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Changes to Water Quality Standards
Fishing the S. Branch of the Whitewater
Tying the Midge Emerger Special

Youth Series: Parts of a Fish

Remembering Dave (Doc) Halvorson

Brook Trout Above Barriers

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TROUT UNLIMITED MINNESOTA The Voice of MNTU



STUDENTS FROM A NEW TIC SCHOOL IN SLEEPY EYE STUDY THEIR KICK NET CLOSELY TO SEE WHAT THEY CAUGHT DURING AN AQUATIC MACROINVERTE-BRATE STUDY.

On THE COVER

Students from Benilde-St.Margaret, a TIC school for the last three years of the program, wade into the Whitewater river this fall, putting into practice what they had learned about casting, choosing a fly, and reading the water.

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Jade Thomason 2067 E. Pioneer Rd. Duluth, MN 55804 218-525-2381 editor@mntu.org

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EDITOR'S ANGLE

OUTDOOR CONNECTIONS

By Jade Thomason, Editor

The cold winds of winter have come to northern Minnesota, and as I put this newsletter together I'm dreaming of longer, brighter days. Not only for spring to come, but for the end of this pandemic, so that we can spend time together. We've heard from many of you that are missing the chance to attend local chapter meetings, drive together to fishing outings, and attend larger events like our annual Great Waters Fly Fishing Expo, now canceled for the second year in a row. We all hope that the vaccinations taking place around the state help bring us back to a greater sense of community health and normalcy soon.

In the spirit of planning for the future, check out the article by Eric Lundin and Scott Nesbit on page 16. The two men recount their years spent fishing together and all they have learned, both technical and philosophical. It showcases that there are much more than surficial ben-

efits in spending time outside with others. Those who know me understand that I am deep into the introverted end of the spectrum, but I also have a strong appreciation for the bonds that form during shared outdoor experiences. A magical eruption of thousands of tiny mayflies, a flock of sandhill cranes, or a bone-soaking thunderstorm--all moments that are doubly as impactful when shared. Eric and Scott serve as a great model to aspire to as we get back to fishing more together this year.

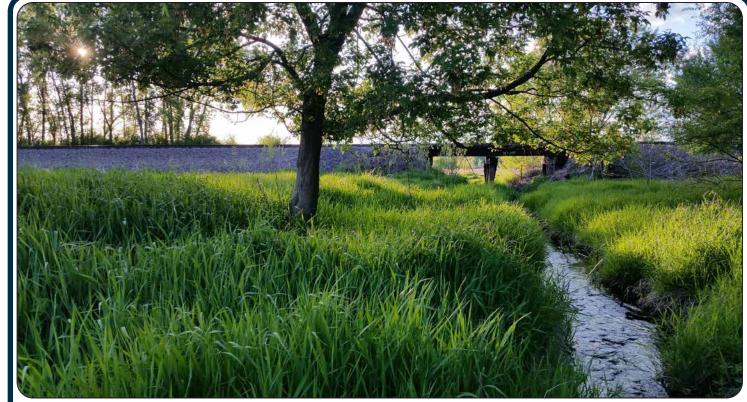
Finally, we have one more piece in this issue that follows in the theme of togetherness. Regional author Perry Palin has reviewed a new book from another local guide and author Dan Brown. And no, once again, it's not that Dan Brown. This Dan has a book of short stories from waters around the region waiting for you to check out, and if you finish it too quickly, you might want to look up a couple of the books by Perry as well.



They can help you weather the remaining cold nights of winter, and whatever spring herald you are awaiting. I'll watch for the sap to start flowing in the sugar maples in the springtime and the onset of some of the best fishing of the season here on the North Shore.

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WATERS AROUND MINNESOTA MAY BE IMPERILED BY POTENTIAL CHANGES TO OUR STATE WATER QUALITY STANDARDS. READ ALL ABOUT THE ISSUE ON PAGE 14.

FROM THE EXECUTIVE DIRECTOR

SIGNS OF CLIMATE CHANGE

By John Lenczewski, MNTU Executive Director

fter another mild January where temperatures never fell below zero, this month we finally experienced a string of nights and even days with mercury in the subzero range. Subzero nights in the first half of February is remarkable only because we are seeing fewer of them each winter. In fact, data shows a steady decline since the 1970s in the number of subzero nights each winter-now 18 fewer than in the 70s. While most of us won't complain about fewer opportunities to test the limits of our cold weather gear and personal fortitude, we should all be very concerned over the continually warming climate this portends. Globally, 2020 tied 2016 for the warmest year ever, and the last six years represent the six hottest on record!

Climate change is getting greater attention these days and you can feel a heightened sense of urgency from a greater portion of the citizens. This is a good thing for TU members, who care about preserving coldwater fishes like trout and steelhead. As a borderline rabid trout and steelhead angler who regularly fishes from the Iowan to the Canadian borders, I am often asked whether I observe any impacts of climate change on Minnesota trout fisheries. My emphatic "yes" is often followed by some serious ear-bending ("how much time do you have?"). Here are a few of the impacts which I and others are observing around the state. Consider them as starting points for your own reflection and sharing with skeptical relatives and neighbors.

- Mid-winter snow melt in North Shore watersheds leads to less water storage, earlier runoff and longer periods of low, warm water on streams which have limited baseflow or cold springs.
- Winter rains in Southeast Minnesota are now causing March flooding that kills trout fry and leads to poor year classes, often across the entire region.
- Milder winters are causing increases in tree pests in northern forests; northern trout waters rely upon tree canopy for cooling shade, yet large stands of spruce and balsam fir are dying due to high pest numbers brought about by milder winters.
- Very heavy rainfall events are increasing in frequency and intensity, leading to larger and more frequent floods; these "mega storms" and "mega floods" are destroying large stream channels and rearranging floodplains.
- These same mega storms are tearing up small tributaries, gullies and dry washes in the hilly Southeast and destabilizing them so that even moderate rains deliver large quantities of cobble to trout streams not able to handle them.



• The number of days when lakes are ice covered is decreasing; this means a longer period of warming water and decreasing oxygen levels in trout lakes; inland lake trout populations are being impacted as lake trout and their main forage (ciscoes) are being squeezed into smaller amounts of habitat.

Ways in which Minnesota TU is working to reduce impacts in our local watersheds by building resilience into projects, forests and fish populations is the subject of future articles. But we need first to realize that climate impacts are already upon us and action is needed.



MNTU CONNECTIONS

Executive Director

John Lenczewski jlenczewski@comcast.net 612-670-1629 www.mntu.org

MN Council of TU Chair Brent Notbohm chair@mntu.org

TU MN Editor Jade Thomason editor@mntu.org

TU MN Advertisement Manager Carl Haensel carlhaensel@hotmail.com

Gitche Gumee Chapter Brandon Kime, President brandon.kime@gmail.com

Headwaters Chapter Kris Williams, President topherjoel01@gmail.com

Hiawatha Chapter Phil Pankow, President pankow.phil0615@gmail.com www.hiawathatu.org

Twin Cities Chapter Janine Kohn, President j9kohn@yahoo.com 612-564-TCTU www.twincitiestu.org

Win-Cres Chapter
Dr. Chuck Shepard, President shepard@hbci.com
www.wincrestu.org

www.mntu.org

MINNESOTA COUNCIL UPDATE

STRATEGIC PLANNING

By Brent Notbohm, Minnesota Council of TU Chair

elcome to 2021! With vaccines on the way to cope with this dreadful pandemic and new leaders committed to addressing the climate change crisis, there is hope for better days ahead! It's been a challenging time no doubt, but I'm happy to report that the crucial work of MNTU continues in spite of COVID-19. We've had to make some disappointing decisions, most notably cancelling this year's Great Waters Fly Fishing Expo, but we've also launched new initiatives in fundraising, communication, and strategic planning.

At January's Board of Directors meeting, we shared a draft of the goals and objectives for the 2021-25 strategic plan. The five goals listed below encapsulate the tremendous work we already do as an organization and provide a framework for the growth we hope to experience over the next four years. Each goal has several objectives, which were also shared at the Board meeting last month. After receiving feedback from chapters and leaders, our next stage for the plan will be to develop specific action steps. Please contact your chapter president or area vice chair to review the plan's draft and provide feedback on the goals and objectives, as well as share your ideas about action steps.

Goal #1: Advocate for legislation, policies, regulations, funding, and judicial outcomes that protect and conserve Minnesota's coldwater ecosystems and their surrounding environment.

Goal #2: Work with community, state, and conservation partners to restore, reconnect, and sustain Minnesota's coldwater lakes, streams, and watersheds.

Goal #3: Effectively communicate with and engage the public to foster support for the mission and work of MNTU.

Goal #4: Foster public support for Minnesota's coldwater fisheries and their watersheds with high-quality education programs for youth, families, and the public.

Goal #5: Improve and expand the organizational capacity and sustainability of MNTU so that it can better fulfill its mission, accomplish its goals, and support its chapters and members.

As you can see from reading these goals, we are structuring the plan around five key areas—advocacy in Goal #1, conservation (including habitat work) in Goal #2, communication in #3, education in #4, and organization in #5. Though we have already accomplished so much in



all five of these areas, the new strategic plan will strengthen our organization and grow it for the future.

For the 2021-25 strategic plan, we are also proposing to add "groundwater sources" to the MNTU mission statement:

To conserve, protect, restore, and sustain Minnesota's coldwater fisheries, their watersheds, and groundwater sources.

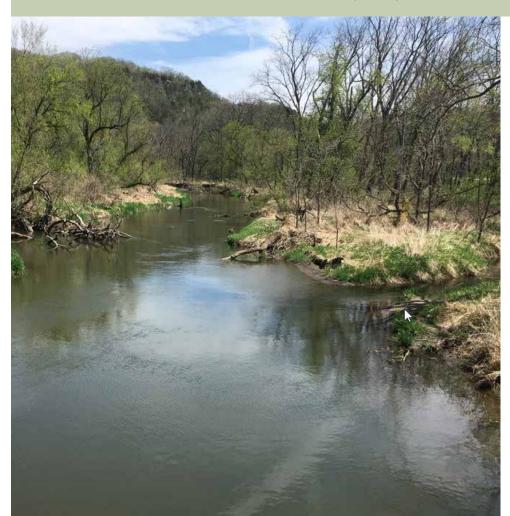
Again, please share your feedback and ideas with your chapter leaders! This truly is an exciting time for MNTU

Be safe, take care, and go fishing!

SOUTH BRANCH OF THE WHITEWATER RIVER

FISHING OUR HABITAT IMPROVEMENT

By Dusty Hoffman, MNTU Habitat Project Manager





THE LOWER REACH BEFORE AND AFTER MNTU'S HABITAT IMPROVEMENT PROJECT.

ocated within the Whitewater Wildlife Management Area, near ✓Elba, Minnesota, anglers and outdoor enthusiasts of many types are finding riverside access at its finest along a section of the South Branch Whitewater River. The Whitewater Wildlife Management Area is well known by anglers for its many miles of designated trout water, including multiple sections of the South Branch of the Whitewater River. During the summer of 2020, a habitat improvement project restored and enhanced approximately 8,000 feet of river near the Crystal Springs Fish Hatchery, offering new opportunities to the nearly 500,000 people that visit the area annually for outdoor recreation.

Special restrictions are not in place on the South Branch, so it is common to see all types of anglers attracted to the improved area, including fly fishers, spinner and lure anglers, and bait fishers. Barth Construction was the contractor on the project site and removed undesirable trees, moved dirt, and built instream habitat improvement structures. Dennis Barth (owner of Barth Construc tion) was noted stating, "From the day we broke ground, there were probably less days during the project where we didn't see people fishing, than days we saw people fishing...it was amazing... they were fishing just upstream of where we were working." The removal of most trees within the project area has made the open landscape a great place for beginner anglers to practice their casting skills. More wild sections of river have overhead trees to catch that can sometimes get in the way of catching fish. Lowered riverbanks also make entering and leaving the river much less challenging than the vertical four to six-foot banks that existed prior to the habitat improvement project.

Jaime Edwards, the Whitewater Wildlife Management Area

Manager, said, "This section of river has always been a very popular location for anglers, but since the project, we've also noticed the open areas becoming hot spots for family picnics, wildlife observation, casual strolls, and the occasional kid splashing around in the cool waters on a hot summer day." Something we should take a moment to reflect on is the overall value of this project based on its location and the variety of people gaining opportunity in addition to anglers. People carry around many different comfort levels, many different interests, and many different abilities. When we complete projects that lure in all different types of visitors, we're setting ourselves up to increase interest in angling. Though many of this article's readers are probably well polished anglers seeking a story that paints an image of a place

they long to fish, I feel it's important to recognize how this project fulfills much more than improving habitat and angler opportunity, this project has given us the ability to reach new audiences, and hopefully new anglers.

