In defense of counting fish by David Brooks

“Do not tell fish stories where the people know you. Particularly, don’t tell them where they know the fish.” - Mark Twain

We’ve all counted fish from time to time. Quantifying the size or number of trout you landed is a simple way of celebrating a day on the water. It is the most cursory way of telling your fish story. It can, of course, run toward the kind of boasting that dumbs down the many pleasures of fishing and spending time on the water. But paying attention to fish numbers can help us learn about and take care of Montana’s trout fisheries.

Anecdotes, like a one-fish or, even, a forty-fish day, often start conversations about bugs, water conditions, seasons or weather, and how all of these align with trout habits, and thus make for good or poor fishing. But the numbers we glean from our individual angling aren’t the whole story. Single-line sampling might be the most fun way to learn a little something about a fishery but there are far more efficient ways to study a fishery, and these counts provide data that are critical to the work of Montana Trout Unlimited.

Just as summer draws out the majority of the angling public, it is a busy time for our state’s fishery professionals. Montana Fish, Wildlife and Parks (FWP) fishery biologists take to the water before summer heat is upon us to count redds of spring-spawning rainbow and cutthroat trout, just as they do for browns and bull trout in the fall. Between tallying the birthplaces of future generations of fish, FWP biologists can be found on streams and rivers counting and quantifying adult fish.

There are several ways that fishery biologists usually collect data on trout. Most involve electrofishing. If you shock fish with sufficient voltage, the fish are stunned. They literally go belly up and can be somewhat easily netted. To shock fish, biologists (often with the help of technicians or volunteers, like TU members and staff) use battery-powered backpack shockers or boat-mounted electrodes to run electrical current through a specific stretch of stream, river, lake or reservoir. Stunned fish are counted, quantified, and these counts provide data that are critical to the work of Montana Trout Unlimited.

see Native Trout, page 6

Plenty of action in Washington to keep us busy by Clayton Elliott

What’s happening back in Washington, D.C. can seem like it is a long way off both in distance and importance – especially in this season of chasing hatches and casting to rising trout. Nonetheless, MTU is keeping a close eye on proposed legislation in the U.S. Congress and actions taken by this Administration, and for good reason. While we often focus on what is happening in Helena during the state legislature, the reality is that the actions of our elected officials in Washington are having a significant impact on Montana’s coldwater fisheries – right now.

First, we are pushing forward one of the most important conservation-funding packages in front of Congress known as the Land and Water Conservation Fund (LWCF). This fund has been a much-needed tool in acquiring and protecting coldwater fisheries habitat and providing public access to our streams and rivers through programs like Fishing Access Sites and State Parks. While we have succeeded in getting LWCF permanently reauthorized, we are now working with our partners to pressure our congressional delegation to fully fund the program for the first time in decades. Additionally, we are pressing for new sources of funding for fish and wildlife habitat by supporting the Recovering America’s Wildlife Act (RAWA). This legislation would dramatically increase the amount of federal money that state wildlife agencies like Montana’s Fish, Wildlife and Parks receive.

On the public lands front, this summer U.S. Senator Jon Tester re-introduced legislation that would conserve and protect thousands of acres of public lands and hundreds of miles of headwater streams in some of the most critical bull trout and Westslope cutthroat habitat in western Montana. The Blackfoot Clearwater Stewardship Act (BCSA) is the product of decades of collaboration and would be a major win for native fish conservation if passed. It awaits a hearing in the Senate. And, we continue to hold this Administration’s agencies accountable for protecting and enhancing our public lands, access, and shared outdoor heritage.

As you remember, MTU worked diligently with our partners to pass the Confederated Salish and Kootenai Tribe’s (CSKT) water compact in the state legislature in 2015. The Compact is now awaiting federal approval by Congress, and we will continue to press our delegation to support a clean approval of the Compact and any necessary attached settlement during this Congress. Without the deal, Montana water users across the state of all types – from irrigators

see Washington, page 6
The Orvis Conservation Blog states that it “speaks to our impassioned belief that if we are to benefit from the use of our natural resources, we must be willing to act to preserve them…”

This past summer, at MTU’s Youth Conservation and Fly Fishing Camp, I saw firsthand just how much Orvis’ passion for conservation really makes a difference. The MTU “Kids Camp” has had almost 20 years to develop and improve, but Orvis gave more than $15,000 from their annual Guide Rendezvous, ensuring that 2019 was the best camp ever.

