2010 ANNUAL FISHING NEWSLETTER



TABLE OF CONTENTS

Introduction	1
Region 1 Northwest Montana	3
Region 2 West Central Montana	8
Region 3 Southwest Montana	14
Region 4 North Central Montana	16
Region 5 South Central Montana	27
Region 6 Northeast Montana	32
Region 7 Southeast Montana	36
Aquatic Nusiance Species Program	38
State of Montana Hatcheries	39
State Fish Art Contest	45
State Fish Records	46

INTRODUCTION

Anglers should be aware of the struggles and challenges that Fish, Wildlife & Parks (FWP) faces in their efforts to provide a diversity of fishing opportunities while at the same time protecting and conserving the native fish that occupy the same waters. Even more of a challenge is the fact that some native fish are also sought-after sport fish are also native. Perhaps the best known example of such a fish is the cutthroat trout. Populations of this species west of the divide are typically healthy enough to allow harvest in most lakes and streams; east of the divide the situation is more tenuous, and most stream and river populations are small or isolated and receive protection against harvest through catch-and-release fishing regulations. Other examples of native sport fish include shovelnose sturgeon, sauger, channel catfish, paddlefish, and bull trout. Paddlefish are perhaps the most fascinating of these species because these ancient cartilaginous (no bones) fish grow to advanced ages and very large sizes. Their large size makes them especially popular through snag fisheries in the lower Yellowstone River below Intake, the lower Missouri below Fort Peck Dam, and the mid-Missouri River above Fort Peck centered around the Fred Robinson Bridge. The challenge with allowing harvest of these fish is the fact that they number only in the tens of thousands and their year-class strength is extremely variable. This challenge is playing out right now in the case of the lower Yellowstone population. Most of the fish being harvested right now at Intake are males born during a few consecutive years in the mid-1990s; the females from these same year-classes are expected to start migrating upriver toward Intake in the next few years, and harvest of them will begin. The challenge for managers will be to allow recreational harvest of these fish at levels that will not impact the long-term viability and reproductive potential of the populations. Bull trout may be the most complicated of all these species to manage because they are also listed as threatened under the Endangered Species Act. Protection and recovery of this species is especially difficult in situations where they are threatened by predation from lake trout and northern pike, as is the case in the Flathead and Swan Lakes in northwest Montana. In spite of these difficulties, populations of bull trout remain strong and limited harvest is allowed in the Swan River drainage, Lake Koocanusa, and the South Fork Flathead River above Hungry Horse Dam. FWP will continue to try to balance angling opportunities for these and other native species, while working to ensure their long-term survival and recovery.



REGIONAL OFFICES

Headquarters

1420 E. 6th Avenue Helena, MT 59620 406-444-2449

Region 1

490 North Meridan Road Kalispell, MT 59901 406-752-5501

Region 2

3201 Spurgin Road Missoula, MT 59804 406-542-5500

<u>Region 3</u>

1400 South 19th Avenue Bozeman, MT 59717 406-994-4042

Region 4

4600 Giant Springs Road Great Falls, MT 59405 406-454-5840

<u>Region 5</u>

2300 Lake Elmo Drive Billings, MT 59105 406-247-2940

<u>Region 6</u>

Route 1 - 4210 Glasgow, MT 59230 406-228-3700

<u>Region 7</u>

Industrial Site West Miles City, MT 59301 406-234-0900

Butte Area Office

1820 Meadowlark Lane Butte, MT 59701 406-494-1953

Havre Area Office

2165 Hwy 2 East Havre, MT 59501 406-265-6177

Helena Area Office

930 Custer Avenue W. Helena, MT 59620 406-495-3260

Lewistown Area Office

215 W Aztec Drive Lewistown, MT 59457 406-538-4658

REGION 1 NORTHWEST MONTANA *Regional Overview - Jim Vashro*

We had an active public outreach in Region 1 during 2009. Members of Flathead Wildlife and the Flathead Valley Chapter of Trout Unlimited (TU) helped with repairing and improving several privately owned access sites in the Flathead. FWP also helped with sanitation and litter pickup at some other sites to ensure continued water access. A Boy Scout troop did trail improvements at the Old Steel Bridge Fishing Access Site(FAS) and several bass clubs helped build and install bass habitat structures in Echo Lake.

