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Wyoming Game and Fish Department

Jackson Region Angler Newsletter

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Fish Management in the Jackson Region

Welcome to the 2021 Jackson Region Angler Newsletter! Even though it was a year like no other, we had another great year managing the Jackson area fisheries. Inside you'll find updates from our work in 2020 and some of the upcoming work for 2021.

As always, please feel free to contact us or stop by with any comments or questions about the aquatic resources in western Wyoming. Your input is important to us as we manage these resources for you. You'll find all of our contact info on the last page of this newsletter.



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Leigh Lake Sampling

Leigh Lake is a relatively large, glacial lake in Grand Teton National Park. It is roughly 2.5 miles wide and nearly 3 miles long, with a max depth of 250 feet. It sits to the north of Jenny Lake and south of Jackson Lake's Moran Bay. Leigh Lake can be accessed one of two ways, either via the Leigh Lake Trail or paddling up String Lake. A popular hiking and paddling destination for its wonderful scenery, Leigh Lake also boasts a good trout fishery.

The Jackson Fisheries Management crew sampled Leigh Lake for the first time in 53 years during the 2020 field season. The crew set nets in four locations during early June to evaluate the fishery. The catch was predominantly Lake Trout and Mountain Whitefish, but Snake River Cutthroat Trout are known to occur within the lake and are frequently reported by anglers. During the survey, the largest Lake Trout topped 15 pounds, but fish much larger are expected to reside within Leigh Lake.



Looking across Leigh Lake toward Paintbrush and Leigh canyons.

This popular scenic destination seems to be becoming a more popular fishing destination, and the Jackson Fisheries Management Crew plans to continue to evaluate the fishery more often.



Fisheries technician, Jack Bryan, with a nice Lake Trout captured from Leigh Lake.

Sam Gertsch Receives Ultimate Angler Status

Some October days in Wyoming can feel more like full-on winter than fall. And it was one of those days, with a cold steel wind blowing across the water of Soda Lake north of Pinedale. Sam Gertsch of Alpine admits he had thought twice about whether he really wanted to be out in it that day, but he decided to go for it. Turns out he was awfully glad he did as on his seventh cast he would tie into his tenth trophy class fish earning him the unique distinction of being an Ultimate Angler in the state of Wyoming.



Gertsch is one of just a handful of anglers to reach Ultimate Angler status as part of the Wyoming Game and Fish Master Angler program, which launched in 2019. To be an Ultimate Angler, a person must legally catch 10 trophy-sized game fish species in Wyoming. Each fish must meet or exceed a minimum length, which is determined by Game and Fish sample data and represents the top five percent in length for each species.

The 25 year-old Gertsch estimates he spent well over 200 days traveling in pursuit of his Ultimate Angler honor. He says he didn't have money for any hotels, as he spent most everything on a 14-foot v-hull boat. He camped every night and even slept in his boat some nights. "I've been over to Riverton more times than I can count," said Gertsch, noting that Boysen Reservoir is a good place due to the diversity of fish species there.

"It really is difficult," said Gertsch, saying he came up just an inch short several times on both Yellow Perch and Smallmouth Bass and three inches short on Channel Catfish. He said the Largemouth Bass was the easiest, taking him only two casts. However, Sam says Lake Trout is still one fish he has yet to figure out, at least catching the big ones that is. He will continue his quest to try and figure them out.

Beaver Dam Analogs

The Wyoming Game and Fish Department partnered with the Forest Service, Fish and Wildlife Service, and Trout Unlimited to install Beaver Dam Analogs (BDA's) in two different locations in the Jackson Region in 2020. "Beaver restoration," either through moving beaver into a new location (translocation), or through mimicking beaver's dam building processes on landscapes devoid of the species (building BDA's) is a means of returning ecological functions to streams and riparian areas.



A translocated beaver inspects a BDA purposefully installed to create interim security habitat for the newly-relocated rodent.

These ecological functions include late season water retention and aquifer recharge, maintenance of high quality wetland wildlife habitat, regulation of stream temperatures and deep-water trout habitats, sediment storage, and water filtration, among others. Often times these functions are gradually lost, either through development, land conversion, land use, natural events such as catastrophic wildfire and flooding, or simply through the loss of beaver on the landscape.

Beaver Dam Analogs were installed in the Horse Creek drainage, south of Jackson, and in a tributary to the Hoback River, outside of Bondurant. Both locations were historically home to beaver colonies, as evidenced by relict beaver ponds, patterns of sediment deposition and woody riparian plant distribution. In both cases, beaver have been absent for some time and stream channels are beginning to downcut and conifers are beginning to encroach.

