

\*In-ter-vale n. [a blending of INTERVAL + VALE] [Americanism, Chiefly New England] low, flat land between hills or along a river. Webster's New World Dictionary

PROTECTING RIVERS AND WILD ATLANTIC SALMON SINCE 1982



DOWNEAST SALMON FEDERATION  
P.O. Box 201  
COLUMBIA FALLS, MAINE 04623



## HELP DSF ACHIEVE SIGNIFICANT LANDMARKS

Please consider making Atlantic salmon and the rivers of eastern Maine part of your legacy through a planned gift to the Downeast Salmon Federation.

Planned gifts are deferred contributions made through your will or estate plan, a beneficiary designation, or life income gift. Planned giving can help you achieve your philanthropic and financial goals as you establish a legacy of giving back to the fish and streams that you love.

DSF has just launched our Downeast Legacy Society. We would like to invite our supporters to become an inaugural benefactor.

Contact Tracy Shaw (207)-438-4336 or [dwayne@mainesalmonrivers.org](mailto:dwayne@mainesalmonrivers.org) to learn how you can make a planned gift.

We want to give a very special "Thank You" to long-time DSF supporter Charlie Harriman.

Charlie generously sponsored a \$30,000 Matching Gift Challenge this year and the response from all of you was tremendous!. Charlie has been very involved with our Peter Gray Parr Project, having sponsored matching gift challenges each of the past two years.

Charlie has made a significant investment in the recovery of the iconic Atlantic salmon.

THANK YOU CHARLIE!

You, too, can have a major impact on our success. If you would like to sponsor a matching gift challenge or discuss ways that you can help DSF raise the funds needed for this work, please contact us TODAY!

### THANK YOU TO OUR MAJOR BUSINESS PARTNERS



For more information on how your business can become a DSF Business Partner, please contact [info@mainesalmonrivers.org](mailto:info@mainesalmonrivers.org)

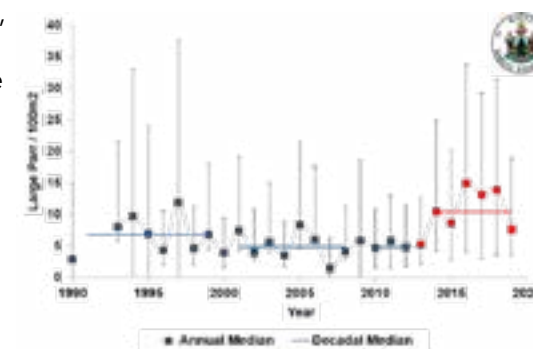


Using naturalized techniques developed by the late Peter Gray on the River Tyne in the U.K., the Downeast Salmon Federation is working to change the perception of what a salmon hatchery can do to help salmon populations. Using wild, river specific genes, unfiltered river water, substrate-filled incubation boxes that mimic a salmon redd, and black tanks, as well as increasing water volumes and velocities as the salmon grow, the Peter Gray Parr Project (PGPP) is molding hundreds of thousands of "little athletes" each year. Each naturalized technique helps develop salmon that can survive not only their time in the river but eventually the Atlantic Ocean.

So you're thinking to yourself: "That all sounds great, but is it working?" We've compiled the data in the following graphs with the newest information that shows the progress.

The first graph shows electrofishing data collected in the East Machias River since the 1990s. The horizontal lines are decadal drainage wide medians for large parr densities.

The most recent data points in red are the large parr densities (number of parr per unit of habitat) attributed to the PGPP. The density of juveniles in the East Machias River during the PGPP is more than double that seen previously from unfed fry stocking. The number of parr in the river is also the highest seen since the 1970s.



Another method to evaluate the success of the PGPP is smolt trapping. Peter Gray "little athletes" are driving the trend of the East Machias River smolt population up. The East Machias River had never been smolt trapped before the start of the PGPP

### MEANDERS

*"The care of rivers is not a question of rivers but of the human heart."*

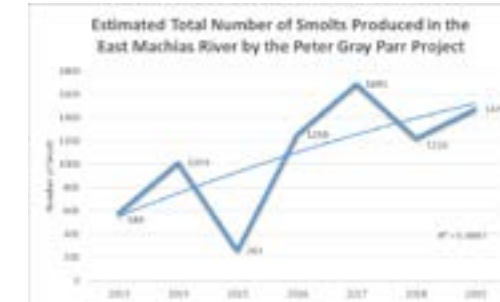
*-Shozo Tanaka.*

which means data is being gathered about East Machias Atlantic salmon that has never before been known.

