



# 2006 Volume III, Issue III

"From the Bighorns to the Black Hills"

Sheridan Fish Management Crew

Volume III, Issue III

2006

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

## Greetings From Your Fish Management Team

Welcome to the Northeast Wyoming angler newsletter! We hope you find it informative and useful and we'd love to hear from you if you have any comments or suggestions for us.

The Sheridan fisheries region covers all of the northeast Wyoming and includes over 18,000 square miles in Sheridan, Johnson, Campbell, Crook, Weston, Niobrara, Natrona and Washakie counties. Major drainages are the Little Bighorn, Tongue, Powder, Little Powder, Little Missouri, Belle Fourche, and Cheyenne.

The diversity of fish and fishing opportunities in the region is tremendous. Some 3,000 stream miles and 19,000 acres of lakes support cold water and warm water species, depending on the elevation.

All told there are 7 native game fish species and 19 native non-game fish species in Northeast Wyoming. In addition to the natives, there are 27 different introduced fish species, mostly game fish, including rainbow, brown, brook, splake, lake and golden

trout, smallmouth and largemouth bass, sunfish, northern pike, walleye and tiger muskie.

We try to highlight some of the more popular fishing spots in these newsletters, some of the projects we're working on, and some of Wyoming's lesser known but important native fish.

It's all part of our mission and we want to tell you about it. So again, welcome, and by all means please let us know what you think about our newsletter.

To reach us by phone, Call 307-672-7418 and ask for one of the fisheries biologists. To send us a letter or email, please see the back page of this newsletter. Happy fishing!



## Story Hatchery Visitor Center



Story Hatchery continues to be a popular destination for kids and kids at heart of all ages. Hatchery employees welcome nearly 20,000 visitors each year to this picturesque setting.

The Story Hatchery Visitor Center is open daily from 8 a.m. to 5 p.m. from April 15<sup>th</sup> to September 15<sup>th</sup> and on weekends through October. The grounds, main building and restrooms remain open from 8 a.m. to 5 p.m. year round.

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### Special points of interest:

- Greetings
- Changes at Story
- Powder River and its fish
- Contact us!

## Story Hatchery- New Ways of Doing Old Things



**Story Hatchery Superintendent Dave Ackerman with spawning a rainbow trout.**

Major changes can be expected at Story over the next two years because new funding was approved. The Game and Fish Department requested \$2.7 million from the state legislature to build a new spawning facility at Story Hatchery and to address water supply and whirling disease concerns by using recirculation technology. Hopefully Story hatchery will once again be playing a major role in local fish stocking.

With new equipment, a small amount of spring water would be filtered and bombarded with ultraviolet to kill pathogens. Water would be used throughout the hatchery, and repeatedly treated reused. If successful, Story will again be raising and stocking fish in northeast Wyoming.

Three important brood stocks are kept at Story Hatchery. Lake trout and brook trout are spawned in the fall to produce approximately 1.8 million eggs. Springtime brings spawning operations for Story's Eagle Lake Rainbow that results in roughly 2 million eggs. Eggs incubated at Story are shipped to other Wyoming hatcheries for rearing or traded to other state and federal hatcheries for species like walleye, catfish, and bass which Wyoming does not raise. About 600,000 rainbow trout eggs are shipped to Jones Hole Hatchery in Utah to be raised for stocking in Flaming Gorge reservoir.

A new spawning facility would replace some dirt rearing ponds and provide hatchery workers with a more sheltered place for spawning operations. Easily cleaned concrete raceways, large fish-friendly circular tanks and a covered spawning building with heat and light are just some of the possible changes.

Because of the funding provided by the Wyoming legislature, we are optimistic and look forward to the changes that will keep Story Hatchery in production for years to come.

### Story Highlights

*Major changes can be expected at Story over the next two years because new funding was approved"*

*"water would be filtered and bombarded with ultraviolet to kill pathogens"*

*"we look forward to the changes that will keep Story Hatchery in production for years to come"*

The Wyoming Game and Fish E-newsletter is now available for those who want to keep up with developments on line. If you are interested in signing up, go to: <http://gf.state.wy.us/newsview/fmSubscribe.aspx>.

