

Pinedale Region Angler Newsletter

2013 Edition

Volume 9



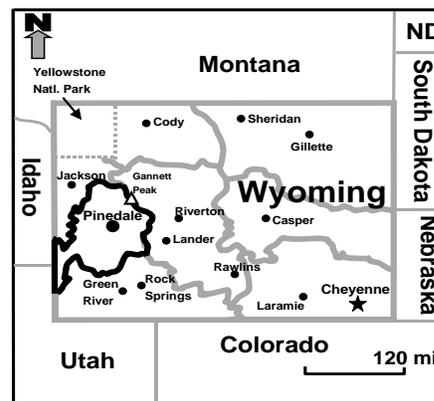
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Thanks for reading the 2013 version of Pinedale Region Angler Newsletter. This newsletter is intended for everyone interested in the aquatic resources in the Pinedale area. The resources we manage belong to all of us.

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



Pinedale Region Map

Pinedale Region Fisheries Staff:

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Burbot Research Begins on the Green River in 2013

Burbot, also known as “ling”, are a species of fish in the cod family with a native range that extends into portions of north-central Wyoming including the Wind and Bighorn River drainages. While most members of the cod family reside in the ocean, this specialized fish has adapted to the cold, freshwater environments of Alaska, Canada and the Northern United States. Sometime during the late 20th century, an ill-mannered angler or group of anglers made the radical decision to introduce burbot into the Green River drainage of Wyoming, forever altering the aquatic ecosystem of this fabled resource.

Upon their introduction in the Green River drainage, burbot almost immediately began impacting important native and recreational

fisheries. Adult burbot are a voracious predator and prey almost exclusively on other fish or crayfish. Important sport fisheries in Flaming Gorge, Fontenelle, and Big Sandy reservoirs have seen dramatic changes to some sport fish and important forage fish communities. Native populations of some imperiled fish species also saw drastic changes as burbot became established and began preying on some of these rare species.

Burbot rapidly expanded and established themselves throughout the Green River drainage. To date, they have successfully pioneered the Green and New Fork rivers above Fontenelle Reservoir, and may likely make their way into the popular “Finger Lakes” of the Upper Green

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Burbot Research

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River drainage. Extensive work has been conducted by the Wyoming Game and Fish Department to identify effective capture methods in lakes and reservoirs and study their ecology and feeding habits in standing waters. Intensified sampling in the “Finger Lakes” has yet to yield one of these illegal inhabitants, but with little standing in their way, we expect they will soon become established in some of these waters.



Burbot are easily distinguished from other fish by their “eel-like” body form and single chin barbelle

Burbot living in large rivers and streams have received far less attention. Burbot have been occasionally captured by biologists during routine sampling on the Green and New Fork rivers, but little is known about the effectiveness of our efforts in flowing water and how burbot are using these habitats. Fortunately, the Wyoming Game and Fish Department has teamed with the University of Idaho to study the effectiveness of various sampling gears at capturing burbot in flowing water, and learn about the burbot population that now resides in the river and how they are affecting the world-class sport fishery.

Researchers from the University of Idaho will begin sampling and collecting burbot from the river in 2013 and hope to wrap-up their work within a couple of years. The University of Idaho was chosen as a research partner for this work because of an extensive background in burbot research in the northwest United States. An interesting caveat of this research is that biologists from other parts of the country are eager to discover what we learn about the burbot population in the Green River. Ironically, burbot throughout their native range are declining and biologists are working hard to conserve those populations. Hopefully information we learn from this illegally introduced population can be applied to other populations to help conserve them. Most importantly, we hope to gain as much insight as possible into the illegally introduced population in the Green River, and what actions can be taken to prevent the further or continued destruction of our important recreational and native species fisheries. For more information about burbot or to report any burbot captures, feel free to contact us at 307-367-4353, or stop by the Pinedale Regional Office anytime.

