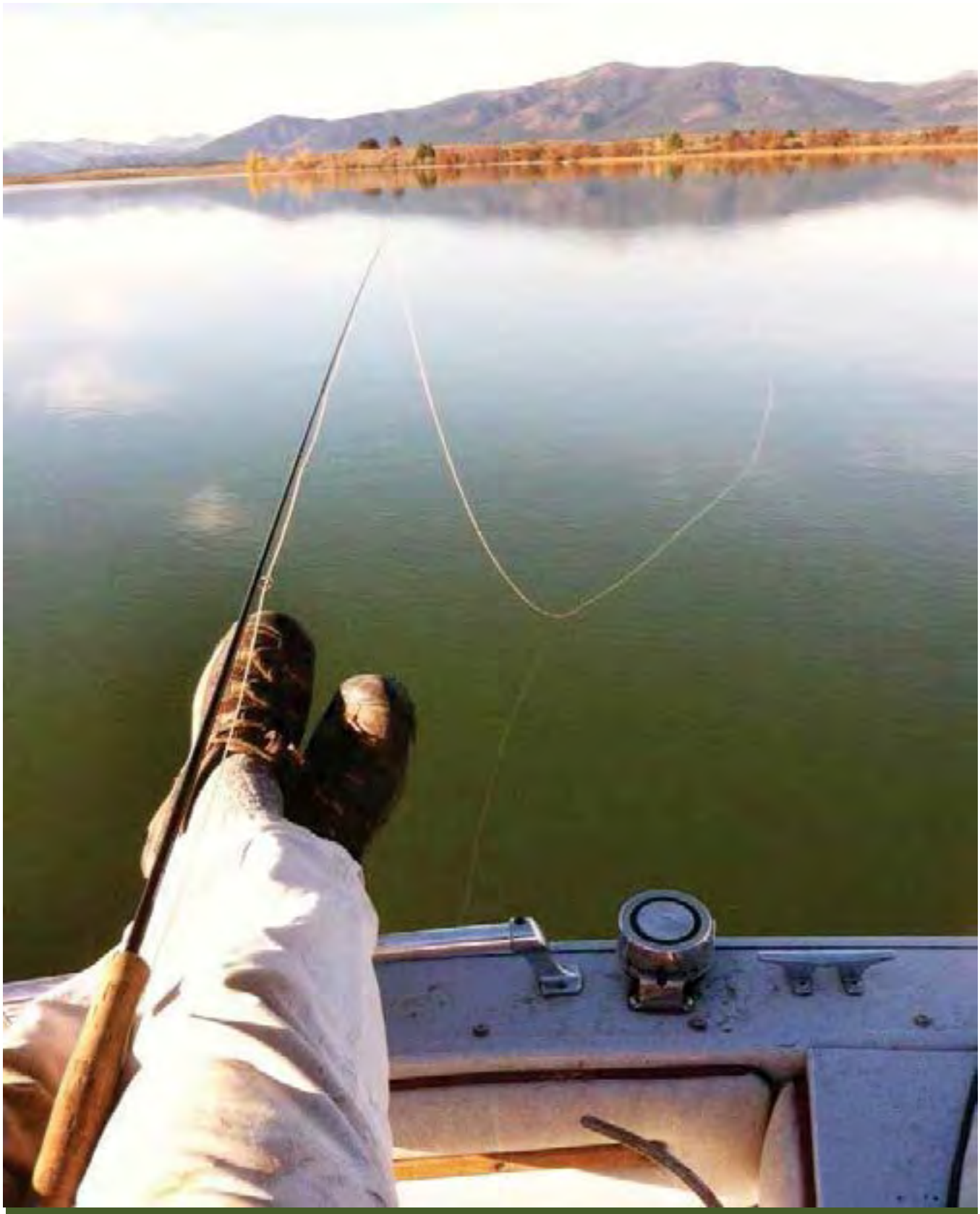

2015 Annual Fishing Newsletter

Montana Fish, Wildlife & Parks

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INTRODUCTION

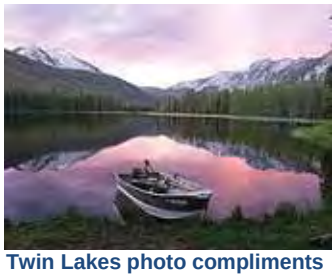
Hello fellow Montana anglers. Here again, we proudly present our annual Fishing Newsletter as a way to share with anglers the actions Montana Fish, Wildlife & Parks (FWP) takes to protect and enhance our fishery resources and fishing opportunities throughout the state. We have waters to please many different types of angling interests, from cold water to warm water, big prairie rivers to high mountain lakes, and fly-fishing to trolling. There are places where you can get away from the crowds, others where you can harvest fish, and yet other places to pursue the trophy of a lifetime. Many of these quality opportunities can be attributed to the quality of the fisheries habitat in Montana. Still, there are numerous challenges facing Montana's fisheries including climate change, habitat alteration, and dewatering of streams. Montana Fish, Wildlife & Parks is tasked with managing the state's fishery resources and addressing these challenges.

As usual, the articles in this newsletter share just a glimpse into some of the fisheries management and other projects that FWP worked on in 2014. We begin the newsletter with a summary of fisheries management highlights from each of our seven administrative regions. This is followed by a description of the activities within the past year in our important Aquatic Invasive Species Program and at each of our 12 fish hatchery facilities within the state. We then top off the newsletter with highlights in the Fishing Access Sites Program throughout Montana's three Fishing Districts.

Finally, let's hope for a good water year in 2015… because good river and stream water flows and good lake and reservoir levels make good fishing! Until next year, you can support our Montana fisheries by purchasing a fishing license, going fishing, and best of all… take a kid or non-angling adult fishing with you!

See you on the water,

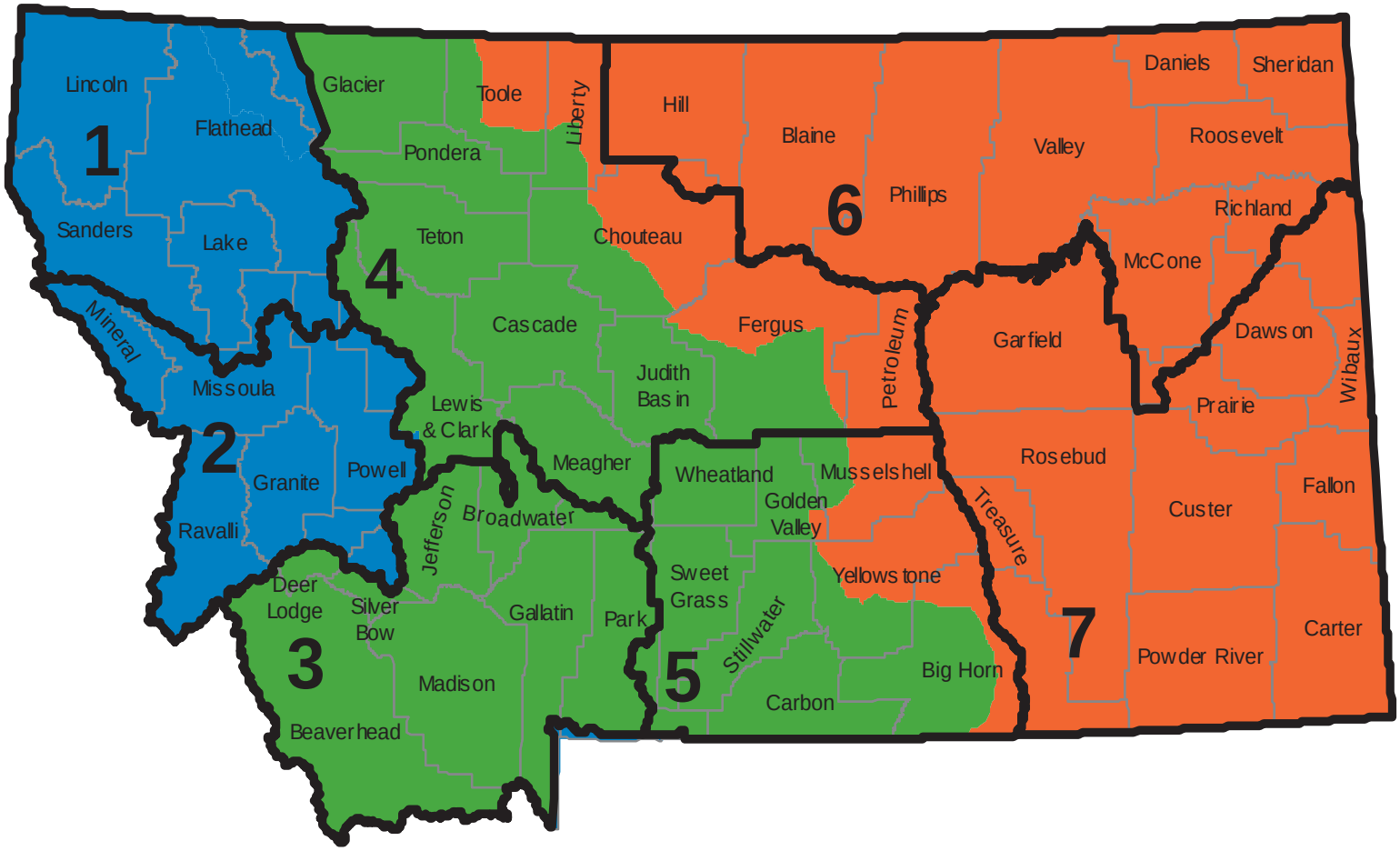
Bruce Rich



Twin Lakes photo compliments of Trevor Selch

PS: As I write this in early February, many of us are in full-on ice fishing mode. But it won't be long before spring warming starts us into open water angling. Remember that you need a new fishing license on March 1st!

FWP Fishing District Boundaries



Western District=Blue, Central District=Green, Eastern District=Orange

FWP Regional Office Locations

Headquarters 1420 E. 6th Avenue Helena, MT 59620 406-444-2449	***Region 4*** 4600 Giant Springs Road Great Falls, MT 59405 406-454-5840	***Butte Area Office*** 1820 Meadowlark Lane Butte, MT 59701 406-494-1953
Region 1 490 North Meridian Road Kalispell, MT 59901 406-752-5501	***Region 5*** 2300 Lake Elmo Drive Billings, MT 59105 406-247-2940	***Havre Area Office*** 2165 Hwy 2 East Havre, MT 59501 406-265-6177
Region 2 3201 Spurgin Road Missoula, MT 59804 406-542-5500	***Region 6*** Route 1 - 4210 Glasgow, MT 59230 406-228-3700	***Helena Area Office*** 930 Custer Avenue W. Helena, MT 59620 406-495-3260
Region 3 1400 South 19th Avenue, Bozeman, MT 59717 406-994-4042	***Region 7*** Industrial Site West Miles City, MT 59301 406-234-0900	***Lewistown Area Office*** 215 W Aztec Drive Lewistown, MT 59457 406-538-4658

REGION 1
NORTHWEST MONTANA

Westslope Cutthroat Trout Conservation in Wilderness – Matt Boyer, Fisheries Biologist

September 3, 2014 marked the 50th anniversary of the Wilderness Act. In Montana, close to 3.5 million acres of land are designated as wilderness and many of the rivers, lakes, and streams therein offer unmatched angling opportunities. Watersheds within wilderness also present some of the best opportunities for conservation of fishery resources since these areas generally contain large tracts of high quality habitat; the foundation for healthy aquatic communities.

Westslope Cutthroat Trout Caught by an Angler in the South Fork Flathead Drainage

Region One FWP fisheries staff along with Forest Service, Park Service, and tribal biologists are working collaboratively to conserve populations of westslope cutthroat trout in the upper Flathead River system, much of which lies within the Bob Marshall Wilderness Complex. Strong partnerships with groups including the Backcountry Horsemen, Trout Unlimited, and researchers with the Montana University system have also been critical to the successful implementation of these conservations efforts. Most importantly, support from the angling public has provided the motivation to conserve this important piece of Montana's natural heritage.

The westslope cutthroat trout conservation project in the South Fork of the Flathead River drainage is in its eighth year, with three years remaining. To date crews have successfully used the piscicide rotenone to replace introduced trout species with westslope cutthroat trout in 13 lakes and are using genetic swamping (heavy stocking of pure westslope cutthroat) as an alternative conservation method in an additional six lakes.

Koessler Lake, Bob Marshall Wilderness

When completed westslope cutthroat trout will have been restored to 21 headwater alpine lakes and the threat of hybridization in downstream tributaries, including the South Fork Flathead River, will largely be eliminated. Presently, this watershed comprises approximately half of the remaining interconnected genetically pure populations of westslope cutthroat trout in Montana. To learn more about these projects or to find out ways you can become involved please visit: http://fwp.mt.gov/regions/r1/wctproject/ .

Facebook Update – John Fraley, Information & Education Manager and Amber Steed, Fisheries Biologist

Changes in how information is shared have occurred at an unprecedented rate in recent years, with internet platforms dominating the scene. Not many of us imagined a world filled with smart phones and Twitter feeds just a decade ago. Emerging technologies and ways of communicating have transformed how we interact with one another, and Facebook is a great example. Recently, businesses and government agencies began hosting pages, inviting "likes", gaining "fans", and sharing information in real-time with the public.

Region One's Facebook Page

Recognizing the importance of this new outreach and education tool, FWP has been active on a statewide and regional level to better connect with Montanans and visitors alike. A Region One FWP Facebook committee has been posting a variety of fish and wildlife stories featuring photos and videos. Region One has greatly increased its number and diversity of posts in the past year, sharing a wide range of information in short but engaging snapshots. From grizzly bear research and bull trout monitoring to warden investigations and Hooked on Fishing activities, Region One has kept pace with a busy staff to keep interested readers informed and engaged. Fisheries posts have been very popular. For example, a posting featuring video footage of bull trout spawning gained over 38,000 views. The page has gained "likes", showing a rapid increase in popularity. Be sure to visit our page and see what Region One's fisheries staff has been up to lately! https://www.facebook.com/MontanaFWP.R1

Noxon Rapids Reservoir Bass Fishing – Ryan Kreiner, Fisheries Biologist

Prior to the 1980's, Noxon Rapids Reservoir was a completely different fishery. The majority of fish present were native species such as northern pikeminnow and peamouth chub. There were a few yellow perch and northern pike around, and depending on the year and stocking schedule, you may have hooked a couple of stocked trout. That all changed in the mid-1980's, when Fish, Wildlife and stocked smallmouth and largemouth bass and worked with the power company, currently Avista Utilities, to eliminate large reservoir drawdowns. These changes improved spawning success for warmwater species in the system and fish populations increased. Since that time, angling use has increased dramatically and Noxon Rapids Reservoir is one of the most popular fisheries in the region.


Young Bridger Bollman and His Bass

Noxon Rapids Reservoir hosts more bass tournaments than any other waterbody in the state. Love 'em or hate 'em, these events bring out the best bass anglers in the northwest. Data collected at these tournaments has shown some interesting trends in the fishery. For one, species composition of tournament fish completely shifted from primarily smallmouth bass in 1999 (81%) to primarily largemouth bass in 2011 (83%). This was a gradual shift over time and there are signs that the trend may be reversing. The 2014 tournament creel contained a higher proportion of smallmouth than has been seen in nine years. Also, the average size of tournament fish and proportion of tournament anglers with full creels have been higher in recent years.

The state record largemouth bass was caught during a tournament in 2009, and was 22.5 inches long and weighed 8.8 pounds. In these cold waters, it takes a long time to grow a fish like that! Typically a 12 inch bass in Noxon Reservoir is about 4-5 years old and a 16 incher is 7 years or older. After 16 inches, fish growth slows down considerably and they put on more weight than length. For example, an 18 inch bass can weigh four pounds, but may reach five pounds before it hits 19 inches. Based on other aged bass and predicted growth rates, that state record may have exceeded fifteen years old!

Both largemouth and smallmouth bass spawn in late spring/early summer, and in the lower Clark Fork River that can range widely from May through mid-July. There is a general rule in the Western Fishing District to protect spawning bass which states that only one bass greater than 22 inches may be kept between the third Saturday in May and June 30. In 2005, that rule was modified for Noxon Reservoir after biologists found that high spring run-off in the Clark Fork River often caused a delay in spawning. The closure for Noxon is now from June 15 through July 15. At that time only one fish greater than 22 inches may be kept.

Success of spawning bass varies considerably due to spring run-off intensity and water temperature. Biologists use seine nets to capture and measure young of the year bass growth in late summer and fall as a way to predict overwinter survival. Results vary year to year, but typically years with extended run-off and cooler temperatures such as 2011 and 2014 show less growth and over-winter survival, while years like 2007, 2010, and 2012 were better for young bass.

An Angler with a 6.25 Pound Largemouth Bass Caught During a Tournament on Noxon Reservoir in August, 2013

The 2015 fishing season should be good for bass in Noxon Rapids Reservoir. The average length of tournament-caught largemouth and smallmouth was between 15 and 16 inches in 2014. Also, based on gillnetting numbers, tournament catches, and fish using the new fish ladder at Thompson Falls Dam, smallmouth bass seem to be increasing in numbers. The best time to fish Noxon Reservoir is from spring as water temperatures warm up until late October when waters cool. Don't count on catching bass in the winter, as they are less active and are typically not found in the winter angler creel.

Lake Trout Spawning Movements in Swan Lake – Amber Steed, Fisheries Biologist

The non-native lake trout population in Swan Lake likely began with a small number of fish from nearby Flathead Lake during a time in which lake trout expanded throughout the interconnected system. Though an angler first detected the introduction in 1998, FWP's 2003 capture of lake trout during standard monitoring in Swan Lake confirmed the species' establishment. In 2009, FWP began using gill nets to experimentally suppress lake trout in Swan Lake with the goal of reducing the threat they pose to bull trout and kokanee salmon in the drainage. Bull trout are a native species listed as "threatened" under the Endangered Species Act. Lake trout have expanded their range in the Swan River drainage in recent years, prompting research to better understand their movement patterns. Spawning behavior was documented during the early years of the experiment, identifying key locations where gillnetting crews could target adult lake trout.

After five years of experimental gillnetting, FWP wanted to know if suppression efforts were affecting lake trout behavior and if additional spawning areas could be identified. In August 2014, FWP personnel surgically implanted acoustic transmitters in adult lake trout to track their fall movements. A total of 32 fish were tagged, including 6 females, 23 males, and 3 fish of unidentified sex. Fish were tracked September through November, with some night tracking events to compare to daytime observations. During this time, six of the tagged fish died. Crews gill netted for spawning adults for three weeks in October while tracking was taking place, with fish locations providing real-time information on where nets could be set.

The 2014 tracking efforts revealed that lake trout in Swan Lake use more spawning locations than those first identified in 2009. Though adults were still using sites previously identified, locations lightly used in the past turned out heavy concentrations of lake trout in 2014. As a result, FWP set additional nets in these "new" locations to maximize removal efforts. Netting on the new

sites produced catch rates twice that of the previously targeted location. A total of 13 of the tagged fish were caught by gill nets, leaving 13 alive at the end of the season.

A lake trout to be implanted with an acoustic tag in Swan Lake

Information gained from this recent study demonstrates that aquatic systems change over time and that it can be well worth a follow-up look to adjust conservation efforts and learn every step of the way. Tags recovered in 2014 will be implanted in lake trout in 2015 to collect additional information and continue to inform fisheries management in the Swan River drainage.

Saga of Tiger Muskie in Northwest Montana – Mike Hensler, Fisheries Biologist

The story should probably begin with a brief history of Horseshoe Lake. It is a closed basin lake formed during the last great ice age. The lake is about 45 miles west of Kalispell and is part of what are known as the Thompson Chain of Lakes. It is a 160 acre lake with a maximum depth of 135 feet and a mean depth of 45 feet and is known for its beautiful clear turquoise color. The native species original to the lake are northern pikeminnows, largescale suckers, redside shiners and of all things pygmy whitefish.

Montana Fish, Wildlife & Parks (FWP) began managing Horseshoe Lake since around 1924 when we stocked 20,000 rainbow trout fry, which it did not work. After more than 75 years of periodic stocking various other fish species including coho and kokanee salmon, lake trout, brook trout, cutthroat trout and even bull trout in 1945, it became obvious that the local population of pikeminnows and suckers was too much to overcome and angler use was virtually non-existent. Pikeminnows can make it exceptionally difficult to stock game fish because smaller pikeminnows compete with hatchery fish for the same food sources and the larger pikeminnows are predators on the hatchery fish when they are most vulnerable immediately after stocking. So to create a sport fishery, we would have to consider other options.

12 Year Old Hannah Knutson's Pikeminnow

In 1997, as part of the Thompson Chain of Lakes management plan, FWP considered options for creating a sustainable sport fishery for Horseshoe Lake. The options included chemical control or biological control to remove the pikeminnow or just quit stocking the lake and give up on producing a fishery. Through public comment we determined that the best course of action was to use biological control with tiger muskies.

Why tiger muskies? Several reasons: First, tiger muskie are a sterile hybrid between a male northern pike and female muskellunge so since

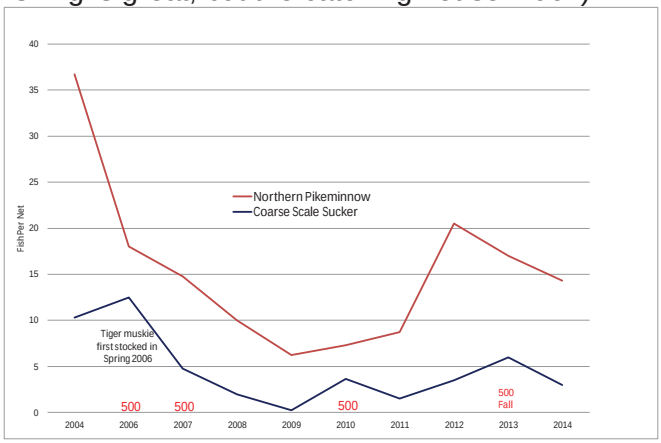
they cannot reproduce, and if any were illegally moved into another lake, the tiger muskie would live out its life but not reproduce in the new lake. Second, tiger muskies are aggressive predators especially on soft rayed fishes (like pikeminnows and suckers) and could provide a biological control of overpopulated non-game fish. Third, stocking tiger muskies as a biological control is much less expensive than chemical rehabilitation (hundreds of dollars versus more than $100,000 for chemical control). Also, chemical control would spell the end of pygmy whitefish. Forth, when tiger muskies control the pikeminnows and suckers it may be possible to establish a recreational fishery for other game fish. And last, tiger muskies are known to grow to large sizes so in addition to non-game fish control they could provide a trophy fishery. The Montana statewide regulation for tiger muskies is one daily and in possession. In the Western District, tiger muskie must also be over 40 inches to harvest.

Good to go right? Not so fast, in Montana any stocking of a new species into any waterbody requires that FWP follow the Montana Environmental Policy Act (MEPA). Generally the process is relatively seamless, but this was not the case for tiger muskies in northwest Montana. Tiger muskies and pike in general invoke a considerable amount of emotion in Northwest Montana. There were lots of positive comment for stocking tiger muskies into Horseshoe Lake but also some concerns were raised. For example, we heard; “They are not native and don’t belong here”; “What kind of message does it send to folks who are already illegally transporting northern pike into NW Montana lakes” (all populations of northern pike in northwest Montana are the result of illegal introductions); “They will attack the waterfowl and other desirable animals that use the lake”; “They will attack people (especially children) swimming in the lake”.

So began an eight year process from proposal to actual stocking tiger muskies into Horseshoe Lake. In the mean time FWP personnel surveyed the lake using gill nets to determine population trends. Both northern pikeminnow and largescale sucker populations were near their highest recorded levels by 2004. By 2005 FWP had sufficiently answered outstanding concerns and in 2006 we stocked the first tiger muskies (500 fish averaging 6 inches) followed in 2007 with 500 from the same age class. We decided to stock young tiger muskies at night to help them avoid predatory northern pikeminnows at least for a little while.

Night stocking tiger muskies at Horseshoe Lake

The resulting change in population structure in Horseshoe Lake was almost immediate; both pikeminnow and sucker populations decreased and tiger muskies were growing well. Tiger muskies are difficult to catch, especially in the clear waters of Horseshoe Lake (word is the fishing is great, but the catching not so much).



Number of northern pikeminnow and largescale suckers captured in Horseshoe Lake, Montana 2004-2014

By 2013 at least some of the originally stocked tiger muskies (now 8 years old) were approaching the 40 inch range (Photo 2) and were eating suckers and northern pikeminnows of all sizes including some more than 12 inches long.

By 2011 we had some confidence that the non-game fish population had reached a low enough level that we could stock kokanee salmon in

Horseshoe Lake to provide a secondary fishery for this very popular lake.

Northern pikeminnows captured in Horseshoe Lake with teeth marks from tiger muskies

But, there was a catch (there's always a catch, right?). A fish disease outbreak occurred in the midwestern and eastern United States in 2007. The disease was VHS (Viral hemorrhagic septicemia) which is potentially deadly to many species of fish, especially in places where the fish are in high densities (like hatcheries). The result was a nationwide moratorium preventing the transport of fish from east of the Mississippi River. Additionally, Montana has a very strong disease policy (one of the best in the nation) that helps protect our hatcheries from catastrophic loss of fish that are vital to many fisheries throughout the state. So, even if there hadn't been a moratorium, FWP would not have transported fish from that region to Montana. In the end, we lost our source of tiger muskies.

Remember tiger muskies are created from a cross between northern pike and muskellunge. Northern pike are found in most of the lower 48 states but muskellunge are rare so most states in the west (including Montana) do not have the ability to create tiger muskies and must rely on agreements with other states. We were able to get tiger muskie from other sources in 2010 and 2013 but it appears they did not survive as well as those stocked in 2006-2007. As a result, Horseshoe Lake has an aging population of tiger muskies. They still feed on the pikeminnows and suckers but through time as tiger muskie numbers decreased the non-game populations are on the increase.

In 2014, this tiger muskie was captured in a gillnet by the teeth and released; a little tired but otherwise unharmed. It was 42 inches long and weighed just over 21 pounds.

Now for some good news; Fish, Wildlife & Parks has recently constructed an isolation facility at the Miles City Hatchery and we are actively seeking new sources of tiger muskies, not just for Horseshoe Lake but for around a dozen other lakes in Regions 4, 5 and 6. In Region 1, we intend to establish a robust population with multiple age classes of tiger muskies in Horseshoe Lake and have made a stocking request for them as soon as they are available.

Coram's Aquatic Invasive Species Check Station – John Wachsmuth, Conservation Specialist

Fish, Wildlife & Parks with a host of partners operated an Aquatic Invasive Species (AIS) check station this year at Coram, Montana. This AIS check station was funded through a partnership with the Flathead Basin Commission, City of Whitefish, City of Whitefish Water and Sewer District, Bureau of Reclamation, Montana Department of Transportation, and the Flathead Valley Chapter of Trout Unlimited. Fish, Wildlife & Parks administered the Coram check station.

Inspectors at these sites look for unauthorized plant and animal species that if moved around Montana could create environmental damage. At the Coram check

station, FWP made contact with and informed close to 5,000 watercraft operators this past season. Of that one third had motorized watercraft and the other two thirds were non-motorized watercraft owners. Plant fragments and standing water in boats were the most common occurrences.

AIS Coram Inspection Station – Confiscation of Yellow Perch

Fish Wildlife and Parks reminds boaters that it is mandatory to stop at AIS check stations in Montana regardless if you have a non-motorized or motorized craft. Also please remember when you leave a lake or river in Montana, Inspect, Clean & Dry your watercrafts. Carefully inspect your watercraft and remove any plant, animals or water.

Lake Mary Ronan – Ken Breidinger, Fisheries Biologist

Lake Mary Ronan (LMR) is a popular fishery in northwest Lake County. On average LMR receives about 19,000 angler days annually. Kokanee salmon and yellow perch are the most commonly targeted species; however, the rainbow trout and largemouth bass fisheries are also popular. Management emphasis in LMR is on kokanee, rainbow trout and largemouth bass and each of these species is stocked annually. Eggs and milt are collected each fall from LMR kokanee and taken to hatcheries where they are hatched and reared to be stocked across Montana the following year. LMR kokanee are typically the only egg source for Montana's hatcheries and are vitally important to kokanee fisheries throughout the state.

Unfortunately, LMR appears to be a hotspot for illegal introductions. In June 2014 an angler trolling along the south shore caught a northern pike. This is the first time pike have been captured in the lake. The illegal introduction of pike was preceded by illegal introductions of black crappie and yellow perch discovered in 2013 and 1989, respectively. Although crappie remain in very low numbers, yellow perch have become very abundant.

Yellow Perch in Lake Mary Ronan

Northern pike are voracious predators that present a huge threat to the lakes sport fisheries including kokanee. Upon confirmation that a pike was caught, Fish, Wildlife and Parks launched an investigation to determine the status of this species in the lake. To do this we used gill nets, trap nets and electrofishing during summer and fall in an attempt to catch adult fish and used a seine net to determine if pike had successfully reproduced. The investigation resulted in six gill net nights, 104 trap net nights, 18 seine hauls and 4,738 seconds of electrofishing effort. During this effort we were not able to catch or observe any northern pike, but caught all other species.

FWP staff uses a beach seine to capture juvenile fish in Lake Mary Ronan

The lack of northern pike in the 2014 sampling effort does not mean pike are not present. Low numbers of sedentary fish in a large lake make captures unlikely. It is unknown if this illegal introduction will result in an established population. To avoid negative impacts, FWP has made several changes to LMR fishing regulations in 2015 including permitting the use of spears. Be sure to familiarize yourself with the new regulations. We also encourage anglers to report and submit any pike caught in Lake Mary Ronan to FWP.