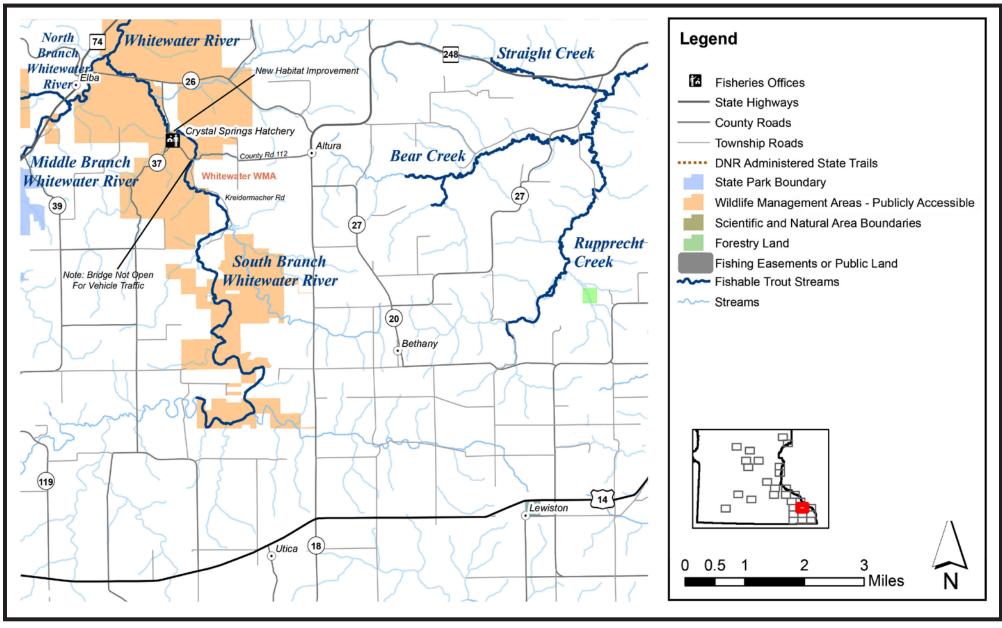
Before we head into some highlights on fishing the improved section of the South Branch Whitewater River, there are a few items to note. There is a roughly 2,000-foot section of this river stretch that did not receive habitat improvement due to one side of the river being private land ownership without a fishing easement. Anglers can fish through that section of river but they should stay in the water or on the same side of the riverbank as the Crystal Springs Fish Hatchery to respect the landowner. There is a fence across the water that has several movable bars

that anglers can easily walk through, do not worry, the fence and bars are not electrified.

The town of Elba has a couple of destinations to keep in mind if you need gear or encouragement. Mauer Brother's Tavern and Grill is a friendly environment where many anglers stop to grab a bite or drink, check out the big fish competition board that is tracked annually, or take a glimpse at the many different taxidermy mounts on the wall (two of which are 13-pound brown trout caught in the South Branch of the Whitewater River). The second location is the gas station in Elba. The Elba Valley Express has a wide variety of angling gear including flies, spinners, lures, and bait. You are also able to purchase (should you lose or break gear) rods, reels, landing nets, and



MARK REISETTER WITH GRANDDAUGHTER NEKO FISHING THE HABITAT IMPROVED REACH ON THE SOUTH BRANCH OF THE WHITEWATER RIVER..



THE SOUTH BRANCH OF THE WHITEWATER RIVER'S NEW HABITAT IMPROVEMENT IS LOCATED NEAR THE CRYSTAL SPRINGS HATCHERY AREA AND UPSTREAM.

other angling supplies as well. If you do stop for gear, fuel, or provisions make sure to check out the impressive photo collection on the wall, it'll cast your mind wonder.

Okay...Let's talk fishing!

As a whole, the South Branch of the Whitewater River is a very productive fishery. There were years that the South Branch was my bread and butter, years where I would take my biggest fish of the year by fly on those waters. Surprisingly enough, the largest trout I ever caught on a size 20 midge was a 19-inch brown trout on the upper section of the habitat improvement section. It was a Peacock Hurl Midge during the catchand-release winter season in February. The frustrations of small streams and winter gin-clear water were what made me start fishing larger rivers. Spooking a single fish at the bottom of a pool and panicking all of the other fish is a common occurrence in small streams.

This section of the South Branch has consistently been rich in chironomid midge hatches during the winter months, which have typically been easier to fish on big waters than the small gin-clear spring creeks. A great alternative fly to use in the winter months is the classic Pheasant Tail in sizes 18 and 20. The South Branch is a large watershed and a pretty good-sized Driftless Area body of trout water, so naturally the water will typically have a slightly dirty tinge. The upper reaches of the watershed are a warmwater system rich in darters, dace, and other forage fish that likely trickle down the river system during the warmer months, so keep streamers in mind on deep pools.

Fly fishing during the warmer months, without a doubt, you will see some extraordinary caddis hatches. The habitat improvement section has always pro-

duced great caddis hatches, making many varieties of caddis patterns in size 14 to 20 great flies to have in your box. I typically like to tie the majority of my caddis patterns with an olive-green dubbing body because it seems to be more productive than anything else I've tied. Caddis emerger patterns are great as well, and as Mike Majeski, the designer of the project relayed, "The project area above the snowmobile bridge (located at the end of the gravel road adjacent to Crystal Springs Fish Hatchery) was a flat, shallow, wide sand trap left behind by some not-so-distant flooding events. We restored that area with several pool and riffle features that are sure to benefit the macroinvertebrates, as well as the fish." I would agree with Mike, bug habitat in the project area has definitely improved and I look forward to seeing the changes over time by making the commitment to fish there annually. The amount of rock and gravel substrate available in the project area is partially due to the narrowing of the river channel. Bringing the banks down several feet and tapering them back to reintroduce the river to its floodplain will help the river keep this area flushed of sediment buildup.

Some other fly patterns that both Mark Reisetter (retired fly fishing guide) and I would suggest are Gold Ribbed Hare's Ear nymphs, Prince Nymphs, and caddis larvae, all in the 12 to 18 hook size range. Some of the dry fly patterns to add are Sulfur Duns or PMDs, and Brown Hendricksons. Mark says, "This section of stream hasn't produced the mayflies it once did, but there are still decent mayfly hatches to catch during peak hatch times."

One of the flooding events that previously contributed to the demise of the habitat improvement area was the flood of 2007, which left that river section wide, shallow, and sandy. A second fac-

tor I wonder about, is the fish kill of 2015 that swept through the project area. Macroinvertebrates such as mayflies are sensitive organisms, so I wonder if the kill-off event, combined with sediment issues, has taken a toll on the bugs. With a clean slate following the habitat improvements, it will be interesting to watch how bug life responds in the years to come. Purely out of curiosity, within a month of the 2015 fish kill I found myself anxious to know how long it would be before fish began to repopulate the

kill zone. To no surprise, I had caught three fish in my short trip, pointing to the overall abundance of fish in the South Branch system.

Anglers that prefer to use conventional gear or bait will have great opportunities in this section of the South Branch as well. There were plenty of deep pools installed or preserved during the restoration project that offer bank cover with root wads, overhead cover with pool logs, and weirs that will continually



A RECENTLY COMPLETED REACH OF THE PROJECT BEFORE SEEDING.





A BEND OF THE SOUTH BRANCH OF THE WHITEWATER RIVER BEFORE AND AFTER HABITAT WORK.

scour out sediment. My favorite spinner to use is, hands down, the Panther Martin. Spinners in the four to six-ounce size are useful on this section of river. My favorite color combinations are typically black with yellow spots, yellow with red spots, or yellow with black spots. The brown trout and brook trout patterns are my close second favorite Panther Martin patterns. I've used almost every color scheme Panther Martin makes, but those are the patterns I always migrate back to. In all honesty, I've never been much of a bait fisherman. I've always enjoyed walking upstream while I cast rather than staying stationary at one hole. It's always given me a sense of adventure and wonder about what's around the next bend. What I can relay to you about fishing with crawlers though is what

my buddy Chuck always says, "You can't just gob a crawler up on a hook, you have to hook it so it can still wiggle, that's what gets the trout to take the whole thing." Fishing upstream from the downstream position is a practice that I keep no matter what type of angling I am doing. This became my philosophy early on in my fly fishing addiction when a buddy who was teaching me to fly fish said, "Fish are always swimming in an upstream manner, so if you're behind them there is less of a chance to get busted by them." This philosophy also rings true when drifting a crawler back downstream to you and having your line just tight enough, or when retrieving a spinner or lure with the right line tension as well.

There are a few thoughts I would like to leave the reader with. First, I hope you will take the time to visit the South Branch of the Whitewater River habitat improvement project annually, so you have the ability to watch how the river changes with time. Second, I hope you will fish upstream or downstream of the project section so you can visualize what the improved reach looked like prior to the project. It amazes me how different these river sections can look after reconnecting the floodplain, clearing the floodplain of trees, lowering the banks, and restoring channel width. Some of the design work of this habitat improvement will not be as apparent as some of the features previously noted. The manipulation of old braided side channels to become shallow water holding areas

for young of the year trout, the creation of small wetlands and ponds in the floodplain for reptiles and amphibians, and the groundwork done to stabilize flood dry runs, tributaries, and re-working the spring source for the Crystal Springs Fish Hatchery to function properly again are all parts of this project that will also benefit this river system. The last thing I would like to ask, is that you take time to observe what the other visitors using the area are doing. If they are not fishing, but you can see that they are intrigued by you fishing, you just may have found the opportunity to catch and create a new angler! Share the passion, and grow the number of people we have enjoying the outdoors and advocating for the resources we cherish!

MNTU'S NEW HABITAT PROJECT MANAGER

DUSTY HOFFMAN

riginally from Green Bay, Wisconsin, my childhood was speckled with few outdoor opportunities. Despite my early disconnect with the outdoor world, my adult life would become filled with countless personal and professional natural resource-related experiences. My love for the natural world and fly fishing eventually brought me to Winona, Minnesota, where I completed an undergraduate degree in Environmental Science, and a Master of Science in Resource Analysis and GIS at Saint Mary's University.

In my role as the Project Manager for SE MN, I will work closely with and be supervised by John Lenczewski (MNTU Executive Director) and Jeff Hastings (Project Manager - TU Driftless Area Restoration Effort).

Some of the projects I've been getting my feet wet with so far include: the Habitat Improvement (HI) projects on Wisel Creek and the South Branch of the Whitewater River, design discussions for upcoming HI projects at Rush Creek and Wisel Creek, inspections of past HI

projects for maintenance needs, surveying streams for Vegeta-

tion Removal Projects (removing boxelder, buckthorn, willow thickets, and honeysuckle) and overseeing contractor work.

On the side, I'm becoming as involved as I'm currently able to with the Win-Cres and Hiawatha TU Chapters, the TU-affiliated Costa 5 Rivers Club "On the Fly" at Winona State University, and working with St. Mary's University to engage their students when the time becomes more appropriate. In working with these groups, I will hope to become acquainted with people who are interested in promoting TU, volunteering, or organizing events that provide public opportunities and attract new anglers.

As my experiences working with others/partners multiply and my awareness for identifying volunteer opportunities expands, I look forward to the opportunities that will link me to people with similar interests.

Phone: (507) 459-9851 Email: dustan.hoffman@tu.org Address: 1647 W 5th St. Winona, MN 55987





FLY TYING

WITH LAUGHING TROUT FLY FISHING

By Paul Johnson



Midge Emerger Special

will always have a box with various midge patterns stowed away in my sling pack. The Midge Emerger Special is my favorite fly when I happen upon some rising fish during the winter months. There is nothing more fun than tying on a size 20 fly onto 6x tippet and catching fish on a dry fly in cold weather. You should have midges with you all the time. Trout are eating midges year round.

Paul Johnson Laughing Trout Fly Fishing Paulwaconia@gmail.com

Materials List

Hook: Dry Fly Hook,

Size 20-22

14/0 Black Thread:

Shuck: Mayfly Brown Zelon

Abdomen: Tying Thread

Wing: CDC Feathers (Dun)

Collar Dun or Grizzly

Rooster Hackle

Collar: Brown Rooster Hackle





Step 1. Start the tying thread at the 3/4 point and wrap a thread base down the bend of the hook. Pictured is a

Dai-Riki #125, size 20 hook.



Step 2. Tie in a small clump of brown zelon at the bend of the hook. Take care to keep the zelon on top of the hook shank.



Step 3. Clip to roughly a hook shank in length.



Step 4. Form a smooth body with the tying thread to the 3/4 point.



Step 5. Take two CDC feathers and match the tips together. Make one thread wrap around both feathers at the 3/4 point.



Step 6. Carefully pull the butt ends of the feathers towards the back of the hook until the feathers are 1-1.5x the hook shank in length. Clip the ends leaving a small clump.