## North Tongue Anglers Can Help

We have received comments over the last couple years from anglers wanting to extend the catch and release area downstream on the North Tongue River. The current regulation is catch and release for all trout (except brook trout) on the North Tongue drainage upstream of the mouth of Bull Creek, including Bull Creek. This regulation was not changed for the 2006-2007 regulation cycle. However, we were directed by the Game and Fish Commission in late 2005 to evaluate extending the special regulation area. When we think about changing a regulation, we consider if the change will be biologically possible and socially acceptable.

In 2005, we began a concerted effort to sample the North Tongue (and Bull Creek) to document the fish populations under the current regulations. We sampled fish at several stations within and downstream of the special regulation area. This work will continue in 2006 and 2007.

In 2006 we will collect information on angler opinions about the current regulations and desire for future regulations. Postage-paid cards, warden interviews and creel surveys will be used to contact anglers and ask their opinions on the current regulations. This effort will continue into 2007.

When you fish the North Tongue or Bull Creek this year, a creel clerk or game warden may contact you. Please take the time to let them know what you think about the regulations so we can make the best decision possible.



## Partnership For Improving Clear Creek Fish Habitat



**Clear Creek before habitat work. Note poorly defined channel.**

Different fish need different kinds of habitat. For instance, channel catfish prefer warm water while trout prefer cold water. Shovelnose sturgeon tolerate the sometimes turbid water of the Powder River while cutthroat trout require cold clear water. It's safe to say that good fish habitat in streams is complex and depends on the species but generally, adequate water, hiding places, plenty of food, places to reproduce, and unimpeded access to all the things fish need make up good habitat.



**Clear Creek after habitat work. Note new sinuous channel.**

Human activities can degrade fish habitat, and such is the case for Clear Creek through Buffalo. Over time, channel alteration, reduced flows, and building in the floodplain changed the stream so it no longer provides excellent habitat for trout or native fish. We've long recognized that improving habitat in Clear Creek could make conditions better for trout and native species and in 2005 we helped on a project to do just that.

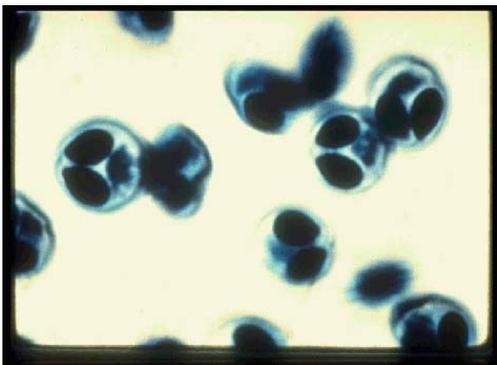
With ideas and funding from our partners, the City of Buffalo, Lake DeSmet Conservation District, U.S. Fish and Wildlife Service, Trout Unlimited and the Natural Resources Conservation Service, work in and upstream of Buffalo was completed last year. Steady Stream Hydrology, Inc of Sheridan designed and built structures to restore hydrologic function and improve sediment transport which should improve trout habitat.

The town of Buffalo and partners have taken a big step towards improving fish habitat in Clear Creek and this popular section of Clear Creek has been made better for all to enjoy. Our hats are off to those involved in this community project.

## Whirling Disease And Waders

Researchers at Oregon State University recently confirmed what biologist have suspected and feared for years. Scientists demonstrated that two life stages of the whirling disease parasite *Myxobolus cerebralis* can survive being transported on waders and boots. They also showed that transported parasites can then infect rainbow trout.

This research was funded by the Whirling Disease Initiative and you can visit their website at [www.whirlingdisease.montana.edu](http://www.whirlingdisease.montana.edu) for more information. You can also visit the Whirling Disease Foundation at [www.whirling-disease.org](http://www.whirling-disease.org) for tips on how you can help prevent the spread of whirling disease.



**Mature *Myxobolus cerebralis* spores**

In Wyoming, whirling disease was first detected in the North Platte River during the 1990s. Even though whirling disease is present in other Wyoming waters, it has never significantly affected wild fish populations.

Go to [www.gf.state.wy.us/services/education/diseases/](http://www.gf.state.wy.us/services/education/diseases/) to find out more about whirling disease in Wyoming.