Illegal introductions are rampant in Northwest Montana and they rarely result in improved fishing as intended. More often than not these introductions result in mediocre fishing for all species and sensitive native fish are often threatened. Anyone with information about an illegal introduction that did or may occur is encouraged to report it to the local FWP office or 1-800-TIP-MONT. A substantial reward may be available.

REGION 2
WEST CENTRAL MONTANA

Removal of Milltown Dam - Robert Clark, Fisheries Technician

I have been monitoring the removal of Milltown Dam for 11 years, and have been documenting changes. I often get asked by anglers and recreationists what is happening. Can we float it? Are there any fish left?

Get out there and fish it. That is the best advice we can give. The river has changed a lot in the last several years (starting with that it is a river now!). The fishing has been great too. In our monitoring we get caught up in details a lot, so sometimes it is nice to talk to anglers and hear firsthand how people are doing. The Clark Fork River has been heavily used for a long time- mining, dams, logging, agriculture, pollution from mills and cities. It wasn't that long ago that people didn't fish some sections of the Clark Fork and now I get a lot of smiles and good reports. Also, people are telling me they have a new favorite fishing spot and to not tell anyone else about it. It is not fixed yet, but it is sure getting there.

Milltown Reservoir prior to dam removal

Milltown Dam, built in 1907 at the confluence of the Blackfoot and Clark Fork Rivers in west central Montana, was removed in 2008 and millions of cubic yards of sediment laden with toxins from a century of hard rock mining were taken out of the floodplain. The dam, which also created Milltown Reservoir, blocked all upstream fish migrations, including bull trout. The reservoir also provided ideal spawning and rearing habitat for northern pike that were illegally introduced in the Blackfoot River drainage. After dam removal, fish densities downstream changed from habitat changes, and because fish could finally move. Initially, rainbow trout numbers below the dam decreased by about sixty percent. However, rainbow trout numbers upstream of the former dam site increased by the same amount- they moved! There was certainly some mortality below the dam as a result of the large amount of sediments moving through the system (many of which were clean sediments from the Blackfoot River) during the final stage of dam removal, but there was also a lot of movement. Rainbow trout densities remained low until 2010 and increased or were stable each year after that and are currently estimated to be close to or more than pre-dam removal levels.

Upstream fish populations quickly benefitted from the removal of Milltown Dam. For example, in the Clark Fork River near the Bearmouth area, historically brown trout have been about 80% of the total trout numbers. However, immediately

after dam removal in 2006 guides and anglers noticed a change- rainbow trout and cutthroat trout showed up. Since then, our monitoring has confirmed this change and there has been a shift to where now rainbow trout and westslope cutthroat trout comprise of 50% of the total trout. Interestingly, brown trout numbers have remained stable through this period of time- only now rainbow and cutthroat trout have been added leading to more fish in this area.

The confluence of the Clark Fork and Blackfoot Rivers after dam removal

Since the dam removal in 2008, northern pike densities have dramatically decreased to the point where they are rare in our sampling. In the early 2000's we would capture over 100 pike while conducting our trout estimates in the Milltown Section; in the last few years we have gotten fewer than five. Northern pike will never be completely extirpated from the area, but there is far less suitable habitat with the reservoir gone. Along with upstream migration being an important component of a fish's life history, there is also a downstream migration component. Fish that hatch and rear in upstream tributaries migrate downstream to mature. This downstream migration would take fish through the reservoir. During this migration northern pike would be there waiting for an easy meal and most juvenile fish did not make it through the reservoir. Now that northern pike are virtually gone from the river, these juvenile fish are surviving their downstream migration and more are showing up in our field surveys. So in some cases, fish are getting smaller on average, but this is more indicative of a healthy system. Also we are seeing many native non game fish, like juvenile pikeminnow (squawfish) and suckers that once fell prey to northern pike.

In this area of the Clark Fork River, bull trout are present in very small numbers (1-3 per mile). Now that the reservoir and pike are absent, we have seen more juvenile bull trout in our sampling locations (even in river sections like Turah where we hadn't seen them in the last 30+ years). Though not abundant, we now get them routinely. These are encouraging trends because even just a few bull trout can make large contributions to the population.

The changes don't just end with the fish. After several spring run-offs have flushed through the area, interstitial spaces are well exposed and are providing ideal habitat for macro invertebrates, which provide food for fish. Salmon flies are being seen in the area, which have been non-existent.

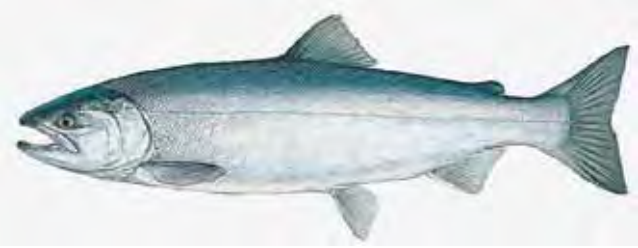
It has been nearly seven years since the final stage of the removal of Milltown Dam and though it is still very early, there are some promising things happening in the river. The river in this area is now open to floating and fishing. Fishing has been great and people are enjoying the river. Changing a river and fish communities after a century of being affected by a dam takes time to stabilize. The upper portions of the Clark Fork River are currently going through an extensive cleanup which will certainly benefit to the overall health of the river. Good things are happening to the Clark Fork River and we hope that future generations may see the benefits and results of the work done by natural resource managers.

Baker Keeps Watch While Leslie Snorkels for Longnose Dace

Kokanee Management in the Clearwater Chain of Lakes – Ladd Knotek, Fisheries Biologist

Kokanee (landlocked Sockeye salmon) were first introduced into lakes in the Clearwater Valley more than 50 years ago. Currently, salmon populations in Alva, Inez, Seeley, Placid and Salmon Lakes are maintained both through stocking and natural reproduction. The goal for these fisheries is to provide both quality fish (>12") and high catch rates – this depends primarily on good lake productivity and maintaining appropriate salmon densities. Kokanee growth rates and size are directly (inversely) related to density. Simply stated: *the more kokanee mouths there are to feed, the smaller the kokanee will be.* Biologists call this density-dependant growth and its holds true in most western Montana lakes because the main food resources for salmon (zooplankton) are limited.

The key for good, consistent kokanee fishing is keeping the total number of fish in just the right range. If kokanee densities are too high, the result will be "stunted" fish and slower fishing. You'd think more fish would mean better catch rates. Unfortunately, when kokanee only reach 8-9 inches (max length), their mouths are extremely fragile and it's more difficult for anglers to hook and land them with standard fishing techniques. Alternatively, when kokanee numbers are too low in a lake, anglers will catch a few larger fish (fish growing well because food is abundant), but catch rates will be poor. Somewhere in the middle is where fish managers and anglers want to be...



So why doesn't FWP just stock the right number of fish to maintain good sized kokanee and high catch rates? This where it gets tricky because kokanee tend to reproduce naturally in systems where they are stocked. The amount of natural reproduction or "recruitment" varies greatly from year to year and among waters depending on things like amount of stream flow, over-winter conditions, and interactions with other species (e.g., predation and competition). Salmon growth rates are also affected by the abundance of other fish species in the lake. For instance, high numbers of cutthroat trout and yellow perch may increase the competition for food in winter and further reduce kokanee growth rates.

So how does FWP plan to tackle kokanee management and improve these fisheries? The first step in effective kokanee management is establishing a consistent and comprehensive monitoring program. Currently, kokanee and other fish species are monitored through marking of all stocked fish, annual lake sampling (gill-net), and fall spawning surveys. Another important management aspect is determining appropriate kokanee stocking rates. The number of salmon stocked in the Clearwater Chain of Lakes, varies annually. These rates have been and will continue to be adjusted based on monitoring results, information from anglers, and estimates of natural reproduction.

The natural reproduction component creates a real "wild card" in kokanee management because the strength of spawning runs varies from year to year and cannot be easily controlled. This situation is most pronounced on lakes like Alva and Inez, where (57-83%) of salmon are naturally produced and populations are consistently stunted. Natural recruitment tends to be lower in other lakes of the chain (e.g., Salmon Lake), and this is where the best opportunity for quality fishing currently exists. FWP has begun to reduce kokanee stocking rates in most of the lakes to encourage growth and has increased monitoring efforts to measure effectiveness. In the long term, we hope to fine tune the balancing act of kokanee management to provide more consistent, higher quality fisheries.

Upper Clark Fork – Jason Lindstrom, Fisheries Biologist

Fish sampling was conducted on the upper Clark Fork River in 2014 as part of our annual monitoring of fish populations in the upper river. We spent the spring electrofishing four monitoring sections between Warm Springs and Gold Creek. Brown trout dominate the trout fishery in this stretch of the river making up over 95% of the trout in the river. Rainbow and westslope cutthroat

trout are present, but both species tend to be relatively uncommon.

Amelia Stoner's Brown Trout – 4 Pounds 22 Inches

Throughout much of the Upper Clark Fork upstream of Drummond, we have typically measured brown trout densities in the neighborhood of a couple hundred fish per mile (for fish greater than 7 inches in length) for many years. The only exception to this is a short reach immediately below the Warm Springs Ponds, where fish density tends to be higher due to downstream effects of the highly productive pond system. In 2014, brown trout numbers in most sections of the upper Clark Fork were at record highs. At most sites brown trout density was in the area of 600 fish (> 7") per mile, and below the Warm Springs Ponds it was around 1,200 fish per mile. It is likely that the increased densities of brown trout in the upper Clark Fork River observed in 2014 were a result of excellent recruitment stemming from above average flow conditions several years prior. While trout numbers were good in 2014, many of the fish observed were larger, older individuals. Smaller, younger fish were uncommon indicating poor recruitment over the last couple of years. This may lead to a drop in fish densities in the near future.

One thing that is likely to help survival of fish in the Upper Clark Fork in years to come is the cleanup of mining contamination that historically washed downstream from activities in the Butte and Anaconda areas around a century ago. The cleanup process has been initiated in the last couple of years, and several sections of the river near Warm Springs and Racetrack have already undergone or are undergoing cleanup at this time. This cleanup and restoration effort is being led by the Department of Environmental Quality and the Montana Department of Justice's Natural Resource Damage Program, and is expected to continue for the next 10 to 15 years.

Cleanup activities along the Upper Clark Fork River

In 2014 we also continued monitoring the recovery of the Silver Bow Creek fishery. For many years this stream was incapable of supporting a fishery due to widespread mining contamination that originated from the mines in Butte. However, since much of the stream has been cleaned-up through state-led remediation and restoration activities, we are beginning to see several fish species re-colonize Silver Bow Creek. Perhaps the most encouraging is the presence of westslope cutthroat trout. This native species has responded favorably to the cleanup and now occurs in high enough numbers to provide a limited recreational fishing opportunity. To help encourage the success of this species, FWP enacted a catch-and-release regulation for cutthroat trout in 2012 on Silver Bow Creek and its tributaries. The harvest of non-native species such brook trout was not affected by the regulation change, and is

actually encouraged to aid in westslope cutthroat trout recovery efforts in the drainage. Additionally in 2014, FWP with assistance from the Department of Environmental Quality and the Natural Resource Damage Program, constructed a fish barrier (small dam) on Silver Bow Creek near Fairmont. The goal of this structure is to prevent non-native species such as brown trout and rainbow trout from invading the upper reaches of Silver Bow Creek and jeopardizing cutthroat trout recovery efforts.

Silver Bow Creek fish barrier constructed in 2014 to assist with westslope cutthroat trout recovery efforts in the upper Silver Bow drainage.

Kids and Family Fishing Opportunities near Missoula, Small Investment, Great Payoff – Will Schreck, Fisheries Technician III

For families and mentors seeking local fishing fun, access and success are priorities 1 and 2. Within 40 minutes of Missoula several options offer great access and quality fishing. For beginners and kids, public fishing ponds may be the best bet. These ponds are developed for ease of access and are regularly stocked with catchable-size fish. Three local options are Beavertail Pond (east of Missoula), McCormick Pond (within the City of Missoula), and Frenchtown Pond, (west of Missoula). These public ponds are intended to facilitate shore-fishing with limited shoreline vegetation and abundant foot access. McCormick Pond is managed specifically for kids (14 yrs and younger), but is also handicapped accessible with fishing platforms and a bridge. Harpers Lake is also a good option for those heading toward the Seeley Lake or Ovando areas in the Blackfoot.

All of these ponds support catchable (8+inch) rainbow and cutthroat trout and most are stocked routinely with retired brood stock (typically 2-10 lbs) from FWP's Jocko River and Washoe Park Hatcheries. Frenchtown Pond is also planted with adult largemouth bass annually. Although many techniques can be successful when fishing ponds, bait is usually effective and a good way to keep kids interested….typically a bobber and worm or power bait will do the trick. As always, remember to check your Montana Fishing Regulations booklet for guidelines on creel limits, etc.

Eric and Nolan Oschell enjoying some quality fishing, and time outdoors at Georgetown Lake within 40 minutes of Missoula.

For intermediate anglers and those interested in fly fishing, the Bitterroot, Blackfoot and Clark Fork Rivers provide outstanding wild trout fishing. The FWP Fishing Access Site (FAS) program provides great public access to all of these rivers in the Missoula area. Frequent outings of short duration may be the best way to introduce kids to river fishing, and local fisheries such as these are great locations to begin with relatively small investment.

Joe West, Age 7, Hooked on Fishing

REGION 3
SOUTHWEST MONTANA

Arctic Grayling Recovery Program – Emily Cayer, Grayling Habitat Biologist

Big News for Montana Arctic Grayling and FWP!

On August 19th, 2014 the USFWS announced Montana Arctic grayling were not warranted for listing under the Endangered Species Act (ESA). FWP worked closely with the USFWS providing all the best available scientific information about grayling in Montana for their Status Review, updating it from 2010. This information, along with new genetic work, and private lands conservation efforts resulted in the decision that will allow the state of Montana to continue managing Arctic Grayling in Montana. This is great news for Montana – a state that takes pride in their native species and has worked for many years to conserve and restore this species. The work is not over though. Increasing trends in most populations is a positive sign that conservation and management actions are working. FWP and partners will continue to reintroduce grayling to historic habitats, improve grayling habitat, and monitor populations.

USFWS Director Dan Ashe traveled to Montana to announce the Arctic Grayling decision to over 100 private landowners, non-government groups and agency partners on August 19th 2014.

Upper Big Hole Grayling Recolonizaton: Grayling are back in Governor Creek!

Historic grayling population data from the mid-1980's show that the upper Big Hole River and Governor Creek (a tributary to the Big Hole River near Jackson, MT) once supported between 1 and 8 grayling per mile. Because of degraded habitat and stream flow conditions, Arctic grayling have not been documented in these locations since the late 1980's. Conservation activities in recent years have been directed at improving habitat conditions in tributaries and on the mainstem Big Hole River in the upper portion of the basin.

Monitoring efforts from 2006-2012 in the Upper Big Hole River and Governor Creek resulted in the capture of no grayling, indicating that natural recolonization into these reaches had not occurred, or did so at low levels. As a result, FWP initiated a project to assist grayling recolonization into the Upper Big Hole River from 2013-2018 to meet the Candidate Conservation Agreements with Assurances program (CCAA) goal of expanding grayling distribution.

Young-of-the-year Arctic grayling captured in Governor Creek during 2014 fall electrofishing surveys

The 2013 and 2014 grayling recolonization efforts in the Upper Big Hole included incubating gametes from the Big Hole fluvial brood stock using remote site incubators (RSI). Grayling gametes were collected at the Axolotl Lake grayling brood pond in May of both years. Fertilized eggs were transported to the Yellowstone River Trout Hatchery and incubated until eye-up stage. Grayling fry were observed at each RSI site after 10 -15 days in 2013 and during

fall sampling in 2014, 78 young-of-the-year grayling were captured in a one mile section of Governor Creek. Reintroduction efforts and monitoring will continue in 2015.

Big Hole Habitat Projects

The Candidate Conservation Agreements with Assurances program (CCAA) initiated over 38 habitat restoration projects that address limiting factors for grayling in the Big Hole River in 2014. One of the largest projects completed in 2014 was the Spokane Ditch Siphon. The purpose of this project was to install a large siphon that transfers irrigation flow under Swamp Creek, an important Arctic grayling tributary.

Spokane Ditch Siphon Project: pouring concrete sidewalls

Until recently, the Spokane irrigation ditch captured Swamp Creek. Fish movement and access to upper and lower portions of Swamp Creek was interrupted by the ditch. This project was part of the landowners CCAA site- specific conservation plan developed to improve limiting habitats for Arctic grayling.

This project was funded by the Big Hole River Foundation, Arctic Grayling Recovery Program, Future Fisheries, Montana PPL, USFWS, FWP, DNRC and the BLM.

Ruby River

In addition to the efforts in the Big Hole, restoration work continued in 2014 with the goal of establishing a self-sustaining grayling population in the Upper Ruby River.

Reintroduction efforts in the upper Ruby river were initiated in 1997 when hatchery reared grayling were stocked in to the upper Ruby River from 1997-2003. From 2003-2008, Remote Site Incubators were used to imprint grayling into the headwater of the Ruby River with the goal of establishing multiple age classes that would successfully spawn and establish a self-sustaining population.

Ruby River Grayling

Supplementation efforts ceased in 2008, and population surveys from 2009 – 2014 have documented natural reproduction and captured multiple age classes (ages 1–6) of grayling. Natural reproduction and recruitment of juveniles into mature reproducing individuals for the sixth straight year is very positive progress towards the goal of establishing another fluvial grayling population in Montana.

Hebgen Reservoir – Travis Lohrenz, Conservation Technician and Pat Clancey, Fisheries Biologist

Is Hatchery Supplementation Still Required to Sustain the Population and the Fishery?

Approximately 40 years ago the management of Montana trout populations changed from routinely stocking streams and rivers to emphasizing habitat protection and management for wild self-sustaining populations. However, trout fisheries in many Montana lakes and reservoirs are still commonly maintained by stocking hatchery reared fish. Hebgen Reservoir is a popular rainbow and brown trout fishery located near West Yellowstone, Montana. Currently, this fishery is annually supplemented with 100,000 rainbow trout from Blue Water State Hatchery, while spawning runs of wild rainbow trout occur in several tributaries of the reservoir. For the last decade, Montana Fish, Wildlife & Parks has used various

mark-recapture techniques in an effort to discern the contribution of hatchery reared and wild rainbow trout to the Hebgen Reservoir rainbow trout population. Although the results have suggested a low stocking success (most rainbow trout sampled appear to be from a wild origin), they are inconclusive and do not offer a clear picture of the contribution of wild vs. hatchery return to the population or the creel.

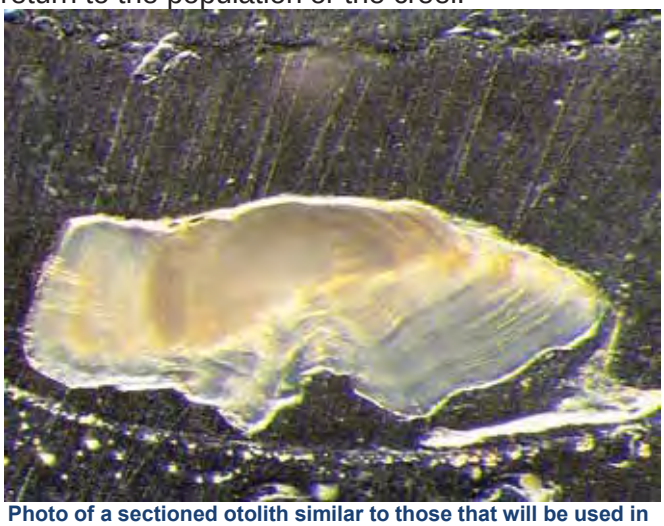


Photo of a sectioned otolith similar to those that will be used in the Hebgen Reservoir study. Photo by Carter Fredenberg.

In 2013, an otolith microchemistry study was initiated to accurately assess the proportion of stocked rainbow trout and wild rainbow trout in the Hebgen Reservoir fishery. An otolith is a middle ear bone and is often used in age studies of salmonid species. Otolith microchemistry analysis has proven to be a reliable technique for discerning natal origin and migration patterns of trout. The elemental chemical ratios in the waters where a fish resides are captured in the otolith as it grows; thus, allowing the determination of where that fish lived over the course of its life. In 2013, water samples were collected from Hebgen Reservoir and its tributaries, and from Blue Water State Hatchery to determine if detectible differences in ratios of elemental Calcium, Barium, Strontium, Magnesium, and Zinc exist between these waters.

Results from the water analysis completed in December, 2013, indicate that the elemental ratios in the water sources are sufficiently different to reliably assign a fish to its natal water. In the Hebgen study, this will allow determination of wild or hatchery origin through examination of elemental chemical ratios present in the focus of the otoliths of rainbow trout. Collection of otoliths from a wide size and age range of rainbow trout was completed in 2014. Elemental analysis of the otoliths will be conducted by Montana State University personnel at the Woods Hole Oceanographic Institute. This effort will provide substantial information for determining the composition of wild vs. hatchery origin of the Hebgen Reservoir rainbow trout population, and aid managers in determining the direction of future management of the Hebgen Reservoir rainbow trout fishery.

Fisheries & Enforcement – Upper Madison Valley

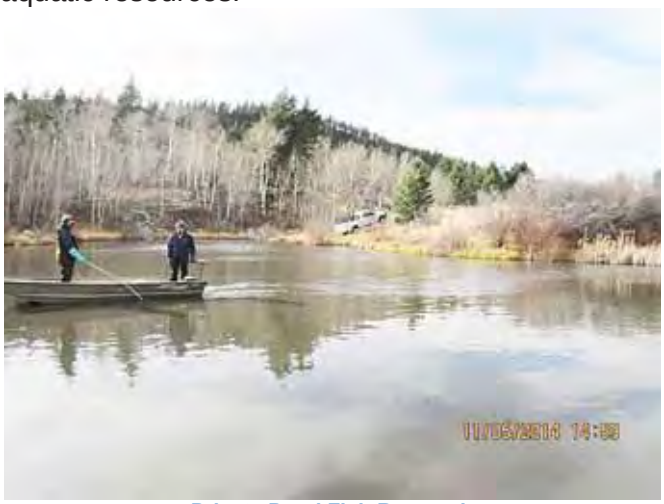
Montana FWP implemented enforcement actions against a private recreational ranch in the upper Madison Valley south of Ennis when it was discovered they had illegally introduced trout into seven separate ponds on their property. This enforcement action resulted in mechanical and chemical eradication of the fish from the ponds, aquatic invasive species inspections of each pond, and fish disease testing of the illegally introduced fish. The property owner and one employee face charges that potentially may include fines and penalties against each. These types of violations can result in the loss of hunting, fishing, and trapping privileges. One of the ponds was found to have an unscreened surface inflow connection with the nearby stream. Specific infractions were:

- Unlawful Importation and introduction of fish into a body of water in Montana.
- Unlawful relocation of fish to properly permitted private ponds.
- Stocking fish without a private fish pond license
- Stocking fish species not approved by FWP into private ponds.

The private out-of-state hatchery involved admitted their involvement and cooperated fully with FWP Enforcement, providing stocking records, dates and species stocked. The hatchery owner was charged for unlawful relocation of fish without proper import permits and has paid his fines.

Private ponds have high potential to affect wild fisheries and therefore are carefully managed by

FWP. Fish being stocked into private ponds can introduce new species of fish not found in the drainage, can introduce fish diseases and can also introduce Aquatic Invasive Species, all of which can have detrimental effects to Montana's aquatic resources.



Private Pond Fish Removal

FWP staff involved included personnel from the Enforcement, Legal, Fisheries, Fish Health, and Aquatic Invasive Species programs. In addition to the fines and penalties, the property owner will be responsible for reimbursing all FWP costs related to the investigation, expected to exceed $20,000.

Poindexter Slough – Matt Jeager, Fisheries Biologist

Poindexter Slough is getting a makeover this winter that will allow high-quality habitat and abundant trout populations to be naturally maintained. Poindexter Slough is a 4.7 mile long valley-bottom channel of the Beaverhead River fed by a combination of groundwater and flow from the Beaverhead. The lower 3.2 miles are located on a FWP FAS and provide one of the few publically accessible spring creek angling experiences in southwest Montana. When good habitat conditions occur, abundances of over 2,000 adult trout per mile and excellent angling are supported by Poindexter Slough. However, periodic surveys completed by FWP have documented a steady decline in the fishery and angler use of Poindexter Slough over the past 12 years. Abundances of adult brown trout declined from about 2,400 fish per mile in 1999 to between 500 and 1,000 fish per mile during most of the 2000's. Annual angler use declined commensurately during this period from over 4,000 angler days to a low of 610 angler days and average angler satisfaction rating transitioned from "excellent" to "poor." The observed declines are primarily related to indirect habitat degradation following conversion from flood to sprinkler irrigation in the areas surrounding Poindexter Slough.

Angler fishing at Poindexter Slough

Poindexter Slough was traditionally fed largely by groundwater returning from flood irrigation. These "spring" sources were adequate to meet irrigation demands and create a very productive and stable spring creek fishery. As pivots replaced flood irrigation, groundwater inputs decreased and Poindexter Slough was supplemented with increasingly more water from the Beaverhead. Diverted Beaverhead River water carries and deposits a large amount of fine sediment into Poindexter Slough, which has progressively filled pools and degraded riffles. In addition to the aforementioned declines in fish abundance and angler use, aquatic insect habitat has been reduced as the streambed has been covered by fine sediment. Because Poindexter Slough is a relict Beaverhead River channel its present dimensions require relatively large flows of up to 500 cfs in some reaches to effectively maintain habitats by mobilizing and flushing fine sediments. The present infrastructure allows a maximum of

50 cfs to be diverted from the Beaverhead River in addition to the up to 25 cfs of accreted flows Poindexter Slough gains over its length.

The Beaverhead Watershed Committee, of which FWP is a member, has worked with stakeholders to develop a solution and raise the money needed to implement it. In order to restore better habitat conditions, capacity for larger habitat maintenance flows that will mobilize sediment and allow it to continue move through Poindexter Slough are required. This will be accomplished by increasing the size of the headgates at the upper end of Poindexter Slough and narrowing over-widened reaches where sediment is presently dropping out and accumulating. The project will also eliminate a seasonal backwater and fish barrier at an irrigation diversion while still providing the ability to divert water. In the future when sediment begins to accumulate to levels that are detrimental to the fishery and other aquatic life habitat maintenance flows of 150 to 200 cfs will be routed though the Slough for a one week period to scour pools and clean riffles.

Sediment deposition and degradation in a reach that is too wide to transport it.

The ultimate success of this project will be quantified by improvements in fish abundances, angler use, and angler ratings of their quality of experience on Poindexter Slough. It is FWP's expectation that this project will result in a return to fish abundances and levels of angler use and satisfaction comparable to pre-sedimentation levels. Because the majority of this project occurs on lands administered by FWP and accessible to anglers, the proposed improvements to irrigation infrastructure, fisheries habitat, and fish abundances will provide a direct and clear public benefit and improved recreational fishing opportunity.

Shields River Basin – Scott Opitz, Fisheries Biologist

In summer 2014, FWP completed an Environmental Assessment (EA) for the mechanical removal of nonnative trout species in the Shields River Basin in order to advance conservation efforts for Yellowstone cutthroat trout (YCT) within the basin.

YCT are native to the Shields Basin and have been declining in abundance and distribution. The basin represents a stronghold for YCT both in Montana and across their range-wide distribution that includes parts of Montana, Wyoming, Idaho, Utah, and Nevada. The Shields Basin also represents the northern most distribution of YCT in Montana and the range-wide distribution. YCT currently occupy 40% of their historic distribution in the Shields Basin.

Map of the Shields River Basin indicating the Chadbourne Diversion and the proposed barrier location

The repair and modification of the Chadbourne Diversion was the first step in conserving YCT in

the Shields River Basin. This low head diversion is located approximately 12.5 miles upstream of the Yellowstone River and Shields River confluence, has been in place for over 100 years, and was in need of repair. The diversion was acting as a partial movement barrier to trout; thus, limiting the number for rainbow trout that were able to access the upper part of the basin. In fall of 2013, the diversion was repaired and modified to be a complete passage barrier for trout in order to stop any further movement of rainbow trout into the upper basin.

Nonnative rainbow trout have a limited distribution in the basin and abundances are low. In order to address the hybridization risk that they pose to YCT, through cross breeding, rainbow trout in waters upstream of Chadbourne diversion will be removed. The rainbow trout will be removed through the use of electrofishing during both annual monitoring and specific removal efforts focused on areas where they are present.

Another nonnative fish, eastern brook trout, have a moderate distribution in the basin but are beginning to expand in both distribution and abundance. This is happening at a rapid pace in the headwaters of the Shields Basin. Brook Trout are able to out compete YCT, and in a few headwater tributaries have completely replaced YCT. In order to address the threat that brook trout pose to YCT they will be removed from all waters, approximately 35 miles of connected waters, upstream of a proposed barrier site near Crandall Creek. The removal of brook trout will be completed through electrofishing as well as netting and trapping efforts. Some efforts to remove brook trout were completed in the fall of 2014. In some of the tributaries, significant progress was made in removing brook trout.

Brown trout, also a nonnative trout, in the Shields are mainly distributed along the main stem of the Shields River and a few of the larger tributaries in the lower basin. Their current distribution ends below the proposed barrier site above Crandall Creek. The impacts of brown trout on YCT in the basin are currently unknown. To assess any impacts of brown trout, the area upstream of the proposed barrier will be kept free of brown trout to allow for comparison of YCT populations in waters with and without brown trout.

If mechanical removal of brook trout is not successful, chemical removal is an option that could be pursued in the future. If a chemical treatment is pursued a new EA would be completed and public review and comment would be sought.

FWP is working in partnership with the Custer-Gallatin National Forest and the Wildlife Conservation Society on this project.