A total of 24 campers (increased from 20 in the past) learned fly fishing, river ethics, etymology, knot tying and coldwater conservation, and they participated in a conservation project on Senate Creek, a bull trout spawning tributary. Thanks to the donation from Orvis, site fees for Camp Watanopa on Georgetown Lake, the food, and the gear were completely paid for, and in several cases upgraded. On top of that, the campers also went from using very beat up 15-year-old rods to new Orvis rods and reels, thanks to a personal donation from Orvis Board Chair, Perk Perkins. They caught more fish than ever before; is that a coincidence, or perhaps the Orvis gear?

What I know for sure is that several kids left camp with a passion for fly fishing, and MTU believes this is one surefire way to conserve, protect and restore the rivers we love - by fostering the next generation of coldwater conservationists. So on behalf of all of us who are counting on those young people to carry on our work, thank you to Orvis and the steadfast volunteers who made 2019 Camp our very best.

Sharon Sweeney Fee, Chair

MTU welcomes new staff

Jon Van Dyke joined the MTU office in May as administrative assistant and is working on many tasks - large and small - that all make the office run more smoothly. Jon grew up in Missoula, learned to fly fish on the (big) Blackfoot and earned his Eagle Scout award with a trail improvement project along the Historic Lolo Trail. Then studies at the University of Montana took him on a 15-year adventure to Japan, where he worked as a translator, teacher, music promoter and bar manager. He hosted a weekly bilingual radio program highlighting local musicians and in 2009 he joined a Japanese television documentary team in their search for the rare flame bowerbird in a remote region of Papua New Guinea.

After returning to Missoula, Jon enrolled in the public administration graduate program at UM, and subsequently served one year as an AmeriCorps VISTA, during which time he was invited to join a group that was trying to launch an independent, non-profit, community radio station in Missoula. With Jon as general manager, the low-power FM station KFGM – Missoula Community Radio - launched in 2017.

Jon also serves on Missoula’s Riverfront Neighborhood Council leadership team. In his spare time, he takes his wife and daughter to recreate in western Montana’s public lands.
Counting fish... a variation by Kelley Willett

One of my earliest childhood memories is gazing at the green backs of fat, gorgeous rainbows in a stocked pond in Red Lodge, Montana. My folks paid for a Styrofoam (sorry – it was the ’70s) container full of yellow corn. My Dad baited the hook. I’d watch the spotted backs maneuver until the corn disappeared and my Zebco pole nearly bent in half. Then my Grandma fried our corn-finished trout up in bacon fat for breakfast.

Forty-plus years on, and my heart still quickens when I see trout in the water. This year, MTU’s Executive Director encouraged staff to have some field days. For me, my day in the field reminded me what it is we are working together to save – beautiful trout. I spent an afternoon in the company of TU Project Manager, and patient teacher, Rob Roberts, snorkeling my favorite stream in western Montana. Snorkel surveys have been an integral part of fish research for decades, allowing biologists to observe natural fish behavior, not just quantify the number of fish.

Even on a hot August day, plunging into 56-degree water took my breath away, but quickly it was the fish, the amazing cutthroat, and rainbows, and mountain whitefish by the dozen that made my breath catch. Seeing those fish in deep aqua pools, sheltered by woody debris or the contours of a submerged cliff face, with sunlight filtering through, made me realize just how little I am actually seeing when I am fishing the exact same hole. Again, and again, I would float through a run and be mesmerized by how the fish ate, and moved, and sometimes even seemed curious about me. Those spectacular creatures – surviving 95-degree days, and weeks when the river has bank to bank ice; rising to tiny bugs and also chomping mice at dusk – they fill me with wonder, and they are worth saving. Thank you – to the volunteers and the donors who help us keep the magical underwater world cold, clean, and full of trout.
**Bitterroot Chapter**

The Bitterroot Chapter hosted its second Reel Women of the ‘Root event on August 30th “Women, Wade and Wine.” Our first event was a huge success and we are looking forward to growing our women’s group. The details are located on our new website: www.bitterroottu.org and our Facebook page. Our 40th anniversary banquet is coming up on October 18th and we are busy in preparation for that.

**George Grant Chapter**

With assistance from Chris Edgington, MTU project manager, GGTU coordinated rancher-friendly modifications to the Pennington Bridge access on the lower Big Hole. This access site was funded with support from several local sportsman groups and private donations, with permission from the landowner. GGTU has been working with Butte Silver Bow County and the NRDP to open up Basin Creek Reservoir for recreational use. Basin Creek Reservoir contains robust populations of westslope cutthroat trout and offers amazing scenery just outside of Butte.

