



Wyoming Game and Fish Department

Pinedale Region Angler Newsletter

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Inside this issue:

Roundtail Chub Research	2
Dollar Lake Restored	3
Wilderness Lakes Fishing	4
River Float Maps	5
Bare Creek Restoration	6
Calendar	7

Fish Management in the Pinedale Region

Welcome to the 2019 Pinedale Region Angler Newsletter! We had another great year and are here to share many of the management, habitat and culture highlights from 2018 and 2019.

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 2018 and happy fishing in 2019

Pinedale Region Fisheries Personnel

Daniel Fish Hatchery



Rebecca Meigel *Culturist*
Greg Anderson *Senior Culturist*
Bret Barngrover *Superintendent*

Boulder Rearing Station



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Spawning Crew

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Fisheries Management



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Darren Rhea
Fisheries Biologist

Aquatic Habitat



Luke Schultz
Aquatic Habitat Biologist

Research on Roundtail Chub in Burnt Lake

Most anglers think of Burnt Lake as a great place to catch Rainbow Trout and Lake Trout. Both of those species are self sustaining in Burnt Lake, meaning that stocking of hatchery fish is not needed to support these populations. This water also provides habitat for several other species of fish that are self sustaining. These include suckers (hybrids between native Flannelmouth Sucker and introduced White Sucker and Utah sucker), Mottled Sculpin, and several minnows, including Speckled Dace and Redside Shiner. Another self sustaining native minnow that is doing well in Burnt Lake is the Roundtail Chub.



Many people use the term “minnow” to mean a small fish, but that isn’t really accurate. “Minnow” is actually a name for a family of fish that includes Carp, shiners, dace and chubs. The Roundtail Chub is a fairly large minnow that can grow up to 18 inches long in Burnt Lake. Adult Roundtail Chub often have bright red or orange bellies and fins, with various shades of green on their sides and back. However, this is not always the case; some roundtails have white bellies, and gold coloration on the sides is not uncommon. Therefore, you really can’t identify a Roundtail Chub based solely on its coloration.

In Wyoming, Roundtail Chub were historically common in the Green River from about the town of Daniel downstream to the Utah border, in Muddy Creek near Baggs, in many of the larger tributaries to those streams, as well as in many of the larger lakes near Pinedale. Unfortunately, introduced predators like Brown Trout, Smallmouth Bass, and Burbot have taken a large toll on Roundtail Chub populations in Wyoming and other states where they were once common. Roundtail Chub in the Green River above Fontenelle Reservoir and in Boulder Lake appear to have been completely eliminated, and the numbers of fish in other populations (e.g. New Fork Lake) appear to be extremely small. Fortunately, Roundtail Chub are still numerous in Halfmoon, Little Halfmoon, and Burnt Lakes.

The lake-dwelling populations of Roundtail Chub found around Pinedale are somewhat unusual, since most populations are found in warmer, dirtier streams found at lower elevations. Relatively little is known about many aspects of the life history of Roundtail Chub in Wyoming. Details of spawning locations and timing in lakes are among the topics that still require additional research. Therefore, the Pinedale Fisheries Crew is working on gathering this information for the Burnt Lake population in 2019 and 2020. This work entails setting trap nets in various locations around the lake in hopes of capturing concentrations of mature fish at spawning sites. In addition, captured adult fish will be tagged with a small electronic device similar to the microchips used by veterinarians to identify cats and dogs. These devices, known as PIT tags, are injected into the body cavity, and can be detected when the fish is captured again, and by remote antennas located around the lake. These tags will help us to determine movement patterns during the spawning season. In addition, the tags will help us to determine growth rates of individual fish.

Roundtail Chub will eat just about anything, including insects, plants, and other fish. Therefore, anglers do occasionally catch Roundtails while fishing for trout. While harvest of Roundtail Chub is legal, we would appreciate it if anglers would release them immediately. This would help us to both collect a larger sample for our research, as well as protect this native species.

-Pete Cavalli

Dollar Lake Restored

November 2018 marked the welcomed return of Rainbow Trout to Dollar Lake following the chemical restoration of the fishery three months earlier. Dollar Lake, located in the Upper Green River drainage off of Forest Road 650, was once home to a flourishing population of Rainbow Trout. The fishery, known for high catch rates and occasional trophy trout, was a popular destination for locals and travelers alike. Unfortunately, in recent years the fishery had experienced dramatic declines and no longer supported the robust trout population it was renowned for. Through extensive sampling and evaluation, it was determined that White Suckers were the likely cause for the degradation of the fishery.

The White Sucker is a bottom-oriented member of the sucker family native to areas of Wyoming east of the Continental Divide. White Suckers were inadvertently introduced to the Green River drainage of Wyoming and have expanded rapidly throughout the basin. White Suckers are extremely productive and can reproduce exponentially, with a single female laying as many as 10,000 eggs. Because of their reproductive success and ability to compete with other species, White Suckers have become problematic in many areas outside of their native range. They have been known to hybridize and outcompete native sucker species, and can compete for food resources with popular sportfish resulting in population declines.