Map of the area above the proposed barrier where brook trout removal will take place

Madison and Gallatin Drainages Mountain Lakes – Tim Weiss, Conservation Technician

There are approximately 90 mountain lake fisheries in the Madison and Gallatin Drainages. Many lakes are found within designated wilderness areas, making them popular with hikers, backpackers, and backcountry horse folks. Some are accessible to motorized recreation and mountain bikers. Even some adventurous skiers and snowshoe enthusiasts access these lakes in the dead of a Montana winter. All provide angling opportunities for various Salmonid species while enjoying spectacular Southwest Montana

subalpine and alpine settings. Westslope and Yellowstone cutthroat trout, rainbow trout, brook trout, lake trout, and brown trout, as well as Arctic grayling can be caught depending upon one's destination.

MFWP manages these lakes for recreational angling opportunity. Most are stocked via air plants on a regular basis to provide a fishery where little or no natural reproduction is possible. Some lakes support adequate reproduction to maintain a fishery without stocking. There are a fair number of lakes which do not support fish populations and are purposely left barren.

Historically, many mountain lakes in the Madison /Gallatin had been surveyed sporadically, however many others had no record of survey on file. In 1998, the Madison/Gallatin MFWP fisheries crew undertook a systematic sampling effort of these lakes. During the summer of 2014, the last remaining unsurveyed lakes supporting fisheries were visited, completing a 15-year effort. These surveys provide information about species composition, planting success and survival evaluation, fish growth, reproduction capability, food habits, and lake characteristics. They also allow MFWP fisheries staff to gain firsthand knowledge of these lakes, as each one is individually visited and surveyed. Quite often, anglers are encountered, providing the opportunity to gather catch and harvest rates and general angler satisfaction.

Gary Senger, Fisheries Worker on Sampling Crew

MFWP fisheries crews sample mountain lakes using a variety of methods. Gillnets, angling, electrofishing inlets and outlets, and visual spawning surveys all provide useful information. Specimens collected are measured, weighed, and visually inspected for health and growth characteristics. This information is used to determine stocking rates and stocking effectiveness to in turn provide the best angling opportunity. In recent years MFWP has increased emphasis on stocking Westslope cutthroat trout in the Madison/Gallatin drainages, in an effort to utilize the native Salmonid where non-native species have been planted historically.

Fly Fishing on Mountain Lake

Madison/Gallatin Fisheries is currently evaluating and determining ongoing and upcoming Mountain Lake survey needs in order to schedule and maintain the most efficient and effective sampling effort.

A Madison/Gallatin Mountain Lake Fisheries Guide is available at the MFWP Region Three Headquarters in Bozeman. This guide contains lake location, species composition, stocking/reproduction status, and survey notes and is updated annually. This Guide will also be available Spring 2105 on the MFWP Website. Mountain Lake anglers are encouraged to contact MFWP fisheries with fishing reports and/or questions pertaining to the Madison/Gallatin mountain lake fisheries. Contact Tim Weiss at 406-994-6937 or email at tweiss@mt.gov

Tagging Study – Jim Olsen, Fisheries Biologist

A tagging study was initiated on the Big Hole River beginning in the fall of 2009. The objectives of the study were to: 1.) better understand the growth of trout in the Big Hole and how growth may vary among study sections and among years

(i.e., drought vs non-drought), 2) obtain fish movement information to determine areas of habitat use (i.e., spawning) and timing of fish movents. Nearly 8,000 individually numbered Floy™ Tags were inserted into trout approximately 12 inches and longer near the dorsal fin during semiannual, annual and biannual electrofishing surveys performed to monitor Big Hole River fish populations. The tags were roughly 1-inch long and about the same diameter of a pencil lead and blue in color. Fish growth was determined through weighing and measuring recaptured trout in each of the sections from 2009-2013. Fish movement information was obtained primarily from angler returns of tagged fish. Anglers were asked to inspect caught fish for tags whether the fish were kept or released. At most Fishing Access Sites angler tag return boxes were present and those who caught tagged fish were asked to report the information. Presentations were made to local sporting groups, press releases were made and posters were placed at tackle and fly shops informing anglers of the study and how to report tagged fish. Fish movement (distance traveled in miles) was determined from the middle of each electrofishing monitoring section to the approximate location of recapture.

A total of 1,782 fish were recaptured by electrofishing and used for growth analysis. The total recaptures from each section that were used in the growth analysis were: Jerry Creek 365, Melrose 1,047 and Hogback 370. The data collected suggested that brown trout in the lower river grow better and growth rate decreases as you move upstream in the river. This is something that biologists call density-dependant growth regulation. In other words, when the number of trout increases competition among the trout causes reduced growth. In the Big Hole River, trout densities are generally greatest in upstream reaches near Wise River (Jerry Creek Section) and decrease downstream (Hogback Section). It isn't always that simple as drought, seasonal water temperature, productivity and other factors can influence the expression of density-dependant growth regulation in fish population. On average a 9-11 inch brown trout in the Big Hole grows 3.1 inches and 0.55 lbs in one year. A 15-18 inch brown only grows between 0.75 inches and 0.22 lbs per year. It appears that once fish reach spawning age in the Big Hole (age-4 and 15 inches) growth drops off dramatically. In fact in the Melrose Section (middle section) fish larger than 18 inches on average lost weight from one year to the next.

Similar to brown trout a consistent pattern of rainbow trout growth was observed among sites with annual growth increasing from upstream to downstream (Jerry Creek to Hogback) across all size classes of fish. The greatest growth among all sizes of rainbow trout was observed in the most downstream section (Hogback), similar to the patter noted for brown trout. Across all length groups and sections, but particularly in smaller size classes of brown trout, growth was substantially greater than rainbow trout growth. Similarly, westslope cutthroat trout growth was substantially less than that observed for rainbow trout across size classes.

There were 386 angler returns of tagged fish of which 115 were returned from the Jerry Creek Section, 170 from the Melrose Section, 91 from the Hogback Section and 10 from the Pennington Section. Of the 386 tags returned, 227 were brown trout, 154 were rainbow trout, 2 were cutthroat trout and 2 were brook trout. These fish were used in the fish movement analysis. The vast majority of angler returned tagged fish were captured in the same general location as they were tagged regardless of the amount of time that elapsed since tagging. Although most fish were recaptured in the same location they were tagged, the majority of movements out of the original tagging location were in a downstream direction, particularly for rainbow trout. Brown trout were only slightly more likely to travel downstream than upstream but the majority of significant fish movements (those > 10 miles) were in an upstream direction. Seventy two percent of rainbow trout were recaptured in the same location they were tagged as opposed to only 47% of brown trout and brown trout were 3 times as likely to express movements of over 10 miles both upstream and downstream as rainbow trout. These data suggest brown trout are more migratory and seek out multiple habitats across the landscape to fulfill their individual life history. The greatest upstream distance moved by any trout was 59 miles by a 22-inch brown trout originally tagged in the Melrose Section and recaptured in Pintler Pool near the confluence of the Big Hole River and Pintler Creek near Wisdom. The farthest downstream movement

was also a brown trout originally tagged in the Jerry Creek Section and recaptured 0.5 miles downstream of Notch Bottom Fishing Access Site, a distance of 42.5 miles.

Several recaptured tagged fish provided interesting and valuable data. The Wise River is the largest tributary to the Big Hole River. There is abundant and high quality spawning habitat in several reaches of the Wise River, but it was unknown if fluvial trout from the Big Hole migrate into the Wise River to spawn. Tagging data suggest that rainbow trout migrate into the Wise River in the spring to spawn. Three rainbows tagged in the nearby Jerry Creek Section were caught by anglers in the Wise River during the spawning time. No tagged brown trout from the Big Hole were recaptured in the Wise River, but during recent fall electrofishing in the Wise River near the confluence of Lacy Creek and near Adson Creek Bridge several large (> 20 inch), apparently migratory brown trout were captured suggesting brown trout also use this tributary for spawning. Other spawning movements included large-scale movements of rainbow trout from lower reaches of the Big Hole (Hogback) to areas upstream of the confluence of the Wise River. One rainbow trout tagged in the Hogback Section just prior to the spawning season was recaptured 55 miles upstream near Dickie Bridge only 2 months later after spawning was complete. Similar rainbow trout movements were noted for trout from the Melrose Section.

With the lack of dams or other migratory obstructions, trout in the Big Hole River system have the ability to migrate into tributary streams or even among large river drainages. One 12-inch rainbow trout tagged in the Pennington Section near the confluence with the Beaverhead River was recaptured in the Jefferson River in the Waterloo Section by FWP workers electrofishing that section of river only 11 days after it was tagged (a downstream movement of 28 miles). The largest migration noted during the study was for an 18.1 inch 1.81 lb brown trout tagged in the Pennington Section that migrated 300 miles to Lake Walcott Idaho. The tag was found on a bird nesting island in the lake 100 days after having been placed in the fish. The fish was apparently consumed by a pelican which then migrated to Lake Walcott where the tag was extruded onto the island. Idaho Game and Fish were conducting an avian predation study using similar tags which lead to the recovery of the tag from the Big Hole River.

This tagging study was done in partnership with Big Hole Watershed Committee and the Big Hole River Foundation.

Photo by Brian Varner who caught this fish and turned in the tag

Lower Madison Westslope Cutthroat Trout – Pat Clancey

FWP is receiving reports of westslope trout being caught in the lower Madison River, and FWPs electrofishing crews have begun capturing a few during Spring population estimates. These fish are coming out of Cherry Creek, where FWP partnered with Turner Enterprises and the Custer Gallatin National Forest to complete the largest westslope cutthroat restoration project in Montana history.

Photo by Nick Borzak of his catch below Black's Ford access.

About 8 miles upstream from the mouth of Cherry creek is a 25-foot waterfall. Upstream of that waterfall is about 60 stream miles of habitat where non-native trout were eradicated over an 8-year

period and westslope cutthroat introduced as fertilized eggs and fry from existing wild populations. As the Cherry Creek population has established and increased in density, some are leaving the system and going over the waterfall and taking up residence in lower Cherry Creek and the Madison River.

REGION 4
NORTH CENTRAL MONTANA

Westslope Cutthroat Trout – David Moser, Fisheries Biologist

It was a busy and productive year restoring westslope cutthroat trout in Region 4. Westslope cutthroat trout – the only native trout in the Missouri River Drainage – are currently threatened by hybridization with rainbow trout and competition with brook trout. The only feasible way of protecting and restoring pure westslope cutthroat trout (westslope) is to find streams with waterfall barriers or construct man made barriers that will block upstream movement of non-native fishes.

Several projects are currently underway which restore westslope to historical or protected habitats. Hyde Creek, a tributary of the South Fork Two Medicine River is located in the north-east corner of Lewis and Clark National Forest. Hyde Creek held a non-native population of brook trout upstream of a significant waterfall barrier (approximately 5 miles). Restoration of westslope to this stream required the removal of non-native brook trout with an Environmental Protection Agency piscicide containing rotenone. Brook trout were removed from Hyde Creek this summer. We plan on using Environmental DNA to assess if all brook trout were removed. Water samples will be collected every half mile and analyzed for trace DNA from brook trout. This technique is extremely powerful and can be used detect even small numbers of brook trout.

Historically, streams in the Two Medicine Drainage would have supported westslope in approximately 857 miles of stream. Currently, the only remaining native populations of non-hybridized westslope in the Two Medicine Drainage are Sydney Creek (1 mile of stream) and Midvale Creek (Glacier National Park and Blackfeet Reservation). Sydney Creek is partially protected from hybridization by a small waterfall barrier. Midvale Creek supports a population of slightly hybridized westslope and non-hybridized westslope. Either of these two streams would provide westslope donors if this project were to proceed. Genetic analyses of all donor fish will ensure only non-hybridized fish are transferred. Several other populations - Birch Creek, Middle Fork of Dupuyer, and South Fork Dupuyer - hold pure populations that were transferred from streams outside of the Two Medicine Drainage.

Another project to restore westslope was completed on the Helena National Forest in the Smith River Drainage. Genetically pure populations of westslope occupy less than 3% of historically occupied habitat in the Smith River drainage – 20 miles out of a total of 615 miles. Camas Lake and Big Camas Creek were stocked in the 1950's with Yellowstone Cutthroat Trout. The lake and stream are currently protected from upstream movement of non-native fish by waterfall barriers. Piscicides were used this summer to remove these yellowstone cutthroat trout.

Sterile westslope cutthroat trout are used to provide angling opportunities to the public until genetically pure fish can be introduced.

After removals, sterile westslope from the Anaconda State Fish Hatchery were stocked in Camas Lake – these fish will provide an interim recreational fishery until transfers of fertilized eggs into a spawning tributary that feeds Camas Lake are completed. Donor eggs will be collected from a native population of westslope in the Castle Mountains. Prior to fish removals – a temporary "no limit" regulation was enacted to allow unlimited harvest of Yellowstone cutthroat trout by the public.

A third, and ongoing, piscicide project was completed this summer on North Fork Highwood Creek in the Highwood Mountains. This drainage supports a small pure population of native westslope in a headwater tributary. A concrete barrier was constructed approximately two miles downstream of this native population. This summer marked the third piscicide treatment of North Fork Highwood Creek. Removal of non-native fishes in this drainage has been difficult because of numerous springs and seeps in the system. When completed native westslope will occupy approximately 6 miles of habitat and greatly reduce risk of extinction of westslope in the Highwood Mountains.

Genetically pure westslope cutthroat trout from Lone Willow Creek are used to restore populations in central Montana.

Work on restoration of Lake Creek and Crater Lake, a tributary to the Smith River in the Little Belt Mountains has been completed. A barrier was constructed at the outlet to Crater Lake, non-native fishes were removed and three years of fertilized egg transfers were finalized this year. The westslope donor source for this project was obtained from a small population of westslope in the Castle Mountains (Lone Willow Creek).

Another ongoing project, Elkhorn Creek, on the Beartooth Wildlife Management Area moved forward in 2014. A fish barrier was constructed on Elkhorn Creek several years ago. Elkhorn Creek supports a slightly hybridized population of native westslope in its headwaters. These fish are less than 0.50 percent hybridized. Protection of this population required removal of highly hybridized fish in one mile of stream above the fish barrier. An important component of this project is the use of fertilized eggs out-planted in "remote site incubators" – essentially an artificial nest that greatly increases fish survival from egg to fry. Approximately 10,000 eggs from an Upper Missouri source were out-planted in an attempt to "swamp" out remaining rainbow genes and maintain the overall population at low levels of hybridization. Prior to electrofishing removals – a temporary "no limit" harvest regulation was enacted to allow recreational harvest prior to removals. Anecdotal reports indicate this "no limit" regulation was very popular with folks camping near Elkhorn Creek.

Tiber Reservoir – Dave Yerk, Fisheries Biologist

When it comes to a walleye fishery, anglers would be hard pressed to find one more consistent than Tiber Reservoir in northcentral Montana. Once again, in 2014 anglers enjoyed excellent walleye fishing throughout the summer with the peak of the fishing occurring from mid June to early July. During this time walleye catch rates were greater than one walleye per hour, which is exceptional fishing. Most biologists strive to provide catch rates of 0.25 walleye per hour for anglers; Tiber catch rates averaged 0.5 walleye per hour for the entire summer period.

The excellent fishing on Tiber has not gone unnoticed. Statewide fishing pressure estimates for 2013 show a sharp increase in use on Tiber, with the reservoir providing over 30,000 angler days that year. This level of pressure was double the average angler use over the past three decades.

More anglers than ever are enjoying Tiber's excellent fishing opportunities

So what does the future of Tiber's walleye fishery look like? It looks quite promising. Standardized gill net sampling completed this past September by FWP indicated the walleye population is trending upward with a wide range of size classes represented within the population. Because this fishery is sustained solely through natural reproduction and is not stocked, it is encouraging to see younger year classes of walleye that will provide the fishery of the future. Tiber's walleye population also has a healthy number of larger fish, which is a real bonus to anglers. Thus, currently it is a remarkably healthy fishery with a diverse size structure to appease those that like to catch some for dinner and also the trophy fishermen.

Walleye are not the only fishing opportunity on Tiber. The reservoir also has a trophy northern pike fishery that is relatively untouched by anglers. Northerns exceeding 20 pounds are not uncommon. The reservoir also has low density lake trout and rainbow trout populations that can grow to trophy size. Anglers that specifically target these two species at certain times of the year can do fairly well.

Dedicated members of Great Falls Chapter of Walleyes Unlimited have worked cooperatively with FWP for several years on an ongoing fish habitat project on Tiber Reservoir.

This past spring marked the 10th year FWP and the Great Falls Chapter of Walleyes Unlimited have cooperated on a fish habitat enhancement project on Tiber. This project has involved sinking discarded Christmas trees in key locations and at specific depths to provide spawning and rearing habitat for the reservoir's yellow perch. These efforts have been focused in the North and South Bootlegger areas and the Willow Creek Arm.

Lake Frances – Dave Yerk, Fisheries Biologist

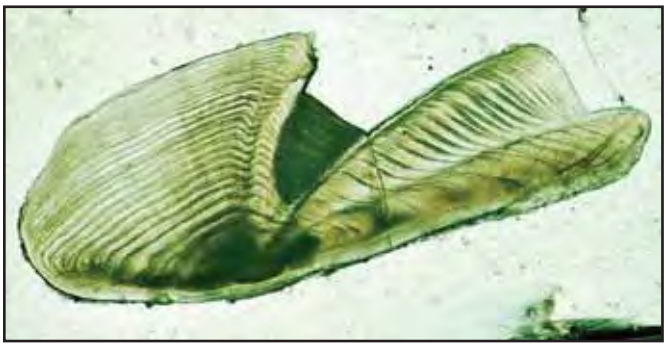
FWP continued to evaluate its Lake Frances walleye stocking program in 2014. Over 200 walleye collected from anglers and gill net samples were examined for a specific hatchery mark that would indicate they were stocked by the Fort Peck Hatchery. Of the 117 samples looked at from fish provided from anglers, 17% were of hatchery origin. Of the 112 samples examined from fish captured in gill nets, 16.4% were of hatchery origin. These results were very consistent with the samples examined last year (15% were hatchery fish). This information is indicating there is a higher level of natural reproduction of walleye in Lake Frances than previously realized.

Beginning in 2012, the number of walleye stocked into Lake Frances was reduced from 100,000 to 50,000 fingerlings. This was done to try and achieve a better balance between the predators (walleye and northern pike) in the reservoir and yellow perch, their primary forage. The ongoing evaluation of the contribution of stocked walleye to the fishery suggests the reduction in number of walleye stocked may not be enough. The number of walleye sampled in fall nets in 2014 was still very high at 8.6 per net, yet perch numbers dropped to an all time low of 0.3 per net. Similarly low perch numbers have been seen on Lake Frances in past years and they have demonstrated they can rebound very quickly when the conditions are right. However, obviously it is a tenuous situation when predators outnumber their prey so greatly.

As might be expected given the level of the walleye population, fishing was excellent on Lake Frances throughout the summer. The overall catch rate for the summer was 0.5 walleye per hour, with the peak of the fishing occurring in June at 0.85 walleye per hour. Fishing dropped off a bit later in the summer during August with anglers experiencing a catch rate of 0.24 walleye per hour. Harvested walleye averaged an impressive 16.1 inches in length.

Two bits of information from this past year provided interesting insight on just how long-lived walleye in Lake Frances are. The otolith, a bone in the middle ear of fish, has growth rings similar to a tree and is a structure commonly used to age

fish. While examining one last winter from a Lake Frances walleye to identify whether the fish was wild or of hatchery origin, I came across a walleye that was 22–24 years of age! This is the oldest walleye ever aged on either Lake Frances or Tiber.



A cross-section of a Lake Frances walleye otolith from a fish that was 22-24 years old.

A surprising tag return from a walleye caught by a Frances angler this past spring corroborated the age of the walleye discussed above. The walleye this angler caught was tagged 17 years ago in 1997. This fish was 18.2 inches in length at the time of tagging, and thus at a minimum five or six years old, meaning this fish was at least 22 years old when this angler caught it. More amazingly, this male walleye was just 22 inches when caught, so this fish grew just 3.8 inches in 17 years. Tag returns from anglers can provide some very enlightening insight into our fisheries and all biologists appreciate receiving this information.

Willow Creek Reservoir – Dave Yerk, Fisheries Biologist

During 2014 FWP completed an environmental review process on the proposed introduction of tiger muskie into Willow Creek Reservoir to reduce white sucker abundance. Currently, white suckers comprise about 90% of the fish biomass in the reservoir and limit the potential of the popular rainbow trout fishery. In several waters in Region 5 tiger muskies have proven to be very effective in reducing sucker abundance, and they are an ideal management tool because they are sterile and thus their abundance can easily be managed.

There was strong public support for this introduction by both anglers that recognized the sucker issue in Willow Creek Reservoir and also by those interested in having a unique species to fish for. If eggs are available in 2015, FWP will go forth with this introduction and introduce 2,000 tiger muskie fry in June and 800 fingerlings (6 to 8 inches in length) in August. These fish will be raised at the state warmwater hatchery in Miles City.

A young angler is hooked into a nice rainbow trout on Willow Creek Reservoir west of Augusta.

FWP is committed to closely monitoring this introduction to carefully balance the number of tiger muskies with white sucker abundance so that the reservoir's rainbow trout are minimally preyed upon. It is expected that reducing white sucker abundance will improve rainbow trout growth and survival. Willow Creek Reservoir is a very productive waterbody and has the potential to routinely produce rainbow trout five pounds and even larger.

Tiger muskies will likely thrive and grow very quickly in the reservoir. Additionally, they will also provide a unique trophy fishing opportunity for anglers. The current state record tiger muskie was caught in Deadmans Basin Reservoir east of Harlowton in 2012. It was 50 inches long and weighed 38.75 pounds. Standard Central Fishing District regulations will apply to harvesting tiger muskie from Willow Creek Reservoir, thus only one fish over 40 inches may be kept. Based on growth of tiger muskies in waters in Region 5, it will take five or six years for the plants in Willow Creek Reservoir to reach harvestable size.

Montana Fish, Wildlife & Parks

Bynum Reservoir – Dave Yerk, Fisheries Biologist

Standardized gill net sampling completed in Bynum Reservoir this past September indicated the return of walleye to this fishery northwest of Choteau. Three walleye were sampled in eight net sets.

Walleye were last sampled in Bynum in 2003. A sustained drawdown of the reservoir to dead storage from 2000 through spring 2008 apparently eliminated the walleye fishery. Netting completed in 2007 captured just a few adult white suckers and yellow perch.

The reservoir received substantial water in 2008 and the residual perch population exploded as the abundant flooded vegetation provided optimal spawning habitat. FWP also stocked rainbow trout into the reservoir in 2008, which grew very quickly and were a popular complement to the booming perch fishery. Anglers were quickly attracted to the developing fishery, and in 2011 10,539 angler days were recorded on Bynum. While managed as a walleye fishery, the highest use was 3,293 angler days in 1997. It was apparent the new management direction on Bynum was popular with the majority of anglers.

From 2007 through 2013 FWP set 52 gill nets in Bynum without sampling a single walleye. The capture of three in eight nets in 2014 was suspicious, but these fish could have originated from the last stocking of walleye in Bynum in 2003. Age analysis of these fish indicated two were 6.5 years old, and one was 7.5 years old. This indicated they were not from the 2003 plant as those fish would now be 11.5 years old. However, they could have been progeny of fish from that plant.

FWP marks walleyes stocked into several reservoirs to evaluate the contribution of these plants to the fishery. The three walleye netted in Bynum in September were checked for this hatchery mark and indeed one was definitely a fish stocked by the Fort Peck Hatchery in 2008. The most logical source of this fish was nearby Lake Frances. Lake Frances has been stocked with marked walleyes since 1997.

Veteran fisheries technician Paul Hamlin with two of the walleye netted in Bynum Reservoir in September 2014.

Ongoing evaluation of the Lake Frances stocking program indicates there is substantial natural reproduction of walleye in the reservoir and only about 16% of the walleye originate from hatchery plants. The fact that even one of the Bynum walleye was marked was surprising, but it definitively indicated this fish (and very likely the others) originated from an illegal introduction.

Subsequent netting completed in Bynum during October resulted in the capture of five more walleye in 26 net sets. All walleye sampled were sizeable, ranging from 19.7 to 24.2 inches in length. The fact that no juvenile walleye were sampled indicated this introduction was likely very recent, as the walleye sampled were all of prime spawning age and Bynum has suitable spawning habitat.

Some have asked what the concern is since FWP used to manage Bynum as a walleye fishery? The concern is that the selfish actions of one or a few individuals may result in the loss of fishing opportunity for possibly thousands of others. The Bynum perch fishery is attracting anglers from near and far, particularly in the wintertime, as opportunities elsewhere have diminished. Many Helena area anglers were traveling to fish Bynum since the decline of the perch fishery in Canyon Ferry Reservoir and upwards of 700 nonresident angler days have been reported on Bynum. Additionally schools have been making annual trips to Bynum as part of FWPs Hooked on Fishing Program. In January 2015, over 300 students and parents from 11 schools enjoyed Bynum's excellent perch fishery. It is very difficult to maintain a perch fishery in the presence of a self-sustaining walleye population. Future

reservoir elevations will dictate just how quickly walleye expand in Bynum, but there will be immediate impacts from this illegal introduction.

This illegal introduction can now be added to over 500 others already documented in Montana. FWP and several angler organizations have collaborated to elevate awareness of this growing issue and have contributed funds to substantially elevate the monetary reward leading to the conviction of those responsible for illegal introductions. If you have any information on the illegal introduction of walleye into Bynum, please call 1-800-TIP-MONT. You can remain anonymous.

Alex Hendler from Pennsylvania releases a nice westslope cutthroat trout on the South Fork of the Sun River.

Other Rocky Mountain Front Reservoirs – Dave Yerk, Fisheries Biologist

Pishkun Reservoir was drawn down over 20 feet going into winter last year, which greatly reduced ice fishing opportunity on the reservoir since the middle and west lake portions of the reservoir were dewatered. It also limited the spring fishing since anglers were unable to launch boats until the reservoir started rising in April. Anglers will be happy to find the reservoir in much better condition going into this winter. The reservoir is down just eight feet so all of Pishkun will be fishable this winter and anglers will not have any trouble launching boats next spring at ice out. There should be some good fishing to look forward to on Pishkun, as the pike population is healthy and there are decent numbers of good sized perch in the reservoir right now. Additionally, Pishkun received a plant of over 400,000 fingerling kokanee in 2014, so look for that fishery to really pick up the next couple of years.

For the third consecutive year, ***Nilan Reservoir*** was drawn down extremely low throughout the summer and early fall. Once again, it was too low for anglers to launch boats. This was discouraging to those that enjoy the fishing opportunity this reservoir provides because it was a good precipitation year. FWP may have to adjust the number of rainbow trout stocked if this ibecomes normal operation of the reservoir. Besides greatly reducing the available habitat, dewatering of the shallow, weedy south and west shores of the reservoir greatly reduces the productivity of the reservoir and thus the growth and condition of the rainbow trout. Hopefully reservoir management improves on this popular fishery enjoyed by many.

Wood Lake, Tunnel Lake, and Ostle Reservoir are fisheries on the Rocky Mountain Front that provide great opportunity for families with young anglers. Directions and advice for fishing these waters are available from the FWP office in Choteau (466-5621).

Middle Missouri River Fisheries Survey – Anne Tews, Fisheries Biologist

Morony Dam to the headwaters of Fort Peck

For over a decade, fisheries crews have been electrofishing five sections of the Missouri River each year between Morony Dam and the Robinson Bridge. This effort builds on work done in the 1980's – 1990's and allows FWP to follow population trends of several fish species. Of special note this year were northern pike, black crappie, channel catfish, sauger and smallmouth bass populations. Northern pike are typically uncommon in this reach, but since 2012 have often been captured by fisheries crews. In 2014, over 150 northern pike up to 16 pounds (average 5 pounds) were captured during fisheries studies. Nearly 20 northern pike had radio-tags in 2014; they were radio-tagged in two main areas, near Kipp campground by the Robinson Bridge and just downstream of the Marias confluence. Northern pike in both locations moved well over 100 miles, up into the Marias and down into Fort Peck during 2014. Some fish remained near the Marias

confluence throughout the field season. Black crappie is another species that is typically rare in the river, but has been quite common since 2011 near the Robinson Bridge. In 2014, they were at record high numbers with 217 fish caught during electrofishing. They averaged 8.5 inches long.

Missouri River Channel Catfish 2014

Channel catfish, sauger and smallmouth bass were the game species most frequently captured by electrofishing with 8.9, 9.1 and 7.5 caught per hour respectively. Channel catfish catches were highest upstream of the Marias River, where 15 or more were captured per hour of electrofishing. They averaged nearly 4 pounds and channel catfish over 20 pounds were netted by FWP crews. Sauger averaged about 1 pound but several over 3 pounds were caught by FWP crews. Smallmouth bass are only common in the upper river with 23.1 per hour caught in the Morony section. Smallmouth bass averaged 10 inches long and 0.8 pounds with the largest fish weighing in at 3.4 pounds during electrofishing surveys.

Seth Wilson's Blue Sucker From the Marias River

Pallid Sturgeon Recovery Between Morony Dam and Fort Peck

Pallid sturgeon are a federally listed endangered species and evidence of wild pallid sturgeon recruitment has not been observed here for decades. Flows in this reach of river were generally above normal during sturgeon sampling and sturgeon catch rates were much below average. Heavy rains in mid August caused near flood high flows in late summer at the Kipp boat ramp during standard netting surveys. However, three wild pallid sturgeon, that were either new fish or had not been sampled since 2001 were captured in 2014. This increased the total known living wild pallid sturgeon to six and indicates there are probably more wild pallids in the Middle Missouri. Another wild female pallid sturgeon that had been successfully spawned in hatchery program was found dead after ice-off in April. Pallid sturgeon recovery has involved stocking hatchery raised pallid sturgeon since the late 1990's.

