

2011



Balancing Cutthroat Conservation with Nonnative Trout -Mark Smith

Inside this issue:

Balancing Cutthroat Conservation	1
Shoshone River Fishing	2
Bighorn River Sturgeon	3
Slow Fishing at Harrington	4
Bighorn River Trout	5
Mountain Waters Surveys	6
Cutthroat Return	7
Mountain Whitefish	8
Yellowstone Cutthroat Waters	9
Diamond Creek Pond Suckers	10
Aquatic Invasive Species	10
Search for Shoshone Access	11
Copper Lakes	11
Cody Fisheries Managers	12

We have spent a large amount of time and effort in recent years towards saving Yellowstone cutthroat trout for present and future generations to use and enjoy. We no longer have Yellowstone cutthroat in many of the waters where they once were found. If we can't reverse this downward trend we stand to lose many more. As we stated in last years issue "Yellowstone cutthroat trout define our region". These fish are native nowhere else in the world and we are charged with their stewardship.

Securing Yellowstone cutthroat for future generations means we must provide quality habitat that is free of any competing or hybridizing trout. Unfortunately, we don't have quality habitat that isn't already occupied by other trout species such as brook, rainbow or brown. This means that our only option for securing Yellowstone cutthroat is to remove one or more of these non-native trout to make room for Yellowstone cutthroats.

This has been portrayed as an assault on these non-native trout species. Some have gone as far as to suggest that we don't like brook trout. This couldn't be further from the truth. Like most of you, I enjoy pulling brook trout from stream and pond to skillet. I believe brook trout to be one of the most beautiful of all fish and our region is blessed with abundant brook trout fisheries.

On the west side of the Big Horn Mountains we have approximately 800 miles of trout streams. Of those 800 miles, only 76 currently have Yellowstone cutthroat and 12 of these 76 were added in recent years by our efforts. More than 600 miles of streams on the west side of the Big Horns have brook trout. The Big Horn Mountains are full of opportunities to catch brook trout.

If you are looking for places to catch brook trout and maybe fry up a few, there are literally hundreds of options on the west

side of the Big Horns. Some of our favorites include: Baby Wagon Creek, Middle Paintrock Creek, North Paintrock Creek, Paintrock Lakes, Medicine Lodge Creek and Upper Shell Creek.

Additionally great brook trout fisheries can be found in the Beartooth Plateau Mountains such as Fantan, Solar, Hauser, Island and Sawtooth lakes just to mention a very few.

We will continue to work towards securing Yellowstone cutthroat in our region in the years to come. This will undoubtedly mean that additional non-native trout fisheries will be converted to cutthroat. What we are hoping to accomplish is a balance that provides both security for Yellowstone cutthroat and plentiful opportunities to catch brook, and other trout.

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Blue Ribbon Fishing on the Shoshone River—Jason Burckhardt

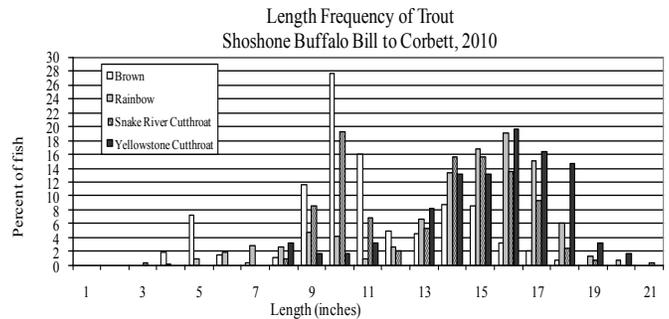
“The Shoshone River from Buffalo Bill Dam to Corbett Dam had 2,885 trout per mile and 3,322 pounds of trout per mile.”

The Shoshone River is a productive sport fishery and one of the most popular trout fisheries in the region. The Shoshone River from Buffalo Bill to Mormon Dam supports over 600 pounds of trout per mile making it a blue color class stream, the highest ranking in our stream classification system. The Shoshone River is particularly known for providing winter angling opportunities. The combination of water being released from Buffalo Bill Dam and the addition of warm water from DeMaris Hot Springs keeps water temperatures warm enough for fish to be active throughout the winter. Several dams on the Shoshone River serve as fish movement barriers and create distinct management segments between these dams. Each of these river segments have their own unique characteristics and are managed as such. Sedimentation and associated turbidity are a major factor limiting fish production and recruitment in the Shoshone River. Generally, fish habitat quality decreases with a downstream progression due to these factors.

