

Angler-Based Monitoring of *Didymo* and Associated Algal Blooms

In brief: The diatom *Didymo* is responsible for dense algal blooms commonly known as “rock snot” that smothers stream substrates and beneficial aquatic insect communities. Scientists working on this nuisance species are asking for help from anglers to collect and photograph algal samples to determine the natural and introduced distribution of this diatom. We propose to develop and market a simple kit for anglers to easily collect samples from their local streams. The samples would be processed by cooperating university scientists and results made known to participating angler groups. This would be a nation-wide effort.

Primary partners: Science partners are located at North Carolina State University, University of Idaho, and the Canadian government and TU Canada. Simms also has expressed interest in partnering with TU on this project. Numerous state water quality agencies also are very concerned about *Didymo* and are potential collaborators.

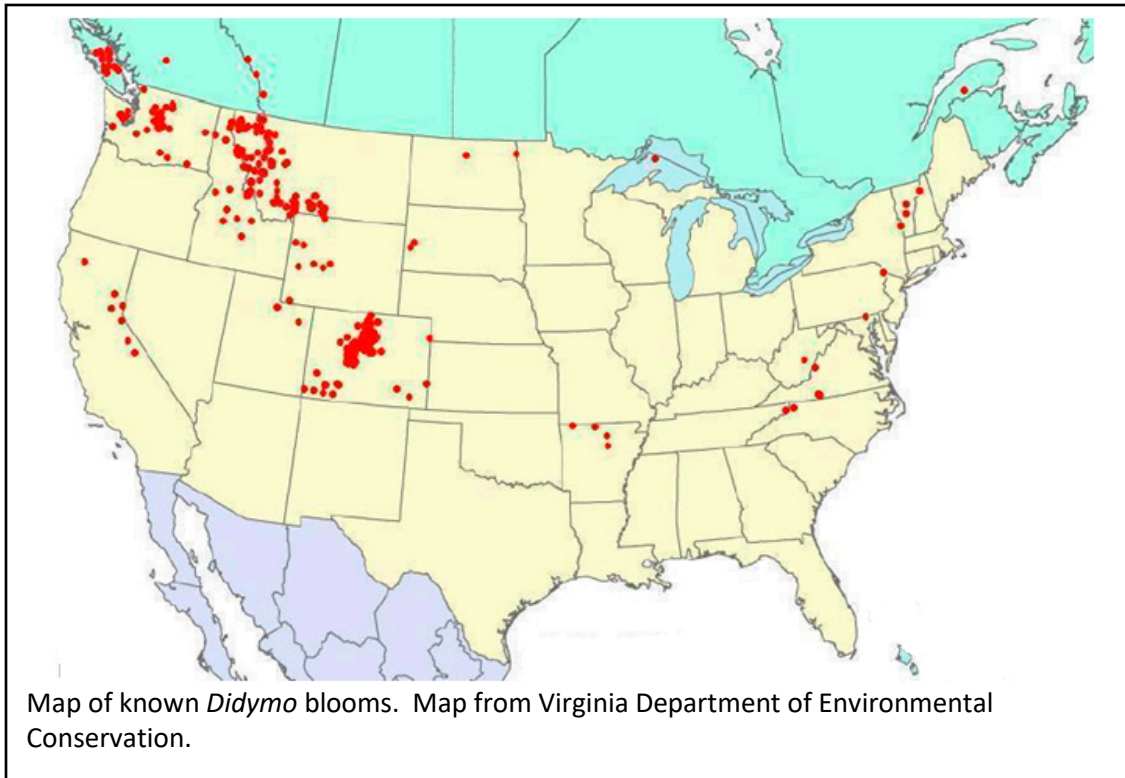
Background: *Didymo* is a small diatom that may largely go unnoticed until vigorous growth occurs, at which time algal blooms form into thick mats along stream bottoms. Until recently, *Didymo* was believed to have been introduced but new evidence suggests that perhaps the species is broadly native to many areas across North America. The natural and introduced ranges are poorly known.

It is possible that rapid environmental or water quality changes are causing this species to bloom with resulting impairment to stream ecosystems and water recreational-related activities such as fly fishing and boating. Concern among anglers, boaters and scientists to *Didymo* has grown over the past decade as new reports of dense blooms have been documented from many parts of the country.



Didymo can create dense mats of algae called “rock snot” that smothers aquatic insects.

The challenge for the scientists and research communities is to gain a better understanding of *Didymo* and to better inform resource managers how to prevent the spread of this species. We hope to capitalize on the growing interest and concern regarding *Didymo* amongst our TU angler/members and engage our TU “angler scientists” in gathering distributional data needed to assist the scientific research community achieve these goals.



What we need: We have excellent working relationships with Dr. Brad Taylor at North Carolina State University, Dr. Max Bothwell at Environment Canada in British Columbia, and Dr. Katie Coyle at the University of Idaho, all leading experts in the ecology of *Didymo*. In cooperation with these scientists, TU would develop simple sample kits for our members to collect algal samples and mail them to universities for processing. We estimate the kits would be less than \$20/each which would allow us distribute about 150 for TU chapters across the country. We also need support for staff time to produce an easily digestible 'how to' manual to guide our staff and membership and to market the program. The cost of processing the samples would be borne by the participating universities. Funding request is \$5,000.

Benefits to TU: This project will help answer some of the fundamental questions surrounding *Didymo*, including its natural and introduced distributions. Our increased understanding will help resource agencies predict the characteristics of streams that are most susceptible to invasive blooms and how management might serve to reduce their nuisance blooms. *Didymo* studies provide an important opportunity to engage our membership in TU's citizen science program, dubbed "Angler Science." Angler Science projects like *Didymo* sampling can also help recruit new members, including students, by increasing project diversity and opportunities within TU chapters.

