Merrymeeting News

Spring 2023 Vol. XXXIII No. 2

The Newsletter of Friends of Merrymeeting Bay • PO Box 233 • Richmond Maine 04357 • 207-666-1118 • www.fomb.org

Friends of Merrymeeting Bay (FOMB) is a 501(c)(3) nonprofit 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. Article hyperlinks and color images are available in our online edition at www.fomb.org

For more information, contact:

Ed Friedman
Chair
207-666-3372
edfomb@comcast.net

Androscoggin River Appeal Victory!

On Thursday April 6, Friends of Merrymeeting Bay (FOMB) and co-appellants including Grow L+A; Downeast Salmon Federation; Friends of Sebago Lake and Native Fish Coalition, Maine Chapter won our appeal to the Maine Board of Environmental Protection (BEP). Subject of the appeal was the Department of Environmental Protection's (DEP) approval of a 40-year Class C Water Quality Certification (WQC) for the Pejepscot dam located in Class B Androscoggin River waters. The Pejepscot Project dam is currently owned and operated by Topsham Hydro, a subsidiary of Brookfield, the Canadian company owning most of the hydropower dams in Maine.

Pejepscot Dam
Photo: Point of View Helicopter Services

The appeal was brought over DEP's failure to accommodate the democratic process that over several years upgraded the lower Androscoggin River classification through the state's Triennial Review, from a previous minimum Class C to the higher Class B. Had the approved Certification gone unchallenged it would have become part of a 40 year Federal Energy Regulatory Commission (FERC) hydropower license, setting a dangerous and unpredictable precedent for future permitting in both the reclassified and upstream waters. Practically, it would have rendered the legislated upgrade meaningless in most of the upgrade area.

In a very unique timing situation, the federal deadline for issuance of a state WQC for the Pejepscot dam came due on June 8, 2022, i.e., in the window between March 31, 2022 (when the upgrade legislation was signed into law) and August 8, 2022 (90 days after the end of legislative session when all new laws, including the Class B upgrade, became effective). Rather than inserting language into the June 8 WQC requiring compliance with Class B beginning on its August 8 effective date, as FOMB had requested during DEP's comment period, the new DEP hydropower coordinator specifically stated that despite the intended classification upgrade; by DEP rule, the Pejepscot Project need only meet and comply with the old Class C requirements for the new 40 year term of their FERC license renewal. See the Summer 2022 issue of FOMB's Merrymeeting News for background on this.

In the FERC dam licensing process, WQCs provide the only opportunity for states to certify that dam owners meet current state water quality classifications and to insert any conditions, present or future, particular to that project, state, and waterway. Often, in addition to the numeric and narrative standards unique to each waterway class, these involve present or future fish passage requirements. On approval, state WQCs then

Continued on next page

Androscoggin River Appeal Victory! continued from page 1

become part of the FERC license. DEP has nearly unlimited discretion in setting WQC conditions, and the BEP typically defers to the DEP's recommendations.

Just prior to Thursday's BEP hearing on the appeal, the Board issued a draft "Findings of Fact and Proposed BEP Order" recognizing Class B conditions were and are being met in the project area from just below Worumbo dam to below Pejepscot dam. However, *"Their continued inclusion of Class C language in the Order (including that Class C conditions would apply to the Project) without any clarifying language made for a very confusing document,"* said Scott Sells, attorney for our group of appellants. *"The ambiguity of which classification applies for permits, licenses, or certifications in the lower Andro going forward would also, at a minimum, open the door for future license or permit applicants to challenge what discharge or other requirements they are to be held to."*

In his oral arguments at Thursday's hearing, Attorney Sells successfully argued for the insertion of clarifying language into the Board Order, that Class B standards are not just being met, but actually currently apply to the Pejepscot Project Area. The Board Order gets attached to the WQC and takes precedence over the initial WQC language because it comes from the Board (which is the DEP's governing body) and has a more current date of issuance.