The entire Shoshone River is managed as a wild brown trout fishery, but rainbow trout and cutthroats of varying flavors are stocked in the different segments. Trout populations in the Shoshone River are also augmented by fish drifting downstream from Buffalo Bill Reservoir during periods of high flow releases from the reservoir. Natural recruitment of spring spawning trout is limited so the upper two segments of the Shoshone River (from Buffalo Bill Reservoir to Corbett Dam and from Corbett Dam to Willwood Dam) are stocked with Snake River cutthroat trout (a fine spotted Yellowstone Cutthroat trout). The segment from Corbett Dam to Willwood Dam is also stocked with Bear River cutthroat trout as they are believed to survive and grow better in turbid environments. We conducted trout population estimates on these upper two

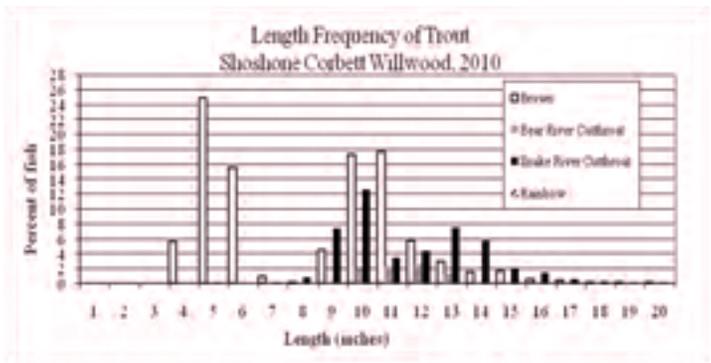
segments of the Shoshone River in the fall of 2010 to determine the status of these fisheries. Our sampling found the trout populations on both sections of the Shoshone River to be doing well. The Shoshone River from Buffalo Bill Dam to Corbett Dam had 2,885 trout per mile and 3,322 pounds of trout per mile and from Corbett Dam to Willwood Dam had 1,150 trout per mile and 701 pounds of trout per mile. The large trout populations on both sections were driven by robust wild brown trout populations.

To what can we attribute the high numbers of trout from Buffalo Bill Dam to Corbett Dam? We have received a lot of precipitation the last couple of years. These high water years have allowed for winter releases from Buffalo Bill Dam of 350 cfs. Studies have shown that our trout populations are highest following winter releases of 350 cfs so it is likely that the high winter flows contributed to the robust trout populations. So get out there and enjoy this fantastic fishery.



Species	Average Length	Length Range	Average Weight	Weight Range	Number/Mi	Pounds/Mi
Brown	12.0	6.0-15.9	0.82	0.08-3.28	1,710	1,203
Rainbow	14.7	6.2-20.8	1.62	0.03-4.04	587	977
Snake River cutthroat	14.0	8.2-21.3	1.22	0.01-3.64	842	1,142
All Trout	13.4	6.0-21.3	1.21	0.03-4.04	2,885	3,322

Length Frequency and population statistics for the Shoshone River Buffalo Bill to Corbett section.



Species	Average Length	Length Range	Average Weight	Weight Range	Number/Mi	Pounds/Mi
Brown	10.3	6.0-20.8	0.54	0.04-3.54	721	387.4
Bear River cutthroat	11.9	9.6-16.6	0.60	0.32-1.68	78	45.9
Rainbow	7.8	7.8-18.5	0.64	0.64-2.40	7	8.8
Snake River cutthroat	12.0	5.7-20.5	0.76	0.06-3.46	344	258.4
All Trout	11.1	6.0-20.8	0.64	0.04-3.54	1,150	700.7

Length Frequency and population statistics for the Shoshone River Corbett to Willwood section.

“The Shoshone River from Corbett Dam to Willwood Dam had 1,150 trout per mile and 701 pounds of trout per mile.”

Bighorn River Sturgeon Re-Introduction is Successful—Mark Smith

When Yellowtail dam was closed in 1967 the Bighorn River fishery was changed substantially on both sides of the dam. Upstream in Wyoming several native species were eliminated by the isolation of the Bighorn from the Yellowstone River.

One of the native fishes to the Bighorn that was eliminated by Yellowtail Dam was the shovel-nose sturgeon. Prior to dam construction shovelnose migrated upstream from the Yellowstone River to spawn in the Bighorn River of Wyoming. Hatched sturgeon and their parents later retreated to the lower Bighorn and Yellowstone Rivers in Montana.

In 1995 the Wyoming Game and Fish Department initiated a plan to return sturgeon to the Bighorn. Unlike most sturgeon species, shovelnose are still doing well in many river systems and neighboring states were willing to collect sturgeon eggs for us.

Stocking of sturgeon began in the Bighorn in 1996. Sturgeon have been stocked in the lower portions of the Greybull River, Nowood River, Shell Creek and the Bighorn River from Worland to Big Horn lake. Stocked sturgeon have ranged from very small fry (less than an inch) to 12 inch fish. To date we have stocked more than half a million sturgeon.



