*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

DOWNEAST SALMON FEDERATION
P.O. Box 201
Columbia Falls, Maine 04623

PROTECTING RIVERS AND WILD ATLANTIC SALMON SINCE 1982

INTERVALE

Downeast Salmon Federation

Spring 2017

Peter Gray Hatchery Expansion & $2.5 Million Parr Project Campaign

New hire, Rachel Gorich, with Zach Shellet

BIG news! We have just ordered 15 new rearing tanks and are getting larger with a 36' by 44' hatchery expansion. The expansion is set to begin this spring, and more than doubles the number of tanks on site, opening many options for the future of salmon in the Downeast region. Initially, these extra tanks provide more space to spread out the juvenile salmon we currently have at the Peter Gray Hatchery, providing a rearing environment that is less crowded. This reduces stress for our salmon, creating healthier parr to seed the river. The hatchery expansion will also provide the space necessary to raise more athletic parr and space for additional salmon research projects. All of these efforts are aimed at the ultimate goal of restoring the great Atlantic salmon to Downeast Maine.

The Peter Gray Hatchery currently has over 350,000 eyed Atlantic salmon eggs. Those developing salmon are sitting in East Machias River water that is 35 degrees Fahrenheit. Alevin–a newly hatched salmon still attached to the yolk sac–start to emerge in March at which point hatchery staff will transfer them into Substrate Incubation Boxes (SIB). These boxes are filled with plastic media and mimic wild salmon redds (nests). With plenty of space for the alevin to spread out through the SIB, the salmon can absorb their yolk sac, developing into fry. The salmon then emerge from the SIB at the same time that salmon in the river are emerging from redds.

Electrofishing results from 2016 were promising. As a result of our stocking efforts, the juvenile salmon population numbers in the East Machias River are the highest they have been since the mid-1980s! More salmon parr in the river equal more smolts heading to the ocean, which we are hopeful will equate to more adult salmon returning to the river. The Parr Project partnership between DSF, other NGOs, state agencies, and federal agencies has moved the needle and the fish are responding.

We are proud to announce the hiring of Rachel Gorich as the Assistant Hatchery Manager/ Fisheries Biologist. After volunteering and working part-time for DSF for multiple years, Rachel has assumed this full time position to help further advance the recovery of Atlantic salmon in the Downeast region. If you'd like to read more on Rachel, please check out our website at: https://mainesalmonrivers.org/about/staff-profiles. As always, DSF is the boots on the ground force working to make our ecosystems a better place for fish, animals and humans combined.

Due to the success that the Parr Project has shown, we will continue our efforts into the next five years and beyond. Bringing Atlantic salmon back to our U.S. rivers could not be undertaken by one person or nonprofit alone. We rely on the support of our members, volunteers, business sponsors, and foundations to make our work happen. Our goal of $2.5 million for the Parr Project will take us into this next phase, where we expect to see ever-greater signs of success and renewed hope for our rivers and the salmon that return year after year. We have already received numerous contributions and pledges totaling over half a million dollars to this critically important project. Thank you to everyone who has supported us thus far! If you'd like to contribute, please contact our Membership & Development Coordinator, Heather Andrews, at heather@mainesalmonrivers.org or 207.747.2942. We're looking forward to sharing this exciting new passage with you!

MEANDERS

"Poor shad! Where is thy redress? When Nature gave thee instinct, gave she thee the heart to bear thy fate? Still wandering the sea in thy scaly armor to inquire humbly at the mouths of rivers if man has perchance left them free for thee to enter."
Henry David Thoreau

Beaverdam Stream Project

AN important and exciting project continues to take shape on Beaverdam Stream in Wesley, ME. In the fall of 2015, DSF worked to remove a set of culverts that acted as a dam, impeding passage to over half of the stream. Now, just 1,200 feet downstream, one final crossing remains. Removing or improving this crossing will be the next step to restore access to the upper half of the watershed for migratory fish like alewives and Atlantic salmon, also allowing for easier passage of anadromous species such as brook trout. This phase of the project not only focuses on improving access, but also further protects the riparian buffer and surrounding lands of this important stream. Land acquisition in this case could include converting more than eight acres of blueberry fields adjacent to the stream to organic crops, lessening the impact of the working land on the tributary. Beaverdam Stream is one of the most significant streams in the East Machias watershed for growing juvenile Atlantic salmon and is stocked each year with parr raised in our Peter Gray Hatchery as part of the ongoing Parr Project. Adult salmon spawn in Beaverdam Stream as well, and have been documented spawning there as recently as 2016.

