

To Protect and Conserve

"For over a half century the Steamboaters, starting with folks like Frank Moore, have worked to protect and conserve the North Umpqua's iconic run of wild summer steelhead. Joined by the members of North Umpqua Coalition, we will continue to push for the right decision to conserve these fish for future generations."

— KIRK BLAINE,
NFS SOUTHERN OREGON REGIONAL
COORDINATOR AND
PRESIDENT OF THE STEAMBOATERS

Last year, 450 wild summer steelhead returned to Oregon's North Umpqua River. It was an historic low. After decades of steady decline and shifting baselines, it was also a call to action that couldn't be ignored. The wild fish community rallied around the river and its legendary native fish. Led by Native Fish Society, the North Umpqua Coalition launched a campaign to temporarily pause the summer steelhead hatchery program on the North Umpqua and invest, instead, in proven conservation strategies like habitat restoration, water quality improvement, and population monitoring.

The ODFW Commission did wild fish one better, voting in April to eliminate the hatchery program entirely. But the celebrations of wild fish advocates around the region were short lived.

4/1
ODFW publishes a thorough assessment of wild summer steelhead health in the North Umpqua Basin and initiates population monitoring programs that will be invaluable to sound fishery management in the future.

4/22
The ODFW Commission votes, 4-3, to end its summer steelhead hatchery program on the North Umpqua River in order to protect imperiled wild summer steelhead from the impacts of hatchery fish.

4/26
The Douglas County Board of Commissioners, Umpqua Fishing Enhancement Derby, and fishing guide Scott Worsley file suit in Marion County Circuit Court, alleging irreparable harm from the ODFW Commission's ruling. The plaintiffs also ask for a preliminary injunction to release the current crop of summer steelhead smolts from Rock Creek Hatchery until the case is decided.

5/18
A judge grants the preliminary injunction, directing ODFW to release this year's hatchery summer steelhead smolts. The decision effectively reverses the ODFW Commission's April ruling.

5/20
ODFW releases 78,000 hatchery smolts into the North Umpqua River, prolonging the threat of hatchery fish for at least another year. That total is nearly triple the recommended upper limit discussed at the April 2022 Commission Meeting.

6/21
By late June, 544 wild summer steelhead had already crossed Winchester Dam. This is good news. But don't let the baseline shift beneath your feet! The 2022 run is better than last year's, yes. But it's still well below normal historical numbers for North Umpqua River wild summer steelhead.

The ODFW Commission's April decision to eliminate the summer steelhead program at Rock Creek Hatchery was legally and ecologically sound. The program has put wild summer steelhead at risk for decades and the court's decision only prolongs that risk.

How to support:
As members of the North Umpqua Coalition, Native Fish Society will continue to defend the Commission's ruling and fight for an all-wild management strategy for North Umpqua steelhead. Support our efforts to uphold progress for wild fish on the North Umpqua and throughout the Pacific Northwest. Visit nativefishsociety.org/membership and become an official NFS Member today!

! Unlike their summer run counterparts, North Umpqua winter steelhead make up the healthiest population of wild winter steelhead on the Oregon Coast. That run's strength is thanks, in part, to the absence of a hatchery program.

! Migration of North Umpqua summer steelhead smolts peaks in March and April. By late May—when the 78,000 so-called smolts were released—juvenile fish have missed the window of physiological preparation for their journey to the Pacific. According to North Umpqua anglers, many of the juvenile fish residualized and have stayed on in the basin as resident trout. Struggling wild steelhead now face added pressure from artificial competition and unnaturally high levels of predation.



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NATIVE FISH SOCIETY is a non-profit organization that exists to cultivate the groundswell of public support needed to revive abundant wild fish, free-flowing rivers, and thriving local communities.

FEATURED ARTIST
For each issue of Strong Runs NFS partners with an artist/designer/illustrator to bring the featured stories to life:

Sarah King grew up in London England, studied graphic design at the University of Brighton and now lives in Ucluelet on the west coast of Vancouver Island. Sarah's interest in graphic design, illustration and words combined over a few years. It developed into the shape forming typography that she often now uses. She spends as much time as possible in the mountains snowboarding, biking and hiking, or by the ocean surfing and drawing. Her work is often inspired by her surroundings, and anything else weird and wonderful that finds its way onto paper. sarahaking.com | [@sarahkingart](https://twitter.com/sarahkingart)

RIVER STEWARDS



NATIVE FISH FELLOWS



NATIVE FISH SOCIETY STRONG RUNS ISSUE NO. 15.3 SUMMER 2022



Ways to Move Along a River

How many ways are there to move along a river? Samantha Kannry, who has been studying the steelhead of northern California for more than a decade, knows a few. Kannry, a fisheries biologist, farmer, and NFS Native Fish Fellow, swims, walks, kayaks, and bikes her way through the watersheds she works in. But her favorite way to travel is minking—a term that combines hiking, scrambling over boulders, diving into pools, and swimming across them.