Step 7. Advance the tying thread to the front of the wing and make several wraps to form a dam in front of the wing and get the wing to stand upright. Return thread to where you tied the CDC wing.



Step 8. Prepare the rooster hackle by clipping some of the barbs off the base of the stem. Tie in the feather behind the CDC wing. Advance your tying thread in front of the wing.



Step 9.

Palmer the rooster hackle with one full turn behind and in front of the CDC wing. Secure with the tying thread and clip the excess. Whip finish. Go fish!

HABITAT HELPERS NEEDED

We need volunteers to assist with maintenance inspections of completed projects, as well as numerous hands-on tasks on 2021 projects. To volunteer or receive information on opportunities to help with inspections and/or hands-on work, send an email to: monitor@mntu.org List "inspection" or "habitat help" in the subject line and tell us what type of things or specific streams you might want to help with. Please provide a phone number; we will not use your information for other purposes.



BROWN TROUT CLOSE-UP. MICAH CRIDER PHOTO.

REMEMBERING DAVE (DOC) HALVORSON

OUR FLY FISHING FRIEND

By Jim Holden & Doc's Fly Fishing Friends

If you live long enough you will inevitably lose a faithful fishing friend: someone who rode with you on dozens of car trips to your favorite Minnesota and Wisconsin trout streams, taught you how to tie a Pheasant Tail nymph, loaned you books from his fly fishing "library," and regaled you with stories of the big fish he landed on the San Juan River or in Alaska. Such a fisherman was our friend Doc Halvorson, a family practice physician and general surgeon who passed away at the age of 89 in September this year.

And though he was the elder statesman in our fly fishing fraternity, his infectious enthusiasm for trout fishing was like that of a beginner who just landed his first trout on a fly he tied. One of his first companions was Mike Hero, a much younger but more experienced fly fisherman who said this about Doc:

"Doc Halvorson discovered fly fishing later in life. He was in his mid-fifties when the bug first hit him. Doc fished with a kind of urgency that suggested he thought there would never be enough time for him to learn all of the secrets and master the craft.

"The most magical thing about Doc was how he marveled at every trout he caught, no matter how big or small. He would cradle a brook trout in the water, sometimes no bigger than his hand, as if it were a precious jewel, an enameled Fabergé egg. He would laugh and gently release the fish back into the spring-fed waters of the Driftless Area.

"His mantra was "the tug is the drug," and his delight in that "tug" never waned, even in those last days when he hobbled through the snow, down to the bank of the Whitewater River with his walker, and sat down with his seven-foot, sixinch retro Granger bamboo rod in hand, extender net at the ready."

So how do we honor or remember these fishing "saints" like Doc, those who have enriched our lives in so many ways? We could send a memorial gift to Trout Unlimited in his name, help the family find a home for his fishing paraphernalia, or teach some willing youngster how to tie a fly. But I think the best way to remember Doc in particular is to tell stories, maybe over a cold beer at Mauer Brother's Tavern in Elba or over a cup of coffee at the Brick Oven Bakery in Northfield. What follows are some stories about our fishing friend, stories that will paint a portrait of the man. I'm sure there are many others who met Doc on Driftless Area streams who could also share tales about him, but these are stories told by his Northfield BFFFs (best fly fishing friends).

First off, he was a gregarious guy, a genuine character who would strike up a conversation with anyone: novice or expert, farmer or DNR supervisor, or even a raccoon if he thought it would listen. Some of these conversations, with farmers especially, gave him access

ers especially, gave him access to prime water on posted land.

And it wasn't unusual to see Doc coming back to the parking area at the end of the day on a tractor or ATV, the driver remarking to us "That sweet old man looked like he needed a ride."

So we begin with two stories from Dave Emery, the first adding to the lore of Doc the charmer, the engaging conversationalist. With no guide trip planned the second day of a trip to the San Juan River (Doc's favorite "big trout" river he fished many times over the years), Dave dropped Doc off at the Texas Hole. Meanwhile, Dave drove to nearby Mesa Verde National Park for a tour. It was a hot day and Dave was worried because Doc did not have a lunch, or even water, with him. Because he was concerned about his friend, Dave cut his trip short. Here is how he described his reunion with Doc:

"There he was, in the midst of some guys sitting around a charcoal grill and having lunch. Doc had a beer in one hand and a brat in the other. Doc had clearly exercised one of his many talents, schmoozing with other fishermen. Oh yes, he had also caught some fish with his Peacock Soft Hackle fly; but he didn't tell me how many."

The second story is about another experience on the San Juan River. This one reveals something about Doc's confidence in his ability and in his own flies. He and Dave were fishing with Doc's favorite guide, a crusty character who had little patience with fishermen who were tardy hook setters. He would shout out, "Dave, set the hook" or "That was pathetic! My 94-year-old grandmother has a stronger hook set than that." He also had firm opinions about what flies would work on the San Juan, but during this guide trip, Doc told the guide he was going to try his favorite fly while wading the next day. Dave recalls this experience in these words:

"Doc said, 'I have a plan. I'm going to use my favorite Minnesota fly, a Peacock Soft Hackle I tie with peacock ice dubbing rather than peacock herl. I think it will work here.'

"The guide just rolled his eyes, shook his head, and said, 'The fly you are describing is four times as big as the fly we are using, and you plan to impart fake motion to your fly by dragging it across the current. It won't work. You're wasting your time.'

"The next morning Doc and I were at the Texas Hole looking for a place to fish. Doc picked a spot just off the edge of the current and began casting his Peacock Soft Hackle (PSH). He immediately began catching trout—big trout, one after another. Doc alone probably caught more trout that morning than the 10 of us wade fishermen spread out around the Texas Hole caught all together. What a great morning for Doc. The guide was going to spend the next day eating crow. Doc had a saying, 'You don't catch the fish. The river gods give them to you. So be in harmony with the river gods.'



DOC HALVORSON AT ROOSEVELT LODGE IN YELLOWSTONE NATIONAL PARK.

This was a very harmonious morning for Doc."

Granger fly rod. Two summers ago, I persuaded Doctor Bob, Dave Emery, and

Doc was also generous with his time and talent, so he would often invite one or more of us to his fishing-themed man cave on the second floor of his house. It was filled with everything fly fishing: rods, books, flies, pictures, and materials of every kind. Doc had probably tied with every type of fly tying material and still had much of it left. There were large fly boxes filled with colorful streamers designed to catch Alaskan salmon, and smaller boxes filled with apparently unsuccessfully tied flies of every shape and size. After we settled down at our vises, Doc would patiently demonstrate to us novices how to tie his latest "hot fly" and often shared his tying materials.

Here's a testimonial from Dr. Ed Lufkin, a retired Mayo physician who got to know Doc when he moved to Northfield in 2010.

"I didn't know a thing about tying my own flies. This was where Dave [Doc] was a godsend for me. Not only did I get to see his nice shop upstairs in his home, and to learn the many details of fly tying, but also how to use these flies on the streams. He was a splendid mentor for me."

In addition, he was a generous gift giver who often "donated" his flies to us, especially his famous soft hackles. A few years ago he also gave me a big black Shakespeare tote bag to store my fishing gear in, perhaps because he was tired of watching me clutter up his trunk with my separate pieces of gear. And on one occasion he even offered to let our friend Dr. Bob Speckhals (an honorary Northfielder from Faribault) use his precious

Granger fly rod. Two summers ago, I persuaded Doctor Bob, Dave Emery, and Doc to humor me by going on a weekend fishing trip to northeast Iowa to fish Waterloo and Bear Creeks. After a good day of fishing, we checked into our motel but discovered that Doc had suddenly become very ill. I'll let Doctor Bob take it from here.

"...The situation was deemed serious enough to prompt an emergency return home. So, with extreme urgency, we began to hurriedly repack our equipment. My thoughts centered around Doc's description of his Granger fly rod and how wonderful it performed and how excited he was for me to try a few casts with this jewel of a rod.

"Since Doc was ill, I decided to help pack his gear. Under the stress of an emergency situation, we were anxious to be speedy. I quickly grabbed Doc's gear, yes, including his fly rod. Speeding through the motel entrance, you guessed it, the closing motel door nipped the tip of Doc's precious rod. OMG—what now? Should I just hide the damage and pretend that nothing was wrong, tell a lie and say that it was already broken when I picked it up, or just hitchhike home and never see my fishing friends again? None of these options seemed viable.

"So I mustered up my courage and presented the broken rod to Doc, expecting to be chastised and humiliated, and charged with buying a new rod, which I would gladly have done. Well, Doc looked at his broken rod, smiled, and said that he was planning to replace the tip anyway, that I did him a favor and that he still wanted me to use the rod. Sadly, Doc passed away before I had a chance to use his rod."



DOC HALVORSON WITH DAVE EMERY AND AUSTRIAN FRIEND RICHARD.

The next two pieces say more about Doc's passion for teaching others how to cast and tie flies. The first is by Scott Nesbit, who teaches a fly fishing class at St. Olaf College.

"Each April for the past ten years, Doc came to St. Olaf and taught my fly fishing/fly tying students how to tie dry flies. His mantra was 'keep things simple.' He taught them to tie Sparkle Duns and Elk Hair Caddis with sparse amounts of thread and dubbing for the body and EP carpet fibers for the tail and wings. The St. Olaf students would encircle him as he tied. Then Doc would go around the classroom and help the students make their own flies. I would overhear his encouraging words to them such as 'fabulous' and 'absolutely.' The students could see in Doc someone who got so much joy from tying."

Doc not only shared his passion for teaching the St. Olaf students and those of us who fished with him, but also with students enrolled in an annual fly fishing class sponsored by the Northfield Community Recreation Program and held on a neighboring farm pond site. He would give a casting demonstration for the dozen or so "wannabe" fly fishermen and women, then demonstrate how to tie a Woolly Bugger Fly. The students then used their flies to cast into the adjacent farm pond for sunfish and bass. Following is a piece by Eric Lundin, one of the volunteers who helped with this class.

"I first met Doc when a group of us were teaching fly fishing classes and Doc was elected to give the casting demonstration. His demonstration was unpretentious, with no mention of keeping your wrist firm or your elbow on the shelf. He just left it to everyone in the class to recognize the simplicity of it all by bringing the pole back to your ear and no farther.

On one occasion, after he saw me demonstrating for one student, he told me that he really liked my floating shelf as part of my casting technique. I have to say that I do employ a floating shelf, as I learned to cast on a big river with streamers in order to give the fly some extra oomph to get it across the river.

"As I stood on a small stream in southeast Minnesota in September this year, I thought of Doc, who was very sick at the time. I was casting and remembering Doc's simple technique of just bringing the cast back to the ear, this time with no floating shelf. He could make casting look easy and effortless."

Here are three final reminiscences, the first about Doc's non-fishing life and his other interests. It's by Ed Lufkin.

"I believe the best part of my knowing Dave [Doc] was the happy moments of our chatting during the one and a half or two hours of driving to the streams of southern Minnesota or western Wisconsin. This was when I learned about his many other talents: his musical past, when he played his jazz trumpet in a traveling group, in his raising of orchids and showing them off at the Minnesota Orchid Society, in his hunting of pheasants and deer, and about his long residence at a cabin on French Lake, enjoying sailing, water skiing, and boating with his family and friends."

We would also be remiss if we did not say a word or two about Doc the family man. He was proud of his children and grandchildren, particularly of their athletic achievements. On our car rides down to Trout Run, or other streams, we often heard how his sons, daughters, or grandchildren had skied, sailed, or played football or hockey the past week. He was proud of them all. And

we also heard about the efforts he and his wife Joan were making for the next big holiday gathering at their house. Family mattered to Doc.

This last one is a poignant wrap-up for this article, another piece from Mike Hero, one of Doc's first fly fishing friends.

"My last trip with Doc was when he was 85 and knew his fishing days were numbered. I invited him back to Yellowstone one more time. He wasn't that steady on his feet anymore so we looked for what I called "Doc water"—water that he could get to and fish with his legs a bit shaky. He could still drift his favorite, a #18 BWO Parachute, drag-free over slowmoving water and fool any fish around. His last big fish with me was an 18-inch cutthroat on the Lamar.

"Driving home across the vast flat spaces of North Dakota, just to pass the time, he wanted to have a debate about the existence of God. He knew I was a Christian. Back then he described himself as a 'skeptic.' I started out the debate by asking him two questions. Question one: What was there before the beginning of time? Question two: What is there beyond the universe? He had to agree that we have finite minds and therefore we could not prove or disprove God's existence through logic with such limited faculties. In the end, we agreed you either have faith or you don't.

"Recently, I learned that Doc was in hospice. I wrote to him and reminded him of the many instances in his fly fishing life we experienced together, including our debate across the flatlands of North Dakota. I ended my card by writing: 'If there is a life after this one, I will catch up with you at Buffalo Ford on the Yellowstone. If not, know that you were a

great fly fishing partner and I will miss your character and your laugh.'

