



Wyoming Game and Fish Department

Pinedale Region Angler Newsletter

Volume 13

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Fish Management in the Pinedale Region

Welcome to the 2017 Pinedale Region Angler Newsletter! We had another great year and are here to share many of the management, habitat and culture highlights from 2017.

As always, please feel free to contact us with any comments or questions about the aquatic resources in the Upper Green and Lower Bear River drainages of Wyoming. Your input is important to us as we manage these resources for *you*, the people of Wyoming. You'll find all of our contact info on the last page of this newsletter.

Thanks for a great 2017 and happy fishing in 2018!

Pinedale Region Fisheries Personnel

Daniel Fish Hatchery



Greg Anderson *Senior Culturist*
Alysia Henderson *Culturist*
Bret Barngrover *Superintendent*

Boulder Rearing Station



Chip Moller
Superintendent

Matt Joki
Culturist

Joe Gillis
Senior Culturist



Spawning Crew

Kris Holmes *Spawning Coordinator*
Pete Feck *Spawning Specialist*

Fisheries Management



Pete Cavalli
Fisheries Biologist



Hilda Sexauer
Fisheries Supervisor



Darren Rhea
Fisheries Biologist

Aquatic Habitat



Luke Schultz
Aquatic Habitat Biologist

New Bank for the New Fork

The Pinedale Fish Management Crew completed oversight of the New Fork bank stabilization project located on the Lazy River Ranch near Boulder. The project will improve habitat and water quality for this trophy fishery, and prevent erosion into nearby critical spawning springs.



Fish Medicine

Fish culturists at the Daniel Fish Hatchery treated their Colorado River Cutthroat brood fish with TM200 for Pseudomonas infection. We have started using a gelatin to coat the feed rather than oil and so far it is working great.



Evaluating Stream Structures

Pinedale Aquatic Habitat Biologist Luke Schulz is currently conducting an assessment of habitat structures on the upper Green River near the U.S. Forest Service boundary. The structures were constructed between 1987 and 1993 and some are starting to show signs of age. Some of the structures are still providing good fish habitat, but others are not and will likely require maintenance.

Spawning Colorado River Cutthroat



The Daniel Hatchery crew is currently in the throes of their annual Colorado River Cutthroat spawn. Once a week, for a couple months (Mar-June), the crew gathers eggs and milt from their brood stock to fertilize and eventually hatch the eggs. Last year a total of 620,000 eggs were collected. Once hatched, the fish are reared to be stocked in a variety of waters across the Cowboy State. The Colorado River Cutthroat was petitioned for listing as an endangered species in 2000. It was determined to be warranted, but was not listed in favor of concentrating on other species in greater need. The Game and Fish Department's Daniel Hatchery is the sole captive source of

Colorado River cutthroat for Wyoming and is vital for this species' future conservation. Fish will be stocked in several area waters later this summer. The parent fish are from North Piney Lake in the Wyoming Range.



Photos: (Upper left) Brood fish at the Daniel Hatchery showing off their bright spawning colors (right) Former Daniel Hatchery Superintendent Tim Kurtz collects eggs from a five-year-old female Colorado River cutthroat trout. (Below) A Colorado River cutthroat being released into its native habitat in 40-rod Creek. (Left) A tray of "eyed" eggs being grown at the Daniel Hatchery from trout previously spawned.



Watercraft Regulations

With the weather transitioning from winter to spring, its time to remind boaters that all watercraft powered by any type of motor are required to have a registration number. Drift boats and canoes do not require state registration, but when a motor of any kind is used, the watercraft must be registered.

Watercraft owners can renew their registration online at the Game & Fish website: <https://wgfd.wyo.gov/Fishing-and-Boating/Boating-and-Watercraft> or at any G&F office. New watercraft registrations must be done with an application to the Watercraft Section at the G&F Cheyenne Headquarters. Application forms may be obtained at the web address above or at any G&F regional office.

Applicants are required to provide information with the application, including Proof of Ownership (notarized), Proof of Wyoming Sales Tax, and the license fee. Watercraft may be registered for one-year at \$15.00 or a three-year period for \$40.00. All watercraft registrations expire at the end of the calendar year and fees are not transferable or refundable if the watercraft is sold.

Watercraft owners are encouraged to familiarize themselves with the Wyoming Watercraft Regulations available on the Game & Fish website at <https://wgfd.wyo.gov/Regulations#Watercraft-Regulation> or at any G&F office or license vendor. Additional information can be found at the Game & Fish website or by calling the Cheyenne Office at: 1-800-842-1934 and asking for the Watercraft Section.