## Fish Factoids

*A goldfish has a memory span of three seconds.*

*There are approximately 27,000 known species of fish, making them the most diverse group of vertebrates on earth!*

*The largest brown trout weighed over 40 pounds and was caught in Arkansas on May 9, 1992.*

*The walking catfish breathes air and can migrate short distances across land. When food runs out, the walking catfish simply migrates, marching like an army, sometimes thousands at a time, to the next food supply.*

## Excellent Fishing Continues At LAK Reservoir

There was once a time when the most you could expect to catch from LAK Reservoir was some pretty unimpressive trout. Things have changed a lot. Ever since we introduced tiger muskie and walleye back in 1995 the fishing has just gotten better and better. Today you might catch a truly trophy-sized tiger muskie, some walleye up to 5 lbs, and a bunch of smallmouth running to a couple of pounds.

This didn't happen by accident. Over the years our netting data showed that trout grew and survived poorly, and confirmed what anglers already knew; that LAK was overrun with small green sunfish that wouldn't leave a hook alone. From a biological standpoint, all those green sunfish (and white suckers too) were simply out competing trout for food.

We thought tiger muskie would be a good choice for controlling sunfish and suckers. Tiger muskie are sterile so we didn't have to worry about them overpopulating, plus they can grow *very* large, and are a blast to catch. We also thought walleye would eat sunfish and suckers, grow large, and be fun to catch and eat.

We still sample the lake about every year and the plan seems to be working. The sunfish are now hard to find, we didn't catch any suckers last year, and the tiger muskie, walleye, and smallmouth are fat and healthy. Regardless if you're an old hand at this kind of fishing, or you just want to try something new, LAK is a good bet, but remember that LAK is privately owned and you need a free permit to fish there. You can pick one up at Hardware Hanks in Newcastle. Happy fishing.



**LAK Tiger Muskie**

## Muddy Guard #1 Update

Some of you know we treated Muddy Guard with rotenone in the summer of 2004 to get rid of white suckers that had become too abundant, and were competing for food with trout we stocked.

The local irrigation company drained the reservoir so we wouldn't have to use much chemical and could keep the cost



**Drained Just Before Treatment**

down. It also made the treatment more effective.

Snake River cutthroat trout were stocked in early January 2005 and rainbow trout were stocked in the spring.

The reservoir was filled completely in 2005, more fish were stocked that summer, and stocking will continue in 2006.

So now we wait. We have to give the fish enough time to grow, but we still expect good results after a few years. The first fish we stocked should be up to 12 or 13 inches by the end of this summer, and within a couple more years we should have a pretty good idea of how large fish might grow without suckers around.

The bottom line is that we may get some exceptional fishing out of Muddy Guard 1 in a few years, but only time will tell.



**Muddy Guard Reservoir #1 Now**

## Keyhole Reservoir



Fish sampling at Keyhole in 2005 differed little from the past 2-3 years. Fifty-two walleye ranged in length from 4 to 29 inches and averaged 15.2 inches and 1.9 lbs.

Keyhole has a lot of walleye in the 8-15 inch range and in the 22 to 26 inch range. The larger size classes of walleye are a result of the 1992 stocking. Over the next few years these large, older walleye will disappear (from fishing and natural mortality) and the smaller size groups will grow and take their place as the “big ones” that anglers will pursue.



Seventeen northern pike ranging from 26 to 35 inches were sampled in 2005. These large predators have quite a following among anglers, from those that try to catch them on fly rods in the spring to those anglers that pursue them later in the fall when we have a few warm days that will warm up the shallow areas of the reservoir.

While the 7-9 inch crappies are still very abundant, about 10% of the crappies were 10 inches and larger. Until a significant portion of the 7-9 inch size class succumbs to natural mortality, it is doubtful the size structure desired by anglers will improve.

Walleye and northern pike spawning and natural reproduction are unreliable for maintaining the populations of these two species at Keyhole so fingerlings (small fish about 1-2 inches long) are routinely stocked.

In 2005 175,910 walleye and 172,907 northern pike fingerlings were stocked in Keyhole. Similar numbers of walleye and northern pike have been stocked each year for several years. Wyoming obtained the walleye and northern pike fingerlings by trading fish with North Dakota.