**Madison Gallatin Chapter**

Our Annual Lower Madison River Cleanup took place Saturday August 24th at 9 a.m. at the Warm Springs parking lot. MGTU Chapter has had another busy summer with over $3,000 going to Lyn Peterson at Harrison School to start a Fly Fishing Program for students, as well as two new Trout In the Classroom startups coming this fall in Three Forks and Pass Creek Schools. We’ve funded a recent $10,000 access restoration project at Cobblestone on the Madison to improve walk-in access and repair the foot bridge. Jeff Dunn has been busy with multiple restoration projects around the area on the Madison and Gallatin Rivers as well. Fall programs start up in October with Mike Cline talking about fishing in Australia and world-famous angler Hillary Hutcheson will visit our chapter in November for a fun evening with the annual Chili Feed!

**WestSlope Chapter**

After volunteering at the MTU Fly Fishing & Conservation Camp, the chapter has turned its attention to doing some boots-on-the-ground, in-stream work on Marshall Creek, a small but important Clark Fork tributary between Missoula and Bonner. This fits into our overall conservation strategy of increasing fish passages on all the creeks in the drainage. The chapter contributed approximately $122,000 this year to about a dozen projects, all of which are now in the works improving fish habitat and passage.
Fisheries biologists, unsung heroes of the Jefferson Watershed  

by Chris Edgington

As MTU’s Jefferson Watershed project manager, I am fortunate to interact with a diverse group of individuals working to protect and enhance our lakes, rivers, and streams. One such group never ceases to amaze me: Montana Fish Wildlife & Parks’ fisheries biologists. Our work at MTU would not be possible without these unsung heroes. In my project area, we have three incredible biologists - Jim Olsen (Big Hole), Matt Jaeger (Ruby/Beaverhead/Red Rock) and Ron Spoon (Jefferson/Upper Missouri). The knowledge and insight these biologists have shared with me while I get my program up and running has been priceless. They record, analyze and supply data which helps MTU spend our conservation dollars effectively. In many cases, they are the link to landowners willing to improve habitat on their land. They play an integral role in evaluating and issuing 310 permits (Montana Natural Streambed and Land Preservation Act), which are required when working in riparian areas to maintain stream function and minimize erosion.

Our fisheries biologists understand more about our beloved rivers than anyone and have the difficult task of creating regulations that protect these resources while balancing the needs and concerns of the angling public. Biologists’ days are long and the work can be arduous, but they are happy to share their expertise at several public meetings throughout the year. If you haven’t been to a biologist’s presentation, I urge you to go; a lot can be learned. Next time you see your local fish biologist, shake their hand and thank them.

Big Blackfoot backcountry trout restoration project needs hardy volunteers  

by David Brooks

The Big Blackfoot River is renown for its native westslope cutthroat and bull trout. It’s also known for the work that has been done to conserve, protect and restore the tributary streams, which provide cold, clean water and critical trout spawning habitat. The North Fork tributary of the Blackfoot is a prime example. About 16 miles up from its confluence with the main river, the North Fork tumbles over a waterfall. For centuries the falls have halted trout from migrating into the many miles of stream above. Historically, native trout inhabited streams above the falls and kept the population going. The ones that migrated below enhanced the lower reaches.

Starting about a hundred years ago, hatchery rainbow and Yellowstone cutthroat trout were stocked above the North Fork falls and have since dominated those pristine waters. Montana’s Fish, Wildlife and Parks Department (FWP) is now planning to restore an assemblage of native fish to the upper tributaries of the North Fork. This summer I joined regional FWP fisheries staff for a week of data collection in those tributaries. Based on the results of the eDNA samples we took, readings from temperature sensors, and on-the-ground observations, FWP will have the data to choreograph the removal of non-native fish and restocking of native fish over the next few years.

The geographical scope, complexity and potential benefits to native trout within the whole Blackfoot watershed of this project are impressive. It will include 19 fish-bearing streams and three lakes, covering a 110 square-mile drainage with about 85 miles of stream habitat. The aim is to restore native westslope cutthroat to nearly all of that water. To accomplish this effort, FWP will need our help. In addition to providing sound public comment, we will need hardy volunteers willing to spend a week or more in the backcountry, traveling through wild country on horse and on foot. If you are willing and able (long days on horseback and technical hiking across downfall) to help with the summer 2020 phase of native trout restoration in the North Fork, let us know. Hard, rewarding work on behalf of the trout you love awaits.
measured, weighed, sexed, and marked. In small streams, a fishery biologist and crew can, hypothetically, cordon off a section of the stream with nets running from bank to bank at the upper and downstream ends of the sample area, then shock, remove, quantify, and mark every fish in a given area in a few passes. By repeating the process on enough randomly chosen sections of the stream, this can yield a near exact population survey.

