2014 Edition
Volume 10

Wyoming Game and Fish Department

Pinedale Region Angler Newsletter

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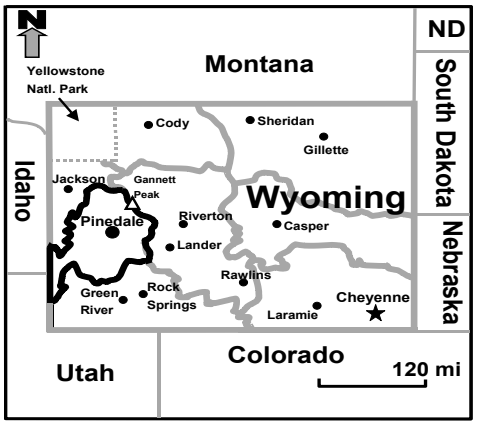
Kris Holmes *Fish Culturist*

Aquatic Invasive Species
Regina Dickson *AIS Crew Leader*
Chris Wright *AIS Crew Leader*

Thanks for reading the 2014 version of Pinedale Region Angler Newsletter. This newsletter is intended for everyone interested in the aquatic resources in the Pinedale area. The resources we manage belong to all of us.

The Pinedale Region encompasses the Upper Green River Drainage (upstream of Fontenelle Reservoir) and parts of the Bear River drainage near Cokeville (see map).

Additional information regarding the Pinedale Region and the areas fisheries can be obtained by contacting the Pinedale Regional Office at (307) 367-4353.



Pinedale Region Map

Pine Creek: Pinedale's "Secret" Fishery

Many visitors pass through the town of Pinedale on their way to fish in one of the famous "Finger Lakes", the Green River, the New Fork River, or some of the beautiful streams and lakes in the Wind River and Wyoming mountain ranges. In their excitement to get to their destination, many do not even notice Pine Creek flowing right through town. Those who notice often do not slow down to look. Even residents of Pinedale drive past it several times a day without giving it much attention. What these folks do not realize is that Pine Creek is home to a large number of trout, and public land in the town parks, near Fremont Lake, and near Willow Island offer anglers ample opportunities to pursue them.

For many years after the dam was built on Fremont Lake, trout in Pine Creek suffered from extreme fluctuations in water flow. The dam was operated to maximize water storage, so only a trickle flowed through town in the winter. In the spring and early summer, when the dam was releasing stored water for use downstream, large volumes of water flowed. This flow regime only allowed a few trout to survive, but not as many as would with more stable flows. Rose Skinner, a former mayor of Pinedale, realized that a healthy stream and its associated trout fishery would be a real benefit to the town, so she and the Town of Pinedale requested help from the Wyoming Game and Fish Department to improve the stream. It

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Pine Creek

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has been a long and difficult process, but several years of effort by the Department, the Town, water users on the Highland Ditch, and the Wyoming State Engineer's Office has led to increased flows during critical times of the year. The trout populations and the residents of Pinedale have both benefited from these efforts.

The improved flow regime in Pine Creek is the result of water from a variety of sources. Instream flow water rights are one part of the puzzle. Water owned by the Wyoming Game and Fish Commission, and additional water owned by the Town of Pinedale, is stored in Fremont Lake for release later in the year. Additionally, improved coordination and cooperation between all of the affected parties has allowed the water to be managed in a way that benefits everyone involved.

Data collected by Department biologists clearly shows that the numbers of both brown trout and rainbow trout in the section that runs through Pinedale increased dramatically under the new flow regime. The stream section in Boyd Skinner Park now provides habitat for thousands of trout per-mile. Even though the Green and the New Fork rivers are far more popular among anglers, the number of trout found in Pine Creek is higher than either of the more popular rivers. While many of the trout in Pine Creek are small, fish longer than 20 inches can also be found.