Thank You to Our Business Partners

Machias Savings Bank

Emera Maine

APEX CLEAN ENERGY

SunEdison

For more information on how your business can become a DSF Business Partner, please contact our Membership and Development Coordinator, Heather Andrews, at heather@mainesalmonrivers.org.

Business Partner Spotlight

MACHIAS Savings Bank has supported Downeast Salmon Federation for years now. However, when Larry Barker learned about our plans to continue and expand the Parr Project, he pitched in with a larger pledge of $10,000 over the next five years.

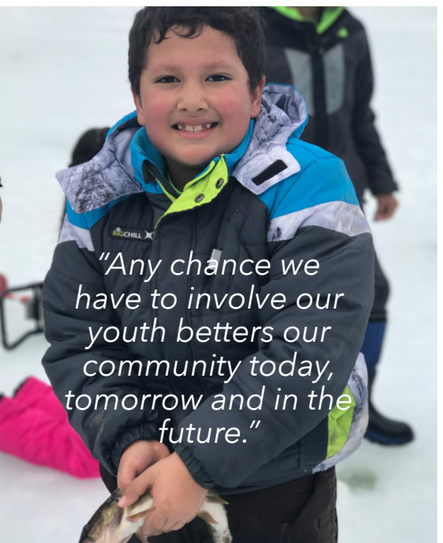
We recently had a visit from Larry and his two young boys. Here is what Larry and Machias Savings Bank had to say about their recent pledge to DSF and the Parr Project:

"When you pair preservation efforts with education you create a win-win situation. DSF's Parr Project is doing just that! They are fueling the thirst for knowledge and inspiring future scientists by opening their doors to area schools. This first hand education brings focus on preserving natural resources and engages young people in ways that will give them a deeper understanding of our Maine way of life. 'Partnering with an organization that extends their project impact into our community aligns with the focus of Machias Savings Bank. Any chance we have to involve our youth betters our community today, tomorrow and in the future.' Larry Barker, President & CEO."

Machias Savings Bank goes on to say: "February school vacation did not stop Larry's two youngest sons, Brayden and Finn, from learning something new. After a recent visit to Downeast Salmon Federation's hatchery in East Machias, Maine, the boys shared that their experience was awesome and fun! Seeing endless amounts of salmon eggs and feeding fish helped the boys understand that rebuilding the salmon population truly is like swimming upstream. Hanging with Dad was a side perk; there is no doubt that this will be lunch table talk when the boys return to school.

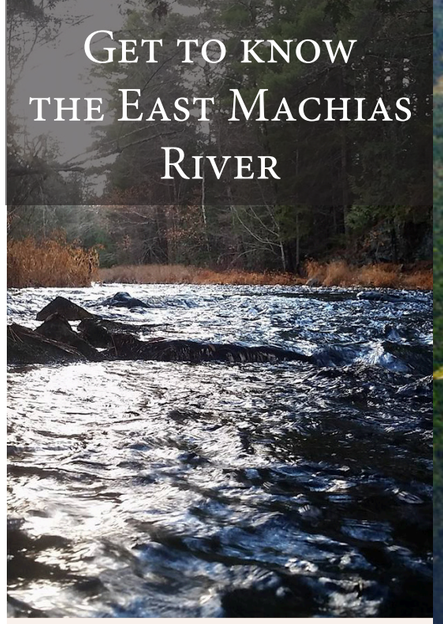
Machias Savings Bank encourages everyone to take learning outside of the classroom; for when you do, you open the door to exploration and experiences that last forever."

Thank you, Larry and the rest of the team at Machias Savings Bank, for your commitment to community conservation and creating lasting educational experiences for the next generation of downeast Maine!