Shocking, capturing and counting every trout in a larger stream isn’t possible, or certainly isn’t practicable. To estimate number of trout per mile in larger streams depends on well-tested modeling. Nearly all fish population models for rivers involve the ‘mark-recapture’ method of electrofishing, by which a biologist shocks a sample area, captures, records information about, marks, then releases fish. The biologist returns to the same area after fish have had ample time to recover from the first effort and redistribute themselves in the population. A second electrofishing run of the area is made.

In a closed system, where no fish are leaving or entering the sample stretch and no fish die, the proportion of marked fish that are caught in the second sample should equal the proportion of the total population in the sample area that were marked from the first sample. Think of it using this example: 100 fish were caught and marked in the first effort; 100 fish were caught in the second effort and 10 of those fish were marked; therefore 10% of the population is marked so there are an estimated 1000 fish in the sample area.

Of course, rivers aren’t that simple. Nor

to instream flow advocates – would face decades of litigation over the reserved water rights held by the tribe. The Compact also secures needed instream flows for hundreds of miles of rivers and streams like the Clark Fork and Blackfoot that are critical for native fish conservation.

We are also making sure that our clean water and coldwater fish don’t lose ground in Washington with the weakening of our bedrock environmental laws. Most notably, MTU continues to strongly support the integrity of the Clean Water Act against pressure from industry and their allies to weaken protections for our headwater streams and the rivers they support. And, we are working to ensure that the law and its implementation continue to provide for robust public participation from states, tribes, and concerned citizens.

Lastly, we support efforts led by our chapter members in Northwest Montana to hold British Columbia accountable for the failed mining practices that have resulted in unacceptable selenium pollution levels in the Kootenai River and Lake Koocanusa. Montana’s delegation recently joined six other senators in sending a letter to the B.C. leadership demanding better water protection standards on these mines. And right now, effective water quality monitoring is a crucial first step needed for federal funding by Congress.

We will continue to monitor and engage on these federal policy issues because they are critical for Montana’s clean water and coldwater fisheries. As key legislation moves forward, we will keep you aware of the need to contact members of our delegation and ask them to stand up for clean, cold water and the native fisheries that it supports.
Tip of the Hat sets records in 2019 by Kelley Willett

Montana has no shortage of talented guides and outfitters. So, when you’re booking a trip, how do you decide who to fish with? How about starting with the conservation-minded guides who give back to help Montana’s rivers and streams?

This year’s Fourth Annual Tip of the Hat – a one-day event that was the brainchild of guide/outfitters Tim Linehan and Brian Neilsen – had more contributors than ever and raised a record $7,700. This year we gave away hats and a YETI, but all indications are that most guides participated because these funds will support on-the-ground projects that will make Montana’s rivers healthier and hopefully make the fishing better too.

Almost no one knows our treasured Montana rivers like the guides who row them every day, and guides who sacrifice in the service of our mission inspire us at MTU to work even harder. THANK YOU to the guides who stepped up and mailed in hard-earned cash and to the outfitters who matched and coordinated their teams’ donations. Tim and Brian, the hours you devote truly bring this event to life!

As you plan your Montana fishing, please consider the generous folks who give back. Be sure to check out the list of participating guides and outfitters on page 8.

Hands on experience hooks kids on conservation by Jessica McCutcheon

This summer at Montana Trout Unlimited’s Youth Conservation and Fly Fishing Camp, I was astounded to find out that westslope cutthroat were surviving in Kaiser Lake by feeding on zooplankton using their gill rakers – similar to how whales use baleen to filter plankton from the ocean. They can survive in remote lakes feeding only on those tiny zooplankton until they reach about 20 inches in length and have to move to more substantial sources of protein. Amazingly this small mountain lake boasts four species of trout – brook, rainbow, westslope cutthroat and bull trout. One significant problem facing the trout in the lake is the restricted ability to travel downstream through Senate Creek. Overgrazing has caused significant widening in the stream channel below Kaiser Lake, preventing fish passage through the channel. The United States Forest Service has been engaged in efforts to improve fish habitat and passage through Senate Creek with particular emphasis on improving spawning habitat for the bull trout that call the lake home.