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A New Tool for Chapter-based Fish Population Monitoring

In brief: It is now possible to determine the presence of rare trout by filtering stream water and testing for what is known as environmental DNA. Forest Service researchers have perfected the methodology and TU is experimenting with the new technology to determine the presence of bull trout in isolated Montana streams. Arizona Game & Fish Department has contracted with U.S. Forest Service to develop genetic markers for brown trout. These new tools provide an opportunity for our members to help document the status of native and non-native trout for the benefit of conservation.

Primary partners: U.S. Forest Service and Arizona Game & Fish Department. Numerous state fish and wildlife agencies are potential partners.

Background: Aquatic species can be difficult to detect using traditional methods (angling, electrofishing, netting), which causes problems in particular for efforts to estimate species distributions or presence/absence. Collection of environmental DNA (eDNA) provides a robust and efficient tool for detecting species, without even the need to capture or handle the fish. The concept is simple: mucus, scales and feces are continually shed by aquatic organisms and suspended in the water column, and can be captured and concentrated as water is washed across a laboratory filter (see photos below). In the lab, distinct short segments of DNA (“bar codes”) are developed to bind *only* with the DNA of a target species of interest; when these bar codes are processed with DNA from cells collected in the field (concentrated on the filter), successful binding indicates that a given species was present at the sample site. The method can be quite efficient because bar codes for several different species can be combined in one laboratory assessment to determine, from one sample filter, if multiple species of interest were present at a given site.

With proper volunteer training, this approach provides a relatively simple way for TU volunteers to contribute to our science and conservation efforts in many ways. Environmental DNA collections could be used to refine our basic understanding of species distributions, especially for rare species which can be particularly difficult to detect with other methods (e.g., we are already involved in eDNA sampling for bull trout in the upper Clark Fork River in Montana). It will also be useful for determining the effectiveness of common conservation actions we undertake in various TU programs. For instance, eDNA could verify a species of interest is now using habitat that has been recently connected or restored; that efforts to eradicate non-native species were successful (i.e., the non-native species is no longer present) before moving forward with reintroduction of a native species; or whether or not an aquatic nuisance species is present in trout waters.

What we need: We have excellent working relationships with several of the genetic labs providing eDNA services, who have completed the initial laboratory work (development of species-specific bar codes for lake trout, brook trout, bull trout, Yellowstone and westslope cutthroat trout, rainbow trout and brown trout, as well as field testing of necessary design and

accuracy). Our basic need is to purchase approximately four eDNA kits for sampling (\$2,000 each) and support for staff time to produce an easily digestible 'how to' manual to guide our staff and membership and to market the program. The cost of processing the sample in the lab (approximately \$60 per sample per species evaluated) is typically borne by the participating agency. This is the case with the bull trout study where the U.S. Forest Service covers this cost. Overall, the work completed under this funding would provide an essential foundation that could be leveraged and applied to a multitude of future TU on-the-ground conservation and science efforts. Total budget, approximately \$10,500.

Benefits to TU: In addition to answering basic scientific questions, these eDNA studies provide a unique opportunity to engage our membership in TU's citizen science program, dubbed "Angler Science." Members involved in these efforts can develop a better understanding of their streams and trout distributions, as well as gaining a deeper appreciation for the impact of their chapter's restoration and protection projects. Angler Science projects like eDNA sampling can also help recruit new members, including students, by increasing project diversity and opportunities within TU chapters.

For more information, see:

<http://www.fs.fed.us/research/genomics-center/edna/>



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Mapping the Way Home for Steelhead: Helping an Iconic Fish in Times of Hot Water

In brief: Warming temperatures and drought are causing heavy die-offs of steelhead and salmon along West Coast streams. One such problem area is the Umpqua River, where famed steelhead runs must navigate an increasingly warm and inhospitable mainstem Umpqua River to gain access to the higher elevation fabled fishing waters of the North Fork. Salmon and steelhead need periodic cool water refuge sites in these warming mainstem rivers to be able to reach their spawning grounds. We propose to produce a detailed map of the mainstem Umpqua River temperatures to determine areas lacking cool water refuges to identify where restoration efforts could produce the greatest benefit.

Primary partners: Oregon Department of Fish & Wildlife and Oregon State University. Once proven, these methods could be transferred to any number of larger rivers suffering from warming water and drought.

Background: From California to Washington, rivers up and down the West Coast are feeling the impacts of reduced winter snowpack, warmer stream temperatures, and reduced flows. Increased die-offs of migrating salmon and steelhead have been recorded from the Willamette, Columbia, Okanogan, Wenatchee, John Day, Umpqua and Klamath rivers. Simply stated, the cool-water resting spots in the lower elevation mainstem rivers are too few and far between to sustain the salmon and steelhead as they migrate upstream to higher elevation, cool-water spawning areas.

Small patches of cool water can result from a variety of sources, including spring inflows, incoming cool-water tributary flows, braided channels where hyporheic flows (subsurface intergravel flows) cool waters, and in deep shaded pools. It is possible to create additional cool-water sites by restoring riparian habitats and natural channel designs to degraded tributary streams, by adding structure to scour out deep pools, or by restoring channel complexity.

Dr. Stan Gregory at Oregon State University has worked on cool-water refuge development on the Willamette River and has expressed interest in working with TU on a similar project on the Umpqua River.

Figure 1: Location of proposed study area and example of Umpqua River channel form, with runs, pools and bedrock geology.