Pallid Sign on the Middle Missouri River

In 2014, pallid sturgeon from 12 – 59 inches long (average 22 inches) were captured by fisheries crews. It is illegal to harvest any pallid sturgeon or any shovelnose sturgeon over 40 inches long. Anglers sometimes capture the endangered pallid sturgeon, so it is essential to be able to tell the difference between these two species. Permanent signs that explain the differences between shovelnose and pallid sturgeon were installed between Fort Benton and the Fort Peck headwaters in 2014. Shovelnose sturgeon anglers should also refer to the diagram in the fishing regulations to tell the difference between the two species. A Montana State University graduate student is using radio telemetry to

evaluate pallid sturgeon spawning in this reach. There are currently over 30 pallid sturgeon with radio transmitters for this study.

Discharge of the lower Marias River is entirely regulated by Tiber Reservoir and managed by the US Bureau of Reclamation (BOR). River fisheries benefit from periodic high flows, similar to the natural spring rise that occurred prior to construction of Canyon Ferry and Tiber Dams. FWP and the BOR have been working together for years to manage Tiber outflows for fisheries. Recent research indicates that shovelnose sturgeon need minimum flows of about 2,000 cfs for spawning in the Lower Marias River. Higher flows are likely needed to maintain riverine habitat features. In 2014, mountain snowpack was well above average, so FWP collaborated with the BOR to release habitat forming flows of 4,000 cfs for one week and 5,000 cfs for 10 days from Tiber Dam into the Marias River. A discharge of 5,000 cfs is low enough to protect infrastructure such as irrigation diversions, but should be sufficient to clean and move river gravels, and therefore provide important benefits for fish. Late spring precipitation in 2014, was initially well below average, which meant actual maximum discharge was reduced to 4,000 cfs for a total duration of one week. FWP will continue to work with the BOR to institute a spring rise when water forecasts indicate sufficient water is available.

Lewistown Area – Clint Smith, Fisheries Biologist and Derrick Miller, Fisheries Technician

It has been a busy year here in the Lewistown area. In addition to our annual fish sampling, we continue our efforts to restore degraded sections of Big Spring Creek, cooperate with the BLM on windmill aerators and their maintenance, build habitat structures for our reservoirs, assist with kid's fishing days, present at high school job fairs, and work with anglers to provide a diverse array of opportunities in the Lewistown Area.

FWP employee, Derrick Miller, leading an electrofishing demonstration with Fergus High School Outdoor Club members.

Big Spring Creek

FWP continued monitoring of Big Spring Creek downstream of the Highway 191 Bridge, in preparation for the restoration project planned to re-meander approximately 3,000 feet of channel that was straightened back in the 1960's. The population estimate for this section was down slightly from recent years, with an estimate of 960 trout > 10" per mile. The average estimate since our monitoring began in 2009 is 1,235 trout > 10" per mile.

FWP personnel performing the annual population estimate on Big Spring Creek.

We also performed a population estimate at the Carroll Trail section this year, finding both good news and bad news. The good news is that the total population estimate of 1,382 trout > 10" per mile is very close to the long-term average (1,355). The bad news is that the rainbow trout population continues its precipitous decline, making up only 19% of the population in 2014. In

2000, the trout population in Big Spring Creek was 70% rainbow trout.

A nice 20" brown trout from Big Spring Creek.

Whirling disease, poor recruitment due to high flows, and brown trout competition are all likely combining to negatively impact the rainbow population. The average trout in Big Spring Creek this year was 12". We did sample a hand full of fish over 18", with the largest being a 22", 3.8 pound brown trout.

East Fork Reservoir

East Fork Reservoir continued in its tumultuous vein following the 2011 flooding. The reservoir spilled in 2011, was drawn down for repairs in 2012, and came close to spilling again in 2013. This year, the City of Lewistown initiated another drawdown of the reservoir in late April in an effort to limit flood risks from the above average snowpack. This drawdown prevented our spring trap netting and likely interrupted yellow perch spawning. We were able to get out this fall and perform our annual gill netting. Catch rates of pike were near average, with most fish measuring close to 20". Yellow perch numbers are down from recent years, likely due to fish being washed out of the reservoir during the recent drawdowns. While on the surface this may sound like bad news for perch anglers, this should actually help the perch population for the next few years as competition for food resources will be lessened. This competitive release should improve perch growth rates and anglers might anticipate catching more perch in the 10 to 12 inch range. The average size of yellow perch sampled this year was about 8".

Martinsdale and Bair Reservoirs

Martinsdale and Bair Reservoirs are managed as trout fisheries; however, they both suffer from high populations of suckers. In both reservoirs we typically sample 2-3 suckers to every 1 trout. This year was no different, with our trout catch rates being slightly below the long-term average. The trout in Bair are smaller and in poorer condition than their counterparts in Martinsdale, averaging about 12" (Max. = 18") in Bair compared to 13" (Max. = 20") in Martinsdale. FWP proposed stocking tiger muskie in Martinsdale Reservoir to act as a sucker suppression tool, however, strong public sentiment opposed the tiger muskie stocking. We plan on delaying tiger muskie stocking until additional monitoring can be performed to get a more detailed picture of the trout fishery in Martinsdale.

Ackley Lake

We performed our annual sampling of Ackley Lake in September of this year. The rainbow trout catch rates were up slightly from 2013, returning to near the long-term average of about 30 fish per net. Rainbow trout size was down, averaging 10.7". The 2013 age-class was absent from our sampling, indicating that the fish stocked in 2013 did not survive well. White sucker numbers (36 fish per net) and average size (14.6") were both slightly above the long-term average.

Suckers in Ackley Lake continue to limit the production of the trout fishery. We plan on stocking sterile tiger muskie beginning in 2015 in an effort to decrease the sucker population for the benefit of the trout fishery. We have set fisheries objectives for catch rates, trout size and condition, and angler use following the tiger muskie management action. Continued and future monitoring of the fishery in Ackley will be used to determine if tiger muskie are successful at reducing the sucker population and benefiting the trout fishery.

Petrolia Reservoir

The August rains that drenched much of Central Montana led to Petrolia spilling for multiple weeks in August and September. The reservoir was still spilling when we performed our fall gill netting. The fishery in Petrolia appears to be in good shape. Yellow perch catch rates were down from last year's record estimate, but they remain well above average and the average size has increased to 8". We anticipate that the perch fishing in Petrolia will be good for the next few years as the high water levels have produced some strong age classes. The walleye population has likely been impacted by Petrolia spilling the

past few years, as the species has a tendency to flush during periods of high turnover. That being said, we continue to sample good numbers of walleye, averaging 17" and just short of 2 pounds.

The pike fishery in Petrolia continues to impress. Although we don't sample a lot of pike, we are finding some lunkers. The high water levels are clearly producing good forage which the pike are taking advantage of. This spring, we sampled 27 pike which averaged 30" and 7 pounds. The largest came in at 40" and almost 17 pounds. We don't hear about much angler interest in the pike fishery, but it might be worth a trip out to Petrolia as there are some big fish to be had.

An underutilized fishery, Petrolia Reservoir is growing some large pike in recent years.

Yellow Water Reservoir

The trout fishery in Yellow Water Reservoir was becoming notorious prior to the 2011 flooding, growing many large, healthy 2-5 pound rainbows. That has changed drastically in recent years, as the high flows of 2011, 2013, and 2014 have flooded the reservoir with white suckers and carp flushed from upstream drainages and stock ponds. This influx of mouths to feed has not been good to the trout fishery, as our catch rates the past 2 years have been back to back record lows, with no trout larger than 16" being sampled.

We ceased monitoring Yellow Water during the peak drought years of the early 2000's due to water levels not being suitable to support a fishery. These dry years resulted in complete die-offs of the suckers and carp in the reservoir, which led to the fantastic trout fishery once water levels came back up. From 2008-2010, our sampling did not document any species present other than the stocked rainbows. Unfortunately, following the flows of 2011 we have witnessed a steady increase in suckers and carp as a proportion of the fishery.

In addition to increased competition from newly establish sucker and carp populations, the trout in Yellow Water have also likely been impacted by winterkill events. FWP has not directly documented any winterkills, however we have received reports from the public and our data suggest at least partial kills have occurred. We are currently evaluating management options for Yellow Water, which may include stocking tiger muskie, mechanical sucker suppression, or continuing with current management until the reservoir goes though another drought cycle.

Small Reservoirs

Many of our smaller reservoirs in the Lewistown area are flourishing with the good water levels we've had in recent years. Reservoirs such as Urs, Manuel #2, and Upper Wolf Creek Ranch Pond are producing quality trout fisheries, with good catch rates and many fish in the 18-20" range. On the warm water side, the Missouri Breaks reservoirs are growing some nice bass, bluegill, crappie, and perch. Many of these fisheries are well off the beaten path and offer scenery, solitude, and some pretty good fishing.

New this year, we have produced a Lewistown Area Pond Book which provides directions and various waterbody details, including species present and recent sampling information, for the many FWP managed fisheries in the Lewistown area. These have been very popular with anglers. If you'd like a copy, you can pick one up at the Lewistown Area Resource Office or give us a call (406-538-4658) and we can send one in the mail.

A pair of large crappie from a reservoir in the Missouri Breaks.

Carter Ponds

The illegal introduction of bluegill and yellow perch in the Carter Pond complex has had a negative impact on what was a special trout fishery. The ponds have abundant forage and do not contain any sucker species, which created fantastic growing conditions for the stocked rainbow trout fishery.

Uncontrolled growth of the bluegill population has led to a precipitous decline in trout condition and angler catch rates. Due to the special nature of the ponds, FWP plans to remove the bluegill and perch by draining the ponds and reestablishing the trout fishery. We are also working with the public on providing bluegill opportunities at other local waters where their presence is more compatible with existing fisheries.

Helena Area Reservoirs – Eric Roberts, Fisheries Biologist

Hauser Reservoir

Fishing for rainbow trout was pretty good throughout 2014. Most action for shore anglers was at the Causeway and Black Sandy, while boat anglers did well throughout the reservoir. Worms with marshmallows are typically the bait of choice for shore anglers, while trolling Rapalas or cowbells tipped with a crawler seems to work best for boat anglers. FWP population surveys showed that rainbow numbers were a little lower in 2014, but growth was good with the average fish measuring over 16 inches.

A larger Hauser Lake walleye sampled in 2014.

Walleye fishing was a little slow throughout the year. Walleye catch increased a little later in the summer in the Causeway and around Devil's Elbow and Lakeside. Most walleye were small, but occasionally anglers would hook into some larger sized fish. Population surveys showed a near-record high number of walleye with a poor rate of growth. Nearly all walleye captured were small, measuring less than 12 inches in length. The few fish that are captured that are over 25 inches are in very good condition, which indicates that forage is available for good growth of larger fish, while growth for smaller fish is inhibited by suitable forage. Anglers are encouraged to harvest a high number of these smaller sized fish to help decrease population numbers enough to reduce competition and recruit more fish to larger size groups.

Jean Schmaltz's Walleye

Lake Helena, which is connected to Hauser Lake, saw relatively low angler catch rates in 2014. There typically is a good spring walleye bite on Lake Helena, but with cool spring temperatures the 2014 bite did not materialize. In a normal spring, Lake Helena warms up sooner than Hauser, which draws in spawning walleye from the main reservoir. Post-spawn the walleye usually stay around Lake Helena until late May or early June before moving back to the main reservoir. This didn't happen in 2014, as evidenced by poor angler catch rates and low catch rates during FWP spring population monitoring. When the Lake Helena walleye bite is on anglers have the opportunity to catch some nice quality fish. Hopefully Mother Nature cooperates and there's a better bite in 2015.

Holter Reservoir

Yellow perch are the big story at Holter. A record number of perch were captured during population surveys in 2013, and that led to the second highest number of perch on record in 2014. The really good news is that most of those perch that were 6-7 inches long in fall 2013, were measuring 8 inches or larger in 2014. Anglers saw a similar

trend, catching lots of larger sized perch throughout the summer of 2014. Anglers were catching perch throughout the reservoir, but most action seemed to be around Cottonwood and Willow Creeks.

Walleye fishing was a little slow, mostly because there was ample forage available from all the perch. The walleye that anglers caught were in really good condition, which is also a function of ample forage. Population surveys showed walleye numbers declined in 2014, but there was a good distribution of size classes with plenty of "eater sized" fish along with some large trophy sized fish. Walleye fishing may improve in 2015 as the perch continue to grow larger and walleye will have to more actively search for appropriate sized forage.

Libby Roberts Ice Fishing on Holter

Rainbow fishing was really good again throughout 2014. Cool spring temperatures slowed down angler catch a little in April and May, but the rainbow bite was good and consistent through the summer, and got even better in the fall. Shoreline anglers did best at Log Gulch and the BLM Holter Ramps and off the road at Gates of the Mountains. Boat anglers did best trolling Rapalas or cowbells tipped with a crawler around Black Beach and Split Rock and in the Cottonwood Creek area.

There is a yellow perch regulation change for Holter that will go into effect March 1, 2015. The Upper Missouri River Reservoir Fisheries Management Plan recommends increasing the yellow perch bag limit when upper thresholds for perch are reached. Since the upper triggers were exceeded, FWP increased the daily perch bag limit to 50 fish daily, with no possession limit.

Helena Valley Regulating Reservoir

Kokanee fishing at the Regulating Reservoir was relatively consistent through both the winter and summer fishing seasons in 2014. FWP population surveys showed a lot of age 1 and 2 fish, and a lower than average number of age 3 (mature) fish. The lower number of mature fish led to a fairly slow snagging season in fall 2014. With more mature fish expected to recruit to the fishery, 2015 is expected to see a better snagging season.

There have been some changes to the stocking plan beginning in 2014. Previously the reservoir was stocked with approximately 35,000 kokanee early in the summer and another 35,000 in the fall. Both population monitoring and the angler creel revealed poor survival of the fall stocked fish. In spring 2014, 65,000 kokanee were stocked in the spring and none were stocked in the fall. FWP will continue monitoring to determine the appropriate stocking rate that yields good salmon growth while maintaining high angler catch rates.

Yellow perch fishing in the Regulating Reservoir was pretty good in the winter 2014. Most action was on the other side of the island near the reservoir inlet. Perch seemingly disappear just as quickly as they appear in the reservoir, so it's difficult to predict whether perch fishing will continue to hold up in 2015.

Canyon Ferry Reservoir – Adam Strainer, Fisheries Technician III

Canyon Ferry Reservoir (CFR) continues to provide anglers a top-notch rainbow trout fishery, a high-yield walleye fishery and a trophy yellow perch fishery. Annual surveys presented the following trends:

The rainbow trout population in CFR continues to offer anglers excellent opportunities to catch fish year-round. Large, healthy fish tend to dominate the catch with fish averaging approximately 18-inches and 2-pounds. FWP's current protocol for stocking rainbow trout at larger lengths (6-8 inches) in CFR, to avoid predation, continues to

pay dividends and makes CFR one of the top rainbow trout fisheries in the state. The CFR rainbow trout stocking protocol has been modified in recent years to achieve a very high return to creel for hatchery stocked rainbow trout. Changing the stocking timeframe has resulted in greater cost savings to the hatchery bureau without affecting rainbow trout abundance or survival. In the end, CFR rainbow trout continue to offer a multitude of quality angling experiences to a diverse group of trout anglers. The rainbow trout limit is 5 daily and 10 in possession.

The walleye population in CFR remained above the management plan goals for the 3rd consecutive year. Seasonal management surveys indicate an increasing number of fish larger than 15-inches. More than 45% of the walleye surveyed during fall sampling were larger than 15-inches for a second consecutive year.

Volunteer, Matt Zeadow displays a 15 pound walleye sampled during 2014 walleye spawning survey.

High walleye numbers in CFR add to an already strained walleye forage issue. A liberal walleye harvest regulation of 12 daily, only 1 over 25 inches and possession limit of twice the daily limit is keeping the overall population at manageable levels and providing an angler preferred population size distribution. Fisheries crews on CFR have been tagging walleye, in some capacity, for nearly two decades. Anglers have been catching and reporting fish information to area FWP personnel over the same timeframe. FWP would like to send out a big thank you to all anglers who have reported tags in the past and to those who encourage others to do the same. Simply put, the information is invaluable and only benefits you and the fishery.

If you catch a fish with a tag this year, contact the Helena Area Resource Office (HARO) with your tag information at (406) 495-3260 or go to http://fwp.mt.gov/fishing/guide/taggedFish.html and your information will be forwarded to FWP staff.

Fishery workers count young of the year perch sampled by seining in Canyon Ferry Reservoir each year.

Yellow perch remained below management plan goals for the 5th consecutive year under the current management plan. The population appears to be at least recruiting some fish to catchable adults and providing limited predator forage. Sixty percent of the fish surveyed during the summer of 2014 were less than 8-inches and the average sized perch was below 8-inches for the second consecutive year. So, seeing smaller fish is always positive to note moving forward. Low perch numbers warrant a conservative management approach by allowing limited angler harvest to protect an already depressed population. The yellow perch limit is 10 daily and in possession.

Construction crew from the 2014 Pines for Perch Project on Canyon Ferry Reservoir. Thanks to all for their continued support!

In addition, with the perch population remaining at near record low levels, FWP, in cooperation with volunteers from the City's of Helena and Bozeman, Broadwater County Sanitation and area civic groups, continue to construct and place perch habitat structures, made from up-cycled live Christmas trees, throughout various areas in the reservoir. The Pines for Perch Project has taken place each spring since the 1990's and the project will continue this year.

The spawning structure/habitat project would not be possible without area volunteers, so, if you are interested in volunteering to help with this project, or simply want to join us for a day on the water in 2014, please contact the HARO fisheries crew and spend a day out on CFR. Perch numbers have seen an increase, albeit slightly, in the past 3 years and the Pines for Perch project could be one of the major positive factors.

Lastly, fishery crews encountered a small number of northern pike incidental to other fish surveys on CFR. Removing these fish is necessary to ensure another top level predator does not become established in CFR and confound the fisheries management plans for rainbow trout, walleye and yellow perch. There is NO LIMIT on northern pike on CFR.

North-Central Water Ways – Jason Mullen, Fisheries Biologist

Missouri River

The Missouri River trout population remained well above average in 2014. Rainbow trout numbers in the Craig section remained high in 2014 for the fourth consecutive year, with 4,783 rainbow trout 10 inches long and greater per mile estimated. While this estimate is less than from 2011 through 2013, the 2014 estimate is well above the long term average of 3,284 per mile. The population this year demonstrated increased size and slightly lower abundance than the past three years, which is typical of fish in the current population reaching their maximum size. This year 90% of the rainbow trout in the Craig section were 15 inches long or greater and 40% of the population was 18 inches long or greater. The population is expected to return to more normal levels next year with fewer adults and more juvenile rainbow trout. Brown trout 10 inches long and greater in the Craig section were estimated at 592 per mile which is similar to the long term average of 577.

In the Cascade section, rainbow and brown trout population estimates for 2014 were both above average. Rainbow trout 10 inches long and greater were estimated at 2,071 per mile compared to the long term average of 1,591. Brown trout 10 inches long and greater were estimated at 586 per mile compared to the long term average of 394.

A typical rainbow trout sampled during population monitoring on the Missouri River near Craig.

In 2011 a high number of hatchery-raised rainbow trout from Holter Lake were flushed into the Missouri River below Holter Dam as a result of high summer flows. Since that time we have been able to estimate the number of these fish in the population. Our data show that the number of hatchery fish in this population has diminished substantially since 2011. In 2014 we estimated 417 hatchery rainbow trout per mile which is similar to the estimate in 2013 and down from the high of 1,100 per mile in 2011. The majority of the hatchery fish in 2014 were between 17 and 19 inches. It is expected that very few hatchery fish from the 2011 flushing event will remain in the Missouri River through 2015.

As was also the case in 2010 and 2011, elevated fall water temperatures in the Missouri River in 2014 contributed to a higher incidence of *Saprolegnia* fungus on brown trout. In October 2014 anglers reported seeing brown trout with large cotton-like patches on their bodies and some dead fish in spawning tributaries. The naturally occurring fungus can manifest when trout lose their slime layer, which is their natural defense against many pathogens. Trout lose their slime layer while digging nests (female) and defending

territories (male) during spawning. Under normal conditions, replenishing fat reserves and cooling water temperatures allow most fish to regain their health and produce enough slime to ward off the fungus. An evaluation of water temperature data showed similar water temperatures in October and early November 2014 as was observed in 2010 and 2011, when the fungus was also prevalent. Water temperatures during all three years were elevated compared to most years, which likely contributes to increased stress during this time of year. Although no one wants to see large dead brown trout, overall, the fungus affects a relatively small proportion of the population, and is not expected to have a significant long-term negative impact on the brown trout population.

In 2014 fisheries crews started a 6-year study of trout behavior on the Missouri River that is funded by Northwestern Energy (formerly PPL Montana) as part of the company's fisheries mitigation program. The purpose is to better understand spawning behavior, spawning locations and impacts of dam operations on fish habitat and populations in the Missouri. Fisheries crews tagged 2,500 trout and installed tag monitoring stations on 6 tributaries. Preliminary information shows small fish travel great distances after leaving their natal stream. This study will show if fish home to their natal stream or stray to new sites.

Every other year, the Department conducts statewide angling pressure estimates. Angling pressure estimate results for 2013 have been completed, and the Missouri River from Holter Dam to Cascade Bridge was the most heavily angled fishery in the state, in terms of the most angler days, with 170,850 angler days. This is the greatest amount of angling days estimated on any waterbody in the state since the angling pressure estimates have been conducted. The Department will be conducting a creel survey in 2015 to further evaluate angling pressure on the Missouri River, and would like to ask for anglers' participation and cooperation.

Smith River

While Smith River flows were higher in 2014 than in 2013, flows in August were still below average. As a result, the Department instituted time of day angling restrictions due to high water temperatures in 2014 for the fifth time in nine years. The closure spanned from August 6 to August 28 and included closures on the Sun and Dearborn rivers. A heavy storm event in late August increased flow and decreased water temperature, which allowed for lifting the time of day restrictions earlier than in some past years.

Veteran fisheries worker, Paul Hamlin (center), schooling his successors while making his final sampling run on the Smith River.

The number of rainbow trout greater than 8 inches long in the Smith River near Eagle Creek was 381 per mile and brown trout were estimated at 181 per mile in 2014. Numbers for both species are below the long term average of 494 and 302, respectively. However, rainbow and brown trout estimates were up in 2014 from 2013, and higher than normal numbers of small (less than 8 inches long) rainbow trout, brown trout, and mountain whitefish were observed in 2013 and 2014, which is promising for up-and-coming year classes.

Belt Creek

Regional staff continues to monitor trout populations at two sections in Belt Creek as part of the mine waste clean-up in the Dry Fork and Carpenter Creek drainages. In the Monarch section, rainbow trout (387 per mile) and brown trout (54 per mile) were similar to previous years. Mountain whitefish, which were abundant in 2013, were rare in 2014 as was also the case in 2011 and 2012. In the Sluice Boxes section, rainbow trout (263 per mile) and brown trout (82 per mile) increased in 2014 from 2013, while mountain whitefish numbers (419 per mile) decreased from the maximum observed over the monitoring period in 2013. Monitoring efforts will continue to be conducted throughout the Belt Creek drainage to document changes in fish and benthic invertebrate

communities following current and future mine clean-up activities.

Pelican Point Pond

Northern pike first appeared in Pelican Point Pond #1 in 2012 during routine sampling for bass, perch, and crappie when two pike were caught in trap nets. In 2013, 62 pike measuring 11.9-15.6 inches long were sampled in traps. Based on the size of these pike, we suspect they originated from an illegal introduction that occurred in 2010 or 2011. In 2013 the Fish, Wildlife & Parks Commission approved a no-harvest limit regulation for northern pike in Pelican Point Pond #1 to encourage anglers to remove these fish in order to maintain the largemouth bass, yellow perch, and crappie fishery. The regulation change began in March 2014. In October 2013 biologists began removal efforts incidental to other fisheries work and removed 28 pike during trapping. In 2014, and additional 179 pike were removed during spring and summer netting efforts. Yellow perch abundance during netting efforts has been low, suggesting pike have had a negative impact on this important sport fish.

In 2013 biologists completed the process to begin stocking largemouth bass in this pond to help maintain the bass fishery. Previously the bass fishery was sustained by natural reproduction, but competition for forage by northern pike and the likely predation of bass by pike necessitated the stocking of bass to maintain angling quality. In addition, 350 adult black crappie (approximately 8 to 13 inches) were transferred from Largent Bend Pond #3 to Pelican Point Pond #1 in 2014 to supplement the population, which has likely also been impacted by the northern pike illegal introduction. Wild fish transfers are conducted by the Department only in waters that have had rigorous fish health inspections, including disease testing.

Largent Bend Ponds

Surveys in 2014 showed an abundant population of adult crappie in pond #3 ranging from 8 to 13 inches long. Sampling was not conducted in pond #2 in 2014, but the largemouth bass fishery has become a popular fishery for young anglers and family type outings. In 2013, largemouth bass averaged 12.5 inches long with the largest being 14.5 inches long.

REGION 5
SOUTH CENTRAL MONTANA

Cooney Reservoir – Jason Rhoten, Fisheries Biologist

Limited local flat-water opportunities and the close proximity to Billings make Cooney Reservoir a popular recreation destination. Recreational boating and fishing is most popular at Cooney Reservoir during the warm summer months so during busy summer weekends anglers often focus their efforts in the morning and evenings. Those angling on Cooney Reservoir are typically targeting walleye or rainbow trout. Historically the fishery was managed solely for rainbow trout but walleye were introduced in 1984 as a management tool to control the abundant sucker population with intent of improving the trout fishery. Walleye eventually became self-sustaining and stocking was no longer necessary thus stocking came to a stop in 2005. Annual monitoring has since shown consistent and sustaining levels of natural walleye recruitment in Cooney Reservoir without stocking. Spring electrofishing surveys in 2014 found healthy populations of juvenile walleye confirming recruitment. Additionally some very large old walleyes were captured during the spring sampling.

Fall gill netting resulted in a walleye catch rate of 18 walleye/net which is above the long term average of 16 walleye/net. Fall sampling yielded a walleye length average of 13.3 inches. The fall sampling indicates that walleye are abundant within Cooney Reservoir however, although present, few fish are sampled over 16 inches. Age and length data reveal growth is rapid up until approximately 14 inches, around age four when growth slows substantially. It is suspected that forage may be a limiting factor for walleye growth in Cooney Reservoir; however a recent strong year class of yellow perch may provide a boost to the forage base. Gut content analysis revealed that 1/3 of all walleye sampled had a least one yellow perch in their stomach. Walleye tagging efforts were continued in 2014 in attempt to further understand walleye growth rates and harvest rates within Cooney Reservoir.

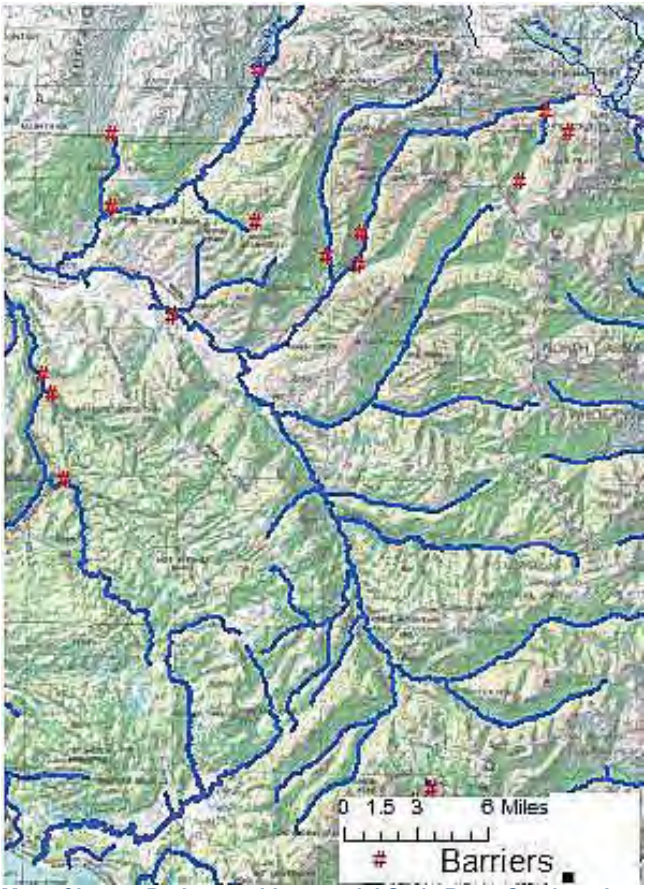
In recent years rainbow trout have not fared as well in Cooney Reservoir. Despite the annual stocking of approximately 60,000 rainbow trout their abundance in fall sampling has been low for a number of years and this year was no exception. No rainbow trout were sampled during the fall trend netting however rainbow trout were observed during spring sampling and anglers report catching some rainbow trout from Cooney Reservoir.

Winter ice fishing anglers often target rainbow trout as anglers report particularly slow winter walleye fishing. In addition to walleye and rainbow trout, burbot are gaining the attention of ice fishing anglers at Cooney Reservoir. Biologists are trying to closely monitor this growing population and the impact of this additional predator on the limited forage in Cooney Reservoir. Targeted burbot sampling is conducted on a yearly frequency and indicates a growing burbot population.

