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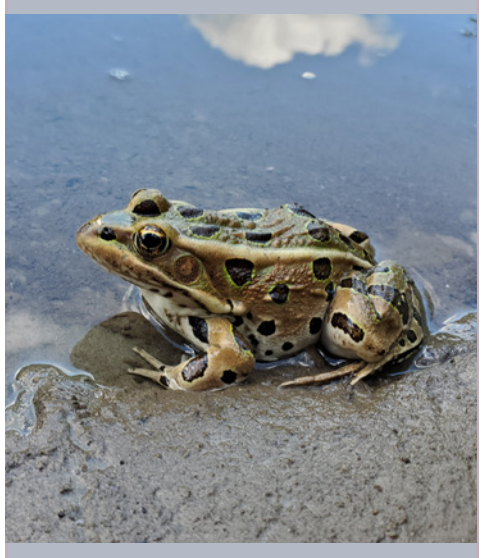
TROUT UNLIMITED
MINNESOTA
The Voice of MNTU



Learn about how MNTU supports non-game wildlife in habitat projects in the Driftless on Page 4.

On The Cover

Forestville/Mystery Cave State Park features the longest cave in Minnesota and protects the headwaters of two major tributaries to the South Branch of the Root River. The cave cools the South Branch, creating the largest trout stream in the Driftless. John Weiss Photo

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Editor's Angle

What can we do?

By Jade Thomason, Editor

I love having a four-year-old in my life. My daughter, and the life ahead of her, gives me one more reason why our battles for clean water and habitats are incredibly important. She's been to the Boundary Waters, she plays along a trout stream each day at preschool, and she drinks our clean groundwater. The values your family holds, your lifestyle and the health of your community are worth advocating the loudest for. The future of much of what we love is under threat and we must speak firmly and clearly to defend it.

I know many of us are searching for how to do this in such uncertain times. I feel that way every day. On Page 6 Kristen Poppleton, MNTU's Assistant Director, lays out a clear plan for what we can do today, next week and in the future to speak out about the issues near to us. Transform your own unique story into something that can inspire and urge your representatives (and other MN residents) into action. Kristen also provides handy talking points for some of the key issues MNTU is fighting for this legislative session. Lawmakers exist as the voice of their people, and will listen when enough folks rise up.

Nitrate pollution and the safety of our groundwater are concerns for many of us and MNTU is fighting the good fight. Executive Director John Lenczewski details on Page 12 and 13 how we recently joined a lawsuit against the MN Pollution Control Agency and MN Department of Agriculture to tighten regulations on manure and commercial fertilizer application. Check the blog at mntu.org and regular MNTU emails for advocacy and litigation updates.

I'm not planning on sitting by while threats rise against our water, wildernesses and trout streams. Keep going, band together and organize. Together, our voices will be heard and we can make a difference.

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Gary Grabko (right) holds a painting commissioned from artist Ted Hansen (left). The painting is of Gary's winning photograph from the MNTU Photo Contest.

From the Executive Director

Tying Season

By John Lenczewski, MNTU Executive Director

For many members, winter is fly tying season. Tying sessions may be interspersed with winter angling outings or classic winter activities such as skating, skiing and snowshoeing, but winter typically is when many tyers log most of their hours at the fly tying vise. Back when life was less busy, I spent many winter evenings at the vise churning out flies for spring, summer and fall fishing.

I began my journey into fly tying shortly after taking up fly fishing for panfish around age 10. My father pulled a box from the basement rafters containing a vise, hook, and assorted tying materials gifted to him from a fellow teacher years earlier. The Herter's vise and 1940s or 50s era paperback *Professional Fly Tying Manual* by George Herter were already old then, but I was immediately hooked. My fly rodding pursuits quickly expanded to trout. By high school I was immersed in the fascinating world of insect hatches and fly tying to match the various stages of mayflies and caddis then common in southeast Minnesota and the Midwest. Many winter evenings were spent tying flies in anticipation of each of the bug hatches I could expect to encounter the coming spring and summer.

Fly tying, particularly tying focused on hatch matching, led me into deeper study and appreciation of the role of aquatic insects in trout fisheries. The annual emergence of each local insect was anticipated and fishing trips planned around the hatches. The link between abundant aquatic insect populations and robust trout fisheries was obvious.

It is no secret that the frequency and intensity (density) of insect hatches in southeast Minnesota has decreased. While hatches in non-agricultural areas of Minnesota and the upper Midwest have remained fairly constant, overall insect numbers in areas with intensive agriculture have noticeably declined. Some hatches, once widespread through SE MN, are now hard to find. One cause of this decline is almost certainly the impact of increasing nitrate levels in these streams. Current regulation of the practices that deliver the overwhelming

majority of nitrates to our streams, land applications of commercial fertilizer and manure, are not working to halt, let alone reverse, this trend. As described elsewhere in this newsletter, MNTU has joined in a lawsuit against two state agencies to reverse this trend.

Now it's time to swap the keyboard for the vise and get ready for better days ahead. Happy tying.

Minnesota Council Update

Focus on MN

By Brent Notbohm, Minnesota Council of TU Chair

For those of us who care passionately about environmental conservation and the protection of our natural resources, these are deeply concerning times. Political uncertainties at the federal level over the future of such crucial agencies as the EPA, NOAA, FEMA, and the Department of the Interior have many of us worried. However, it's worth remembering that the vast majority of funding Minnesota Trout Unlimited receives comes from the state and individual donors like you. In other words, MNTU is well positioned to continue its important and meaningful work.

For example, at the January Board of Directors meeting we heard from our professional staff about the many things they do every day to fulfill the mission of MNTU. Executive Director John Lenczewski summarized our impactful advocacy efforts, Assistant Director Kristen Poppleton shared the connections we are making with our outreach and education programs, and Habitat Director Jennifer Biederman updated us on the many projects MNTU is overseeing across the state. Despite fears and challenges, particularly on the federal level, we are advancing our cause to conserve, protect, restore, and sustain Minnesota's coldwater fisheries and their watersheds.

At the Board meeting we also approved a 2025 general operations budget and I'm proud to report that MNTU continues to be a highly efficient and fiscally responsible organization. That said, to sustain and grow the work of MNTU long term, we must continue to advance our fundraising efforts to pay for our many operations. Please consider donating to MNTU in 2025, if you have not already, and know only money donated directly to MNTU goes towards our work as we receive no part of contributions made to National Trout Unlimited beyond a portion of membership fees.

Finally, I wish to share some additional news. Because of a term limit policy adopted a couple years ago, 2025 will be my final year as the chairperson of the MNTU Board of Directors. This year we will also sunset the 4-year strategic plan that has helped transform our organization and we will be hosting the TU

national CX3 conference in September. There will be time later to reflect on all we have accomplished together in recent years, but serving as chair of this organization over the last 5 years has been one of the great privileges of my life. Soon it will be time for a new leader to experience the incredible sense of accomplishment that I have as a member of Minnesota Trout Unlimited. A heartfelt thank you to all those who have supported me in my role as chair over the last few years!

MINNESOTA TROUT UNLIMITED

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Stream Restoration Goes Beyond the Banks

MNTU Projects Uplift Non-game Wildlife Habitat

By Jennifer Biederman, PhD, MNTU Habitat Program Director • Photos by Mike Majeski

Left: Brown-belted bumblebee foraging on blue lobelia (Winnebago Creek).

Right: Native riparian vegetation planted along Winnebago Creek (Houston County).

Traditionally, restoration efforts have focused primarily on improving conditions for game fish populations–in our case, native and wild trout–perhaps overlooking the diversity of other species that inhabit riparian ecosystems. In recent years, the field of stream restoration has increasingly recognized the importance of incorporating features that support non-game wildlife species. These more holistic approaches not only enhance native biodiversity but also contribute to the overall health and resilience of riparian ecosystems.

Many examples of this integrated approach can be seen in MNTU stream restoration projects, which typically impact riparian corridors of 132 feet or more including the stream channel and adjacent land. The process of every stream project begins with an investigation of the project reach within the Natural Heritage Information System (NHIS), a comprehensive database maintained by the Minnesota Department of Natural Resources that catalogs the state's rare plants, animals, native plant communities, and other significant natural features. The resulting NHIS report provides detailed information on the known occurrences of rare features, including non-game plants and animals, within the project's reach. From there, we work with experienced stream restoration consultants and engineers to make sure the project design avoids harmful impact on any rare or threatened species, and also adds special habitat features to support more common species, including birds, insects, reptiles, amphibians, and mammals.

The next time you visit one of our recent stream improvement projects, see if you note any of the following features that support non-game, native biodiversity!

Nesting Stockpiles

Many of our projects aim to reconnect the stream to its floodplain–often requiring the grading of steep, eroding banks. What do we do with all that excess soil? One creative solution has been to "stockpile" the soil in strategic locations to recreate nesting habitat for bank nesting birds that may have been utilizing the eroding banks prior to restoration. In southern Minnesota, bird species that utilize cutbanks for nesting include the bank swallow, northern rough-winged swallow (a MNDNR Species of Greatest Conservation Need), and belted kingfisher (also a MNDNR Species of Greatest Conservation Need).

Sandbars and Basking Logs

In Minnesota, riverine turtles such as the wood turtle, northern map turtle, and Blanding's turtle rely on sandbars along streams and rivers for nesting. These elevated, sandy areas provide the necessary conditions for egg incubation and protection from predators. However, degraded conditions, particularly in southern Minnesota's agricultural watersheds, have reduced the availability of these sandbar nesting sites, potentially delaying hatching and decreasing survival rates for these turtle species. When appropriate, MNTU projects add critical sandbar nesting habitat as a part of the overall design.

In addition, basking logs are a natural feature in streams that provide floating or "loafing" sites. Turtles, frogs, and snakes use them as a place to rest, dry off, and bask in the sunlight, which helps regulate body temperature and maintain metabolism. During projects, trees harvested for grading or removed as invasive are "recycled" into the design to provide this important habitat feature.

Snag Trees

A snag tree is a standing dead or dying tree that has lost its foliage and many branches. These trees are vital components of forest ecosystems, providing habitat and food for numerous wildlife species. Birds like woodpeckers excavate cavities in snags for nesting, which in turn provide shelter and nesting opportunities for small owls, chickadees, nuthatches, bluebirds, tree swallows,

Thousands of tadpoles in a wetland scrape adjacent to the South Branch Whitewater River (Winona County).

Left: Pileated woodpecker foraging on a snag tree.

Right: Bank swallow at a cutbank nesting cavity.

bats, and flying squirrels, to name a few. As snags decay, they attract insects and fungi, offering rich foraging grounds for various animals. Additionally, when snags eventually fall, they contribute to nutrient cycling and serve as "nurse logs," supporting new plant growth. MNTU will leave snag trees within the project corridor in order to provide this important habitat.

Native Vegetation

The typical MNTU stream improvement projects tend to press “reset” on vegetation within the project area, removing nonnative and/or aggressive grasses, flowers, shrubs, and trees. (Although high quality native shrubs and trees are preserved whenever possible). The last step of construction is to plant a carefully selected native seed mix, containing wildflowers, grasses, and sedges, throughout the project area, which takes one to three years to establish, depending on the species. These native seed mixes are crucial for stabilizing the soil and banks, and also provide overhanging habitat for fish and aquatic invertebrates. The native plant communities uplift an array of terrestrial pollinating insects, birds, and mammals.

Back-channel Wetland Areas

A back-channel wetland is a type of wetland area that forms along the less active, or "back" channels of a river or stream. These wetlands are typically found in floodplain regions where the main river channel has created secondary pathways due to natural processes like meandering or flooding. Back-channel wetlands are characterized by slow-moving or standing water, which supports a diverse range of plant and animal life. They play a crucial role in flood mitigation by absorbing excess water during high-flow events and contribute to water quality improvement through sediment trapping and nutrient cycling. Additionally, these wetlands provide essential habitats for various species, including fish, amphibians, and migratory birds, along with young of year trout, sculpin, darters, and dace.

Wetland Scrapes

A wetland scrape is a shallow depression, typically less than one meter deep, intentionally excavated to create or enhance wetland habitats within the riparian corridor. These scrapes are designed to hold rainwater or floodwater seasonally, often drying out during parts of the year, which mimics natural wetland conditions. The varied depths and gently sloping edges of scrapes provide diverse habitats that support a wide range of aquatic life, including amphibians, wading birds, insects, and wetland plants. By increasing habitat diversity, scrapes contribute to biodiversity and can improve water quality by promoting natural filtration processes. They are commonly implemented in floodplains or low-lying areas with high water tables within project areas. A walk near a wetland scrape in the spring will reward you with a chorus of mating frogs.