"A few days before he died, he dictated to his daughter Lisa a letter to send to me. He ended it by saying, 'I do hope we fish again... Just not sure what stream.'

Contributors:

Jim Holden, a TU member and author of Heron Thieves, a Bat out of Hell, and other Fly-fishing Stories, Essays, and Poems, has been casting flies into Driftless area streams for 40 years.

Dave Emery—a fishing enthusiast. After the death of his bass fishing buddy, Dave was introduced to all things fly fishing by Doc Halvorson and Jim Holden. They and the Driftless have enriched his life.

Mike Hero is a life member of TU. He lives in Grand Marais, MN, and teaches fly fishing and fly tying at North House Folk School in Grand Marais.

Ed Lufkin is a retired physician who saw some of the world in his eight years of army medicine, then had his further career at the Mayo Clinic in Rochester. He retired in Northfield, where he was born.

Eric Lundin has been trout fishing in the U.P. of Michigan since he was five years old, and has fished the Driftless Area for the past 25 years.

Scott Nesbit is an instructor in the Kinesiology Department and the Head Women's Tennis Coach at St. Olaf College in Northfield. One of the classes he teaches is on fly fishing and fly tying.

Bob Speckhals grew up in a small town on the banks of the Missouri River, fishing for carp, catfish, and bullheads. When he came to Minnesota, he discovered other species of fish, especially trout. In Northfield he was fortunate to meet other fishermen who became his mentors, prominent among them was Doc.

DA FISHI CODE

BOOK REVIEW

By Perry Palin

In his classic short story "A Fatal Success," Henry Van Dyke describes the progression of the serious angler as one of "slow degrees (. . . first a transient delusion, then a fixed idea, then a chronic infirmity, finally a mild insanity)." Henry Van Dyke never met Dan Brown. If he had met Dan he would have added at least a few more steps in the march to total angling madness.

Dan Brown has written a collection of short tales, *Da Fishi Code*, that documents his progression through and beyond the "slow degrees" listed by Van Dyke. The tales cover all seasons of fishing for trout, bass, and panfish, and hunting for upland birds and deer, all in the Upper Midwest. Some of the tales are humorous, some are serious, and all are quick entertainment. They are true stories, as true as any we can expect from a fisherman. The book gave me a chance to assess my own place on Van Dyke's scale.

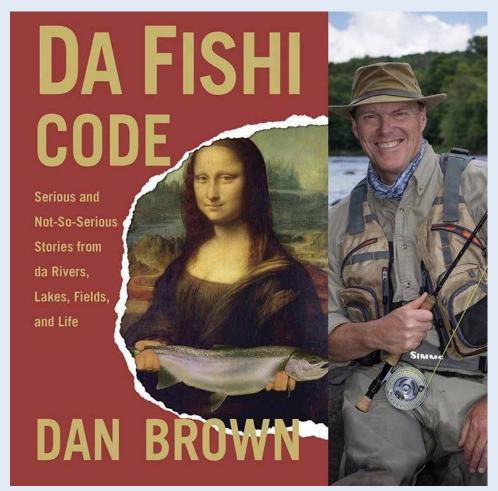
Dan Brown lives in Taylors Falls, on the St. Croix River, with his ever suffering wife Su. They have raised two boys into accomplished young anglers and hunters. Many of the stories feature one or both of the boys as they are growing up on a trout stream, or fishing for bass or walleyes at a family cabin, or in the upland game fields, or in the deer woods.

Many of us in the Upper Midwest know that Dan Brown is the guy who caught a 50-inch sturgeon on a 7wt fly rod on a cold spring day. This would have been impressive enough if he had been able to follow the fish up and down the St. Croix in a boat. But no, he was on foot the whole time, except for swimming twice during the battle.

This is not a how-to book, unless you want to learn how to lose a personal record brown trout, or how to express your frustration on the stream, in the car on the way home, and for the rest of your life. But it is a good read from our own good, Midwestern country.

Dan is a trout fishing guide, FFI certified fly casting instructor, fisherman and hunter, freelance writer and newspaper contributor, and member of the Outdoor Writers Association of America.

Da Fishi Code is 221 pages, published by Beaver's Pond Press. Available on Amazon through the author's website, www.danbrowntrout.com and at fly shops and select stores in Minnesota and Wisconsin.



Editor's Note: Perry Palin grew up on the MN North Shore and is currently on the Kiap-TU-Wish board. He is the author of two books: Fishing Lessons: Stories and Lessons from Midwest Streams, and Katz Creek and Other Stories. Both can be found at www.whitefishpress.com

INCLUDING MNTU IN YOUR ESTATE PLANNING

ny 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. 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, 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, 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 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.



MNTU EDUCATION UPDATE

November 2020

By Amber Taylor, MNTU Education Program Supervisor



NTIC continues to gain attention from educators all Lover the state through word of mouth amongst teachers, administrators, and families. Currently, there are 48 tanks spread throughout the state, from Bemidji through Rochester. Between teachers that chose not to participate this year due to the pandemic and new ones that have inquired, there is a waiting list of almost 40 educators looking to join for the 2021-2022 school year. The number of TIC tanks in Minnesota could easily grow to over 100 with continued funding for aquarium equipment, teacher support, and busing expenses.

Last summer, our education team networked with metro area homeschool groups in order to continue providing fishing skills programs with youth and their families when many of our partners had to cancel. Through this network, we discovered another large group of educators and students excited about the educational opportunity provided by the TIC program outside of the traditional school setting. With schools closed and/ or not allowing field trips and visitors, we pursued their participation in order to continue working and interacting with students. There are currently six groups participating around the metro area and one in Rochester, each consisting of up to 15 families. Group leaders house the tank, coordinate programming with MN-TU's education team, and lead activities with their network of homeschool families that meet regularly.

In October, a group of Trout Club students from Benilde traveled to Whitewater State Park for their first fly fishing trip. These students had a blast exploring the river and putting into practice what they had learned about casting, choosing a fly, and reading the water. There were a few landed trout and lots of smiles! Trout

Club is a component of the MNTIC program that our team is working to grow and expand. The club meets two or more times each month after school to do additional TIC-related activities. The goal is to provide a chance for students to further their involvement with the program through fly tying, casting, fishing, hiking local streams and watersheds, engaging in environmental stewardship projects, and more.

While many teachers chose to set up their tanks at school this year, some also set them up at home. All are engaging their students with the tank and TIC lessons virtually, and in person when possible. Tank prep started in early November and eggs arrived on December 3. A fantastic crew of volunteers helped our education team separate, package, and distribute over 14,000 eggs to all 48 tanks around the state in one day. A huge thank you to those involved in making it happen!

This winter, MNTU educators are conducting programs with TIC groups and the general public to include ice fishing, fly tying, and fish anatomy/identification. With over 25 in person, hands-on programs, youth and their families are having a great time learning about (and on) Minnesota's icy landscapes and the fish life beneath them. In a partnership with the St. Croix River Association, program attendees also have the opportunity to try out snowshoeing and engage in winter ecology hikes.

Information about what's happening in MNTU's education programs and ways to support the program can be found on our social media pages, newsletter updates, individual chapter communications, and updated website. Please contact Amber Taylor, education@mntu. org, with any questions about TIC and how you can get involved!



A TROUT CLUB STUDENT PROUDLY HOLDS UP HIS FIRST TROUT CAUGHT ON THE FLY DURING A TRIP TO WHITEWATER STATE PARK.





LEFT: EVEN THE TINIEST FISH IS EXCITING WHEN YOU'RE LEARNING HOW TO ICE FISH!

RIGHT: YOUTH ICE FISHING PROGRAMS WERE HELD AROUND THE METRO AREA THIS WINTER. STUDENTS LEARNED HOW TO SET UP AND BAIT THEIR RODS, USE
A TOPOGRAPHIC MAP OF THE LAKE TO FIND WHERE THE FISH ARE HANGING OUT, USE SONAR EQUIPMENT, AND ABOUT MINNESOTA WINTER ECOLOGY.



AWESOME ADAPTATIONS: PARTS OF A FISH YOUTH SERIES

By Evan Griggs, MNTU Environmental Education Specialist

ave you ever wondered if the fish can hear you talking while Lyou stand next to the water? Or pondered how fish can float up and down without moving their fins? We'll explore all the awesome adaptations that help fish species survive in their habitats.

When learning about adaptations, it's important to take note of fish anatomy. The simple body parts we can all recognize on fish serve many purposes. To survive in their environments, each species has specific differences in anatomy. These differences allow fish to be better suited to their environment, and are called adaptations.

Body Shape

This one is pretty obvious! All fish have bodies, but they come in different shapes to help them do different things. Some fish have flat, vertical disc bodies, like sunfish and crappies. This body shape helps them hide in tight cover and easily eat things above or below them. Species like northern pike, muskies, and trout have torpedo-shaped bodies that help them swim super fast. Largemouth and smallmouth bass have football-shaped bodies to pack in lots of strong muscles. Species that primarily live and feed on the bottom, like white suckers, have flat bellies.

Gills

Fish need gills to breathe underwater. Gills are very fragile, feather-like organs that take oxygen out of the water and release carbon dioxide. Fish force water through their gills, where it flows past lots of tiny blood vessels, allowing oxygen and carbon dioxide to transfer. The hard outer gill plate, called the operculum, is like a shield that protects the fragile gills behind it.



PIKE AND MUSKIES HAVE DUCKBILL-SHAPED MOUTHS FILLED WITH OVER 700 SHARP TEETH.

Mouth

Fish love to eat! How a fish's mouth is shaped determines how and what they will eat. Pike and muskies have duckbill-shaped mouths filled with over 700 sharp teeth. This helps them clamp down on their prey. Carp primarily feed on the bottom, so their mouth acts like a sucker, slurping up small plants and animals. Bass have very large mouths and teeth like sandpaper, allowing them to engulf their prey in one bite. Trout have an elongated lower jaw which helps them eat things that are above them, they also have teeth on their tongue.

Fins help fish swim and steer in the water. They have a dorsal fin on their back, pectoral fins on their sides, pelvic and anal fins on bottom, and a caudal fin as a tail. Trout, salmon, and catfish species also have an extra fin called an adipose fin on their backs. Fins can also serve as a defense mechanism. Fins with sharp spines in them are called hard rays. Sunfish will commonly flare their spikey fins, making it hard for predators to hold or swallow them. Fins that are more flexible and without spines are called soft rays. Fish with soft ray fins, like trout, are able to swim through rapids with-

out getting harmed when bumping into rocks. Placement can also serve a purpose. Pike and muskies have large dorsal and anal fins right next to their caudal fin, or tail. When ambushing their prey, this grouping of fins helps shoot their long, torpedo-shaped bodies forward.

Scales and Coloration

These are a fish's number one defense. Scales are actually made out of the same stuff as our hair and nails, called keratin, and act like a suit of armor. Fish have also adapted their coloration to help them hide and make them hard to see. This is called camouflage. Many have



CHANNEL CATFISH HAVE WHISKERS CALLED "BARBELS" TO FEEL AND SMELL AROUND ON THE RIVER BOTTOM FOR FOOD.



TROUT, SALMON AND CATFISH SPECIES HAVE AN EXTRA FIN CALLED AN ADIPOSE FIN. YOU CAN SEE IT HERE ON TOP AND IN FRONT OF THE TAIL OF THIS BROWN TROUT.

light colored bottoms and dark colored tops. This makes it hard for predators to see them from above or below. Spots or stripes on their sides also help break up their body shape when hiding, making it hard for other fish to see them from afar. Many fish species change colors during spawning season to help attract a mate.

Internal Organs

Fish have similar internal organs to humans like eyes, nostrils, a brain, a heart, a stomach, a liver, kidneys, gonads, intestines, ribs, a spine, and more. But there are major differences between us and fish. Their brains are pretty small, their hearts only have two chambers, their flexible bones are made of cartilage...To name a few big differences. Otherwise the organs all serve the same purpose for them as they do in us. A couple things they have that we don't are a swim bladder and lateral line.

Swim bladders are a sack that fish can inflate or deflate with air to help them

float up or down in the water. To initially fill this bladder, soon after fish hatch from their eggs and start swimming, they swim to the surface and take a gulp of air. Gar and bowfin, two very ancient fish species, can even use their swim bladders like simple lungs and breathe air. But it should be noted that most fish species don't use their swim bladders to breathe, it just helps them float in the water.

Fish don't have external ears like humans, but they have ear bones called otoliths that they hear with by picking up vibrations. These bones are located inside their heads. They also have a special sense called a lateral line. This is essentially a line of microscopic eardrums that run down their sides. When something moves in the water, it creates vibrational waves. These waves travel into the tube shaped "eardrum" and tickle a small hair connected to a nerve at the base of the tube. This hair picks up the vibrations and sends a message to the fish's brain.