Beaver Dam Analogs, Continued...

In the case of the Hoback River drainage, the 2018 Roosevelt wildfire added insult to injury, supplying huge pulses of sediment from denuded headwater landscapes, exacerbating downstream bank erosion and channel instability. Locations of BDA's were strategically selected to encourage deposition and flooding in locations where willow growth would stabilize the stream and provide structure for fish and wildlife. Monitoring these sites over time will show the benefits of mimicking beaver on headwater stream and riparian systems. And who knows? Maybe they will be tempting enough to lure in a new family of beaver to call these old stomping grounds home again.

We do our best as managers to restore the building blocks and drivers of natural systems to keep them intact for the public trust, present and future. But let's face it. Our attempts pale in comparison to the expert craftsmanship and tenacity of the beaver, the original "ecosystem engineer."



A crew weaves willow and conifer branches in between poles to back up water and mimic natural beaver dams in the Little Horse Creek drainage.

Lower Slide Lake Stocking Changes

With hopes to increase angler catch, the Jackson Fish Management crew has made some changes to the stocking of Snake River Cutthroat into Lower Slide Lake. Previously, fish have been stocked in early June, but the stocking time has been pushed back to late September. By delaying the time of stocking, the fish are stocked at a larger size. Another benefit of delayed stocking is more abundant zooplankton in the lake for fish to eat. Our hope is that the larger fish will return more readily to the creel of anglers.

We encourage anglers to report their fishing experience on Lower Slide Lake and the proportion of hatchery versus wild cutthroat that they catch. All cutthroat that are stocked into the lake are given a fin clip. Before stocking, the adipose, or one of the pelvic fins are removed completely (Figure 1). The selected fin is removed based on the year stocked, so when the marked fish are caught by anglers or the Wyoming Game and Fish's sampling, we are able to determine the year of stocking based on fish size and marked fin.

Anglers should also be aware that Lower Slide Lake, and localized portions of the Gros Ventre River contain nonnative Rainbow Trout. Rainbow Trout pose a risk via hybridization to the native Snake River Cutthroat Trout. The Wyoming Game & Fish Department encourages anglers to report and harvest any Rainbow Trout or rainbow/cutthroat hybrids that are caught in Lower Slide Lake or the Gros Ventre River. Although not native to the drainage, rainbows and hybrids still count toward the daily lake or river creel limit. The best way to identify a Rainbow Trout or rainbow/cutthroat hybrid is to look for white fin tips on the anal and pelvic fins (Figure 2).

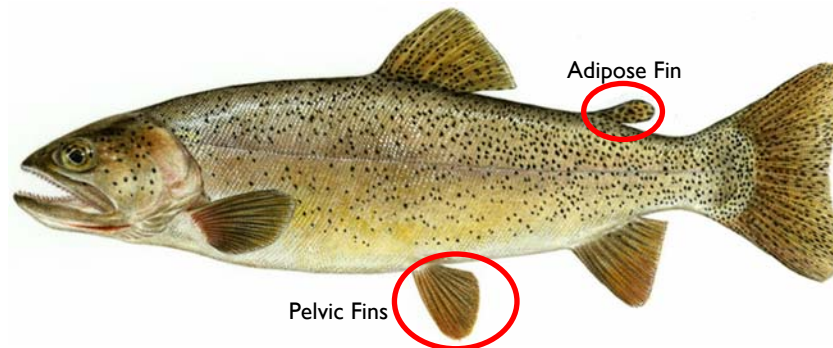


Figure 1. Snake River Cutthroat Trout. Please take note if either pelvic fins or the adipose fin is missing. One of these fins missing indicates it was marked from the hatchery before being stocked.

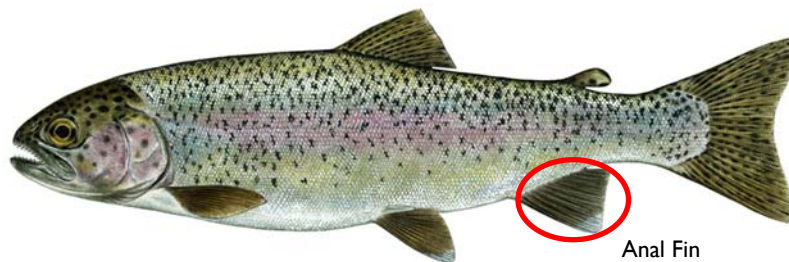


Figure 2. Rainbow Trout pose a hybridization risk to the native Snake River Cutthroat Trout. The most notable characteristic to look for is white fin tips on the anal and pelvic fins. The Jackson Region encourages anglers to harvest Rainbow Trout and hybrids as part of their creel limit when they are caught.