In addition, boaters are required by law to have a "life jacket", or Personal Flotation Device (PFD), for everyone on board when they take to the water in Wyoming and all children twelve years old and under to wear a PFD at all times while the watercraft is underway.

Personal flotation devices shall be readily accessible, in good condition and shall not be waterlogged, torn, or have straps broken or missing. This includes rafts and drift boats. In addition, if the boat is 16 feet or longer, a Type IV throwable flotation device is required.



Daniel School Tour



Big Piney first-graders enjoyed an end-of-the-school-year field trip to the Daniel Fish Hatchery recently. Assistant Hatchery Superintendent Greg Anderson and Fish Culturist Jacob Rook gave the kids a tour including the ever-popular opportunity to feed the fish (below). Regional Information and Education Specialist Mark Gocke (left) engaged the youngsters with a program on Wyoming furbearers.



Meadow Lake Grayling

Arctic grayling are native to cold, clear freshwaters of the northern hemisphere. Grayling have been stocked in a handful of lakes in Wyoming and provide some great sportfishing opportunities. Grayling are most easily distinguished by their unmistakable large, colorful dorsal fin. The rest of their body is slate to purple in color.



Meadow lake, approximately 13 miles south-east of Pine-dale, is arguably the most important grayling fishery in the state as it serves as the egg source for all other Wyoming waters and a handful of other states. Previously devoid of fish, Meadow Lake was first stocked with grayling from Grebe Lake in Yellowstone National Park in 1949.

Now, each spring after ice-off, fish start making their way up the inlet to spawn. A permanent fish trap has been constructed to catch several hundred fish for the spawning operation. Each female will produce an average of 5,000-6,000 eggs. This year a total of 450,000 eggs were collected and fertilized on the spot with milt from the males.

The eggs were then transported to the Dubois hatchery, as well as the state of Idaho for trade. The Wyoming fish will eventually be stocked in a handful of waters across the state. In addition to Meadow Lake, grayling can be found in Trout Creek Lake and Bog Lake in the Lander region, Lake of the Woods and Toppings Lake in the Jackson Region, Dipper Lake and North Crow Reservoir in the Laramie Region, Lilly Lake in the Cody Region, and Yesness and Jessica's ponds in the Casper Region.



Dollar Lake Treatment Planned

Pinedale fisheries managers are planning to restore the fishing in Dollar Lake adjacent to the Green River north of Pinedale. The lake has become infested with the non-native White Sucker, so the plan is to remove all the fish and restock it with both the rainbows the lake had become known for and Tiger Trout, a sterile Brown Trout-Brook Trout hybrid.

In 2007, fish biologists made a startling discovery when the first non-native White Sucker was captured during routine monitoring of the fish population in the lake. Since then, White Sucker numbers have grown exponentially and today account for 99% of the fish population in the lake. Given the popularity of suckers as a live baitfish in other parts of the state, it is suspected that

the White Suckers may have been illegally introduced into Dollar Lake by bait fisherman.

This popular lake attracts thousands of anglers every year due to its close proximity to the Upper Green River road (FS 650) and its historically good Rainbow Trout fishing.

The best means of dealing with sucker populations like the one in Dollar Lake is to completely eradicate them. In most instances, eradication of a fish species involves the application of a fish toxicant, such as rotenone, that will remove all of the fish in a water body. Rotenone has been successfully used to remove undesirable fish species in many places. Pinedale fish biologists are planning to treat the lake in late August. Once the White Sucker population has been removed, the lake will be restocked with the Rainbow and Tiger Trout later this fall where they will likely flourish again in a competitor-free environment. Tiger Trout can be a predator of other fish and will be used to prevent the future establishment of another white sucker population. Rainbow Trout that are stocked in Dollar Lake would be too large



for most Tiger Trout to eat. Other species of fish native to the lake, such as Speckled Dace and Mountain Sucker, may also be introduced to rebuild the original fish community.

Soda Lake Opener

Pinedale Fish Biologist Pete Cavalli reports that the winter kill at Soda Lake was almost nonexistent this year, finding only four or five dead fish after the ice receded. Cavalli also reported that fishing on the May 10 opener wasn't as good as last year, but still pretty good. There were fewer anglers with never more than 35 anglers on the water at one time. In 2002, there were over 100 boats on the water at one time and several shore anglers as well. Only 27% of anglers interviewed did not catch a fish and a relatively large percentage of folks reported catching 5-10 fish. Anglers seemed to catch both Brown and Brook trout in about equal number.