The graph below shows the smolt population estimate from not only the smolt traps but also the habitat below the smolt traps. In 2019, the estimated total production was 0.87 smolt/unit, second highest since the start of the PGPP. Peter Gray parr produces greater than 2 times more smolt/unit of habitat supplemented than unfed fry stocking.

In comparison, during the same period the neighboring Narraguagus River, which has three times more salmon habitat than the East Machias River, had a mean smolt production of 0.22 smolt/unit.

In 2019, the smolt production per unit of habitat supplemented in the Narraguagus River was 0.16 smolt/unit. In 2019, parr stocking in the East Machias River produced 5.4 times the number of smolt compared to the Narraguagus River.





## NEW LANDS ALONG THE EAST MACHIAS RIVER PROTECTED FOREVER!

The Downeast Salmon Federation is delighted to be conserving another 160 acres in the East Machias watershed. The 68 acres of wetlands and nearly mile and half of river frontage are located between Upper Mud and Pocomoonshine Lakes.

The wetlands are a paradise for ducks and other waterfowl and will help keep the river water clean for the native fish that make their homes in it. The property will be open to the community to hike, hunt, fish, camp and paddle.

For many years the property was a retreat for the Crowe family of Princeton, Maine. The family generously sold the property to DSF for the enjoyment of the entire community and to preserve the river, forest and wetlands.

Not only will the Upper Mud Lake Preserve offer a new place for the community to explore, but it will complete the interconnectivity in a vast stretch of protected lands totaling over 1.5 million acres.

Purchase of this property will protect a migration corridor connecting the coast to upland forests along the East Machias river.

Migration corridors are critical to fish and wildlife that move seasonally between habitats or that are searching for relief from development or climate-change pressures.

"Upper Mud Lake Preserve is a remote spot steeped in the cultural heritage of Maine," says Downeast Salmon Federation's Land Trust Director, Tanya Rucosky. "It offers solitude and wild places. We are deeply grateful to the Crowe family for helping protect this land and to the North American Wetlands Conservation Act Program for providing the funds to conserve this special place."

Since the area is accessible only by water, DSF will lead a community paddle late this summer to introduce people to the property and to maintain the campsite. More information will be provided once the event dates are finalized.



## BEAVERDAM STREAM AND WIGWAMS PRESERVES EXPANDED

The DSF Beaverdam Stream Preserve in Wesley provides some of the best spawning and rearing sites for Atlantic salmon in the East Machias Watershed. DSF has made the stream and surrounding uplands one of our highest priority focus areas.

In the last few years, DSF has removed two road crossings that impaired fish passage. In 2019, DSF expanded the preserve by purchasing an 18-acre parcel with 3,300 feet of stream frontage. Today, the 129-acre preserve, the stream that runs through it, and public access to the property are protected forever.

DSF has also leased the 8 acres of blueberry land to a local farmer and transitioned it to organic standards as has been done on other farmland owned by DSF.

The preserve is rich in wildlife and can be accessed by an excellent gravel road system that was constructed as an alternative to the two stream crossings that were removed. In the forested portion of the preserve, visitors hiking the Old Mill Trail will discover a picnic spot, swimming hole and lovely vistas of Beaverdam Stream.

As with all DSF lands, the property is open to hunting and fishing and other outdoor activities.

More work needs to be done to make this growing preserve as great as it can be. Please contact DSF if you would like to become a steward and help maintain the preserve's trails.

Meanwhile, in the Machias River Watershed, DSF's flagship Wigwams Preserve in Township 25 is also growing. Thanks to the generosity of the Moser family, DSF was able to purchase an easement on an additional 40 acres of forested lands and 686 feet of riverfront. The preserve now offers the community nearly 500 acres of room to roam.

