DOWNEAST SALMON FEDERATION

Protecting Water, Wildlife and Public Access Since 1982

INTERVALE

Summer/Autumn 2023

Documenting Continued Success of the Peter Gray Parr

by Mitch Monini, *Hatcheries Manager*

The summer of 2023 marks the twelfth year of rearing parr for the East Machias River and the third year of rearing parr for the Narraguagus River. The Peter Gray Hatchery (PGH) receives eyed eggs (fertilized) from Craig Brook National Fish Hatchery in late winter. We release them as parr in October. As a result of our work, the East Machias River now boasts the highest consistent smolt-to-adult return rate (SAR) of any river in Maine! Your contributions have made this happen. We need continued financial support in 2023 and beyond to build upon this success story.

Because of our proven success on the East Machias, in 2021 we began stocking parr into the Narraguagus River. This spring was the first year that we could see its effects. Smolt numbers seen on the Narraguagus this spring also indicate a substantial increase in the number of smolts leaving the river. More than half of those smolts originated from the PGH. Finalized results will not be published until this October for the Narraguagus, but all indications are that our efforts are now working there as well—or better—as in the East Machias River!

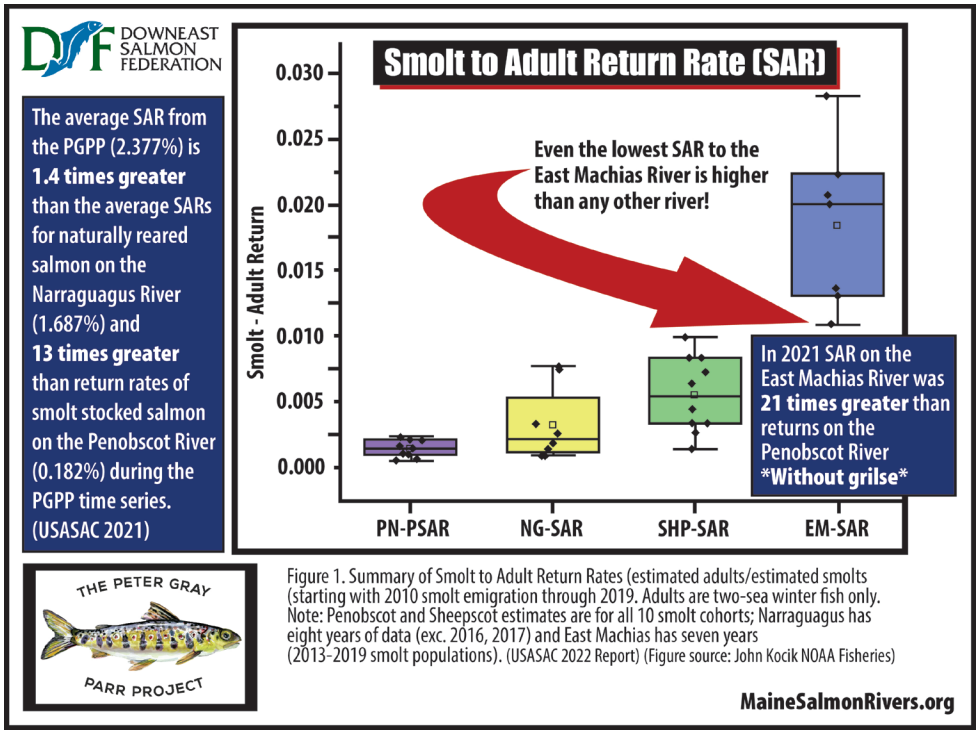
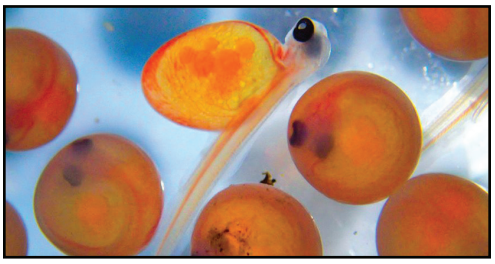


Figure 1. Summary of Smolt to Adult Return Rates (estimated adults/estimated smolts (starting with 2010 smolt emigration through 2019. Adults are two-sea winter fish only. Note: Penobscot and Sheepscot estimates are for all 10 smolt cohorts; Narraguagus has eight years of data (exc. 2016, 2017) and East Machias has seven years (2013-2019 smolt populations). (USASAC 2022 Report) (Figure source: John Kocik NOAA Fisheries)

The Downeast Salmon Federation is funded by grants and private donations. We are currently in the process of raising funds for our USFWS Matching Grant for the Parr Project. This is the third year of our five-year grant. DSF has already raised roughly one-third of the $167,000 needed for the 2023 matching grant. The Peter Gray Parr Project needs these funds to continue to stock endangered Atlantic salmon in Downeast rivers in order to conserve these critical populations.