## Healy Reservoir

Gill net samples from Healy in 2005 showed that stocked rainbow and cutthroat trout still contribute to the fishery, but yellow perch have become the dominant game fish.

This probably comes as no surprise to anglers who've taken advantage of the special fishing regulation that allows the use of bait from December 1 through March 31. This winter the perch fishing was nothing short of phenomenal with 9-10 inch fish common. Remember though, the use of bait is prohibited from April 1 through November 30.



Healy Reservoir is changing as yellow perch increase and managing solely for trout as we've done in the past may become impractical. Regardless though, we'll do our best to maintain quality fishing, either for trout, yellow perch, or both. With your help the future looks bright for fishing at Healy Reservoir.

## Sheridan Ponds Treatment

Kids love 'em, parents can relax there, and they are great places to hold the annual Kids Fishing Day events. Of course we're talking about the Mavrakis and Fairgrounds ponds. While these ponds are certainly community assets as they are, we suspect we can make them even better.

So in 2006 we'll be evaluating the ponds and talking to people to see if now is the time to chemically treat them to improve fishing. We're especially interested in doing so at the Fairgrounds Pond because this year we saw yellow perch and white suckers that kids had caught.

Neither of these species was stocked by Game and Fish, and both can ruin a fishing pond by overpopulating. There are a lot of black bullhead in both ponds too, and they can also ruin fishing. That's why we're interested in treating the ponds.

We need to see if we can treat the water between the two ponds and we won't do it if people don't support the idea. So even if everything goes well, we probably won't do it until the summer of 2007 at the earliest. Until then, enjoy the ponds!

## North Tongue River and Bull Creek Update



Although most anglers probably haven't noticed the difference, a change in the subspecies of cutthroat being stocked in these two waters has occurred over the last three years.

In 2002 and 2003 half of the cutthroat stocked were Snake River and half were Yellowstone cutthroat, but in 2004 and 2005 all the trout stocked have been Yellowstone cutthroat.

When we sampled these streams in 2003 it appeared the Yellowstone cutthroat were surviving and growing about as well as the Snake River cutthroat and populations in both streams were healthy. However, when these streams were sampled in September of 2005 it was apparent that the Yellowstone cutthroat were not doing as well as we thought. Their relative weight, a measure of body condition, was lower than desirable and considerably lower than the relative weight of Snake River cutthroat.

Sampling during the fall of the next two years will tell us how well the Yellowstone cutthroat are going to do. If their growth rates and survival do not meet our expectations then a different variety of fish will be stocked.

Anglers are reminded that the North Tongue from the mouth of

Bull Creek upstream, including Bull Creek and all tributaries, is managed with special regulations. All fish except *brook trout* must be returned to the water immediately after being caught.



In spite of the special regulations however, brook trout seem to be increasing in the North Tongue and Bull Creek. This concerns us because we manage these streams for cutthroat trout and we do not want brook trout competing with the cutthroat.

The special regulations allow anglers to keep brook trout and we encourage anglers to do so (up to their legal limit) in Bull Creek or the North Tongue.

Also, If anglers wish to keep some trout for the table other than brook trout, fish harvest is allowed on the North Tongue downstream of the mouth of Bull Creek.

“Sampling during the fall of the next two years will tell us how well the Yellowstone cutthroat are going to do”

## Stocking Wilderness Lakes

Stocking by helicopter is a biennial event for some lakes in the Cloud Peak Wilderness. This year 24 lakes are scheduled for stocking with rainbow, cutthroat, splake, or golden trout.

Not all lakes need stocking for good fishing because natural reproduction is often adequate. In fact, 47 of the 111 named lakes are not stocked and contain no fish at all. That works out to 43% of all the lakes without fish.



Glacier Lake, Cloud Peak Wilderness

Of the 64 lakes with fish in them, one-half are not stocked. The other 32 lakes are stocked every 2 or 4 years depending on how much fishing use there is and what species is stocked.

There is nothing like the experience of trout fishing in a wilderness lake, and thanks to periodic stocking, people can enjoy this pastime in a truly unique setting found nowhere else in the region. It's yours to enjoy!



Stocking Fish by helicopter in the Cloud Peak Wilderness

## Biologists Knocking About

We can't say exactly when, but we can say for sure that we'll be out and about this summer sampling all sorts of streams and lakes. We'll have lots of other things going on, but here are a few examples of what we'll be working on. If you see us out in the field, stop by and visit. We'd love to show you what we're doing.