Most shovelnose sturgeon stocked in the Bighorn are small fry like this.

Over the past 10 years the capture of sturgeon by anglers has become increasingly common on the Bighorn River and upper portions of Big Horn Lake.

In recent years we have been working to develop techniques to sample the population. These techniques will help us to determine how well the stocked fish are surviving in the river and eventually whether or not the fish reproduce on their own.

In 2010 we were finally able to consistently sample sturgeon in the lower river. In three days of work in three miles of river we were able to boat, measure and collect tissue samples from thirty sturgeon that ranged in size from 15 to 38 inches. The diversity in sizes of sturgeon captured suggests good survival. The weight of the larger sturgeon suggests good conditions for growth in the river.

The remaining unknown for Bighorn River sturgeon is whether all the fish in the river are from stocking or if some were hatched in the river. To answer this question we are turning to some cutting edge science. We hope to report on this new technique and the results next year.



Stocking larger sturgeon near Greybull.



Sampling the sturgeon population in the Bighorn River is challenging. Drifted nets have proven effective.



Many sizes of sturgeon is a signal that multiple ages of fish are present in the river.



The heaviest sturgeon from the Bighorn River to date weighed in at 8.2 pounds.



Anglers should be careful when handling sturgeon. The armor like scutes along the sides and top of the fish are very sharp.

Why is Fishing Slow at Wardell and Harrington Reservoirs?—Mark Smith

“Anglers should expect to work for the fish they catch”

We live in a very erosive basin. Soil erosion is so common in the basin that we often overlook it. If you have spent any time on the always dirt laden Bighorn River, watched the snow turn brown in a Cody windstorm or seen the results of an Absaroka thunderstorm you can appreciate how active erosion is around us.

The erosive nature of the basin has a substantial impact on the type and quality of fisheries we have. Rivers like the Bighorn, lower Shoshone and Nowood that are often dirty or turbid are unable to support fish such as trout that require relatively clear water to find their food. Additionally rivers that carry large quantities of dirt or sediment generally have bottoms that are also covered in sediment. Fish species that require gravel or larger rock to spawn or live are eliminated in such rivers.

In standing waters such as lakes and reservoirs sediment can settle out, resulting in relatively clear water. If sediment remains suspended in the water, it blocks light penetration, yielding a reduction in plant growth that restricts the food available to bugs and ultimately to the fish we like to catch.

This is a problem we are all too familiar with in reservoirs of the Big Horn Basin. For those who have wondered why reservoirs like Wardell and Harrington aren't better fishing, the simplistic answer is erosion.

The combination of fine particle, naturally erosive soils, shallow water and frequent wind keeps Reservoirs like Wardell and Harrington constantly turbid or dirty. This turbidity prevents our ability to grow more fish.

Unfortunately turbidity in small reservoirs like Wardell and Harrington are a fact of geology and geography and there aren't many options for fisheries managers.

Anglers who remember Harrington after it was first built will recall, crystal clear water and weed beds throughout the lake. Anglers probably also recall the number of fish that were present.

In the last six or seven years water turbidity has increase dramatically and the fishery continues to skid towards one similar to the 60 year older Wardell.

I realize I am painting a less than optimistic picture for these two fisheries but unfortunately it is also a realistic prediction of the future. When Harrington was

built everyone knew it would eventually mirror Wardell we have all been surprised at how rapidly the transition has occurred.

Assuming I haven't completely turned you off to fishing these two reservoirs, there are still fish to be caught and under the right conditions fishing can be reasonably good.

We continue to stock both reservoirs annually with walleye and we also stock crappie in Wardell. These fish prey on the carp and suckers in the reservoir and occasionally a walleye of substantial size is produced. Additionally Harrington still has a few large-mouth bass that can offer fun top water action on warm summer evenings.

Anglers should expect to work for the fish they catch. To boost angler catches, both reservoirs are included in the Special Winter Ice Fishing Provision that allows the use of up to six lines when fishing through the ice.



Always turbid Wardell Reservoir lies a stones throw from the much younger Harrington Reservoir.



The once prolific yellow perch in Harrington have declined with water clarity.



Walleye are the most common catch at both Harrington and Wardell Reservoirs.

Bighorn River Trout Numbers Climbing—Mark Smith

We conduct surveys on the Bighorn River from Wedding of the Waters to Thermopolis in October of most years to provide information on the number and size of trout. The river is among the most productive trout fisheries in our region and one that we spend considerable time trying to improve.