Leave a Legacy

A planned gift to Downeast Salmon Federation is a wonderful way to contribute to the health of our rivers and fisheries for future generations while also meeting your financial goals. You can create a legacy gift that will help DSF continue to improve river ecology, restore Atlantic salmon populations, increase fish passage, run educational programs, and much more. Please consider making a planned gift to DSF through a bequest, retirement plan gift, or life insurance beneficiary designation. Contact heather@mainesalmonrivers.org or (207)747-2942 to discuss making a planned gift to Downeast Salmon Federation.

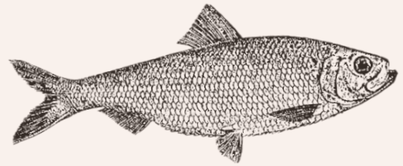


Get to know the East Machias River

WINTERS around here tend to lean over into spring. But it's at this time in early spring, when it still feels wintry, that it is best to explore the East Machias. There is swift current between the marshes and ponds that connect Crawford and Pocomoonshine Lakes, rocks and rapids are softened by high water, and the black flies are still a few weeks away. Even though the ice may have gone out of Crawford Lake that doesn't mean it won't fill the bottom of your canoe. You have to dress warmly for your rewards on this river.

The East Machias in these few weeks in spring is a river of bursting red maple buds in the oxbows below Route 9, swirls of river herring in the swift water, and the hope for salmon redds in the gravel. The crisp nights are filled with the laughter of loons who arrive back from the coast the first morning the ice goes out. Along the shore huge pines and cascading tributaries mark the miles as the river flows towards Hadley Lake and onward into town.

Join DSF for a paddle up above Route 9 on Saturday, June 3rd to see what makes this river such a special part of downeast Maine.



Orange River Restoration Project

A feasibility study is on going in Whiting and continues to shed a little more light on the fish passage situation on the Orange River. A project to restore fish passage to the watershed began early in 2016 as DSF purchased a house and the Mill Pond Dam, the lowest dam in the watershed, sitting just above head of tide. The historic Mill Pond Dam has been standing near the mouth of the river for over 180 years (going through failures and repairs in that time), and currently offers no options for fish passage. Two other barriers that lie above the Mill Pond Dam are a part of this project and are owned by the Maine Department of Inland Fisheries and Wildlife (IF&W) – neither of which offer fish passage. Questions and concerns have been heard from town officials and community members, most of which focus on the Mill Pond Dam and the pond created by the impoundment. Concerns range from simply losing the pond as an aesthetically pleasing spot in town and recreation area, to losing the historic dam, to losing the water supply for the fire department the pond offers–and potentially seeing increases in insurance rates because of this. This study focuses on examining alternatives for firefighting water sources and several fish passage alternatives: a nature-like fishway, a more technical, concrete fishway, and dam removal. A fishway that has since fallen apart was built on the Mill Pond Dam back in the 1860s after townspeople were angered by the loss of their migratory fish runs which included river herring, American shad, and Atlantic salmon, to name a few. Community members have expressed interest in maintaining and re-establishing sea-run fish here continuously since the first dams were built in the 1800s. DSF is taking a proactive role in the community by acquiring the dam and working with stakeholders toward an end goal that will re-establish our local heritage.

Union River Petition

WE'VE been doing a lot of talking about the Union River for the past few months. Public meetings have been held at the library in Ellsworth, town hall in Waltham, and at Airline Brewing Company in Amherst. The next event is Cold Water / Cold Beer in Ellsworth on March 24th–find out more in the events section of this newsletter.

The following citizen and stakeholder petition was drafted by DSF and the Union Salmon Association, and has been signed by over one hundred Maine residents who are committed to preserving our fisheries.

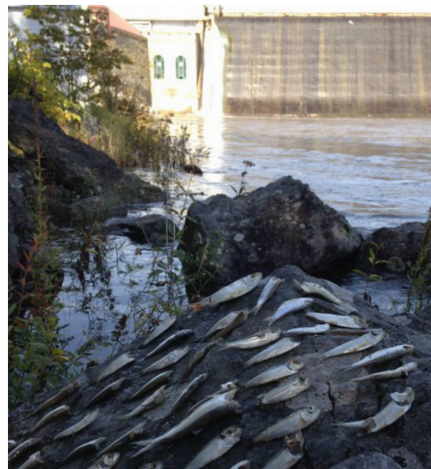
To: Federal Energy Regulatory Commission (FERC); Maine Dept. of Environmental Protection (MEDEP); Relevant state and local governments–

We, the residents of Maine and other stakeholders concerned about the Union River watershed, demand that any new FERC issued license for the Union River dams requires operational, highly successful upstream and downstream fish passage for native species, recognizing that these native populations add to the ecological health of the river and grow the recreational and economic value of the river's fisheries.