On Their Way to Becoming Parr: Eggs & Alevin

Please Continue to HELP US MAKE THIS MATCH by the End of the Year!

Letter from Our Associate Director

Dear Donors, Members and Followers:

As I'm writing this, the sun has decided to show itself after what has been a very soggy and foggy start to the summer. Basking in the sunshine after a few weeks of being fogged in makes you truly appreciate our life-giving star. The work we do certainly carries this metaphor. Many of our projects go through long periods of stagnation, but when they start to move again it makes you that much more appreciative of the opportunities we have to change our world for the better (opportunities made possible by your generous support). You've heard from Mitch Monini, our hatcheries manager on the cover, about some early results on the Narraguagus River that we've waited over two years to see while our salmon parr grew and developed, first in the Peter Gray Hatchery in East Machias, then in the Narraguagus itself. Next in this newsletter you'll hear from Michael Manning, our fisheries biologist, about a project we finally completed after years of attempts and roadblocks. This is truly an exciting time to be involved with our organization, a time to take stock of our accomplishments while bracing ourselves for the long fight ahead.

Charlie Foster

As the fog has cleared and the sun reemerged, so have opportunities to restore critical salt marshes the Downeast Salmon Federation has been advocating to restore in Addison and Machias (more on that later in this newsletter).

Whether it's a restored salt marsh, a dam removal, a large wood deposit in a river or supplementing wild populations of endangered Atlantic salmon, we are working hard each day to ensure that our populations of wild, sea-fun fishes can return in numbers not seen in many, many years. Currently in my inbox is the last fish count report for the Milltown Dam in Calais. It's the last fish count because the dam is being removed this summer after blocking the river since 1881. An earlier improvement to the dam's fishway had already brought returns of river herring (alewife and blueback herring) from just 16,667 fish in 2013 to over 840,000 at the time of this final count. That final number, my friends, is just a drop in the bucket because the river can support 20 MILLION river herring, a number that would double the river herring returns to the entire State of Maine. The Milltown Dam removal will open 10 miles of upstream habitat for what many call "the fish that feeds all." River herring are called that because of their place in the food chain. Cod, haddock, tuna, osprey and people rely upon these fish for sustenance. These are the types of gains that we wish to see for this region. Rivers teeming with fish. Thank you all for your continued support and for allowing us to share some of our accomplishments with you.


Fox Pond Credit: Charlie Foster

Best Wishes,

Charlie Foster

Associate Director, DSF

Improving Fish Passage

White's Creek Project

by Michael Manning, *Fisheries Biologist*

White's Creek Culvert Removal, July 25–26, 2023: The culverts were removed on Tuesday, July 25. After removing the culverts, Hanscom Construction worked to restore the stream bank where they had been located. They hauled away the debris, put down mulch, and seeded and placed straw in any disturbed areas. This has been an ongoing project with many hands seeing it to completion. Historically, White's Creek, in Jonesboro, was known to have a sea-run Brook Trout population. Hopefully restoring a more natural flow will help them come back. The stream may also be included in the sea-run Brook Trout study that is being planned.

White's Creek, Jonesboro, day after Culvert Project

White's Creek, Jonesboro, preparing to pull culverts

DSF Expands Salt Marsh Restoration Program

by Charlie Foster, *Associate Director*

Over the past several years, the Downeast Salmon Federation has expanded its role along the coast to include the restoration of salt marshes. These marshes provide crucial ecosystem functions such as water filtration, carbon storage, and habitat for fish, birds, clams and crabs. Unlike the West Coast, salmon don't directly use these habitats, but salmon do need clean water and food, so the restoration of these salt marshes will contribute significantly to their return. One example of our work is at the Schoppee Marsh in Machias. This 40-acre salt marsh is located beside the Sunrise Trail next to an old dairy farm-turned-hotel along the banks of the Machias River. Perhaps the best local descriptor of its location is that it's across the road from Dunkin' Donuts.