- Darren Rhea

New Fork River Access Improvements

Boating access on the New Fork River was greatly improved at two locations in 2012. One site, commonly referred to as the “Confluence”, due the fact that it is just downstream from the confluence of the New Fork and East Fork Rivers, received a major overhaul. This site had been used by both boat and bank anglers for many years, but was never formally developed. The soil in this area was unstable when wet, so anglers often got their vehicles stuck when trying to use this location in the spring, or after major rain storms. As a consequence, the road and parking area developed deep ruts through time. In addition, the area did not have a developed boat ramp, so boaters were forced to launch boats on a section of bank that contained a fairly abrupt drop off. Vehicles often spun their tires on the crude “ramp”, and this activity, along with loose soil on the road and parking area were all contributing large amounts of sediment to the New Fork River. The Wyoming Game and Fish Department teamed up with the U.S. Bureau of Land Management, and the Sublette County Road and Bridge Department to make major improvements to this site.



The newly constructed boat ramp and parking area at the “Confluence” site on the New Fork River

Funding for the “Confluence” project was obtained through a grant from the Jonah Interagency Mitigation and Reclamation Office. The access road was widened and hardened, the parking area was formally defined and hardened, and a boat ramp was constructed. In addition, several unnecessary secondary roads were abandoned and planted with native vegetation, and a water hydrant for use by Sublette County road crews was installed. Future plans call for the addition of a restroom and an

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Know Your Natives: Northern Leatherside

Lepidomeda copei

Because of our interesting geologic history, the waters of Wyoming are home to numerous unique species of fish. Mountain building periods and wet and dry cycles have shaped a variety of fishes that are evolved to persist under these variable conditions. In particular, fishes of the Bonneville basin (which includes the Bear River drainage of Wyoming) are characterized by adaptations to these highly variable environments. One of these fishes, the northern leatherside, is of particular interest to the Wyoming Game and Fish Department. Northern leatherside was given the Native Sensitive Species – unknown (NSSU) designation in the state in 2010, meaning that its status in the state is uncertain and its ecology, habitat needs, and population are poorly understood. In other states, the abundance and distribution of northern leatherside has declined in recent years due to a suite of factors. In fact, the species was petitioned for listing under the Endangered Species Act (ESA) in 2007.

Northern leatherside is found mainly in the Bear River drainage in Wyoming, but additional small populations are known from the Upper Snake River and a couple small tributaries to the Green River. Northern leatherside is typically found in small streams with frequent pools and cover. It is occasionally found in small stock dams, but is generally not found in large standing waters. In addition, northern leatherside requires a diversity of habitats to complete its life cycle. For this reason, habitat degradation is one of the main threats. Other threats include the negative consequences from introduced fish species such as predation, competition, and hybridization.



Northern leatherside have extremely small scales giving them a “leathery” appearance.

A keen eye is required to discern northern leatherside from other fishes in Wyoming. The most distinct feature of northern leatherside is its miniscule scales. Scales are so small, that its muscles can actually be seen through the skin, leading

to the leatherside portion of its name. Several other minnow species resemble northern leatherside including Bonneville redbreast shiner and speckled dace; however these fishes have larger scales and subtle differences in shape. During spawning season, which runs from spring into mid-summer, northern leatherside will develop orange or red coloration at the base of paired fins (see photo). Spawning occurs in moving water over gravel and cobble substrates. Spawning aggregations have even been observed in intermittent stream reaches, indicating that access to these habitat types is important for reproduction and ultimately healthy populations of northern leatherside.

Conservation efforts in Wyoming helped avert an Endangered Species listing in 2011

Northern leatherside play an important role in aquatic ecosystems by providing a link between aquatic invertebrates and larger fish. Northern leatherside are probably poor table fare, but have been used as bait by some anglers. Northern leatherside also tends to closely associate with other native fishes. Along with its affinity to live in relatively intact habitats, this association with other natives makes northern leatherside an excellent indicator species of aquatic ecosystem health. Northern leatherside are the proverbial canary-in-the-coalmine for many streams in western Wyoming.

