At our 40th Anniversary Open House, we celebrated our achievements and our rich community of anglers, hikers, environmentalists, birders, boaters, and friends to the cause supporting sea-run fish Down-east. We set up activities at our East Machias Hatchery for folks to engage with and learn about microinvertebrates, water quality, and traditional techniques for tying fishing flies.

Outside, we had our smoker running, serving fresh hot smoked alewife and cold smoked smoked Alaskan salmon provided by mongr.net, as well as classic burgers and dogs on the barbeque. We churned out fresh buttery popcorn on our classic red and gold popper, and friends at Airline Brewing Co. served DSF's special Downeast IPA on tap. Inside, folks toured the hatchery and learned about the Peter Gray Parr rearing technique we use, and how effective our methods have been for salmon restoration in the East Machias River, rushing alongside the hydroplant-turned-hatchery.

Above: fly-tying workshop and macroinvertebrate display in our newly build educational laboratory. Below: Pass the Paddle, a time-honored DSF tradition. This year's recipient was local artisan wood-worker and former board member Ray Carbone for his work in the community.

Hard to believe we've been in the business of protecting salmon habitat in Downeast Maine and restoring Atlantic salmon populations for 40 years now. In that time, we've managed to accomplish so much, with no shortage of broad reaching support from our partners, the Downeast community, and friends of DSF.

In the year 2000, we partnered with local, state, and federal agencies to remove the old Bangor Hydro dam on the East Machias River at Route 1. We took title of the abandoned power plant beside it, and over 15 years, raised upwards of $1.4 million to turn the building into the state-of-the-art hatchery we know today. Since then, countless community members have benefited from our programming, and even more salmon have made it to Maine rivers. DSF remains the only NGO raising endangered Atlantic salmon for release in the wild.

We will not stop until wild Atlantic salmon are downlisted. We are working on expanding our flagship location, the Pleasant River Hatchery. This expansion will support our efforts to release more parr, while creating public park space and recreational fishing resources for the region in the process.

As we enter the holiday season this year, please consider giving to DSF to help us see through our mission of protecting wild Maine and our vision of its future: abundant rivers flowing full of wild fish.
Autumn Updates from the Peter Gray Parr Project

On Thursday October 13th, the PGPP concluded the 11th rearing season by stocking Atlantic salmon parr into the East Machias River, as well as the 2nd rearing season of parr stocking in the Narraguagus River.

Before our 89,414 parr were released into the Narraguagus River, we clip the adipose fin of the salmon, marking each fish for later field assessments. That way, in surveying, researchers will be able to tell hatchery-raised parr from those bred in the wild.

Thanks to help from our partners (USFWS, DMR, and SHARE), along with students from UMM, Jonesport Beals High School, Alexander Elementary, plus the community members who came out for Volunteer Fin Clipping Day, clipping was a cinch!

The Salmon Cycle Continues

Now that all of our Atlantic salmon are released, the PGPP will close the season by assisting DMR with the annual redd counting on the East Machias watershed. Redd counting surveys estimate how many adult salmon have returned to the river to spawn each year. These surveys are conducted by poling down river in a canoe or by walking smaller tributaries. Atlantic salmon make redds spawning shoals where they can dig the gravel out enough to lay their eggs before the water current covers the eggs with move gravel to protect them. Since spawning takes place over the course a few weeks the PGPP surveys spawning shoals multiple time throughout the season. Once we finish our redd counting, the PGPP continues with cleaning, making repairs, and conducting maintenance on hatchery equipment. This is done to prepare for the following rearing season, which begins when we receive egg from Craig Brook National Fish Hatchery in February.

Tune into the Outdoor Network this fall to watch DSF on WildFed TV for their third season!

Over the summer, DSF launched a successful series of “Drinks with DSF” to get people out on the town and together talking about salmon conservation over local brews.

At Ironbound Restaurant and Inn in Hancock, ME, we chatted about the impact of salmon farming in Frenchman Bay and our on-going work to restore the Union River.

At Arline Brewing Co. in Amherst, DSF held a meeting just like our salmon-angling forefathers in the UK: at the pub.

After we had our fill of salmon talk, beer, and appetizers, brewer Jeff Henderson gave us a tour of the brewery and the beer-making process!

This fall, to celebrate the end of our stocking season, DSF held Wild Salmon Benefit Day at the new brewery in Machias, Bad Little Brewing. And what a turn out!

Every table inside was booked -- the patio filled up, too. Folks enjoyed beer on tap and a menu of Alaskan salmon, supplied by mongr.net

10% of all revenue made that night was donated to support our USFWS challenge grant, so extra desserts were encouraged!

Even on a cold October night, people came out to toast to the fishes and support DSF.

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Downeast Salmon Federation (DSF) continues to lead habitat restoration efforts on historic river habitat and spawning grounds for endangered Atlantic salmon. One pilot project taken up involves adding clam shells to streambeds to reduce its acidity and make the river habitat more favorable to Atlantic salmon survival.

The initial 5-year project at Richardson Brook drew to a close this 2022 season. Data from the project is currently being analyzed and reviewed.