Culvert Credit: Charlie Foster

In 2021, DSF received a grant from the National Fish and Wildlife Foundation (NFWF) to conduct a feasibility study to determine the best way to restore this marsh. What's wrong with the marsh? Well, the original railroad bed cut the marsh off from its natural tidal cycle and a tide gate was placed there to prevent salt water from entering (a useful tool for hay production, a practice long-since abandoned in this location). With the permission of the landowners and the trail's owner (Maine DOT), we propped open the tide gate to see if that might help. After using water-level loggers (small instruments that measure the tidal cycle) for a few months, we were able to see that simply propping open the gate wasn't going to work. Why? Because the size of the opening that ferries water back and forth with the tides each day wasn't big enough, so water collects in the marsh for too long and, over time, has killed off the marsh grasses and disrupted the marsh's ability to rebuild itself.

After a few decades of being cut off from the river, the marsh has subsided, or sunk, by as much as two feet in some places. The good news is that we now have a plan to fix it! After completing the feasibility study in 2022, we

Machias Causeway

Credit: Charlie Foster

received another NFWF grant to produce the final designs for a small bridge that will allow a more natural tidal flow. Once in place, that bridge will allow water and sediment to flow freely back and forth. With some time and a little help, we can turn what some locals have deemed an "eyesore" into a healthy, verdant salt marsh once again.

Tide gates like the one at Schoppee Marsh are just dams by another name. They block everything (water, dirt and fish) from entering upstream habitats. They are scars on the landscape and obsolete barriers to ecosystem restoration. In some cases, they block entire river systems in the same way the dams on the Union, Skutik (St. Croix) and Narraguagus do, except there are no fishways, no fish lifts and no way for fish to access the waters upstream. There are tide gates at the base of both the Middle River (a tributary to the Machias) and the West Branch of the Pleasant River. At both locations, these tide gates have stood in the way for decades, blocking the salt water and turning productive coastal river systems full of fish into ecosystems that seem (and look) confused. Where there were once thriving salt marshes along their banks, there is now a hodgepodge of freshwater grasses and shrubs that simply don't provide the same value as their saltwater counterparts. Saltwater marshes are more productive than freshwater marshes and, if you hate mosquitoes as much as many do, then you should know that blocking salt water and draining marshes make it worse! Mosquitoes prefer fresh water. One of their best predators (the mummichog) needs salt water to thrive.

After nearly two decades of prior efforts, the DSF has renewed interest in returning the tide of the West Branch of the Pleasant in the Towns of Addison and Columbia. With the support of the Maine Coastal Program and Maine DOT, we have begun outreach to landowners and field work aimed at restoring hundreds of acres of salt marsh, while also making these communities more resilient in the face of sea level rise and increased coastal flooding. We are still in the early stages of this effort, but we hope to have more to share soon about this exciting project.

Thank You for Your Continued Support!

Welcome to the Team

Loretta McClellan
Communications & Development Specialist

Bringing together her lifelong passion for nature and the outdoors, as well as strengths in communications and development, **Loretta McClellan** considers her joining the DSF team as the **Communications & Development Specialist** in 2023 a professional highlight.

With a career spanning 40 years, its origins in journalism and graphic design, writing and fine art, as well as a degree in Fine Art, Loretta has led hands-on communications, marketing and development efforts in the industries of Health Care and Real Estate, then found her niche in nonprofits, including in the Arts and now Conservation. Loretta is an award-winning artist and lyricist, and author of numerous articles and publications, including six books of fiction, memoir and poetry, and as a poetry contributor to an anthology. She considers creativity and connection her foremost priorities, with family her greatest joy.

Washington County became Loretta's home with her family in 2003. In her free time, you can find Loretta writing, painting, designing stained glass with her husband, enjoying the beauty of nature at camp, preserving her 1850 home and offering Street Poetry with her collection of vintage manual typewriters.

Rick Harter is honored to be joining DSF as our **Habitat Restoration Project Manager** and looks forward to new opportunities to become involved in local habitat restoration efforts. Having spent nearly 30 years in the habitat restoration field, he brings a wealth of experience ranging from project funding/development to implementation and monitoring.

Rick has been passionately promoting coastal nature-based solutions and has worked closely with nonprofits and various levels of government to help achieve restoration goals.

After spending most of his life in Florida, he moved to Cherryfield about two years ago, where he is now engaged in numerous community activities (including scouts, church and the Cherryfield Riverwalk Committee). Rick enjoys spending time outdoors, working on home improvement projects and spending time with family.