The Region hosted a weekend ice fishing workshop for Becoming an Outdoorswoman (BOW) at the Thompson Chain of Lakes and put on a BOW women's fly-fishing workshop that was so popular we had to hold another one. Fisheries personnel put on 4 Kids Fishing Days and assisted with 2 others to reach more than a thousand kids. One event, the Flathead Fishing Fair, has activities for both kids and adults and was attended by 650 people. Fisheries personnel also manned the popular Fisheries Management station at the Family Forestry Expo, reaching more than 1,200 5th graders and hundreds of adults with a handson look at fish, aquatic bugs and the habitat they depend on. The Hooked on Fishing Program is strong in northwest Montana with more than 1,200 4th graders in a year long program in the classroom and on the water. The Bull Trout

Education Program in Sanders County, funded by Avista Corporation, presents information on bull trout identification and biology to school and civic groups and at occasions like county fairs.

Anglers continue to find some nice fish in northwest Montana. In May, 2009 Darin Williams of Idaho was fishing in a Montana BASS Federation tournament on Noxon Rapids Reservoir when he landed a 22.5", 8.8 pound largemouth. Needless to say Darin got the big fish

Darin Williams record largemouth bass.

pot for the day and also got a new state record. Records tend to get beat by an ounce or two, this fish beat the previous record by 0.51 pounds! After weighing, the big bass was released to fight again. The Clark Fork drainage also produced for Birrell White who caught a 14.37", 2.6 pound black bullhead out of Smileys Slough for a new record.



Birrell White record black bullhead.

<u>Libby Fisheries Mitigation Project - Jim</u> <u>Dunnigan</u>

The Libby Fisheries Mitigation Project successfully removed a hybridized population of Yellowstone cutthroat trout (YCT) from Boulder Lake and Boulder Creek in the fall of 2009. The Boulder Creek watershed is located southwest of Eureka, drains into Lake Koocanusa and contains excellent habitat for westslope cutthroat trout (WCT) that are expected to be stocked in the lake

and creek in the summer of 2010. This project when complete will expand the occupied range of WCT upstream of Libby Dam by approximately 20%. This successful rotenone treatment represents the third such treatment the Libby Mitigation Project has implemented in the past three years. The Libby Mitigation Project also continued our successful track record of stream restoration projects in 2009. Riparian vegetation restoration was cooperatively implemented on sections of Grave and Therriault creeks: both of which are tributaries to the

Tobacco River near Eureka.

The Libby Mitigation Project also recently completed some cutting edge applied research. Through cooperation with Washington State University, we developed non-lethal genetic techniques to differentiate westslope cutthroat and coastal rainbow trout from redband trout. The redband trout is the only rainbow trout subspecies native to Montana. The Libby Mitigation Project also recently used a combination of tech-

niques including mark/recapture population estimates and genetic analyses on the Kootenai River downstream of Libby Dam to estimate that 49-64% of the adult bull trout captured during recent years have been entrained through Libby Dam. Libby Dam is not equipped with upstream fish passage so those bull trout are lost to the Lake Koocanusa/upper Kootenai fisherv. These findings may have important implications for the persistence of bull trout popula-

tions downstream of Libby Dam Thompson Falls dam and conceptual illustraif half the fish found are not due tion of f sh ladder. to natural reproduction.

Sanders County - Jon Hanson

PPL Montana owns Thompson Falls Dam which was constructed in 1913 and has blocked fish passage ever since. Beginning in 2001 Montana FWP and PPL Montana have been busy collecting fisheries and aquatic information on species distribution, abundance, and behavior of fish directly below and above the dam.

Much time was invested in fish tracking and trapping studies of westslope cutthroat, rainbow, and bull trout below Thompson Falls Dam. All three species showed upstream movements to the base of Thompson Falls Dam, along with large numbers of native large-scale suckers and northern peamouth. A limited number of fish that were passed and tracked over the dam migrated to various locations upstream, including Thompson River and as far away as the St. Regis River. Through examining the information collected on fish behavior, FWP and partners decided a

permanent fish ladder would be appropriate and determined the best location along the dam to construct one.