Mike Majeski, a conservation biologist with Emmons and Olivier Resources, Inc, has been a leader in incorporating non-game wildlife features into stream restoration designs and has consulted on many MNTU projects in southeastern Minnesota. According to Majeski, “Simple wildlife features such as these add to the unique character of riparian corridors and sustain biodiversity in these dynamic systems which can also benefit ecosystems far beyond the reaches of our trout streams.”

Left: Turtle nesting bank adjacent to Trout Brook (Dakota County).

Right: Back-channel wetland along the South Branch Whitewater River upstream of Crystal Springs (Winona County).

Your Voice Matters

Turn Your Story Into Action

By Kristen Poppleton, MNTU Assistant Director • Photos by Jade Thomason

The Boundary Waters Canoe Area is one of Minnesota Trout Unlimited's priority waters and we need your voice to ensure it remains protected.

The 2025 Minnesota state legislative session kicked off with a rocky start and changes are swirling at the federal level. It can all be overwhelming to know what to do, where to get your information, and how you can voice your concerns about the issues that are important to you. The one thing that hasn't changed is your personal experiences and the values you hold and share for healthy coldwater fisheries. Luckily it is the sharing of your story and values that means the most to the officials elected to represent you at all levels of government. So how do you start?

Everyone Has a Story

The fact that you are reading *Trout Unlimited Minnesota* means that you have some connection or passion for Minnesota and angling. That passion can be translated into a statement that can be leveraged to raise awareness about important issues. So…sit in a comfy place where you can focus for a while. Turn off your notifications, make sure your child/spouse is napping/playing/out fishing, and get yourself an inspiring beverage and snack. Pull out a pencil and paper, your laptop, your phone, or however you prefer to write, and jot down some answers to the following questions. Don't worry about perfection. Just write!

1. Who are you? What defines you? Are you an angler, a Minnesotan, a parent, a grandparent, a scientist, a MNTU member, a business owner, a teacher, a veteran? What does it mean to you to be this person?

2. What experiences have you had that established your connection to Minnesota's trout streams or angling? Did you grow up fly fishing? Is there a particular moment, location, or person that was instrumental in sparking your interest?

3. What concerns do you have about your ability and/or the next generation's ability to have the experiences you have been lucky enough to have? Has there been a moment or moments where you have seen or experienced something that sparked concern? Was there something you read, something you saw, someone that told you their story?

4. What are some of the causes for concern? Is your favorite trout stream in an agricultural zone being impacted by runoff? Do you love to fish in the BWCAW where sulfide mining is a threat? Is land use change along your favorite tributary to Lake Superior impacting the water quality? You can read up on some of these issues on our website and we've included some key points on the next page.

5. What is your vision for the future of Minnesota's trout streams? What change do you want to see happen?

Weave It Together

Now that you have jotted down some answers to the questions above, it's time to read through them and weave them together into a more cohesive statement. Are there any big picture themes that pop up? Any connections? As you begin to do the work of tying your words together, look for places you can add in sensory details and feelings. These are the ingredients that can bring others into your story, because while they may not have had your experience angling, they will inevitably have felt joy, grief and frustration in their life and will be able to connect with you through this. Finally, include a few facts that ground the issue you have decided to elevate. We've included a few current examples with supporting facts.

Now what?

Congratulations, you've just written something you can use as the basis for taking action! You can use this for any number of opportunities today and into the future. Here are some things you can do:

1. Share your statement with your friends and family to educate them about the issues facing Minnesota's coldwater fisheries. Include a concrete action they can take themselves, including developing their own story.

2. Turn it into an opinion piece for your local paper to raise awareness about an issue facing trout streams in your community or the state. MNTU staff is ready to help you with this, just contact us at action@mntu.org

3. Read it to testify for a bill that is focused on protecting coldwater fisheries in Minnesota or testify against a bill that will harm coldwater fisheries.

4. Use it as the body of a letter to your elected official asking them to support a particular bill, vote against a bill, or simply to raise awareness about something that is important to you as their constituent.

5. Are you video savvy? Turn your story into a short video that features photos and video that brings your story to life. Share your story with us and we'll post it to our website as a video or blog and share it! action@mntu.org

All the issues and associated action opportunities on the following page are regularly updated on our website. Visit our advocacy webpage for current opportunities and/or sign up for our action alerts: mntu.org/advocacy

Current Issues Facing Minnesota's Coldwater Fisheries

Nitrate Contamination

Talking Points:

• Nitrates come from a variety of sources, both natural and human based, but we know agricultural runoff and livestock manure are the primary sources.

• 90% of nitrate in southeastern Minnesota's waters comes from fertilized croplands.

• Nitrates reduce the size and potentially survival of trout populations.

• Increased nitrates in streams can lead to decreased suitability of habitat, especially for spawning and nursery areas, and stress adult fish which can make them more susceptible to disease and impact their reproductive success.

• Increased nitrates have been shown to decrease the number of aquatic insects available as trout food.

Action Opportunities:

Nitrate contamination can be reduced in several ways. One highly effective method is through sustainable land use. MNTU supports legislation focused on providing farmers with incentives to implement practices that retain or slow runoff and increase infiltration, reduce fertilizer and pesticide use, and reduce erosion–all beneficial to maintaining the health of our trout streams.

Sulfide Mining in the Boundary Waters Canoe Area Wilderness

Talking Points:

• The BWCA is home to pristine waters that support thriving populations of native lake trout and other fish species.

• Fishing in the BWCA is a major draw for Minnesota's outdoor recreation economy.

• Sulfide mining is one of the most toxic forms of mining, with a high risk of acid mine drainage that can permanently pollute lakes, rivers, and groundwater.

• Even trace amounts of sulfide pollution can devastate aquatic ecosystems by lowering pH, releasing heavy metals, and harming fish and insect populations that are critical to healthy fisheries.

• The BWCA's interconnected waterways mean that pollution from a single mine could spread far beyond the mine site, affecting countless lakes and streams.

Action Opportunities:

At the federal level the current President has made it clear that he would attempt to open the Superior National Forest up for copper-sulfide mining. Representative McCollum has reintroduced a bill to ensure protection, the Boundary Waters Wilderness Protection and Pollution Prevention Act. There are a number of bills that are expected to be introduced at the 2025 Minnesota legislative session including:

• One that protects the Boundary Waters/Quetico/Voyageurs National Park from sulfide-ore copper mining pollution by banning these practices from being established in the Rainy River Watershed;

• A "Prove It First" policy for sulfide mines, requiring independent scientific proof that a copper-sulfide mine has operated elsewhere in the United States for at least ten years without causing pollution;

• One that prohibits bad-actor corporations with histories of environmental violations, corruption, child labor, and other legal abuses from operating a sulfide mine in Minnesota (Friends of the Boundary Waters);

• The Taxpayer Protection Act that requires nonferrous mining companies to fully fund any financial assurance package upfront and in cash.

Neonic Contamination

Talking Points:

• Aquatic insects provide the essential food which supports trout fisheries.

• Neonicotinoids or "neonics" are insecticides developed to kill insects. They decimate aquatic ecosystems.

• Neonics are "systemic," meaning they are water soluble, and long lasting. This allows them to rapidly contaminate surface and groundwater and stick around for up to three years.

• Recent research in Minnesota showed neonics in 97% of water samples from rivers and streams, and 74% of groundwater samples, including at levels above the tolerance level of aquatic insects.

• Neonics are applied as a coating to corn and soybean seeds and used by the majority of farmers in Minnesota.

• The Minnesota Department of Agriculture does not regulate treated seeds. Most of the corn and soybean seeds sold in Minnesota are treated with neonics.

• Minnesota Department of Agriculture data confirms that neonic-treated seeds are the leading source of harmful neonic contamination in Minnesota waters.

Action Opportunities:

Neonic-treated seeds are the leading cause of neonic contamination in Minnesota, but the Minnesota Department of Agriculture argues that they do not have authority to monitor, much less regulate, these seeds. MNTU is supporting legislation that regulates the use of neonics and neonic-treated seeds in Minnesota. Two bills introduced last session are expected to be introduced again:

• One that prohibits most non-agricultural (lawn and garden) uses of neonic insecticides and one that prohibits unnecessary uses of neonic-treated seeds.

Fly Tying

The Pheasant Tail Soft Hackle

By Paul Johnson

The Pheasant Tail Soft Hackle is not a new or even a secret fly pattern. It is, however, a fly that needs to be in your fly box each spring.

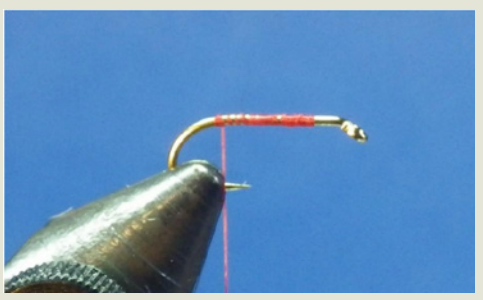
A fair question for you to ask of me is, "If it is such a good fly, why have you not featured it until now?" Good question. The honest truth is that I forgot all about this fly! I came across it when I was trying to figure out what fly pattern to include in this article.

The most common way to fish the Pheasant Tail Soft Hackle would be to swing it down and across like any other soft hackle. I seldom, if ever, fish it that way. In the spring I like to tie it on as a second fly below a weighted fly in a two-fly rig. I will still let the fly swing at the end of my drift before I cast again.

Materials List

Hook:	1XL Nymph Hook
	Size 16
Thread:	14/0 or 8/0
Abdomen:	Pheasant Tail
Tail	Pheasant Tail
Rib:	Gold Wire
	Size Brassie
Thorax	Peacock Dubbing
Wings:	Hungarian Partridge

Give the Pheasant Tail Soft Hackle a try this spring. I kind of think you might like it. As always, if you have any questions, please feel free to contact me: paulwaconia@gmail.com



Step 1. Insert the hook in your tying vise. Start your thread at the 3/4 mark and wrap a smooth thread base back to the bend of the hook.

Step 2. Tie in a small clump of pheasant tail fibers at the bend of the hook, securing with only two wraps of your tying thread. Here I used eight Pheasant Tail Fibers.

Step 3. Tie in a length of wire at the bend of the hook. Again, only use two wraps of tying thread.

Step 4. Lift the butt ends of the pheasant tail fibers and use the thread to wrap the wire to the hook shank up to the 3/4 mark.

Step 5. Wrap the pheasant tail fibers forward to the 3/4 mark. Secure with your tying thread and clip the excess.

Step 6. Counter wrap the wire forward with evenly spaced wraps to the 3/4 mark. Secure with your tying thread and clip the excess wire.

Step 7. Form a short dubbing noodle with the peacock dubbing. You can also use regular peacock herl.

Step 8. Form a small dubbing ball with the peacock dubbing right at the 3/4 mark.

Step 9. Prepare a Hungarian partridge feather by grabbing the very tips and pulling back the other fibers.

Step 10. Tie the feather by the tips, directly behind the hook eye.

Step 11. Wrap the feather around the hook with two or three wraps, gently pulling the feather back as you wrap. Clip the excess feather.

Step 12. Form a nice head on the fly with your tying thread. Whip finish. Go fish!

Try swinging soft hackles down and across or tied on as a second fly in your rig. Josh Flug photo.

Wading

By Bob Luck

Driftless streams like Beaver Creek typically have gentle currents making wading safer than the freestone streams of the Minnesota North Shore.

I am a reasonably competent walker on dry land, but a few inches of running water changes things. On pretty much every fishing excursion I bang my knee on a rock or slip on a muddy bank and fall on my rear. I completely soak myself a couple of times a year. I don't love wading and I suspect I am not alone. A survey of trout fishing literature yields a cornucopia of books on casting, tying, reading the water, trout behavior, and tactics for all kinds of flies from terrestrials to nymphs to streamers, but no "Joy of Wading." I have never met an angler who told me they fish so they can wade. But float fishing brings its own problems, and there are only a handful of floatable trout streams in the Midwest anyway, so I'm stuck with wading.

The good news, at least in the Driftless, is that the streams are relatively safe to wade. The currents are usually gentle, and the limestone cobble typical of the upper reaches has lots of nooks and crannies that allow boots to get a firm purchase. The muck in lower reaches is annoying and disgusting, but it is unlikely to suck you in so far you can't free yourself. Contrast this with the swift currents and smoothly worn rocks in mountain streams and Lake Superior tributaries. When I was living in Japan in my early 30s, I occasionally fished the Nakagawa River, which flows through the mountains north of Tokyo. One day I somehow waded all the way across the river from the cottage where we were staying, and now faced the dilemma of a cat that has climbed a tree and can't figure out how to get back down. I could have walked 300 yards through heavy brush to the nearest bridge, but I suffered from the combination of impatience and poor judgment that afflicts many young males of our species. I picked what I thought was the best entry point, and stepped in. Big mistake. I immediately lost my footing, was pulled under, and swept through a set of rapids that seemed designed to bash my head in. A few seconds later I drifted into a quiet pool, having lost my fly rod and my sense of immortality.