Spring gill netting at Lake DeSmet to sample walleye and trout populations.



Summer electrofishing on the North Tongue River to sample cutthroat trout.



Seining on the Powder River to sample the diverse fish community.

### *The Powder*

*The Powder River is considered one of the Nations few remaining prairie streams that hasn't been altered by dams or major diversions.*

*The Powder is home to one of Wyoming's most diverse fish assemblages with 21 species migrating or living in the river. Only 4 of these species are non-natives and three of them are rare or uncommon.*

*Various estimates place the number of possible wells to extract natural gas from the Powder River basin at between 40,000 and 100,000.*

*Production and disposal of water produced by wells has the potential to alter the Powder River ecosystem if done carelessly.*

**Know Your Regulations!  
Report Violations: 800-442-4331  
or  
[www.gf.state.wy.us/stop poaching](http://www.gf.state.wy.us/stop_poaching)**

## Trout and Walleye At Lake DeSmet: Time Will Tell

Anglers often ask about walleye in Lake DeSmet and they usually wonder about one of two things. Are the walleye going to ruin the trout fishing or, is the walleye fishing good at Lake DeSmet yet?

We've sampled walleye regularly since the mid 1990s and based on our netting, the answer to these two questions is still, "time will tell".

Netting has never produced a lot of walleye when compared to places like Keyhole or Glendo reservoirs, but last year we did catch more small fish than ever before. Time will tell if this year class will impact trout fishing and ultimately produce good walleye fishing.

In the meantime, we continue to sample large numbers of rainbow and cutthroat trout at DeSmet and angler reports are

good. So for now, there is no evidence that walleye have ruined trout fishing. Time will tell, but in the meantime we will continue to stock trout in the fall and manage Lake DeSmet as the popular trout fishery it is.



Sheridan Fish Management Crew



## Wyoming Game and Fish Department

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Special thanks to the folks at Story Hatchery (Dave Ackerman, Brad Welch, and Jennifer Meineke) for their contributions.

We welcome your comments or suggestions about this newsletter. Please feel free to contact us with the information to the left, or email us at:

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### Dates to Remember

- ⇒ **September 8-10:** Wyoming Hunting and Fishing Heritage Expo, Casper Events Center.
- ⇒ **June 3, 2006, & June 2, 2007:** Wyoming's Free Fishing Days, check the Game and Fish website or your fishing regulations for details.



## Wyoming's Native Freshwater Mussels



Few people know much about the seven freshwater mussel species found in Wyoming. Little is known about their distribution; new species may yet be discovered. Unobtrusive and well camouflaged, Wyoming's freshwater mussels are largely unnoticed in our creek bottoms and lakeshores, and have important ecological, cultural, and historic values. Mussels are important "bioindicators," or species that reflect the quality of their habitats. Mussels are filter feeders and some species may live more than 100 years, potentially subjecting them to the long-term effects of pollution. They provide an important source of food for raccoons, bears, skunks, and shorebirds. Ancient and modern peoples, alike, have used freshwater mussels for food, buttons, jewelry, tools, and pearl "seeds" in oyster culture. Mussel shells are frequently found as artifacts by archaeologists and provide a unique window into geologic and cultural history. The complex life cycles of mussels include fish or amphibians as hosts that help mussels to disperse into new areas. This is likely how the western pearlshell mussel crossed the continental divide with the westslope cutthroat trout long ago. Unfortunately, freshwater mussels are among the most imperiled species in the world and need our help to survive.

The Wyoming freshwater mussel program is truly in the discovery phase, which is rare in the 21<sup>st</sup> century. If you find freshwater mussels, *please do not move or otherwise disturb them*, but instead take a few minutes to help us understand them better by doing the following things. Take notes and record where they are (UTMs from your GPS are great!), how many you saw, how big they were, and if they were alive or just empty shells? Take pictures if you have a camera., and contact a local fisheries biologist with the Game and Fish. You can learn more about mussels on the web at <http://courses.missouristate.edu/mcb095f/gallery/> and <http://www.fws.gov/columbiariver/musselwg.htm>