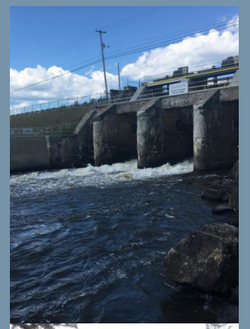
We also request that any new FERC issued license for the Union River dams have requirements that stabilize water levels on Graham Lake, stopping the current practice of withdrawing up to eleven feet of water. New lake levels should be set to protect the property of shoreland owners from erosion, improve the health of the lake's aquatic habitat, promote lake access and recreation, reduce turbidity, and enhance water quality.

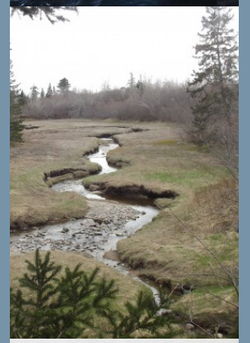
We request that the Maine Dept. of Environmental Protection exercise its authority to direct this process under Section 401 of the Clean Water Act.

There is a link to both the online and print versions of this petition on the Union River page of our website. There you can learn more about the documented fish kills on the Union River and stay up-to-date on the relicensing process of the Union River dams. We'll see you at Cold Water / Cold Beer in downtown Ellsworth!



Downeast Salmon Federation Spring 2017 Events





Citizen Science Turbidity Training on the Union River

Saturday, March 18th at 10am – 11:30am with retired Maine Department of Environmental Protection scientist Dr. Mark Whiting on the Union River in Ellsworth, Maine. Did you know you can use your cell phone as a sensitive scientific instrument to get useful environmental information? A technological innovation at the University of Maine has resulted in the adaptation of satellite technology for cell phones. You can use your cell phone camera and GPS capability to help us collect turbidity data (information about the muddiness of water) that can help Downeast Salmon Federation and local people manage their own lakes and streams. Registration for this citizen science training is required as space is limited. Please contact DSF Membership & Development Coordinator, Heather Andrews, to register for this event at heather@mainesalmonrivers.org or (207)747-2942.

Smelt Monitor Training

Wednesday, March 22nd at DSF's East Machias Fisheries Center with DSF biologist Brett Ciccotelli from 6:30pm – 8pm. As the days grow longer and sap begins to run, so do the fish. DSF is committed to helping co-manage the river fisheries of eastern Maine–and to do that well we need you! Whether you're an avid fisherperson, night owl, or really good counter you can help us with our seasonal monitoring of rainbow smelt and river herring. DSF uses state of the art electronic and video counters for remote locations but we rely on trained citizen volunteers to go out and count fish and collect data each year to cover the streams of Hancock and Washington Counties. These trainings are a great way to learn about these fisheries and help ensure that their populations are well understood so we can protect them for generations to come. Contact brett@mainesalmonrivers.org for more information.

Cold Water / Cold Beer!

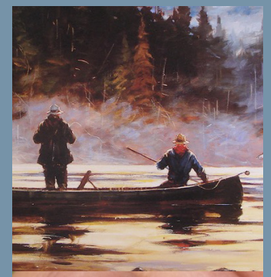
Friday, March 24th at Flexit Café & Bakery (192 Main Street) in downtown Ellsworth, Maine. Doors open at 6:30pm. This is a fun benefit event to support Downeast Salmon Federation's work on the Union River. Sponsored in part by Airline Brewing Co., Flexit Café & Bakery, Mongr, and Patagonia. Hors d'oeuvres will include wild Alaskan smoked salmon from Mongr. Root beer will be available as a non-alcoholic option. Music by SHUSH; silent auction items from Patagonia! Fun (FREE) kids' activities with College of the Atlantic – Summer Field Studies educators will be offered downstairs during the event! Dwayne Shaw will give a brief talk about the FERC relicensing process for the Leonard and Graham Lake dams on the Union River. $10 in advance / $15 at the door; additional donations encouraged. Choose "Cold Water / Cold Beer! Event Ticket(s)" when making your ticket purchase at https://mainesalmonrivers.org/donate/. Space is limited so get your tickets in advance!