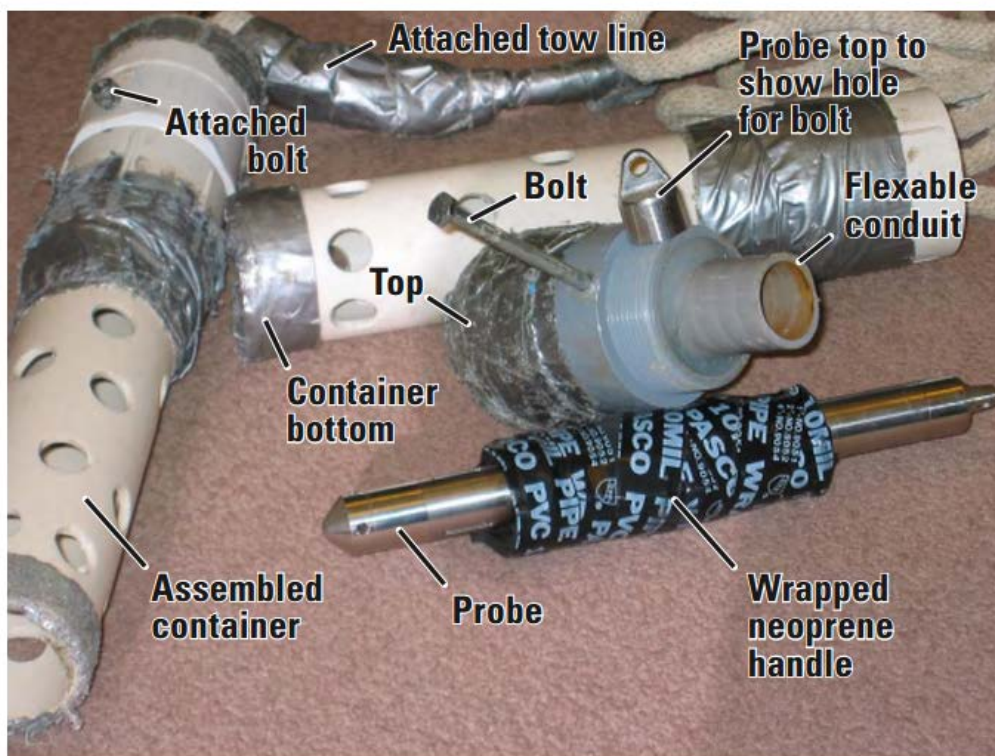


What we need: We have a TU staffer and registered guide, Dean Finnerty, who lives along the lower Umpqua River and has a boat that could be used for this project. His knowledge of the river will be an invaluable resource in this effort. We propose to buy temperature sensors, GIS equipment, and gear necessary to create a multi-layer boom capable of being towed behind a small boat to collect a vertical profile of water temperatures (Figure 2). Total equipment costs are about \$5,000. Our technique for mapping thermal profiles of large rivers will be based on methods previously developed by the US Geological Survey (see the report [A Thermal Profile Method to Identify Potential Ground-Water Discharge Areas and Preferred Salmonid Habitats](#))

[for Long River Reaches](#)). Additional support is needed for staff time to collect and analyze the data to produce thermal image maps. Some travel support also is needed for partners from Oregon State University to participate. Total budget, approximately \$10,000.

Benefits to TU: The North Umpqua is one of the greatest steelhead fisheries on the West Coast. Not only would this project be a potential life-saver for the fishery, it could be a great source of positive media coverage. The technology is relatively simple, and once the potential benefits are proven on the Umpqua, the methods could be transferred to other West Coast streams experiencing severe die-offs of migratory salmon and steelhead.

Figure 2: Example of the temperature probe and canister described in the USGS report.



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Olympic Peninsula Habitat Restoration Staff Capacity

Opportunity

Rivers that drain the west side of Washington's remote Olympic Peninsula ("OP"), including the Hoh, Sol Duc, Bogachiel, Calawah, Quinault and Queets have enormous potential to sustain abundant, fishable populations of wild steelhead (and salmon) for many decades to come. The region is sparsely populated, the rivers are undammed, they are fed by the soaring peaks of the Olympic mountain range, and their headwaters are largely protected inside Olympic National Park. But many forested river corridors downstream from the Park have been damaged by close to a century of clear-cut logging and associated road-building, and need restoration in order to fully realize the potential of these systems to produce wild steelhead and salmon. TU has been encouraged by a number of entities, including The Nature Conservancy, the Quinault Tribe, Wild Salmon Center and the Washington Coast Sustainable Salmon Partnership, to tackle this needed habitat restoration work. They are looking to TU because of the dearth of qualified habitat restoration capacity in the area, and TU's strong track record of restoration success.

TU's engagement in river restoration work on the OP will have benefits extending beyond increased steelhead and salmon production caused by the restoration work itself. First, it will help build relationships with tribes and local communities that are critical to addressing what is arguably the single, largest factor depressing wild steelhead populations: poor fisheries management. Through our Wild Steelhead Initiative, TU is already working to improve the regulation of steelhead sport fisheries in these rivers, and helping to lead impactful habitat restoration work in these river basins will enhance our ability to successfully advocate needed fish management changes.

Second, it would provide exciting prospects for engaging TU's grassroots in implementing Angler Science, which, along with the Wild Steelhead Initiative, is one of TU's new Strategic Opportunities. The revitalized and expanding Olympic and Kitsap Peninsulas Chapter of TU has many steelhead anglers who want to roll-up their sleeves and help the fish and rivers they love. John McMillan, science director of TU's Wild Steelhead Initiative, has already conceived several angler monitoring projects, and adding a restoration staff person will enhance capacity for TU to engage its members in such projects.