On one hand this whole effort was an unnecessary and huge waste of time, money, and resources because the classification change, which everyone knew about and the Board had initially recommended, should have been accounted for by the DEP prior to WQC issuance. On the other hand, without our appeal, virtually the entire upgrade area from Worumbo dam to Pleasant Point in the Bay would have continued to be subject and victim to the argument that in fact Class C (and not the higher Class B) limitations apply for the next 40 years

Maine State Capitol, the Sausage Factory
Photo: Doug vanKampen/Point of View Helicopter Services

If that were the case, any degradation that might occur would be measured from Class C (5 parts per million [ppm] dissolved oxygen [DO] minimum) instead of Class B (7ppm minimum DO). While this may seem like a small difference, it has enormous significance from a compliance and water quality standpoint.

Peter Rubins, river coordinator for Grow L+A, FOMB's primary partner in the upgrade effort noted *"Anyone who has followed or participated in the Triennial Review process knows how difficult it is to get a water segment upgraded and this oversight would have undermined a lot of hard work and the entire legislative process."* Grow L+A hopes to extend the Class B upgrade upstream at least to Lewiston Falls.

Maintaining the higher DO classification levels makes a significant positive difference to aquatic life in the river. The entire project area is included in a larger reach classified by USFWS as Critical Habitat for endangered Atlantic salmon.

Ed Friedman

1. "The reclassification becomes effective on August 8, 2022, which is after the issuance date of this Water Quality Certification. Therefore, this Water Quality Certification applies Class C water quality standards to the Pejepscot Project." [WQC footnote 9, pg. 7]

2. B. Water Quality Standards in Effect Since August 8, 2022

On March 31, 2022, the Governor signed Public Law 2021 Chapter 551 into law. This law reclassifies certain waters of the State, including changing the classification of a portion of the lower Androscoggin River that includes the Pejepscot Project from Class C to Class B. The reclassification became effective on August 8, 2022, and, therefore, Class B standards currently apply. [Board Order On Appeal. 4/6/23, pg. 7]

The Precautionary Principle—When in Doubt, Don't!

As a kid in Girl Scouts, I learned two things; how to sell cookies (who COULDN'T sell Thin Mints?) and, when in doubt, don't. Even as a 10-year-old I thought, man, that's good advice!

Environmentally and morally this country crossed the Rubicon of "when in doubt, don't," a lesson learned from Rachel Carson, and dove head first into How to Game the System through Mathematical Voodoo, institutionalized by ultraconservative John Graham.

Graham was a corporate shill and post-doctoral fellow at Harvard's School of Public Health in the eighties where he founded their Center for Risk Analysis (a sad, cynical, ironic misnomer) in 1990, leading it until 2001. Instead of protecting public health, the system he developed protected corporate profit over human and environmental health.

It turns ethical concerns and considerations, as well as scientific facts, into malleable math equations. An algorithm whereby you can decide the answer you want, work your way back from there, and shift the equation to get to the profit margin or desired outcome you are looking for. It claims to be objective because: math. And it insists whenever corporate concerns are pitted against public health, as often they must be, corporate profit is protected over public health. It is a false equivalency, a false choice, a false premise, and one that undermines our moral and ethical obligation to life, all life. It is precisely how we ended up going from the concerns of Rachel Carson in Silent Spring, to the lead levels in Flint, Michigan, the mercury and other toxins in our fish, streams, rivers and oceans, the cancer-causing plumes coming out of thousands of smoke stacks across our nation, ….and so on, ad nauseum.

Risk/benefit or cost/benefit analysis seeks to translate all relevant considerations into monetary terms.

We have gone from making corporations prove what they are doing is safe, to making us prove what they are doing is not. They have the math, the money, and the protection while we—the humans, environment, and all the living things therein—suffer the harm. What's more, "the absence of evidence of harm is not the same as evidence of the absence of harm" [Joel Tickner]. Risk benefit/cost benefit analysis assumes harm has to be proved, while the precautionary principle assumes prevention from harm is paramount and that steps must be taken to assure prevention from harm.[1] And finding safe alternatives to potential or obvious harm is far more acceptable than corporate-weighted algorithms assuring profit.

