Forty Nine Years of FOMB Accomplishments 1975-2024 (most since 1990)-Also See Special 40 year Anniversary Newsletter Issue 2015

Research

- <u>Merrymeeting Bay: A Guide to Conservation of this Unique Resource</u>: Digitize [with early optical character recognition software] this important 1975 baseline study of the Bay's natural and socioeconomic resources and put on our web site.
- <u>Sediment sampling survey</u>: the first comprehensive sampling of the Bay inclusive of depositional areas.
- <u>Aerial photography/GIS-aquatic vegetation/land use 1956-2010</u>: Multiple aerial surveys and analyses of the Bay and a ¹/₂ mile upland buffer. -first of study of its type.
- <u>Current study</u>: first of its kind in the Bay [stimulated calls from other organizations looking for advice on doing it elsewhere], used practically several times to shape policy matters [Chops tidal project, wastewater discharge: Andro, carp study].
- <u>Caged mussel endocrine disruptors/dioxin/PCB's</u>: extensive, comprehensive mussel studies to ascertain legally defensible levels of dioxin and PCB's downstream of pulp mills, survey for and located PCB hotspots in Kennebec, and document endocrine disruption from pulp mill effluent.
- <u>Carp tagging/tracking</u>: literature hypothesis of carp as primary source of Bay turbidity [as they have been for other water bodies] with subsequent loss in biological productivity. Anecdotal information about clarity in tributaries before carp were stocked. Fish tracking to determine species behavior leading to possible turbidity solutions.
- **Bald eagle breeding/nest surveys:** ongoing monitoring of eagles and tracking possible effects of toxic exposure through breeding success and contaminant sampling of unhatched eggs.
- <u>Water quality monitoring network since 1999</u>: to assure no backsliding from current water quality and to upgrade where rivers are recovering.
- Archaeology: more than 12 surveys and digs. Preservation of key sites containing wildlife and or viewshed attributes as well.
- <u>Mercury levels in kingfishers [with Biodiversity Research Inc]</u>: determine whether these fish-eating birds can serve as sentinel species for Hg levels in the environment.
- **<u>Plankton survey probe</u>**: a baseline probe. No one has any idea of the zoo and phytoplankton communities in Bay.
- **<u>Phragmites removal</u>:** finding and eliminating invasive species as able. Eliminated only known Bay phragmites stand [on the upper Abbagdassett] over several years of dedicated observation and work.
- <u>Altered river flow effects</u>-compile research and post to website. Cooperative effort with Friends of Sebago Lake and Quebec Labrador Foundation intern
- **Brunswick shad:** multiple years counting American shad below Brunswick dam unable to use the fish ladder-using underwater sonar video. Recording to document for dam relicensing in 2029
- **<u>PFAS laboratory validation study:</u>**-with Brunswick Sewer District conduct split sampling lab studies to ascertain if inexpensive Cyclopure PFAS testing can be used (yes!)
- **<u>PFAS watershed survey:-</u>**first of its kind in Maine-sampling lower Bay watershed from Augusta and Durham down to Chops
- **Prehistoric fish weir:** discover, map and radiocarbon date wooden fish weir remnants in Bay dating to 3600 years ago and for historic material-late 1700's , early 1800's. Second wooden prehistoric weir found in Maine
- <u>BNAS and Brunswick PFAS monitoring:</u> multiple and ongoing monitoring of Brunswick Sewer District pump stations on former Naval Air Station and in Brunswick.
- **PFAS monitoring:** multi-year and ongoing sampling of BNAS north end PFAS hotspots and creek discharges into Androscoggin
- **PFAS sampling of shellfish tissue:** sampling of oysters from along the coast and PEI and sampling of freshwater mussels in Androscoggin near hot PFAS creek mouths
- Aerial photography monitoring on St. Croix: monitoring removal of Milltown dam, first on the river
- Bald eaglet contaminant assessment and banding: With Biodiversity Research Institute
- Watershed PFAS sampling for Bigelow Laboratory of Ocean Sciences: Contract for Bigelow under their National Estuary Program Grant for Casco Bay PFAS Survey-subcontract for helicopter sampling: Auburn to the Chops and then north to Augusta