Recently, Trout Unlimited spearheaded an effort to improve habitat in Pine Creek by installing rock structures designed to stabilize the stream channel, create pool habitat, and provide easier ways for trout to move past obstructions. The Town of Pinedale and the Wyoming Game and Fish Department have been cooperators on these projects, and plans are currently being devised to construct additional habitat structures. In addition, the Wyoming Game and Fish Department continues to look for additional sources of water to improve flows for trout.

Thanks to increased flows, habitat improvement work, and cooperation among water users, trout are plentiful in Pine Creek, and the future looks bright. Given that so many trout can be found within the Town of Pinedale, and a long stretch of shoreline is open to public access, it is surprising that more anglers do not bother to try their luck on this beautiful stream. Next time you plan on fishing near Pinedale, you might want to consider spending a little time at this "secret" fishery.

- Pete Cavalli

Burbot Research in the Green River

Burbot (*Lota lota*) are best described as a cross between an eel and a catfish. Their large head with a single whisker, called a barbel, tapers to an elongated body. They stay near the bottom, are most active at night, and seem to eat anything that gets in their way. In the United States, burbot are most common in northern latitude rivers and lakes with cool average temperatures. Not surprising, burbot call the Wind-Bighorn River drainage of Wyoming home.

Although burbot are native to parts of Wyoming, they were illegally introduced to the Green River drainage in the 1990s and have continued to expand. The effects of burbot on native fishes and trout fisheries in the Green River is a major concern for Wyoming biologists and citizen alike. Concerns of non-native burbot spurred fisheries biologists from the Wyoming Game and Fish Dept. to seek funding for research on burbot. Through funding from the Department, a Master's student, Zach Klein from the University of Idaho, was charged with the task of evaluating burbot in the Green River.

Zach Klein, from the University of Idaho, and Darren Rhea from the WGFD, collect burbot on the Green River

Zach is a 6'5" redhead who looks like a cooked lobster after one day in our western sun. Despite his fair complexion, most days you could find him on some portion of the Green River setting traps for burbot. In an effort to help suppress burbot in the Green River, Zach devised three major questions he sought to answer. What is the most effective technique for catching burbot? What areas are burbot most likely to be found? And, what are Burbot eating?

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Getting to Know the Boulder Rearing Station

Built on the East Fork River along the west slope of the Wind River Mountains, the Boulder Rearing Station is only a few miles from Highway 191 south of Pinedale. The station sits on 200 acres of land purchased by the Wyoming Game and Fish Commission and opened for operation in 1952. The Boulder Rearing Station offers visitors the unique opportunity to view fish culture up close and personal.

What does the Boulder Rearing Station do?
The main focus of the Boulder Rearing Station is care of the fall spawning rainbow trout broodstock, but other species raised include kokanee salmon, brown, golden, brook, and Colorado River cutthroat trout. In total, the facility raises approximately 35,000 pounds of fish annually to stock throughout Wyoming's waters.

Where does the station get its water?
Natural springs in the area provide a constant supply of cold water needed for a successful fish rearing station. Water flowing from the springs to the facility fluctuates from a low of 900 gallons per minute (gpm) in March, April and May to a high of 2,100 gpm from June through September. During these peak months the springs provide approximately 2.2 million gallons of water a day at an average temperature of 52^{o}F. After passing over the fish, the water is returned to the East Fork River.

Eggs from a rainbow trout are held in a bowl to fertilized

The Boulder Rearing Station Broodstock and Spawning
The fall spawning rainbow broodstock held at the station consists of approximately 3,000 fish, weighing between three and six pounds each. The broodstock fish become sexually mature in their third year. Normally, rainbow trout spawn in the spring, but fall spawning rainbow have been manipulated to spawn in the fall. This allows a longer growing season for offspring before being stocked, increasing the overall size the fish can attain before being released.

Hatchery personnel load fish on a truck to be stocked

Spawning at the station usually begins in October and continues through December. The broodstock annually produces about three million eggs. When fish are preparing to spawn they will move upstream where personnel capture them in raceways by placing a funnel-shaped trap in the water. Fish run upstream through the trap and into the spawning house. The fish are hand sorted daily and placed in pens according to age class and sex.