Need

The critical need that must be met for this impactful work to move forward is seed funding to hire an experienced habitat restoration expert/project manager who can take restoration projects from conception through implementation. Once that funding is secured, we will be able to leverage available habitat restoration funds and support the position over time largely through funds available through funds available for the projects themselves. This is a funding model TU has used successfully all over the country. Our cost estimate for this full-time position is \$90,000, which includes salary, benefits and overhead.

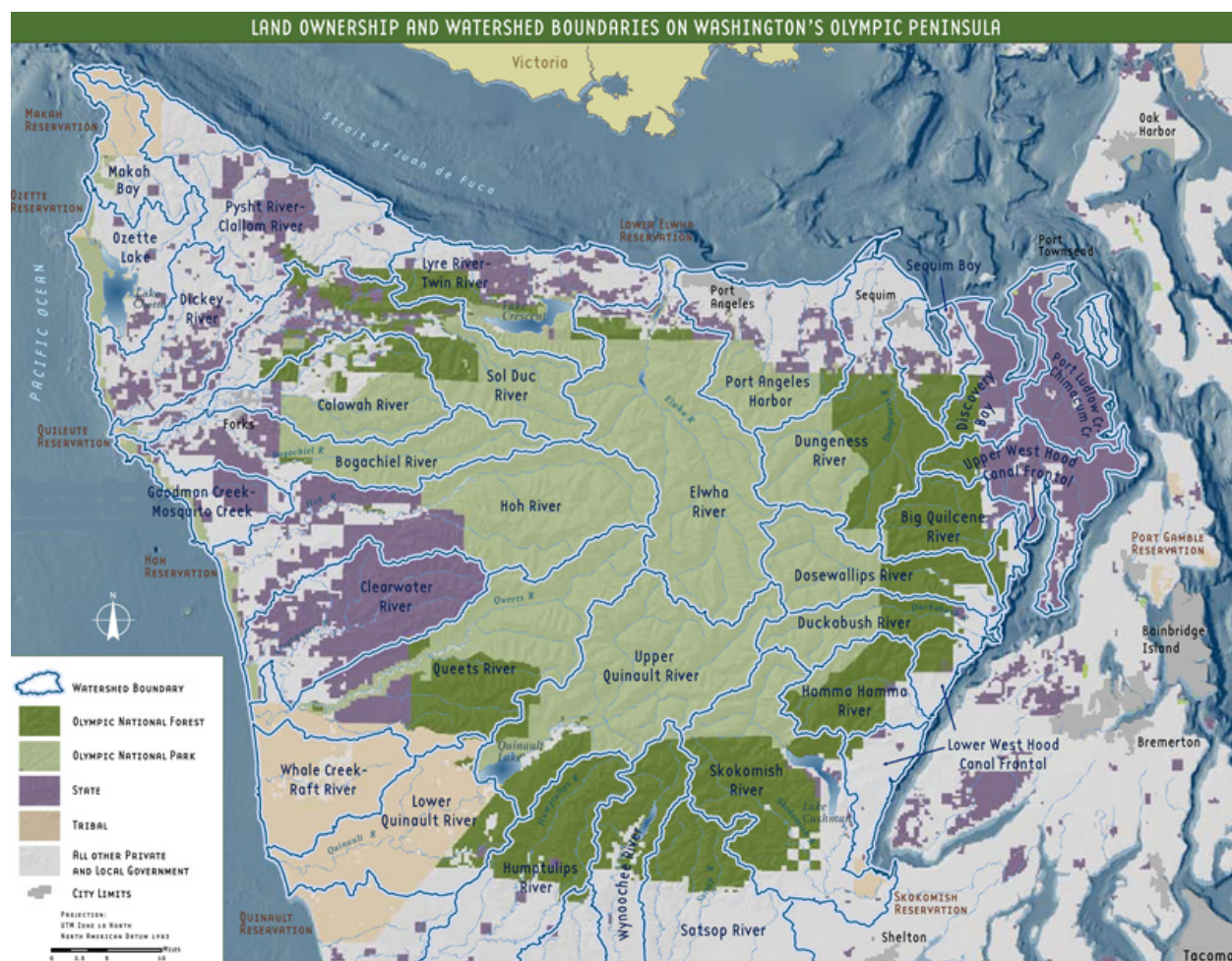
Potential Partners

TNC, Wild Salmon Center, Washington Coast Sustainable Salmon Partnership, Quinault Tribe, Quileute Tribe, Hoh Tribe, City of Forks, Hoh River Trust

Leverage

A major donor has committed \$50,000 per year for three years to support this position, which leaves a gap of \$40,000 for each year. We are asking the CCF Board to consider dedicating \$20,000 this year to cover half of this funding gap. With that \$20,000 in-hand we are confident that we will be able to raise the remaining funds we need from a foundation prospect or individual donors.

We are likely to be in a similar situation next year before additional funding sources come on-line. Specifically, starting in 2017 we anticipate that there will be funding available from two sources, the Pacific Coast Salmon Recovery Fund and a new Washington Coast Salmon Fund created by the Washington legislature, that will cover a significant portion of this staff person's salary.



Securing Protections for Pennsylvania's Native and Wild Trout Streams



Ever since Vince Marinaro put the Letort on the fly fishing map, Pennsylvania's rivers and spring creeks have been among the East's most famous and sought-after fly fishing destinations. So it might surprise you that there are still 58,000 miles of rivers and streams in Pennsylvania that have not yet been surveyed for wild trout populations.