Soda Butte Creek – Jason Rhoten, Fisheries Biologist

Near the North East entrance to Yellowstone National Park Soda Butte Creek has personnel from four different entities focused on cooperatively striving for conservation of Yellowstone cutthroat trout. The headwaters of Soda Butte Creek originate in Montana and flow through the towns of Cooke City and Silver Gate and then pass through a small portion of Wyoming before flowing into Yellowstone National Park where it then enters the Lamar River, a vital Yellowstone cutthroat trout mainstay. Fish that move downstream from Soda Butte Creek and enter the Lamar drainage are met with little to no impediment to upstream movement to the upper Lamar and its many tributaries.

Nonnative brook trout have occupied the upper reaches of Soda Butte Creek for many years however toxic mill tailings controlled and contained the brook trout population to this upper reach. In 1990 brook trout removal efforts began in the headwaters of Soda Butte Creek to protect the native population of Yellowstone cutthroat trout residing in the creek. A clean up of the mill tailings was initiated in 1991. Despite ongoing electrofishing brook trout removal efforts, by 2003 water quality had improved enough that the first brook trout was documented downstream of the mill tailings within the Yellowstone National Park boundary. Brook trout removal efforts were further amplified and have remained elevated since 2003. The intent of the increased removal effort is to protect the Lamar Drainage from brook trout invasion.



Map of Lamar Drainage with potential Soda Butte Creek project area circled. Red triangles mark known fish passage barriers—note lack of barriers in Upper Lamar.

The stakes are high as the entire Lamar drainage is at risk of invasion by the nonnative brook trout because there are no barriers to stop their invasion. Additionally Yellowstone Cutthroat trout hybridization was detected within Soda Butte Creek. A partial natural barrier within Yellowstone National Park was slightly modified to create a complete barrier to upstream migration which alleviates hybridization concern however will not prevent downstream movement of nonnative brook trout into the Lamar Drainage.

Over 20 years of removal effort has yielded data that suggests without complete brook trout removal their downstream invasion is inevitable. Additionally data suggest complete removal utilizing only mechanical means (electrofishing) to

be infeasible due to inefficiencies attributed to habitat complexities. Multiple agencies have expended a magnitude of effort in attempt to remove brook trout from Soda Butte Creek and have exhausted all but one alternative to attain the objective of complete nonnative brook trout removal from Soda Butte Creek thereby protecting the Lamar Drainage. Data gathered from the last 20 years of removal effort in Soda Butte Creek suggest rotenone is likely the only means to remove all nonnative brook trout thereby eliminating the risk of their invasion into the Lamar Drainage. Agencies are in the planning and scoping stages of investigating the possibility and potential of such a removal effort. More on this in the future…

Sage Creek, Pryor Mountains – Mike Ruggles, Fisheries Biologist

Sage Creek in the Pryor Mountains was historically a Yellowstone cutthroat trout stream. Cutthroat had been extirpated over time by overexploitation and by competition with stocked rainbow and brook trout. In 2010, the removal of brook and rainbow trout was initiated followed with a second treatment in 2011. The stream and its tributaries were surveyed in July of 2012 with no brook trout found. Survey work in 2013 was conducted to examine size of cutthroat and to search for brook trout. Stocked cutthroat have been growing well with many fish found in 2013 ranging from 8 to 12 inches. Natural reproduction is expected to start in 2014 or 2015. In 2013, brook trout were found in an area considered to be fishless in the upper reaches of the North Fork. This area had been surveyed and had never been treated. During the fall of 2013 before spawning the North Fork of Sage Creek was treated to remove the discovered fish. In 2014, a through survey was conducted in the North Fork and a partial survey in the South Fork and mainstem Sage Creek with no brook trout found. Natural recruitment was not documented in this survey. Cutthroat were re-stocked into the North Fork to replace the removed fish. Since no brook trout were found during the 2014 surveys, stocking will cease and the entire stream will be surveyed in 2015. The goal will be to evaluate natural reproduction and to determine if brook trout are eradicated. This has been a large project involving many private landowners, the Crow Tribe, United States Forest Service, Fish and Wildlife Service, Bureau of Land Management, Bureau of Indian Affairs and Montana Fish Wildlife and Parks, and Big Timber and Blue Water Fish Hatcheries. This project would not have been possible without the incredible understanding and patience of the landowners on whose land most of this project took place and dedication of individuals from the various agencies. To all of you thanks for a job well done!

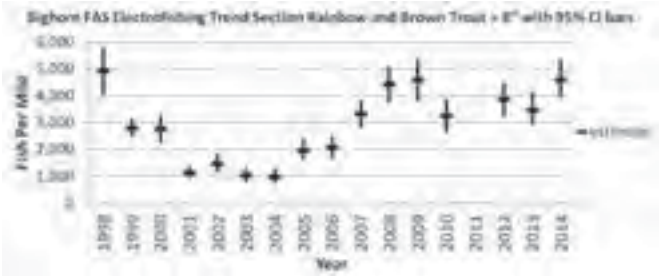
Andy with USFWS holding a Sage Creek Yellowstone cutthroat trout

Bighorn River – Mike Ruggles, Fisheries Biologist

The Bighorn River fishery and anglers have experienced a dynamic fishery since the 2011 flood. High flows in 2011 inundated and improved fish habitat creating a very good population of brown trout and supporting good growth in rainbow trout. In 2012 the river flows were reduced in response to poor snow pack leaving a robust abundant population of brown trout with less habitat leading to significant die off of spawning brown trout in the fall. In 2013, water was conserved in the basin as snowpack and rainfall totals remained below average. This resulted in Bighorn River releases below preferred fisheries flows the entire 2013 water year. The overall fishery remained robust in 2013 but abundances declined as water levels reduced available habitat. Additionally, rainbow trout have replaced some of the brown trout that had been lost. Water conditions were improving in the fall of

2013 and releases increased but still remained less than the preferred fishery flow of 2,500 cfs. In November of 2013 flows were increased above the 2,500 cfs with flows exceeding 5,000 cfs in March through most of June. The BOR then dropped flows in late June to less than 3,000 cfs at the time rainbow trout were beginning to emerge based on thermal unit calculations. The flows were then increased to nearly 8,000 cfs over the next two weeks. This may have been deleterious to this year class of rainbow trout. Some juveniles were detected in the fall so the entire year class wasn't lost but improvements to water management during critical times could alleviate this issue.

2014 population estimates indicated a slight improvement of brown trout and rainbow trout in the upper section between Three mile and Bighorn Fishing Access site. A total estimate for fish over 8" was 4,584 per mile (Figure 1). Separate estimates by species resulted in 2,783 brown trout and 1,805 rainbows per mile bigger than 8". The most abundant size of rainbow trout sampled was in the length range of 15 to 18 inches and brown trout from 13 to 16 inches. Estimates don't typically include fish less than 8 inches in the Bighorn, as recapture numbers necessary for a valid estimate can be hard to capture. A review of the number of fish collected smaller than 8 inches can provide insight for recruitment of young fish to sizes anglers prefer. Rainbow trout from 3 to 4 inches were not well represented in 2014 and considerably less than in 2013 and brown trout less than 8 inches showed marked declines from 2012 with even fewer captured in 2014.



The Mallards section fall estimate for rainbow and brown trout over 8" indicated 639 brown trout per mile and 422 rainbows per mile. Similar to the upstream spring estimate at the Bighorn Fishing Access Site brown trout declined from high estimates in 2011 and 2012 and an average estimate in 2013. The brown trout less than 8" were abundant and it is expected anglers will find these fish reaching sizes of 12 to 15 inches in 2015. Rainbow trout numbers remained stable from 2013. Brown trout were most abundant in size between 12 and 15 inches with a noted increase in the number of brown trout between 6 and 7 inches from 2013 to 2014. Rainbow trout were most abundant in size from 14 to 17 inches. Some 2 to 3 inch rainbows were captured in 2014, the 2015 sampling will determine if they survive the winter and begin to recruit to the fishery. The outlook for 2015 for rainbows is for stable to declining numbers. Brown trout expectations are for stable numbers in this section with a wide variety of sizes available from 10 to 18 inches with a few reaching into the 22 to 24 inch size range.

Thanks to all the anglers who love the Bighorn and help out with management needs and to those that graciously put up with us while we conduct our sampling each year. Hope to see you on the water.

Jason Rhoten FWP biologist assisting with Bighorn River Electrofishing holding a Rainbow.

Musselshell River – Mike Ruggles, Fisheries Biologist

Efforts to improve the overall fishery in the Musselshell through habitat improvements have taken considerable steps forward in 2014 with larger steps expected in 2015. Deadmans diversion in the Musselshell River was badly damaged and is an aging structure. This diversion has been a fish barrier during most flow conditions since it has been in place. The Deadmans Basin Water Users Association has pursued funding to replace the structure and

incorporate fish passage. FWP with Future Fisheries funds will provide assistance to support the project. Another project is the Egge Diversion about 5 miles east of Lavina. This diversion was flanked by the river in 2011 during the flood. This was also a fish barrier. The landowner has decided to abandon the diversion and convert to pump irrigation. Removal of the dam will open up a continuous 24 mile reach of the Musselshell River and support a good bass and catfish population while improving conditions for minnows and suckers in this reach as well. Future Fisheries, State Wildlife Action Grant, and MTDNRC 223 grant funds with the Lower Musselshell Conservation district and private dollars will move this project to completion in 2015. A third diversion is in the planning stages for either removal or creation of fish passage around the structure. This dam is upstream of the town of Musselshell and was documented as a barrier through a tagging study conducted in the late 1970's and early 1980's.

Egge Diversion after 2011, plans are to remove the structure in spring 2015

Efforts to coordinate with the landowner and irrigators are underway. It is anticipated a preferred alternative will be selected this winter. Improvement for fish passage in this reach will significantly increase habitat for sauger and channel catfish.

Additionally, as these important habitat projects are undertaken an opportunity may exist to re-establish native game fish populations in the middle Musselshell River near Rygate. The first attempt to improve and re-establish channel catfish could take place in the summer of 2015 with a wild fish transfer.

Yellowstone River, Big Timber to Laurel – Jason Rhoten, Fisheries Biologist

For the first time in many years conditions were conducive to sample three spring trend sections on the Yellowstone River within the same calendar year. The spring trend sections were sampled near Big Timber, Columbus and Laurel. All three sections receive a fair amount of fishing pressure but the most fishing pressure is at the upstream Big Timber section. Sampling all three sections within the same year allowed for an interesting look at fish distribution, abundance and length distribution amongst the three different trend sections.

Boom Shocking Yellowstone River Below Billings

The most heavily fished area of the sampled trend sections, Big Timber, had the largest average size of both brown and rainbow trout at 15.2 inches and 13.0 inches. The Laurel trend followed with brown trout averaging 13.5 inches and rainbows 11.3 inches. The Columbus section brown trout averaged 13.1 inches and rainbows 10.9 inches. The biggest brown trout, 26.5 inches and biggest rainbow trout, 23.4 inches were both sampled in the Big Timber sections. The Big Timber section has slightly higher trout per mile estimates than the Columbus and Laurel trend sections. It should be noted that despite slightly lower estimated trout abundances the often over-looked downstream sections, Columbus and Laurel, have healthy populations of trout that may deserve attention your next fishing trip.

Montana Fish, Wildlife & Parks

Large brown trout captured during spring sampling in the Yellowstone River.

Mountain Lakes – Jason Rhoten, Fisheries Biologist

Each summer fisheries personnel head into the back country to sample high-elevation lakes in the Absaroka-Beartooth Wilderness Area and in the Crazy Mountains. Fisheries workers strive to sample at least 30 of the some 320 back-country lakes during the short field season of July and August. The crew's fish and habitat sampling efforts help guide future management decisions in the fish-bearing lakes. There is a wide range of species found in these lakes including Yellowstone cutthroat trout, brook trout, rainbow trout, golden trout, arctic grayling and variations of the cutthroat/rainbow/golden trout hybrids. Lakes are either self-sustaining or are stocked on a three and four year stocking cycle (for those fisheries that receive the most fishing pressure) or on six to eight year cycle.

Difficult access accompanied with fewer lakes per drainage often means more time between sampling events for those lakes that reside within the Crazy Mountains. Some lakes within the Crazy Mountains hadn't been sampled in over 20 years. That changed this summer when personnel utilized a helicopter to sample nearly all the lakes within the Crazy Mountains in just a few days which if hiked into would have consumed nearly an entire field season. Data collected from the helicopter survey was critical for management decisions and highlights the importance monitoring and continued management. Survey findings ranged from documentation of fishless water in a once self-sustaining lake to confirmation of large golden trout in Cave Lake, where the state record golden trout was captured in 2000. In addition to the Crazy Mountain surveys our sampling of arctic grayling lakes within the Absaroka-Beartooth Wilderness Area indicate that most of the handful of lakes that are managed for arctic grayling are below management goals thus stocking modifications (size of fish stocked) has been proposed. To access all this data from the backcountry lakes and to help plan your next trip check out our Absaroka-Beartooth Mountain Lakes Guide (includes information on lakes in the Crazy Mountains) that is available electronically at http://fwp.mt.gov/regions/r5/mountainlakes.html. The guide is updated in the late winter early spring every year.

Beautiful views at Upper Twin Lake in the Crazy Mountains.

REGION 6
NORTHEAST MONTANA

Havre Area Ponds – Cody Nagel, Fisheries Biologist

Fish, Wildlife, and Parks manages approximately 100 small ponds and reservoirs located on both public and private lands throughout Hill, Blaine, and Phillips Counties. All of these fisheries are managed for public use. The fisheries are very diverse, with some ponds being managed as rainbow or brook trout fisheries, and others as warm water fisheries that could contain bluegill, yellow perch, largemouth bass, northern pike, walleye, tiger muskie, black crappie, or channel catfish.

Mikayla Lakey with Pond Reared Brook Trout

Many ponds that were once chronically dewatered have filled and remained high over the past four years, creating ideal growing conditions for all species. Rainbow trout growth has been excellent in reservoirs such as Dry Fork, Choteau, Sentinel, King, Douchette, Grasshopper, Faber, and North Faber. Northern pike densities in PR 161, Ester, and Wildhorse Reservoirs are at very good levels. Yellow perch densities in Bison Bone, Dry Fork, Anita and Reser Reservoir are at very good levels as well, with perch up to 11 inches being reported.

Anglers looking to experience the excellent fishing some of these ponds have to offer are encouraged to stop by the Havre Area Resource office and pick up the latest version of the Region 6 pond guide or download it from the Region 6 webpage located on the FWP website. The fisheries on some of these ponds are greatly affected by water levels and winter severity. Anglers should be aware that landowner permission may be required to access some of these ponds and should plan accordingly.

Fresno Reservoir - Cody Nagel, Fisheries Biologist

Excellent water conditions in Fresno Reservoir continued in 2014. Reservoir pool levels stayed above average from March through September, which again created ideal spawning conditions for all species. Summer seining efforts identified excellent natural reproduction for walleye, yellow perch, black crappie and spottail shiners.

Summer seining surveys revealed good spawning success and excellent growth of young-of-year walleye. Standard fall gill netting revealed walleye relative abundance has dropped slightly to 17.3 walleye/net, still remaining above the long-term average of 14.9 walleye/net. High walleye abundance over the last eight years is largely influenced by relatively stable reservoir levels, excellent spawning conditions, and good natural reproduction. Fresno contains multiple age classes of walleye, with good numbers of 12-18 inch fish. Fishing opportunities for walleye will once again be excellent in 2015. Northern pike relative abundance is below historic levels (1.8 pike/net) with the majority of these fish ranging from 27-32 inches.

Yellow perch abundance has been trending down since 2011 and there has been concern pertaining to the long-term contribution of the primary forage fish in Fresno Reservoir. Excellent water conditions in Fresno over the last seven years have allowed the reservoir to remain relatively stable. High water events during April and May have flooded terrestrial vegetation, creating optimal spawning conditions for yellow perch. Extremely good spawning conditions and low perch densities prompted FWP to plant adult pre-spawn yellow perch in April the last four years to help boost reproductive success and perch abundance under these ideal water conditions. Furthermore, water levels during the summer and winter months have remained 12-16 feet higher than average, keeping structure such as rocks and boulders flooded, creating good rearing habitat for young-of-year yellow perch, crappie, and spottail shiners. Over the last seven years yellow perch and black crappie have had very good reproductive success; yet adult densities continue to decline.

Fall gill net surveys revealed yellow perch relative abundance dropped from 6.1 perch/net (2011) to 1 yellow perch/net (2014) and black crappie dropped from 3.6 crappie/net (2011) to 0.4 crappie/net (2014). Although successful spawning has been documented for forage species such as yellow perch and black crappie, drops in adult abundances are an indication of the high predator densities that exist in Fresno Reservoir. Decreases in forage species given the favorable water conditions is a management concern going forward. The fishery in Fresno is highly dependent

on water conditions; volume of flow in and out of the reservoir as well as the timing of water level increases affects reproduction, survival, and condition of forage and sport fish.

Mikayla Lakey with a Pair of Reser Largemouth

Nelson Reservoir- Cody Nagel, Fisheries Biologist

Nelson Reservoir remained a popular fishery in 2014. Summer seining efforts revealed spawning success for most species was similar to historic levels, with yellow perch and black crappie both having successful spawns. Annual fall gillnetting indicated a healthy yellow perch population with 15 yellow perch/net. The yellow perch population is mainly comprised of 6-10 inch fish. Northern pike relative abundance was average at 3 pike/net with a good mix of year-classes, and northern pike up to 40 inches. The majority of northern pike sampled ranged from 28-35+ inches. Walleye relative abundance was 15.7 walleye/net and remained above the long-term average of 12.7 walleye/net. The walleye population is comprised of mostly 10-22 inch fish. Excellent water and forage conditions are the primary factors driving this quality fishery.

The Bureau of Reclamation will be conducting a major safety of dam's project to fix the dykes and outlet structures on Nelson Reservoir in 2015. The project will require Nelson Reservoir to be drawn-down 16-17 feet to complete the necessary work. Recreationists should expect low water-levels to start occurring in July and last through the winter months. This will impact access to the water and people are encouraged to call the Havre Office at 265-6177 for access updates.

Young Angler with a Northern Pike

Fort Peck Reservoir – Heath Headley, Fisheries Biologist

Fort Peck Reservoir saw an increase in reservoir elevation for the first time in three years. Reservoir elevations rose approximately six feet from early April into July due to average snow pack conditions in the mountains. A limited amount of shoreline vegetation was flooded in 2014, but this didn't occur until early summer. Water levels remained stable through the summer months and are forecasted to gradually rise during the winter months headed into 2015. Reservoir elevations are expected to rise approximately seven feet if mountain snowpack and spring precipitation conditions are "average". All boat ramps should be usable again in 2015.

The annual walleye egg-taking operation on Fort Peck Reservoir showed signs of improvement in 2014. Despite the lingering ice cover in April, water temperatures gradually warmed at a critical time during the walleye spawn resulting in the collection of 62 million eggs. These eggs develop into fry and fill all the rearing ponds at the Fort Peck and Miles City State Fish Hatcheries. By early summer 14.7 million fry and 2.3 million fingerlings were stocked throughout Fort Peck Reservoir in 2014.This operation requires a strong volunteer program in order to be successful. If anyone is interested in assisting with the walleye egg-take in April, please call (406) 526-3471 to join the other volunteers that participate annually. It's a great way to learn more about the walleye fishery, see large walleye, and be part of the

statewide egg-take that benefits other Montana walleye fisheries.

Catch of the Day at Fort Peck Reservoir

Annual gill netting surveys indicated walleye and northern pike continued to be the most abundant species captured in 2014. Relative abundance of walleye was 4.6 per net in 2014 which is still above the long-term average of 3.6 per net. Walleye in the 10 to 15 inch range were most abundant due to a very large group of three-year old fish. Anglers can be encouraged to know that good numbers of walleye greater than 25 inches continue to be measured during these sampling efforts. Walleye were most abundant in the Big Dry Arm and Pines to Hell Creek area of the reservoir during the July-August sampling. Similar to walleye, northern pike relative abundance is still above the long-term average. This is attributed to increased spawning and rearing habitat created by the high water years of 2009-2012. Most pike sampled during this time were between 20 and 30 inches and averaged 4.5 pounds.

Fort Peck Reservoir Laker

Anglers should try their luck for smallmouth bass or channel catfish. Smallmouth bass populations continue to expand throughout the reservoir as indicated by our sampling surveys. Anglers should expect decent catches of 12 to 14 inch fish but also have a shot at others up to 18 inches. Best locations during the summer for smallmouth bass are the Big Dry Arm and upstream from Bone Trail. Another overlooked angling opportunity is channel catfish. Channel catfish are typically one of the most abundant game fish captured during annual gill netting surveys especially in the upper portion of the reservoir. In 2014, average size of channel catfish sampled was 18 inches and just under 2 pounds.

Forage fish surveys on Fort Peck Reservoir showed mixed results in 2014. Shoreline forage (yellow perch, crappie, spottail shiners, and emerald shiners) abundance remained low once again in 2014. Most shoreline forage fish species are now at or below long-term averages. Unlike the high water years of 2009-2012, young-of-year and age 1+ yellow perch numbers in 2014 declined greatly due to the lack of spawning/rearing habitat as well as increased predation from a growing walleye and northern pike population. In contrast, coldwater forage fish (cisco) netting results indicated a large group of young-of-year cisco in 2014. Relative abundance of young-of year cisco was 140 per net which is nearly double the long-term average. While this is great news for larger walleye, northern pike, chinook salmon, and lake trout, it may make things a bit more difficult for anglers. Anglers may have to change tactics in 2015 by fishing deeper as summer progresses when water temperatures warm. Warmer temperatures will force cisco to head to deeper, cooler water where larger predatory fish will pursue this abundant food source.

There is no doubt that the high abundance of cisco in Fort Peck Reservoir has contributed to some large and healthy game fish over the last several years. This statement holds especially true with regard to the coldwater fishery that Fort Peck Reservoir has to offer. Lake trout and chinook salmon are taking advantage of this abundant resource and anglers are realizing it when they latch into one of these monsters of the deep. Lake trout caught during netting surveys and by anglers in 2014 averaged seven pounds but others approaching 20 pounds were captured. Although not as abundant as lake trout, chinook salmon weights were just as impressive. Three

and four-year old salmon captured during the fall egg-taking effort averaged 13.7 pounds with the largest weighing 22.6 pounds. Whichever species anglers decide to target, they will have a good chance at catching a quality-sized fish!

Missouri River Downstream of Fort Peck Reservoir-Tyler Haddix, Fisheries Biologist

While the Missouri River upstream of Fort Peck Dam is a destination fishery for anglers throughout Montana, its downstream counterpart is often overlooked. While the lower Missouri River does not hold as many trophy class sauger or walleye, anglers fishing it have been catching a lot of fish the last couple of years.

Lower Missouri River Sauger

Sauger and walleye fishing have been best during both the spring and fall months, but can be caught year around. Sauger up to 16 inches in length and walleye up to 20 inches are often part of a daily creel. The lower areas of the Missouri River near Culbertson are often the hottest areas to fish for walleye and sauger.

A host of other native and non-native game fishes are available to anglers fishing the lower Missouri River. Channel catfish and shovelnose sturgeon are abundant in many areas and readily take worms and other live baits. Many anglers targeting more traditional game fish are often surprised when they catch a shovelnose sturgeon, even though they are one of the most abundant game fishes in the area. Targeting shovelnose sturgeon is not hard, but requires fishing on the bottom and is best done with an earthworm. These fish like sitting just downstream of large sandbars where a small pool forms. Although public access is somewhat limited in the lower Missouri River, the Culbertson and Snowden Fishing Access sites are both boat and shore fishing friendly.

Who Has The Bigger Smile?

Fort Peck Dredge Cuts-Tyler Haddix, Fisheries Biologist

The Missouri River Dredge Cuts have been providing excellent fishing opportunities for several species of game fish over the past several years. Anglers targeting walleye and sauger in open water have been most productive in the spring and fall months, with a lull occurring during the dog days of summer. Anglers traveling to the Fort Peck area often take advantage of the Dredge Cuts on days where the weather may not allow them to fish effectively on the much larger Fort Peck Reservoir.

The Fort Peck Dredge Cuts and the lower Missouri River is the last place on the Missouri River within Montana where anglers can enjoy a five fish limit of sauger if they are lucky or skilled enough to boat them. Sauger are quite abundant and angler do well with a wide array of gears, from

jigs to bottom bouncers with a crawler harness. Annual netting surveys in 2014 indicated that sauger averaged 16 inches in length, with larger sauger measuring over 20 inches.

Although less abundant than sauger, the walleye population within the Dredge Cuts has still been relatively good the past several years. Walleye numbers were at a 14 year high in 2011 due to a large boost occurring from entrainment out of Fort Peck Reservoir.

John Hunziker with a white bass sampled in the Dredge Cuts, 2014

Since 2011 the walleye population has continuously decreased, however, anglers are still catching good numbers of walleye especially during the spring and fall months. Netting surveys in 2014 showed a nice average size for walleye at 21.7 inches, with a few of those trophy 30 inch range walleyes available.

Anglers in the Dredge Cuts have also been taking advantage of good numbers of northern pike. Although on average smaller than their neighbors in Fort Peck Reservoir, anglers looking for numbers haven't often been disappointed. Surveys in 2014 found that Dredge Cut northern pike average 26 inches in length, with the occasional 35 inch pike.

A very unique opportunity still exists in the Fort Peck Dredge Cuts, bow fishing for paddlefish. Anglers that purchase the Fort Peck Dredge Cut paddlefish tag can legally harvest one paddlefish per season using a bow and arrow.

Eastern Montana Paddlefish

Anglers or "hunters" were very successful in 2014 filling their tags. The majority of paddlefish harvested are around the 30 to 40 pound range, but fish larger than 50 pounds are occasionally arrowed. Harvesting a large paddlefish is similar to shooting a trophy deer, you won't get a chance at a large one if you shoot a small one first!

Eastern Region 6 Ponds- Tyler Haddix, Fisheries Biologist

For the most part, private and public ponds in the eastern portion of Region 6 are still benefitting from high water levels. Perch, northern pike and stocked rainbow trout have been plentiful over the past couple years, mostly due to healthy water levels in these small reservoirs. Even though fishing in general has been good, winter and summer kills can and have occurred on some isolated water bodies. For those anglers looking to be productive on small water bodies, it is best to do a little research before spending the time and money to fish these small and often remote fisheries. FWP has been producing a Region 6 Ponds Guide for the past several years and a new edition will be published in the spring of 2015. This book gives anglers an edge on what ponds may be fruitful and others that may be a long shot.

The guide provides maps to get there, land ownership, recent stocking done by FWP and the most current sampling with a brief description of the species and sizes of fish present. With this information, an angler can make a more educated decision if the pond might be right for what they are looking for.

Anglers fishing Box Elder Creek Reservoir near Plentywood have been having a rough go of it the last couple of years, since fishing has taken a significant downturn. Sampling in 2013 and 2014 indicated that the walleye population in the reservoir was almost nonexistent. Similar to walleye, northern pike numbers have been down the past couple of years as well. In response, FWP stocked both walleye and northern pike in 2014 and stocked catchable rainbow trout to try to establish at least some near term fishing opportunities.

FWP will begin studying the ecology of the reservoir by taking zooplankton and phytoplankton as well as other physical water parameters to try to better understand what may be happening to the fish residing in Box Elder Reservoir. Large algae blooms have been witnessed over the past couple of years, therefore water quality may be a cause of potential fish kills.

Lower Milk River- Tyler Haddix, Fisheries Biologist

The lower Milk River continues to produce good numbers of eater channel catfish in the 14 inch range.

Milk River Channel Catfish

Larger channel catfish up to 8 pounds are caught by anglers putting in the time and targeting larger fish with particular baits. Although fishing for channel catfish can be fantastic, this water body sees very low angling pressure. Although the majority of the access to the lower Milk River is through private land, most land owners will grant permission for fishing if asked.

Walleye and sauger fishing was excellent in the lower Milk River during 2014. Anglers do well in the spring months during spring freshets when both species migrate up the Milk River from the Missouri River. A popular fishery exists at Vandalia Dam, just outside of Glasgow, due to the dam acting as a migration barrier to migrating fish. However, many other gravel riffles and their associated pools from Vandalia to the mouth of the Milk River hold good numbers of walleye and sauger during the spring months.

Anglers giving the Milk River a try may be surprised at what they catch, since the Milk River supports the most diverse fishery in the state. Anglers can catch anything from the very common channel catfish to blue suckers to freshwater drum. The Milk River is an excellent destination to take a young angler given that just soaking a worm on the bottom can bring up just about anything.

REGION 7
SOUTHEAST MONTANA

Yellowstone River Paddlefish - Caleb Bollman, Fisheries Biologist

Each spring paddlefish migrate upstream out of the headwaters of Lake Sakakawea with rising river discharge to reach river spawning grounds. A steadily rising hydrograph in the Lower Yellowstone made fish available from the beginning of the season (May 15th) with anglers harvesting an estimated average of 130 paddlefish per day for the first two harvest days. Harvest was allowed for three more days with an estimated average harvest rate of 194 paddlefish per day. Approaching Memorial Day the harvest season was closed to keep under the interstate harvest cap but catch and release fishing continued at Intake Fishing Access Site until June 2nd.

River discharge above 40,000 cubic feet per second and a good run of fish provided incentive to participate in catch and release with an estimated average of 91 paddlefish landed per day. Fish, Wildlife & Parks (FWP) staff tagged 1031 paddlefish with jaw tags in 2014 during

catch-and-release fishing. Monitoring the number of tagged paddlefish that are harvested during the season is critical for estimating harvest and ensuring that the fishery is managed sustainably.