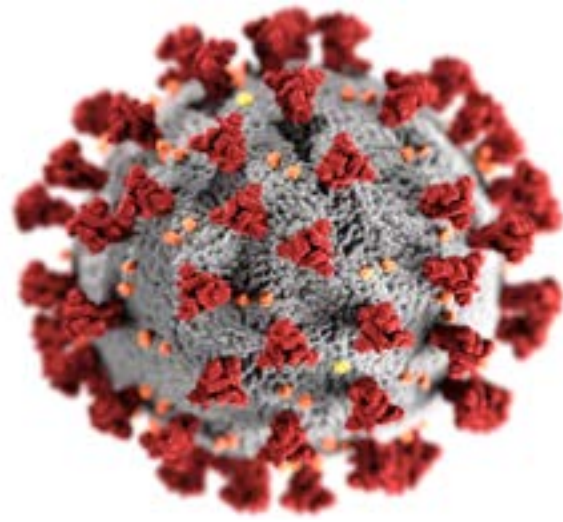


In the preserve, on separate lands owned by DSF, a large cabin perches on the edge of the river near a fishing hole important to the Passamaquoddy for thousands of years.

Each year, in late July, DSF and our partners at the Cobscook Institute host a two-week overnight camp that develops the next generation of conservation leaders by connecting them to the land and water. The camp also offers a quiet getaway to the general public.

The camp this year is from July 24 to August 7. For more information please visit the Cobscook Institute website: <https://cobscookinstitute.org/rivercamp>

# DSF AND COVID-19



DSF's thinking about the coronavirus mirrored that of the rest of the country. It started with "something funny is happening in China" to "what's the big deal—it's just another flu", to "Mainers are too tough and stringy for any virus to get good bite on us", to "No way we're putting off the Smelt Fry for a runny nose", to "Whoa, baby—this looks serious", to "We're locking everything down—now!", to "We gotta stay in touch. Let's have virtual staff lunches where we all show up in each other's computers with our PB & J sandwiches."

Our world today is so different from our world of 3 months ago it's hard to believe we once shook hands with strangers. It's also tragically hard to believe that millions of Americans have lost their jobs and may have no way to pay their rent or feed their kids.

If you are among those stricken by the virus or who have lost your job—our thoughts are with you.

All DSF staff now work at home when they can and meetings are held electronically. We have amazing people, and we haven't missed a beat in dedication and commitment to our work

Zach, our hatchery manager, and two new hatchery employees, Mitch

and Alex, brave the outer world and come into the office every day to ensure that the machinery and support systems are working. They arrive in their own cars and they all wear gloves and masks and wipe everything down with bleach and Lysol.

We're not quite certain what the virus will do to DSF operations in the near-term.

We had put off several projects such as building out the second floor laboratory and replacing the roof at our East Machias facility. We are working with our funders to move those projects forward as we can.

Like so many businesses, DSF is uncertain what our revenues will look like in coming months. Will funders quit funding us? Will they re-order their priorities to cities, hospitals, and to providing food for the house-bound?

So far, our funders have stepped into the breach and asked us what we need and have released restrictions on funds they've already given us, so money that was to go to a project may be redirected to staff salaries and keeping the lights on.

Here's what we do know: in times of crises, people band together and help each other out, that we—DSF, our neighbors, and fellow Mainers—will ride this out no matter how hard and how painful, that someday the virus will be gone and that we will once again turn to the work of removing dams and cleaning up our waters so that someday our rivers and streams will run thick with fish—as they did centuries ago.

Please consider making a donation to sustain our mission.

Thanks for your help. Be well, be safe, and keep in touch.



# THE DOWNEAST LEGACY SOCIETY

The Downeast Legacy Society is a community of donors who have thoughtfully committed a planned gift to the Downeast Salmon Federation. Planned gifts can often reduce capital gains or estate taxes, lessening the burden on family and loved ones, while at the same time contributing to Downeast Maine and the people who call it home.

The most common way of making a planned gift is by designating the Downeast Salmon Federation as a beneficiary in your

will. However, there are other ways of setting up a planned gift.