A Technical Advisory Committee was established to help guide efforts, consisting of FWP, PPL Montana, US Fish Wildlife Service (USFWS), Confederated Salish and Kootenai Tribes, Montana Department of Environmenal Quality (DEQ). and Avista Corporation. This core group of partners has lead efforts to construct the state's first

> permanent full height fish ladder. specifically designed to capture trout. Once installed, fish in the Clark Fork River upstream of Thompson Falls will have free access to 283 miles of the Clark Fork River, over 650 miles of mainstem migratory river corridors, and untold miles of tributary habitat.

> The permanent fish ladder is being constructed and is scheduled to be completed by fall of 2010. The ladder will let FWP biologists capture upstream migrating fish and then pass these fish above the dam, allowing them to return

to natal spawning habitats for the first time in 97 years. This translates into more fish reproducing and contributing to the Clark Fork River and tributaries above Thompson Falls. FWP hopes to see positive responses in fish numbers in places such as Thompson River, an already excellent rainbow and brown trout fishery. Thompson Falls Reservoir will also be inundated with unknown numbers of upstream migrating fish which FWP will continue to monitor for changes in fish abundance, distribution, and growth.

Two new FASs in Sanders County have recently come to fruition. The Kookoosint access site on the Lower Flathead River vastly improves facilities for anglers at this location. A latrine, signs, improved parking area and clearing the sight distance for highway ingress and egress were completed in 2009. This is a popular location for smallmouth bass and northern pike fishing and anglers now have more opportunities for fishing from shore and launching boats.



The other new access site in Sanders County is near the town of Paradise on the Clark Fork River. This site consists of 4.29 acres along with the added bonus of a no-cost lease on 8 acres of islands. This site, termed Pair-a-Dice, can be utilized as a take out location for floaters between Kookoosint access site and for fishermen floating the popular Clark Fork River section above the confluence with the Flathead. Floaters will also be able to put in here and float downstream to access spots near Plains. Improvements for this location are planned to be complete by summer 2010.



Kookoosint f shing access site.



Pair-a-Dice f shing access site.

<u>New Dam Operations Implemented at Hungry Horse and Libby Dams - Brian Marotz</u>

Sometimes patience and persistence pay off. After nearly two decades of effort, biological opinions by the USFWS (2006) and NOAA-Fisheries (2008) adopted new rules for dam operations at Hungry Horse and Libby dams. The "Montana Operations" implemented fully for the first time in 2009, include several sliding scales based on water availability. A revised flood control strategy (VARQ) reduces reservoir drawdown and improves refill, increasing reservoir productivity.



Hungry Horse Dam

Prior to the change, reservoirs were drafted 20 feet by the end of August each year to augment flows to speed the downstream emigration of juvenile anadromous fish in the lower Columbia River. The old strategy caused a harmful "double peak" in the Flathead and Kootenai rivers, repeatedly wetting, then dewatering the river beds as water was drafted during the second half of August for flow augmentation. Now, during the highest 80th percentile water-years, the Montana



Libby Dam

reservoirs will be drafted only 10 feet during summer, with little to no effect on salmon recovery. During the lowest 20th percentile drought years, the reservoirs can be drafted the full 20 feet, but dam discharges were stabilized and extended through September, and daily fluctuations were moderated by limiting the rate of flow change (ramping rates) to protect riverine health. Bull trout, and other riverine species including WCT, will benefit from stable, flat flows before and after the normalized spring freshet. Downstream of Libby Dam, the endangered Kootenai white sturgeon are receiving "tiered" springtime flows that are calculated annually based on water supply. Discharges are shaped to aid adult sturgeon spawning migrations and to create a gradually declining flow after the spring peak, during the critical egg incubation and early embryonic stages. Combined, these changes balance fisheries needs in the reservoirs and rivers with power generation. flood control and fish recovery actions in the lower Columbia River.