There is nothing like the Nakagawa in the Driftless, but "relatively safe" doesn't mean "idiot proof." My candidate for the scariest stream in the Driftless is the lower Kinnickinnic. Flowing through what passes for a canyon in the Midwest, the current is deceptively fast. The streambed is primarily smooth, slippery gravel. It is a long hike out if you need to get help. I find a wading staff to be more trouble than it is worth on most Driftless streams, but I could use one here. Wading any stream can be treacherous after a heavy rain. Current speed and depth increase, and the stain from the runoff hides underwater obstacles. You might not be swept away, but you could pretty easily fall and break something.

I don't have any unique insights into safe wading, but I can repeat what you might hear from a kindergarten teacher: "Don't rush. Don't step where you can't see. Take it easy." And a more specialized piece of advice: Don't wade into a deep hole to rescue your fly from a snag. Break it off or find a shallow spot to wade across and retrieve it. I re-learn that lesson every spring.

Safe wading dovetails nicely with stealthy wading, which is important if you actually want to catch trout, instead of viewing them fleeing upstream, spreading the alarm to their neighbors. I read that the Japanese tenkara masters recommend moving no faster than 10 cm (4 inches) per second, because that is the speed at which trout can no longer discern a moving from an inanimate object. Sounds about right to me—that master American angler, the great blue heron, moves no faster. Four inches per second works out to five minutes for 100 feet. I can keep myself to that speed when fishing productive water, but I do walk faster when covering unproductive stretches. I usually get out of the stream and walk the bank when I am moving between lies—I am definitely going to spook fish upstream when wading at speed. I don't have a scientific study to refer to, but I am pretty certain those spooked fish will alarm the fish in the spot I am targeting, and make it much less likely that I'll catch anything there. When I approach my target area I slow down, try to obscure my profile against available vegetation, and often crouch down as I step carefully into an open spot in the stream where I am unlikely to step on a fish. Despite this precaution, it still amazes me how often I spook big fish from tiny bank-side indentations where it seems a fingerling would struggle to find cover. I can avoid this problem if I stay on the bank, but then I present a higher profile when casting, and have to contend with more trees and weeds just itching to snag my fly. So, more often than not, I take my chances and step into the stream to cast.

My wader selection is driven by my bladder. I was never able to "hold it" very long, and advancing age isn't making things easier, particularly in the morning after a couple of cups of coffee. Without getting into the embarrassing details, let's just say that some mornings I might spend more time peeing than fishing. My wife suggested that I wear a diaper. It may eventually come to that, but meanwhile, I have discovered zippable waders. They really work—the zipper has yet to leak, and my peefficiency is the same as with normal trousers.

Waders are too hot in midsummer, so I wade wet. My setup consists of my usual wading boots worn over neoprene socks, and covered by some homemade neoprene gaiters that I fashioned out of an old pair of waders to keep the sand and gravel out. I wear a pair of quick dry trousers over woolen long johns. The wool dries faster and is more comfortable than a pair of wet cotton briefs, and the long underwear provides a little extra protection against stinging nettles. I was still getting stung more often than I like, so I turned to my virtual friends on the Fly Fishing Minnesota forum for advice. Some folks wore jeans or heavy-duty farm trousers which seems like a good way to get chafed in the unmentionables. Another wrote: "I say damn and move on." Stoic. I decided enough with this online nonsense and went into a fly shop for advice. My friends at Orvis set me up with a pair of quick-dry hunting trousers reinforced with extra fabric in the legs. Only $149. They worked! A week later, I went fishing with an acquaintance who wore a pair of nylon rain pants that he had bought at Walmart for about 20 bucks. He told me they worked, too. I said damn and moved on. Wet wading has its drawbacks: a long walk back to the car at the end of the day in wet socks is not exactly pleasant, and wet neoprene booties can smell awful if they are not dried out properly. The air temperature may be hot in midsummer but the water is still plenty cold, making me speculate that I might contract trenchfoot, especially when wearing the aforementioned noxious booties. But it beats succumbing to heat exhaustion in a pair of chest waders.

Last year I bought a boot dryer. It takes a couple of days for boots to dry in the humid midwestern summer, and I knew that entering streams with wet boots made me a vector for invasive species transmission. I rationalized it by telling myself that I fish in a pretty small radius, and if I transported an invasive species from one stream to another, it was probably already there. But then I read an article in the Minnesota Star Tribune about a University of Minnesota botanist discovering a patch of Japanese stiltgrass in the Coulee Experimental State Forest outside La Crosse. And another article about New Zealand mud snails being discovered in Black Earth Creek outside Madison. And a terrific book, *The Death and Life of the Great Lakes* by Don Egan, which chronicles the damage done by zebra and quagga mussels and other invasives. I don't want to be the angler zero that introduces a harmful species to naive streams, near or far. Yves Charron, who recommended the dryer to me, told me my boots would last longer, too. I haven't seen that: the sides of the uppers are straining the stitches and the toecap is starting to come loose. Yves still works for a living, so I suspect he doesn't fully comprehend how much time my boots spend in the water. The dryer works great, and now my boots are fully dry every morning. I am still a biosecurity risk when I fish two streams in a day, so I guess next year I'll have to buy another pair.

Bob Luck is the current Twin Cities Chapter president and an avid angler.

Gearing Up for North Shore Steelhead

Getting Ready for the Spring Run

By Jason Swingen

A heavier reel paired with a long rod makes for better balance and swing weight.

Steelhead fishing on the North Shore of Lake Superior is a unique and challenging experience. Because steelhead are known as the "fish of 1,000 casts," you'll want to have all your gear ready when your indicator finally drops. We'll go through the essentials you need to rig your fly fishing gear for North Shore steelhead, including rods, reels, lines, leaders, tippet, indicators, and flies.

Rod

When choosing a fly rod for any species I like to take into account three things: the size of the fish (the most important!), the size of the river, and the size of your fly. When it comes to North Shore Steelhead, the fish are large, the flies are small and the rivers have a very broad range of sizes from small to large. Given those factors, a 6wt, 7wt, 8wt are all great options. Most fly rods are 9 feet long and will work just fine, but if you are looking for the best steelhead rod, I prefer to go with a 10-foot. The extra length helps with casting and mending, and gives you a little extra shock absorption. If I had just one rod to steelhead fish with it would be a 10-foot 7wt.

If you are looking for a rod that can do it all (steelhead, bass, pike, or carp) I'd recommend a 9-foot 7wt. If you are on a budget, I would recommend buying a cheaper rod and spending more on the reel and line.

Reel

Match your reel to your rod. Most fly reels come in 5/6, 7/8, or 9/10 sizes, which match the line size they hold. Depending on the size of fly line you are using, these larger reels will take in line faster and can balance out a longer rod. Many reel companies market how strong their drag is and how light their reels are, but having a super strong drag isn't that important when steelhead fishing, as you will need to let these big fish run when they want to, and cranking down the drag is one of the easiest ways to lose a steelhead. You don't need to pay extra for a lightweight steelhead reel either. When fishing a longer rod having a heavier reel will give you better balance and, even though the overall weight will be greater, a heavier reel will give a lighter "swing weight."

What you do want is a drag with low startup inertia (which isn't often mentioned in the specs). Startup inertia is basically how "sticky" the drag is when it first starts to rotate. Low startup inertia means your drag will ease out smoothly instead of jerking, which can lead to losing fish.

Line

I've tried not to push different brands on you, but I can't hold back anymore. After trying tons of different fly lines, I always come back to the Scientific Anglers Anadro series line. Anadro (short for anadromous) is my go-to for indicator fishing. It's heavy enough to turn over big nymphing rigs, it floats well, and, most importantly, it has a long belly section that makes mending at a distance easier. It works pretty well in a lot of situations, and while it won't shoot a ton of line, it's a decent backup line for throwing streamers or poppers in the summer.

Left: North Shore rivers are tannin-stained year-round and often off-color from snowmelt during the spring steelhead run.

Right: a selection of nymphs and egg patterns along with indicators, tippet, forceps and split shot are key items for your steelheading pack.

Recommended Fly Fishing Gear for North Shore Steelhead	
Rod:	A 10' 7wt is ideal, but a 9' 7wt is versatile for other fish. Prioritize reel and line over rod when on a budget.
Reel:	Match the reel to your rod (7/8 is common). Look for low startup inertia drag, and don't prioritize a super strong drag or lightweight reel.
Line:	Scientific Anglers Anadro series is recommended for indicator fishing.
Leader:	7.5' 0x leader with an ant swivel at the end to attach tippet and split shot.
Tippet:	Use fluorocarbon in clear water (1x, 2x, or 3x) and Maxima Ultragreen in stained water (6-10lb test).
Indicator:	AirLock CenterLock or Oros indicators are preferred.
Flies:	Egg patterns for cold water, nymphs and streamers for warmer water.
Net:	Sturdy net with a large hoop, long handle and rubber bag.

Leader

My preferred leader for North Shore Steelhead is a 7.5’ 0x leader. My goal is to have a leader and tippet about the same length as my rod. 7.5’ of leader and roughly 2’ of tippet will get us to 9.5’, which is long enough to fish deeper water, but not so long that you'll have trouble controlling a fish when it gets close to the net. There are only a few deep pools on the North Shore that may require a longer leader, but, for the most part, steelhead are found in relatively shallow water. I will often see anglers tie their fly directly to their tapered leader, which can work, but there are a few issues that will come from that type of rigging.

I like to tie on an ant swivel at the end of my leader with a strong knot like a palomar or a double clinch knot. The swivel solves a few problems. First, when I add or change tippet material, I don't waste leader material like you would with a line-to-line connection. Second, it reduces how much your fly will spin from twists you have in your line. Third, I attach any split shot above the swivel, which keeps it from sliding down the line to my fly. Speaking of split shot, it's important to have different sizes to fine-tune the depth of your flies. My most used split shot sizes are BB and 3/0. Sometimes all it takes is one little split shot to get your fly right in the zone.

Tippet

I tie my tippet off the other end of the swivel using an improved clinch knot and finally to my fly using either a clinch or a non-slip mono loop knot, depending on the tippet diameter and the action I want the fly to have. I'll switch to the loop knot when I'm fishing heavy tippet in clear water or with nymphs or stone-flies instead of egg patterns.

In clear water, I prefer to use fluorocarbon in 1x, 2x, or 3x. However, many of the rivers on the North Shore, even at their clearest, are still tannin-stained enough that I'll just use monofilament tippet. Not just any mono though. In those cases, I'll use maxima ultragreen in 6-10lb test. If the water is clear or the fish have been pressured, then switching to fluorocarbon tippet can give you an edge.

Indicator

When trout fishing, having the smallest, most delicate indicator is often the way to go to keep the splash from spooking the fish. While stealth is still important with steelheading, it's not as important. My favorite indicators for North Shore steelheading are AirLock CenterLock or Oros indicators (specifically the 3/4 inch size). The new trend of having your fly line go directly through the middle of your indicator isn't a must-have, but they do seem to tangle less. Most importantly, having foam on both ends keeps you from dropping and losing those tiny little plastic screw caps that come on the original AirLock indicators (if you’ve used those before, you know what I’m talking about). Having a (biodegradable) foam indicator that floats high, stays visible, and lets you quickly move your indicator without kinking your leader (I'm looking at you Thingamabobber) has been one of the best advancements in indicator fishing since sliced bread.

Flies

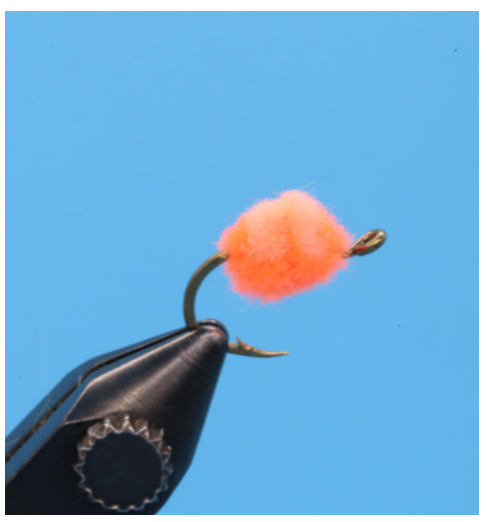
Besides presentation (which we aren't covering here), your choice of flies is the most important factor in catching a steelhead. Even though steelhead can be one of the hardest trout to hook (and even harder to land), they're pretty predictable when it comes to fly choice. As a fly tyer, I like tying intricate nymphs, stoneflies, streamers, and anything else that can trick a fish into eating, but for most of the steelhead season (especially when the water is cold and dirty), I'm fishing good old egg patterns. Once the water warms up and the steelhead are “dropping back” I switch over to nymph patterns and even streamers.