Eggs are collected by gently squeezing the abdomen of a female, with the average rainbow producing 2,200 eggs. The eggs are then fertilized with the "milt" from a male. Fish are spawned at a 1:1 ratio(1 male:1 female) to provide the best genetic variability. Fertilized eggs are shipped to many different facilities for hatching. After spawning, some of the fish are held-over for spawning the following year while others are released into the wild.

How does the Game and Fish Department stock fish?
Fish are ready to be stocked once they have reached the size requested by regional fish management crews. Around 300,000 fish are stocked from Boulder Rearing Station each year. Fish are stocked using trucks, barges, backpacks, horses and even helicopters help take them to their final destination. Trucks are the most common way of transporting fish from the facility to a lake or river. Insulated tanks keep the water cool while oxygen bottles and aerators provide oxygen to the fish during transport. Barges with onboard tanks are used when fish need to be stocked in a particular part of a river or lake. Helicopters, horses & backpacks are used when a water is inaccessible by truck, such as lakes in wilderness areas. All the work conducted by the Rearing Station ultimately means better fishing for anglers in Wyoming!

You may visit the Boulder Rearing Station located 15 miles south of Pinedale on Highway 191, then 1.5 miles east on Boulder Rearing Station Road. Scheduled group tours are also available, information can be obtained by calling the Station at (307) 537-5439.

-Chip Moller

Small Waters Offer BIG Opportunity in the Pinedale Region

Small water does not always mean small fish. While larger waters often get the lion's share of the angling attention in the region, a number of smaller, less traveled locations offer plenty of opportunity for those wanting to avoid the crowds and beat the odds. Many small waters dot the landscape of the Pinedale Region offering diversity and solitude for those longing for variety. While some may be a day or more away, others may be right out your back door. Here are a few that may be worth further investigation.

CCC Pond is a 5-acre pond located just a few miles north of Pinedale. This water was named after the Civilian Conservation Corp (CCC) which established a camp at the pond back in 1933. Access to the pond is via car or by walking/biking on the paved bicycle pathway. An interpretive trail has been built around the entire pond complex providing recreationists easy access to this area. This water is open to all anglers year-round. The main fish pond (3 acres) was operational and stocked with fish in 1995 and has been stocked annually with catchable (> 8 in) rainbow trout. Brown trout are now also stocked but not annually. In 2013, 200 brown trout were stocked along with 1,000 rainbow trout. To increase the diversity of fish available additional 10 inch cutthroat trout were released in the pond this fall. Managers monitor the status of the fish populations by sampling with gillnets in the spring to ensure overwinter survival and measure growth.

Dollar Lake offers year-round opportunity for anglers of all ages

Little Soda Lake is a 52-acre lake with a maximum depth of 56 feet. This lake is located on the Bridger-Teton National Forest between Soda and Fremont lakes and is fed by snowmelt through two intermittent streams with an intermittent outlet to Fremont Lake. A chemocline (or chemical layer) occurs at about 30 ft, preventing mixing of the lake and resulting in habitat unsuitable for fish below. Toxic levels of hydrogen sulphide are found below the chemocline and can become toxic throughout the entire lake during the winter. The lake has been stocked with various fish over the years to determine the species best suited for the lake. For the last 18 years this lake has been stocked with 1,000 catchable (> 8 in) rainbow trout per year. This lake used to support rainbow trout over 20 inches. However, prolonged drought conditions have not been favorable for this lake and the fish have not overwintered since 2001. Low oxygen levels, high summer temperatures and low water caused by the drought have impacted the overwinter survival of stocked rainbow trout. Rainbow trout are still stocked annually to provide immediate fishing opportunities independent of winter survival, and by September these fish are 14 – 16 inches long. Angling throughout the summer and fall can be superb as these fish feed voraciously to grow more than an inch per month.