In response to the potential listing of northern leatherside under the ESA, the Wyoming Game and Fish Department took quick action to proactively address declines of the species and document known populations in the state. From 2010-2012, a project was conducted by the Wyoming Game and Fish Department that described the known distribution and habitat requirements of northern leatherside in the state. Efforts by fisheries biologists were able to paint a very clear picture of northern leatherside distribution and fill numerous information gaps relative to its conservation. In the end, these efforts were a large factor in the US Fish and Wildlife Service’s decision not to list northern leatherside under the ESA.

Efforts to conserve northern leatherside and other native fishes in Wyoming will require an understanding of their habitat needs and an appreciation for their roles in aquatic systems. Because of the variety of habitats that northern leatherside occupy, cooperative relationships between the Department, land management agencies and private landowners is critical to success of conservation actions. Maintenance and restoration of healthy stream habitats that have adequate connectivity for aquatic creatures to access these areas will help northern leatherside and other fishes flourish in Wyoming into the future.

*- Luke Schultz
Special Project Biologist*

Fire and Fisheries: Alterations and Modifications from the Fontenelle Fire

Stream habitats for fish are the result of many different natural processes working together to shape the form and function of a river. Climate and geology, along with hydrology, vegetation, and soil interact to form habitat for fish. Over time, these factors may produce small or subtle changes to habitat creating the diversity or variability in stream systems that fish require throughout their lives.

Change is a constant in the natural environment. Many changes are small and occur over such a large time scale that they may go unnoticed. Other changes or major disturbances can happen rather quickly and can rapidly alter the landscape and have major impacts on fish habitat. Major disturbance events that can occur in Wyoming include avalanches and large landslides, floods, wind storms, insect infestations, and wildfires. These events can have drastic impacts on fish and their habitat and are often considered devastating in their immediate aftermath. Though short-term effects of major disturbances can be profound and negatively affect a fishery, the long-term benefits of these processes can be quite valuable and are essential to maintaining the continuing health of a stream. Understanding how a major disturbance can impact a fishery and how those habitats can recover and ultimately benefit from such changes is important to our knowledge of how fish habitats operate.



The Fontenelle Fire of 2012 burned more than 64,000 acres of land in the Wyoming Range Mountains

The summer of 2012 will long be remembered as one of the most active wildfire seasons ever. Hot and dry conditions throughout the west helped spawn numerous large wildfires accounting for millions of acres of burned land. Among them was the infamous Fontenelle Fire which burned more than 64,000 acres of Forest Service, Bureau of Land Management,

and private lands along the Wyoming Range of western Wyoming. Within the perimeter of the fire were a number of important streams, home to some of the region's most important trout fisheries and native cutthroat habitats. Large streams like LaBarge Creek, and the Piney creeks, and numerous smaller tributaries like Fish Creek and Beaver Creek were all located within the burned area, and experienced varying levels of fire activity.



Vegetation removed along a stream bank may lead to increases in ash and sediment in the stream

Short-term impacts of wildfires on streams can usually be immediately recognized. Sediment and ash are often observed in the stream channel almost immediately after a fire event. The rapid loss of vegetation and other debris on the landscape allows sediment and ash to be transported to the stream more readily after a fire. Many people reported seeing "black" or dark colored water in many streams almost immediately after the Fontenelle Fire, and were concerned about the impacts to the fishery. Very high concentrations of sediment and ash in the water can lead to increased rates of fish mortality, but generally these effects are short-lived. Even if some fish do die, others are quick to recolonize an area if it is readily accessible and often flourish in these newly burned, productive areas.