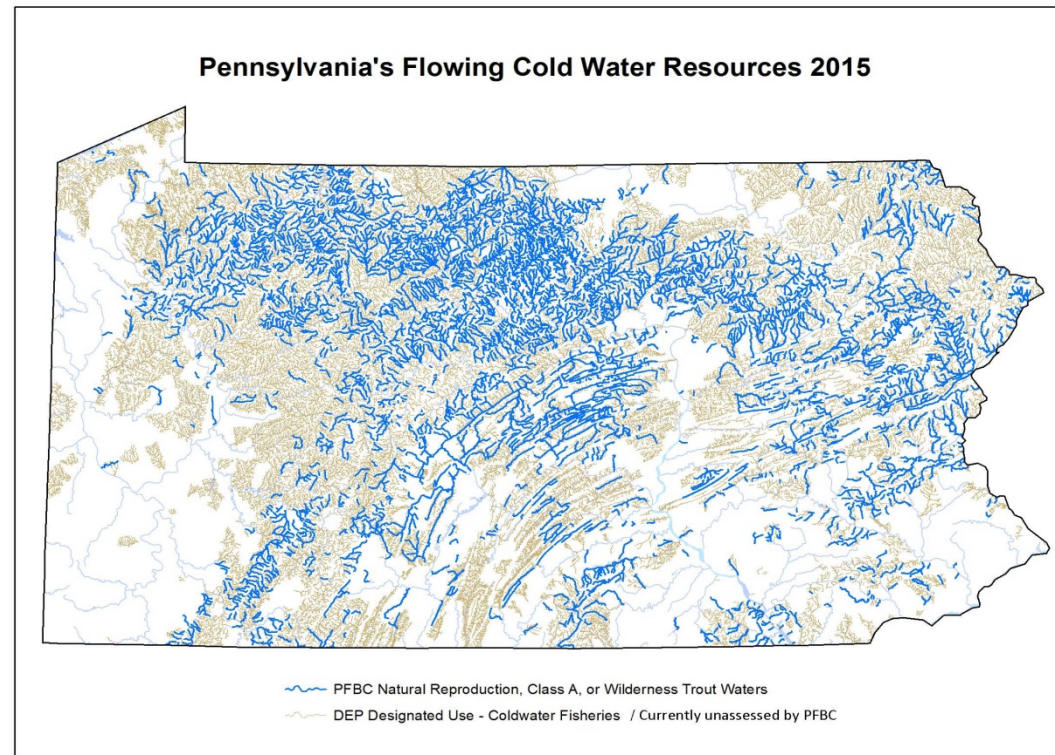
Why does this matter? Because streams that are not officially recognized on the state's wild trout waters list do not receive the same level of protections as those which are listed.

TU has been working to add streams to the list by sending out survey crews to sample streams for wild trout, and then proposing those waters for formal listing by the state.

More than 340 streams have been surveyed by TU crews since 2011, 138 of which hold naturally reproducing trout populations. Unfortunately, the work doesn't stop there. Wild trout streams must be formally designated through a time-consuming listing process in order to receive the protections from water quality degradation and habitat loss needed to ensure fishing opportunities in the future.

Due to political pressures in 2013-2014, the state went eight months without designating any new waters, despite there being hundreds of streams awaiting designation. In 2015, TU organized support for new designations, pressured the state, and the process resumed, with 99 new streams designated over the past year. Still, a growing backlog of 600 streams remains.

A \$10,000 donation would enable us to apply pressure on the state to achieve listing for 150 new wild trout waters across Pennsylvania over the next year.



‘ More than 58,000 miles of streams have not been assessed for native and wild trout populations. ’

Advocacy in 2016 is critical

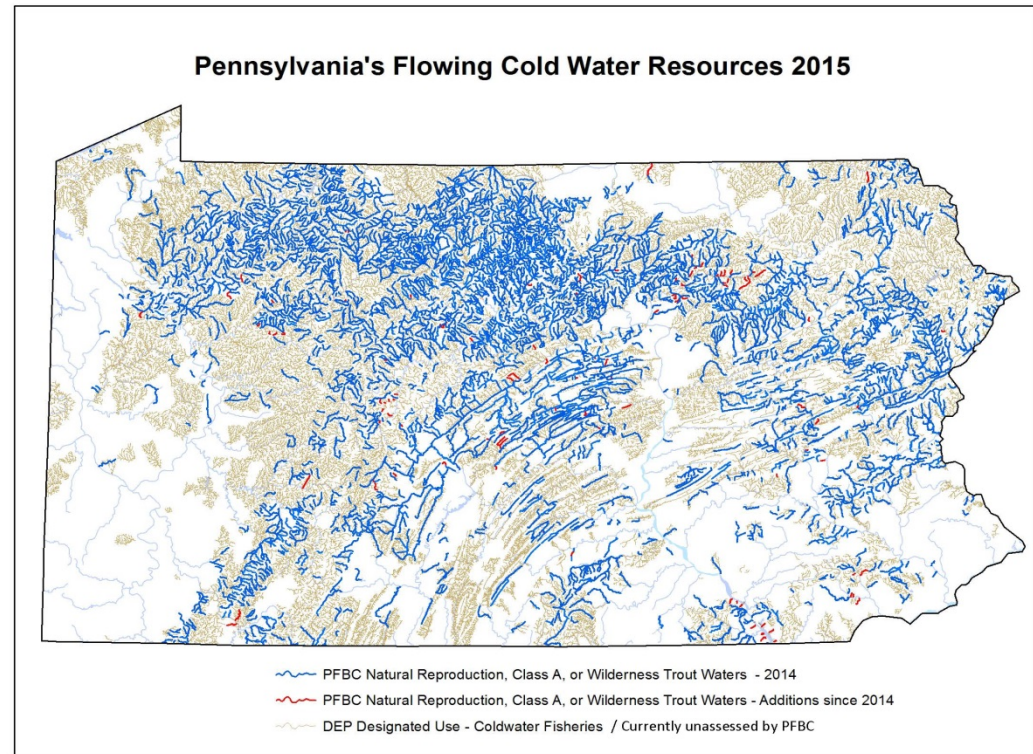
TU's recent efforts to advocate for wild trout stream designations have resulted in protections for trout streams across Pennsylvania. Now, 187 miles of newly designated wild trout waters will be managed with the goal of providing outstanding fishing opportunities.