Pinedale Kid's Pond is a 1-acre pond located in Boyd Skinner Park within the Town of Pinedale. Fishing is prohibited for anglers 14 years and older to ensure young people the opportunity fish and reduce crowding. The pond is stocked with 600 catchable (> 8 in) rainbow trout annually. Fishing pressure can be relatively heavy, therefore Boulder Rearing Station stocks this pond five to six times a year to ensure adequate numbers of fish are available. The Wyoming Game and Fish Department also stocks an additional 20 or so large rainbow trout (> 15 inches) to provide a rare opportunity for young anglers to hook into something especially exciting.

Sylvan Ponds consist of two small ponds, 0.5 and 0.8 acres, located in the Sylvan Bay Summer Home area near Fremont Lake. The area can easily be accessed from the Fremont Lake Road just past the campground. Each pond has been stocked with 60 catchable (> 8 in) rainbow trout annually for more than 20 years. Fishing pressure is presumably light. These ponds provide a family oriented fishery, catering to young and less experienced anglers.

Dollar Lake is a 27-acre lake with a maximum depth of 34 ft on the Bridger-Teton National Forest near the Green River north of Cora. The Lake is periodically filled by overflow from the Green River during high flows, but is primarily fed by springs and groundwater. Dollar Lake is especially popular among anglers because of the large number of fish and high catch rates. It provides great opportunity throughout the year and is popular in both

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Small Waters (cont.)

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summer and winter. Creel survey data collected in 2013 determined that the average catch rate was 3.5 fish/hr and of the 160 reported rainbow trout caught, 102 (64%) were released. The Wyoming Game and Fish Department continues to stock the lake with rainbow trout (2,000 – 3,000 annually) to ensure ample angling opportunity throughout the year.

The CCC ponds are easily accessed just a short distance from the Town of Pinedale

Boulder Fishing Ponds consist of several ponds next to the Boulder Rearing Station just off Highway 191 south of Boulder. These ponds do not have a standard stocking plan, but rather are stocked with various sizes and species of fish as they become available at the Rearing Station. Fishing pressure is light, but these ponds provide excellent angling opportunities when other waters are still ice covered and provide a family oriented fishery. Depending on the year, the Wyoming Game and Fish Department has been stocking around 200 trout annually (8 – 12 inches).

Soda Lake Pond (Cottonwood) is nestled in the Wyoming Mountain Range along the shores of South Cottonwood Creek. The "Pond" is actually a series of 3 ponds totalling 27 acres, all of which support fish. They are located approximately 3 miles upstream from the Forest Service boundary on South Cottonwood Creek. This is a popular family fishery and the special regulation (artificial flies and lures only) in place on South Cottonwood Creek and its tributaries does not apply to Soda Lake Ponds in order to facilitate opportunity for less experience anglers. These ponds are no longer stocked with small brook trout since natural reproduction sustains this fishery. Anglers enjoy high catch rates for brook trout in the ponds and the occasional large cutthroat trout will also make its way onto a lucky angler's line. The Pinedale Fish Management Crew monitors the fish population in these ponds every 3 to 5 years to look for changes in the population and potential needs for stocking.

For more information on these or other small and large waters in the Pinedale Region, feel free to contact the Pinedale Regional Office at (307) 367-4353.

- Hilda Sexauer

Small waters in the Pinedale Region can result in big memories

The Battle at the Borders: Fighting to Keep AIS Out of Wyoming

A recent change to the Aquatic Invasive Species (AIS) law requires that all watercraft *(including canoes, kayaks, drift boats, and personal watercraft such as jet skis)* transported into the State be inspected before launching on any Wyoming waters. The law also requires that any boat coming from a water infested with zebra or quagga mussels be inspected before launching on any Wyoming water year round. You may have noticed fewer boat inspection stations in the Pinedale area recently, this is because Wyoming's AIS program underwent changes aimed at intercepting AIS as boats entered the state.