Successful Paddlefish Angler

Fall trend surveys on Lake Sakakawea found few young of the year in spite of perceived favorable conditions in 2014. On a positive note, trend surveys continue to show abundant sub-adult paddlefish, from the 2011 year class, rearing in the headwaters. It will likely be another seven years before males from this year class reach sexual maturity, begin to make spawning runs, and become available to anglers. Until then, anglers can expect females to make up roughly 75% of catches as the 1995 year class continues to be strongly represented in spawning runs and the later maturing female component of this year class has become sexually mature. Further restriction of harvest may be necessary if spawning efforts do not provide young fish that will ensure the continuation of the population, but for now data indicate a stable population with representation across year classes buffered by intermittent strong year classes.

Other Yellowstone River Fishing Opportunities - Caleb Bollman, Fisheries Biologist

Fall Fishing Near Sidney, MT

The Lower Yellowstone continues to provide exceptional angling opportunity for a variety of warm-water fish. Anglers can target game species including channel catfish, sauger, walleye, shovelnose sturgeon, smallmouth bass, and northern pike. Additional angling opportunities exists for goldeye, freshwater drum, and suckers or bow fishing for carp and buffalo. The natural hydrograph of the Yellowstone River influences when individual species are catchable, but there is opportunity throughout the open water season. After ice out in the spring (March) and before high water (June) from mountain snow melt anglers target walleye, sauger, and smallmouth bass. Water clarity determines the duration of the spring fishing window for these sight feeding species. Sauger are more abundant downstream of the mouth of the Powder River, but average size of individuals increases as you go upstream. The Yellowstone offers trophy potential for walleye with 10+ pound fish sampled regularly in the reach of river from Miles City to Hysham. Smallmouth bass are more abundant in the less turbid reach of river upstream of the Tongue River and 2014 fall

trend surveys found bass to be the second most abundant sport fish behind channel catfish sampled in the Forsyth and Hysham trend areas. May is an excellent month to target pre spawn shovelnose sturgeon.

On May 15th the Lower Yellowstone River paddlefish season kicks off. Consider a family camping/fishing trip to one of the Yellowstone River fishing access sites or wildlife management areas to catch numbers of catfish and shovelnose and participate in the paddlefish season. During the high water months of June and July channel catfish and shovelnose sturgeon pick up the slack.

Ryan Schmaltz's Paddlefish

Being less dependent on water clarity to sight feed channel catfish can be targeted with success almost anytime during the open water season. Channel catfish are the most abundant sport fish encountered in the Yellowstone River where 6 to 8 pound fish are common and 10 to 15 pound fish are observed in surveys regularly.

Worms, shrimp, and minnows can be used to catch smaller catfish while larger fish are best targeted using large chunks of fresh cut bait (goldeye, white sucker, and shorthead redhorse sucker). Goldeye will bite on live bait, soft plastics, and lures and can be entertaining using ultra light tackle or fly-fishing gear. Beginning in August anglers can again be found casting crankbaits, jigging, and trolling for sauger, walleye, and smallmouth bass.

Depending on water clarity the fall fishing window can extend until ice up usually occurring sometime in November. Late fall can be an excellent time for the serious fisherman targeting sauger and walleye. Consider using block management and fishing access guides to plan a cast and blast trip to region 7 on the Lower Yellowstone River.

Young Angler with Channel Catfish on Lower Yellowstone

Pallid Sturgeon in the Lower Yellowstone River Matt Rugg, Fisheries Biologist

Release of Gravid Female Pallid Sturgeon After Being Assessed in the Powder River

In early May 2014, near the confluence of the Yellowstone and Missouri Rivers, a female pallid sturgeon was netted by Montana Fish, Wildlife & Parks (FWP) fisheries crews. She was captured during an annual effort to find wild adult spawners that have not previously been used in the hatchery stocking program for this federally endangered species. This particular female was assessed, found to be carrying eggs, and released. We expected her to spawn within the next few months, but did not expect she would provide us with a unique and historic year for pallid sturgeon research on the Lower Yellowstone River.

Wild pallid sturgeon in the Yellowstone River typically reside in the stretch of river from Intake Diversion Dam, near Glendive, MT downstream to the confluence with the Missouri River. Historically, pallid sturgeon existed upstream of

Intake Diversion Dam, but only one wild adult had been captured by FWP in this reach since the dam was constructed in 1905. For the first time in recorded history, FWP personnel documented wild pallid sturgeon migrating upstream past Intake Diversion Dam. Flow, turbidity, and temperature conditions were just right to allow the upstream passage of five wild adults in 2014. The female that was previously caught near the confluence in early May, and four males all utilized a natural side-channel to bypass the diversion dam.

The female and two of the males continued their impressive upstream migration more than 75 miles beyond Intake Diversion Dam and entered the Powder River in early June. The female continued up the Powder River 20 miles where she was later recaptured to confirm that she was still carrying eggs. All three pallid sturgeon exited the Powder River on June 18th.

It was suspected that spawning had occurred in the Powder River, so FWP recaptured the female shortly after she left the Powder and entered the Yellowstone River. It was confirmed that she did indeed expel nearly four pounds of eggs. Larval sampling was conducted for seven days after the fish had left the Powder River in an attempt to verify that the eggs were fertilized, hatched, and initiated their downstream drift.

During this effort 153 free embryo and larvae were collected near the mouth of the Powder River. These tiny samples were sent to a laboratory where genetic tools can be used to identify them as either pallid sturgeon or shovelnose sturgeon, which cannot be done through visual inspection alone. The possibility of pallid sturgeon spawning above Intake Diversion Dam is important as this species requires a long drift distance in its larval life stage to ensure larvae settle out in riverine habitat before reaching a dead zone in the headwaters of Lake Sakakawea where they suffer mortality due to lack of dissolved oxygen.

Tongue River Reservoir-Caleb Bollman, Fisheries Biologist

Trend surveys in 2014 indicate average counts of both adult crappie and young-of-the-year crappie at Tongue River Reservoir. Anglers can anticipate working a bit harder to find crappie in 2015 than during the last couple years while crappie abundances have been well above historical average.

Tongue River Reservoir Marina Bay at Sunset

Abundances are still strong enough that when anglers get on schools catch rates should be very high. Walleye abundance has steadily increased since 2009 with survey catch rates well above historical average leading to fishing conditions that continue to satisfy anglers. Northern pike have been steadily increasing in both surveys and angler catches as this species is finding suitable habitat for natural reproduction and are capitalizing on the wealth of forage available in Tongue River Reservoir. Bass continue to offer additional angling opportunity on the reservoir and a tailrace trout fishery in the Tongue River below the dam offers quality angling for rainbow and brown trout.

Expect fishing in 2015 to bring slightly more difficult crappie fishing and better walleye fishing compared to the 2014 season. An angler fishing from the bank or in a boat is likely to catch a mixed bag as Tongue River Reservoir supports populations of black crappie, white crappie, walleye, smallmouth bass, largemouth bass, northern pike, channel catfish, pumpkinseed sunfish, and yellow perch.

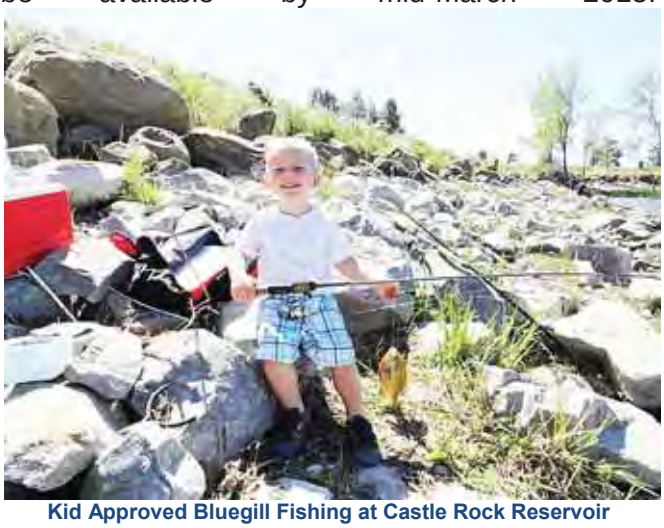
Southeastern Montana Pond - Kevin McKoy, Fisheries Biologist

Of the 100+ ponds managed for fish in region 7's pond program, most are privately owned. In exchange for fish stocking and management, landowners allow public access. Ponds are stocked with a variety of fish including bass, catfish, perch, and trout. About one third of the ponds in the program are sampled each year and

survey results are summarized in the Region 7 Pond Fishing Guide.

Kids Fishing Day at Colstrip, MT

Survey results in 2014 found 31 of 44 ponds sampled had fishable populations of target species. Three new ponds were added to the program in 2014. State hatcheries stocked 72 ponds in region 7 in 2014. The Pond Fishing Guide is updated annually and available free to the public by stopping by the Miles City office or by calling 406-234-0900, the 2015 guide should be available by mid-March 2015.



Kid Approved Bluegill Fishing at Castle Rock Reservoir

The pond guide provides maps of the ponds in the program arranged by county. Ownership and fishery information is also provided in the booklet, including private landowner names and survey results. Use the pond guide or call the Miles City office to get updated information on ponds that have recently experienced fish kills, or are reportedly fishing well. As with all private lands, permission is granted through the landowner and must be obtained each and every time before fishing. It is the responsibility of the fisherman to look up the landowner's phone number and request permission to fish. Pond anglers should have ample opportunity in 2015 based on positive survey results and improved water levels throughout much of region 7 during 2014.

AQUATIC INVASIVE SPECIES PROGRAM

AIS Overview – Linnaea Schroeer, AIS Liaison

FWP watercraft inspectors checking boats at Clearwater Junction on a busy summer day.

The FWP AIS Program started out the year by hosting the two-day 2014 AIS Summit, which was attended by 80 AIS partners and generated in-depth discussions about coordination, law enforcement, outreach and education, future needs, and much more. Immediately following the summit, we began preparing for the summer field season, including coordinating with our partners, facilitating funding, fixing, cleaning, and replacing equipment, and hiring and training 67 short-term workers to work at our watercraft inspection stations (WIS). In 2014, FWP operated 20 seasonally permanent WIS and roving crews across the state. These technicians inspected over 34,000 boats and educated thousands more over the course of the summer. Besides providing invaluable outreach, these inspectors also found 454 instances of fouled boats or illegal bait/fish, including 3 boats carrying invasive mussels, 21 cases of Eurasian watermilfoil, 16 curly-leaf pondweed, 182 boats or trailers with other types of vegetation on them, 93 boats with standing water, and 12 people illegally transporting live fish.

The high number of illegal live fish is very troubling to fisheries biologists and wardens, as the majority of the people who had these fish were

Montana residents and anglers. All anglers, resident or non-resident, should know the regulations for the waters they are fishing, but it is especially worrisome when long-time residents still don't know that it is illegal to transport live fish in the western and central fishing districts without a permit from FWP. Or, even more alarming, is the possibility that they know the laws but are breaking them in the hopes of transplanting fish in a waterbody that doesn't currently have those species. For a long time, people who move fish have been called "bucket biologists", but the term really doesn't describe the damage they are inflicting upon the ecology and uniqueness of the state's waters. Already, the aquatic ecosystems of over 250 different lakes and rivers have been permanently altered by more than 600 illegal introductions of fish into Montana's lakes, ponds, and streams. Many of these transplanted fish are otherwise prized game fish like northern pike, yellow perch, or walleye. However, when these fish are introduced into a waterbody where they don't belong, they can wreak havoc on the existing fishery, wiping out or seriously suppressing native fish assemblages and other desirable game fish.

Another challenge we are addressing is the drive-bys at our watercraft inspection stations, particularly by vehicles carrying or pulling non-motorized vessels. The station at Coram had 3,522 drive-bys over the course of the season, compared to 4,629 vehicles that did stop as required. That ratio was one of the highest in the state, but other stations also reported problematic levels. The increased presence of FWP or Tribal wardens helps tremendously with this, but it's not possible to have law enforcement at these stations all the time. We will also be employing more visible signs and will continue to use outreach to educate the public that all watercraft must stop each and every time.

Early detection and monitoring also continues to be a focus for the Montana AIS program. In 2014 we were able to hire an aquatic plant survey team in addition to our regular monitoring efforts. This team surveyed 27 different water bodies across the state and greatly added to our knowledge about the plant life in these waters. Multi-taxa monitoring was conducted at 460 unique sites on 187 different waterbodies for a total of 623 sites during 2014. Plankton samples continue to be processed at the Montana AIS Laboratory in Helena, along with samples from nine other states. This year, the lab has received 1,585 samples (all samples completed). Our lab continues to set the regional standard for work quality and short turn-around times.

No new populations of AIS were found by any surveying method by FWP or our monitoring partners in 2014, although several species of AIS that were found in previous years continue to pose significant problems. Still, the fact that no veligers or adults of zebra/quagga mussels for Asian clams have been detected this year or in previous years is definitely cause for celebration. Some important notes include:

- New Zealand mudsnails continue to persist at Darlington Ditch, Hauser Lake, Nelson's Spring Creek, Bluewater Creek, and on the Missouri River below Holter Dam.
- Eurasian watermilfoil continues to persist at Fort Peck Reservoir, Noxon Rapids Reservoir, Cabinet Gorge Reservoir, the Jefferson River, and the upper Missouri River.
- The Gallatin County Externsion Service located several concentration point locations of Eurasian watermilfoil on the extreme lower reaches of the Madison River while surveying for aquatic invasive plants (funded through a grant with DNRC). The infestations are concentration points located within highly braided areas that have seasonal connectivity with the Jefferson River, so it is not suprising that Eurasian watermilfoil was found at these sites.
- Curly-leaf pondweed remains in the Bitterroot River, Canyon Ferry Reservoir, Hauser Lake, Holter Lake, Ennis Lake, Hebgen Lake, the Missouri River, the Clark Fork River, and Post Creek.

The FWP AIS program also sadly said goodbye to Allison Begley, Program Coordinator, as she took a position as Avian Conservation Biologist with FWP. Thomas Boos, most recently with the Invasive Species Program at the Wisconsin Dept. of Natural Resources, was hired in November as the new Program Coordinator, and we are happy to have a full team again.

The FWP AIS management team would like to thank the public, our state legislators, and our partner agencies and stakeholder groups for their continued support of this program, and for their efforts to reduce the threats of AIS in Montana and across the region.

Tom Boos tboos@mt.gov
Jayden Duckworth jduckworth@mt.gov
Craig McLane cmclane@mt.gov
Stacy Schmidt sschmidt@mt.gov
Linnaea Schroeer lschroeer@mt.gov

Montana Fish, Wildlife & Parks

STATE HATCHERY LOCATIONS

STATE HATCHERY MAILING ADDRESSES

Big Spring Trout Hatchery
Route 1 Box 1670
Lewistown, MT 59457
(406) 538-5588

Bluewater Springs Trout Hatchery
PO Box 423
Bridger, MT 59014
(406) 668-7443

Flathead Lake Salmon /Rose Creek Hatchery
100 Spring Creek Road
Somers, MT 59932
(406) 857-3744

Fort Peck Hatchery
PO Box 167
Fort Peck, MT 59223
(406) 526-3689

Giant Springs Trout Hatchery
4801 Giant Springs Rd
Great Falls, MT 59405
(406) 452-5734

Jocko River Trout Hatchery
206 Hatchery Lane
Arlee, MT 59821
(406) 726-3344

Miles City Fish Hatchery
PO Box 756
Miles City, MT 59301
(406) 234-4753

Murray Springs Trout Hatchery
5435 Sophie Lake Road
Eureka, MT 59917
(406) 889-3489

Sekokini Springs Fish Hatchery Research Facility
490 North Meridian Rd
Kalispell, MT 59901
(406) 871-4519

Washoe Park Trout Hatchery
600 W Pennsylvania St
Anaconda, MT 59711
(406) 563-2531

Yellowstone River Trout Hatchery
PO Box 508
Big Timber, MT 59011
(406) 932-4434

MURRAY SPRINGS TROUT HATCHERY

Team article by Jason Nachtmann, Hatchery Manager; John Lord, Fish Culturist; & Christina James, Fish Culturist

Murray Springs Trout Hatchery Under a Double Rainbow

The Murray Springs Trout Hatchery (MSTH) was built by the US Army Corps of Engineers in 1978 to mitigate for the fishery losses that occurred when Koocanusa Reservoir was created as a result of the construction of Libby Dam. The facility is owned and funded by the US Army Corps of Engineers, and managed by Montana Fish, Wildlife & Parks (FWP). The hatchery staff consists of three permanent employees, and one seasonal employee.

The MSTH maintains the State's Redband Rainbow Trout and Gerrard Rainbow Trout broodstocks, and also produces fry, fingerling, and catchable size redband and gerrard rainbow trout, and westslope cutthroat trout for stocking across northwestern Montana. During the 2014 stocking season, the fish raised at Murray Springs were stocked into 60 bodies of water including Koocanusa Reservoir, remote backcountry lakes, lower-elevation lakes, and family fishing ponds. The number of trout stocked out this year was: 75,835 westslope cutthroat, 51,718 redband rainbow, and 45,089 gerrard rainbow trout.

Due to an incredibly cold winter and sudden cold snap in the fall, we had the unique experience of starting and ending the 2014 stocking season by planting fish through the ice into various lakes. Fish are stocked using distribution trucks, buckets and backpacks, and with helicopters.

Loading Fish onto Helicopter for Stocking

This year was the first time in the history that two broodstocks were maintained and spawned at the hatchery. The redband rainbow trout is Montana's only native rainbow trout, and may possibly only inhabit 40% of their historical habitat in Montana. FWP goals are to conserve and protect wild redband trout, maintain genetic diversity, and provide recreational fishing opportunities.

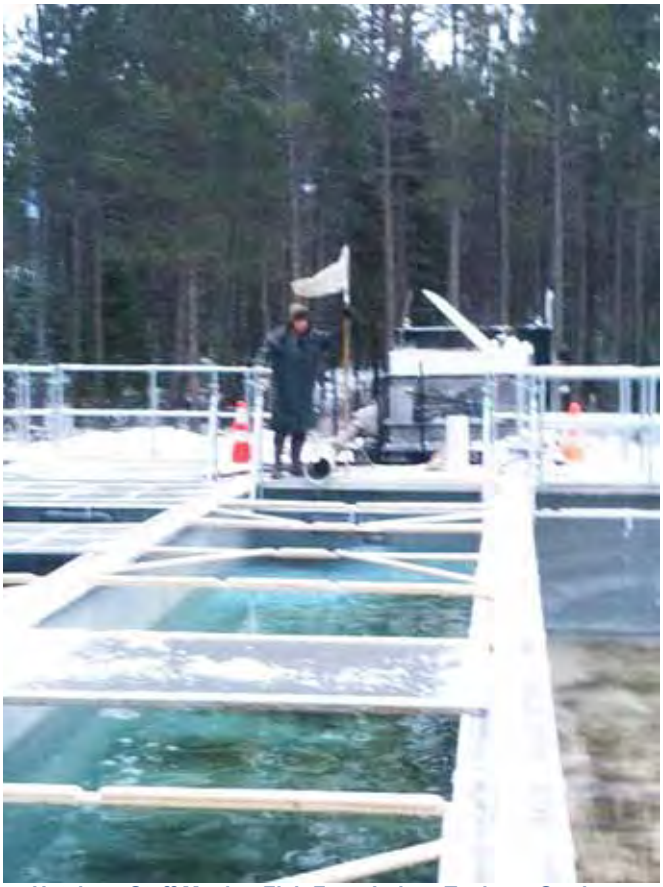
The gerrard rainbow trout originated in Kootenay Lake, in British Columbia. They are a late maturing rainbow trout, are long lived, and known for achieving large trophy sizes. The current State of Montana record for the largest rainbow trout was actually raised at MSTH and when caught in the Kootenai River weighed 33.1 pounds, and was 38.62 inches long. MFWP goals are to create a successful gerrard rainbow trout fishery in Koocanusa Reservoir, and provide additional recreational fishing opportunities in other closed basin lakes.

Breaking the Ice for Fish Stocking

In 2014, the first half of the year hatchery staff spawned fish every other week. Our spawning season started in the beginning of January and ran until the end of June. We spawned the gerrards from January until the middle of March. After a one week break, we began spawning the redbands until the end of June. In total, we collected eggs during 15 spawning events. Temperatures during the spawning season dipped down to -22 degrees Fahrenheit, and the staff were grateful for their mid-weight capilene and fleece lined outerwear.

Local Elementary Students Stocking Fish at Dry Bridge Slough

The hatchery staff actively engages in public outreach and environmental education events. This year the hatchery staff was assisted by local students with stocking fish into family fishing ponds. We performed fish dissection and fish identification tutorials for local elementary students, and provided hatchery tours to interested groups. In 2014, over 800 visitors toured the MSTH.



Hatchery Staff Moving Fish From Indoor Tanks to Outdoor Raceways

Phase One of Raceway Remodel Project (Before)

In 2014, there were numerous improvement projects at the MSTH. Phase One of a raceway remodeling project was completed that will reduce the energy demand of the facility, allow for better utilization and conservation of water, and provide a more sustainable environment for rearing fish. Two drainage lines associated with the hatcheries

isolation building were refinished and buried underground. The main hatchery building was repainted, and a new front door and garage door were installed to reduce heating costs.

The hatchery staff has also been adapting and improving their fish husbandry techniques and procedures, and making other changes to increase the efficiency and overall product of the hatchery.

- To promote the survival of fish through all life stages new feeding
- methods and rearing techniques are being used.
- To mimic a more natural rearing environment, prevent water upwelling in the rearing units, increase aeration, and eliminate the possibility of water loss in the indoor tanks new water inflow devices were constructed and installed in rearing tanks.

Phase One of Raceway Remodel Project (During)

Phase One of Raceway Remodel Project (After)

- To strengthen the bio-security program and reduce the risk of potentially transmitting wild fish pathogens to captive stocks new informational signs, disinfectant footbaths, and hand sanitizer units have been put-in-place at critical control points. A disinfection station was also constructed and installed in the indoor tank room.
- To prevent a catastrophic fish loss in the event of an electrical power failure a supplemental oxygen system was installed in the brood ponds.
- To reduce avian predation of fish new screens were framed and placed over outdoor raceways.
- To provide a safer and ergonomically friendly working environment various work areas were cleaned and reorganized.
- To improve our data and information management, and provide for more efficient retrieval and analysis new written and electronic tracking methods are being used.

Murray Springs Trout Hatchery is open to the public seven days a week from 8:30am to 3:30pm. People are encouraged to come out to the hatchery to learn more about the hatchery program. The hatchery staff is generally available to provide tours to visitors during the normal visiting hours, but to schedule a guided tour of the hatchery please call (406) 889-3489.

Come on up to Eureka, MT and check out the hatchery, and don't forget to also check out some

of the great fishing spots that northwest Montana has to offer!

FLATHEAD LAKE SALMON HATCHERY & ROSE CREEK SATELLITE FACILITY

Mark Kornick, Hatchery Manager

The staff of 2 full time employees oversees the two hatcheries in the Flathead Valley and provides educational tours to interested groups. Montana Fish Wildlife & Parks Hatcheries, not unlike for-profit businesses, benefit from good record keeping. Some of the records we keep of course are procedural such as tracking costs to balance the books to responsibly follow budgets. Other records we may keep include feed use, fish growth, and population size. This information can be useful to establish standard methods and techniques to meet stocking requests from regional fisheries biologists. For example, the food, hatchery space, and water required for 400,000 three-inch kokanee requested for July 2014 from eggs available in November of 2013 can be accurately predicted.

Kokanee Eggs

Good record keeping and data analysis can result in some remarkable findings too. While analyzing the feed efficiency, known as feed conversion, in some kokanee this past year at Rose Creek Hatchery, we saw what appears to be a significant jump in feed conversion from a group of fish that had had the benefit of some experimental overhead cover. The covers were placed in the hopes that it would reduce the stress response that visitors and hatchery workers can elicit simply by walking by their troughs. The feed amounts versus weights of stocked fish showed a better conversion of fish feed to body mass than similarly fed uncovered fish! Without good records, that correlation would not be possible. I will try to reproduce that result in 2015 to the benefit of the fish and Montana salmon fishing.

My records for 2014 indicate that FLSH/RCH staff stocked 1.7 million salmon, 141,000 Westslope Cutthroat Trout, 30,000 Ashley Lake Rainbow x Cutthroat hybrids, and 110,000 Arctic grayling. The hatchery also provided 800,000 kokanee eggs to two other western states. Total egg numbers spawned from Lake Mary Ronan kokanee exceeded 3.5 million.

The Flathead Lake and Rose Creek hatchery staff annually spawn wild grayling from Rogers Lake west of Kalispell, the hybrid Rainbow/Cutthroat from Ashley Lake also west of Kalispell and most notably, kokanee from Lake Mary Ronan nestled between Polson and Lakeside, MT. These wild spawning events are quite the fascinating operations…

The grayling in Rogers Lake spawn in late April/early May. These beautiful fish pack themselves into a small stream feeding the lake in astounding numbers. The mating ritual is briefly interrupted by staff bearing dip nets for a few short moments.

Crew spawing kokanee on Lake Mary Ronan

Grayling stocking requests only require a few scoops with the nets and are then left to do their thing. Relatively few fish are needed in the case

of grayling due to the high number of eggs in one female and their egg size is very small compared to other ***salmonids***. A single 2-pound ***gravid*** female can offer up as many as 7000 eggs! That is over 20 times the number of eggs that a typical kokanee offers.

Kokanee spawning occurs in the fall. The Lake Mary Ronan kokanee begin ripening the first week of October and compared to the grayling operation is quite complex and rigorous. Dip nets are used. They are dipped from a trap system that requires at least a day's installation alone. The trap is basically a floating 8 feet by 8 feet by six feet ***box*** of netting that has a door in ***with no way out***. The fish are directed into the trap by a ***wall*** of floating net that extends out from shore two hundred feet. At the trap's entrance, there are blind alleys that re-direct fish that did not find the door the first time. It is a very efficient system. The work begins as the fish are loaded into a basket and sorted while spawning ripe individuals; fish not quite ***ripe*** are returned alive to the lake along with the ***stripped,*** spawned fish. A team of three or four kokanee wranglers handle up to **sixty thousand** fish over the course of a month to meet egg commitments. Kokanee from Lake Mary Ronan average 200 eggs per female and with annual requests exceeding three million, it is tedious but rewarding work in typically and thankfully, pleasant October Western Montana weather.

Ashley Lake Rainbow/Cutthroat hybrid spawning occurs in late April and May coinciding with the grayling spawn. It too, involves a trap but these beauties offer many more eggs, and with only 30,000 eggs needed a couple dozen willing parents is all that is required. The Ashley hybrid fish are a highly valued, unique group that never leaves the immediate Ashley Lake vicinity as they are reared in partnership with a private individual on the lake itself.

Mark and Brad of Flathead Lake Salmon and Rose Creek Hatcheries employ pickup and heavy trucks, along with several hours of a MT FWP helicopter to distribute kokanee, cutthroat, and grayling to sixty or more Montana lakes. We also gladly offer educational tours and workshops to school groups when requested.

JOCKO RIVER TROUT HATCHERY

Stephanie Espinoza, Fish Culturist

Greetings from the Jocko River Trout Hatchery crew! The three full time employees have been very busy this year producing and raising beautiful Arlee Rainbows to stock into the many gorgeous lakes, ponds and reservoirs all over the great state of Montana.

The Jocko River Trout Hatchery was purchased by the State of Montana in the early 1950's and has been operated by Montana Fish Wildlife & Parks since then. This hatchery is both a brood facility and a production hatchery. We manage and maintain a captive, domesticated brood stock that spawns annually from which we collect over 6 million eggs. Most of these eggs, about 5.5 million, are shipped to other state hatcheries for raising to stocking length. We keep over 300,000 eggs for our own production needs. Most of the fish we stock leave the hatchery at fingerling size, about 5 to 6 inches. We also have a substantial catchable size (7-12 inches) program of about 30,000 fish annually and we stock our retired brood fish after spawning season primarily for urban fisheries. We stock bodies of water that are located mostly in the northwest part of the state.

Spawning Season at JRTH

Our spawning season begins the second week of October. This year we started spawning on October 7th. We do a total of seven spawning events or egg takes. A typical spawning week goes something like this… Monday, we go through 400 four year old females and 650 three year old females to check for ripeness. To do this we net 15-30 females and put them in a tub full of water that has been dosed with a fish anesthetic. Our fish are very large, our three year olds average around 6 pounds per female and our four years olds weigh around 12 pounds, so the anesthesia is very necessary. When the fish are nice and relaxed we pick them up and put some pressure on their abdomen where the eggs are located, if eggs come out of the vent of the female that means the eggs are fully developed and the female is ready to release them. We take these "ripe" females and place them in a separate

raceway and put the “green” females back in their respective raceways. On Wednesday we do the actual spawning. Something unique about our hatchery is that we do a spawning technique called “air-needle spawning”. We take the ripe females that we sorted the previous Monday and put them again under anesthesia.

One fish culturist will hold the fish with the head elevated and the tail and vent pointed toward an egg collection pan. Another culturist takes the “air-needle”, which is a hypodermic needle attached to an oxygen bottle by a long hose, and inserts the needle into the fish right underneath the pectoral fin (chest fin) and pushes air into the fish at about 7 psi. This air creates pressure in the body cavity which forces the eggs out of the female very rapidly.

10,000 Eggs on Their Way to Bluewater Fish Hatchery

This type of spawning method is very efficient and minimizes stress on the eggs, the fish and the culturist’s hands. The eggs that are collected are artificially fertilized when a culturist takes three to six vials of milt that they collected earlier that day from the males and pool them together and pour them over the eggs along with some water to help activate the sperm. We spawn different age classes, the three year old females spawn with two year old males and four year old females spawn with three year old males to prevent inbreeding and maintain genetic diversity. We complete this entire process every two weeks until the end of December when we find and spawn every ripe female. During spawning off weeks we take care of eggs while they are developing and make large egg shipments to other hatcheries.