Bullfrogs at Kelly Warm Springs

Kelly Warm Springs is a thermal pool located in the southern part of Grand Teton National Park just north of the town of Kelly. The outflow of the springs is the Savage Ditch that feeds into Ditch Creek, a tributary of the Snake River.

Over the years, the warm spring has been the recipient of many exotic species including goldfish, swordtails, guppies, tadpole madtoms, convict cichlids, red-eared sliders, and even bullfrogs. Columbia Spotted Frog, Boreal Chorus Frog, Northern Leopard Frog, and Western Toad are all native amphibians to Grand Teton National Park. The introduced American Bullfrog is an aggressive predator that has the capability to dominate the habitat in and around Kelly Warm Springs, displacing these natives.

Due to this, agency personnel have looked at methods for removing bullfrogs. The recent success of complete bullfrog removal in Yosemite National Park has created a framework for other agencies to follow and attempt. The limited geographic distribution of the bullfrogs presents an opportunity to remove them from Kelly Warm Springs permanently.

Personnel from Wyoming Game and Fish Department and Grand Teton National Park will conduct a number of different techniques in an effort to remove the bullfrogs for good. Traps, electrofishing, seining, and removal of egg masses will all be utilized and evaluated throughout the 2021 field season. There will be an emphasis on spring techniques when the algae growth is at its lowest. It is our hope that the amphibian populations in Kelly Warm Springs will be restored to its natural state.



Bullfrog tadpoles from Kelly Warm Springs.

Understanding Gill Lice in the Snake River Drainage

Gill Lice are a parasitic copepod (small crustacean) that occur on the gills of trout or other members of the trout family. Despite their name, they are actually not related to lice, but instead, they get their name from their appearance. Female gill lice have two egg sacs that look very similar to lice or a small grain of rice (photo below). These critters can be found on the gills, inside the mouth, and on the fins of trout, however, their small size makes them hard to find. Very little is known about the prevalence of gill lice, or to what extent they effect fish health. It is believed that in high enough density on the gills, they inhibit the uptake of oxygen which can result in behavioral changes, decreased immune system function, and ultimately, survival.

In recent years, the distribution of gill lice appears to be expanding in the Rocky Mountain west and has gained the attention of fisheries managers. Gill lice were first documented in the Snake River drainage in 2011 but since they are so small, they are hard to see unless biologists or anglers are specifically looking for them. In order to get a better understanding of their distribution in our area, the Wyoming Game and Fish Department teamed up with the University of Wyoming and Grand Teton National Park to begin assessing the infestation rate and intensity in areas where they are found.

While conducting fisheries sampling in the summer of 2020, biologists inspected the gills, mouth, and fins of all trout for gill lice. If gill lice were seen, the number and location were recorded. Gill lice were found in almost every water body where sampling occurred. However, they were rare and in low intensity (only one or two per fish) in most areas where they were found. The location with the highest prevalence and intensity was on Flat Creek through the National Elk Refuge. This is likely due to the warmer water temperatures in this area. The data collected was shared with University of Wyoming researchers and will be analyzed for any significant distributional patterns and intensity. The study will continue in 2021 to look for gill lice in additional locations in the Upper Snake River drainage.



Aquatic Invasive Species

2020 AIS Season in Review

2020 was an unprecedented year for the AIS program. Boat volume and inspections at check stations hit record highs with increased use on area waters. A total of 8,085 inspections were conducted in the Jackson/Pinedale region. This represents a 52% increase in inspection totals from the previous high in 2019 of 5,313 inspections. A total of 173 inspected watercraft were deemed high risk for transporting AIS based on their last water history and received a more intense inspection. Of these, eight boats were actively decontaminated to mitigate the potential transmission of dreissenid larvae into state waters.

Ecological sampling efforts continued on area waters to monitor for introductions of AIS. Plankton nets to test for the presence of dreissenid mussel larvae were conducted at sixteen different lakes. These samples were processed and sent to an independent lab for analysis. All samples taken in 2020 came back negative, indicating that our regional waters remain free of invasive mussels.

2021 AIS Information

The Wyoming Game and Fish Department will begin its eleventh season of AIS watercraft inspection stations on May 1. The program was introduced just over a decade ago in an effort to protect Wyoming's water resources and fisheries from the introduction of dreissenid mussels and other invasives. Transmission of these species is a serious concern and watercraft transported into and within the state present the biggest vector of spread.