Net

Having a large, reliable net might not seem extremely important until you are hooked up to the fish of a lifetime. I’ve seen many anglers with a trout net that is simply too small for steelhead fishing. Trying to use a trout net on an adult steelhead will most likely end with the heartache of a lost fish, or at very least one that is exhausted or injured. I own a Dam Goods and Gear (a local Minnesota company) hand-made River Net that is the perfect size for any Great Lakes steelhead. It has a large hoop, a long enough handle to get two hands on or reach out into deeper water, and a rubber bag that is delicate on fish.

Having the right gear that is rigged properly will increase your chances of success when fly fishing for North Shore steelhead. These fish can be challenging, but if you are patient and persistent you will eventually be rewarded!

Jason Swingen is the current Gitche Gumee Chapter vice president and resides in Duluth. He is an avid outdoorsman, fly fishing guide and web developer. Check out his blog at www.js-outdoors.com



Left: Egg patterns are the bread and butter of North Shore steelhead patterns.

Right: Be sure to have a net with a longer handle and large hoop in order to land steelhead quickly and safely.

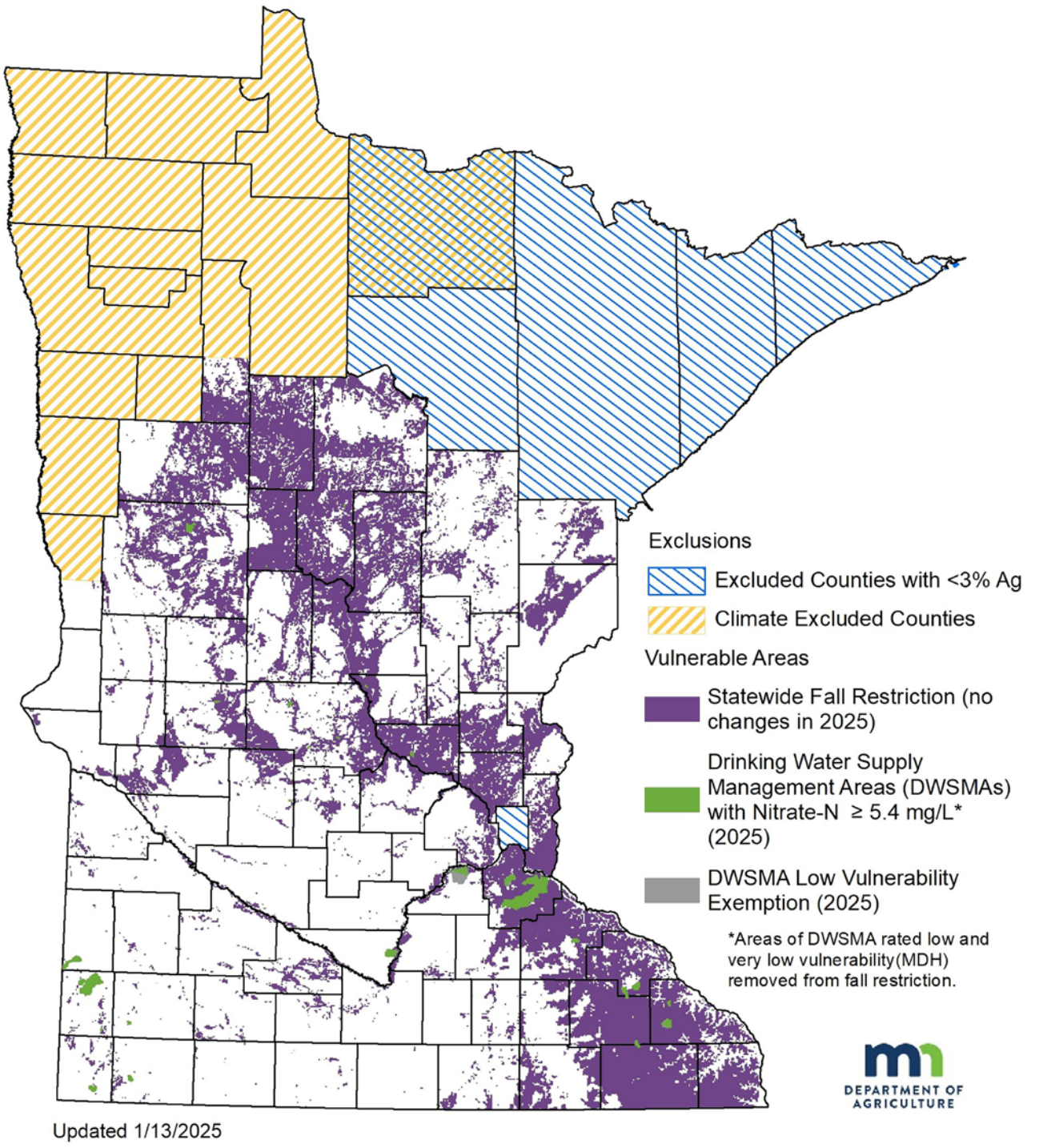
New Litigation Over Nitrate Contamination

MNTU is Suing State Agencies to Protect Trout Streams

By John Lenczewski, MNTU Executive Director

On January 28, 2025, Minnesota Trout Unlimited joined the Minnesota Center for Environmental Advocacy (MCEA) and the Minnesota Well Owners Association (MNWOO) in a lawsuit against the Minnesota Pollution Control Agency and Minnesota Department of Agriculture. The goal is to force them to do a better job protecting trout streams from harm caused by high nitrate levels and fish kills. Current state rules governing commercial fertilizer application and manure management are not working well enough to prevent serious harm to trout streams and trout anglers.

MNTU's mission is to protect, restore, and sustain Minnesota's coldwater fisheries and the watersheds and groundwater sources that support them. Excessive nitrogen and manure applications in southeast Minnesota trout watersheds, and other vulnerable areas such as the Central Sands region, are causing serious harm to trout fisheries and trout anglers. MNTU believes it must step forward to ensure the State acts to better protect our coldwater fisheries.



This map from the MN Department of Agriculture highlights in purple the areas vulnerable to groundwater contamination in Minnesota.

Nitrate Pollution and How it Harms Trout

Nitrogen is a nutrient that plants use to grow. Farmers apply it through commercial fertilizer and animal manure. But once it is applied, some of it converts to different forms, including nitrate and ammonia. Nitrate that is not absorbed by the plants ends up leaching downward into groundwater or running overland into surface waters. Animal manure is rich in nitrates and ammonia. Manure from animal feedlot operations is applied onto fields. When rainfall carries it into trout streams it can have drastic impacts. Ninety percent of nitrate pollution in southeast MN comes from nitrogen fertilizer and manure applications.

Elevated nitrate levels kill aquatic insects and other invertebrates and harm trout survival and reproduction. In humans, nitrate levels in drinking water greater than 10 mg/liter cause "blue baby syndrome"–where excess nitrates limit the ability of blood to carry oxygen–causing severe injuries and death. Aquatic insects and fish are much more sensitive, living in and "breathing" dissolved oxygen through the polluted water. Extensive research has determined that nitrate levels exceeding just one-half the drinking water standard harm trout and aquatic life.

In 2020 the Minnesota Pollution Control Agency (MPCA) reviewed the results of 110 scientific studies and determined that nitrate concentrations above 5 mg/liter harm aquatic insects, trout, and other aquatic life. The MPCA inexplicably failed to start formal rulemaking to adopt this limit as a water quality standard. But it admits that nitrate concentrations above 5 mg/liter are harming our trout streams.

Ammonia in Manure

Ammonia is another form of nitrogen in manure more toxic than nitrate, and lethal to fish at very low levels. Manure from feedlot operations is applied to farm fields as fertilizer. But when rainfall washes manure into streams and tributaries it can kill fish and other aquatic

Driftless brown trout reside in streams that are particularly vulnerable to nitrate contamination.

Riffles on Driftless trout streams help oxygenate the water and create good habitat for aquatic macroinvertebrates. Excess ammonia has been shown to rob water of dissolved oxygen, harming aquatic life.

life because of potentially high concentrations of ammonia which rob the water of dissolved oxygen. Trout have high oxygen needs and fish kills occur when elevated ammonia levels rapidly deplete the oxygen. A direct shock of ammonia can fatally burn the gills and respiratory systems of fish. Elevated ammonia levels have been detected in some of the recent fish kills on southeast MN trout streams (e.g., Garvin Brook in 2019), indicating that manure applications are a cause of these fish kills.

Current Regulation of Feedlots and Manure Applications

In both 2010 and 2022 the MPCA announced that it would begin rulemaking to set a water quality standard for nitrate in public waters to protect aquatic life from harm. After reviewing more than 100 scientific studies, the MPCA determined that nitrate concentrations above 5 mg/liter harm aquatic insects, trout, and other aquatic life. However, the MPCA failed to adopt a standard. In fact, rulemaking was never begun in 2020.

The MPCA regulates manure applications on agricultural land through its Feedlot Rule. The MPCA adopted this in the 1970s and made only minor updates in 2014. The rule was intended to prevent improper manure use for nutrients and overapplication of manure on fields. The past 25 years have shown that the Feedlot Rule is not effective in preventing nitrate pollution. Detailing all the Rule's inadequacies is beyond the scope of this article, but continually rising nitrate levels demonstrate the rule allows too much manure to be applied, and setbacks from sinkholes and streams are too narrow.

The largest feedlots, with 1,000 animal units or more, are also required to obtain a Feedlot General Permit for water pollution. But only 7% of feedlots are required to get these permits. The MPCA recently revised the General Permit conditions, but it did not go far enough, nor require permits for any of the other 93% of feedlots (16,200).

Current Regulation of Fertilizer Applications

The Minnesota Department of Agriculture (MDA) regulates commercial fertilizer applications through the Groundwater Protection Rule. The Groundwater Protection Rule is the only rule that regulates the use of nitrogen fertilizer in Minnesota. To call it a "rule" is generous, since following its collection of "best management practices" (BMPs) is voluntary. Under the BMPs farmers are left to decide how much nitrogen to apply to their fields, when, and how. However, they often lack current information about how the applications will impact water quality. The end result is that farmers often overapply commercial fertilizer, especially while nitrate-rich manure is also being applied. The excess nitrate that is not absorbed by the plants ends up leaching downward into groundwater or running overland into surface waters. Since trout streams are closely connected to groundwater, excess nitrates reach streams relatively quickly.

Effective Action Needed

Frustrated with the lack of effective action to reduce both nitrate pollution and fish kills, in April 2023 MNTU joined partners in petitioning the EPA to require three state agencies to do more to halt and reverse the worsening nitrate contamination levels in southeast Minnesota. The EPA agreed with us and required the state agencies to develop a work plan outlining "timely actions to address the nitrate contamination."

In January 2024 the agencies, including the MPCA and MDA, produced a work plan. Although the work plan promises some steps that might improve the situation, it does not go far enough or fast enough. The MDA indicated that it does not intend to consider changes to the Groundwater Protection Rule or update its Nitrogen Fertilizer Management Plan. Instead it will continue to rely upon voluntary actions only. The MPCA says it is willing to begin rulemaking to adopt a nitrate standard protective of aquatic life. But it said similar things in 2010 and 2020, yet failed to follow through. The Feedlot Rule has not had a comprehensive revision in 25 years and is not working. The MPCA recently made improvements to the Feedlot General Permit, but more action is needed now, including to prevent more fish kills.

The EPA under the new administration is unlikely to pressure the MPCA and MDA to do more. Consequently, we must turn to state law to force these two agencies to do better.

What is the goal of the lawsuit?

The goal of the state lawsuit is to force the MPCA and MDA into rulemaking procedures that will strengthen regulations on manure and commercial fertilizer applications and reduce nitrate contamination in trout waters.

MNTU is not seeking to punish anyone, rather to get the public rulemaking processes started. Specific rules are not requested, but instead a comprehensive rulemaking process open to all stakeholders. Farmers will have a voice in how the rules are revised to ensure they can operate profitably while protecting water quality. They have been told by the agencies that the current rules work to protect public waters and well water, when in fact they do not. Farmers care about clean water too. They deserve the better information and guidance that rulemaking will produce.