Since June 2020, Kannry has been conducting research that aims to

expand our understanding of the genetic distinctions between native summer and winter steelhead. In summer and fall, she minks her way down northern California streams—around waterfalls, through slot canyons, and over roughs of house-sized boulders and old-growth Redwood logs.

Wherever she finds *Oncorhynchus mykiss*, Kannry collects samples—small clips from the caudal fin. In the past two years, that has amounted to about 850 samples from northern California streams, in addition to 550 more from the Mattole

Salmon Group and Bureau of Land Management. Kannry and her colleagues at the Miller Lab at the University of California, Davis then extract DNA and prepare libraries for genetic sequencing.

The genetic distinctions between summer and winter steelhead, first described in a 2017 UC Davis study, are critical to the way we manage those populations. The sequencing data from Kannry's sampling efforts will not only allow biologists to determine the distribution of summer, winter, and heterozygous steelhead throughout northern California, but also the frequency of resident and anadromous life histories, as well as the diversity of genetic makeup from population to population. Ultimately, it will enrich our understanding of wild steelhead and

open the door a little wider for fisheries managers to base their decisions on rigorous scientific understanding.

Go minking!

With more locations to sample in northern California and southern Oregon, Sam's work has continued through summer 2022 and will extend into the fall.

If you'd like to help out, send Sam an email at skannry@gmail.com.

To learn more about the Native Fish Fellowship Program, visit nativefishsociety.org/get-involved.





Smallmouth Solutions

On July 16, Native Fish Society supporters from across Oregon gathered on the mainstem Umpqua River for the first annual NFS Umpqua Bass Bash! Smallmouth bass are an invasive species throughout the Pacific Northwest. Their illegal introduction into the Umpqua, sometime in the 1960s, has had dire consequences for the river's native salmon and steelhead. As climate change alters habitat and allows the warmwater fish to expand its range within the basin, the impact of predatory smallmouth is only expected to grow. Fortunately, native fish advocates from around the region are taking notice and taking action! At the first NFS Umpqua Bass Bash, 38 participants dispatched more than 265 of the pesky predators. Invasive or not, we always encourage respect for the animals, not to mention Oregon Department of Fish and

Wildlife regulations! All bass were cleaned, filleted, and served in a delicious dinner of fresh bass tacos, rice and beans, and cold, cold beer—courtesy of Ninkasi Brewing!

Just because you missed the inaugural NFS Umpqua Bass Bash, doesn't mean you can't do the same for your homewaters! With the hottest part of summer now in full swing (and ethical coldwater fishing opportunity temporarily limited), it's a great time to give native fish a helping hand by removing invasive smallmouth bass. There are several other Oregon rivers besides the Umpqua where invasive smallmouth bass are negatively impacting native fish. The Deschutes, John Day, Molalla, and Yamhill rivers come to mind. NFS Staff may not be there to hand you a Ninkasi and fillet your catch at the end of the day, but you'll be helping native fish and having fun all the same. Just be sure to obey the regs for the water you intend to fish. Then get in touch and let us know how you did!

NFS Umpqua Bass Bash Results

Participants
35 adults, 3 kids, 6 dogs

Location
Mainstem Umpqua River, near Elkton, Oregon

Total Catch
265+ Smallmouth Bass

Top Fly
Clouser Minnow, Chartreuse + White

Top Lure
Wacky Worm, Tequila Sunrise

Top Bait
Nightcrawler

Want to help?

Smallmouth bass citizen project is live! Anytime you're out fishing this season, you can quickly and easily help us better understand the impact invasive smallmouth bass have on native fish in key Oregon rivers by simply recording what you see.

Sign up to collect data on the CitSci website using the QR code below. We also encourage you to download the CitSci mobile app so you can record observations directly in the field. See more information about this project at the bottom of the page.