We also have a very well established triploidy program here at the JRTH. Most living things and our normal fish have chromosome pairs, they are diploid. When a fish has a triple set of chromosomes it is a triploid. To create triploidy in our fish we take the eggs, post fertilization, and put them into a commercial hydrostatic pressure chamber.

As the eggs are going through a certain stage of development, meiosis, we put about 9500 pounds of pressure on them which interrupts the cell division process and creates fish with triploid chromosomes. This process renders the fish sterile and therefore they cannot reproduce. This allows fisheries managers to be able to put these rainbows in more sensitive water bodies to prevent them from hybridizing with our native fish populations. We have consistently received 100% on our triploidy verification tests every year which are completed by the University of Washington.

Beginning of December begins another important phase of our operation: fry rearing. Our first batch of eggs begins hatching around mid-November and they start feeding around the beginning of December. This is a critical period where we determine how much space and feed these young fragile fish will need. You want the fish to be healthy and grow quickly but you do not want excess feed in the troughs that can be a source of bacteria and irritants to the fry.

We begin our planting/stocking season in January. We do a few plants through the ice in popular ice fishing ponds and really get moving in the spring when we complete most of our plants. This is when we will probably meet you out there getting your fishing on. We always appreciate the support and comments.

The hatchery is open to the public every day of the year from 8 am to 5 pm. We have many visitors throughout the year but in the spring and during spawning season is when we see the most people.

Swim Up Fry

We have many school groups come through from preschoolers to college age students. We really enjoy showing people firsthand what we do here and love the interest and curiosity it generates.

A Tour With the Local Arlee Highschoolers

Hatcheries are an incredibly important facet in fisheries management. Our Arlee Rainbow trout provide fishing opportunities in ponds and reservoirs where no active fishing existed before, this is especially important in urban ponds where the stocking provides easily accessible fishing for children. We also stock areas to maintain sports fishing where the demand for fishing is very high. Also, it can be said that fishing for these rainbows deflects fishing pressure from native and wild fish populations.

The rest of our year, late spring through the summer, is spent caring for the fish on site and on maintaining and working on projects to keep the 60 acres of grounds, the hatchery buildings and raceways, and the residences on the property in great condition.

We look forward to seeing you out enjoying our precious state waters or at the hatchery throwing some feed to our infamous Arlee Rainbow Trout.

WASHOE PARK TROUT HATCHERY

Angela Smith, Hatchery Manager

2014 was a bittersweet year at the Washoe Park Trout Hatchery in Anaconda. We had one of our most successful years in terms of stocking plenty of healthy westslope cutthroat trout and producing some of the best quality trout eggs ever! We did, however, lose our senior team member, Paul Suek, to retirement after 34 years with Fish, Wildlife & Parks (FWP) and 25 of those at the hatchery. We wish him well!

High Mountain Lake Westslope Cutthroat from the Hatchery at Two Inches

We had a busy stocking year, planting 140 water bodies with 230,000 fish, weighing in at over 16,000lbs. Of those total waters, 70 were high mountain lakes which were stocked primarily by helicopter (thanks to our own FWP pilots, Joe Rahn and Neil Cadwell), but also horseback, backpack, ATV and Jeep. To find real-time stocking information for your favorite waters, please visit:
http://fwp.mt.gov/fip/plants/plant_input.action
and search by water body or fish species.

Kids Tour in the Visitor Center

Some things at a fish hatchery change year to year, while other things become tradition. Particular traditions at Washoe Park include our public outreach program and commitment to being an educational resource to Montana's youth and to the thousands of visitors that tour our facility each year. In 2014, we continued our Hooked on Fishing Program with the entire Anaconda 4th grade class into its third year. This program is made possible because of the talents of FWP Comm-Ed staff Dave Hagengruber and Ryan Schmaltz and instructors Kathy Ketcham, and Matt Wilhelm. Another mainstay event the hatchery is involved with is our people with disabilities' and kid's fishing days which we put on annually in collaboration with the Anaconda Kiwanis Club. This event is held the second weekend in June and is only made possible by the hard work of volunteers and donations by local businesses. In addition to these organized evens, the hatchery is open to the public daily from 8am to 5pm, with extended hours in the spring and summer.

As much as we love our traditions at the hatchery, we have two exciting projects coming in 2015. The first of these is an update to the hatchery's interpretive center. Included in this update will be a large wall mural, painted by local wildlife artist, Roger Wyant, and will consist of local landmarks and natural structures that will enhance our wildlife displays.


Loading Fish for a Plant

In addition to the mural, we are updating and rearranging our displays in order to provide more comprehensive self-guided tours and staff guided group tours. So, if you come to visit the hatchery, please pardon the mess and we look forward to sharing our improvements with you soon!

The second major project at the hatchery in 2015 will be the construction of an isolation facility. This isolation facility will give the hatchery the ability to incubate and rear wild westslope cutthroat and arctic grayling eggs and fry for conservation projects without putting our highly-valuable brood stock at risk for disease. We are truly excited for this new challenge and look forward to increasing our involvement in restoration projects and conservation of these native species across their historical range.

If you have any questions about the hatchery, our stocking plan or any of our other programs please don't hesitate to call 406-563-2531 or email AngSmith@mt.gov for more information.

GIANT SPRINGS TROUT HATCHERY

Matt Wipf, Fish Culturist

Success is the prosperous accomplishments of one's goals.

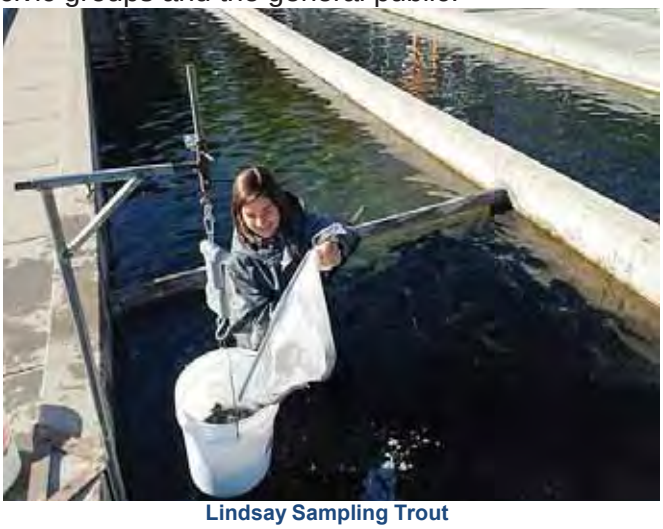
In 2014, the staff at Giant Springs State Fish Hatchery (SFH) was successful in filling all of our production goals and helping other hatcheries fill theirs. We raised and planted 541,463 Rainbow trout and 56,102 Brook trout this year. From the 541,463 Rainbow trout we stocked one river and 45 ponds and reservoirs. The 56,102 Brook trout were distributed into 6 reservoirs of those Georgetown Reservoir was allocated the bulk of the Brook trout.

Within the hatchery we replaced several small old troughs from our tank room for newer bigger troughs. Bottom line we can raise more fish or reduce densities throughout the hatchery during initial rearing!

Hatchery Stocking Truck

The hatchery staff traveled 15,821 miles in 2014 to distribute fish across Region 4 and a new plant in Region 1 (Foy Lake). We stocked 20,000 Rainbow trout into Foy Lake in early summer, taking over the planting reigns for Murray Springs SFH.

Previously most hatchery tours were conducted by FWP volunteers. However, we decided this year to start giving the tours ourselves to become more involved with our visitors. We gave tours to 900 visitors which encompassed school groups (K-12), civic groups and the general public.



Lindsay Sampling Trout

During the summer of 2014 we were lucky enough to get (share) a Hutton Scholarship Intern: Lindsay Martinez. Lindsay's internship was split amongst Region 4 fisheries biologist crew, Cutthroat biologist, Fish Health lab, and Giant Springs Hatchery. The Hutton program is a paid summer internship and mentoring program that is geared toward high school juniors and seniors, with funding provided by The American Fisheries Society.

At the close of 2014, Giant Springs Trout Hatchery is almost fully supplied with fish for the 2015 stocking season, so look for us as we come to a lake near you

FISH HEALTH LAB

Ken Staigmiller – Fish Health Coordinator and Amanda Bryson – Fish Health Technician

The fish health laboratory is located at the Giant Springs State Fish Hatchery in Great Falls, MT. The program consists of two full-time employees and is responsible for ensuring the health and welfare of all wild and hatchery fish in Montana. The program operates under the guiding principle that prevention is better than control and focuses a great deal of effort on protecting Montana's fish

from the introduction of a variety of harmful fish pathogens. Fish health certification inspections are conducted annually at 12 State Fish Hatchery and 10 Private Fish Hatcheries before fish are stocked out. Additionally, eggs and fish are collected from a number of wild populations either for use in the State hatchery system or for transplanting directly into other wild populations. Any time fish or eggs are transplanted from a population, that source is certified free of harmful fish pathogens. Last year the fish health program conducted fish health certification inspections at 35 different wild populations. Additionally, diagnostic examinations are conducted on both hatchery and wild fish when disease or abnormalities occur. The fish health program is also responsible for issuing import permits for all live fish and egg shipments that enter Montana so as to reduce the risk of importing harmful fish pathogens from out-of-state.

Several significant events occurred in the fish health program in 2014. In addition to our normal suite of hatchery and wild sampling, a drainage-wide survey was conducted on the lower Clark Fork River near the end of July. This survey is conducted about once every 5 years so that we can better monitor the risks associated with moving Bull trout into Montana from Idaho. In the fall of 2014, we detected the Infectious Hematopoetic Necrosis Virus (IHNv) in Kokanee salmon in the Kootenai River near Libby, MT. While the virus can be devastating to fish in hatcheries, impacts to wild populations are not as well understood. IHNv has been widespread in the Pacific Northwest for many years, but this is the first time it has been detected in wild fish in Montana. We are continuing to maintain the biosecurity of our hatchery system to prevent the introduction of the virus. We will conduct additional sampling on wild populations, to better understand the distribution and impacts to wild fish.

BIG SPRINGS TROUT HATCHERY

Mark Setzer, Fish Culturist

Big Springs Trout Hatchery raised 6 different strains of rainbow trout in 2014, as well as brown trout, kokanee salmon, and chinook salmon.

Big Springs stocked 496,927 rainbow trout, 79,773 brown trout, 482,887 kokanee salmon, and 46,366 chinook salmon fingerlings, of 2 to 7 inches, into various ponds and reservoirs throughout the state. The hatchery also produced 262,310 rainbow trout for Holter Lake and 259,029 rainbow trout for Canyon Ferry Reservoir from 7 to 8 inches, as well as 19,368 rainbow trout from 8 to 13 inches for urban type fisheries. This made a grand total of 1,646,660 fish stocked weighing 122,908 pounds.

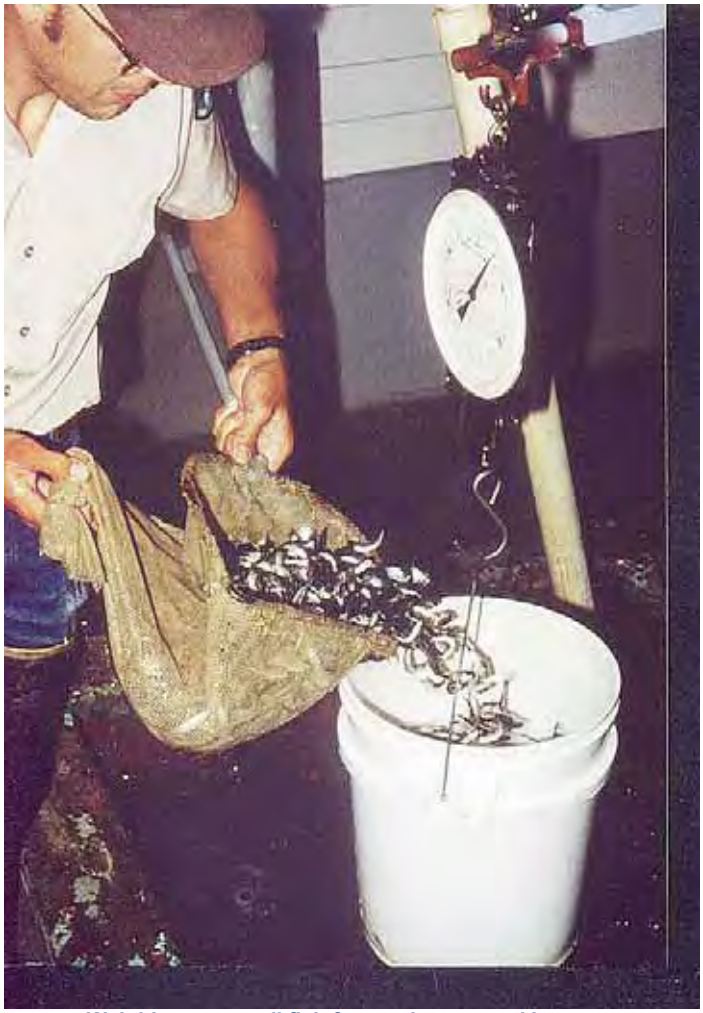
How We Get Our Fish Numbers

When we show people our raceways filled with fish, a common question we get is “how many fish are in that raceway?” Many may wonder how we actually get our fish numbers listed in the above paragraph or how we know how many fish we have in a raceway. Knowing how many fish we have in a raceway is important so we can feed the fish the proper amount and also so the fish do not get crowded, which can lead to disease. We don’t want to count every single fish because that would be stressful to the fish and time consuming for us. What we do is weigh out a small number of fish and count them. This is called a sample count and gives us the number of fish per pound. We then weigh all the fish in the raceway and multiply that number by the number of fish per pound to get the total number of fish in that raceway. For example, if we count 200 fish in a sample weighing 2 pounds, the number of fish per pound is 100 fish per pound. If the total weight of the fish in the raceway was 1,000 pounds, we multiply 1,000 pounds by 100 fish per pound to get 100,000 fish in that raceway. This method minimizes handling the fish which limits stress on the fish and allows us to get the information we need, a win-win.

As time passes, fish get bigger and we may move them into additional raceways. It all depends on the amount of space we have and how many other fish lots we have on station. It is sort of a juggling act, when one lot is big enough to be moved to other raceways or stocked, another lot is moved into the now vacant raceways. When we move fish into vacant raceways we use formulas that tell us how many fish at certain sizes can be placed in a single raceway for the optimum density when at stocking size. This allows us to put 2 inch fish into a raceway and to grow those fish for many months to a larger size while never

having to move them again. In a way, it allows us to plan months ahead so we don't have to bother the fish except for the occasional cleaning or walking by to feed. This lowers the stress caused by the hatchery setting and allows us to keep the fish "happy" and looking good for when they are stocked.

When we are preparing to load and stock fish, we always start out with a sample count measured in fish per pound. When doing the sample count, we can visually see the quality of fins, any size variation, and if the fish look healthy and well nourished. These characteristics allow us to see if we need to do anything different such as giving more space or a different type of food. Records from past fish lots allow us to track all of these variables and make changes for future lots of fish if needed. Each lake, reservoir, or river that we stock calls for a certain number of fish determined by the biologist.



Weighing out small fish for moving or stocking.

There are different methods of loading fish onto trucks to get the specific number we need and we look for the best way depending on size, species, and number required. One way, which is very accurate, is counting each fish into the tank.

This generally works only for larger fish and is best if we have a smaller number of fish limited in the hundreds. Another way, which is best used for smaller fish, is weighing the fish by bucket onto the truck. The final way uses displacement in our truck tanks. A fish has roughly the same density as water and we use this to our advantage. Our truck tanks have a sight glass tube that is calibrated with a ruler-type instrument measured in 50 or 100 pound increments.

Sight glass for determining total fish weight, each numbered line is 100 pounds.

This sight glass is plumbed into the hauling tank and rises or falls with the water level. So, in simple terms, when we add fish to the hauling tank, the fish's added volume makes the water rise within

the sight glass. We can use the total pounds on the truck multiplied by our sample count to get a total number of fish in the tank and therefore satisfy the quantity of fish required of the water body with reasonable accuracy.

As fish are loaded by net into the tank, the water level rises in the sight glass and we can see how much weight has been added.

And that is a short description of how we get our fish numbers at Big Springs. When visiting, if you see a worker, feel free to stop and ask us questions. And remember to make sure to bring your nickels for the feed machine to feed the display fish, some of them are quite big.

YELLOWSTONE RIVER TROUT HATCHERY

Chris Phillips, Fish Culturist

Yellowstone River Trout Hatchery had yet another prolific and eventful year during 2014. Spawning of the Goose Lake –Yellowstone Cutthroat broodstock began in late January and finished the first week of April. Over the course of 10 separate egg takes, the 3 and 4 year old brood produced slightly over 670,000 green eggs with an average eye-up of 82 %. The VI- tagging experiment we started in 2013 continued again this year as well. We are inserting a VI–Tag into the 3 yr-old holdover females in order to determine the "spawning time" of individual fish from one year to the next. Tag retention continues to be a challenge, but we are obtaining some valuable data and useful information that can be used in future broodstock management.

The annual Arctic grayling spawn at Axolotl Lake took place this year during the third week of May. We had fair success with 227,000 eggs collected from 178 pairs. The gametes collected from this broodstock are primarily used for re-establishing and expanding the Montana grayling population in the Upper Big Hole Watershed. The Axolotl eggs were transported to the isolation room here at the hatchery and incubated until eye-up. A majority of the eyed eggs were then transferred and placed into remote site incubators (RSI) located in tributaries and the main stem of the Big Hole River and the Madison River. A small number of grayling eggs remained at the hatchery and were reared until the fry stage. At that time, these fish were stocked into the Wise River near Grouse Creek.

On May 16th, for the third consecutive year, we assisted in spawning Arctic Grayling in Red Rock Creek located within the Red Rocks Wildlife Refuge. This is a cooperative effort between FWP and the USFWS. It was yet another successful year with a total of 12 family contributions spawned. A majority of the eggs remained on site and were placed directly into remote site incubators in Spring Creek and Elk Lake Creek. Another 10,000 eggs were transferred to the USFWS Bozeman Technology Center and the subsequent fish were utilized in various research projects.

2014 marked the tenth year since the hatchery had developed the Yellowstone Cutthroat Broodstock from Goose Lake located within the Absaroka - Beartooth Mountains. Periodically, the broodstock's genetic composition is maintained through genetic infusion with either the original genetic source or an adequate alternative wild source. This infusion of wild genes into the hatchery broodstock is conducted in order to retain the wild characteristics of this unique Montana native. In July, hatchery staff along with FWP Fish Health, captured and spawned 67 females from both the inlet and the outlet of the lake. 2500 of these fish will make up a future broodstock lot here at the hatchery which we will cross with our captive broodfish once they reach maturity at age three. The remaining Goose Lake fish were used to enhance restoration efforts that continue in Sage Creek located in the Pryor Mountains.

Goose Lake in the Absaroka – Beartooth Mountains in July 2014

Our high mountain lake stocking via helicopter took place twice during the month of July this year. A total of 23 lakes located within the Absaroka - Beartooth Mountains and 1 lake (Crazy Lake) in the Crazy Mountains were planted with 119,800 Yellowstone Cutthroat. Other Yellowstone Cutthroat fish plants conducted this year include: Hyalite Reservoir, Daily Lake, Laurel Pond, Lake Elmo and Ross Reservoir. We also had one 4-wheeler fish plant into Lake Abundance this year as well. We also were involved in setting up and testing a newly designed 4-section helicopter fish tank. This new tank along with a 2-section and a 8-section tank now provide the High Mountain Lakes Stocking Program a variety of options and flexibility in relation to high elevation fish stocking.

BLUEWATER SPRINGS TROUT HATCHERY

Dave Robertson, Hatchery Manager

In 2014, Bluewater Hatchery saw the completion of a major improvement to the hatchery with the covering and capture of Tillet Springs. This additional water source has provided improved water quality and volume available to the hatchery building, helping alleviate the production bottleneck we have there.

Hatchery staff installed six new rearing vats in the hatchery building, and we are now using that water to hatch all of our eggs and not having to worry about the silt problems we sometimes experienced with the water that came from the main Bluewater Spring.

Areal Picture of Bluewater Hatchery

Bluewater continued to provide fish for approximately 50 waters scattered throughout the southern portions of the state. The hatchery raises three different strains of rainbow trout including Arlee, Eagle Lake and Harrison Lake. These fish are stocked into reservoirs to maintain sport and urban fisheries.

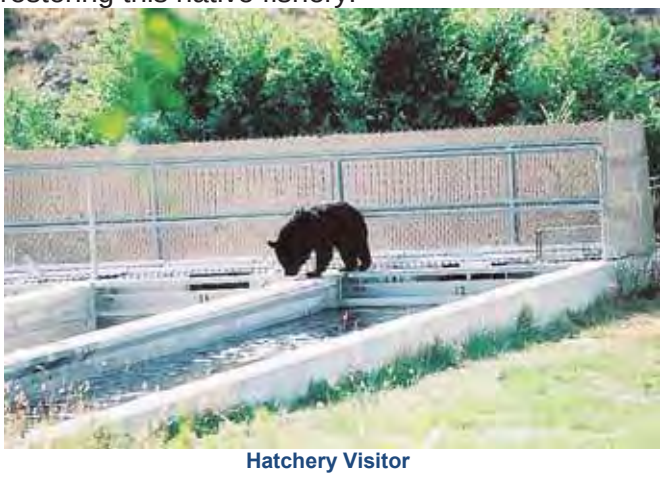
New rearing vats

Bluewater again raised Yellowstone Cutthroat Trout for sport fishery and for native fish re-introduction. The hatchery also over-winters the Large and Smallmouth Bass broodstock which arrive from the Miles City Fish Hatchery in September. Bass are maintained with rainbow trout forage throughout the winter until they are returned to Miles City Hatchery in April.

In 2014 Bluewater hatchery stocked 985,821 fish weighing 51,372 pounds and drove a total of 17,854 miles to deliver these fish to waters located in regions 2,3,4,5 and 7. The major waters include: Georgetown Lake, Hebgen Lake, Clark Canyon, Canyon Ferry and Cooney Reservoirs.

Weighing Rainbow Fry Out To Raceways

Approximately 310,634 fish weighing 2,438 pounds were produced to supply fish for bass forage. The hatchery supplied Yellowstone Cutthroat for a fifth year for Sage Creek located in the Prior Mountains south of Billings to aid in restoring this native fishery.



Hatchery Visitor

The hatchery continued to host several school and parks and recreation tours and many individual family visitors throughout the year. Please feel free to stop by and visit the fish hatchery. The hatchery is open to the public from 8:00-5:00 seven days a week.

FORT PECK FISH HATCHERY

Matt Baxter, Fish Culturist

The Fort Peck Multi-Species Fish Hatchery (FPFH) was built by the Army Corp of Engineers, and the facility is operated by Montana Fish, Wildlife & Parks (FWP). The hatchery went into production in January of 2006. Encompassing 100 acres of land, the hatchery is comprised of a 35,000 sq. ft. rearing/office building, 40 ponds totaling 45 surface acres, and eight 80 ft. raceways. The primary function of the FPFH is to provide fish for sport fishing and recreational opportunities to anglers in Northeastern Montana. Species raised at the FPFH include: walleye, northern pike, chinook salmon, and rainbow trout.

Walleye Spawning Operation on Fort Peck Reservoir

The primary species raised at FPFH is walleye. Our annual management request is for 60 million eggs. The spawning of walleye is done remotely by the Region 6 Fort Peck Reservoir Biologist, his staff, the FPFH staff, and many volunteers. Numbers of eggs collected is dependent on weather with some years exceeding the request and others falling short. In 2014, we collected a total of 62,696,416 eggs from Fort Peck Reservoir. Of these, 29,116,416 eggs were shipped to the Miles City State Fish Hatchery

(MCSFH). The remaining 33,580,000 eggs were brought and raised at the FPFH. After incubation, walleyes are either stocked as fry (3-5 days old), 1-2 inch fingerlings (approx. 30 days old), or as advanced fingerlings (>60 days). In 2014, FPFH stocked 7,183,331 fry, 1,274,174 fingerlings, and 15,524 advanced fingerlings into waters across Montana.

FPFH is also responsible for the production of triploid walleye for the state of Montana. Triploid walleye are fish that are incapable of producing viable eggs or milt. The triploid walleye are produced and raised to be stocked into waters where sauger populations are known to exist, and biologists do not want the two species to hybridize. In 2014, FPFH produced and raised 114,119 triploid walleye weighing a total of 323 lbs that were stocked into Big Horn/Yellowtail Reservoir.

The FPFH is also the source for the state's northern pike production. As a supplement to our walleye egg taking activities on Fort Peck Reservoir, northern pike eggs are also collected for production purposes. In 2014, 38 female northern pike were spawned producing 1,447,500 eggs. From the eggs, 686,000 fry and 15,666 fingerlings were stocked into 4 eastern Montana reservoirs.

Spawning Chinook Salmon

FPFH is the only instate source of chinook salmon eggs. Production goals are for 200,000 spring release fingerlings from FPFH, and the Big Springs Trout Hatchery is responsible for raising 50,000 spring or fall released salmon. In the spring of 2014, FPFH released 184,505 spring release chinook salmon into Fort Peck Reservoir. During the fall of 2014, the FPFH staff along with the Region 6 Fort Peck Reservoir biologist and his staff collected 335,000 plus eggs.

FPFH continues to raise rainbow trout for area ponds in Region 6, helicopter plants in Region 7, and as forage base for large and small mouth bass at the MCSFH. Production numbers will vary from year to year depending on management objectives. In 2014, FPFH stocked 91,758 fingerlings and 19,295 catchable rainbow trout into Region 6 ponds. FPFH supplied 85,161 fingerlings for helicopter plants and to supply of forage fish for MCSFH.

FWP Helicopter Used for Stocking Rainbow Trout in Region 6

New to the FPFH stocking program in 2014 was the use of the FWP helicopter to stock 66,000 two- inch rainbow trout into 33 ponds and reservoirs throughout north central and eastern Montana. Because so many of the fish stocking sites are off the main roads, we are very dependent on the weather to cooperate (rain, snow, mud, ice cover) to reach the stocking locations. Normally what takes the hatchery crew 20-30 days and over 1500 miles to accomplish with vehicles, was completed by helicopter in 2 days with a total flight time of 10.9 hrs.

In 2014, FPFH stocked a total of 9,553,846 fish weighing a total of 10,973.14 pounds of four different fish species: walleye, northern pike, chinook salmon and rainbow trout into 63 state and federal waters.

Our normal hours for our visitor's center are 7:00 am to 4:00 pm Monday thru Friday, and 8:00 am

to 5:00 pm Saturday, Sunday and Holiday's. Tours are given by appointment by calling 526-3689, and we ask for usually one to two days advance notice.

MILES CITY FISH HATCHERY

Mike Rhodes, Hatchery Manager

The Miles City Fish Hatchery is one of two warm/cool water fish hatcheries located in Montana. Its primary goal is the production of warm and cool water fish that are planted throughout the entire state.

Largemouth and smallmouth bass production was very successful this year. Due to a decrease in requests by area biologist less fish were planted. A total of 149,568 largemouth and 24,604 smallmouth were reared and planted from this hatchery.
No disease free Tiger Musky eggs were available this year. Therefore no fish of this species were produced. In preparation for the 2015 production season, an isolation building to rear Tiger Musky from out of state sources was erected and will be utilized this coming year.

Once again the department helicopter was utilized in distributing the Rainbow Trout for Region 7. A total of 75,700 fish were planted into fifty three different waters.

Future Tiger Musky Building Still Under Construction

Walleye eggs totaling 62,696,416 were collected from Fort Peck Reservoir MCSFH received 29,116,416 of those eggs, producing 8,600,000 fry, 1,216,434, fingerlings and 8,400 advanced fingerlings. All fingerling Walleye requests for this hatchery were met this year.

Sauger eggs were once again collected this year from the Bighorn River drainage in Wyoming. Region 5 biologist and Wyoming Game and Fish personnel collected 7,091,700 eggs. Egg quality continues to be an issue. A total of 176,202 fingerlings were produced from this year's efforts.

Pallid Sturgeon eggs were received from the Garrison Dam NFH. Fry survival continues to plague the production of this species. Very few fish were produced this year. Our efforts will continue.

MCFH produced a total of 10,215,766 fish totaling 2956 pounds. This consists of 6 different species planted into 103 different waters.

Young Anglers Enjoying Their Tour of the Hatchery

SEKOKINI SPRINGS HATCHERY

Scott Relyea, Hatchery Manager

This fall, we began implementing a fry health monitoring program at Sekokini Springs Hatchery that includes both gill and fin condition. Inspired by an article on monitoring gill health in *Hatchery International* (July/August 2014), we developed monthly protocols that will alert us to subtle declines in fry condition before they become an issue. The data also will be used to assess different rearing strategies and as a baseline for future reference.

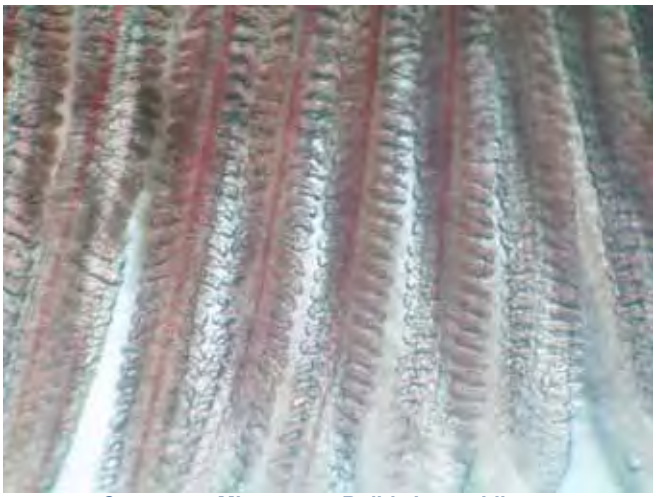
At the beginning of each month, three fry are randomly collected from the bottom third of each trough and are euthanized. A gill arch is removed from each fish and examined under 64X magnification with a compound microscope. The lamella are assessed for mucus production and cell proliferation (clubbing) and scored on a scale from 1 to 5.