Mountain Whitefish - Amber Steed

That lovable, small-mouthed, big-scaled salmonid (yes, they are related to trout), known to us as the mountain whitefish, is gaining some respect in Montana. Or, at least, it's getting more attention than it has in the past. Widely distributed on both sides of the Continental Divide and throughout much of the Columbia River drainage, whitefish are found in the Missouri River drainage in Wyoming and Montana, and in the Saskatchewan

River drainage in Alberta, Canada. Lewis and Clark first observed the species in the upper Missouri during their expedition in the early 1800s, describing it as a "bottlenose" fish. A food source for many aquatic and terrestrial species, such as bull trout and osprey, the abundant whitefish serve critical roles in their local ecosystems. Although mountain whitefish (Prosopium williamsoni) are native to the Flathead River system (i.e., they evolved here), little is known about many aspects of their lives. For example, where do they spawn? What is the extent

of that spawning distribution in the Flathead? How is their survival and movement impacted by dam operations? How much do these fish move at different life stages, and what are the drivers of those movements? But perhaps most importantly, why should we care about any of these questions?

Compared to trout, mountain whitefish have enjoyed relatively little interest from the angling and professional fisheries communities throughout their range in Montana, including the Flathead system. Unlike their cousins the lake whitefish, which are not native to the area, mountain whitefish are not considered a target species by many fisher folk. However, interest in angling for mountain whitefish is growing and their status as "trash fish" is changing. For fisheries biologists and managers, mountain whitefish have become a species of greater interest as anecdotal reports of widespread declines are backed by limited data. Although presumed abundant, whitefish are a species sensitive to pollution and increased water temperatures so it may be a good indicator species. Without directed monitoring and research on suspected trends, little can be done to protect it.

Recognizing the limitations of existing data on mountain whitefish as well as its local importance, FWP has begun to take a closer look at the species within the Flathead system. In 2008, a radio telemetry study was initiated to track subadult movement and survival for the lifespan of

> the implanted tag, ranging from 163 to 441 days (about 5.4-14.7 months). This research was repeated in 2009 using predominantly longer-lived tags. Additionally, FWP will be investigating the distribution of whitefish spawning in the Flathead system, which is currently unknown. Analysis of genetic structure and adult movement are also planned for 2010. This information will be compared to Hungry Horse dam operations to assess effects, ultimately supplementing our understanding of and ability to protect this important native.



North Fork Flathead

<u>Kootenai River White Sturgeon in Montana</u> <u>- Ryan Sylvester</u>

The Kootenai River white sturgeon, *Acipenser transmontanus*, has existed for millions of years, spawning in the Kootenai River downstream from Kootenai Falls and moving down through Idaho into Kootenay Lake in British Columbia to mature before starting the cycle again. Sturgeon are slow growing long-lived fish that are at least 30 years old before they start spawning. The Montana

record 75", 96 pound sturgeon was caught in 1968. Libby Dam was closed in 1972 and the change in river flows basically stopped wild reproduction. The last sturgeon hatched before the dam closed are now maturing and dwindling in numbers. The Kootenai white sturgeon was listed as Endangered under the Endangered Species Act on September 6, 1994. Despite this listing in the mid 1990's, there is little recent information regarding the presence and abundance of white sturgeon in the Kootenai River in Montana other than

sporadic reports of anglers catching or seeing an occasional sturgeon. A multi-agency team is working on white sturgeon recovery. Habitat improvements and changes in flow releases from Libby Dam are being tested in an attempt to restore natural reproduction. In the meantime

a hatchery program has been ongoing to ensure the population doesn't blink out before natural reproduction can be restored. Since the mid 1990's, the Kootenai Tribe of Idaho has stocked approximately 160,000 juvenile white sturgeon (1-2 years old) and 2,000,000 free embryos (days old) in the Kootenai River to prevent extinction of the population. Large numbers of fish are needed because survival is expected to be very low. Approximately 10,000 of the juveniles and 200,000 of the free embryos were stocked in the Montana



White sturgeon #1, 1 mile upstream of Montana Idaho border.