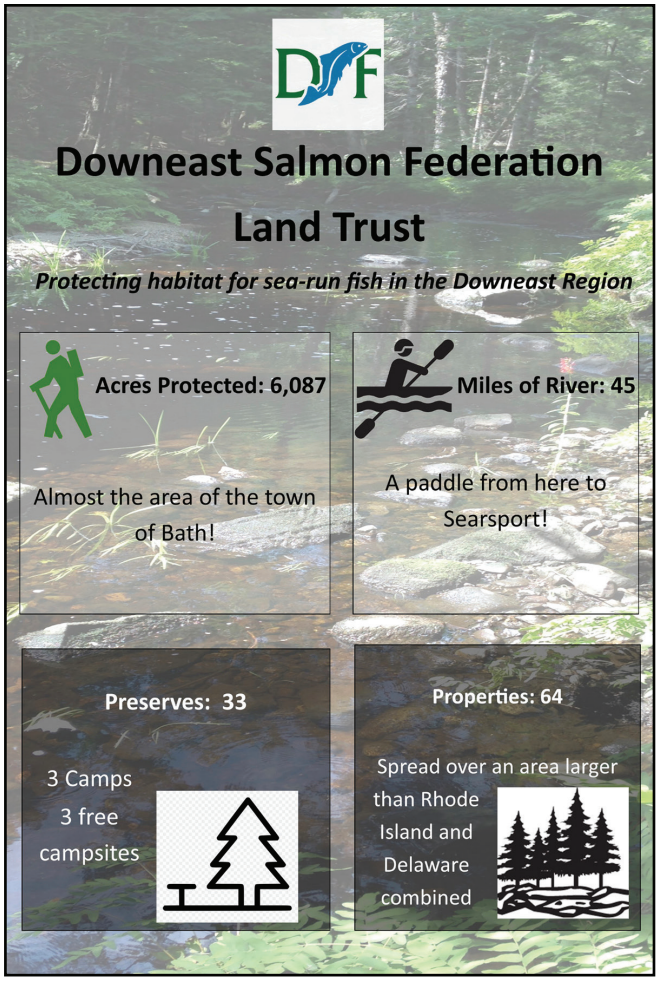
Rick Harter
Habitat Restoration Project Manager

PROJECT HEALING WATERS

The Project Healing Waters Fly Fishing program works to help retired veterans connect with each other through fly fishing and associated activities. Our DSF-sponsored local chapter has been underway for over a year now and continues to grow, averaging a new veteran each month. They have had two outings so far this year, one at the WigWams and one at Grand Lake Stream. They meet monthly at the Peter Gray Hatchery Building in East Machias.

If you or someone you know is interested in joining this group, please contact our Program Lead and Fisheries Biologist, Mike Manning, at mike.manning@projecthealingwaters.org.

Farewell & Best Wishes



As the **Habitat Restoration Manager, Kirstin Underwood** guided large groups of people working collaboratively on restoration and conservation projects. During her time with DSF, she assisted on the Cherryfield Ice Dam project, as well as Addison Tide Gates. Both of these endeavors allowed her to develop connections with the local communities, explore the history of the area and even reopen projects. She is particularly proud of her work with the Narraguagus Marsh Restoration Project. Through these efforts, she wants others to recognize the importance of honoring historic farming practices and the ways in which farming is affecting the marsh today. The DSF team wish her the best as she relocates to Sebago Lake State Park.

Kirstin Underwood

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Conservation Excellence

MEANDERS

Eventually, all things merge into one, and a river runs through it.
—Norman Maclean

DSF NEEDS YOU

DSF is in need of a truck donated to our organization to support the monitoring and habitat projects on our 6,100 acres of conservation lands.

PLEASE DONATE TODAY!

Clam shells being trucked to a salmon stream to improve pH

DOWNEAST SALMON FEDERATION
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You **CAN** make a difference! Your **PARR PROJECT MATCHING GRANT** donation is **matched 1:1, dollar for dollar**, directly helping the Downeast Salmon Federation raise and nurture Wild Atlantic Salmon Parr (wild baby Atlantic Salmon) into a thriving adulthood. Using the renowned, naturalized Peter Gray method in our state-of-the-art, riverside Peter Gray Hatchery in East Machias, the Parr Project was extended to the Narraguagus River after 10 years on the East Machias River. Now *that's progress* and a fine example of *your donations at work!*

Help Us Keep Our "Little Athletes" Going Strong!

Donate TODAY!