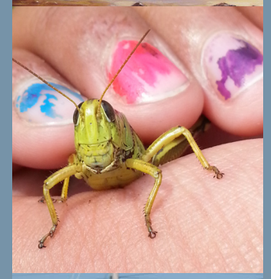
Alewife Monitor Training

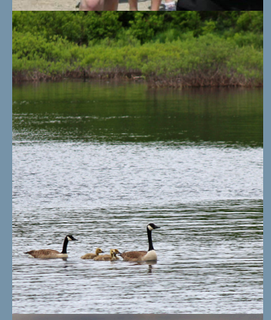
Wednesday, April 5th in Hancock County AND Wednesday, April 26th in Washington County with DSF biologist Brett Ciccotelli. Contact brett@mainesalmonrivers.org for more information.

17th Annual Smelt Fry and Fisheries Celebration

Saturday, April 15th in Columbia Falls from 11am-4pm. Throughout downtown Columbia Falls, there will be activities and displays that feature the inspiring fisheries and conservation work of DSF and our partners. We will be holding the Smelt Fry dinner, raffle, and showcase of the 2017 Student Art Contest winners in the gym at the Wreathes Across America building. In the center of town in Union Hall, there will be music, activities, and partner displays. At the DSF Columbia Falls Visitor Center, there will be tours of the hatchery and program information with the mobile smokehouse up and running. Right on the estuary, attendees are welcome to visit our working Heritage Fish Camp which serves as a home base for smelt fishing, research, and outreach work. For those interested in a nearby hike the morning of the Smelt Fry, Downeast Coastal Conservancy will be leading a group hike at Ingersoll Point Preserve in Addison at 9am. This is truly a community event!







Sipping Suds for Atlantic Salmon

Wednesday, April 26th - Do you want to learn more about Atlantic salmon fishing and conservation? Meet with experts who are leading efforts to protect and restore the species? Maybe win a trip Atlantic salmon fishing? Then this event is for you! Come talk salmon fishing and drink beer at Mystic Brewing Company and enjoy food from Ciao Pizza and Pasta. This a partnership event with the Miramichi Salmon Association and Atlantic Salmon Federation. $15 in advance / $20 at the door. 6:30 PM – 9:30 PM. Mystic Brewery, 174 Williams Street, Chelsea, Massachusetts. Go to mainesalmonrivers.org/events for tickets and additional information.

Narraguagus Exploration

Saturday, May 6th from 1:00-2:30 PM at Icebreaker Dam at the end of Cable Pool Road in Cherryfield for ages 10-14. Are you curious about what life lurks in the tea-stained depths of the mighty Narraguagus River? Join Maine Outdoor School founders Joe Horn and Hazel Stark on a two-hour exploration both upstream and downstream of the Icebreaker Dam on the Narraguagus River in search of mayflies, stoneflies, caddis flies, hellgrammites, minnows, frogs, and maybe even eels! Be sure to bring rubber boots or shoes that you don't mind getting wet and a sense of adventure!

Smolt Bolt and Bloater Bash

Saturday, May 20th - The Smolt Bolt is a running race celebrating the migration of Atlantic salmon smolts from their freshwater home to the ocean. Registration begins at 8am at DSF in East Machias and shuttles will be available to bring people to the starting line at 9:30am. The race will officially start at 10:00am. The race begins across from Dunkin' Donuts in Machias at the Sunrise Trail parking lot and follows an incredibly scenic section of trail along the river to East Machias. The 4 mile course is flat the whole way, making it a great race for all abilities. Following the race DSF will celebrate another great migration, the spring alewife run, with a Bloater Bash! Bloaters are whole smoked alewives, prepared and smoked in the traditional fashion right here at DSF. Join us in celebrating the run of this magnificent species and learn about the history and significance of the great bloater! DSF will also offer tours of the Peter Gray Hatchery.