Water temperatures also tend to increase in streams following a wildfire. Much of the overhead vegetation around a stream can be removed by a fire reducing the amount of shading along the stream banks. Areas within the Fontenelle Fire that lost large amounts of riparian vegetation likely saw increases in stream temperatures throughout the summer. New vegetation growth can be observed in burnt areas within weeks and can quickly replace much that was removed. Often times, new vegetation growth is more vigorous and will ultimately provide more benefits than the

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Fontenelle Fire (cont.)

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older vegetation it has replaced. Some short-term impacts from temperature increases may likely be realized in this and coming years, however, over time these impacts will diminish and improve.



New vegetation growth appears almost immediately after a fire burns an area

Many streams also see an increase in overall stream flows immediately after and for many years following a wildfire. The removal of old and decadent vegetation allows for more snowpack to accumulate on the ground, contributing to greater amounts of water storage in a stream drainage and more runoff. This may result in an increase in flooding or high flow events resulting in some changes to the stream channel. However, ultimately this is considered beneficial to the stream as accumulations of sediment are removed, channels are reshaped and reorganized, and longer periods of stream flows persist through the driest parts of the summer creating more habitat for fish.

Other benefits of wildfires are the accumulation of large woody debris in the stream channel as older, dead trees fall into the stream. Woody debris is an important component of stream habitats as it creates cross dams and plunge pools that many fish depend on for cover. Wildfires also have the effect of increasing important nutrients and minerals in a stream. The exposure of nutrients and minerals within the drainage and subsequent runoff into the stream helps aquatic vegetation and aquatic insects grow healthier, creating more food and cover for fish.

The re-growth of vegetation within a burned area is often considered a welcomed change in many western environments. Fires help remove some of the older species of plants like conifers and sagebrush and help more desirable plants like aspen and willows recolonize an area. Aspen and willow are considered more desirable along stream banks and throughout watersheds because they provide better stability, use less water, provide more shade and are

important food for beaver and many other animals. The presence of active and healthy beaver populations within a watershed helps improve habitat for fish, and helps improve water and flow conditions throughout the drainage.

Research, monitoring and mitigation efforts will be conducted within the fire area for several years to help areas heal and recover more quickly and to ensure maximum benefits can be gained from this disturbance. Some areas have already been reshaped and/or reseeded to promote vegetation growth, while others are planned. Other areas where large slides occurred will be improved to reduce further impacts. Also, thanks to the efforts of many local ranchers and with help from many partners, areas within the fire will not be grazed by livestock for at least one or two years to help new vegetation grow and ensure adequate ground coverage within those watersheds. This and many other efforts will help the area improve and ultimately lead to healthier fisheries.



Fires help remove older conifers and sagebrush and help aspen and willows re-establish along a stream

The Fontenelle Fire of 2012 forever altered the landscape of the Wyoming Range Mountains and many of the rivers and streams that flow through them. Though the impacted burn area will be visible for years and perpetually remind us of that incredible event, it will also be the site of many current and future changes that will ultimately lead to improved function in many important fish habitats. For more information about this or other disturbances and the effects on local fisheries, please feel free to contact us or stop by anytime.

- Darren Rhea

Watercraft Inspections to Continue in 2013

By now you've probably heard of Aquatic Invasive Species (AIS) and are well aware of the damaging effects invasive species such as zebra and quagga mussels could have on Wyoming's water resources. Just a few of the negative impacts invasive species can have include impeding water delivery, clogging pipes and pumps used to supply your drinking water, clogging water intakes on your boat which can destroy the motor, and removing the food source for many of the fish you like to catch.



AIS inspections will primarily occur at Port-of-Entry locations in Wyoming in 2013, while Fremont Lake and other area lakes will be manned on a rotating basis

Now for the part you may not have heard yet. The 2012 Wyoming State Legislature passed a new statute which requires a boat transported into Wyoming from March 1 through November 30 to be inspected for AIS before launching again in Wyoming. Additionally, any watercraft that has been in a water infested with zebra or quagga mussels within the last 30 days, is required to undergo a **mandatory inspection** before launching in Wyoming *during ALL months of the year*. While we realize that this may take some adjustment for boaters and is an added requirement when bringing your boat into Wyoming, it is a necessary step to keep our waters free of harmful invasive species.