The size of trout the river produces is fantastic and has never been problematic. The primary struggle we have with improving trout fishing on the river is increasing the number of trout available. We try to increase the number of trout through 1) stocking and 2) reproductive habitat improvement.

Each June we stock 8,000 Snake River cutthroat trout and 16,000 rainbow trout between Wedding of the Waters and Black Mountain Road. We have learned through trial and error and considerable research that these fish must be greater than 5 inches at stocking to survive their first winter. The stocked trout provide a level of stability in the fishery from one year to the next. Without these stocked fish the number of trout available for anglers would be more variable than it is.

Our work towards improving reproductive habitat has focused on flushing flows from Boysen Reservoir. The idea behind flushing flows is that the energy of moving water picks up small material such as silt and sand and carries them away downstream. Without the removal of these fine materials from spawning gravels, trout eggs would be suffocated before they could hatch.

Fine sediments such as silt and sand are introduced to the river each summer when rainstorms create muddy flows from what are often dry streams such as Red Canyon and Buffalo Creeks. These fine materials deposit throughout the river.

With cooperation from the U.S. Bureau of Reclamation we have increased the frequency of flushing flows on the Bighorn River. With this increase in frequency we have seen better spawning habitat for trout and the trout population keeps creeping upward.

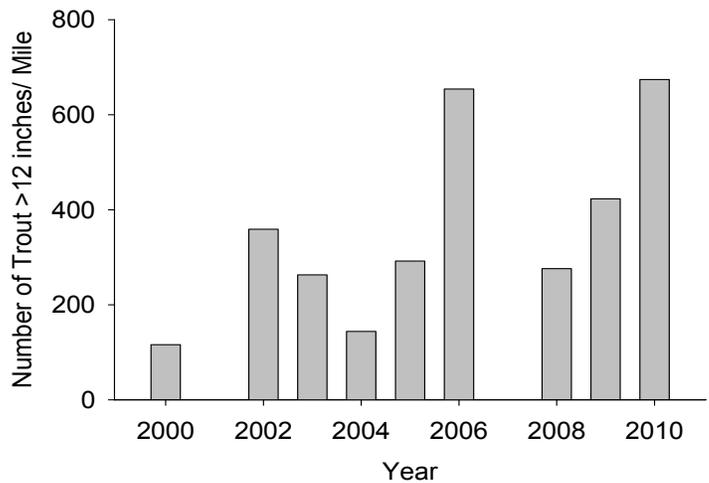
The Bighorn can be a fickle river to fish because natural food is incredibly abundant. If you spend some time learning the river you will likely be impressed with the quality and quantity of trout you catch.



Spawning trout in the Bighorn River.



Female rainbow trout on spawning redd in the Bighorn River.

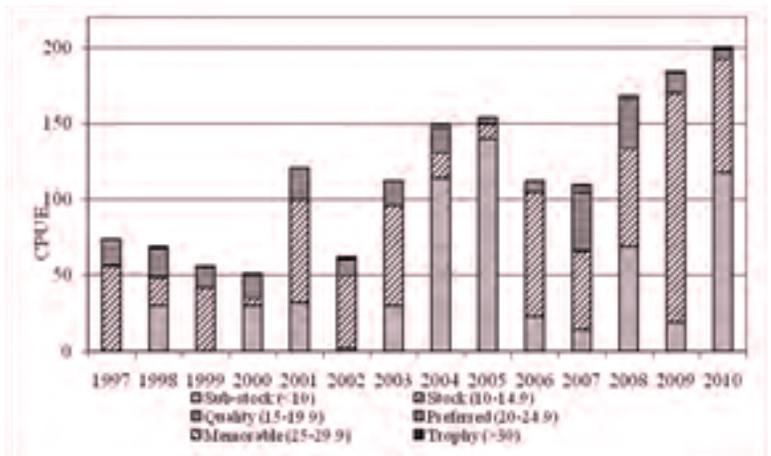


Wild trout production in the river has been increasing in recent years. If this trend continues, the number of trout larger than 12 inches (shown here) should also increase.

Good and Bad at Deaver Reservoir—Jason Burckhardt

The good news is that during our annual sampling we captured more walleye than we have since annual sampling began in 1997. The bad news is that this was driven by the large sub-stock sized (less than 10 inch) component of the fishery captured during sampling in 2010. The large number of 10-15 inch walleye captured in 2009 did not show up in the 2010 sampling. It is likely these fish were harvested between the 2009 and 2010 sampling. Anglers have had

mixed results on Deaver this past year. Many caught a lot of the abundant small walleye present, but others fared poorly. The abundant aquatic vegetation hindered some anglers.



Number and size class of walleye captured at Deaver Reservoir in one hour of electrofishing.