East Machias River Paddle

Saturday, June 3rd – Bring your kayak or canoe and come join us for a paddle on the East Machias River! We've been working on restoring Atlantic salmon and river habitat on the East Machias for years, and now we'd like to bring you along to explore the river with us. Our trip will be two hours and will cover an "easy" portion of the river–so both beginners and experienced paddlers should feel welcome to come along. All participants should come prepared with a life jacket, water, sunscreen, bug repellent, and appropriate clothing. Space on this river paddle is limited, so please reserve your spot with DSF Membership & Development Coordinator, Heather Andrews, ahead of time at heather@mainesalmonrivers.org or (207)747-2942. Final time TBD. See you on the river!

Avian Piscivores and the Rivers That Once Fed Them

Sunday, June 4th at 10:30am – Join us for this special talk at the Acadia Birding Festival in Bar Harbor. Keystone species such as river herring, sea-run smelt and tomcod are critical components of the diets of many birds and other wildlife at various times of year. Restoration of these fish and the rivers where they spawn present a tremendous opportunity to rebuild multiple ecosystems and avian communities. We will discuss various ways that birders can become involved in ecosystem restoration. For more information, visit the Acadia Birding Festival website at http://www.acadiabirdingfestival.com/index.htm.

Pleasant River Hatchery

THE basement hatchery where it all began for DSF's Atlantic salmon rearing adventures is still chugging along. Currently there are over 60,000 eyed salmon eggs residing at the Pleasant River Hatchery. A portion of these eggs are destined to be stocked in small tributaries as unfed fry (salmon right after they emerge from the incubation boxes), with the remainder of the salmon to be fed for a few weeks and stocked as fed fry. These fed fry are a little bigger than unfed fry and have built up some fat reserves that can sustain them until they are acclimated to their riverine habitat. Fed fry stocking is continuing in the lower parts of the Pleasant River to further assess the benefit of stocking that life stage over unfed fry. The past couple years of fed fry stocking have allowed us to successfully start to collect an important data set, which shows promise that fed fry can be more successful than unfed fry in certain habitats.

DSF along with the Maine Department of Marine Resources took 80,000 Atlantic salmon eggs and egg planted them throughout the upper portions of the Pleasant River. Using a pump setup, holes are bored in the gravel of spawning shoals and eggs are deposited in these "man-made salmon redds." If you'd like to read more about egg planting, please check out our website at https://mainesalmonrivers.org/field-work/egg-planting. This stocking strategy helps populate historic and current spawning shoals in the Pleasant River with fertilized salmon eggs that will hatch and emerge from the gravel just as if they were deposited by a female Atlantic salmon. The more juvenile salmon inhabiting our rivers through various stocking strategies and natural reproduction, the higher chance of an increased number of smolt headed to the ocean, which equates to a higher probability of adult salmon returning!

Land for Sale

Proceeds from the sale of a beautiful ten acre waterfront property in Machiasport, Maine will go directly towards DSF! This is a scenic riverfront lot with 400 feet of frontage on Machias Bay, and road frontage on Port Road and Renshaw Lane. This is a handsome lot for a home, offering ever-changing views of the river. The Sunrise Trail is nearby and it's only a few minutes' drive to downtown Machias. Please contact heather@mainesalmonrivers.org for more information.

Stewardship Work Day

LOOKING for a new trail to explore, place to access the river, or campsite? DSF's land trust program has protected over 2,000 acres of woodlands and waterways. All of DSF's preserves are protected as wild spaces and available for traditional public access forever. We are looking for volunteers to help steward these protected lands. We need to monitor our preserves, put up new signs and repair old ones, and re-mark trails and property lines. Annual monitoring and stewardship projects enhance our current properties and help spread the word on our campaign to protect an additional 35 miles of river frontage over the next three years.

Join us Saturday May 13th at 10am at our Columbia Falls office to head out to work on one of our preserves. Contact brett@mainesalmonrivers.org for more info, to lead a work day, or to become a preserve steward.