White Suckers were first discovered in Dollar Lake in 2007 and expanded exponentially over the course of the next few years. By 2016, they made up as much as 95% of the fish biomass in the lake and were competing with the Rainbow Trout. The resulting competition significantly impacted the Rainbow Trout population, resulting in little to no growth in the adult trout. Adult Rainbow Trout rarely grew past 12 inches.

In August 2018, following several years of planning and permitting, biologists with the Wyoming Game and Fish Department treated Dollar Lake with the chemical rotenone to remove White Suckers and re-establish the Rainbow Trout fishery. By volume alone, the chemical treatment of Dollar Lake was one of the largest ever completed in the state of Wyoming. With an area of nearly 30 acres and an average depth of 17 ft Dollar Lake holds nearly 500 acre/feet of water! Thankfully, the water in Dollar Lake is entirely stationary and with no real inlet or outlet, the treatment was completed within a single day. The chemical was allowed to degrade on its own and within two months was ready to be stocked with a new batch of Rainbow Trout. In addition to Rainbows, Tiger Trout, a Brown Trout x Brook Trout hybrid, were also stocked into the lake to help combat another White Sucker invasion and provide additional species diversity.

Early spring sampling in 2019 revealed that the Rainbow Trout stocked in 2018 had already grown an average of approximately 3-4 inches from 9 to 13 inches. Meanwhile, the Tiger Trout had reached about 7-8 inches and should continue to grow through the fall. More importantly, based on extensive netting and surveying, all of the White Suckers and other undesirable fish species have successfully been removed.



- Darren Rhea

Bridger Wilderness Lakes

The Bridger Wilderness includes approximately 2,000 glacial carved lakes, ponds, and potholes. About 575 of these lakes have been stocked with fish at some point. Most were initially stocked in the 1930s. However, there are records of fish stocking as early as 1907. By 1958, most lakes in the Bridger Wilderness were stocked by aircraft.

Wyoming Game and Fish Department (WGFD) maintains diverse sport fishing opportunities in the Bridger Wilderness and fish stocking only occurs in waters stocked prior to 1964 (Wilderness Act of 1964). Fisheries biologists with WGFD monitor stocked and unstocked lakes using light weight gill nets or angling. Data collected annually includes lengths, weights, species composition, age class, and relative weights. An overview of the habitat conditions including physical and chemical data are collected along with presence information of nongame fish species and amphibians when possible. This information is used by biologists to determine if a lake should be stocked and it provides us with updated fisheries data to share with anglers. WGFD recommendations may include but are not limited to a change in stocking density for a lake, a four year stocking rotation instead of two years, and a short term supplementation for waters with a few years of low recruitment.



The number of lakes stocked per year ranges from 6 to 16 waters. For any one year, WGFD stocks less than 3.4 % of the lakes supporting fish, indicating that the majority of the lakes in the Bridger Wilderness are self-sustaining. As an example, in 2019 WGFD stocked Jim Harrower, Titcombs, Wall, Upper Sweeney, Middle Sweeney, East Fork and a few other lakes with Golden Trout. The next helicopter stocking for the Bridger Wilderness will occur in 2021. Go fish the Bridger Wilderness and enjoy catching a variety of species including Golden Trout, Lake Trout, and Rainbow Trout to name a few.



- Hilda Sexauer

New Float Maps Available

Maps that will be useful to sportsmen using the New Fork River and the upper Green River are available from the Wyoming Game and Fish Department. The New Fork River map covers the section of river from Pinedale down to the confluence with the Green River, which is the most popular section for both boating and angling on that stream. The Upper Green River map covers the area from Green River Lakes to Fontenelle Reservoir. Features highlighted on both maps include boat ramps, river mileage between boat ramps, fishing easements on private lands, designated camping areas, rest rooms, access roads, and public land ownership. A limited number of copies of each map printed on water-resistant paper are available at the Wyoming Game and Fish Department office in Pinedale. An electronic version of the New Fork map can be found at:

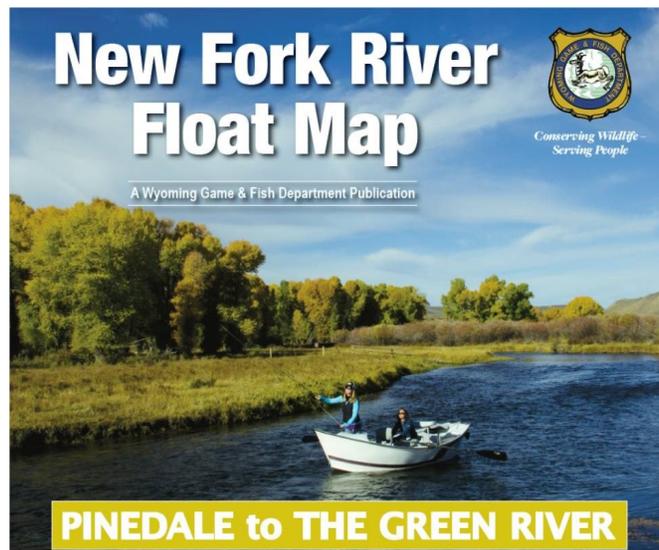
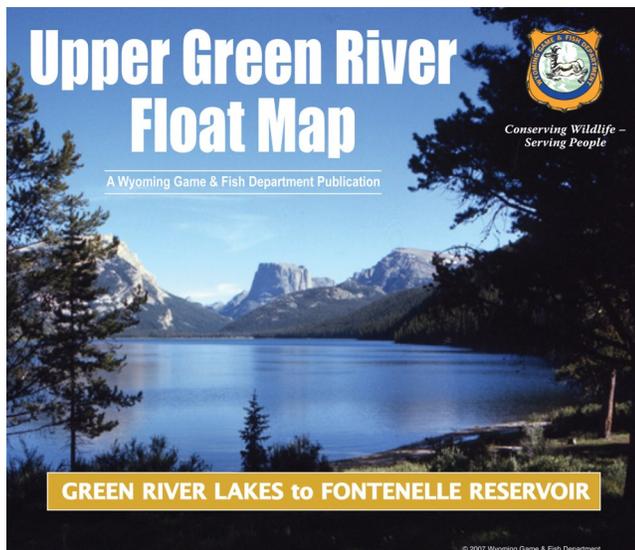
https://wgfd.wyo.gov/WGFD/media/content/PDF/Fishing/NEWFORK_FLOATAREA_MAP.pdf

and an electronic version of the Green River map can be found at:

https://wgfd.wyo.gov/WGFD/media/content/PDF/Fishing/GREENRIVER_FLOATAREA_MAP.pdf

Both maps use a similar format, which will be familiar to most sportsmen. The Wyoming Game and Fish Department has obtained new access easements and improved existing access sites on both rivers over the past decade, and these sites are included on the maps. Therefore, even outdoorsmen that are already familiar with the area may want to take a look at all of the public access points that are available on these beautiful rivers.

- Pete Cavalli



Colorado River Cutthroat Trout Return to Bare Creek

The Colorado River Cutthroat Trout is the only trout species native to the Green River drainage in Wyoming. Prior to European settlement, Cutthroat Trout could be found in nearly every stream, river and lake in Wyoming upstream of what now is Flaming Gorge Reservoir. Unfortunately, due to a number of factors including habitat loss, overharvest, and the unfettered introduction and stocking of nonnative trout, Cutthroat Trout have declined significantly. Today, Colorado River Cutthroat Trout only occur in roughly 11% of their historic range, including about 14% of the historic range in Wyoming.

To help conserve Cutthroat Trout and ensure that viable populations remain for future generations to enjoy, the Wyoming Game and Fish Department has implemented a number of strategies to help restore this iconic species to portions of its native range. One of many effective strategies involves the removal of competing nonnative species and the reintroduction of cutthroat trout. In some cases, species such as Brook Trout, Rainbow Trout, and even other sub-species of Cutthroat Trout can outcompete native Colorado River Cutthroat Trout, sometimes to the extent that they will be completely eliminated from a fishery. The decision to remove a species of fish is often a difficult one and is not taken lightly. Locations are chosen based on a number of factors and are considered along with public input so that the priorities of native fish conservation and nonnative sportfish management remain in balance.

Bare Creek, a tributary to south Cottonwood Creek in the Wyoming Range Mountains, was selected as a site for removal of nonnative fish and restoration of Colorado River Cutthroat Trout. Bare Creek was chosen because of its quality habitat and the ability to support a robust population of Cutthroat Trout despite its relatively small size. During 2015 and 2016, a barrier was constructed at the mouth of the stream and the chemical rotenone was applied to remove all the fish in the stream. Testing was later conducted to confirm that all the nonnative trout had been successfully removed.

Efforts to reestablish Colorado River Cutthroat Trout in Bare Creek began in 2017. Following extensive inventory and monitoring work, the nearest population of genetically pure Colorado River Cutthroat Trout to Bare Creek was found inhabiting Maki Creek, a small tributary to North Cottonwood Creek. Fish from Maki Creek were collected in 2017 and 2018 and used to repopulate Bare Creek. Because of its remote location, fish from Maki Creek had to be transported via horseback using specialized horse panniers designed for carrying fish long distances. Following a horseback ride up and over a mountain pass, the fish were loaded into stocking trucks and delivered to their new home.



Now that Colorado River Cutthroat Trout have been reintroduced into Bare Creek efforts will now shift to monitoring their success and ensuring their persistence. Though the threats from nonnative fish have largely been addressed, many other pressures remain and will need to be continually addressed. Through the efforts of the Wyoming Game and Fish Department and many other partner agencies and organizations, the Cutthroat Trout inhabiting Bare Creek should prosper and become a lasting legacy for the species and the people who enjoy them.

- Darren Rhea



**Wyoming Game and
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Conserving Wildlife-Serving
People

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Important Dates to Remember in 2019

- **June 1— 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.*
- **November 15—Soda Lake , Meadow Lake, and Burnt Lake** closed 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:

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