“Our high mountain lakes provide anglers with opportunities to catch quality fish in beautiful settings”

Summary of Recent Beartooth Mountain Surveys *—Jason Burckhardt*

Rush Lake is a shallow 7 acre lake in the Muddy Creek drainage. Yellowstone cutthroat were common, averaging almost 11 inches and ranging from 7 to 15 inches.

Lake Creek Lake is a 12 acre lake sitting atop a depression adjacent to Lake Creek, Yellowstone cutthroat were common averaging 14.7 inches long and weighing just over a pound.

Tear Drop Lake is a 4 acre lake just west of Granite Lake, known for its abundant water lilies. Yellowstone cutthroat were common averaging 10.1 inches and ranged from 7.6 to 13.5 inches.

Elk Lake is a 11 acre lake in the Muddy Creek drainage just southeast of Granite Lake. Yellowstone cutthroat were common averaging 12.5 inches and ranging from 7.3 to 14.7 inches.



Typical Beartooth Mountain vista—makes you want to be there casting right now!!!

Summary of Recent Big Horn Mountain Surveys- *Mark Smith*

Trout Creek- Yellowstone cutthroat were abundant averaging 8 inches and ranging 4-13 inches.

Shell Creek Reservoir- Brook trout were abundant averaging 8 inches and ranging 6-12 inches.

Middle Paintrock Lake - Brook trout averaged 7 inches and ranged 6-9 inches.

Bucking Mule Creek- Brook trout were common averaging 7 inches and ranging 4-11 inches.

Lower Paintrock Lake- Brook trout averaged 8 inches and ranged 7-10 inches.



Most known for its waterfall, Bucking Mule Creek is one of many good brook trout fisheries in the Big Horns.

Brook trout are by far the most widely distributed and abundant fish in the Big Horn Mountains.

Fish Return to Buckskin Ed Creek—*Mark Smith*

“we transplanted approximately 600 Yellowstone cutthroat trout”

If you follow this newsletter you might be familiar with this small stream in the Southern Big Horn Mountains. If you don't, odds are you have never heard of it. Buckskin Ed Creek is a pretty small stream and prior to 2008 it was just one of the hundreds of small streams in the Big Horns with lots of small brook trout.

As part of an effort to secure Yellowstone cutthroat throughout the South Paintrock Creek watershed, we removed all of the fish in 2008 and 2009. This past summer with the help of

East Yellowstone Trout Unlimited and Big Horn National Forest volunteers we transplanted approximately 600 Yellowstone cutthroat trout from Soldier and South Paintrock Creeks to Buckskin Ed.

Transplanting trout from one stream to another even in relatively close proximity is easy to talk about and much more difficult to actually accomplish. We spent two long days moving all of the Yellowstone cutthroat we could catch.

Buckskin Ed Creek although

small has very good fish habitat and we expect spawning fish this spring that will begin the process of building the population.

If you decide to try fishing the creek in the next few years, please release the fish you catch so that the population can expand to fill all the available habitat.

We believe Buckskin Ed Creek will be one of the most accessible and best fishing Yellowstone cutthroat streams in the Bighorn Mountains in years to come.



Big Horn National Forest Volunteers capture Yellowstone cutthroat from South Paintrock Creek for transplant to Buckskin Ed Creek.



Yellowstone cutthroat are loaded on horses for the ride out to Buckskin Ed Creek.

Yellowstone Cutthroat Trout Returning to Dead Indian Creek in 2011—*Jason Burckhardt*

“Yellowstone cutthroat trout of various sizes will be stocked into Dead Indian Creek in 2011”

A nine-mile reach of Dead Indian Creek, a tributary to the Clarks Fork Yellowstone River, was chemically treated to remove rainbow and rainbow-cutthroat hybrid trout in 2009 and 2010 to make way for native Yellowstone cutthroats. We are confident that we were successful at removing all nonnative trout.

Native Yellowstone cutthroats will return to this section of Dead Indian Creek in 2011. In fact Yellowstone cutthroats upstream from the treatment reach are already drifting down into the section that was treated.

Following high water this year catchable sized (8-9 inch) Yellowstone cutthroats will be stocked in the vicinity of the trailhead and campground. Fingerling (3 inch) Yellowstone cutthroats will be stocked via helicopter into the upper treatment area.

The goal of this project is to establish a self-sustaining population of Yellowstone cutthroat trout in this segment of Dead Indian Creek to ensure the persistence of this native species in the Clarks Fork River drainage. We will continue to

monitor this population to determine when our goal has been obtained.

A big thanks goes out to the Shoshone National Forest, Montana Fish Wildlife and Parks, Trout Unlimited volunteers and other WGFD personnel for assistance in carrying out this complicated project.