Kid's Fishing Day

The Pinedale Fish Crew, along with several partners and volunteers, held the annual Kids Fishing Day at the CCC Ponds north of town. Several freshly-stocked rainbow trout and grayling were caught. All of the participants cycled through the various educational stations, which included fly and spin casting, fish anatomy and fish stocking. Additional sponsors and participants included the local Bureau of Land Management, Bridger Teton National Forest, Trout Unlimited and the Town of Pinedale.



Summer Fish Surveys



Pinedale Fisheries Technician Kole Stewart holds up a hefty 20 pound lake trout netted from Green River Lake before releasing it. Photo by Darren Rhea



Fish managers for the Wyoming Game and Fish Department typically start their field season surveying regional lakes while waiting for streams and rivers to recede and clear up. The Pinedale Fisheries crew began their summer field season sampling fish populations at both Green River Lake and New Fork Lake. All the “finger” lakes on the west slope of the Wind River Range are on a three-year rotation for sampling.

“All the lakes are unique in their own way and support unique fisheries,” says Pinedale Fish Biologist Darren Rhea. “Green River Lake has one of the strongest Rainbow Trout populations and now supports a decent Kokanee fishery. The Lake Trout have a skewed size distribution, dominated by fish less than 20 inches and a handful of large “trophy” fish. New Fork lake has a much more uniform sized Lake Trout population and decent Kokanee fishery, which also serves as a brood source, so they are intensively scrutinized. Unfortunately, they have been subject to some less than ideal spawning conditions in recent years and have under-performed expectations.”



Pinedale's "Camp Wild" a Hit!

Pinedale Aquatic Habitat Biologist Luke Schulz and Pinedale Fish Supervisor Hilda Sexauer teamed up with Game and Fish conservation educators from Cheyenne to hold a three-day outdoor day camp for kids in Pinedale. This new summer camp, called "Camp Wild", is being offered to students entering 5th and 6th grade in several towns across Wyoming this summer.

The Pinedale Camp Wild included fishing, archery and hands-on learning about wildlife, habitats, aquatic ecology, navigation, basic survival and team building. Any kids interested in these types of outdoor skills can learn more about it on the Game and Fish website at: <https://wgfd.wyo.gov>. Camp Wild will be held again in Pinedale July 30-Aug 1st, 2018.



Heli-Stocking Backcountry Lakes



The helicopter returns after stocking in the Wind River Range.

The Wyoming Game and Fish Department (WGFD) has been stocking fish in alpine lakes via helicopter since the 1970s. Many alpine lakes do not have suitable spawning habitat to support a naturally reproducing fish population, thus requiring periodic stocking to maintain a sport fishery. The helicopter stocking occurs in August as most alpine lakes are high elevation and late summer is the only time they are free of ice. Historically, fish were stocked in these backcountry lakes via cream cans on horseback, which could take several hours or even days to reach but one lake. This was far more stressful on the fish because the transport water warms, which holds less oxygen, and may need to be changed several times on one trip. Helicopter stocking is

much more efficient in both time and cost with much greater survival of fish. The number of fish stocked in a lake depends on the size of the lake, but it is usually around 1,000 fish. Fish are usually dropped approximately 10 feet from the water and are released with a large amount of water which absorbs most of the impact. Fish are stocked in the Jackson and Pinedale Regions every other year, on odd years. This year the lakes stocked in the Pinedale Region included: Wall, Middle Sweeney, Upper and Lower Cook, Nelson, Sunrise, Jim Harrower, Mistake and Titcomb lakes #4 and #5.



Golden trout stocked in the Wind River Range.

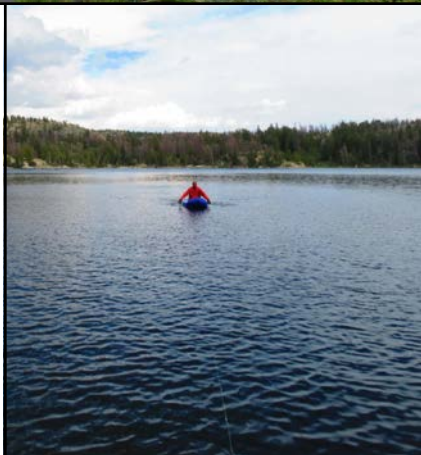


(Left) Greg Anderson gives Alysia Henderson, both of the Daniel Hatchery, a load of golden trout to be stocked. (Right) Pete Feck with the statewide Fish Spawning crew, loads one of the eight cylinders with fish to be stocked in the Wind River Range.