So can a fish hear your conversation on land? Probably not. But they can "hear" splashing on the water or rocks being tumbled on the bottom because those cause vibrations in the water. These vibrations can mean "food!" to some fish and "danger!" to others.

Some species have even more ways of sensing what's around them. Catfish use their whiskers, called barbels, to feel and smell around on the dark muddy river bottoms for food. No, their whiskers don't sting you! But they do have some big spines in their pectoral and dorsal fins that will do some damage if you hold them incorrectly.

When you visit your local, lake or river, take a look at some of the different fish species that live here in Minnesota. See if you can figure out how their anatomy and special adaptations help them survive!





LEFT: SUNFISH DORSAL FINS HAVE PROTECTIVE "HARD RAYS." BE CAREFUL WHEN HANDLING THESE SHARP FISH!
RIGHT: STEELHEAD ARE DARK ON TOP AND LIGHT ON BOTTOM TO HELP CAMOFLAGE THEM FROM ABOVE AND BELOW.

MAKING SENSE OF PROPOSED CHANGES TO WATER QUALITY STANDARDS

By John Lenczewski, MNTU Executive Director



EAST INDIAN CREEK FLOWS THROUGH THE MINNESOTA DRIFTLESS.

ighting for clean water is the core of Trout Unlimited's work in Minnesota and across the country. Without clean, cold water, trout, steelhead and salmon cannot survive. The quality and quantity of physical habitat and the ability of wild populations to maximize a stream or lake's productivity count for little if the water is too polluted to support any trout. Over the past few years several proposed changes to State water quality standards and stream classifications have been in the news. These and other hinted-at proposals by the Minnesota Pollution Control Agency (MPCA) could have serious, long lasting negative impacts to water quality, fish populations and anglers. To understand these proposals and speak out for trout requires a basic understanding of the State's framework for protecting waters. The brief summary which follows should allow you to make sense of current rulemaking efforts and recognize future threats to trout waters from agency action and inaction.

(Please note that portions of the descriptions of the framework are taken directly from the MPCA website and rulemaking documents.)

Clean Water Act Basics

In 1972 Congress passed what we now call the Clean Water Act (CWA). Its objective is the restoration and maintenance of the chemical, physical and biological integrity of the nation's water. It set a goal of achieving water quality that is both "fishable" and "swimmable" by the mid-1980s. In other words, the end goal of many of the water quality standards is to ensure waters can support healthy fish populations for

anglers to catch. The CWA established a federal-state partnership under which the federal government sets objectives and provides funding while the states carry out the law. Minnesota, and virtually every other state, opted to administer and enforce the CWA requirements within state borders.

The CWA primarily regulates "point source" discharges into waterways from municipalities and industries using a permitting system. The pollutants need to be carried to the waterway by a "direct conveyance" like a pipe or storm drain. The Act's framework requires the state to classify waters for beneficial uses, develop water quality standards to protect those beneficial uses, and adopt antidegradation policies to maintain and protect existing beneficial uses.

Components of Water Quality Standards

Water quality standards include several components:

- 1) Beneficial uses: Identification of how people, aquatic communities, and wildlife use Minnesota waters.
- 2) Numeric standards: The allowable concentrations of specific chemicals in a water body, established to protect beneficial uses. They can also include measures of biological health.
- 3) Narrative standards: Statements of unacceptable conditions in and on the water.
- 4) Antidegradation protections: Extra protection for high-quality or unique waters and existing uses.
- 5) Assignment by MPCA of appropriate beneficial use(s) and establishing the numeric and narrative standards to protect the beneficial use(s).

1. Beneficial Uses

A Beneficial Use (or Designated Use) is a statement that identifies how people, aquatic communities, and wildlife use our waters. The uses that apply to specific waterbodies are known as the designated uses for those waterbodies. Anglers often focus only on the "aquatic life and recreation" beneficial use, but Minnesota has designated seven beneficial use classes for surface waters:

Class 1: Domestic consumption – drinking water protection (includes subclasses 1A, 1B, 1C)

Class 2: Aquatic life and recreation (includes subclasses 2A, 2B, 2C, 2D)

Class 3: Industrial use and cooling (includes subclasses 3A, 3B, 3C, 3D)

Class 4: Agriculture and wildlife (includes subclasses 4A, 4B, 4C)

Class 5: Aesthetics and navigation

Class 6: Other uses

Class 7: Limited resource value waters

The MPCA classifies most surface waters as Class 2, which means they are protected for aquatic life and recreation beneficial use. Within Class 2 there are four subclasses, including coldwater (2A) and cool or warm water (2B) classifications. It matters whether a segment of stream is designated Class 2A coldwater because these waters have more stringent water quality standards than 2B waters. All Minnesota's surface waters are protected for Class 2 aquatic life and recreation uses unless the waterbody

has been individually assessed and reclassified as a Class 7 limited resource value water. All surface waters are protected for multiple beneficial uses, including at least one subclass within use Classes 3, 4, 5 and 6. All trout streams, like all groundwater, are protected for drinking water use (Class 1). This is not surprising since clean, cold groundwater springs and seeps are what keep trout streams clean and cold enough to support trout.

2. Water Quality Standards - Numeric Most of Minnesota's Water Quality Standards (WQ Standards) are expressed as numeric values. These numeric values establish levels of pollutants in the water that cannot be exceeded without potentially harming the ability of the water to attain its beneficial use. Class 2A waters (trout streams) have numeric limits for numerous chemicals and parameters. such as chloride, PH, dissolved oxygen, mercury, and more. Because they are also Class 1 waters (drinking water use) they have a nitrate limit of no more than 10 parts per million. Current water quality standards for trout streams are found in Minnesota Rules 7050.02220, Subpart 3a.

3. Narrative Standards

A narrative standard (or narrative criteria) is a descriptive statement of the conditions to be maintained or avoided in or upon the water. For example, discharges to trout streams can result in "no material increase" in water temperature. The MPCA explains narrative standards this way:

"While narrative standards provide plain language general statements of what the water quality should be, a drawback is the complexity of implementation, particularly in permitting...Narrative standards require a specific process, which is usually referred to as a translator, in order to be able to be converted to numeric limitations placed on permitted dischargers. Both narrative and numeric standards are the fundamental benchmarks used to assess the quality of all surface waters. In general, if applicable numeric and narrative standards are met, the associated beneficial uses are protected."

How Water Quality Standards are Used Water quality standards are supposed to protect the beneficial use they were developed for. They allow the MPCA to assess the quality of a stream by comparing its condition against the standard to determine whether it meets the standard or not. If it does not, it is polluted or "Impaired", and is placed on Minnesota's Impaired Waters List. The agency must develop plans which demonstrate how the Impaired water can be improved so that it will meet the standard it is failing. These plans, known as Total Maximum Daily Load (TMDL) studies, must be approved by the EPA.

Discharge Limits

Remember that the Clean Water Act primarily regulates discharges from a pipe or storm drain to surface waters. Discharge limits, or levels of pollutants in the water coming out of a pipe, are different from water quality standards. Water quality standards describe the conditions that must exist in the receiving stream to fully support each designated beneficial use. Discharge or effluent limits are often higher since they are diluted by the existing stream flow. Effluent limits need only be set so that the permitted facility's discharge will not cause or contribute to a violation of a standard (either numeric or narrative) at or below the point of entry.

Recent Agency Actions are Concerning

We are concerned with these recent proposals of the MPCA:

Downgrading of the classification (designated use) of numerous trout streams, which effectively lowered water quality standards for these streams.

Proposal to remove Class 1 (drinking water), Class 3, and Class 4 designated uses from the Dark River to enable pol-

lution of this trout stream.

Current rulemaking to lower water quality standards for all Class 3 and Class 4 uses statewide.

Lowering Trout Stream Protections

There are two ways by which the MPCA effectively reduces protections for trout waters: (1) by reclassifying them from 2A coldwater to 2B warmwater streams which have lower standards, or (2) by lowering the water quality standards for the entire Class statewide. In fall 2019 the MPCA used the first method to reduce water quality protections on 31 segments of trout streams totaling 135 miles. This effort was reported in the November 2019 issue of Trout Unlimited Minnesota. MNTU and others challenged this rulemaking sleight of hand before an administrative law judge, but ultimately did not prevail. Basic flaws in MPCA's approach to protecting trout and aquatic life were revealed that we must continue to challenge:

MPCA's process of chopping up adjoining segments used by trout and declaring some to be warmwater segments ignores trout biology and mobility, and the diverse habitats used during different seasons and life stages.

For 40 years the MPCA proclaimed certain streams were coldwater streams but failed to gather data. It suddenly reversed itself based only on current conditions, without demonstrating that the current absence of trout in a segment is not due to 40 years of degradation and neglect by the agency.

MPCA is moving the goalposts and shifting the burden to anglers to prove that MPCA's classifications in 1976 were correct.

MPCA's dismissal of the DNR expert opinion and its opposition to MPCA's proposed changes.

Since the MPCA will undoubtedly seek to lessen protections for more trout stream segments by reclassifying them as 2B warmwater, it is worth highlighting how trout use larger areas than just the obvious core areas.

Wide Ranging Trout

The Clean Water Act requires that the MPCA protects coldwater fisheries, not arbitrary segments of streams. The agency chops up stream systems into small pieces for administrative ease, but

trout populations are mobile and utilize a variety of habitats, often outside these artificial divisions. Trout depend upon seasonal movement throughout the interconnected habitat in a watershed. In northern Minnesota trout must often move long distances in summer to reach cold thermal refuges. Even small areas with spring flow can draw trout from long distances for a week, a month, or more when water temperatures elsewhere would be lethal. Afterwards trout disperse throughout the system for active feeding. Other areas, including small tributaries, may provide suitable spawning conditions which adult trout migrate to in cool October or November conditions. Small young-of-year trout later disperse to populate all available habitat throughout a system, even into reaches where the spawning habitat is limited and might appear "marginal" as year-round habitat. Adult trout migrate downstream each winter into segments the MPCA proposes to downgrade to warmwater, where they bulk up on the minnows which are tolerant of warmer summer water. Trout move back to cooler reaches in the heat of summer, but the ability to feed and grow in these downstream reaches for half the year is vital to ensuring the largest, most robust population. The larger a population and larger the area of connected habitat it can utilize, the more likely it will be to survive over the years. Thus stream segments located upstream and immediately downstream of a core population area are often vital to long term persistence of the trout fishery in that core reach.

Dark River Proposal to Remove Uses

In March 2019 the MPCA proposed removing some of the designated uses on a portion of the Dark River so that one polluter could avoid its obligation to improve water treatments to meet existing water quality standards. Most concerning was MPCA's proposal to remove Class 1 drinking water protections from an eight mile long segment near the upstream end of this brook trout stream. MNTU and many other groups and individuals pushed back, and the agency dropped this effort. The stream was given a reprieve when the MPCA realized that removing uses on just the top end would not be enough. State law requires all waters maintain a level of water quality that will protect the uses of sections further downstream. The MPCA's willingness to remove the Class 1 designation (and its protective nitrate standard) from a trout stream is shocking. This willingness to remove protections from Minnesota's cleanest waters must be confronted.

Statewide Lowering of Standards for all Class 3 & 4 Waters!

The Dark River situation showed MPCA the difficulty of removing designated uses, given the legal requirement that it must still protect beneficial uses in segments well downstream of those targeted for designation changes. Unfortunately, this setback did not cause the agency to focus on making the polluter increase treatment so that its discharges meet existing standards for ion pollution. Instead, the MPCA is proposing to remove the numeric water quality standards for these uses everywhere in the state!

The specific changes proposed and a wealth of information can be found on the MPCA website at: https://www.pca.state.mn.us/water/amendments-water-quality-standards-use-classifications-3-and-4

A central point of disagreement between MNTU and the MPCA is that we believe it is unreasonable and irresponsible for MPCA to ignore the impact on aquatic life of removing numeric limits for other use classes. Every trout stream has, in addition to Class 2A aquatic life use, Class 3 and 4 uses assigned. Those use classes have numeric limits on salty and ionic pollutants. Elevated water salinity and ionic concentrations (measured by "specific conductivity") harm and kill aquatic life. MPCA has failed to develop a separate conductivity standard to protect aquatic life. Eliminating the Class 4 numeric limits on ion pollution from trout streams will leave no numeric limits at all.

The MPCA has extensive scientific studies, data, and EPA guidance with which to rapidly adopt a numeric standard for ion pollution to protect aquatic life. Instead, it proposes the half-step "policy" found in Exhibit D2 as S-5 - Permitting Framework for Aquatic Life Narrative Standard (https://www.pca.state.mn.us/ sites/default/files/wq-rule4-17p5b.pdf0) But a policy is not an enforceable rule. MPCA should stop dragging its feet and pretending it can eliminate Class 3 and 4 standards in a vacuum without harming aquatic life. The only reasonable course is to expand the current rulemaking to adopt Class 2 numeric limits for ion pollution which are protective of aquatic

Stay informed

Changes in beneficial use classifications and water quality standards are important ways in which trout fisheries will either be protected or left to become degraded. We hope this article has provided a useful framework for you to understand and comment on water rulemaking proposals.