Mountain Whitefish, the Rodney Dangerfield fish – *Gordon Edwards*

“Mountain Whitefish are great way to hone your nymphing skills with a fly rod or really finesse a small spinner”

You may know them as “cheekers,” “whistlers,” or even “trash fish,” but no matter what you call them mountain whitefish “get no respect.” The fact is that mountain whitefish can be an enjoyable part of fishing many cold water streams in Wyoming and really deserve more credit than they receive. Granted, most anglers hit these waters intent on catching trout, but many fishing trips have been saved by whitefish when the trout bite wasn’t so hot. Further, whitefish put up a great fight and can be readily caught throughout the coldest months of the year. They’re also a favorite among folks who like smoked fish. Interest in making whitefish trips is growing among anglers, especially during those “nicer” winter days when the itch to get on the water is too much to bear. It’s a great way to hone your nymphing skills with a fly rod or really finesse a small spinner.

The truth is, fisheries professionals with the Wyoming Game and Fish Department and other wildlife agencies haven’t given due credit to whitefish either, until recently. A new project to assess the status of mountain whitefish populations in Wyoming brought the Aquatic Assessment Crew, the statewide fisheries research crew for the Wyoming Game and Fish Department, to the Clark’s Fork River in 2010. Many populations of whitefish appear to remain robust across the Rock Mountain West, but some are showing unexplained signs of decline. Years of drought, introductions of non-native trout, loss of access to habitats needed during

certain life stages, and diseases such as whirling disease have all been suggested to affect whitefish populations.

At the most basic scientific level, little is known yet about how to properly sample them for study. Some biologists have attempted to keep track of whitefish observed while doing trout surveys, but this data is limited and sporadic. Typically, numbers collected in this fashion have only distinguished whether there were very few or “lots” of whitefish – not suitable information for following population trends. So, fisheries biologists are testing methods to collect good numbers on whitefish and begin to follow population trends. In the Clark’s Fork River north of Cody, the same reach of river was sampled three times during one week with raft-mounted electrofishing gear and all the fish captured were given a special mark. Numbers of marked fish sampled allowed the population size to be estimated. Results showed that there were about 1,441 adult mountain whitefish per mile, which was comparable to other large rivers sampled for the project, such as the Salt and Green rivers. The average whitefish in the Clark’s Fork River measured 13.1 inches and weighed just less than one pound, which was also similar to other populations studied across the state. The largest whitefish sampled in the Clark’s Fork measured 19.6 inches.

A common perception among fisheries biologists was that survival was low for mountain

whitefish sampled with electrofishing gear. However, fisheries biologists have now found that mountain whitefish are susceptible to capture using much lower power settings with electrofishing gear than trout. Experimental equipment settings using low power were used during the Clark’s Fork survey in 2010 and generally kept survival rates of whitefish high. Fisheries biologists also sampled 34 whitefish below the population estimate reach, handled them in an identical manner to fish collected for the population estimate, and held them in a large cage for 72 hours. None of these fish died, which imparts additional confidence in the quality of the abundance estimate collected. Delayed mortality studies during other whitefish population estimates have reflected these positive results. That said, it has been apparent that whitefish that are not handled carefully during sampling may die immediately – as many anglers already know! The Greybull and Shoshone rivers are two more waters that will be sampled for mountain whitefish in 2011. In the long run, fisheries biologists want to have reliable abundance and distribution data in hand for species such as trout and mountain whitefish so they can detect changes in fish populations in time to take actions that safeguard fisheries resources. This project is just one of many conducted by the Wyoming Game and Fish Department that aim to give biologists the tools to do so for all species, including one that’s often overlooked but not forgotten – the mighty whiteie. Go catch one and smile.



Processing mountain whitefish on the Clark's Fork 2010.



Holding whitefish to determine delayed mortality.



Mountain whitefish homely to some beautiful to others.



Gordon Edwards with a nice mountain whitefish.

“The Greybull River drainage is one of the last strongholds for Yellowstone cutthroat trout.”

Native Yellowstone Cutthroats abound in the Greybull River—*Jason Burckhardt*

As mentioned on the front page story, throughout much of their historic range Yellowstone cutthroat have been replaced by nonnative brook and brown trout and hybridized with rainbow trout. The Greybull River and tributaries are one of the last strongholds for our native Yellowstone cutthroat trout. Our native cutthroat don't thrive when nonnative trout are introduced and we are fortunate to have this population in the Greybull River without nonnative trout. The Upper Sunshine Diversion currently serves as a barrier fragmenting the Greybull River cutthroat population. The replacement of this structure in 2011 provides an opportunity to reconnect this fragmented population. Before doing so we wanted to ensure no nonnative trout were present below this structure. Past sampling had not found nonnative trout, but that sampling was limited to short reaches due to the equip-

ment used. This year we sampled 23.5 miles of the Greybull River from the Upper Sunshine Diversion to the Sleeper Ranch Bridge. Many native Yellowstone cutthroat were sampled ranging in size from 3.7 to 22.5 inches and 0.12 to 4.12 pounds. Three brown trout

were captured. The presence of brown trout is troubling, but their limited numbers warrants moving forward with fish passage of the Upper Sunshine Diversion. Further sampling will be needed to ensure this population does not expand.