2009, new monitoring efforts were initiated to obtain more information on the status of the white sturgeon population in Montana. Setlines (12 hooks each) were deployed during the summer of 2009 in a variety of habitats from Kootenai Falls to the Montana-Idaho border using worms and cut up fish as bait. The dominant fish species caught in the first season of sampling were northern pikeminnow and large-scale sucker, but other fish species caught included bull trout, rainbow

trout, cutthroat trout, peamouth, mountain whitefish, and two Kootenai River white sturgeon. The two white sturgeon captured in 2009 were the first by FWP staff since the late 1970's.

The first sturgeon captured was from the 1995 hatchery brood year at the Kootenai Tribe of Idaho hatchery in Bonners Ferry, Idaho and was released in 1997. The fish was uniquely identified with a passive integrated transponder (PIT) tag inserted into the muscle of the fish. The tags are the size of a grain of rice and

each have a unique number magnetically stored. The sturgeon was 14.8 inches long and 2 years old when it was released into the Kootenai River. This fish was recaptured 11 years later in 2008 by the Idaho Department of Fish and Game about 20 river miles downstream of Bonners Ferry

and was 28 inches long and weighed 3.5 pounds. In 2009, 44 miles upstream in Montana, the fish was 28.1 inches long and weighed 3.3 pounds. While the growth of this fish appears to be slow, this was the first white sturgeon documented migrating from downstream of Bonners Ferry upstream into Montana. No previously radio tagged juvenile or adult white sturgeon had shown such a large upstream migration in the Kootenai River.

White sturgeon #2, just downstream of the Yaak River.

The second sturgeon captured in 2009 was 29.6 inches long

portion of the Kootenai River. In the summer of

and weighed 3.4 pounds. No PIT tag was de-

tected in this hatchery fish from the 2004-year class. The fish was identified because one of its scutes (large scales) was clipped at the hatchery. This fish was released in Montana in 2005 and showed much better growth than the first sturgeon captured. No other previous information exists for this white sturgeon.

Both sturgeon were released back into the Kootenai River at the site of capture. Sampling will resume for sturgeon in May and continue through September 2010. On a promising note, a few young fish that appear to be from natural reproduction have been found in recent years. For more information regarding white sturgeon sampling in Montana or white sturgeon recovery efforts in Idaho, please contact the following: Ryan Sylvester, FWP 406-293-4164 or Sue Ireland Kootenai Tribe of Idaho 208-267-3620

Region 2 West Central Montana

<u>FWP Proposes to Acquire Key Lands for</u> <u>Fish and Wildlife in the Middle Clark Fork</u> <u>and Clearwater - Ladd Knotek</u>

This past summer, the FWP Commission gave the agency approval to proceed with acquisition of two of the most important blocks of unprotected lands for fish and wildlife in the region. Tracts totaling ~ 41,000 acres in the Fish Creek area near Alberton and up to 24,000 acres in the north "Marshall Block" area northwest of Seeley Lake are proposed to be purchased by FWP using a variety of funding sources over the next few years. These parcels were a portion of the vast Plum Creek Timber Company holdings purchased by the Nature Conservancy and Trust for Public Lands in a phased land deal known as the "Montana Working Forests Project".

Lands in both areas were prioritized for protection by private and agency biologists because of their outstanding value for native fish and wildlife, particularly sensitive species such as bull trout, WCT, grizzly bear, Canada lynx, wolverine, etc. These lands are extremely important both in terms of habitat for target species and from the standpoint of large scale "connectivity". For fish species, this connectivity involves linking large river and lake systems with spawning and nursery areas. For terrestrial wildlife, the proposed acquisitions tie together key mountain ranges and major blocks of undeveloped federal lands. Both purchases would also maintain public access and recreational opportunities in areas used heavily by sportsman for hunting and fishing.