Attendees at this year’s MTU youth camp were fortunate enough to spend time with Paul Hooper of USFS and actively assist in the restoration of the downstream section of Senate Creek. We split the campers up along the channel and set to work moving boulders to the stream bank and deepening the center channel. It was amazing to see the transformation occur so rapidly. Within two hours, sections that had just recently been only ankle-deep were flowing with cold water above the knee. Paul told us that within two days of improving the channel, trout could be found moving downstream.

Trout Unlimited founder Art Neumann famously said, “Take care of the fish and the fishing will take care of itself.” With that principle in mind, MTU’s camps foster a passion for cold-water conservation in youth who will develop into solid anglers. Service projects like the one on Senate Creek provide a hands-on demonstration of the importance of trout habitat, not just for the fish themselves, but also for the anglers who seek to catch them.

Montana Trout Unlimited’s Fly Fishing and Conservation Camp is held the third week of July on the shores of Georgetown Lake. The camp accepts youth aged 11-14 and applications typically open in February. Children do not need to have any prior experience with fishing – just a willingness to learn. Local Trout Unlimited chapters also frequently provide scholarships for youth in their area. Our camp runs only because of our dedicated volunteers. We are always seeking additional volunteers to help with everything from fishing instruction to cooking breakfast – you do not need to be an expert angler to get involved.

If you would like more information about applying or volunteering at the camp, please email info@montanatu.org or call the office at 406-543-0054.
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TROUT LINE SUMMER 2018
Tip of the Hat 2019 contributors:
Mike Bias, Fishing Outfitters Association of Montana (FOAM)
Tom Boivin, Montana Angler Fly Fishing
Robert Boyce, Montana Flyfishing Expeditions
Keith Brauneis, Trout Stalkers
Jason Brininstool
Travis Craft, Thunder Hammer Fly Fishing
Joe Diltsneider, Trout Stalkers
Russ Dobryzynski, Mountain Dream Fishing Outfitters
Jared Edens, Jared Edens Fly Fishing LLC
Greg Falls, Big Sky Anglers
Geoff Ferguson
Matt Filteau, Montana Angler Fly Fishing
Tim Gaar, Trout Stalkers
Charley Gordon, Riverside Anglers
Andy Guy, Andy Guy Outfitting & Guide Service
Ben Hahn, Montana Angler Fly Fishing
Matt Hargrave, Montana Waters Outfitting
Hilary Hutcheson, Lary’s Fly & Supply
Dane Huzarski, Montana Trout Wranglers
Daniel Johansen, Trout Stalkers
Lucas Jones, Linehan Outfitting Company
Adam Knoff, Montana Angler Fly Fishing
Mitch Kowalski, Skinny Water Anglers
Mike Kuhnert, Evolution Fly Fishing
Jerry Lappier, The Trout Shop
Ray Leonhardt, Montana Waters Outfitting
Tim & Joanne Linehan, Linehan Outfitting Company
Mike Lum, Trout Stalkers
Sean McAfee, Linehan Outfitting Company
Brian McGeehan, Montana Angler Fly Fishing
Josh Michaelis, Montana Angler Fly Fishing
Monte Moniz, Linehan Outfitting Company
Joe Moore, Big Sky Anglers
Matt Mortenson
Brian Neilson, Missouri River Guides
Scott Nicolarsen, Montana Topwater
Ryan Nixon, Montana Angler Fly Fishing
Eddie Oiwell, Fishs Eddy O
Alice Owlsley, Riverside Anglers
Matt Pederson
Nick Peterson, Trout Stalkers
Borden Porter, Trout Stalkers
Anthony Reinhardt, Montana Trout Outfitters
Luke Rice, Montana Angler Fly Fishing
Charley Rock, Trout Stalkers
Matson Rogers, Angler’s West Guide Service
Brian Rosenberg, Trout Stalkers
Brian Scott, Wolf Creek Angler
Steve Shaw, Linehan Outfitting Company
Sam Stevenson, Linehan Outfitting Company
Chris Strainer, CrossCurrents Fly Shop
Kris Supplee, Trout Stalkers
John Way, J W Tackle LLC
Josh Wheal, Montana Angler Fly Fishing
Brian Wheeler, The Complete Fly Fisher
Max Yzaguirre, Montana Angling Company

Thank you all for giving back to the resource!