And importantly, a wild trout stream designation means more protection and stringent permit conditions when development—such as shale gas drilling, major pipelines or large agricultural facilities—are proposed for a wild trout watershed.

TU's work to organize sportsmen and women to advocate for wild trout stream listings is critical to keep the process moving and to chip away at the 600+ stream backlog awaiting formal designation. Once educated and organized, sportsmen and women can have powerful influence on Pennsylvania's decision-makers. Through our work this year, TU has mobilized more than 110 chapters and sportsmen club's to show support for the streams proposed for wild trout stream listing. With more than 700 sportsmen clubs and TU chapters in the state, TU has the opportunity to engage this significant, yet untapped, constituency in protecting Pennsylvania's trout waters.

While TU is funded each year by the National Fish & Wildlife Foundation to conduct stream surveys, our work to organize sportsmen and women to advocate for wild trout stream designations and to pressure decision-makers to keep the process moving has been much harder to fund.

A \$10,000 donation will enable TU to expand our advocacy efforts and keep pressure on the state to formally list 150 new wild trout streams over the next year. By demonstrating TU's effectiveness in organizing anglers to advocate for wild trout stream designations, TU is more likely to secure additional funding from private foundations to support increased protections for coldwater streams across Pennsylvania.



‘ More than 600 streams across Pennsylvania await formal wild trout stream designation. ’

Cold Stream Forest, Maine

A Proposal to TU's Coldwater Conservation Fund

A vast expanse of Maine's private forestland holds more than 500 native and wild trout ponds—97 percent of the native lake and pond brook trout populations found in the eastern United States.

These lakes and ponds—and the rivers and streams that connect them—still provide a destination fishery that has catered to resident anglers and out-of-state sports since the late 1800's. Storied lodges like Libby's Camps that have been owned by the same family for over a century are still part of Maine's natural-resource based economy, and they depend on maintaining the quality of a resource that is primarily located on privately owned timberland. In the 21st century, changes in land ownership, the spread of non-native species like smallmouth bass and muskellunge, and habitat loss from slowly creeping development threaten this tradition.



Since 2011, TU's Maine Brook Trout Project has focused on a single, simple goal: to identify watersheds that represent "the best of the best" of Maine's iconic brook trout resource, and work with partners to establish conservation ownership that will both provide better stewardship for sensitive habitat and guarantee that the resource remains accessible to appropriate public use. Working with the Trust for Public Land (TPL) and the Maine Department of Inland Fisheries and Wildlife (ME DIFW), TU has identified a critical parcel in Maine's remote western mountains. The Cold Stream watershed is among the least impacted watersheds in the state of Maine, and has been a resource for local sporting camps and guides for generations. Unlike many nearby waters, the fishery today remains essentially as it existed when brook trout first colonized Maine waters as the glaciers retreated.

Cold Stream forms as the outlet of Cold Stream Pond and flows for 14 miles, dropping over 1000 feet, to discharge to the Kennebec River near the lower end of the Kennebec River Gorge (see attached map). Cold Stream is the only tributary to the Kennebec Gorge that is not blocked to fish passage by waterfalls near its confluence. Radio-tagged fish from the Kennebec¹ have been documented to ascend as far as six miles up Cold Stream for summer thermal refuge and fall spawning, and the ME DIFW has identified Cold Stream as essential to maintaining the high quality fishery in the Kennebec River Gorge. In addition the watershed contains six "Heritage" brook trout ponds.² Two of these have never been stocked with brook trout; three more have not been stocked since 1916. Within the entire watershed, only Cold Stream Pond has been stocked since then, and the last stocking was in 1954. The watershed's value for trout conservation is enhanced by the complete absence of any non-native fish species, with just two

¹ Part of a study requested by TU when the Indian Pond hydropower project was reviewed by FERC in 2001.

² "Heritage" Brook Trout waters are designated by the Maine Department of Inland Fisheries and Wildlife. They contain wild populations of brook trout and have either never been stocked, or have not been stocked for at least 25 years. As of August 2015, there are 556 designated "Heritage" waters. They are as close to genetically-intact, pre-European contact populations of brook trout as exist in the continental US.

species of native minnow present in a few of the ponds.³ The combination of nearly untouched native brook trout genetics in a pristine coldwater watershed is rare even in Maine's north woods.

Beginning in 2011, TU worked with the ME DIFW to make permanent protection of the Cold Stream watershed and its iconic ponds a priority. We recruited TPL as a partner, and together approached the landowner, Plum Creek, to gauge their interest in a conservation sale. In the ensuing four years, we negotiated an option agreement with Plum Creek to purchase 8,200 acres—a parcel that would protect the entire 14 mile length of Cold Stream and ensure conservation protection for the shoreline of eight “Heritage” ponds (six in the Cold Stream watershed plus two others that are located just outside the watershed boundary). The parcel would be purchased by the state of Maine and managed to enhance habitat for brook trout and other native species.⁴ With TPL's help, we applied for and were awarded two key grants that would fully fund the purchase: \$6 million from the US Forest Service's Forest Legacy program and \$1.5 million from the Land for Maine's Future (LMF) program. The project was ranked third among all applicants nationally for 2013 Forest Legacy funding, and was the highest ranked project for the LMF program in 2014. An appraisal has been completed, and the purchase was scheduled to close last summer.