The goal of border check stations is to increase the number of nonresident boaters contacted and to detect AIS on boats prior to launching in Wyoming. The program was successful in doing just that, with 14 boats found to have invasive mussels on them, over three times as many as in 2012. Each of these boats was decontaminated before being allowed to launch or to continue travel through the state.

WGFD personnel inspect a boat for aquatic invasive species

Overall, a greater number of high risk boats were inspected and decontaminated in 2013. This included a pontoon boat checked at the Pinedale Regional Office; the boat had last been on Lake Michigan in September 2012 and was bound for Fremont Lake. The boat was encrusted with dead mussels, and a full decontamination was performed before allowing the boat to launch. Overall, inspections of nonresident boats increased statewide to 61% of all inspections in 2013, up from 25% in past years.

If you haven't heard the news yet, invasive mussels were detected in Lake Powell, UT/AZ. This is of special concern as it is a common destination for boaters who also frequent Flaming Gorge Reservoir and other Wyoming waters. If you boat at Lake Powell, your boat, kayak or personal watercraft must be inspected before you can legally launch on any Wyoming water. Inspections may be scheduled by contacting any regional Game and Fish office.

Monitoring for AIS is an ongoing part of the program. Wyoming waters are tested each year for the presence of invasive mussels and other invasive species. So far there has been no indication of the presence of zebra or quagga mussels in Wyoming waters. You can help keep it that way by always remembering to Drain, Clean, and Dry your watercraft and gear after boating, even if you are returning to the same water or only boat in Wyoming. Also, be sure if you boat at Lake Powell, Lake Mead, or any other infested water, that you have your boat inspected before boating in Wyoming.

The program's main focus continues to be increasing public awareness of the severe threat that AIS pose to our resources, not only to fishing and recreation, but also to all entities which rely on water to operate. We continue to encourage all boaters and anglers to Drain, Clean and Dry their boats and other equipment in order to prevent further spread of AIS. If you are interested in becoming a certified AIS inspector, a one day class will be available in Jackson, WY in June. Email beth.bear@wyo.gov to learn more about the class.

- Regina Dickson

AIS Crew Leader Regina Dickson pulls a plankton net as part of the ongoing monitoring for invasive species in Wyoming

Hatchery-Reared Fish in the Management of Regional Fisheries

Every year, hundreds-of-thousands of fish hatched and raised in the Wyoming Game and Fish Department's fish hatchery system are released into the State's waters, including several thousand within the Pinedale Region. This process of rearing fish, known as fish culture, provides a substantial boost to fish populations and helps sustain many of the most popular sport fisheries in the Region.

Fish are stocked into one of many waters in the region

Fish stocking has a long and colorful history in Wyoming. The early days of fish culture included tales of long train journeys and horse packing strings that established many of the sport fish resources of today. Although the practice of widespread stocking to establish new populations of fish across the landscape has largely gone by the wayside, the use of hatchery-reared fish continues to play an integral role in today's fishery management practices.

The Game and Fish Department uses a number of different species of fish, primarily trout, to stock throughout the state depending on habitat or other factors that may suit one species over another. Far and away the most common species stocked in Wyoming is the rainbow trout. This species is well suited for fish culture and is well adapted to the wide variety of habitats found in Wyoming. Other species commonly stocked include brown trout, brook trout, cutthroat trout and kokanee salmon. Hatcheries also have the ability to cross two species of fish to create a "hybrid", which typically posses traits from both parental species. In Wyoming, the two most common hybrids are splake (lake trout x brook trout) and tiger trout (brown trout x brook trout). Hybrids have certain advantages over other species of trout and are often used to control undesirable fish species and create species diversity.