The agencies have the authority, and duty, to act to prevent nitrate pollution. The current Feedlot Rule and Groundwater Protection Rule do not adequately protect our surface waters or the groundwater systems that feed them. We are asking the Court to force the agencies to reevaluate their rules and initiate rulemaking.

Farmers and landowners care about clean water. MNTU is working to provide information on these issues.

MNTU Education Update

March 2025

By Amber Taylor, MNTU Education Program Supervisor

Left: Hundreds of TIC students are learning about biomimicry through fly tying this winter. They are tying San Juan worms, wooly buggers, and caddisflies with our education team and group of awesome volunteers.

Right: A St. Michael teacher and group of excited 7th grade trout technicians receive their eggs from a member of MNTU's egg delivery team. Their first task is unpackaging and tempering the eggs to prepare them for transfer to the tank.

As Trout in the Classroom students returned to school after holiday break in early January, the tiny alevin, or sac fry, that were flopping around awkwardly on the bottom of the basket before they left had begun to swim! This is the third of four different developmental stages students get to observe during their TIC experience. This year, the excitement began on December 11 as eggs were delivered throughout the state!

When Evan and I started in 2018, there were 29 schools participating in TIC. In addition to sorting and packaging the eggs, most of them were delivered by our education team of three people. In 2019, the program grew by 15 schools and we quickly realized that it was no longer sustainable to do the sorting, packaging, and delivery of eggs to so many schools all by ourselves. That year, we put together our first egg delivery team of six volunteers to distribute eggs from the metro area.

Fast forward to egg delivery 2024, where 32 volunteers from three different MNTU chapters came together to deliver eggs to over 70 schools! Some volunteers are willing to drive up to four hours one way to get eggs to schools in the further reaches of the state. They not only transport eggs but also must stay in communication with me and their assigned teachers prior to and during the actual day. It also requires flexibility due to delayed shipments and inclement weather. Since 2019, they have driven thousands of miles with thousands of tiny trout eggs to thousands of thrilled students and their teachers. MNTU's January Monthly cast had a great video summary of the people, time, and efforts that go into making egg delivery happen each year. In case you missed it, check out the video here: www.youtube.com/watch?v=eOOBiFYveUw

A few special shoutouts! First, to Jim McCraken, TIC coordinator for the Headwaters Chapter, for taking the lead on the northern Minnesota area schools egg delivery team! This year was chaotic and stressful due to the eggs being delayed on top of having taken on additional schools, but Jim took it all in stride and remained in constant communication with me, the teachers, and the volunteers to make it happen. He also works with me each year to coordinate getting trout food and newsletters transported to Bemidji for distribution with the eggs.

Second, shoutout to my lovely mother whom you have met if you have been part of egg delivery anytime since 2019. That year, she started helping me with egg delivery preparations and day-of sorting, packing, and transporting when we were doing it at the Minnesota Valley National Wildlife Refuge. In 2020, we were unable to use that space for egg sorting and distribution, so she said, "Let's use my heated garage!" And that's where we have been doing egg distribution ever since. She allows me to take over her garage with coolers, newsletters, and boxes of trout food every November and helps me pull everything together. She has become an integral part of egg delivery day success and we could not do it without her. A huge and heartfelt THANK YOU to all egg day volunteers!

Once fish are actively swimming and eating, trout technicians are kept busy caring for their tanks full of hungry little fish. These duties include water changes, pulling dead ones, feeding, maintaining equipment, testing water chemistry, tracking the nitrogen cycle, observing behavior, collecting data on growth rates, and more. As they grow, the fish require increased monitoring, care, and maintenance. The waste and decomposing food build up, causing imbalances in the tank's water chemistry. Students test for ammonia, nitrite, nitrate, and pH, performing water changes to lower levels and freshen water as needed.

Trout need cold, clean, highly-oxygenated creeks, streams, rivers, and lakes in order to survive. Trout in the Classroom tanks try to closely simulate this natural environment through a chiller, filter, and aeration system. The chiller keeps the water in the tank cool and allows teachers to adjust the tank temperature according to how slowly or quickly they want the fish to grow, similar to a hatchery. Trout metabolism and growth increase as temperatures go up and slow as it goes down. The amount of food they are fed also affects growth rate.

Some ways the trout tank differs from their natural environment are below:

• closed (tank) vs open (natural environment) system;

• trout and bacteria are the only biotic (living) organisms present;

• no predators (except the occasional tank mate);

• fed specially formulated hatchery food vs insects; and

• tanks lack plants that would remove nitrates and debris in natural aquatic ecosystems.

These concepts and lessons are just a few of many that TIC students learn throughout the school year as they perform trout technician duties and prepare to release them in the spring!

As you read this, our awesome education team will be in the middle of conducting winter programs with students in every corner of the state. They work tirelessly to conduct lessons each season for fall field days, winter lessons, and spring releases, covering a lot of ground and working with thousands of students each year. Between December 2024 and March 2025, they will have worked with over 2,000 students from 30 schools. They are learning about biomimicry and tying flies, habitat restoration, and fishes of Minnesota. Some of them are even getting out on the ice to learn about life under the water during the winter and trying to catch a fish. If you're interested in volunteering with these programs, contact Evan Griggs, tic.mntu@gmail.com, to get started!

It takes a village to get 25,000 eggs and many pounds of trout food distributed across the state! A great deal of preparation and coordination with volunteers, DNR staff, teachers, and more goes into making egg delivery day a success.

The Job of a Baby Trout

Youth Series

By Jim Emery, MNTU Educator

Trout in your classroom tanks have important jobs. They are provided with a safe environment to learn how to feed effectively, orient their bodies in current and evade predators.

Like magic! You came back from winter break and the orange eggs in your classroom tank had become fish. Your class is learning about the conditions that keep trout healthy in the wild. Your job is to recreate those healthy circumstances in the artificial environment of the aquarium until this spring when your trout will be large enough to release into a stream.

The trout have jobs of their own and they already know how to do them. Trout Job #1 is to sustain themselves by seeking out sources of protein. Even as the trout enjoy the commercially-prepared, high-protein pelletized food that you sprinkle on the water every day, their small fish brains are laser-focused on finding the things that they would naturally find to eat as they cruise around the tank.

Pick out one fish, and watch where it swims. That fish is looking for insects in the tank, trying to read the current that the aerator is creating, looking for the best position for food to wash its way, without having to waste energy having to chase down prey.

Job #2 for the trout is to not get eaten themselves. While looking for food, the fish you are observing are also seeking shelter. Trout aren't the only animals that need to eat someone else, and the fish are well aware of that fact. Frogs, raccoons, otters, larger fish, and even other trout are among the long list of predators that would consider your fish a delicious meal. And that's just what's in the water. Eagles, herons, kingfishers, and other birds of prey scan from above the water's surface hoping for a trout to munch on.

The fish in your tank aren't in danger from predators in the aquarium, of course, but they don't know that. That fish you're watching cruise around the tank is keeping its eyes open for potential places to seek shelter, once the chase from a predator is on.

The trout have the advantage of a body that is well adapted to survive in harsh conditions. Their strong torpedo-shaped bodies allow them to suspend in the current, allowing their food to wash down to them. Trout can also swim fast to evade predators. The darker color of their backs make them harder for birds to see from above the water, while the lighter color on their bellies washes out in the sunlight when seen from below by predators in the water.

Trout also find food and evade predators by listening to what's happening around them. They do this in two ways. Trout have inner ears called otoliths that function in much the same way your ears do. They also have a nerve running the length of their body called a lateral line. This nerve picks up vibrations like an eardrum does, but is more sensitive, and allows fish to sense disturbances in the water all around them.

Life is hard in a trout stream, and just staying alive won't be easy for your fish once you release them. Some of the fish will find those food sources and thrive, while others will become an important source of protein for animals higher up in the food chain.

For now, your trout get to practice being fish in a safe, controlled environment. There is easily available food, healthy water, and no predators. While they work on their trout skills, you get to watch them and ponder what life will be like once you've placed the trout in a stream and watched them swim away.

Your classroom trout will grow up to look much like this one, if they learn important lessons and skills when they are young.

Minnesota Trout Lake Tactics

Exploring North Country Lakes Through the Seasons

By Carl Haensel

A healthy Minnesota brook trout from a Cook County trout lake.

Around Minnesota nearly 180 stream trout lakes are hidden. Ranging from small bodies of water only a few acres in size to larger lakes over a mile long, there are many options to explore. In Minnesota, "stream trout" refers to brook, brown and rainbow trout, as well as splake. Generally located from the Twin Cities northward, Minnesota's stream trout lakes are concentrated throughout the northeastern Arrowhead Region. Some of the greatest numbers of trout lakes are far up the North Shore of Lake Superior and inland from Grand Marias. In this area, it's possible to fish multiple trout lakes in one day—if you can pull yourself away from rising fish on the first lake you visit. Trout lakes vary greatly in accessibility. Some have standard boat ramps and easy parking. They're great lakes for anglers looking to spend time on smaller water, or anglers that have watercraft like float tubes, canoes, kayaks and pontoons. Often, the best way to get on the water is to portage or pack a craft far into the forest. For many anglers, fishing on trout lakes does not come easily. While fishing trout streams or warmwater lakes is often second nature for many Minnesota anglers, trout lakes are a whole different group of waters. Here are some techniques to fish them.

After the ice departs lakes by late April or May, trout start off the year cruising the shallows. When the season opens on the second Saturday in May, trout will be feeding and hunting for food most of the time in the abundant cold water. Few hatches are available for trout during early spring, so look for fish to respond to attractor patterns on the surface, or nymphs and streamers stripped through the water. Small beadhead woolly buggers and similar are some of my most common searching flies, especially in sizes 8 to 12. I carry a variety of colors, and usually start off with black, white or olive. A common question that I am asked is: "What is the right way to strip a fly?" The answer is that there is no singular solution! While form is important—keep your rod tip tight to the water and use stripping to impart action to the fly—the speed and style of stripping varies regularly. If you're working small nymphs to fish that are in cold water, a hand twist retrieve can be good, or very small, sharp strips. If you're casting a larger streamer to more active fish, it can pay to work the fly a bit faster to cover water. When fishing to big rainbows and browns in clear water, I've even had success tucking the fly rod under my arm and using both hands to strip the fly as fast as possible. If the fish want to get it, they can move faster than you can ever strip. With all of my trout lake streamer and nymph rigging, I like to use a non-slip loop knot. It's a great knot to use when you're tying a fly onto heavier tippet, since it doesn't impede the action of the fly. You won't need that long of a leader; I rarely use one more than five or six feet long when I'm working streamers or nymphs. Sometimes if I'm truly dredging the depths, I'll even go shorter. Most sinking lines are gray in color and rarely spook the trout in our lakes.

If you're exploring a lake and not having any luck, try some paddle or flipper trolling or drifting with a streamer. Sometimes it can be challenging to cover water on a trout lake, and fish can be hard to find, even if you think the conditions are excellent. With two anglers in a canoe, make a long cast out from either side of the boat in water that's deep enough to keep your small streamer from snagging as it drops. You can use a floating line in the spring or fall if the fish are holding shallow, or a sink-tip or full sinking line if the fish are deep. Then, the stern angler can slowly paddle the canoe forward at a comfortable, slow speed and explore the lake. Keep a firm hand on your rod, as trout can often hit hard on the tight line. I often try to paddle a bit faster than one mile per hour. If you're curious how fast that is, try using your smartphone GPS to provide a groundspeed. Vary your speed to figure out what the trout are interested

Left: dusk on trout lakes up north in Minnesota is a great time to search for opportunistically rising trout any time of the year.

Right: Portaging deep into the woods in the arrowhead region of Minnesota can lead to some big trout in remote lakes.

Left: Bring a good boat net to handle hefty trout like this rainbow when you're fishing trout lakes. Electronics like the portable Raymarine unit shown can help find summertime trout.

Right: Brook trout details from a colored-up brookie in a northern Minnesota trout lake.

in when you're there. Sometimes a faster pace produces more fish. Once you've hooked up, pause and try casting around that area to see if you've found a concentration of fish. Sometimes fish will school in an area, and you can get into some fast action. At other times, you'll need to keep covering ground to continue hooking up. If you're in a float tube, you can execute the same maneuver by kick-trolling with your flippers. A slow nymph or streamer troll from a float tube can often catch fish when nothing else will. It can be easy to flipper troll slowly with nymphs, and this can sometimes convince even the most finicky fish.