Risk benefit/cost-benefit analysis basically says: What is the cost of human life compared to the profit margin? What is your life worth? Is it really worth more than corporate profit? The answer, based on the "decision makers," is consistently no. Further; risk benefit/cost benefit analysis only considers one toxic at a time and does not lend itself to considering cumulative or synergistic effects, which is critical in determining any toxic exposure. This works well for corporate approaches where they want to minimize their accountability.

Even after decades of regulatory departments proving they are "captured" (former corporate, high-level executives moving into regulatory positions of government), those of us "of a certain age" and perhaps even those younger, still at least want to believe the regulators (EPA, FDA, CDC, FCC, FERC, et al.) are working in our best interests. We continue to believe that in those agencies are very smart people who understand the complexity of the way they determine all of these "science-y, math-y, algorithm-y" problems. Maybe that just makes us lazy, but one of the points of all this risk benefit/cost benefit "analysis" is exactly making it so apparently confusing and complex that we little people can't get it (because it makes no sense!!!!) and give up. It isn't complex. It's very, very simple: When in doubt, don't.

The Precautionary Principle is defined by the United Nations Rio Earth Summit in 1992, in article 15 of the Rio Declaration as follows:

"In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." (Robbins, 2007).

Kathleen McGee

1. In 2000 eleven countries did a test trying to determine the risk of a chemical or aluminum plant blowing up. The results, using RA (risk analysis), were so widely divergent that the countries involved determined to use the Precautionary Principle for their policy decisions, not RA. RA and CBA (cost benefit analysis) *are based on sometimes thousands of assumptions before ever getting to the facts.*

A Walk in the Park

At a recent speaker series we hosted author Will Stolzenburg who gave us a great talk. His book *Where the Wild Things Were* is an excellent read about the role of apex predators in the ecosystem. The book is a tour de force of current ecological theories on the subject. It's a great book. So good I have two copies. Unfortunately, we've lost a great many of our apex predators. Wolves, lions, sharks, bears, cheetahs, tigers, pumas, and many more have all experienced significant declines. Generally speaking, it's the human being responsible for these declines.

Ironically it's these species that forged the modern human. Without them its likely we'd still be just another hairy fruit, nut, and seed eater. These apex predators forced us to think. To weigh risk. To walk upright in the tall grass on the African plains. To run like hell for a tree. To create weapons and band together. They made us. Then we destroyed them as soon as we were able. Humans don't like competition. We don't like being eaten. The human is now the undisputed heavy weight of apex predators. We rule the planet unconditionally. Mostly. In Will's book he describes visiting a glen in Glacier National Park. He's looking for a bear and is rewarded with seeing a sow with cubs. Seeing a bear in its natural settings is a remarkable experience. One that will change you. Magically you'll be back in the tall grass in Africa. Yours senses on full alert looking for a tree.

June 21, 2011: The Summer Solstice Party. I was invited up to Lake Camp to attend the annual Summer Solstice party with the fine folks that work in Katmai National Park in Alaska. The Summer Solstice party had achieved mythical status over the years. I was looking forward to an evening of revelry and merriment, and the evening did not disappoint. After supper and an evening fishing session, I hung up my waders, put on my best Solstice duds, and walked the mile and a half up to Lake Camp on Brooks Lake. The party was well underway when I arrived. A roaring bonfire was circled by crowds of people, everyone that works there and many that were invited guests. I had brought a bottle of wine and a fine scotch. Everyone shared freely.

Of Cooks and Bears

I ventured by one knot of people where the head cook was animatedly recounting his camping trip up in the "Valley of 10,000 smokes." He had ridden his mountain bike the 23 miles up into the valley, did an overnight on the overlook, and then rode back to Lake Camp in anticipation of the solstice party. On his way back, he spied a bear in the valley lumbering along. The bear was a half mile off. He watched the bear as he rode along. Suddenly the bear began running in his direction. The cook took this as a sign to increase his speed. He poured on the coal, and he was headed downhill. The bear initially had gained quite a bit of ground. Now the bear was only a quarter mile off. The cook maintained his lead until it wasn't downhill anymore. The quarter mile and the cook's hope of out pedaling the bear rapidly shrank.

The cook leapt off the bike, jerked open the shed door, and ducked inside.