Truck Wanted

DSF is looking for some wheels! We are in need of a multipurpose truck that can be used to stock Atlantic salmon, haul our mobile smokehouse, haul an American shad & river herring stocking trailer, and complete other various tasks that help us accomplish our restoration efforts. Our preference would be for a 4 wheel drive 1 ton truck with a flat bed, but a 3/4 ton truck may also do the trick. If you or someone you know would like to make a tax-deductible truck donation, please contact Heather at heather@mainesalmonrivers.org!

Discovering the Narraguagus River

Canoeing the West Branch of the Narraguagus, by Hazel Stark

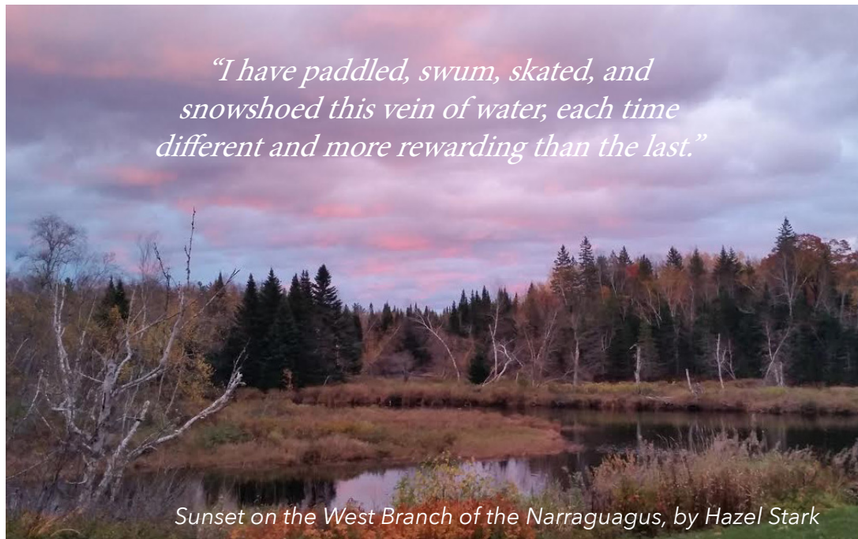
MY love for the West Branch of the Narraguagus is purely circumstantial. I did not grow up on it, vacation near it, or specifically seek it out for any other reason. But I happened to move to the banks of this river in June 2016 and we made friends immediately.

My first friendly encounter with the Narraguagus was its invitation for a visit to escape the summer heat. I had been gardening in the blazing sun just far enough away from the water to miss its cooler breezes. When my work was done and I returned to the river bank, I paddled my canoe to its central channel and jumped in. The water was much cooler than I expected—and all the more refreshing for it. Before climbing hurriedly back into my canoe to escape the water that I realized was a little more refreshing than I desired, I treaded water briefly to appreciate its tannin-saturated color—so dark, I could not see from my knees down. Once back in the canoe, I let the slow current pull me downstream while the sun dried my skin. There weren't even any blackflies to disturb my quiet journey, a trend that somehow persisted throughout the summer whenever I paddled the Narraguagus.

Since our first refreshing visit, the Narraguagus has offered me more serenity than I could have imagined. In early summer, I watched snapping turtle and painted turtle moms emerge from the dark depths to lay eggs throughout the driveway. In late summer, I watched muskrats and beavers busily transport and cache their winter foods while a bald eagle snatched a fish from the surface. In the fall, I saw a healthy cow moose grazing the opposite shore at dawn. In early winter, I watched weasel cousins, a family of river otters and a mink, lope gracefully in and out of the partially frozen water, eating, hunting, and playing. I have paddled, swum, skated, and snowshoed this vein of water, each time different and more rewarding than the last.

The Narraguagus may not have given me the childhood lessons of my hometown rivers, the Marsh Stream and the Penobscot, or the wilderness immersion experiences I have enjoyed along the length of the Allagash, but it is home right now and equally special in its own ways: muddy-banked, tannin stained, friendly, and full of life.

This river story was written by Hazel Stark, co-founder and educator at Maine Outdoor School in Milbridge, Maine. We want to hear your river story! Please send your river story to DSF's Membership & Development Coordinator, Heather Andrews, at heather@mainesalmon-rivers.org.



Sunset on the West Branch of the Narraguagus, by Hazel Stark