Fish Creek

Lands proposed for acquisition in the Fish Creek area make up the lower and middle portions of the Fish Creek drainage, as well as neighboring parcels that make up the Alberton Gorge corridor along the Clark Fork River on both sides. For Fish Creek, these lands form a buffer along the Great Burn roadless area that makes up most of the headwaters and along the Alberton Gorge recreation area at the mouth. Project lands include numerous spawning and rearing tributaries for cutthroat trout and bull trout, as well as portions of the Fish Creek main stem, which is an outstanding fishery and is a migratory corridor for fluvial (river-migrant) trout. Without protection, these lands face likely development, subdivision, habitat degradation, and loss of public access.

The lands proposed for purchase in the north Marshall Block area include large portions of three primary tributary drainages: Deer Creek, Marshall Creek (including Marshall Lake), and the West Fork Clearwater located just west of Lakes Alva and Inez. These streams represent some of the best spawning and rearing habitat within the Clearwater and Blackfoot drainages for bull trout and WCT. The adfluvial (lake-migrant) life form in these populations is also unique within the upper Clark Fork drainage. At a larger scale, this block

forms the key connection between the Mission Mountains and Swan Range, and three major wilderness areas.



Marshall Creek

2009 Blackfoot River Restoration - Ron Pierce

During the year 2009, Blackfoot River Restoration endeavor continued fisheries improvements on several fronts. This year we highlight one of many small projects on a stream called Snowbank Creek. Located on the Helena National Forest near Lincoln, Snowbank Creek is a highelevation, cold tributary to upper Copper Creek The main problem with Snowbank was 50 years of chronic dewatering and an old diversion that prevented upstream movement of small fish. With the help of TU and the Helena Forest, a restoration project was developed which reconstructed the diversion, restored natural flow conditions and fish passage to the stream, while also screening fish from a ditch with a new "Coanda" diversion (see photos). The project goal was connect downstream bull trout in Cooper Creek with improved habitat in Snowbank Creek. Fish population monitoring has shown bull trout have recolonized the stream. The densities of native fish (cutthroat trout and bull trout combined) have increased from about 10 times between 2003 and the present. In 2008, bull trout spawned in Snowbank Creek.

Other important projects in 2009 include continued progress on the cleanup of the Mike Horse Mine. The Mike Horse Mine has been draining mine contamination into the upper Blackfoot River for almost 40 years. This year's work focused on final data collections, geochemical tests, and other elements of final project planning, all of which will lead into cleanup and restoration actions beginning next year. The cleanup of the Mike Horse promises to be one of the most significant river cleanup efforts in the state of Montana, you can stay tuned by logging onto to the new DEQ website for project updates. http://deq.mt.gov/state superfund/UMBC/index.asp



Snowbank Creek: The top photo shows the old diversion, and the bottom shows the new diversion, which also acts a f sh screen

Finally, conservation easements and other transfers of former Plum Creek lands continue to protect landscapes, working forests, and ranchland as open space. Right now there are three big land transactions on former Plum Creek timber lands (totaling about 45,000 acres) which are,

or will soon be, dedicated to preservation of fish and wild habitat with special protections directed to native fish. One easement includes "North Chamberlain Creek" and is planned to be about 15,000 acres. FWP would hold the easement. The Department of Natural Resources and Conservation (DNRC) would own the property. The arrangement between the two state agencies promises to provide timber management, fish and wildlife conservation, and public access.

As we look towards the future, we should remind ourselves that it is the anglers, sportsmen and conservation groups who support the river resource and make the Blackfoot work possible. We need to thank groups like TU, the Nature Conservancy, Blackfoot Challenge, cooperating agencies, ranchers and all the other river supporters for the full range of fisheries conservation work in the Blackfoot Basin. Please stay engaged.

In The Opinion of Anglers - Rod Berg

The illegal, unwanted introduction of fish by well intentioned but often misguided "bucket biologists" is one of the most contentious and difficult issues facing fishery biologists today. Occasionally fish are released from aquariums when the fish have overgrown the tank or owners have grown tired of the hobby. These releases often include non-native fish as well as non-native reptiles and amphibians. The new critters added to the lake, pond or stream might carry diseases or pathogens that could affect existing aquatic life. The introduced species may also prey on native species or compete with them for food with ruinous consequences.