To catch trout on dry flies, I like to target rising fish. On a slow day, this often means I've got two rods rigged. One will have my primary setup of a nymph or streamer, and the other will have a two-fly rig of an attractor parachute dry fly and a small emerger. If I see a rise, I'll drop everything and cast to the rising fish. If it's a single, solitary rise, it can be hard to find the fish as it cruises. If it's an active riser, you will often be able to discern a direction of travel. Lead the fish by at least a few feet in its path, trying to approximate where it would next eat a fly. Matching this rhythm can be the difference between hooking up and spooking a big fish. If the fish doesn't take your attractor fly, it's time to start paying close attention to what's happening on the surface of the lake. In the early springtime, it is common to find small blue-winged olive mayflies on the water. While I usually have too many flies along on most trips, I always carry both Parachute BWOs and Parachute Adams in sizes 14 to 18 to roughly match the mayflies I see in the springtime and early summer.

If you're seeing rises and there are no active insects on the surface of the water, the trout may be taking emerger patterns. Look for flying insects near the water, and match an emerger to the hatch. Soft hackle flies or BWO emerger patterns in sizes 14 to 18 are often good. It's common for trout in lakes to chase emerging mayflies to the surface, and totally ignore the adults that might occasionally rest on the water. Trout leaping into the air can also be an indicator of this type of behavior. If fishing an emerger pattern in the film or just below the surface doesn't do the trick, you can try fishing one on a sink-tip line and giving it some slow action, letting it drop and then pulling it up toward the surface of the water.

If you do see insects on the surface of the water, match them by starting with their size. Size is more important than profile or color, and simply matching the right size can often catch fish. Next, focus on the profile of the insect. A key situation where this is important is if there are mayfly spinners on the water. The flat, spread wings of a spent mayfly are a clear trigger to fish at times, and can be key to getting them to bite. Finally, if you've got both size and profile matched and you're still not successful, focus on the color of the fly. Rarely are our trout in northern lakes this picky, but it can be handy to be prepared when it happens.

When the water starts to get warmer in trout lakes as summer progresses, it's time to start thinking seriously about trout health and the thermocline. Water in most trout lakes stratifies in the summertime. The coldest water sinks to the bottom of the lake, and the warmest water is at the top. The area where the temperature changes rapidly in the lake is called the thermocline. The challenge for trout lakes–both for trout and for anglers–is that when the water stratifies, it does not take in oxygen easily. Thus, the amount of oxygen in the deepest cold water is often depleted by the middle or end of summer. Trout can find themselves squeezed between cold, sterile, water without oxygen at the bottom of the lake and water too warm for survival at the top. Regularly there is a band of just-cold-enough water with oxygen in the middle of the lake, and that is where the trout reside. For anglers, if you use a depth finder in trout lakes this can become clear very quickly. Trout will be cruising in mid-depth areas, but not deep or shallow. Without a depth finder, anglers can use a thermometer to look for the depth of the water with temps in the 60s, which is likely where the trout will be.

Sink-tips or full sinking fly lines can be useful to get down to trout in the depths later in the season. Often, the same streamers used earlier in the year can work well. I avoid using heavy beadheads when fishing sinking lines.

Ethically, it can be challenging to release trout and have them survive when oxygen levels deplete too far in the late summer, especially on some small lakes. I choose to skip trout lake fishing then, and head to cold spring creeks or warmwater rivers with feisty smallmouth bass.

After the water de-stratifies or "turns over" in the fall, fishing becomes easier and trout more receptive. While hatches are diminished in the fall, streamer fishing is often excellent. Baitfish populations are at their peak, and they provide easy forage for trout getting ready for spawning and the long winter. Sunny days in October can often bring up some of the biggest fish of the season, with few other anglers on the water.

Trout lakes come in all sizes. Using a boat with electronics on lakes with boat landings helps cover water and find fish.

Carl Haensel is the Northern Minnesota Vice Chair for MNTU and lives in Duluth. He operates the fly fishing guide service Namebini and is the author of Fly Fishing Minnesota.

Great Waters Fly Fishing Expo

2025 Programming Schedule

Friday, March 21 • 1 PM - 7 PM

Time	Room A - Expo Level	Room B - 2nd Floor Use Elevator	Hutton Arena	Fly Casting Area Expo Level	Casting Pool Lobby Level
1:30PM	Fly Tying Demo		St. Croix and Mississippi River Smallmouth Bass Fishing Evan Griggs	Open Casting when accompanied by an Instructor or Exhibitor	Open Casting when accompanied by an Instructor or Exhibitor
2:30PM	Break		Break		
2:45PM	The Intersection of Art and Fly Fishing Bob White	Trout Stream Entomology Caleb Corona	Dries and Droppers: Tactics and Tips Jason Randall	Casting Demo Mac Brown	
3:45PM	Break	Break	Break	Open Casting when accompanied by an Instructor or Exhibitor	
4:00PM	Fly Fishing MN Trout Lakes Carl Haensel	The Healing Power of Fly Fishing Steve Ramirez	Fly Fishing for Argentinian Dorado Matias Claret		Spey Casting on the Water Paul Sandstrom
5:00PM	Break	Break	Break		
5:15PM	Fly Tying Demo		Streamer Methods for Better Quality Fish Mac Brown		Open Casting when accompanied by an Instructor or Exhibitor

Saturday, March 22 • 9 AM - 6 PM

Time	Room A - Expo Level	Room B - 2nd Floor Use Elevator	Hutton Arena	Fly Casting Area Expo Level	Casting Pool Lobby Level
9:30AM	Fly Tying Demo Mitch Albers	Fly Fishing for Beginners Evan Griggs	Nymph Fishing Secret Weapons Jason Randall	Free Casting Instruction with Fly Fishers International	Fly Casting for Muskies Hunter Dorn
10:30AM	Break	Break	Break		
10:45AM	Casting Onward: Fishing Adventures Steve Ramirez	Youth Program: Get Into Fly Fishing! Monta Hayner & Peter Garretson	Discover the Driftless John van Vliet & Catherine Smith		Mending the Line Mac Brown
11:45Am	Break	Break	Break		
12:00PM	Migratory Fish in the Bois Brule River Brent Notbohm	Patagonia Trout Fishing Matias Claret	A Wild River in Bristol Bay: Alaska's Alagnak River Wayne McGee	Casting Demo Mac Brown	Open Casting when accompanied by an Instructor or Exhibitor
1:00PM	Break	Break	Break	Free Casting Instruction with Fly Fishers International	
1:15PM	Fly Fishing for Carp Lucas Annear	NW Wisconsin Musky Fishing Stu Neville	Fly Fishing Northern MN Carl haensel		Spey Casting on the Water Paul Sandstrom
2:15PM	Break	Break	Break		Open Casting when accompanied by an Instructor or Exhibitor
2:30PM	Fishing SW WI Trout Streams Craig Amacker	MNTU Conservation Update Kristen Poppleton & John Lenczewski	Master Nymph Fishing Tactics Mac Brown	Casting Demo	
3:30PM	Break	Break	Break	Free Casting Instruction with Fly Fishers International	
3:45PM	River Smallmouth Strategies Caleb Corona	Fishing Montana's Flathead Watershed McKenna Hulslander	Where Trout Are: Beyond Reading the Water Jason Randall		

Sunday, March 23 • 10 AM - 4 PM

Time	Room A - Expo Level	Room B - 2nd Floor Use Elevator	Hutton Arena	Fly Casting Area Expo Level	Casting Pool Lobby Level
10:30AM	Fly Tying Demo: The Ultimate Pike Fly Bob Wagner	Fly Fishing For Beginners McKenna Hulslander	Fly Fishing the Continental Divide Ted Hansen	Free Casting Instruction with Fly Fishers International	Spey Casting on the water Paul Sandstrom
11:30AM	11:30AM	Break	Break		Break
11:45AM	Fly Fishing Alaska Wayne McGee	Fly Fishing for Smallmouth Bass Jason Swingen	Improve Your Presentations Mac Brown		Roll Casting Demo Evan Griggs
12:45AM	Break	Break	Break		Open Casting when accompanied by an Instructor or Exhibitor
1:00PM	Intro to Tropical Saltwater Fly Fishing Craig Amacker	Boundary Waters and Quetico Fly Fishing Brent Notbohm	Tips for Small Stream Fishing John van Vliet & Catherine Smith	Fly Casting Demo Mac Brown	
2:00PM	Break	Break	Break	Free Casting Instruction with Fly Fishers International	
2:15PM	10 Things I Wish I Knew When I started Fly Fishing Scott Harness		What Trout See and Why it Matters Jason Randall		

A Better Fly for Predators

Land those big pike and trout!

By Bob Wagner

Don't let the picture fool you. The top two flies may look like similar baitfish patterns, but the top one was tied as a widely-available pattern and the middle fly has been tied to maximize hooking and casting ability. Standard flies tied for predators are often 6 to 9 inches long and include reverse deer hair, webby hackle, and flashabou. The big trout, pike and musky flies on the market today are rich, extra thick and juicy. These standard "market" flies are gorgeous with perfect color blends and a tapered profile on a single 4/0-6/0 hook. A fish has to swallow 85 to 95% of the fly before it would ever get hooked. Unfortunately, that's not the only problem. The hook is often hidden underneath all the flash, deer hair and multiple synthetics (that big juicy look), all of which plugs up the hook gap. So here's my "catch line," when I finally get that 36-inch pike to eat my fly, I want to hook and land the fish! So my purpose in this article is to share fly design ideas that have proven successful and have increased our hook-ups by 25 to 33%.

I've been catching pike for 65 years and the last 25 years has been by fly rod only. I predominately tie my own big flies and this has led me to design better flies for pike and trout. I need to mention two leading experts, both authors who have inspired and motivated my continuing interest in pike. Barry Reynolds' book *Mastering Pike on the Fly* has 250 pages on strategies and techniques and covers it all. Barry has caught 11 pike over 50 inches. Rodney Pierce's *Northern Pike Ecology Conservation and Management History* is a must-read to understand the physiology, iconic nature and importance of these fish.

I'm not going to say the middle fly pictured is the best to exist, that depends on location, habitat, baitfish available, water temperature, time of the year, water clarity and several other factors known and unknown. With that said, for my area of north central Minnesota, this is a very productive fly. Also, it is useful for multiple species including large trout in lakes, migratory trout and a variety of warmwater species.

Designing a better fly required a little research project. This research covered 20 lakes and three rivers over four years in the Bemidji, Cass Lake, and Walker areas with over 300 pike caught. We tracked the number of fish caught per outing, hits, fish hooked on the stinger hook, and those who swallowed the fly.

Our research records show a range of 25 to 33% of pike caught on the stinger hook. Therefore, my first tip for tying a better fly is paying attention to what I call the "Hook Tip Catch Zone" (HTCZ). HTCZ is the section of the fly that can actually hook a fish. We should be considering the distance from the eye or front of the fly to the hook tip compared to the total length of the fly. The photo of the three flies shows a single hook option with a catch zone of less than 20% of the fly. The middle pictured stinger hook fly has a catch zone of more than 50%. Positioning the hook in the middle of the fly is also a major selling point of tube flies, which have the hook tied to a tube rather than a hook shank.

For a look at a double hook fly effective for trout, check out Carl Haensel's book *Fly Fishing Minnesota*, pages 216 and 339. This double hook fly caught more trout compared to plastics, crank baits and single hook flies while fishing lakes for trophy rainbows. Out of curiosity, I looked over popular trout flies tied by Paul Johnson to see what their HTCZ would be. I checked #18 BWI special, #16 Purple Haze, #14 Caddis Trude, #14 Beadhead Scud and #14 Prince Charming. Interestingly, they all have a HTCZ of 50% or better.

Fly tying tip number two: Reduce or eliminate materials that hold water. Natural materials such as fur, hair and long webby hackles hold enormous amounts of water. Water makes flies heavy. This greatly reduces your casting performance, which, in turn, reduces your fun and area covered, and causes poor casting techniques. Heavy flies also hit the water like a wet sock, scaring fish away.

Tip number three is to tie lighter. The important fly factors of size, shape and color are not new, but are even more important to consider when tying for predators like pike and trout. Their sensitive lateral line responses make the vibration and shape of your flies critical. A lighter fly tied with material that vibrates, swims, dances, undulates or causes your fly to turn at the end of the strip is effective to promote strikes. The lateral line tells the pike or trout the location, direction and distance to your fly. Also a lighter fly is easier to cast, allowing you more time to fish and cover water.

Tip number four is to keep as much material as possible on top of the hook shank. Common fly tying terminology like stacking high, stacking low and tying in the round need to always be evaluated in terms of hook gap. Avoid pinching material around the hook and don't tie in the round 360 degrees, consider closer to 270 degrees. Hook gap is critical to catching fish.