Large Yellowstone cutthroats like these await anglers on the Greybull River.

“Yellowstone cutthroat trout in the Greybull River will be implanted with radio transmitters”

Yellowstone Cutthroat Trout Movements in the Greybull River Under Investigation—*Jason Burckhardt*

They Greybull River drainage is one of the last strongholds for native Yellowstone cutthroat trout. Very little is known about the movements of Yellowstone cutthroat within this basin. The movements of Yellowstone cutthroat trout in the Greybull River are being investigated beginning in 2011. Radio transmitters will

be surgically implanted into a number of cutthroat and their movements will be followed through 2011 and 2012. The goal of this project is to identify manmade barriers to their movement and diversions that may be entraining a large number of fish. The move-

ment data will be used to direct restoration activities and accrue information needed to improve future management within this basin. We also expect to provide information on fluvial dispersion that will be useful throughout the range of this species.



Radio transmitters, small enough they do not affect the behavior of the fish, are implanted using a simple surgical procedures.

Diamond Creek Dike Pond Slated for Sucker Removal Fall 2011—Jason Burckhardt

Diamond Creek Dike Pond is a 34-acre impoundment that was created when an exclusionary dike was constructed as part of the enlargement of Buffalo Bill Reservoir to prevent the inundation of Irma Flats (southeast of the reservoir). A pumping station operated by the US Bureau of Reclamation maintains water levels in Diamond Creek Dike Pond.

Suckers sometimes proliferate in such habitats and compete with our stocked sportfish. Sampling in 2009 found the

Diamond Creek Dike Pond fishery to be overwhelmed with suckers, with trout only comprising 11 percent of the catch.

When nongame fishes proliferate and affect our sport fisheries we can sometimes stock piscivorous (fish eating) species to reduce nongame fish abundances. However, brown trout have been ineffective at reducing the sucker population in this water. The best remaining option is to totally remove the existing fishery and start from scratch.

Following the 2011 irrigation season (in October of November of 2011) the Bureau of Reclamation will draw down this pond as far as their pumps will allow. We will then use the chemical rotenone to remove the existing fishery. The pond will be allowed to refill to its normal level and we will restock

Diamond Creek Dike Pond in the spring 2012.

The chemical rehabilitation of Diamond Creek dike pond is expected to greatly improve the productivity of this fishery.



White suckers like this one can proliferate in reservoir environments affecting trout growth and survival.

Aquatic Invasive Species—the 2010 Program—Steve Yekel

The first year of the State of Wyoming Aquatic Invasive Species program has come and gone. I am happy to report all went quite well. We did not find any mussels during nine high risk inspections and two decontaminations in the Cody Region and that is a real good thing. Watercraft enthusiasts were meet by signs at two check station locations within the Bighorn Basin saying “All watercraft must stop” to complete inspections and hear our message to keep their boats DRAIN, CLEAN, and DRY—our battle cry. Seriously, this program is so important not

only to anglers but to all that use water. Irrigation systems, pipelines, domestic water treatment plants and power plants, just to mention a few could experience detrimental and expensive consequences if zebra and quagga mussels invade this state.

Now to report some results from this 2010 inspection season. You might recall from last years newsletter that the 2010 legislature established an aquatic invasive species law that allowed for the inspection of all watercraft. To help accomplish this law, the Wyoming Game and Fish and

State Parks were tasked to establish a program to monitor state waters and prevent the movement of mussels from out of state waters into Wyoming waters. As it would be impossible to cover all waters where watercraft could be found, in our state, we selected two that we considered our high risk waters. They were Buffalo Bill and Bighorn Lake. We established two check stations to cover the heaviest use periods starting about May 19 and concluding in Mid-September. The check station on the west edge of Cody was used to inspect all watercraft passing this point. The two AIS inspectors stationed there contacted 3,504 watercraft and completed 2,475 standard inspections of watercraft heading to launch and 1,029 exit inspections for those heading home after enjoying a day on the water. Total hours spent conducting these inspections was 1,357 for an average of 2.6 inspections per hour. Over 15% of watercraft were from out of state with the majority from Montana. Watercraft from 45 other states were also contacted. For the most part the check station was open Friday through Sunday and all holidays.