While aquarium releases can be harmful, the most typical bucket biologist today is that of an angler intentionally transporting fish species from one water body to another. Aside from being an illegal activity, punishable as a felony, these releases often have disastrous consequences to the receiving water body.

In the early 1990's Montana Fish Wildlife and Parks became aware of an unwanted illegal introduction of northern pike in several lakes in the Clearwater River drainage in west central Montana. As northern pike populations expanded in several of these lakes, dramatic declines of existing species, including trout, kokanee (salmon), yellow perch and largemouth bass, were observed and documented by FWP biologists. Several lakes transitioned from top quality trout and kokanee fisheries to northern pike fisheries in a matter of a few years.

In the aftermath of this unwanted introduction, what do anglers think of the fishery some fifteen or twenty years later? In a survey of 399 anglers from June through August 2008, FWP biologists found some surprising answers.

The five principal lakes in the Clearwater River drainage, Alva, Inez, Seeley, Salmon and Placid, were included in this survey. The 399 interviewed anglers fished a total of 988 hours, or an average of about 2 ¹/₂ hours each at the time of their interview. While angler catch rates for various sport fish species were determined, it is not the intention to regurgitate those statistics here. Suffice to say that anglers fared well in their catch rates for trout and salmon in two lakes, Alva and Placid, where northern pike were not introduced. And they fared poorly for these species in three lakes where pike were introduced, Inez, Salmon and Seeley. Obviously, anglers fared better for northern pike in the lakes where they had been introduced. But how well have the pike fisheries held up and what do anglers think of the pike lakes today?

The answers were revealed in follow up questions in the interviews. Anglers were asked, "How satisfied are you with your fishing in this lake?" In Alva and Placid lakes, where northern pike were not introduced, 80% of anglers stated they were satisfied or very satisfied with the existing fishery compared to only 56% in Inez, Seeley, and Salmon where pike were introduced.

Another question asked of each angler was, "Do you believe the fishery in this lake is improving, not changing, or getting worse?" In the pike lakes, an average of 51% of anglers stated the fishery was getting worse. In the non-pike lakes an average of only six percent stated the fishery was getting worse. By a margin of over eight to one, anglers said fishing was getting worse in the pike lakes than in the non-pike lakes! Converse-

ly, thirty two percent of anglers in non-pike lakes felt fishing was getting better compared to only seventeen percent in the pike lakes.

So what's wrong with the pike lakes? Why do pike, salmon and trout anglers alike view the pike

fisheries so poorly some fifteen or twenty years later? Essentially, it is a fairly simple matter. The underlying ecology of the pike lakes is not suitable to sustain healthy northern pike populations. Northern pike expanded in the pike lakes at the expense of long standing preferred sport fishes, trout, salmon, yellow perch and largemouth bass. Diversity of the fishery has been compromised. In addition, the underlying forage fish base essential for healthy northern populations has not been sufficient to sustain pike growth rates. Stunting of northern pike growth has resulted in

U of M graduate student Leslie Nyce with a bull trout from the East Fork Bitterroot River

no overall trend is apparent. However, among the sites we routinely sample, populations are either stable or declining. We are particularly concerned about diminishing numbers of bull trout in Warm Springs Creek, a tributary of the East Fork Bitterroot River. The number of bull trout has declined significantly, while the habitat has not changed much. A graduate student from the University of Montana is about halfway through a project that will try to identify the population structure of bull trout in the East

anglers catching more "hammerhead" (big head, small bodied) fish. Average size of pike has declined dramatically.

The decline of pike growth rates, coupled with decrease in abundance of trout, salmon, yellow perch and largemouth bass, leads to the ultimate question which was answered in our recent angler survey. Are we better off with northern pike in the Clearwater River drainage? In the opinion of the 399 anglers interviewed in 2008, the answer is a clear and resounding **NO**!