Bridger Wilderness Sampling



Pinedale Fish Biologist Darren Rhea and Pinedale Game Wardens Bubba Haley and Jordan Kraft made a back-country trip into the Bridger Lakes area of the Wind River Range to conduct fish surveys and check anglers. It had been 45 years since the fish in Bridger Lakes had been surveyed and the crew found there to be a thriving Golden Trout population in one lake and swarms of brookies in the others. The crew also found some nice Cutthroat Trout in nearby Sauerkraut Lake (left). *Photos by Jordan Kraft*



Hunting For Kokanee

A crew including Pinedale Fish Biologist Darren Rhea and Statewide Spawning Coordinator Kris Holmes spent a few days up at Green River Lake trying to capture spawning Kokanee Salmon. Fish managers have been trying to establish additional source populations for Kokanee eggs in the state to help buffer some of the variability in production from year to year. Green River Lake is being explored as an alternative. This is the first year mature fish would be making a spawning run in the lake so crews are experimenting with how to capture them, the timing, run size, etc. Preliminary indications look like there could be a viable run of spawning fish that could be captured and produce another egg source. The Kokanee population is also gaining traction as a sport-fishery with anglers starting to actively target them in the lake.



Spawning Kokanee salmon captured at the inlet to Green River Lake. Photos by Darren Rhea



(Above & Below) Pinedale Fisheries Technicians Kole Stewart and Colter Brown set up nets to capture spawning Kokanee Salmon at the inlet to Green River Lake.

A three-year-old spawning Kokanee Salmon captured at the inlet of Green River Lake.



Roundtails go to Meadow



Pinedale Fish Biologist Pete Cavalli and Fisheries Technician Colter Brown (Left) captured approximately 200 Roundtail Chubs in Burnt Lake and transplanted them into Meadow Lake to establish another population in a lake that has no predaceous fish species. Roundtail Chub is a nongame fish species native to western Wyoming. This species was once common in many waters around Pinedale and Green River, but their numbers have dwindled in recent decades. Introduction of non-native predacious fish probably played a large role in their decline.



Boat Launch Work



The Pinedale Habitat & Access crew enhanced boat launch areas along Green River, Dollar Lake and Green River Lake. At Green River Lake, the parking areas and boat launch were graded and covered with new gravel and boulders were placed around the perimeter (Left and Lower Left). At Dollar Lake, Geo Web (Below) was installed. The Geo Web expands out and is filled with gravel to make a boat ramp. The Geo Web holds the gravel in place so it doesn't wash away from wave action and allows people to drive on a firm surface rather than sinking into the mud.



Soda Lake Brooks and Browns



The Pinedale fisheries crew sampled trout populations in Soda Lake during the first week of October. The Brook Trout captured had an average length of 14.9 inches and an average weight of 1.62 pounds. Brown Trout averaged 18.3 inches long and 2.43 pounds. The largest fish captured was a 26.6 inch long brown trout that weighed 9.3 pounds. The average length of Brown Trout this year is very close to the long-term average noted since 1997, while average size of Brook Trout is over an inch longer than the long-term average for that species. It is estimated there are currently about

6,900 Brook Trout in Soda Lake, which is very similar to the number noted in October 2016. The Brown Trout population estimate is about 8,100 fish, which is the highest number seen since 2001. The uptick in Brown Trout numbers has also been noted by anglers this fall, with catch rates being higher. The water level has increased by 20 inches since last fall. However, fall and winter weather will dictate whether these fish survive through the winter. Factors such as snow and ice depth and the length of time the lake is ice-covered all play a part in trout survival at Soda Lake.



Pinedale Fish Technician Colter Brown weighs a hefty Brown Trout from Soda Lake.



A brook trout (Left) and a brown trout (Right) are released back into Soda Lake.

Tracking Burbot in the Green

Members of the Pinedale Fish Crew have been busy netting and marking Burbot as part of a research project to determine their population dynamics and movements within the Green River drainage. Burbot, not native to the Green River drainage, were illegally introduced, likely forever altering this renowned river system. Burbot are a voracious predator feeding almost exclusively on other fish or crayfish. Flaming Gorge, Fontenelle, and Big Sandy reservoirs have seen dramatic declines in some fish populations, especially Smallmouth Bass. Native populations of some imperiled fish species, such as Bluehead and Flannelmouth suckers, also have seen drastic changes as Burbot have become established. Burbot have been documented in the Green River just below the town of Daniel.

Fish movements were tracked through the use of PIT (Passive Integrated Transponder) and radio tats.

Tags were placed in over 500 Burbot, so far. A PIT antennae was installed upstream from Fontenelle

Reservoir to monitor the timing and how many burbot moved up the Green River. Managers are hoping to identify congregations, such as spawning areas, to target future removals.