A number of waters in the Pinedale Region rely on hatchery-reared fish to maintain adequate numbers of fish and support quality angling opportunity. Several lakes, such as Soda, Little Soda, and Dollar lakes for example, are disconnected from other waters and have no spawning habitat. These lakes rely exclusively on stocking to maintain fish numbers and would otherwise be fishless. Other waters, such as the "Finger Lakes", contain populations of both wild fish and hatchery-reared fish. Lake trout for example, are well suited for the large, deep lakes and can maintain adequate numbers through natural reproduction. Other species such as rainbow trout and kokanee salmon must be stocked annually to maintain their populations because habitat conditions are not suitable for them to reproduce naturally in large numbers. Limited stocking also occurs in a number of flowing waters, including the Green River, North and South Cottonwood creeks, and Boulder Creek. Even remote lakes in the Bridger Wilderness are occasionally stocked to maintain populations of popular sport fish in this renowned visitor destination.

The process of stocking fish actually occurs over a period of several years. Requests for fish to be stocked are made by fisheries biologists two years in advance and are based on the prevailing biological and social conditions of the water they are requested for. Requests for fish include the species, size, and time of year they are to be stocked. Each request is then submitted to fish culture personnel in the Department who have the arduous task of trying schedule all of the requests and meet all of the species, size and timing criteria throughout the state. To that end, the personnel within the Fish Culture Section work tirelessly to meet the many demands of raising and growing fish for the current year and those scheduled for years to come.

Many of the rainbow trout in the area's "Finger Lakes" are originally from a fish hatchery

Anyone who has spent any time fishing in the Pinedale Region has likely caught fish of both wild and hatchery origin. Although in either case the path to the angler may be different, this scenario represents the complexities of managing wild and hatchery-reared fish to maintain and improve quality angling opportunities across the State.

- Darren Rhea

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YOU CAN ALSO FIND US ON FACEBOOK AND YOUTUBE!

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Burbot Research

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Zach typically spent each day floating the river setting nets and collecting information on habitat characteristics. During the night of every third day, he and a technician floated the river and used electricity to collect burbot. Because of the technique used to analyze these data, this series of stunts was repeated at every one of 41 collection locations three times. Zach will be the first to admit that it takes a lot of work, "sampling requires a lot of effort, but I think the information we are gathering will really benefit the fishery".

Burbot exhibit an unmistakable color and shape

Back in Idaho, burbot are being dissected to remove their stomach, ear stones (otoliths), and ovaries. Theses are used to estimate the ages of burbot, evaluate their diet, and estimate their reproduction. Habitat data is being used to relate what he found with burbot occurrence. Finally, Zach uses the information he collected from different fishing techniques to figure out which method is the most effective for catching burbot. Zach hopes that his project will provide the necessary information needed to target burbot where they occur, using the most effective collection technique. Additionally, Zach believes his work will aid in understanding burbot populations in Wyoming, Idaho, and around the world.

- Zach Klein

2014 Calendar of Events

Informal Public Meeting: May 8

Proposed changes to the fishing regulations will be discussed at the Pinedale Regional Office 6 pm.

June 7: Kid's Fishing Day
10:00 am - 3:00 pm, CCC Ponds, Pinedale

All kids ages 13 and under are encouraged to attend the annual "Get Hooked on Fishing" event hosted by the Wyoming Game and Fish Department, U.S. Forest Service, and Trout Unlimited. There will be a series of short educational activities, free lunch, and the opportunity to catch a variety of trout in CCC Ponds. Youngsters will have the opportunity to learn basic ecology and fish I.D., fishing skills, and gear applications. Some fishing gear and bait is provided, and the event is free to the public.

Children learn valuable angling skills at the annual "Get Hooked on Fishing" event during Kid's Fishing Day at the CCC Ponds

June 7: Wyoming Free Fishing Day

No license or conservation stamp is required to fish during Wyoming's Free Fishing Day. All other rules and regulations apply.

June 11: Watercraft Inspection and Decontamination Training
9:00am - 4:00pm, Jackson Regional Office

Become a certified Aquatic Invasive Species Inspector. The training is free and open to anyone. Contact beth.bear@wyo.gov for more information.