Stay informed by regularly visiting the MPCA's water rules page at: https://www.pca.state.mn.us/water/water-rule-making

Sign up to receive email notices future rulemaking proposals at: https://public.govdelivery.com/

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WILD BROOK TROUT IN MINNESTOTA ARE DEPENDENT ON CLEAN WATER FOR SURVIVAL.

FLY FISHING AS A TEAM

25 YEARS OF PARTNERSHIP

By Scott Nesbit and Eric Lundin

ermen who have been fishing together for 25 years. We are better fly fishermen because we have fished together and better friends because we have the river. This past spring we fished more than usual because of the COVID-19 pandemic. We drove separately and fished with social distancing. It was particularly nice to fish with each other because the pandemic had significantly reduced our in-person contacts with others. This article is a result of the wonderful times we have had. These are some of our thoughts and musings from our time on the water.

Eric: We had been fishing for an hour after walking upstream into the canyon to a new area. It was still mid-May so the walking was easy and we were ready to have a blessed day with clouds and some humidity in the air. The fish had just started biting and I had landed a few, but it was still hit or miss. As I stood on the bank, casting a nymph into some submerged rocks, I began to reflect on how it came to be that 25 years later, Scott and I were still fishing together. Why did it work out? What had I gained from having the same partner to tramp down the creek with all these years? What had we done to make it work?

Anticipation is one of the great things about fly fishing. The anticipatory hormone, dopamine, makes sure you are ready in every way, and sharing this anticipation is one of the underrated qualities of having a partner. Since you are committed to someone, there is no backing out, pretty much no matter the weather. You begin thinking like a team. Strategies are established early in the week: Where to go, what flies to use and how to work with the weather. It is like setting a stage for a play that will only be watched by the two of you.

Scott: For the past month, we had been fishing once every week during the pandemic. We decided that we would do a little warm-up fishing in a regular spot before we headed further upstream to the canyon and new waters beyond. We wondered if we would reach "boxcar rock." We had been told of this landmark, but did not know how far upstream it was or even if we would recognize it. After 20 minutes of warm-up fishing, we crossed over a stile and were off on our new fishing adventure. I noticed a possible good fishing hole that we had not seen the year before. We decided to give it a try. Although we did not catch a fish, we agreed that it was a good decision to stop. We learned that in the future we would not spend time fishing there. Eric: Early on in our fishing career, we came to our favorite spot in the valley. The stream was a milky, lime-colored concoction. One of the things about being a greenhorn, naïve and too eager, we did not even give it a second thought to leave. Soon, a few black caddis were coming off the water. There was just enough to get the fish going. Scott and I went through about six caddis flies that day, catching near a hundred trout. The drift did not matter, whether it floated or sank, upstream or down, and for a day, I felt like I had come into my own as a trout fisherman. There has never been another hundredfish day for me, but in that moment, Scott and I were linked by a legacy and a narrative that has spanned these 25 years. Many other stories have unfolded, but this was the defining moment when the bond was cemented.

Scott: We started to fish and in a single spot Eric caught several browns on a size 16 Flashback Pheasant Tail nymph. I switched out my fly to the Pheasant Tail and began fishing the spot Eric calls "indicator run." I caught a couple and then put on a strike indicator. Eric moved upstream beyond me to a shady run and caught some feisty browns that put on aerobatic shows when hooked. We continued up and came to a long, flat slow-water area. This is where we had stopped last year. We were excited to go forward and see what the new water would hold.

Eric: Over the years, Scott and I would negotiate each hole and often, (way too often) I would let him take the bottom half. I was drawn to the riffles, the water being broken, and the rushing sound. I was often too interested in these shallow areas, like a guy drawn to a pretty girl he had no chance of ever dating. I often caught the first fish, probably because there was regularly that one trout actively looking for food. Before long though, it seemed Scott kept catching more fish and then more fish. I would think, "What the heck?" It took me way too long (years) to recognize that the long, deep end of each stretch held a lot more fish. Although I have enjoyed the babbling and rushing of the brook, I needed to start negotiating more about how we would fish each stretch. There are times now when we let one go ahead of another and then follow if the stretch is long enough. I think we both hold a secret satisfaction of catching fish behind the other. Although we don't brag, I find myself having an internal dialogue that can be way too self-congratulatory.

Scott: After walking five minutes, we looked ahead and there in the stream was a gigantic rock. Was this boxcar rock? Eric was convinced it was, I was not so sure. I took a photo and told Eric that I would check with my friend Mike who fishes this stretch of the river. We decided to make this our lunch spot. It was here as we were eating that Eric proposed the idea of writing an article on fishing together as a team.

After lunch, we started to walk upstream and I saw just ahead of us a bend in the stream that created a big deep pool. I made a beeline for the pool while Eric took the stretch just below me. I positioned myself in the calmer and shallower water downstream from the river bend. I figured that I could steer a big fish into this area and have a better chance of landing it with my 6x leader. I cast my favorite fly, a Doc Halvorson Bead-Headed Peacock Soft Hackle, into the head of the pool. Within seconds, I felt the fish hit and then a heavy weight that bent my four-weight rod. I yelled to Eric that I had a big one on. He scampered up to where I was and watched as I scooped a nice 14-inch "buttery bottomed brown" into my net. Eric then snapped a photo to capture this shared memory in our minds.





SCOTT NESBIT AND ERIC LUNDIN, THE AUTHORS, PICTURED ABOVE.

After the excitement of catching the big brown in the bend pool, Eric went further upstream to explore and fish more new water. I continued to fish the pool. After ten minutes and no more action, I tired and sat down to eat a granola bar. After 15 more minutes, Eric returned. We agreed to head back downstream and fish along the way. Like a "bat out of hell," I went ahead fishing only sporadically. Eric caught up to me on the stream and told me he was still catching fish. He encouraged me to keep trying and gave me a size 18 Blue-Winged Olive Emerger. Now with renewed vigor and confidence, I began fishing again.

Eric: Scott and I often fish extremely hard and it is this shared temperament that has kept us fishing together. Time, however, has a way of mellowing even the hardiest of partners. We had fished hard for about six hours and caught plenty of trout for a whole season of fishing. When we got back to the truck and would normally go to a secondary spot, Scott asked innocently enough if I had had enough. The question had never been asked before in all of the time we had fished together. Leave at 2:30? I looked at him. For a moment, I resisted. I could feel my knees aching and we looked at each other's lined, wrinkled faces and we called it for the day. It was one of the hardest things I have ever done on a stream. I also knew there would be more days like these ahead.

Much of our learning has come in the car on the way home. Together, we have helped each other understand that fishing the Driftless Area of the Midwest means 6x line as the preferred choice most days. A high sun, although beautiful, usually

ends with a burnt neck. Furled leaders have changed the world. If it rains four inches, your favorite creek still looks like chocolate milk four days later. A float indicator is more than decorative foam.

These long trips have often been marked by curiosity and subtle frustration as to why the fishing did not go our way. Having a partner often soothed my ego at not catching more fish and, more importantly, we had a ritual each time we went: "What did we learn today?" I was often amazed at how each trip brought out something we had not experienced before. Having that ride helped us to reflect, rather than allowing us to go into the deep recesses of our unconscious immediately. Now when we ask the question, and we still do, the answers are not as technical. They are more philosophical about our experiences on the water. As we drove home that day, I realized that part of what has kept this trout madness between us going is the forgiveness of our foibles.

Eric and Scott: Many people go fly fishing for solitude, to get away from everything and leave distractions behind. There are many advantages to fly fishing this way. However, there is another way to fly fish: together.

Eric Lundin is a Licensed Psychologist and has been working in Mental Health for 31 years in Northfield and Faribault, Minnesota. Eric can be reached at elundin@co.rice.mn.us

Scott Nesbit is an Instructor in Exercise Science and Head Women's Tennis Coach at St. Olaf College in Northfield, Minnesota. One of the St. Olaf classes he teaches is a fly fishing/fly tying class. He can be reached at nesbit@stolaf.edu

SELECT POETRY: THE NAMING

By Roger J. Ring

I stepped over death Into time, through time.

An angular stone presses toward Hell Posited on water worn rocks on the bank There lay the tombstone.

Wind and age and water prove Their wearing, weary affect. Guessing, squinting, subtracting 1855-1887.

A life truncated, bordered abruptly Beneath 32 Minnesota winters. Drought exposed displaced death In the bitterness, the cold, the snow.

Who needs to know
What needs to be done?
Curiously disturbed
My stomach aches
For once
I wish I wasn't alone.

The Hatch is on.

Muddling rises flash dorsal fins
As midges glide over the Ghost
Of a man I'll never know.

Drifting through riffles to eternity.

Is this what he meant when he said
"Out of his heart shall flow rivers of living water."

I fish through grief to glee Landing browns and rainbows Of deep beauty and vitality. After a dozen in hand I leave And tell my fishing partner.

He said we should call it "Deadman's Run."

Roger J. Ring has been chasing trout since 1958, having been raised close to Nine-Mile Creek in suburban Minneapolis. Currently a Rochester resident of 38 years, the thrill of the chase has yet to cease. Fly fishing is its own avenue of awe, peace and serenity, and gratitude for the wonder of a babbling creek.

A THANK YOU TO MNTU'S MANY BENEFACTORS

By Mike Madigan, MNTU Treasurer

NTU extends a heartfelt and sincere thank you to the hundreds of Minnesotans who have contributed to the organization. Your contributions enable MNTU to effectively advocate for the protection of coldwater ecosystems and for the trout, steelhead, salmon and other aquatic life that exist within those systems. Your contributions also allow MNTU to effectively communicate with and engage the public and its thousands of members with high-quality education programs for youth, families, and individuals to fosof MNTU.

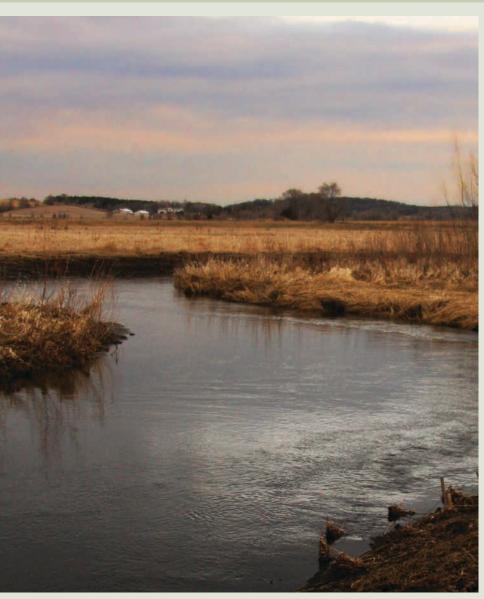
In the Upper Midwest, we are surrounded by natural beauty and an abundance of water. In fact, water, to a large degree, defines us in Minnesota. We are the "Land of 10,000 Lakes" and "Sky Blue Waters." Along our rugged north shore, we border the world's largest freshwater lake by surface area. In our northern boreal forest, we harbor the country's largest canoe wilderness—over one million acres. The state encompasses over 92,000 miles of rivers and streams. And many of those streams nurture healthy coldwater ecosystems in which trout

and steelhead spawn and thrive. We are fortunate indeed.

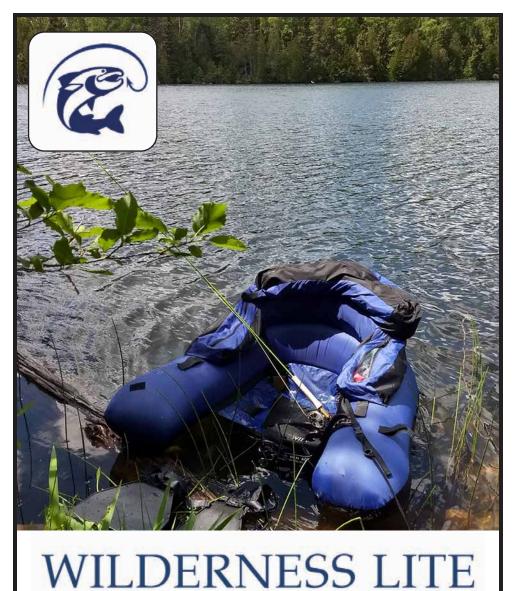
In the foreword to his book of short stories entitled *The Longest Silence, A Life in Fishing*, Thomas McGuane urged all of us to do our part to protect these precious resources.

"We have reached the time in the life of the planet, and humanity's demands upon it, when every fisherman will have to be a riverkeeper, a steward of marine shallows, a watchman on the high seas. We are beyond having to put back what we have taken out. We must put back more than we take out. We must make holy war on the enemies of aquatic life as we have against gillnetters, polluters, and drainers of wetlands. Otherwise, as you have already learned, these creatures will continue to disappear at an accelerating rate."