The bottom fly pictured is tied light with an open hook gap and 50%+ HTCZ. The fabric dragon tail does hold water making it more difficult to cast but provides great action in the water. I often use it as a trolling fly.

When you feel a strike but don't hook up, consider that possibly you didn't miss the set, but instead the fish missed the hook tip. Here's wishing you more hook ups!

Bob Wagner is a longtime Headwaters Chapter volunteer and newsletter contributor. He lives in Bemidji with his wife Val.

The Hook Tip Catch Zone has proven to be one of the most important factors in landing large predators for the author. The top fly is tied in a standard method, while the middle and bottom flies are tied to maximize hookability and casting success.

The author holds a monster pike hooked on his improved fly.

A Lucky Mentor

Another Great Season of Foster the Outdoors

By Kevin Wier

The mentorship program matches up child-parent pairs with fly fishing mentors in the community.

Foster the Outdoors (FTO) had another successful year in 2024. It all started back in May with our annual kickoff event, the Mentor Matchup. This is where the mentees and their guardians get to meet their mentor for the first time and get an introduction to the basics of fly fishing at various stations. We paired up a total of 10 mentees this past year. After the Matchup event, the mentors and their mentee/guardian pairs spent the summer getting out to local lakes and streams for fishing. In the fall, the group had the opportunity to learn how to tie flies from the wonderful folks at Laughing Trout Fly Fishing. We recently wrapped up our season with our final event, a fly shop tour in January for the mentees and their guardians. Spring will be here before we know it and we'll be kicking off another season of Foster the Outdoors in May 2025.

I've had the pleasure of being a volunteer mentor for several years now and learned that each year is a little different. Sometimes the youth and their families are very busy with other activities and it can be a challenge to get them out even once or twice over the course of the summer. Instead of getting frustrated, I try to simply make the most of the time I am able to spend with the mentee and their guardian. Other times you hit the jackpot and get paired with an ideal mentee and guardian. That was the case for me this past season. I first met Beckett and his dad Chad at the Great Waters Fly Fishing Expo in March 2024. They were no strangers to outdoor activities but had never tried fly fishing before, so they signed up for our mentorship program. In May we were paired up at the Matchup event where it became apparent that Beckett was a natural and a quick learner. At the end of the event we started to compare schedules and get some outings on the books. As luck would have it, Chad is a teacher who was very generous and flexible with his time so we weren't limited to weekends and evenings to schedule outings. In addition to the group events, we got out a total of five times between May and October, which is the most outings I have ever had with a pair. We started on lakes targeting panfish. On our second outing Beckett did so well that we lost count of the number of sunnies that he caught. Most hit a popper on the surface making it even more fun and it was clear that he was hooked on fly fishing. Later we graduated to trout streams where things were a little more challenging with moving water and fewer fish. Even when there weren't many bites Beckett was having fun working on his casting technique and just enjoying being out in nature. There were a couple of outings to trout streams where it seemed like all we could catch were creek chubs. I was disappointed and worried that I was letting him down, but for Beckett they might as well have been steelhead. He was just genuinely excited to catch any type of fish. When he finally got his first trout it was a beautiful brookie in fall colors. Unfortunately, the fish slipped out of the net before we got a picture. When I apologized to Beckett he simply said, "That's ok, I just really wanted to get a better look at those beautiful colors." Beckett was an absolute pleasure to spend time with. He was polite, patient, and extremely eager to listen and learn. In fact, on every one of our outings Chad and I were done long before Beckett was and we had to almost pull him from the water as he would reluctantly agree to be done.

Sometimes you just get lucky…

There are more young people like Beckett out there eager to learn what we have to teach. We are really hoping to grow this wonderful program and the only way to do that is with more volunteer mentors. Last year we had a waiting list and unfortunately there were youth who couldn't benefit from the program. Please consider becoming a mentor and introducing a young person to fly fishing and the outdoors. I can assure that the time commitment really is minimal (typically just an outing per month throughout the summer) and you'll be amazed at the tremendous sense of accomplishment you'll get in return. Finally, you don't need to be an "expert" at all, just someone with a little knowledge that they want to share with a youth.

Kevin Wier is Co-Coordinator of the Foster the Outdoors program along with Rich Femling. To learn more about the program and becoming a mentor visit mntu.org/mentoring/ or reach out to us directly:

Kevin Wier 612-867-5768
Rich Femling 763-807-5878
fostertheoutdoors@hotmail.com

Left: Beckett was an excellent mentee and enjoyed catching many species of fish from trout to creek chubs.
Right: Mentorship often starts by catching sunnies and other panfish from local lakes, a great way to get some experience catching fish!

Including MNTU in Your Estate Planning

Any loss in a family is challenging. It's much easier to delay answering uncomfortable questions such as, "What happens to my assets and my loved ones when I or my partner dies?" So it's no surprise that roughly half of Americans don't have a will, and even fewer have an estate plan. While it is a hard subject to discuss, an estate plan goes much further than a will. Not only does it deal with the distribution of assets and legacy wishes, but it may help you and your heirs pay substantially less in taxes, fees, and court costs, as well as benefit the people and causes that you care about.

Including MNTU in your estate plans not only helps to provide for future programmatic and organizational security, it can take many different forms to balance your financial and philanthropic goals. Drafting these documents may seem like a daunting task at first, until you realize all the good that comes from having them. A gift in your will or living trust lets you make a meaningful gift to MNTU with ease and be flexible in your commitment. You can give cash, specific property or a percentage of your estate, with restrictions or without. You can also make MNTU a beneficiary of your 401k, IRA or life insurance policy. Because your gift doesn't come to MNTU until after your lifetime, you can change your mind at any time. To make sure your will accomplishes your goals according to your wishes, we recommend that you obtain the professional counsel of an attorney who specializes in estate planning. We've included specific bequest language below for usage with individual or estate planning.

Bequest Language

The official bequest language for Minnesota Trout Unlimited is:

Unrestricted General Legacy:

"I give Minnesota Trout Unlimited, a Minnesota non-profit corporation, presently at P.O. Box 845, Chanhassen, MN 55317-0845, EIN# 52-1766036, the sum of (dollar amount)/ or percentage of (___%)/ residue of my estate to be used at the discretion of its governing board."

Specific:

"I give Minnesota Trout Unlimited, a Minnesota non-profit corporation, presently at P.O. Box 845, Chanhassen, MN 55317-0845, EIN# 52-1766036, my (specific personal property item(s) and/or real property located at _____) to be used at the discretion of its governing board."

Gift of Residuary Estate:

"All the rest, residue and remainder of my estate, both real and personal, and wherever situated, I give, devise and bequeath to Minnesota Trout Unlimited, a Minnesota non-profit corporation, presently at P.O. Box 845, Chanhassen, MN 55317-0845, EIN# 52-1766036, to be used at the discretion of its governing board."

The information above is not intended as legal or tax advice. For such advice, please consult an attorney or tax advisor. Contact our executive director, John Lenczewski, with any questions, or for assistance with estate planning, using this language or using this process: jlenczewski@comcast.net or at 612-670-1629.

A stunning day on Hay Creek. Mike Riemer photo.

DON'T MISS:

- NEW 2025 GEAR FROM TOP MANUFACTURERS
- MIDWEST TROUT STREAM PROGRAMMING
- FLY CASTING & TYING DEMONSTRATIONS
- KIDS 12 AND UNDER FREE!
- BEGINNER PROGRAMS EVERY DAY
- FLY FISHING FOR BASS, MUSKY AND PIKE
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JASON RANDALL
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GREAT WATERS EXPO SOCIAL

Saturday, March 22, 2025 6:00-10:00 pm

Klas Center, Hamline University, St. Paul, MN

Fly Fishing Women of Minnesota and Minnesota Trout Unlimited are teaming up to host the Great Waters Expo Social and Awards Night, please join us! All are welcome, as we gather to celebrate our fly fishing community across the Midwest.

Join us for:
Appetizers & Cash Bar
Awards
Games
Bucket Raffles
Prize Drawings

TICKETS: $15 online in advance or at the door.
All prepurchased online tickets for this event will be eligible for a special prize drawing.

Register online at: greatwatersflyexpo.com

FLY FISHING WOMEN OF MINNESOTA

TOGETHER WE RISE TO THE MOMENT.

MINNESOTA TROUT UNLIMITED

MNTU Chapter News

Gitche Gumee Chapter

Happy New Year from GGTU! I hope everyone had a wonderful, happy, and healthy holiday season. For some of us, the start of the new year has felt like an extension of fall, to some extent. In southern Minnesota the ground is bare and temperatures recently were in the mid 50s! Not so in the Northland! As much as I yearn for those types of conditions, winter is here. I have to remind myself that snow is important to our region for many reasons. It is very much welcome due to the lack of moisture our area has received the past few years. Also not to forget, the more snowpack we receive only benefits the spring steelhead season along the North Shore of Lake Superior. Spring will come soon enough!

We kicked off the new year with our popular DNR round table event. This is a joint meeting with Arrowhead Fly Fishers where we invite the Minnesota and Wisconsin Department of Natural Resources to present on projects happening in our region. We learned more about stream connectivity and culvert repair projects completed this past summer in NE Minnesota. We also were provided an overview of what is happening on several stream habitat projects in NW Wisconsin. Paul Piszczek, Fisheries Biologist with the Wisconsin DNR, provided an excellent update to a newly accessible brook trout stream in NW Wisconsin. If you find time this coming summer to spend a few days fishing, head over to Little Balsam Creek by Pattison State Park.

In partnership with Arrowhead Fly Fishers, we brought the IF4 Film Festival to Duluth on February 2 at Clyde Iron Works. The film festival is our largest fundraising event each year. All proceeds support our efforts in education and habitat work. This is our third year in row holding the event since the COVID-19 pandemic and seventh year overall. It always amazes me to see the strong support local community and fly fishing businesses offer to help make our event successful. The 2025 I4F Film Festival did not disappoint! We had a great turnout and the films were epic! Many people left with smiles and dreams of being able to cast a line to GTs or tarpon somewhere along the equator one day!

This is the last Gitche Gumee Chapter update I write. I will be stepping out of the President role later this spring. It has been an honor and privilege to hold this role for the past handful of years. As I stepped into the role, a goal of mine was to take our little chapter and grow our footprint in community involvement and get ourselves out on more habitat work sites. Each year we did a little more and I'm proud of the accomplishments our chapter has achieved. I appreciate the leadership of the board and the dedication provided in helping me preside successfully over the years. A HUGE thank you to the many volunteers that helped make our chapter a success. Now more than ever, help is needed to conserve, protect, restore, and sustain Minnesota's coldwater fisheries and their watersheds.

See you on the waters later this spring!

Brandon Kime

Headwaters Chapter

This fall, we successfully hosted an outdoor activity day for the fifth grade students at Gene Dillon Elementary. Approximately 350 students participated in creating "bug traps." The weather was favorable, and several volunteers from TU642 assisted. Groups of 25 to 50 students began with a classroom presentation by Evan Griggs, followed by an outdoor session where they donned waders. The students were then divided into smaller groups, each given a mesh bag and instructions. Each group had about 30 minutes for the activity and I personally walked about five and a half miles guiding students from the school to the water.

Our chapter has revitalized its education committee, meeting regularly to discuss educational goals and organize volunteers. Thanks to Jim McCracken, we now have a structured list of tasks and assigned volunteers. These tasks include leading our tank sponsorship initiative, organizing hatchery tours, identifying classroom speakers, and coordinating egg deliveries.

We have resumed our community fly tying nights, hosting a monthly session for beginners. Attendance has been steady, and at our last beginner session, participants tied size 20 Zebra Midges. We also conducted a fly tying night for the local school chapter of the American Fisheries Society at Bemidji State University, where most participants were beginners. In the coming months, we will hold a membership meeting, a hatchery tour, and participate in the Great Waters Expo.

Kris Williams

Hiawatha Chapter

It's been a relaxing few months for Hiawatha TU with a holiday party and a great talk about fishing in British Columbia.

The party first:

About 20 Hiawatha TU members and a few spouses ate, talked fishing, ate some dessert, talked more fishing and ate some more at the annual holiday party Dec. 2 at the Olmsted County History Center. It was rather informal, with TU providing

GGTU hosts the IF4 each year with the Arrowhead Fly Fishers. This year raised a considerable amount of money for education and conservation!

pulled meat, buns and condiments while others brought salads, baked beans, and desserts, lots of desserts.