Then appeared salvation in the midpoint maintenance shed on the park road. The cook leapt off the bike, jerked open the shed door, and ducked inside. The cook listened as the bear approached at a huffing trot. There was snuffling at the door and lots of heavy breathing. The cook heard his mountain bike getting dragged away. Then silence. The cook ventured a peek outside. His mountain bike lay in the road. The bear had vanished. The cook waited. He knew the valley tour bus was due by shortly. The bus came along and saw the cook standing there. The rangers were called on the bus radio and they came out and picked up the cook. And here he was, telling us all his exciting bear story!

By the end of the tale the bulk of revelers, myself included, were listening intently. There were lots of questions. Why had the bear chased him so far and at such speed? How close had the bear been when he reached the shed? All of our questions came from an ancient well deep in the human psyche. All the way from the Rift valley when the first hominids dared descend from the safety of the trees. The long grass concealing threats toothed and clawed.

The evening progressed famously with the revelers celebrating the longest day of the year by jumping in the frigid waters of Brooks Lake. Naked. Sometime in the wee morning hours I made my farewells and headed back down from Lake Camp.

The long subarctic twilight was enough to see by. I had my head lamp along in my pack. I thought about digging it out. Nah, I could see just fine and, besides, there was a good chance the camp van would come down behind me and I could

Continued on next page

A Walk in the Park, continued from page 4

Brooks Falls Grizzly
Photo: Dmitry Azovtsev

hitch a ride. I set off at a jaunty stride for my tent and a long sleep. Halfway down the hill deep in the black spruce canopy I walked along at a good clip. Maybe another 25 minutes to go. I don't know what made me look back. Maybe it was the part about this place having the highest concentration of brown bears in the world. All over. At all hours. Including on this very road. Including the one I currently saw fifty yards back in the deep shadows. Going my way.

A Lot Can Happen in 25 Minutes

My heart rate instantly raced. I stretched my legs out and increased the tempo. I wasn't running. That is ill advised. I was walking twice as fast as before. Come on! Where is that van? As fast as I walked, the bear rapidly closed the distance. Soon it was only 15 yards back and I knew it would overtake me in moments.

I looked back. The bear was big. In the deep twilight it looked as big as a house. Decision time. Keep on going and ignore the bear? I soon deemed this idea foolish and went with plan B. I took an abrupt right hand turn off the road on to a bear path. They're everywhere here. Big bears make a distinctive path much like a trail made by an all-terrain vehicle. The bears use these paths year in and year out for ages. I managed to get down this path a few steps. I turned around and unslung my pack. I fumbled out the head lamp switching it on and revealing the bear ambling by the end of the path. Ten feet off. It glanced at the enormously bright light and sprinted off. I could barely hear the bear above the roaring of blood in my ears.

I stood shaking in the dark. My breathing returning to normal. It took some time for my mind to come to grips with what had just occurred. The bear had been perhaps eight seconds behind me. Sure to overtake me. Taking the right turn had been a Hail Mary. A last-ditch effort to lose the bear. It worked. At this point you can't help but wonder what would have happened if the bear had also turned right. Had followed me down the path. Past training told me to make noise and act big: "Hey bear," "Ho, bear."

I am now remarkably sober. I step back to the park road, take a right, and am soon approaching the observation platform. It is getting lighter out. In the relative open area of the river I can see better, and I'm looking hard. That bear is somewhere, and I'm bound not to go there, too. I see the gate to the observation platform and head that way. I hear the crunch of gravel and the low rumble of a vehicle. It's the van returning from the party to get some sleep before another day of work.

The van parks and out they pour. I'm happy to see them. Even though it had only been a mere 25 minutes since I'd last seen them. A lot can happen in 25 minutes. I was forced to reassess my position in this place. Here, at this time, I wasn't the top of the food chain. I had become another link. An elective edible link. This tends to get you thinking.

The van crowd came, and I joined them for their 10-minute walk across the river to camp. I remained quiet as their laughter filled the cool morning air. We were soon in camp and they broke off to head for their cabins, and I continued on for another half mile down the beach on Naknek Lake to the park service campground. My head was on a swivel. I hummed loudly as I walked.

There are big bears here.