To increase our organizational capacity and sustainability and more effectively fulfil our mission, MNTU created the Riverkeepers Council, our flagship community of donors with the resources and commitment to donate \$1,000 or more. A special thanks to these generous individuals.



THE VERMILLION RIVER AT SUNSET. DAN CALLAHAN PHOTO.



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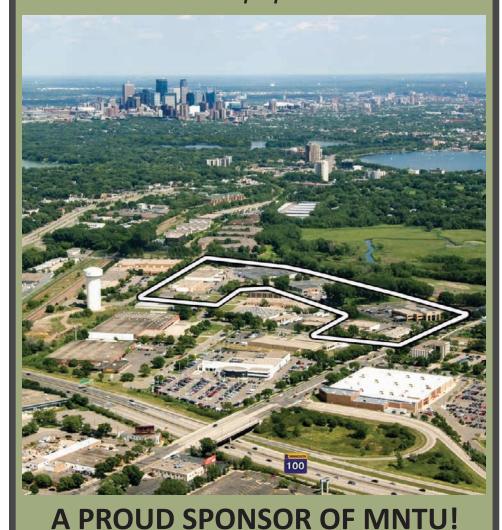


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MNTU 2021 PHOTO CONTEST: ON THE WATER

his is the official announcement of the 8th season of the MNTU Photo Contest. We're excited to bring back one of the most popular annual features of the publication. This year, we welcome submissions that highlight the places and waters that you've been able to visit around the state, particularly during the pandemic. Fishing is one of the few things that we've been able to consistently participate in, and we hope you've been able to get out and take some great photos!

Send in your entries early, we look forward to seeing your photos!

Rules of the Contest:

- Photos must be shot in Minnesota.
- Photos must include a trout, salmon

or steelhead with water in the background of the photo, **OR** a water body that they inhabit.

- Photos must be submitted by May 15, 2021. Top entries will be published in the June issue of the MNTU Newsletter.
- All photos submitted must be sent in *.jpg format at their original resolution to the Editor at: mntueditor@gmail.com
- There is a entry limit of four photos per individual. Please include the name of the photographer and the location the photo was taken in the submission.
- Submission of photos gives MNTU the right to publish photos in the MNTU newsletter, in online media, and in other print mediums.

2021 Prizes:

The winner in each category will receive a box of a dozen flies ready to catch trout this season. The overall winner will receive a Minnesota TU t-shirt and an official MNTU hat.

Check out some of the entries from past years. Photos have come from trout waters around the state, and have featured brook, brown, rainbox steelhead and lake trout. We'd love to the entries from past years.

Share this announcement with your friends near and wide, we welcome submissions from members and non-members alike. Photos from the contest will be used in the upcoming June 2021 issue of *TU MN* and will be highlighted on our website, Facebook page and in other promotions.

Questions? Contact the newsletter editor at: mntueditor@gmail.com.

Looking for Inspiration?

Check out some of the entries from past years. Photos have come from trout waters around the state, and have featured brook, brown, rainbow, steelhead and lake trout. We'd love to see even more salmonids! From the Driftless to the North Shore, photos have encompassed the length of the state. Even more waters are out there for you to explore, fish, and hopefully snap a few photos of as you're on the water.



STEVE YOUNG 2016 PHOTO.



JESS TORMANEN 2015 PHOTO.



BROOK TROUT ABOVE BARRIERS

RESIDENT TROUT ON THE NORTH SHORE

By Jason Swingen

am sure many of you started out trout fishing in smaller creeks and rivers for brook trout, rainbows, and browns. For me, it was the opposite approach. I dove into steelheading fishing before I even knew there was an opportunity to fish for brook trout above the barriers on the same North Shore tributaries I had been fishing all spring and fall. But, if you are new to trout fishing, brook trout can provide a great opportunity to target fish with a variety of different flies and explore some new water.

Although many of the flies and techniques are the same as with steelhead, fishing for brook trout is much more of an adventure. Or at least it can be, since these trout can be found in streams that run right through North Shore towns like Duluth as well. However, the true experience of brook trout fishing comes from exploring the Northland in search of big brookies that see little to no pressure from other anglers. The amount of fishable water on the North Shore of Lake Superior is pretty substantial and allows for years of exploring new waters in search of summer brook trout on the fly.

For those of you that are newer to trout fishing and want to give brook trout fishing a try, I have a few tips that should help you get started and help you find some productive water.

The Gear

When choosing a fly rod for any species you want to take into account the size of the fish you are targeting, and the size of the flies you will be throwing. That makes 3-, 4-, and 5-weight rods great options for brook trout, because many of the fish will be less than 12 inches (with a possibility of finding them in the mid to upper teens), and the flies you will use can easily be thrown on a rod of those weights. Next,



A WILD BROOK TROUT IN THE STREAM. MAX ELFELT PHOTO.

you will need to decide on the length of the rod, which should be determined by the size of the river and the amount of overhanging, fly-grabbing branches. Rods seven to eight feet long are ideal, but longer models can have their benefits too. The shorter rods allow you to bushwhack to those small backwaters and get a good cast through tight spaces if needed. Any reel will do, and your fly line choice should be a standard weightforward floating line that matches the weight of your rod. I don't always use a tapered leader, but when I do it's when I'm fishing for brook trout. I like a 4x nylon tapered leader in roughly the same length as my rod, which for me is seven feet. A spool of 4x nylon tippet should get you by, but adding another spool of fluorocarbon will help if you want to do some nymphing.

Speaking of nymphing, we should probably talk flies. Brook trout, especially the ones that haven't had much pressure, are fairly aggressive fish, which make them a ton of fun to target with a variety of different flies. There are definitely times to #matchthehatch, but as a fly tyer, it can I will then narrow down a section of be much more satisfying to see what you can get them to eat. If you are nymphing, it is hard to beat a standard Pheasant Tail or Prince Nymph, and for those of you that want to feel the tug, throwing a Woolly Bugger or Muddler Minnow will work just fine. But if there is an opportunity, it's always worth seeing if you can catch them on dry flies. Depending on the time of year, #14 caddis patterns will often do the trick, but a Chernobyl Ant or other large foam patterns will get their attention, which is often all you need.

Brook trout are fairly accessible and aggressive eaters, therefore they can be vulnerable to overfishing. Those factors combined with their relatively slow growth rate and climate change impacting their coldwater habitat makes it important to practice safe fish handling and catch-and-release.

Finding Water

For me, finding water typically starts with the MN DNR Trout Stream Finder to get a broad idea of where to begin.

the river by using some type of aerial imagery to find accessible stretches of water. These sections I'm looking for are considered "above the barrier" since they are located further upstream of the barriers that stop Lake Superior's anadromous fish. Then, I will pinpoint sections of water that have converging streams, as well as a few larger pools or bends that may hold higher numbers of fish. Brook trout need cold water, and in the middle of summer, when the temperatures start to rise, they will congregate in areas where the water stays cooler. Once you are finally on the water and searching for the most productive stretches to find some brook trout, it's good to remember: Wood is good, but the foam is home.

Editor's Note: Jason Swingen is a Gitche Gumee Chapter board member and resides in Duluth. Check out his outdoors blog at www.js-outdoors.com

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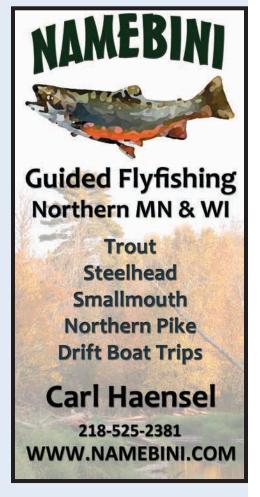




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SMOOTH GLASS

AN OBSESSION WITH FIBERGLASS RODS

By Scott Hanson

mooth is a highly sought-after quality in many things. I think we can all agree that butter should be smooth. In that same vein, milk that goes down smooth is better than milk that goes down chunky. Beer companies champion their products that are smooth as well. On the rare occasions that I take a sip of hard liquor, I always try to ensure those around me think that my throat is not on fire by grimacing out the word "smooth!" through pursed lips and squinty eyes. Smooth is a great quality in many things, and some of my favorite smooth items are my beloved fiberglass fly rods!

Yes, I would say that fiberglass fly rods are indeed smooth. Maybe even laid back. But definitely not weak. While graphite rods are getting faster and faster, my beloved glass rods are nice and slow, with a smooth casting quality that is perfect for the trout streams around here. It seems to me that the faster a rod is, the more precise the casting stroke needs to be to get it to work properly. My smooth glass rods have a forgiving quality, because they know that even a seasoned angler like myself doesn't make perfect casts all the time.

An added benefit of a smooth-casting fiberglass rod is being able to feel it load and unload. I don't teach a lot of casting classes, but I have taught my fair share of novice fly casters the tricks of the trade. I always find it easier to teach them with fiberglass rods, simply because they can feel the rod loading and unloading on every cast. When you can feel a rod loading, you can be assured that it is doing some of the work for you, which can give the fly caster a sense of accomplishment. That can go a long way when first learning how to cast a fly rod.

Smooth can also mean delicate. A soft fiberglass rod can be so beneficial when fighting large fish on fine tippets. That added smoothness in the tip section of the rod can be the difference between landing a large fish and performing a "Long-Distance-Release" because the tippet broke.

There has been a resurgence in glass fly rods over the past decade or so. Once thought of as a relic from the past, glass rods have almost become popular once again. If you were to hang out with a bunch of glass-loving rod aficionados, like I do on occasion, you might think



that there is a full-on glass rod hysteria hitting the nation. While that might be going a little overboard, it is true that almost all of the biggest fly rod companies now offer at least a few glass rods in their line-ups, and there are numerous small rod builders that specialize in glass rods, as well. And don't forget the vintage glass rods that are still floating around out there. A vast majority of the glass rods in my arsenal are more than 35 years old, and they still do the job just as well as when they were first made.

If you are interested in glass rods there are lots of ways to get started. Don't want to spend too much money? Brand new Eagle Claw Featherlight glass rods

cost less than \$40, and they are surprisingly nice casting tools. Cabela's CGR glass rods are another nice low-cost option, coming in at around \$70.

Vintage rods can be great, and most are also relatively inexpensive. Two brands that regularly show up in online auctions are Fenwicks and Shakespeare Wonderods. Every vintage Fenwick fiberglass rod that I have ever cast has been sweet, so that would be a great place to start. Wonderods have a lot of fans, too, but I prefer the shorter models to the longer ones. Wonderods have a metal ferrule, much like a bamboo rod. That adds some weight, which makes any Wonderod longer than about 7-feet 6-inches

a little too heavy for my liking. But, you may feel differently. Wonderods can often be found in the sub-\$100 range, and Fenwicks are usually around \$150 or so, depending on the model. One note about vintage glass rods: Back in the day, there were very few rods that were lower than a 5-weight, so the vast majority of vintage glass will be in the 5- to 7-weight range. There are exceptions, of course, but don't expect to find any old rods if you are in the market for a 3-weight.

There are dozens of other smooth fiberglass rod options out there, as well. With a little more research you can find all sorts of fun new glass rods to add to your arsenal. And if you ever have a few free minutes or weeks and you want to learn more about smooth glass rods, just ask me or any other glass rod aficionado for our opinion. Maybe we'll invite you to one of our get-togethers. Afterwards you might even suffer from fiberglass fly rod hysteria yourself!



Editor's Note: Scott Hanson has been tying flies and fly fishing for over 35 years. He also ties commercially for local fly shops and has authored dozens of fly tying articles for regional and national publications. Check out his blog at www.theriffle.blogspot.com



MNTU CHAPTER NEWS

Gitche Gumee Chapter

Happy New Year! It's hard to believe that February 2021 is already here but, after everything we all went through this past year, it's great to see 2020 in the rearview mirror. I enjoy this time of year for a number of reasons. First, it gives me the opportunity to reflect on the past year's accomplishments on the water and reminisce of fishing trips while looking at pictures. Secondly, it's a time to go through, sort, and organize all the gear and fly boxes used from the past season. Lastly, this is the time to pull out the vise and tying materials and start tying fly patterns that need to be replenished for the upcoming steelhead season. Then, just like that, the rivers will be alive and steelhead fishing will be top of the mind! Before that happens, check out the number of exciting events we have happening in the next several months.

Tuesday, February 16 we will hold a joint meeting with Arrowhead Fly Fishers. We have a great lineup of speakers from the Minnesota and Wisconsin Department of Natural Resources presenting topics on our area fisheries (North Shore and NW Wisconsin). This is one of our favorite presentations each year so be sure to add this to your calendar. We plan to bring you another great presentation on March 11, topic TBA. Then on April 8 we will have our annual State of the Steelhead meeting. Typically, we have fishing reports to share at this time so if you want to catch the "buzz" on what's happening and what to expect for Spring '21, be sure to mark this date on your calendar! All meetings will be done through Zoom. Additional details about all three meetings will be shared on our Facebook page and in the chapter email newsletter. We will be holding our chapter elections during our April meeting.