The highlight was drawing for door prizes that we've had for a long time. The top one was $200 gift certificate to Scheels, followed by Johnny Walker Blue, some good Irish whiskey, vodka and the most-how shall we say this-interesting thing went last. Todd Christenson's name was drawn and he eagerly picked up an eight-pack of small bottles of Jagermeister. In a grand gesture of sharing and giving, surely part of the holiday spirit, he offered to share the famous (or infamous) treat but only one person agreed.

With that, we broke up and headed home.

Then on Jan. 6, about 20 TU members were thrilled to have Christie and Tom Atwell tell us about their 20 or so years fishing trout in the Fernie British Columbia area. It's near Calgary and north of Glacier National Park in the US in the Canadian Rockies. It's a ski town and the downtown is geared more toward the young. "It's a really neat town to visit," Christie said. It has a lot of mountain bikers in the summer too and some beat them to the best spots on rivers; it's getting more anglers. They stayed at Park Place Lodge and got guides from Elk River Guiding Co.

Guide shops are allotted only so many days on certain rivers. Those who want to go out on their own have to try for a date on a stream. "It's really competitive," she said.

Elk river is the best known. They go mostly in August but also into September and even October.

The Headwaters Chapter held an outdoor activity day for 350 students from Gene Dillon Elementary School.

They first fished in 2015 and spent three days on the Elk. “We just had a great time,” she said, fishing mostly cutthroat trout. They have a “very slow, very deliberate take, this is true dry-fly fishing.” The fish “are just like footballs,” she said. They are all natural, no stocking; the river flows into Montana.

In 2017, their guide Steve went to the Elk but also tried the Bull. “It’s crystal clear blue water,” she said. “There are a lot of cutthroats but not very big” and they have less color. They used both rafts and drift boats.

In 2018, it was back to the Elk. “It can get windy, you have to have a really stiff rod in the afternoon.” It’s big water. They also fished the Michel River that is a favorite. It’s accessible and has both small and big fish, healthy cutthroats, and also some bull trout. Wigwam River has great bull trout but they don’t take dry flies. Streamers and some stonefly nymphs but “sometimes, they are not biting,” she said.

Bulls are like muskies, very aggressive. She was bringing in a white fish when a bull hit it. The fish, which are really char, “can really put a bend in the rod.” The Wigwam is really slippery; you need felt bottomed boots and a good wading staff. Bulls can hit 10 pounds.

After the Wigwam, they went to the Lodgepole and “we had a great time.”

One time, they were on the river and the guide said “bear.” Tom had bear spray and they had a dog that barked at the bears. “Finally the bear decided he had enough of us” and left.

In 2023, their son David (she was pregnant with him the first time they fished Fernie area) went along because he loves to fish and uses little mouse patterns. “We totally ruined our son” because he had an epic day with really big bull trout. His bar for trout is now really, really high.

In 2024, they went back to the Elk and Michel for bull trout. “The bull trout are just particularly special.”
Some fishing facts: a big streamer was the “meat whistle” streamer. They used 3X tippets for cutthroat and 8-weight rods.

John Weiss

Twin Cities Chapter

On January 27, TCTU held its annual meeting and elections for its Board of Directors. Welcome to new directors Mike Noonan, Brent Porter, Mike Rude, and James White.

Our heartfelt thanks to retiring directors Caitlin Collins, Paul Johnson, Steve Kaukola, Rick Phetsavong and Gary Wittrock.

TCTU also has some new officers! Yves Charron is our new President, replacing Bob Luck, who will remain on the board. Brian Bredenberg is our new Vice President. Our Secretary, Mike Hodgens, will add Treasurer to his duties, replacing Yves Charron, who has a new job!

Our board currently stands at 14 members, and we are looking for one more. If you are interested, or know somebody who may be, please reach out to us at info@twincitiestu.org

We have a couple of great chapter meetings coming up. On February 24, guide Lance Prado will talk about “Spring Hatches in SE Minnesota and How to Fish Them.” On March 24, Mark Nemeth of the DNR and guide Matthew Doth will talk about “The Vermillion: History, Conservation Efforts and Fishing Tips.” You can find details of our chapter meetings on the events page of our website; by the time this newsletter shows up in your mailbox we should also have several volunteer events for habitat work on the site as well!
www.twincitiestu.org/events

Speaking of the Vermillion, TCTU conducted its first redd survey on December 16, 2024. Team members included Mark Nemeth from the MN DNR, Todd Christenson, Tony Nelson, Mark Peerenboom, Jim Sauter, and Tom Walkington. Here is a brief report from TCTU Streamkeepers Leader Jim Sauter:

TCTU conducted a successful redd survey on the Vermillion River with Mark Nemeth of the MN DNR.

The term “redd” originates from a Scottish word meaning "to clear an area" or "to tidy up." This is exactly what female fish like trout and salmon do when they prepare a gravel nest (i.e., called a redd) to lay their eggs. By cleaning out debris and creating a suitable space for spawning, they are "tidying" the area to lay their eggs. Soon after, male trout will swim over the redd and fertilize the eggs.

We were fortunate to have wonderful 40 degree weather on the day of our redd survey. This day in December provided a small window of opportunity between deer hunting seasons, but we still wore yellow and orange colors just to be safe. There were no encounters with hunters or anyone else as we conducted the survey.

When organizing our teams, we broke up our group into three teams of two members each. Mark Nemeth was very helpful in providing materials for data collection and mapping our three stretches of about a half mile each on the 1.5 mile segment of the South Branch of the Vermillion AMA. We had redd monitors on each side of the creek, and this allowed us to get a variety of angles as we identified redds. I noticed that spotting redds was easier when walking the bank with the sun at your back to avoid some reflection on this sunny day as we walked upstream. Our three teams were able to navigate the entire stream within a two-hour time frame.

Air temperatures were about the same as the water temperatures, running at about 35 to 40 degrees F in the air and a water temperature of 40 degrees F. The gauge reading was 2.36 feet. Flow conditions were normal, and the visibility conditions were moderate due to the bright sunshine.

The good news is that there was significant evidence of successful natural brown trout reproduction on the South Branch of the Vermillion. Team A identified nine redds, and there was evidence on the bank of some beaver activity. We also spotted a bald eagle seeking a morning snack. There was a lot of sand and silt on this stretch near the bridge. The best redd we spotted was at the end of our stretch on a riffle near the gravel road crossing on the stream. Team B recorded a total of 11 redds. Team C recorded 8 redds. The actual redd count is higher since some of the redds had multiple nests in one location. Numerous trout of various sizes were spotted as we made our way up the stream.

Bob Luck

The Win-Cres Chapter lost Joe Lepley in 2022 and this year his family will be accepting MNTU's Distinguished Award on his behalf.

Win-Cres Chapter

Winter is a time for storytelling. Win-Cres has been doing that with a series of great membership meetings. In the fall we had programs with Jennifer Biederman, MNTU Habitat Director and Bob Trevis, an author with encyclopedic knowledge of the Driftless region. Upcoming programs are:

January 22: Jim Melander, Habitat Construction Supervisor from MN DNR Fisheries Station in Lanesboro

February 26: Carl Haensel on North Shore Steelheading

March 26: David Knoll, tenkara expert

Our meetings start at 6PM with food and fellowship, program at 7PM. We have benefitted this year from Bruce Fuller’s hunting prowess. Bruce bagged a bull moose in Ontario this fall. We have had moose stew; moose chili is coming up.

We had an easy choice this year for the Chapter’s Nominee for the Distinguished Award: Joe Lepley. Joe was a lifelong educator and long term Win-Cres member and President. He showed up at nearly every habitat outing and built countless cribs and sky hooks. He led efforts to have a bench installed in Preston, in memory of Brian Schumacher and Janet Vieth. After his death in 2022, we learned that he had left a sizable bequest to the Chapter. This will allow our programs to continue. We are pleased that his sister will come from St. Louis to accept his award posthumously at the March Expo.

Looking forward, we plan to continue our long term relationship with the Fishing Club in the Goodhue Schools. Win-Cress members will travel to Goodhue for skills instruction in March. The Fishing Club members will come to Rushford for a guided trout fishing experience in April. It is a highlight of the year for everyone.

Chuck Shepard

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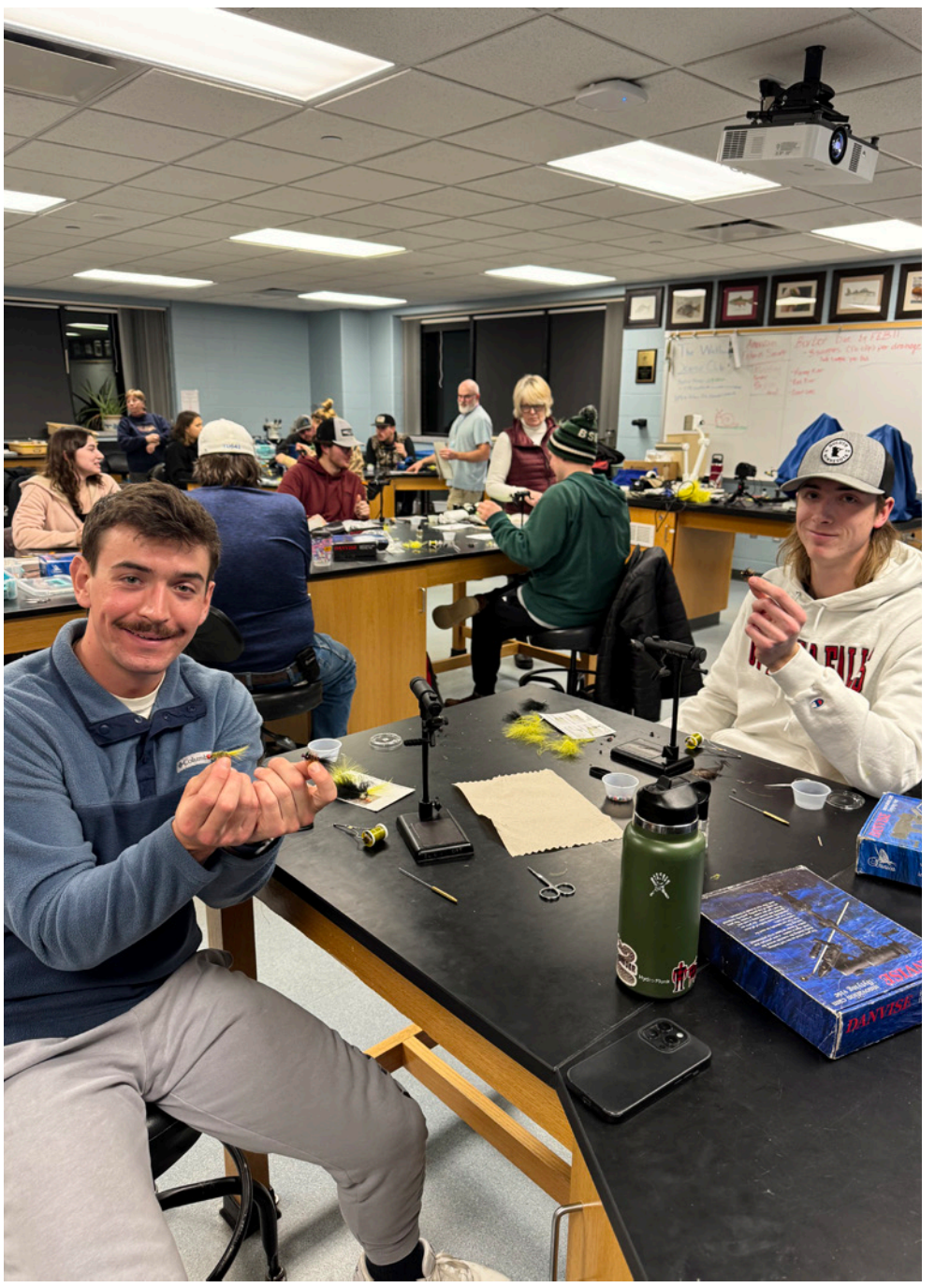
Select Poetry

Hemingway Creek By Larry Gavin

Small redds in the riffle
at the head of a pool.
Tiny planets in orbit.
The next generation
engendered by gravel
substrate a universe
of discontent, a waterfall
of mercy. Trout stand guard,
give chase, determined
as that first morning
when the animals were named.
A slight breeze along bank
willows. I try to understand
The old urges: the urge
to talk to strangers, the urge
to drive too fast, the urge
to recreate today
with the pieces of another
day. "Stay focused,"I remind
myself, but my mind
wants it all.

Larry Gavin is a poet from Faribault, Minnesota. He is the author of five books of poetry. His newest, A Fragile Shelter: New and Selected Poems, is available from Red Dragonfly Press. www.redragonflypress.org



The Headwaters Chapter conducted a fly tying night for the Bemidji State chapter of the American Fisheries society.