Pinedale Fish Biologist Darren Rhea holds up two sizable Burbot captured in Fontenelle Reservoir and fitted with PIT tags to monitor their travels up the Green River.



A tiny PIT tag is inserted into the belly of a burbot. (Right) A PIT antennae installed on the Green River to record when tagged fish move upstream.



More Mussels

Fisheries Personnel spent a day looking for mussels in the Bear River in 2017. The highlight of the day was locating two live California Floaters at Cokeville Meadows National Wildlife Refuge. This species is rare in Wyoming and is difficult to find in the muddy waters of the Bear River.



Duck Creek Willows

Pinedale Aquatic Habitat Biologist Luke Schulz coordinated an effort to plant some 400 willow cuttings on Duck Creek, just outside of Pinedale on the Fenn Place. These plantings will allow biologists to evaluate different willow cutting techniques to determine the best procedure for the Pinedale area. The close proximity of the cuttings to Pinedale will allow easy monitoring and provide an excellent place to showcase this work.



Fall Rainbow Spawn

The Boulder Fish Hatchery crew completed their annual fall rainbow trout spawn last fall. The spawn takes place every Tuesday from Oct. to Dec. In the end, they will collect approximately 2.5-3 million eggs. Most eggs are shipped to other Wyoming hatcheries, like Dubois and Tensleep, where the eggs will be hatched and reared. Some eggs are traded to other states. Ultimately, the fish will be stocked in many of the large reservoirs across Wyoming.

Nongame Fish Work

Fish Management personnel visited the East Fork Hatchery for a complete work-up process on all Bluehead Suckers, Flannelmouth Suckers and Roundtail Chub that were collected from Muddy Creek in 2017. Fish were PIT tagged and fin clipped for genetic evaluation. All fish determined to be pure will be restocked to the Muddy Creek drainage at a later date.



Restoring Native Colorado River Cutthroats

In the natural world, it's a well-known fact that our ecosystems function best when populated with plants, fish and wildlife native to that area. With that in mind, in 2015 and 2016, Pinedale fish managers chemically treated nine miles of Bare Creek in the northern Wyoming Range to remove nonnative trout. Similar to LaBarge Creek in the Wyoming Range, the goal is to restore Bare Creek with genetically pure native Colorado River Cutthroat Trout (CRC). Intensive sampling and genetic analysis found that Maki Creek, a tributary to North Cottonwood Creek, was the only suitable source of genetically pure Colorado River Cutthroat in the entire Cottonwood Creek drainage. Earlier this fall, fish



A Colorado River Cutthroat Trout, one of four subspecies of cutthroat trout native to Wyoming.

managers collected Colorado River cutts from Maki Creek and held them in the stream overnight. The following day, using horses equipped with specialized panniers for carrying fish and fresh oxygen (Left), the fish were transported six miles over the hydrologic divide to a rendezvous point on North Cottonwood Creek. There, the fish were loaded into a tank on a stocking truck (Below), which transported them directly to Bare Creek for release. A total of 55 pure strain Colorado River Cutthroat were released into Bare Creek in this initial stocking. Fish managers plan to collect and transplant fish again in 2018 and 2019 to repopulate Bare Creek with its native fish.



Photos: (Upper Left) Horse panniers equipped with oxygen bottles to keep fish alive over long treks. (Left) Pinedale Fish Biologist Darren Rhea with his horse "Leon" packing 250 pounds of fish and water over the divide between Maki and Nylander Creek drainages. (Right) Pinedale Fish Supervisor Hilda Sexauer hands over fish to Alysia Henderson from the Daniel Hatchery to be transported and stocked into Bare Creek.



**Wyoming Game and
Fish Department**
Conserving Wildlife-Serving
People

Pinedale Regional Office
432 Mill Street
Pinedale, WY 82941

Phone: 307-367-4352

Important Dates to Remember in 2018

- **June 2— Kids Fishing Day and Wyoming's Free Fishing Day** The Wyoming Game and Fish Commission has declared June 2, 2018 Free Fishing Day to coincide with the beginning of the National Fishing and Boating week. Residents and nonresidents may fish Wyoming waters (excluding Wind River Indian Reservation and Yellowstone National Park) without a fishing license or conservation stamp. Free Fishing Day will also coincide with Kids Fishing Day in Pinedale where WGFD employees will be present to help with fishing and provide rods to those that don't have them.
- **July 30—Aug 1 Camp Wild** The 3-day event will return to Pinedale. Students entering grades 5 and 6 can learn more or apply online at: <https://wgfd.wyo.gov>.
- **November 15—Soda Lake , Meadow Lake, and Burnt Lake** close to fishing

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

Darren.rhea@wyo.gov

