in some applications). However, the use of mercury in ANY application is never, never cheap. The cost of negative health effects to individuals and insurance companies from mercury exposure is huge. The cost of negative health effects to individuals and insurance companies from mercury exposure is huge. The cost of negative health effects to individuals and insurance companies from mercury exposure is huge. The cost of negative health effects to individuals and insurance companies from mercury exposure is huge. The cost of negative health effects to individuals and insurance companies from mercury exposure is huge.

In the interest of protecting their citizens, Sweden, Norway, Germany, Denmark, Austria, Japan, Finland and Canada have taken steps to limit and phase out the use of amalgam restorations. California has followed suit. Maine already has the highest levels of mercury in fish statewide in the country. We have committed to virtual elimination of mercury in this state and in the region. We have banned thermometers in many areas, have take back programs for thermostats and mercury switches, hospitals and even car manufacturers know they must remove mercury from their environments and products. Maine should take the lead and pass this law further protecting our kids and our environment from mercury exposure.

Kathleen McGee
COMPREHENSIVE MERRYMEETING BAY STUDY AVAILABLE

After many years of work by a cadre of volunteers this seminal study of the Bay has finally been reborn. Published in 1975 in limited quantities for the Department of Conservation, written by Reed and D’Andrea this wonderful resource has been out of print for years. It is now available on our web site at the address listed below thanks to the following volunteers and grantors.

Thanks to Jim Moulton, Jean Bailey, Clancy Cummins, Betsy Steen, Mike Haskell, Fran Rudoff, Jinger Howell-Martin, John Ferdico, Shannon Dougherty, Kathleen McGee, Steve Sandau, Dave Hansen, State Planning Office and Singing for Change.

Ed Friedman

http://www.col.k12.me.us/mmb/Cybrary/mmbaystudy/index.html

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Steve Taylor, PO Box 231, Bowdoinham 04008 ........ Treasurer ........ 666-8919

Conservation & Stewardship Coordinator:
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Water Quality Monitoring Coordinator:
Theresa Torrent-Ellis, 619 Post Rd, Bowdoinham 04008 .............. 666-5803

Executive Director:
Warren Whitney, 145 Pork Point Road, Bowdoinham 04008 .............. 666-3376

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

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

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PORK POINT LAND PROTECTION

The Pork Point Road area of Bowdoinham is, like many areas around the Bay, desirable for conservation purposes but also highly sought after by developers. This area has open space, fields in agriculture, woodlands, and river frontage on the Kennebec and Abbagadassett Rivers. Recently, FOMB was instrumental in protecting two parcels of this very special, but threatened, area. First, FOMB made initial inquiries and negotiations for 180 acres of land that was for sale, property that stretched from the Kennebec, across Pork Point Road, all the way to the Abbagadassett. Because the property was on the market for immediate sale, and because FOMB was still occupied with the fundraising campaign for Choice View Farm, it turned to one of its valued partners in the Maine Wetlands Coalition, The Nature Conservancy, for the funding to protect this property. TNC negotiated the final contract with the landowner, purchased the property, and has just completed transferring title to the Maine Department of Inland Fisheries and Wildlife (MDIF&W).

FOMB was also alerted to a property that was for sale just down Pork Point Road. A 36 acre undeveloped parcel of woodland with a wetland bisecting the property and frontage on the Abbagadassett, this was also threatened with development. Fortunately, a neighbor purchased the property, and later was willing to sell the property to FOMB for conservation. FOMB again teamed with TNC, this time for partial financial assistance, to complete the sale. FOMB will complete transferring the title to the MDIF&W shortly. Ultimate funding for the purchase of these properties came from the North American Wetlands Conservation Act (NAWCA) administered by the US Fish and Wildlife Service (USFWS).

While there are still threats to this wedge of land between these two very different, but important, rivers feeding into the Bay, there is reason for optimism. With continued conservation efforts we hope to be able to protect the mud flats, shorelines, woodlands and wetlands that comprise this unspoiled area.

Many thanks are due the three landowners involved: Neal Lamb, Marriner Lumber, and Darcy Thirlwall. Without their recognition of the land’s conservation value and their willingness to work with us, the protection would not occur. Thanks also to our partners, TNC, MDIF&W, and the USFWS for helping make this happen.

Warren Whitney

CONFESSIONS OF AN OLD BAY GUIDE (pg 2)
MERCURY… (pg 6)