Monitoring Gill and Fin Health

Fin erosion is quantified by dorsal fin and anal fin lengths to fork length ratios as well as caudal fin fork length. In addition, relative weights are calculated as a measure of overall fish condition.

Examining Specimen for the Presence of External Parasites

We will continue to develop and refine the protocols as well as our own skills in assessing fish health. One likely addition would be to scrape the vent of each fry sampled and examine the specimen for the presence of external parasites. Adding a camera to the microscope will allow us to digitize the images for computer-aided quantitation and build an image library to aid in future reference .



Camera on Microscope Builds Image Library

The health assessment and monthly inventory data will provide our hatchery with a powerful research tool for evaluating rearing practices. Our challenge is to finish developing and refining the protocols so data collection is standardized and continuity maintained. After all, sound experimental design requires repeatable measures of outcome. It is with this in mind that we ask for your help. If anyone has any ideas, please let us know.

Montana Fish, Wildlife & Parks

MONTANA FISH RECORDS

FISH	LENGTH (inches)	WEIGHT	GIRTH (inches)	SITE	ANGLER	DATE
Arctic Grayling	20	3.63 lbs.	11.7	Washtub Lake	Glenn Owens	6/28/03
Bigmouth Buffalo	40.7	57.75 lbs.	32.5	Nelson Reservoir	Craig D. Grassel	6/4/94
Black Bullhead	14.37	2.60 lbs.	11.5	Smiley Slough	Birrell White	6/20/09
Black Crappie	16.7	3.13 lbs.		Tongue River Reservoir	Al Elser	1973
Bluegill	11	2.64 lbs.	17	Peterson's Stock Dam	Brent Fladmo	6/3/83
Blue Sucker	32.56	11.56 lbs.	17.09	Milk River	Dean Armbrister	5/14/14
Brook Trout		9.06 lbs.		Lower Two Medicine Lake	John R. Cook	1940
Brown Trout		29 lbs.		Wade Lake	E.H. "Peck" Bacon	1966
Bull Trout (Dolly Varden)	37	25.63 lbs.	25		James Hyer	1916
Burbot	39	17.08 lbs.	16.25	Missouri River Wolf Point	Jeff Eugene Iwen	4/18/89
Channel Catfish	41.75	34.8 lbs	25	Fort Peck Reservoir	Dan Davenport	7/26/13
Chinook Salmon	38	31.13 lbs.	26.5	Fort Peck Reservoir Face of Dam	Carl L. Niles	10/2/91
Cisco	18.2	2.08 lbs.		Missouri River	Troy Holstein	6/2/14
Creek Chub	11.0	.52 lbs		Harbaugh Bass Pond	William Bibeau	5/12/13
Coho Salmon	25.5	4.88 lbs.		Fort Peck Reservoir Face of Dam	Irven F. Stohl	5/29/73
Common Carp	38	40.2 lbs.	30.5	Nelson Reservoir	Jared S. Albus	5/24/98
Cutthroat Trout		16 lbs.		Red Eagle Lake	Wm. D. Sands	1955
Emerald Shiner	3.43	0.01 lbs.		Park Grove Bridge	Ike Braaten	6/9/06
Flathead Chub	11.2	0.59 lbs.		Thornton Pond	Douglas Jordan	4/29/01
Freshwater Drum	29.5	21.59 lbs.	26.5	Fort Peck – Ghost Coulee	Matt Washut	5/3/03
Golden Trout	23.5	5.43 lbs.	13	Cave Lake	Mike Malixi	7/16/00
Goldeye		3.18 lbs.		Nelson Reservoir	Don Nevrivy	7/4/00
Green Sunfish	9.0	0.84 lbs.	9.87	Hickson's Pond	Bette Schmieding	5/25/09
Kokanee Salmon	26. 8	7.85 lbs		Hauser Lake	John Bomar	9/23/03
Lake Chub	3.9	.02 lbs.		Teton River	Joe Hagengruber	8/22/10
Lake Trout	42.5	42.69 lbs.	31.5	Flathead Lake	Ruth Barber	6/23/04
Lake Whitefish	27	10.46 lbs.		Flathead Lake	Swan McDonald V	8/26/06
Largemouth Bass	22.5	8.80 lbs.		Noxon Rapids Reservoir	Darin Williams	5/2/09
Largescale Sucker	23.1	6.16 lbs.	14.8	Woodland Pond	Kevin Fraley	6/27/08

FISH	LENGTH (inches)	WEIGHT	GIRTH (inches)	SITE	ANGLER	DATE
Longnose Sucker		3.27 lbs.		Marias River Loma	Ray Quigley	5/8/88
Mottled Sculpin		0.05 lbs.		Belt Creek (North of Neihart MT)	Brad Sullivan	7/30/01
Mountain Sucker	6.2	1.60 oz.		Beaver Creek Reservoir	Robert Garwood	4/23/01
Mountain Whitefish	23	5.11 lbs.	12.5	Hauser Reservoir	Walt Goodman	10/10/07
Northern Pikeminnow	27.125	7.88 lbs.		Noxon Rapids Reservoir	Darrel Torgrimson	5/28/91
Northern Pike		37.5 lbs.		Tongue River Reservoir	Lance Moyer	1972
Paddlefish	77	142.5 lbs.	41.75	Missouri River Near Kipp Park	Larry Branstetter	5/20/73
Pallid Sturgeon		60 lbs.	27.5	Yellowstone River Near Sidney	Gene Sattler	5/13/79
Peamouth	16.125	1.52 lbs		Clark Fork River	Mike Jensen	7/29/07
Pumpkinseed	9.5	0.96 lbs.		Upper Thompson Lake	Nathan Bache	7/30/06
Pygmy Whitefish	9.84	0.36 lbs.	6.3	Little Bitterroot Lake	Richard Geldrich	2/13/10
Rainbow Trout	38.62	33.1 lbs.	27	Kootenai River David Thompson Brdg	Jack G. Housel, Jr.	8/11/97
Rainbow-Cutthroat Hybrid Trout	35.75	30.25 lbs.	27.5	Ashley Lake	Pat Kelley	5/16/82
Redside Shiner	6.5	0.10 lbs.	3.75	Lost Lake	Josh Ahles	8/21/01
River Carpsucker	24	6.95 lbs.	16.5	Fort Peck Reservoir	Brady Miller	8/15/08
Rock Bass	10.8	1.31 lbs.		Lower Crazy Head Springs Pond	Karson Campbell	4/26/14
Sauger	28.2	8.805 lbs.	15.1	Fort Peck Reservoir	Gene Moore	12/12/94
Saugeye		15.66 lbs.		Fort Peck Reservoir Squaw Creek	Myron Kibler	1/11/95
Shorthead Redhorse	20.25	4.68 lbs.		Marias River Near Loma	Ray Quigley	4/14/85
Shortnose Gar	35	7.41 lbs.		Fort Peck Dredge Cuts	Brandon Hansard	5/16/13
Shovelnose Sturgeon	39.75	14.125 lbs.		Missouri River	Chad Buck	5/21/10
Smallmouth Bass	22.5	6.7 lbs.	16.5	Fort Peck Reservoir	Melvin McDanold	8/30/13
Smallmouth Buffalo	38	38 lbs.	29.25	Nelson Reservoir	Brady Miller	4/28/07
Spottail Shiner	3.0	.02 lbs.		Tiber Reservoir	Joe Hagengruber	8/14/10
Stonecat	10	0.54 lbs.		Milk River	Dale Bjerga	6/16/96
Tiger Muskellunge	50	38.75 lbs.		Deadmans Basin Reservoir	Leo Cantin	9/2/12
Tiger Trout	20.6	4.04 lbs.	12	Bear Lake	Joe Sobczak	2/9/97
Utah Chub		1.81 lbs.		Canyon Ferry Reservoir	Eugene Bastian	2/5/92
Walleye	35	17.75 lbs.	22	Tiber Reservoir	Robert Hart	11/18/07
White Bass	17	2.80 lbs.	12	Missouri River South of Bainville	Vernon Pacovsky	10/13/07

FISH	LENGTH (inches)	WEIGHT	GIRTH (inches)	SITE	ANGLER	DATE
White Crappie	18.5	3.68 lbs.		Tongue River	Gene Bassett	5/10/96
White Sturgeon	75	96 lbs.		Kootenai River	Herb Stout	1968
White Sucker	21.625	5.33 lbs.	12.75	Nelson Reservoir	Fred Perry	2/10/83
Yellow Bullhead	13.75	1.19 lbs.	7.75	Tongue River Reservoir	Jordan Van Haele	8/18/13
Yellow Perch	14.375	2.39 lbs.	12.1875	Lower Stillwater Lake	Josh Emmert	2/19/06

Montana's Fish Records

http://fwp.mt.gov/fishing/guide/records/

Fishing Montana's waters is enjoyed by many, but only a few anglers catch a record fish. Montana Fish, Wildlife, & Parks recognizes these anglers.

I caught a record-breaker! What now?

- **To prevent loss of weight, do not clean or freeze the fish. Keep the fish cool—preferably on ice.**
- **Take a picture of the fish.**
- **Weigh the fish on a certified scale (found in grocery or hardware stores, etc.), witnessed by an observer. Get an affidavit from the store if no FWP official is present. Measure the length.**
- **Contact the nearest FWP office to have the fish positively identified and to determine if it is a state record.**
- **Fill out the Fish Record Form and send it to:**

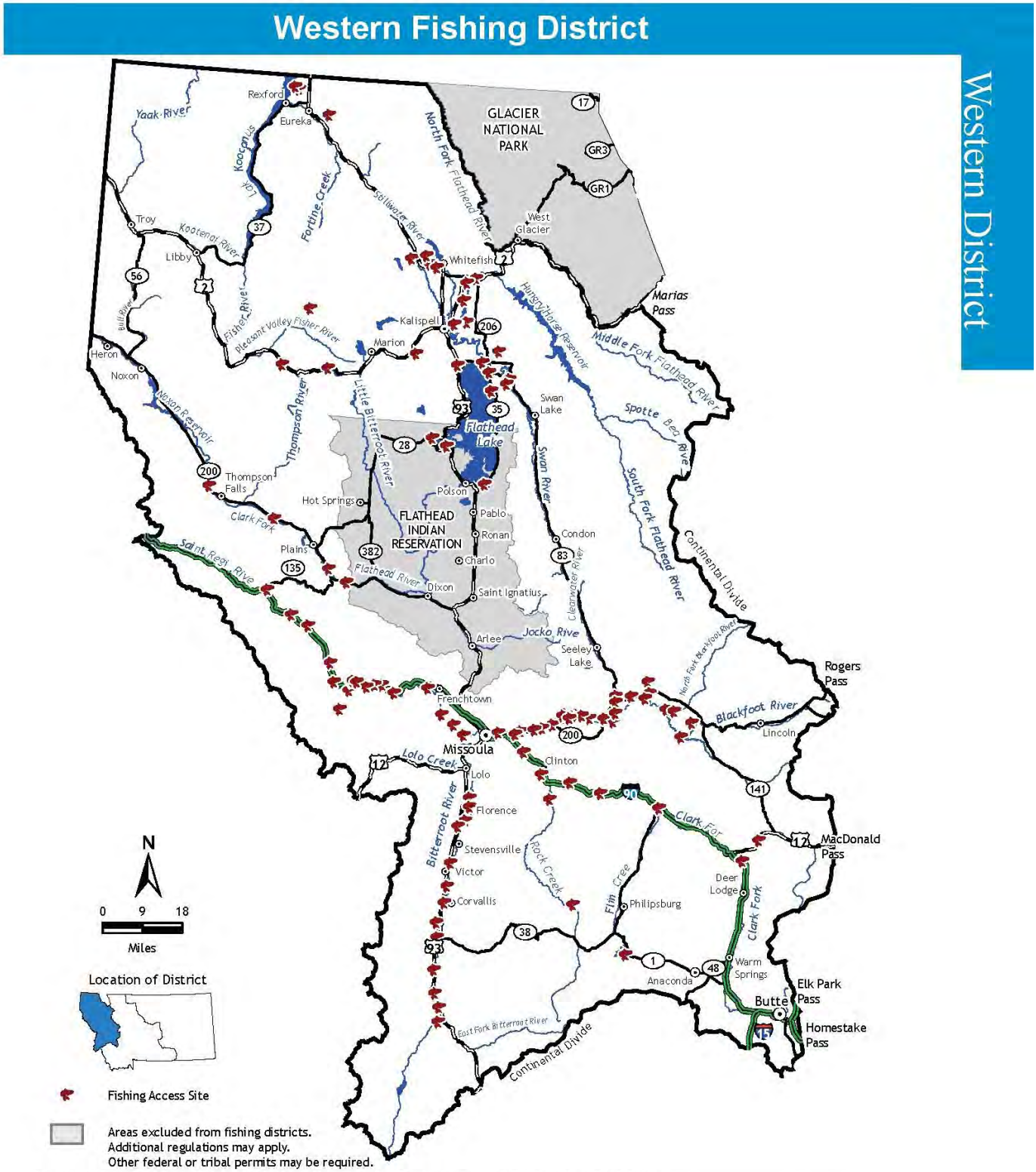
  Beth Giddings
  Fisheries Division
  (406) 444-7815
  Montana Fish, Wildlife & Parks
  PO Box 200701
  Helena, MT 59620-0701

Dean Armbrister's Record Blue Sucker

Karson Campbell's Record Rock Bass

Troy Holstein's Record Cisco

FAS – WEST



The Western Fishing District includes all waters in Montana west of the Continental Divide.

For additional information about fishing in this district, please call the following regional headquarters Monday-Friday 8:00 a.m. - 5:00 p.m.:

Kalispell 406-752-5501
Missoula 406-542-5500
TTY (Telephone Device for the Deaf).....406-444-1200

Region 1 FAS Coordinator – Tony Powell

A happy family celebrates a young angler's success at Pine Grove Pond Fishing Access Site

Over the last four years Pine Grove Pond Fishing Access Site has grown to one of the most popular in Montana. It was designed as a family fishing opportunity providing a safe and easily accessible site with good fishing. Due to its high popularity, more space was needed. The site has grown to include access to the Whitefish River and to accommodate additional parking needed at this popular site. Recent land donations and purchases have added over 10 acres to the site and opened up public access to over 1000 ft of Whitefish River shoreline. In 2013, the Whitefish Credit Union donated to Fish, Wildlife and Parks an additional 5 acres adjacent to the Whitefish River that opened up access to the river from the site. In 2014, FWP acquired an additional 4.6 acres that opened up even more public access to the Whitefish River and accommodated additional parking. Pine Grove Pond has been a community effort from its inception in 2010 when the Robin Street donated the site to FWP and the recent additions and improvements are no exception.

Early in 2014, The Flathead Land Trust identified the possible addition and started discussions with neighboring land owners that resulted in FWP purchasing of two parcels totaling 4.6 acres. Simultaneously, the Street Family Trust donated a third of an acre to expand the parking area. Robin Street and FWP then began a community effort to pave and improve the parking area and access road and develop a path around the pond. The Flathead Electric Coop, LHC Inc., and the city of Kalispell provided funding, materials and equipment time and working with the heavy equipment operations program at Flathead Valley Community to get the work done. Due the generosity of these groups, the work was completed quickly and inexpensively.

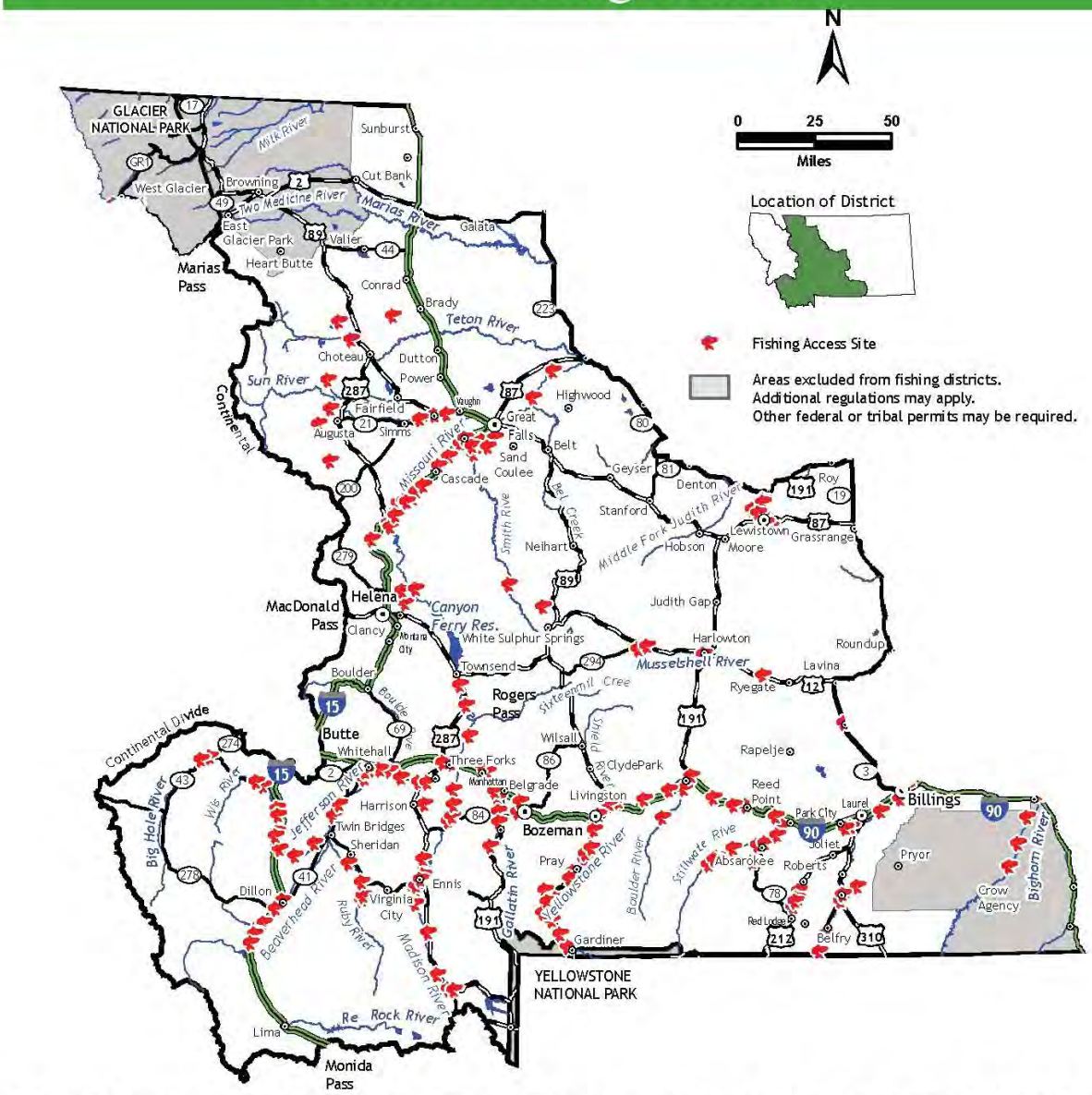
And that's not it! The FWP fishing access site staff is working on future plans to install fishing piers at the pond using funds donated by Bill Kamps and a grant from the Plum Creek Timber Company Foundation. In only five years, Pine Grove Pond Fishing Access Site has become one of the most popular sites in Region 1. None of this would be possible without the tremendous community support. Thank you Flathead Valley!

Pine Grove Pond Fishing Access Site

Montana Fish, Wildlife & Parks

FAS – CENTRAL

Central Fishing District



The Central Fishing District includes all waters in Montana east of the Continental Divide, (including the Belly and St. Mary's River drainages) and west of the following described boundary: Interstate 15 from the Montana-Canada border south to its junction with Hwy 2 at Shelby, then east on Hwy 2 to Chester, then south on Hwy 223 to State Hwy 80 at Fort Benton, then southeasterly along State Hwy 80 to its junction with State Hwy 81, then easterly on State Hwy 81 to its junction with U.S. Hwy 191, then northeasterly along U.S. Hwy 191 to its junction with State Hwy 19, then south on State Hwy 19 to its junction with U.S. Hwy 87 at Grassrange, then south on U.S. Hwy 87 to its junction with U.S. Hwy 12 at Roundup, then west on U.S. Hwy 12 to its junction with State Hwy 3 at Lavina, then south on State Hwy 3 to its junction with Interstate 90 at Billings, then easterly and southerly on Interstate 90 to the first crossing of the Little Bighorn River, then southerly along the west bank of the Little Bighorn River to the Montana-Wyoming border.

Note: Roadways that are used as boundaries between the Central and Eastern Fishing Districts are interpreted to be in the Central Fishing District.

For additional information regarding the boundaries in this fishing district, please call the following regional headquarters Monday-Friday 8:00 a.m. - 5:00 p.m.:

Billings.....406-247-2940
Bozeman.....406-994-4042
Butte Area Office.....406-494-1953
Great Falls.....406-454-5840
Helena Area Office.....406-495-3260
Lewistown Area Office.....406-538-4658
TTY (Telephone device for the deaf).....406-444-1200

Central District

Region 3 FAS Coordinator – Ray Heagney

It was again a busy summer in Region Three with the completion of several capital improvement and routine maintenance projects. Starting with Fairweather FAS, which received repairs to the boat ramp and parking area after sever icing a few years ago impacted the interior roadway and concrete ramp. Grey Cliff FAS also saw an upgrade the existing campground with a redesign and addition of the camping pads. Both of these projects were funded in part by PPL Montana.

Silver Bridge next to Powerhouse FAS

Work continues on Silver Bridge, which is next to the Powerhouse FAS. Montana Department of Transportation is revamping the bridge superstructure as well as removing and replacing old concrete support piers for the bridge. Work was to have been completed by December 1, 2014, several design flaws and planning delays have pushed the project into next summer. Work will again start July of 2015.

Collapsed culverts at Sheep Mountain FAS

We had two projects which required immediate attention. Both were to repair irrigation ditch crossings which provided access into our fishing access sites. At Sheep Mountain FAS two collapsed culverts underneath our access road were replaced with a new bridge. The second project was again the installation of new bridge at Eight Mile Ford FAS on the Madison River. As you can see the old bridge beams were in an advanced stage of deterioration.

Bridge Damage at Eight Mile Ford FAS on the Madison River

Region 3 River Recreation – Cheryl Morris, FAS River Manager and Andrew Puls, River Ranger

2014 was a busy year on the Madison River. The Region 3 River Recreation staff issued 190 Special Recreation Permits, a record number, to Madison River outfitters and other businesses.

Boat ramp at Greycliff FAS - 2014 improvements included widening and the addition of gravel

Similarly, the number of organized group and competitive event permits issued increased from

six in 2013 to 13 permits in 2014 with over 500 participants.

Greycliff Fishing Access Site

FWP completed work on large-scale improvements to Greycliff FAS, a heavily used site on the lower Madison River. The FAS's southern boat ramp was improved and graveled, as were internal roads. One internal road was closed and converted into a walk-in area. Six new campsites were added to the FAS and seven campsites were converted to pull-through designs suitable for campers. One latrine was relocated to serve the new campsites. Maintenance crews also removed tree hazards and will add picnic tables and fire rings in 2015. The nearly $53,000 project was funded by a River Fund Grant Award of $48,579.00, a $1,518.71 PPLM contribution, and an FWP contribution of $2,044.82.

Amid public comment concerning the large increase in recreational and commercial use of the Yellowstone River, FWP began conducting on-site user surveys in 2014. The goal of the surveys is to document the number and types of users both at FASs and on the river and gauge public perceptions about the recreation conditions. FWP will continue surveying Yellowstone River recreationists and commercial users in 2015.

Region 4 FAS

2014 was a year the FAS program faced many staffing challenges. Ray Swartz retired after 26 years service with FWP. He is now a full time "Grandpa" and loves his new job. We were very fortunate to have Duke Short jump right in the FAS Maintenance Foreman position. Duke has been with FWP for over 6 years and worked under Ray Swartz all those years. Duke will help keep R4 FAS program moving forward and bring a great deal of knowledge to the team. Welcome Duke! We have also hired Neal Parks, Lead Maintenance worker and Andrea Cumbee as our Missouri River Maintenance worker. We are officially fully staffed! First time ever!!

Also in 2014 we were awarded a grant from Missouri Madison River Corridor Fund. Our project will consist of repairing about 400 feet of steep road at Widow Coulee FAS in Choteau County. This will involve cutting the side slop down from 20% grade to about 12% grade, installing a bigger culvert, laying a proper gravel base and excavating the ditches to properly move the water runoff. Work should be completed by the end 2015.

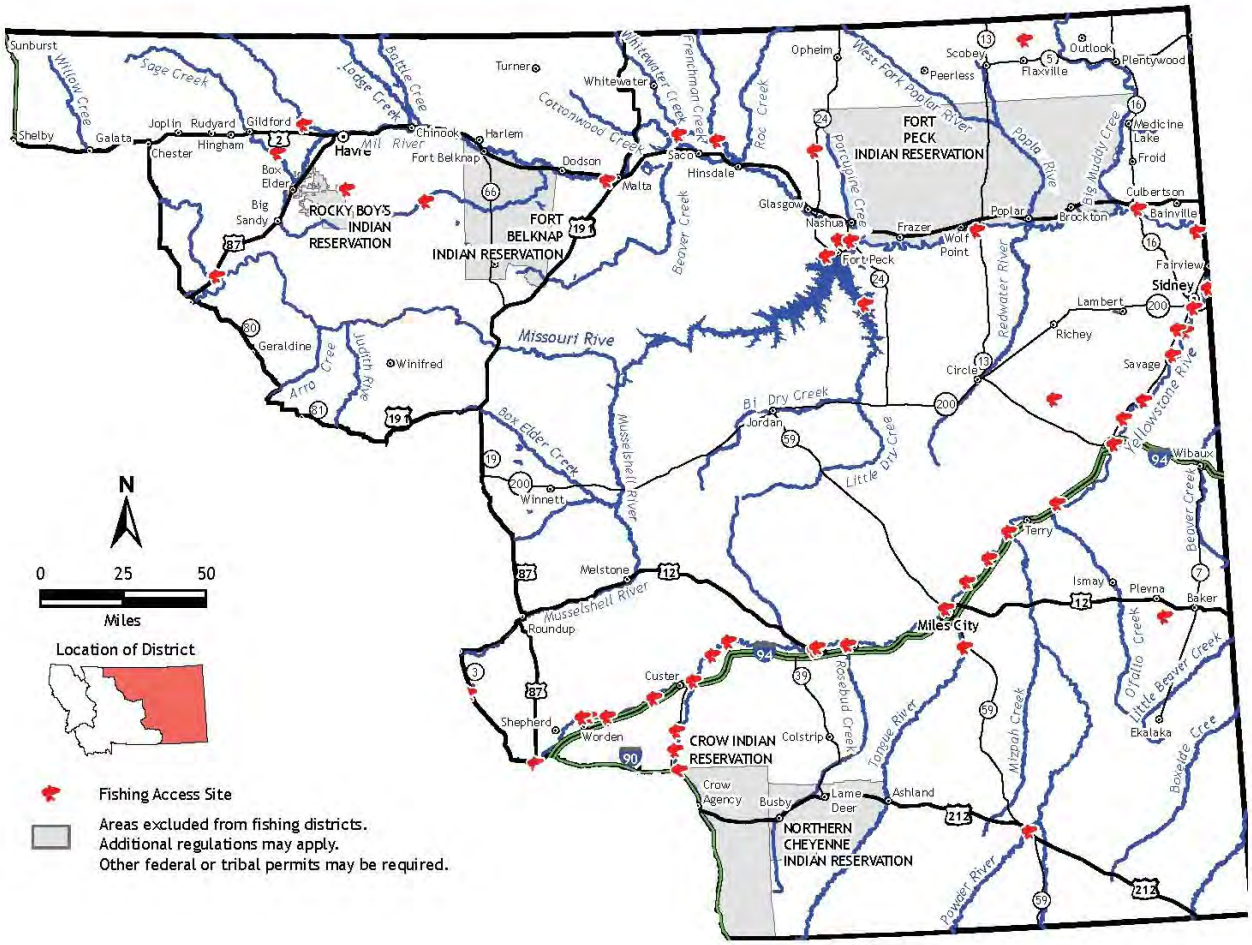
Widow Coulee Fishing Access Site

Our work this seasoned focused on the normal day to day tasks as well as catching up on some much needed repairs on docks, camping sites and cutting back brush. Next year will be much of the same. We will continue to keep our sites safe and in good condition for everyone to enjoy.

Montana Fish, Wildlife & Parks

FAS – EAST

Eastern Fishing District



The Eastern Fishing District includes all waters lying east of the Central Fishing District. For the boundary description, see Central Fishing District, page 25.

Note: Roadways that are used as boundaries between the Central and Eastern Fishing Districts are interpreted to be in the Central Fishing District.

For additional information regarding the boundaries of this district, please call the following regional headquarters Monday-Friday 8:00 am. - 5:00 pm.:

Billings **406-247-2940**
Glasgow **406-228-3700**
Great Falls **406-454-5840**
Havre Area Resource Office **406-265-6177**
Lewistown Area Office **406-538-4658**
Miles City **406-234-0900**
TTY (Telephone device for the deaf) **406-444-1200**

2015 Annual Fishing Newsletter

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1420 East 6th Ave
PO Box 200701
Helena, MT 59620-0701