Your attorney or financial advisor may have suggestions that are best suited to your unique needs and desires. The Downeast Salmon Federation can assist you in the process as well, providing suggested language for your will and helping you identify the program.

"Mother nature may provide nourishment to both the body and soul, but she needs a good caretaker. The Downeast Salmon

Federation does just that in a precious place. Restoring and maintaining vibrant rivers, streams, and watersheds are vital not just to the health of the communities, but our entire world. In my lifetime, I have seen DSF make great progress in this endeavor. I want to know that its work will continue to result in a better world for us all to live in. I'm proud to be a member of the Downeast Legacy Society."

- ALAN "CHUBBA" KANE

For more information please contact :  
Dwayne Shaw  
(207) 483-4336  
dwayne@mainesalmonrivers.org



AmazonSmile, a charitable giving platform offered through Amazon, is a great way for regular Amazon users to give to the charity of their choice while making purchases they would normally make anyway.

AmazonSmile offers all the same items, prices, and benefits of the Amazon.com website, but with one difference.

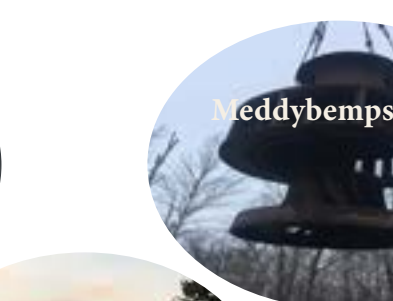
When users shop at www.smile.amazon.com, the Retailer's Foundation contributes 0.5% of eligible purchases to a charity of your choosing. As of February 2020, AmazonSmile purchases have created donations totaling \$169,850,767!

Signing up is easy - direct your browser to smile.amazon.com

and log in as usual

If it is your first time to the AmazonSmile platform, you will be directed to choose your charity. Enter "Downeast Salmon Federation" and a portion of each of your eligible purchases will help DSF restore our native fisheries.





# River Updates

## Smelt Brook

Late last fall, DSF removed the remains of an abandoned bridge on Old Route 1 in Perry. The bridge was collapsing into the brook and threatened to block upstream access to one of Washington County's most productive smelt, tomcod, and sea-run brook trout streams. After the bridge was removed our tomcod and smelt spawning surveys found the brook full of happy fish. This project was funded, in part, by the Maine Outdoor Heritage Fund—you can buy your scratch lottery tickets from MOHF to make more projects like this possible.

## Smelt Brook

In 2018, we removed the dam sealing up Smelt Brook in East Sullivan. Since then, the daily tides and stream runoff have continued to carve a stream bed through the 50 years of sediment that built up behind the old dam. Gravel and cobble beds—good smelt and tomcod spawning habitat—are beginning to reappear from beneath the mud. Early this spring, large schools of rainbow smelt were spotted swimming upstream to spawn for the first time in half a century. Be sure to check out our DSF preserve along this brook next time you're passing by.

## Pleasant River

Smelters were out in force this February as over two feet of ice formed on the Pleasant River just below our hatchery.

At the peak of the season a small village of smelt huts hosted fishermen in search of tomcod and smelts. Temporary fishing encampments were once common in Bagaduce, Union, Surry, Narraguagus, Hog, and Flanders Bays. A generation of mild winters has made the Pleasant River here in Columbia Falls one of the last places people can fish through tidal ice.

## Whitten Parritt Stream

Late on Christmas night there were many creatures stirring in western Washington County. You could hear them before you saw them, splashing in the shallow water and under the ice along the streambank. Hundreds of tomcod, with some females weighing up to a pound, had gathered to spawn on this dark, cold night. Hunting them below the ice, were otters, thankful for this mid-winter feast.

After the ice went out a few months later, rainbow smelt arrived by the thousands to spawn in the same stream. On a clear star-filled night, fishermen lined the banks with dip nets hungry for the little fish. May these important seasonal fishes continue and feed the human and natural communities that depend on them.