Running the Gauntlet

Adult steelhead get all the love. It isn't hard to see why. They are big, charismatic fish that can't help but make their presence known when they enter a river. Their odyssey at sea only adds to the mystique as they ascend entire watersheds to reach their homewaters. But it's a route they've run before.

Each spring, juvenile steelhead smolts begin the journey from their natal streams to the Pacific. Triggered by longer days and growth the previous year, a young fish that is ready to migrate goes bright as a newly minted dime. Gone are the drab colors and dense spots of a river-dwelling rainbow, hidden beneath a layer of silver pigmentation. Its tail gets longer and thinner and its fins become translucent. In the cells of the smolt's gills and kidneys, the mechanisms that control fluid movement reverse direction in preparation for life in saltwater.

The migration to the Pacific and the physiological preparation for life in saltwater is a taxing process, lasting a couple weeks to a couple months at most. Timing is critical to survival. A smolt that expends all its energy just to reach the Pacific probably won't make it.

Human attempts to bend ecosystems to our will have made the smolt's journey more arduous than ever. With no flow to guide them, steelhead smolts struggle to navigate the unnaturally still water of reservoirs. Those that do survive the reservoirs suffer high mortality in dam turbines. Below dams, unnatural flow regimes often result in river conditions that smolts aren't adapted to.

Predation—a natural and a dynamic process that, under normal conditions, weeds out weaker smolts—is skewed by human intervention. The artificially large groups of smolts released by hatchery programs draw unnaturally large groups of predators

like terns, cormorants, and gulls. Fish passage at dams funnel smolts into a choke point, where predatory fish, like Northern pikeminnow, lay in wait.

The longer days of spring that trigger smolt migration also rouse invasive warmwater species like smallmouth bass. A wild North Santiam River winter steelhead smolt that makes it to the lower reaches of the Santiam—a fish that has already survived two reservoirs and two dams—must navigate more than 100 river miles of smallmouth habitat before reaching the Columbia. From there, of course, it's a cinch. Another hundred river miles down the Columbia—dodging gulls and cormorants—then it's out the mouth and off to sea.

Stay connected!

To keep up to date on our work on behalf of wild fish throughout the Pacific Northwest, add your email address to our mailing list at nativefishsociety.org!

We'll send our weekly e-newsletter Redd It, as well as NFS Action Alerts and other important wild fish communications right to your inbox!

Because some steelhead survive spawning and migrate to sea more than once, steelhead can go through the smolting process more than once. That oddly skinny chromer you caught late in the season is probably a kelt headed back to sea!



The problem of expanding smallmouth bass populations isn't isolated to Oregon's Willamette River and tributaries. On many of the Pacific Northwest's most storied wild steelhead streams—like the Umpqua, John Day, Rogue, and Deschutes rivers—bass populations are booming. This spells trouble for native fish, but we've got a plan...

Crowd-Sourced Conservation

It's well-established that invasive smallmouth bass prey on fragile populations of native fish. What we don't know is the scope of the threat. Earlier this summer, we launched an NFS Citizen Science Project studying smallmouth bass predation in Pacific Northwest waterways. By determining smallmouth

abundance and distribution in Oregon streams like the Molalla, Yamhill, Deschutes, and John Day rivers we can help fisheries managers make more accurate assessments of their impact on native fish. Now for the fun part! We're looking for anglers to contribute to this project by:

- 01 DOWNLOADING THE CITSCI APP ON YOUR PHONE OR MOBILE DEVICE
- 02 TAKING WATER TEMPERATURES.
- 03 MEASURING THE MOUTH LENGTH AND GAPE ON THE FISH YOU CATCH.
- 04 TAKE SAMPLES OF STOMACH CONTENTS FROM LEGALLY HARVESTED FISH.
- 05 UPLOADING THE DATA YOU COLLECT TO THE CITSCI PAGE FOR THIS PROJECT.

Just be sure you've got a valid Oregon fishing license and you've checked the regs before you hit the water! After that, all that's left to do is have fun catching bass and helping native fish in the process!

This NFS Citizen Science Project is a critical part of our effort to restore abundant native fish in northern Oregon. To learn more about the project, visit citsci.org/projects/smallmouth-bass-predation, or send NFS Regional Coordinator Liz Perkin and email at liz@nativefishsociety.org!