Unfortunately, after the LMF funds were authorized, the entire program—indeed, the very concept of the state acquiring conservation land—was challenged by Maine Governor Paul LePage, who refused to issue voter-approved bonds that would have funded the LMF program, and then vetoed a bipartisan bill that sought to force him to do so. The Cold Stream project and almost three dozen other projects promised funding by the LMF have been put into limbo. TU had not anticipated the need to fund work on Cold Stream after this summer's scheduled closing, but our investment of time over the past four years, the engagement of fantastic partners, broad public support—and, most importantly, the value of the coldwater resource for anglers and conservation—demand that we see this project through. That will include seeking alternative funding mechanisms, continued discussions with ME DIFW staff to find ways to engage the Governor's administration in completing the project, and legislative advocacy to reauthorize the LMF program.

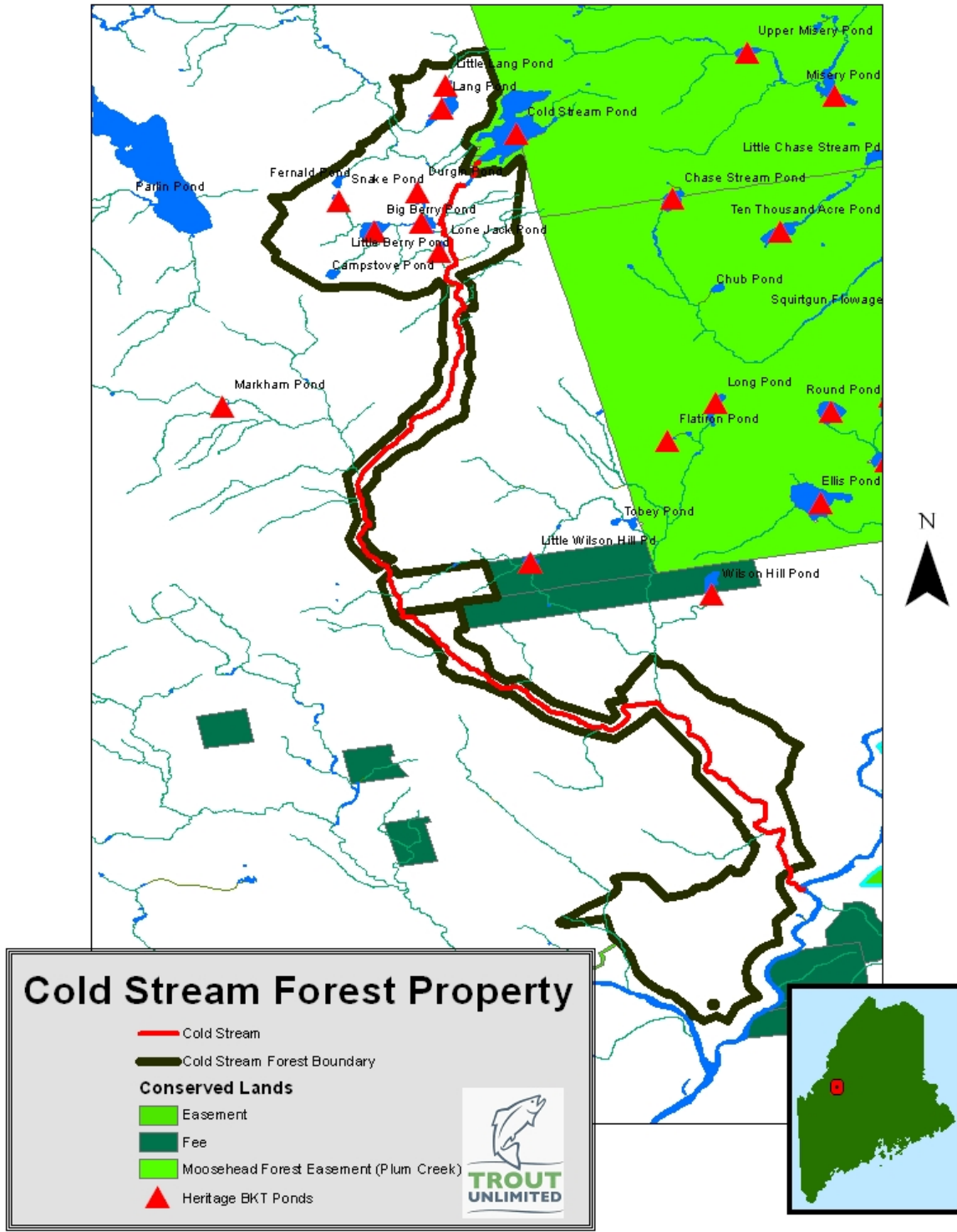
A grant of \$10,000 from the Coldwater Conservation Fund would ensure that Jeff Reardon, our Maine Brook Trout Project Director, could work to bring the project to closure in 2016. Key tasks include: (1) Working with TPL to identify potential funding sources to replace the state's \$1.5 million in bond funding; (2) Working with the Land for Maine's Future Coalition in the Maine Legislature to reauthorize the LMF bond funding; and (3) Maintaining relationships with Plum Creek, TPL, career staff with state agencies who have been partners, and other project supporters to keep the project on track.

³ Black nose dace in 2 ponds; fine scale dace in a third. Bring your small streamers!