The goal is to make it as easy as possible for nonresident boaters and resident boaters transporting their boat back into the state to get this mandatory inspection. The Wyoming Game and Fish Department (WGFD) will staff check stations at key entrances into the state as frequently as possible during the boating season (April 15 through September) and we encourage all boaters to plan ahead to have their watercraft inspected at one of these locations. In the Pinedale Region, watercraft check stations will be operated at the Alpine US Hwy 89 Port of Entry seven days a week, the Thayne Rest Area from Thursday through Sunday, and at Fremont Lake and other regional waters on a rotating basis. Hours and location information for

each of these stations can be found on the WGFD webpage at wgfd.wyo.gov/AIS. If you require an inspection during other times, please contact your regional WGFD office or 1-877-WGFD-AIS (943-3247) to schedule an inspection.

If you never boat outside of Wyoming this season or are not a boater at all, we encourage you to keep doing your part in preventing the spread of AIS in Wyoming by always remembering to Drain, Clean and Dry. **DRAIN** all water from your fishing gear and equipment including waders and boots. **CLEAN** all plants, mud, and debris from gear and equipment. Never move a plant or animal from one location to another. **DRY** your gear thoroughly. By doing this each and every time you fish or boat, you won't be the one that moves an invasive species to your favorite water.

There are no known populations of zebra or quagga mussels in Wyoming to date, but they have rapidly invaded waters across the country and are present in over 34 states including Colorado, Nebraska and Utah. They could be present in Wyoming waters before our monitoring can detect them, so even if you only boat or fish in Wyoming, it is important that you always Drain, Clean, and Dry. There are currently populations of other invasive species in Wyoming (Asian clam, New Zealand mudsnail, and curly pondweed) and we do not want these species moved to another water. You can report an aquatic invasive species sighting at ReportAIS@wyo.gov.

- Beth Bear
AIS Coordinator

Don't Move a Mussel

BEFORE YOU LAUNCH IN ANY WATER,

*protect your water resource and
boat motor from invasive zebra and
quagga mussels by doing a*

SELF-CHECK

Follow these simple steps to protect your waters:

- ✓ **DRAIN** All water must be drained from your boat. This includes the ballast, bilge, livewell and motor. Leave wet compartments open.
- ✓ **CLEAN** Remove all plants, mud and debris from equipment and boat.
- ✓ **DRY** Dry your boat or equipment 5 days in the summer, 18 days spring/fall or 3 days of freezing.

Help protect Wyoming's
waters by making sure you
Don't Move a Mussel!

Are There Golden Trout in Elbow Lake?

Are there any golden trout in Elbow Lake? This is a question we get from many golden trout enthusiasts that have tried their luck in this big alpine lake in the Wind River Mountains. Many anglers are probably familiar with Elbow Lake, but if not it is an 80 acre lake located at the head of Elbow Creek, a tributary to Pine Creek. This lake is surrounded by granite with Elbow Peak along the entire south shoreline and Sky Pilot Peak on the north shoreline. Golden trout were first stocked in Elbow Lake in 1935 with a follow up stocking in 1939. Natural reproduction sustains this population at a low density, which is in part why this lake is known for producing large fish.

have abundant golden trout from 6 – 14 inches. One 18 inch fish was caught in Slim Lake (11.6 acres) which is located near the origin of Elbow Creek. Anglers also reported catching fish near 20” near the outlet of Elbow Lake.

Other waters near Elbow Lake that support golden trout are Peak and Stonehammer lakes. Though these lakes are not far from Elbow Lake as the crow flies they do require hiking over Cube Rock Pass and then dropping a good distance down to Peak Lake. Stonehammer, located downstream from Peak, is a difficult boulder/talus scramble off trail.