Acidification originating from industrial air pollution has degraded the water quality of many of Maine’s rivers and streams, and low pH (a measure of acidity) can severely affect the ability of endangered Atlantic salmon to survive. Maine’s rivers are 10 to 100 times more acidic than they were historically due to the long-term effects of industrial air pollution and acid rain. The addition of clam shells to the river environment provides a source of calcium carbonate as they break down, which chemically neutralizes (think vinegar and baking soda) the acidity and can help stabilize the pH at more favorable levels. Similar projects in Norway and Sweden have managed to help reestablish Atlantic salmon into rivers where they had disappeared.

Richardson Brook is a small tributary of the East Machias River, one of the few rivers that support a spawning population of endangered Atlantic salmon. In 2017, DSF received state and federal permits to attempt to lower the acidity of Richardson Brook by using clam shells placed on the riverbank and in the shallows. Many partners have a role in this project, including: landowners, state and federal government agencies, ARISE volunteers, and field biologists. Old shells from local clamming operations are transported to the site, and then the shells are hand carried and distributed along the river by DSF staff and community volunteers. This season, friend of DSF Jeff Erickson generously donated use of his tractor to assist with moving the clam shells, and this reduced the time and effort needed by half!

The water and riparian zone along the river are monitored for pH, temperature, and benthic macroinvertebrates to determine what, if any, changes are occurring that may be attributed to the presence of clam shells. The monitoring of macroinvertebrates is an established method of determining and tracking water quality, as certain species (mayflies, caddisflies) are very sensitive to pH and poor water quality while others are tolerant (black flies).

DSF is hopeful that the results of this project will support similar habitat restoration projects in the future. With the future of endangered Atlantic salmon at stake, we will need to employ different strategies in order create opportunity for Atlantic salmon to recover and thrive!
This year, Downeast Salmon Federation is participating in Writing the Land, a collaborative outreach and fundraising project to promote land protection and poetic expression. The program culminates in our Land Trust, along with other conservation organizations, being featured in a poetry anthology titled Writing the Land: Maine. The perfect holiday gift or coffee table read, purchase a limited edition copy from DSF to enjoy the beautiful poetry inspired by wild preserves across Maine and support our land conservation programs. Visit our online shop or call the office at 207.483.4336 to order your copy today.

Kirstin, along with two contractors from Inter Flow, monitor water temperature, depth, and salinity to determine flow across the tide gate.

Restoring Fish Passage on Meddybemp's Lake

After 75 years the Dennys River is reconnected with its headwaters, Meddybemp's Lake. The restoration was completed in three phases that began on a cold day in January 2020. The Downeast Salmon Federation, in partnership with the Maine Department of Marine Resources, has removed the abandoned hydroelectric powerhouse and dam remnants that constricted the river.

The abandoned powerhouse, initially part of a hydroelectric project, acted as a barrier to free movement of fish (river herring, sea lamprey, and Atlantic salmon) into Meddybemp's Lake. Stone fish passage steps were installed this past summer to repair the damaged riverbed.

Each phase has been successful thanks to countless hours from community members, state and federal agency personnel, engineers, and skilled local contractors. Descendants of the dam's builder were instrumental in completing this project.

With restored access, the town of Meddybemp's hopes that the Dennys' river herring run will increase and once again support a sustainable heritage fishery.

New Beginnings: Resiliency in the West Branch Pleasant Marsh

By Kirstin Underwood

Salt marshes are among the most valuable and productive ecosystems in the world. They filter pollutants from the water, protect the upland from flooding, and provide important habitat for many commercially important fish and shellfish at some point in their life cycles (including the Maine lobsters). They’re home to a wide variety of wildlife, including resident and migratory waterfowl, wading birds, and songbirds.

The West Branch Pleasant Marsh in Addison was once one of these ecosystems. In 1940, however, the Department of Transportation replaced a bridge at the mouth of the once-tidal West Branch Pleasant River with a causeway (now Ridge Rd). Six tide gates were installed beneath the causeway, blocking tidal flow to the 400-acre marsh upstream. Though tide gates were once used widely to prevent flooding and increase access to farming, we now know that they have devastating consequences for marsh ecosystems and marine fish populations.

Blocking the tide prevents sediment exchange, which halts natural “marsh building” processes and increases subsidence. It changes vegetation composition from plants that are salt-tolerant (ie, salt-marsh hay) to brackish (ie, cattail). It blocks passage to Atlantic salmon, brook trout, rainbow smelt, river herring, American eel, and other diadromous fish. Finally, the Addison tide gates are in a state of disrepair, presenting potential flood risk to the town.

Downeast Salmon Federation is working with the Department of Marine Resources on a large coastal resiliency grant to assess flood risk in Addison and restore tidal exchange to the West Branch Pleasant River, beginning at the tide gates and moving upstream to five additional road crossings. This project is supported by several governmental and nonprofit partners, including The Nature Conservancy and Maine Coast Heritage Trust. If the project is funded, Downeast Salmon Federation will have a major role to play as the primary local entity providing outreach to the town, soliciting input from the community, and developing a restoration design that will reestablish saltmarsh ecosystem processes, repair failing infrastructure, and reduce flood risk in both the towns of Addison and Columbia. We have already secured the funding to kick off the project and collect tidal data this fall before the rivers ice over!

BE A PART OF THE CONSERVATION ACTION

To continue these and other important DSF projects, please consider contributing with a donation. We rely on your support to continue this conservation and community work for Downeast Maine.

Learn more online:
mainesalmonrivers.org/donate
mainesalmonrivers.org/volunteer