Nate Gray

United States Includes Dam Emissions in UN Climate Reporting for the First Time

Gulf Island Pond, Androscoggin River. (Photo not in original article.) Photo: Point of View Helicopter Services

The Environmental Protection Agency recently earned applause from environmental groups for a move that went largely unnoticed. For the first time, the U.S. government in 2022 included methane emissions from dams and reservoirs in its annual report of human-caused greenhouse gas emissions to the Inventory of Greenhouse Gases and Sinks required by the United Nations Framework Convention on Climate Change.

"It's a big deal that they're now reporting this," says Gary Wockner, executive director of the river advocacy group Save the Colorado.

While we've long known that coal and gas-fired power plants emit troubling amounts of greenhouse gases, research has found that reservoirs can emit significant amounts of methane, too—which has a global warming potential 85 times that of carbon dioxide over 20 years—along with smaller amounts of nitrous oxide and CO_2. Emissions from some reservoirs can even rival that of fossil fuel power plants. Yet, until now, there's been no real accounting at the national or international level for these emissions, which fall under the category of "flooded lands."

"To our knowledge, the U.S. is the first country to include estimates of methane emissions from flooded lands in their greenhouse gas inventory," the EPA press office told *The Revelator*. That may be in part because calculating reservoir emissions isn't a simple task, as *The Revelator* reported last year:

Tracking emissions from reservoirs is complicated and highly variable. Emissions can change at different times of the year or even day. They're influenced by how the dam is managed, including fluctuations in the water level, as well as by a host of environmental factors like water quality, depth, sediment, surface wind speed, and temperature.

"We're happy the EPA's doing it," says Wockner. "And we're looking for the next step, which is refinement in the modeling."

EPA researchers are working to improve how they calculate those emissions, and they're also conducting a four-year study of CO_2 and methane emissions from 108 randomly selected U.S. reservoirs. This aims to "inform a greater understanding of the amount of greenhouse gases emitted from U.S. reservoirs and the environmental factors that determine the rate of greenhouse gas emissions from reservoirs," according to the agency's website.

Wockner applauded the EPA for those important actions but has urged the agency to go even further. Last year his nonprofit, along with more than 100 other organizations (including Friends of Merrymeeting Bay), petitioned the EPA to begin a rulemaking to include dams and reservoirs under the United States' Greenhouse Gas Reporting Program, which currently requires 8,000 facilities, including coal- and gas-burning power plants, to declare their greenhouse gas emissions. Hydroelectric plants and other reservoirs aren't currently included in that list.

There are a few reasons why they should report their emissions, the petitioners explain. Hydropower is largely regarded as a clean, emissions-free energy source—although research suggests otherwise.

"As a result, the federal government, states and utilities frequently make decisions regarding climate policies, and advancing toward a cleaner electric sector based on incomplete information and mistaken assumptions regarding dams' and reservoirs' greenhouse gas emissions," the petition states.

Continued on next page

United States Includes Dam Emissions, continued from page 6

If operators of hydroelectric dams are required to regularly report emissions, that would help agencies, nonprofits, and the public better assess whether current dams should be relicensed or decommissioned—and whether new projects should be built. The result, the petitioners say, would be "better-informed climate policies and better-informed permitting decisions." A win-win. The United States continuing to report dam emissions to the United Nations and at home would also send an important international signal.

"The U.S. helps set climate policy across the planet and helps fund various development projects through the World Bank, the International Monetary Fund, United States Agency for International Development, and others," says Wockner. "Accounting and reporting the greenhouse gas emissions from dams is a critical step forward in climate policy."

Tara Lohan

Tara Lohan is deputy editor of *The Revelator* and has worked for more than a decade as a digital editor and environmental journalist focused on the intersections of energy, water, and climate. Her work has been published by *The Nation, American Prospect, High Country News, Grist, Pacific Standard*, and others. She is the editor of two books on the global water crisis.

This story was originally published in February, 2023 by *The Revelator*, an initiative of the Center for Biological Diversity.

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 Ed Friedman. We always welcome member input and we'd love for you to join us!