We are also working on putting together a survey that will be sent to our chapter members. We are interested in hearing from our members on issues including conservation, stream restoration, volunteer opportunities, and fishing our waters. This will help us with developing future programs and planning river maintenance days, and give us a sense of what is most important to our members. Members, please watch for the survey participation email in your inbox in late February or early March. By participating you'll be entered into a drawing for a box of flies and a gift certificate to the Great Lakes Fly Shop.

Lastly, later this Spring we are planning on having a few work days on our local rivers. The first event will be during the week of June 7 and we will focus on the Sucker River. There are several sites our chapter has worked on over the past several years. Visit mntu.org/projects to see all the great work we have done on this river. We are also targeting a date in the late May/early June time frame to

do some trail maintenance and tree planting on the Ka-



GITCHE GUMEE'S ANNUAL "STATE OF THE STEELHEAD" MEETING WILL BE HELD VIRTUALLY ON APRIL 8.

dunce River. Again, more details about both projects will be available through our Facebook page and chapter email newsletter. If you are looking for an outlet after a Minnesota winter or just love being outdoors, we'd love to have you help volunteer!

Have a great rest of the winter and we hope to see you on one of our Zoom presentations.

Brandon Kime

Headwaters Chapter

As we turn the corner on another new year, we can't help but hope for a return to normalcy. It was a long past year without socializing, living a normal life, or doing much volunteer work. We look to 2021 with the hope that a vaccine will be widely available and we can socialize with other people outside of our own households. Our members have been keeping safe and social distancing, but we all yearn to be connected. In January we started our first night of virtual Community Fly Tying held on Google Meet. It was great to connect with others in our chapter from across the city and beyond. We were able to include two members who moved away from Bemidji and everyone is looking forward to the next session where we will tie some ice fishing flies. Our plan is to have our sessions on the second and fourth Thursday of each month. While we all wish we could be in the same room, this was the next best thing.

Winter Trout by Steve Young:

Just a reminder that the winter season for fishing trout in area lakes runs from January 16 through March 31 this year. There are a number of lakes to choose from, most of which are stocked with catchable-size rainbows (a few with browns or brook trout) and all of which will have some larger carryover fish in them. Cutting a large "sighter" hole and watching them swim in is great entertainment, even when getting them to bite is a challenge. NOTE, some area lakes are closed in the winter (like Bad Medi-

cine) so make sure to check the regulations carefully.

As you move east to the area around Grand Rapids you can get into more lakes carrying splake or lake trout. For lakes entirely within the BWCA, the season opened January 1 and runs through March 31. Check the regulations to make sure you are complying with each lake's restrictions on bait, number of lines, limits, etc. For those who need to swing a longer rod around, there is a winter season on streams in southeast Minnesota. On the right day, fishing those streams can be fun and productive, even in January.

It might be a long winter, so get out there and enjoy it!

Volunteering

One of the main focuses of TU642 is our outreach and assistance in areas such as stream restoration and elementary education. Both of these areas are dependent on volunteers to help out. While it has been almost a year since we were able to help with our Fifth Grade Fly Tying program, our hope is we will be able to get back into the classroom this spring. Time will tell if we are allowed in the schools or if kids will be able to participate. We will learn more in the weeks to come.

We have also not forgotten about the stream restoration needs in our area. No progress was made last summer because of COVID restrictions, but we are looking forward to getting back outdoors this summer and will be looking for many volunteers to help. We have already been contacted by people requesting our help and are hoping we can meet their needs. Social distancing restrictions are easier to do with outdoor activities so here is hoping we will be able to "socialize" outdoors this summer.

Get Outdoors

In a normal summer, our family would plan a week-long camping trip somewhere. In the past, we went to Yellowstone, but mostly we stick to one of Minnesota's state parks. With the restrictions this past summer we decided to book a week in Voyageurs National Park and combine fishing and camping. This was our first trip there, even though we have lived in Minnesota our entire lives, but it won't be our last. If you have never experienced a boat-in camping trip you might be like me and overpack. We were lucky that our island was remote enough that the only people we saw were those passing by in their boat. We fished every day and were able to pick wild blueberries for breakfast. The views were unbelievable and the weather unpredictable. Even though we had to deal with a thunderstorm one night it did not hamper our sense of adventure.

Kris Williams

Hiawatha Chapter

Hiawatha Trout Unlimited (HTU), like so many other organizations, has not been able to have large gatherings due to COVID-19 being still very present and wanting to keep our members safe. We are currently working on web-based activities like having speakers through Zoom meetings, but these are still in the works. HTU will put out notifications via Facebook and our member email list when we do have events set up. The HTU board of directors is working hard to keep things moving forward. Thank you to all our members for your support.

Phil Pankow

Twin Cities Chapter

Happy New Year, anglers!

As we embark on a new year, our hopes are high as we gear into the fishing season. The Twin Cities Chapter is very excited to welcome our new board to the table, recently voted on at our January Annual Meeting. Committees are forming and ideas for events, speakers for our chapter meetings, and plans to get out this spring to work on some local habitat projects are underway. Diversity will be a focus in the coming year and creating new partnerships is part of our strategic plan

For the next couple of months, we will

MNTU CHAPTER NEWS



be abiding by state guidelines and offering our virtual speaker series at our monthly chapter meetings. We have a good lineup so far and are excited to be rolling out the newly updated website where this information is found—thanks to a couple of dedicated board members! Speaking of board members, special thanks goes out to those that have rotated off in 2020.

In our strategic plan/bylaws, the board thought it healthy to designate board limits and staggered times. This ensures a healthy system where people are able to take on leadership roles and bring forth new ideas, seasoned board members get a chance to share their wisdom and it prevents volunteer burnout! This process also gives an opportunity for board members to take a break and maybe rejoin down the road in a different capacity.

With that said, thank you so much Renee Hartwig for your leadership in getting our bylaws completed and overseeing the membership as it grew to over 2,000 members! In addition, we thank you for your guidance on the nominations committee. The exciting new Board is a result of your team's effort!

Brian Schaefers, thank you for your dedication as you served in the TCTU secretary role for several years. In addition, all your hard work in the fundraising capacity has been very appreciated and we look forward to the days ahead of in-person events. We are excited to have you and Renee team up on the newlyformed recognition committee.

Many hands of gratitude extend to Kurt Lach who diligently worked behind the scenes on website updates. We appreciate the countless hours and are so excited to roll out the final product this spring.

Kelly Kallok, one of the finest front line workers, we miss you and appreciate the years of support as we forged ahead in the diversity initiative. As things begin to be less crazy, we look forward to the times we can collaborate with you again. Thank you for your service as a nurse in keeping Minnesotans safe and healthyand keep hauling in those monster fish!

Finally, Tony Nelson, words can't quite express the gratitude we all have for the thousands of hours spent planning, walking streams and getting hands muddy as you led volunteers to improve stream habitat. We are so glad to have you mentor one of our newer board members picking up the torch where you left off. It was wonderful working with you—the anglers and the fish appreciate all your efforts too!

Looking back over the years, it has been a pleasure and honor to work with such talented people—both on the TCTU Board and within this chapter. There is so much great work to be done in the conservation of coldwater fisheries and instilling the love of the water, the sport and the environment for generations to come. I look on with excitement as all

of the hard work of many people got us where we are today. 2021 is a year of opportunity and hope. I look forward to where the Twin Cities Chapter will take

Congratulations to the 2021 TCTU Board: Bob Luck, Jeff Maleska, Paul Johnson, Mike Hodgens, Benji Kohn, Chris O'Brien, Anthony Hauck, Steve Kaukola, Zach Pope, Jake Dahlke, Smith Kinney, Angelo Williamson, Evan Griggs, Jim Sauter and Janine Kohn.

Here's to BIG FISH and BIG DREAMS in 2021!

Stay safe and see you down the stream....

Janine Kohn

Win-Cres Chapter

Win-Cres members continue to be grateful that we live in the Driftless Area. Local streams have been a place of safe refuge. Despite the record number of fishing licenses sold, there is plenty of public water for everyone. Many new anglers have been taking advantage of public access in area towns, particularly Preston and Lanesboro, as well as state parks.

Last summer Win-Cres members worked in small groups on the resource. Mike Jeresek once again led a team that mowed more than 10 miles, improving access along area streams. Garvin Brook and Rush Creek were mowed twice, Gribben and Diamond creeks once. Mike is stepping down from mowing work. We are grateful for his years behind the mower, on our Board, and his decades of habitat work. His will be difficult shoes to fill.

The DNR has developed higher standards for volunteers using chainsaws on eased properties and joint projects with the DNR: chainsaw certification. For people who will be cutting down trees, full day in-person courses are probSELECT POETRY

By Larry Gavin

Bucksnort Dam: Sunrise

Broken glass blazes up in the parking lot signifying the honesty of the stars, their flight through the heavens not less true than our journey here. The car expires heat, ticking like a beast, on the bank of this stream one comes to love, comes to realize sure as sun rises. The insects pause, thanking the touch of deer and cattle, the constant rise of mayfly and caddis. The sudden rush, that must include all of us, our spirits too, in a dance we barely understand, a hush, that settles as if a reply that moves us each to nature's best response: silence a gift we give ourselves, and on which we balance.

> 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

ably the best. Their availability has floods. The DNR does not want logs been very limited during the pandemic. We located an online course which is suitable for volunteers as long as you are not going to be dropping trees: https://safetraining.com/course/chainsaw-safety-online-course/. It costs less than \$60, includes a certification exam, and takes a little more than an hour to complete both. Ron Benjamin, the Area Fisheries Manager, checked it out with the DNR Safety Officer, who felt it was suitable for volunteers. Three of our members have taken the class and found it useful.

Now that we have certified chainsaw operators, we are looking to clear some of the logiams that are left from the 2019

to be removed from the water. Improving access on the bank is allowable. We are currently working with two private landowners to work on their property this winter or spring. Anyone wishing to work on eased land or state property must work with the DNR and the landowner. There is a process.

We continue to meet via Zoom, but miss the storytelling and beverages that go with our social hour. We are hopeful that vaccinations will allow us to gather safely later in the year.

Chuck Shepard



THANKS TO THE HARD-WORKING WIN-CRES MEMBERS WHO MOW ALONG OUR STREAMS. WE APPRECIATE YOUR WORK!

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REELING IT IN

WHEN WILL SPRING ARRIVE?

By Carl Haensel

he snow was crisp in the cool morning air underneath my cross-country skis as I skied over the upper reaches of the Little Knife River, high above Lake Superior. I could tell where the river was only by the soft depressions in the snow at the bottom of the small valley. The bridge crossing melded smoothly with the rest of the landscape, and if I hadn't have paused, I wouldn't have been able to hear the faint trickle of water rushing over the rocks beneath the hard, crusted surface.

Somewhere underneath there, a few trout were resting in the deep pool. Of this I am sure, for they've been there each season, and the watershed is stable, the forest protected and secure, and the habitat suitable. I'm not sure what kind of trout they are at the moment. Some years wild brook trout fill the trickles, and in other years, steelhead might make it all the way up from the big lake, pushing into the smallest headwater reaches and spawning, leaving their young to grow for two or three years.

It's these small steelhead that I'm dreaming of right now, finning there, safe and secure underneath the blanket of snow. With a little luck, we will have a calm, gradual snowmelt this year. Fast, abrupt warming in the spring can lead to large spring floods, both in the Little Knife River valley and in my basement, and I don't like to experience either of them. If the melt is calm, the young steelhead that I hope are there will hang tight and

spend another season in the river, instead of being swept downstream and potentially out into the lake. They survive better if they live for at least two years in the river, something we have very little control over. I'll watch the spring warming trends and keep my fingers crossed.

While the little steelhead are waiting away in the winter, their parents are out in the sky-grey water. Under the dense clouds of sea-smoke billowing out of Lake Superior, they play their own waiting game. They are ready at a moment's notice, whenever the water in the river warms just enough to suit them. They seem to know that coming in too early when the water is only 34 or 35 degrees keeps their bodies too cold to swim fast enough or jump high enough to make it over the falls on most of the North Shore rivers. They only arrive when the time is right.

Some years, the rivers melt early and fishing begins by the end of March. In other years, the chilly polar vortex has stayed south, keeping the steelhead from the streams until the last week of April. There are, of course, always some early arrivals. I am grateful for these fish on those days when I go fishing before common sense sinks in and tells me that it's still too cold and I have work yet to do at home. Even a single steelhead early in the springtime is a reason to rejoice. Until then, we wait, and wonder. When will spring arrive?



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