⁴ The parcel also contains the most important “deer wintering area” in the region, and has some of the southernmost habitat in Maine for Canada lynx, listed as “threatened” under the Endangered Species Act.

Attachment: Map of Cold Stream Forest Property

0 2 Miles





Coldwater Conservation Fund

TU's Summer on the Fly Program

Overview

Since the organization's inception, TU members have understood the importance of investing in the next generation so that they too may be inspired to pick up the torch and carry forward our important work protecting and restoring the nation's coldwater fisheries. That inspiration often comes from simply introducing kids to fishing. For decades, our chapters and councils have been teaching kids to fish at the local level through multiple different means – from a kids fishing excursion on a bass pond to sophisticated overnight youth camps.

While the impact we're having is real and meaningful, we must do more. Over the last ten years, TU's aging membership has essentially seen little to no growth in spite of youth engagement at the chapter level. In the face of a rapidly changing natural environment, we must invest in building our army of coldwater conservationists today. In the face of a rapidly changing social environment, where kids are spending more time playing video games than playing outside, we have an obligation to step up our efforts and reach more kids.

Feeling this sense of urgency, TU elevated youth education to one of its five strategic opportunities in the 2015-2020 strategic plan. TU staff is hard at work developing new programs and projects designed to involve young people from kindergarten through college in TU's mission, a concept we refer to as the Stream of Engagement. One such fledgling program with a high potential for reaching tens of thousands of kids is TU Summer on the Fly.

How it Works

Think of the success of archery in summer camps. TU Summer on the Fly does the same for fly fishing by making things fast, cheap and easy for summer camps. TU's ability to leverage resources through established business partnerships allows us to offer cost-effective and comprehensive packages to participating camps. These camps will be provided with a complete and branded set of equipment (rods, reels, line, flies, etc...) to introduce kids to the sport.

A key partner in this effort, Temple Fork Outfitters (TFO), has already offered to provide much of this gear below cost. Also included in this package are instructional videos and training materials as well as age-appropriate and regionally relevant TU literature.

Another critical partner of ours in this effort, the American Camp Association (ACA), reports that there are about 7,000 overnight camps and about 5,000 day camps in the U.S., for a total of more than 12,000 camps. These camps are attended each year by more than 11 million children and adults. Implementing a fly-fishing program at even a fraction of these camps has huge implications and would exponentially increase TU's outreach to youth.

So why hasn't it been done before? A vast majority of these camps are set on some type of a body of water, yet only a tiny fraction of these camps involve fly fishing. When asked, camps report that they generally feel fly fishing sets too high a bar in terms of expertise and expense. However, with our ready-made TU Summer on the Fly program, these barriers are quite surmountable.

By signing up at the annual fee of \$295, these summer camps can join the TU Business program, which then lists their camp on TU.org and in *Trout* magazine, allowing parents to find summer camps with an existing TU Summer on the Fly program. Participating camps will be paired with their local chapter, if applicable, so that local chapter members might assist in training counselors on how to teach fly fishing, share local fishing expertise, or inspire with stories of conservation successes.

The Pilot & the Future

Summer on the Fly currently exists as a pilot program at ten camps in the Southeast. Our intention with the pilot is to simply learn how it goes. Did the campers like it? Did the counselors feel they had the knowledge and support needed to teach the program? What are camps willing to contribute to the partnership?

With answers to these questions, we hope to fine-tune the design and export the program out to camps across the country. The program will be marketed in conjunction with the American Camp Association (ACA) and showcased at regional and national ACA conferences.

Once fully implemented across the country, TU Summer on the Fly will elevate the profile of TU's mission with tens of thousands of young anglers.

The Need

Summer on the Fly is in its infancy and needs investment to grow to the next level. Four areas in particular need focus:

Summer on the Fly video (\$6,000)

A short, professionally developed promotional video will enable staff to market the program at ACA conferences, allow chapters to sell the program to camps in their region, and enable the program to sell itself through online and social media.

Marketing/Communications support (\$5,000)

Just as a short video will help sell the program, strong and consistent marketing of Summer on the Fly will help establish the program and make that important connection back to TU. Summer on the Fly needs to have "buy-in" appeal for interested camps and

“cool factor” appeal for kids in order to be successful. We hope to sharpen the look and feel of the package delivered to camps, to add the logo to the TFO rods, and develop a communications plan to help tout the successes of Summer on the Fly programs and partnerships.

TU youth memberships (\$2,000 fulfills 1350 memberships over two years)

What if we have tens of thousands of kids going through Summer on the Fly each year, but we have no way of knowing who these kids are or how to find them? Perhaps they go home and don't know where to fish and give up on it? Perhaps they keep fishing but never again think of TU or our mission? The follow up piece is critically important to the success of this program. In order for our chapters to find kids that have participated and invite them to fishing or community outings, they have to be able to find them on the member rosters. Because of this, we would like to be able to offer participants with a complimentary, one-year membership to Trout Unlimited.

Staff time and travel (\$15,000)

Due to the nature of the camping industry and camping season, initial staffing of Summer on the Fly could be accomplished by a staff member who attends 2-3 of the ACA conferences, fills orders for the fly fishing packages, assists with marketing and then maintains the program during the summer months.

Summary

Summer on the Fly is poised to make impressive gains in reaching today's youth; however, we're at a critical point in the program's development and must invest in it in order to see it succeed. This is an enormous opportunity for our organization, our mission and today's youth. We invite you to join us in supporting this program with a gift of \$28,000, which will pay for the four areas of need identified above. By supporting this program, you are directly investing in the TU of tomorrow with real on-the-ground engagement so that we may ensure that torch is picked up and carried forward.