Per state regulation, all watercraft entering Wyoming by land from March 1 – November 30 must undergo an AIS inspection before legally launching on a state water. To facilitate this practice, the Wyoming Game and Fish Department has strategically located check stations throughout the region to accommodate boaters. The check station in Alpine, located at the Port of Entry building on Hwy-26, will be open from May 1 through September 28. Hours of operation are Monday through Wednesday from 7am to 5pm and Thursday through Sunday from 7am to 7pm. The check station at Salt River Pass, south of Afton on US-89, will run from May 22 to September 12. Hours of operation are Thursday through Sunday from 8am to 6pm. AIS inspections are also available at the Game and Fish regional office in Jackson located at 420 North Cache St. Business hours are 8am to 5pm Monday through Friday, closed weekends and holidays. Calling ahead to schedule an inspection is highly encouraged. Boaters who plan to visit Grand Teton and Yellowstone National Parks can receive AIS inspections at the park entrances. For details about operating hours and check station locations, please contact the parks directly.

All watercraft boating on Wyoming waters must have a valid AIS decal. Decals can be purchased at regional Game and Fish offices, anywhere Wyoming hunting and fishing licenses are sold, or online through the Game and Fish website (www.wgfd.wyo.gov).

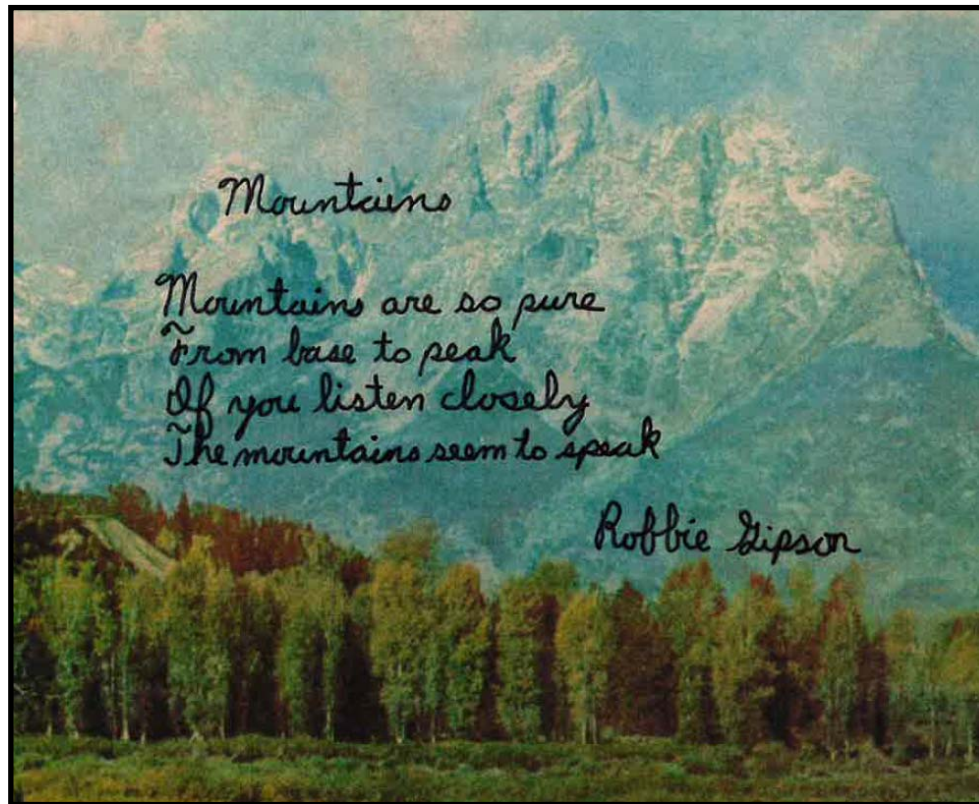


AIS technician, Kristy Smith, performs a motor flush on a wakeboard boat last used on mussel infested Lake Powell.

Rob's Hanging Up His Waders

As a 7th grader in Missouri, I remember vividly Ms. De Brock telling the class that it was not too early to be thinking of a career. At the time, I waited impatiently every month for the Missouri Conservationist to arrive. So, the first thing that came to mind was being a conservationist even though I really had no idea what that meant. On the back of my spiral notebook I proudly wrote the word "CONSERVATIONIST", or at least I thought I did. One day Missy Bond asked me why I had "conVerSationist" written on my notebook. While I wasn't quick witted enough to tell Missy this, over my career I've learned that being a conversationist is a big part of being a conservationist.