Steering Committee
Ed Friedman, Chair (Bowdoinham)
Vance Stephenson, Treasurer (Beavercreek, OH)
Tom Walling, Secretary (Bowdoinham)
Simon Beirne (Gardiner)
Becky Bowes (Brunswick)
Phil Brzozowski (Brunswick)
Nate Gray (Vassalboro)

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, 446-8870

Research and Advocacy Committee
Ed Friedman, Chair, 666-3372

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

Membership Levels

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

_____
Name

_____
Address

_____
Town/State/Zip

_____
Phone Email

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

☐ Renewal
☐ New Member
☐ Send information about volunteer opportunities
☐ I would like a sticker

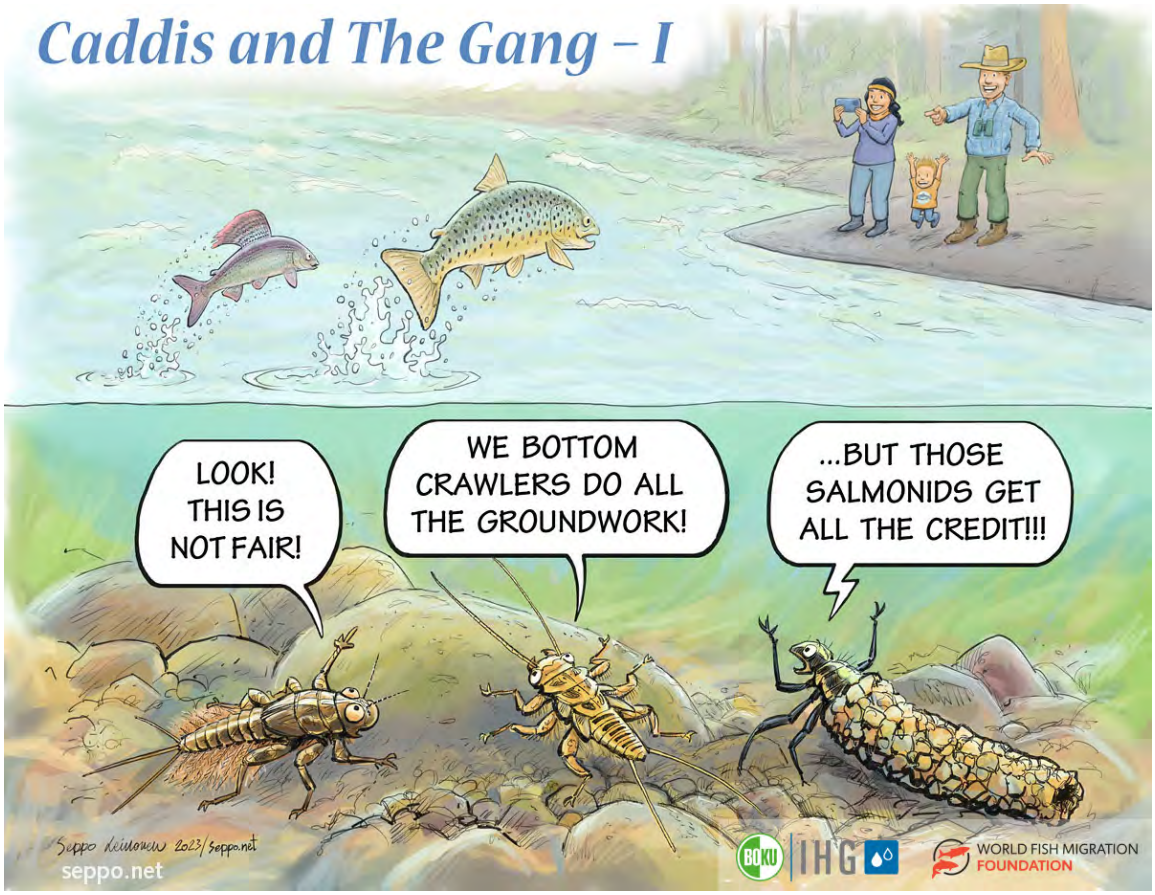
Thanks to Rebecca Bowes for newsletter layout.

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.



Cartoon: Seppo Leinonen, www.seppo.net