## Orange River

DSF is partnering with the Sipayik Environmental Department and the Native Fish Coalition to learn more about sea-run fish movement between the Orange, Hobart, and

East streams—three watersheds in Southern Cobscook Bay. This study will help determine if brook trout and other diadromous species—eel or river herring—in a multistream coastal environment move between streams. This will give DSF a glimpse into how our work to restore fish passage to the Orange River will benefit neighboring watersheds. This study uses PIT tags to track the fish. PIT--Passive Integrated Transponder--tags are small devices inserted into fish that allow us to identify and track them. Volunteer fly fishers needed to help capture our "volunteer" fish! Check out the DSF YouTube page for the Orange River underwater live stream camera.

## Machias River

Just below the Stud Mill Road on the upper reaches of the Machias River, there's an old wooden dam that blocks upstream fish passage into Lower Sabao Lake and the headwaters of the west branch of the Machias. Working with the USFWS and the Sabao Lake Association, DSF is helping with preliminary studies to determine the best way to replace the old dam at the lake's outlet and to ensure fish passage over it.

## Union River

In March, the Maine Department of Environmental Protection (DEP) denied the application for water quality certification filed by Brookfield Renewable for its two Union River dams. Unless this

will not be relicensed by the Federal Energy Regulatory Commission (FERC) DEP's denial was based on water testing done by Brookfield. This testing showed multiple violations of state water quality limits affecting both Graham Lake and the river below the Graham Lake dam. Maine DEP did the right thing and should be applauded for following Maine law to ensure that our rivers and lakes are protected.

Brookfield has appealed this decision to the Maine Board of Environmental Protection (BEP). We do not believe Brookfield's appeal will be successful. DEP's decision is supported by decades of well-established law. Brookfield should now do the right thing and begin good faith discussions about how it intends to operate these dams responsibly.

DSF has spent the last five and a half years spearheading the public effort to change the operations of these dams. We have advocated for the immediate installation of high quality upstream and downstream fish passage to prevent ongoing fish kills and facilitate natural migrations. DSF will remain engaged with the BEP appeal process and is prepared to counter any legal actions Brookfield might take.

Over the past few years, hundreds of comments were submitted by community members, the Friends of Graham Lake, the Passamaquoddy, and by

Senator Louis Luchini and Representative Nicole Grohowski, our local legislators. These comments helped put all the facts on the table. Thanks to all of you who have contributed!

Together we are moving the river, the bay, and our communities toward a healthier future. We must now turn to Brookfield, and demand that it becomes a responsible corporate owner and work with DSF, the State of Maine, and other stakeholders to achieve a solution that restores the health and the once abundant fisheries of the Union River.

## St. Croix River

The future of fisheries on the St. Croix is looking brighter with the recent announcement of the \$30 million Bay of Fundy Connectivity Project. The goal of the federally funded project is to restore fish passage to Maine's easternmost watersheds, including opening West Grand Lake on the St. Croix to sea-run fish. Keep an eye on the St. Croix—as this work gets underway, sea-run fish numbers are expected to explode!

## Bagaduce River

Our friends from Penobscot and Brooksville are preparing for more alewife fish passage improvement projects this spring. They have been working hard to restore the fisheries of the Bagaduce River, which has the potential to produce billions of juvenile fish. This

summer, work will be completed on Walker Pond with future projects planned for Frost and Parker Ponds. These projects were made possible by the support and hard work of the Maine CoastHeritage Trust and Maine Center for Coastal Fisheries.

## Denny's River

On a cold morning a few days into the new year, a crowd gathered on the bridge over the Dennys River in Meddybemps. Salmon fishermen, town selectmen, members of the Passamaquoddy, and neighbors watched as the turbine that once turned the river's flow into electricity, was hoisted up by a crew from DiCenzo Crane. Before the short day ended, the generator, part of the cement powerhouse, and the large hydro turbine were loaded up on a flatbed trailer and trucked away.

Since its installation in 1947, the power station has been a barrier to salmon and alewives migrating into Meddybemps Lake.

The Maine Department of Marine Resources provided much of the financial support for this part of the project. We also have support from the local town government, the Passamaquoddy, Maine DEP, US EPA, USFWS, and the grandchildren of the power station's builder. Permitting and design for the final phase of removal are underway and if funding allows we plan to remove the last of the structure in 2021.