In a 9th grade "Introduction to Literature" class, we had to write a book of poems. I can't remember if I found it or my parents did, but there was a poem that I wrote, or I should say poet Robbie Gipson wrote, about mountains. It's not like I was exposed to mountains at an early age. The greatest elevation change in Missouri is only 693 feet. A picture of the Tetons included with the poem was probably the biggest surprise of that find.



After 30 years with Wyoming Game and Fish, I'm hanging up my waders. Years ago I remember being in a meeting and we had to write down what we found most rewarding about our jobs. I wrote "Being a voice for voiceless critters". Actually, this was early in my career so I probably wrote critter instead of critters meaning the Snake River Cutthroat Trout. It's great to see all of the other critters in our water now getting the attention and recognition they deserve. I won't point out any specifically since they are all important.

Hanging Up My Waders, Continued...

I'm not a guy that spouts off quotes but one that sticks with me is "The whole is greater than the sum of its parts". In my mind this was a quote from Aldo Leopold but apparently it is a quote, or some would say a misquote, of Aristotle. The reason I think of this quote is that over the years I've worked with a lot of great organizations and we definitely have accomplished more working together than we could working individually. With fear of leaving someone out, it has been one of the great pleasures of my career to work with Trout Unlimited, Bridger-Teton National Forest, Caribou-Targhee National Forest, Grand Teton National Park, USFWS, USGS, Teton County Conservation District, Snake River Fund, Friends of the Teton River, Jackson Hole Land Trust, landowners, anglers, and guides.

I also want to say thanks to John Kiefling. John was the regional fisheries supervisor who for whatever reason thought it was worth taking a chance on this Missouri boy. I'm not sure why he did, but I'm sure glad it worked out that way. He and then Fish Chief, Mike Stone, would tease me relentlessly about something I said in my interview. While I meant to say I knew there would be a lot of "backcountry work", what I said was I knew there would be a lot of "backwoods management". I blame that on my Missouri roots.

The list of people that have worked on the Fish Management Crew in Jackson that started around 1955 is surprisingly small. The list includes Max Rollefson, Jon Erickson, John Kiefling, Ralph Hudelson, Darren Rhea, Tracy Stephens, and currently Diana Miller and Clark Johnson. I'm proud to be included on this list. Fisheries management has changed over the years and it will be exciting to see where it goes in the future.

I'm sure watching the Jackson sign fade in the rear-view mirror will be an emotional day, but I'm excited for the road ahead.

Take care,
Rob

P.S. I drafted this article before learning of John Kiefling's passing. I decided not to change any of the wording.



Me with a Brown Trout (and hair) on the Salt River in 1996.



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Serving People

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Important Dates to Remember in 2021

Fishing licenses are now valid 365 days from the date of sale instead of by calendar year, allowing you more fishing for the same price!

- March 1—November 30 — **AIS Inspections.** All watercraft entering from out of state must be inspected prior to launching in Wyoming.
- May 1 — **Winter Closures for Wintering Wildlife Lifted.**
- June 5 — **Jackson Kids Fishing Day.** Conditions permitting, a scaled-down version of Kids Fishing Day will be held at R Park. The event will last from 10AM— Noon. There will be no registration, learning stations, or food. Rods, that kids can keep, will be provided through a generous donations from JH One Fly Foundation, Trout Unlimited, and Teton County Conservation District.
- June 5 — **Wyoming's Free Fishing Day.** The Wyoming Game and Fish Commission has declared June 5, 2021 Free Fishing Day to coincide with the beginning of the National Fishing and Boating week. On this date, residents and nonresidents may fish Wyoming waters (excluding Wind River Indian Reservation and Yellowstone National Park) without a fishing license or conservation stamp.
- August 1— **Flat Creek on National Elk Refuge opens to fishing.** The National Elk Refuge is closed to fishing from November 1 to July 31. Fishing is permitted by the use of artificial flies only, and fishing is restricted to daylight hours.
- September 9 -12 — **Jackson Hole One Fly.** The Jackson Hole One Fly Foundation hosts an annual fishing event to generate, manage and grant funding for projects and education which environmentally benefit the future of trout and fly fishing.
- October 1-31— **Jackson Lake closes to fishing.** Jackson Lake is closed to all fishing for the month of October in order to limit disturbance to spawning Lake Trout.

We welcome all questions and comments on this newsletter or about the fisheries resources within the Jackson Region. Please feel free to call or send an email to:

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