Golden trout are most active during dawn and dusk, but may be tricky to catch during the day

It should be noted that there is quite a bit of variability in the appearance of golden trout. Often, juvenile fish will appear quite silvery in color, and will closely resemble rainbow trout. Older, larger fish usually are more golden in color, but even large fish can appear quite different in coloration than the typical bright red and golden colors for which they are famous.

Anglers will not have high catch rates when fishing Elbow Lake (or most golden trout lakes for that matter), but a more spectacular setting to pursue these notoriously fickle trout would be hard to imagine.



One of the trophy golden trout known to inhabit Elbow Lake

- Hilda Sexauer

This lake receives a fair amount of day use, primarily because it is above timberline and has limited camping areas and forage for livestock. This is especially true near the inlet, which is transected by the heavily used Highline Trail. Golden trout are most active during early morning and evening hours. A casual inspection of the lake during the middle of the day can lead an angler to believe it is barren. When fishing golden trout lakes during the day, try finding a high spot near a protected bay to allow you to spot deep cruising fish. Because of the relative low density of fish, and the propensity of golden trout to form “pods” of fish, blind casting is often futile.



Color and spotting pattern can be highly variable in golden trout. Colors can range from a “dull silver” to a “bright golden” and spots can range from “nearly absent” to “frequent”

Biologists evaluate lakes in the Bridger Wilderness about every 10 years. We look at species assemblage, fish condition, lake condition, introduction of invasive species, and past stocking success. We also evaluate lakes for future fish stocking recommendations. Elbow Lake was sampled in August 2012. Though the lake often has little fish activity for most of the day, golden trout are present. The largest sampled fish was 18.7 inches and 2.5 pounds, and the inlet stream and ponds

Wyoming Game and Fish Department

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WE'RE ON THE WEB
<http://wfgd.wyo.gov>

YOU CAN ALSO FIND US ON FACEBOOK AND YOUTUBE!



New Fork River Access Improvements

(Continued from page 2)

information kiosk. To get to this site, travel approximately 0.9 miles south of the bridge crossing the East Fork River on Highway 191. At that point, turn right and drive about 1.4 miles down Sublette County Road 106. The main road will begin to bend to the left at this point, but you will need to turn right onto the newly improved road leading toward the river. You will reach the river in about 0.4 miles.

The second site on the New Fork River that was constructed in 2012 was previously unavailable to boaters. This site, located approximately 3.7 river miles upstream of the Highway 351 boat ramp, is known as the Remmick Public Access Area. This site was named in honor of Ron Remmick, a former Fisheries Supervisor for the Pinedale and Green River Regions of the Wyoming Game and Fish Department. Construction at this site includes a hardened access road, parking area, and boat ramp. In addition, the site has a restroom, and enough room for camping. The addition of this new access point will give boaters several new options for floating portions of the lower New Fork River. To reach this site, travel approximately 3.9 miles north of Highway 351 on Sublette County Road 136 (also known as the "Paradise" Road). At that point, the restroom should be visible near the river (to the east of Road 136). The newly constructed road on the right will lead you down to the access site.

Additional access improvements are planned for 2013 and include an improved access area and boat ramp on State land near the Pinedale Airport. The "Airport Access" will provide walk-in access to more than a mile of river, and boat access to a previously inaccessible section of stream. To learn more about this access area, and other access points on the New Fork River, please contact the Wyoming Game and Fish Department's Pinedale Regional Office at (307) 367-4353.

- Pete Cavalli

2013 Calendar of Events

Regulation Public Meeting: May 9

Changes to the 2014-2015 fishing regulations will be discussed at the Pinedale Regional Office 6 to 9 pm.

Fishing Regulations Public Comment Period: April 23 through June 7

Public comments can be submitted online or at the Pinedale Regional Office.

June 1: 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 1: 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.