The Crooked Creek Contact station within the Bighorn Canyon Recreation Area managed by the National Park Service was the site for our second check station. This check station covered watercraft entering to use either the Horsehoe Bend or Barry's landing boat ramps. Here our one GF inspector and one NPS inspector contacted 2,940 watercraft over 53 days and 835 hours for an average of 3.5 watercraft per hour. This included 2,025 standard inspections and 915 exit inspections. Out of state boats were primarily from Montana but watercraft from 24 other states were also inspected.

So what can you expect for 2011—more of the same. We are however going to offer more use of a “seal” which locks the watercraft to its trailer for those that are local users which should reduce the time to check in the next time they go boating. Thank you for all your cooperation to keep mussels out of Wyoming in 2010!



Game Warden Rick King, a certified AIS inspector, decontaminates a newly purchased AZ boat used in Lake Mead.

“... if you know landowners that might be interested in access agreements let us know”



North Cody Shoshone Access— to be developed by Fall 2011 provides about two miles of access .

Search for Shoshone Access—Anglers need more!—*Steve Yekel*

As I have mentioned many times before, we continue to get requests from anglers for more access to enjoy the fisheries we are so blessed with in the Big Horn Basin. The big problem is how do we make this happen? Finding willing private landowners to work with the Game and Fish for an access easement is increasingly difficult. We realize

this and are making efforts to identify possible sites to improve angler access. How are we doing this? By developing a plan with the objectives of identifying potential sites that will allow more pedestrian access to waters and/or sites for launch and takeout of watercraft. This plan will identify opportunities to work for access with federal agencies such as the Bureau of Reclamation and Bureau of Land Management to develop land parcels that they manage along and to these waterways. We will also look for sites for boat launches that could ideally be placed 5 to 6 miles apart to provide for reasonable float distances. Wyoming law allows floaters to use streams to float and fish as long as they do not trespass on private lands along the stream shore or the under laying land.

Recreationists are able to portage around obstacles such as diversion dams or other safety hazards to avoid injury, but it does not allow them to wade these private lands for other purposes unless they have the permission of the landowner. Keeping this in mind, a great deal of stream miles could be accessed for fishing and hunting, while remaining on the water, if we found willing landowners that would allow us to construct boat ramps for floating. That is one of the major goals of this access development plan we are calling the Shoshone Access Development Plan. Be watching for this Shoshone Access Development Plan in the near future and if you know of landowners that might be interested in access agreements with the WGF — please let us know.

“Great fishing is available to anglers willing to endure a grueling climb or death defying ATV ride to Copper Lakes”

Copper Lakes—*Jason Burckhardt*

Three lakes in the Sunlight Creek drainage offer anglers the opportunity to catch quality fish in a beautiful setting. Copper Lakes 1 through 3 (numbered with an upstream progression) range in size from 5 to 35 acres at elevations ranging from 9,718 to 10,267 feet. The upper two lakes (Copper Lake 2 and 3) are stocked biennially with golden trout and the lower lake (Copper Lake 1) is stocked biennially with Yellowstone cutthroat. Sampling in 2010 found abundant trout in each of the three lakes. Golden in the upper lakes averaged over 11 inches with a few stretching the tape over 17 inches. Yellowstone cutts in Copper Lake 1

averaged over 13 inches. Copper Lakes can be accessed from a trail that leaves Lee City (abandoned). The trail is just over two miles, but climbs over 2,300 in elevation to Copper lake 1. An alternative route is

to take a rough ATV trail 7 miles up the Sulphur Creek drainage. Parking at the end of that trail and climbing a talus slope for about one half mile (and 300 foot elevation gain) to Copper Lake 3.



Beautiful golden trout like this await anglers at Copper Lakes 2 and 3.



Wyoming Game and Fish Dept.

Mark Smith

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Bits and Pieces

The Basin Kids Fishing Day will be held May 7 at the Basin Water Plant Pond.

The Cody Kids Fishing Day will be held June 4 At Beck Lake.

The Wyoming Free Fishing Day (no license required) is June 4.

Newsletter Contributors

Contributors to this years newsletter include the Cody Fisheries Management Crew, Gordon Edwards statewide Aquatic Assessment Biologist and Regional Information and Education Specialist Dennie Hammer. Thanks to all.

This and past newsletters for the Big Horn Basin and across the state are available at: <http://gf.state.wy.us/fish/fishing/Newsletters/>

Fisheries Management in the Cody Region

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We manage your fisheries resources for you and we encourage you to call or stop by if you have questions or concerns.



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