Advocacy

- <u>Pesticides in schools</u>: worked with MTAC, MOFGA to eliminate pesticides from schools and schools grounds. When application is necessary we asked for prior notification to parents and teachers [at least 72 hours].
- <u>Toxic Use Reduction Act</u>: re-authorizing and expanding the seminal law requiring government and industry to reduce and report the use of specific toxins.
- <u>Coalition for a Dioxin Free Maine</u>: a first-in-the-nation [and only] law eliminating dioxin from the papermaking process [and thus from discharge into our rivers].
- <u>Posting of statewide fish consumption advisories with Maine Toxics Action Coalition [MTAC]</u>: award winning posting of waters in Maine protecting especially the vulnerable populations from consuming high levels of mercury, dioxin, PCB's.
- <u>In Harm's Way</u>: distribution with MTAC of this comprehensive publication on children and toxics to every pediatrician, ob-gyn, neurologist, family practitioner, town health officer in Maine and to libraries in the Bay area.

- <u>American eel downstream passage</u>: with Doug Watts, BEP, state court, legislature [legislation vis a vis dam removal and fish passage].
- <u>Atlantic salmon ESA listing USFS/NMFS</u>: with Doug and Tim Watts and MTAC, successfully petitioned federal agencies to list Kennebec, Androscoggin and Penobscot salmon as endangered.
- <u>Atlantic salmon ESA/CWA "take" litigation-federal court</u>: with Environment Maine, first ever to sue private dam owners for illegal "take" under the ESA.
- <u>Kennebec dredging-federal court</u>: with Phippsburg Shellfish Commission, Phippsburg Land trust and various individuals, litigation to stop BIW/Navy from illegally and unnecessarily dredging the Kennebec to navigate a destroyer out of the Kennebec [when it had done so on sea trials without dredging not long before], threatening ESA and other vulnerable fish species.
- **Worumbo dam rebuild ESA federal court:** with Environment Maine, injunction/suit to stop illegal rebuild of the Worumbo dam, which affected the ESA/CWA case.
- <u>St. Croix Grand Falls dam-river herring passage, federal court, EPA, state legislature</u>: with Doug Watts and Kathleen McGee sued State, filed Notice of Intent to Sue EPA to require, then got, alewife passage on the St. Croix for first time since 1995.
- <u>Chops Tidal Power Project DEP, FERC</u>: stopped a foregone-conclusion project at The Chops for a tidal power project which would have impacted every species navigating through The Chops [effecting habitat throughout the watershed].
- <u>Smart meter/global space-based wi-fi threats</u>: GUARDS [Global Union Against Radiation Deployment from Space], ME Coalition to Stop Smart Meters: FOMB the only environmental organization in Maine taking on the growing toxic issue of EMF exposure to wildlife and humans and the coming "electronic silent spring."
- Maine Power Reliability Project: intervener [350 miles new high voltage lines couched as "reliability"]
- Lower Kennebec water classification upgrade: the state/DEP used our data to upgrade the Kennebec from Augusta to the Chops, the best continuous data available, via our water quality monitors.
- Lower Androscoggin water classification upgrade: after years of water quality data showing that stretch of river has already achieved Grade B status in spite of industry squashing it at the legislature, we finally were successful in our upgrade to Class B.
- <u>Testimony over the years</u>: from Alewives to Zoning and everything in between to help Maine's environment
- <u>GMO Atlantic salmon:</u>-Co-plaintiff in lawsuit to stop production of GMO salmon
- Brunswick Dam Brookfield fish kill: Document and file complaint to FERC over turbine mortality kill of young alewives
- Healthy Rivers Healthy Gulf: Begin initiative for safe fish passage
- <u>Presumpscot River CWA:</u> Multi-year regulatory [FERC & Maine BEP] effort with Friends of Sebago Lake to halt elimination of fish passage at Gambo and Dundee dams [through modification of their WQC's] proposed by Conservation Law Foundation and Friends of the Presumpscot in exchange for SD Warren/SAPPI restoring site at decommissioned Sacarappa dam in Westbrook. Upper watershed thrown under the bus.
- <u>CMP towers lawsuit:</u> file nuisance lawsuit against CMP for lighting and radar on new Chops towers. Goes to Maine Supreme Court and then we file cert petition with SCOTUS
- Successful appeal of Pejepscot dam Water Quality Certificate: issued for Class C instead of B
- **Endangered Atlantic salmon:** with Native Fish Coalition and others, write and introduce legislation to once again list Atlantic salmon on Maine Endangered Species list. Fails miserably despite overwhelming public support.
- <u>Conduct Androscoggin macroinvertebrate survey:</u> on lower Androscoggin to support successful classification upgrade

Conservation & Stewardship

- <u>Total land directly protected:</u> 1,603 acres [including work done with partners]
- **Shoreline protected:** 12.9 miles
- Easements held: 15 easements: monitored yearly
- **Owned land:** 90 acres-open to the public for low impact recreation including hunting and fishing
- <u>Choice View Farm and Dresden Falls:</u> saving key archaeology/wildlife/viewshed properties from development. Dresden Fallsmost significant prehistoric archaeological site in Maine protected from eight home subdivision then donated to The Archaeological Conservancy
- <u>ME Wetlands Protection Coalition:</u> major conservation successes in the Bay and lower Kennebec
- Leveraged millions in external funds: FOMB provides huge bang for the buck
- Guiding operating principles & procedures: follow Land Trust Alliance Standards and Practices
- **Outreach:** funneling large tracts of land into protection through decades of close relationship and contacts within the Bay area.
- Shore Cleanups: over 25,000 pounds of trash collected
- **Phragmites Eradication:** eradicate, monitor & control two stands in Bowdoinham, only known stands around the Bay
- <u>Centers Pt:</u> initiate and take part in successful protection efforts. Last major [125 acres] unprotected property on Bay saved and restored [new home removed].

Education

- <u>Winter Speaker Series:</u> 27 years, 216 speaker presentations. Went to Zoom format with onset of Covid pandemic
- Bay Days: 25 years, approximately 46 Bay Days reaching 125-400 students per event [missed a few during Covid].

- In school visits: 18 years featuring taxidermy critters. 20-70 class visits/year.
- <u>Website:</u> with outstanding electronic resource library [Cybrary]. Created and administered by volunteers.
- <u>**Curriculum:**</u> developed curriculum and guide for elementary schools
- Media: televise speaker events on community cable, numerous articles and TV spots over the years, several videos
- <u>Conferences:</u> asked to speak on toxics, water use [ie: water extraction], environmental priorities in Maine, fish consumption advisory issues, dioxin, etc.
- <u>Presentations:</u> Bowdoin College, Senior College, Maine Maritime Museum Cruises, community cable TV, libraries, etc.
- <u>Summer Outings:</u> June through September, by land and sea!
- <u>Living theatre/film history:</u> multiple projects with Piti Theatre Company involving in-school residencies-Bowdoin, Bowdoinham, Richmond
- <u>**Taxidermy mounts:**</u> collection of approximately 48 mounts for outreach displayed in Bowdoinham Public Library
- **<u>Redfin Pickerel sign postings:</u>**-in conjunction with Native Fish Coalition, design and manufacture redfin pickerel signs and post around Bay and lower watershed-Redfin are only freshwater fish species on Maine Endangered Species list and only confirmed sighttings are lower Bay and lower Kennebec tributaries