Bitterroot Drainage - Chris Clancy

The data we collected on fish in the Bitterroot River the past two years indicate that populations are stable. Population estimates at the Darby, Stevensville and Bell Crossing long-term monitoring reaches indicate the populations of fish have remained near the long-term averages. Overall, the number of trout per mile on the river can be summarized as about 1500, 1000 and 500 trout per mile near Darby, Hamilton and Stevensville, respectively. Fishermen report good angling success. Both 2008 and 2009 were years of healthy streamflows. Whirling disease is still present at high infection rates in the East Fork Bitterroot and Unfortunately, a serious effort to establish stream setbacks along Ravalli County streams has not been successful to date. During the fall of 2008, Ravalli County citizens repealed the county growth policy. Without this policy, the county cannot implement restrictions on building close to streams. We continue to see homes built so close to streams that landowners are requesting

Fork Bitterroot drainage.



Volunteers planting willows in newly built channel of Cameron Creek

upper Bitterroot River.

The past couple years we have focused on assessing the status of bull trout in the tributaries, primarily on the Bitterroot National Forest. The population trends vary among the streams, and

permits to alter the streambanks to protect these homes. The homes and associated developments affect both the streams that are important to fish and the riparian-dependent wildlife that use habitats near the streams.

Some small stream restoration projects have been completed and one is in the works. The Cameron Creek project is designed to move a channelized reach of Cameron Creek out of a highway borrow pit and back into the natural channel where it flowed historically.

Granite County- Brad Liermann

Fisheries management efforts in Granite County in 2009 included investigating fish populations in tributaries to Flint Creek, Rock Creek, and the Clark Fork River. During these surveys, both fish population and fish habitat surveys were completed in each tributary. Overall, a total of 49 survey sites were sampled in 26 different streams as a

part of this effort in 2009. Fish sampling consisted of electrofishing multiple sites in each tributary to collect information on fish abundance and the species composition throughout the drainage. Additionally, genetic samples were collected for both bull and WCT to assess the genetic status of these populations. Habitat surveys were completed at each survey site using a method developed by the Natural Resource Conservation Service to assess whether habitat degradation was impacting these survey on a tributary to Rock Creek in 2009. fish populations. This entire



FWP crew completing electrof shing population estimates on the Clark Fork River in 2009

estimates completed in 2009 indicate that fish densities have changed very little in the past 22 years, with the estimates being guite similar for most reaches. Fish densities in this section of

the Clark Fork River appear to be highest in the Jens to Drummond reached and drop off significantly below Drummond. The reasons for lower fish densities below Drummond are not entirely clear at this point and are likely due to several factors. While completing these population estimates, several fish of each trout species were implanted with radio transmitters as part of a graduate research project to assess where fish from the Clark Fork River spawn and rear, and what habitats they use throughout the remainder of the year. This project is already yielding

very useful information and will continue for the next two years.

Due to favorable late season snow conditions, Georgetown Lake and many of the other fisheries in Granite County had adequate water to provide quality fish habitat in 2009. In the past, reduced water levels in Georgetown Lake have caused significant fish kills. Due to Georgetown Lake being a relatively shallow, yet very productive lake, low dissolved oxygen levels are relatively common during winter. In years when the lake

data collection effort is critical to fisheries management in this portion of Region 2. Currently, very little fisheries data is available for most of the tributaries in this area and the past data that is available is generally dated.

Fish sampling was also completed in the mainstem Clark Fork River during spring 2009. This work consisted of completing population estimates for the entire reach from the Jens Fishing Access the mouth of Rock Creek. This reach of the Clark Fork River had not been electrofished since 1987. Interestingly, the population

levels are drawn down significantly and ice and snow cover the lake for an extended period, low dissolved oxygen levels can occur throughout the profile of the lake (at all depths). Due to trout and kokanee requiring well oxygenated water, these conditions can cause significant fish kills. Fortunately, we had an excellent late season snow pack in the Upper Flint Creek drainage providing adequate water in the drainage throughout 2009. This allowed lake levels to remain high and reduce the risk of fish kills over the 2009/2010 winter period. Thus, high quality fishing for trout and kokanee is expected for Georgetown Lake again in 2010.

Upper Clark Fork - Jason Lindstrom

This past year in the Upper Clark Fork, the fisheries management crew kicked off the field season by conducting fish sampling on the upper Clark

Fork River. We spent about one month this past spring electrofishing the entire length of the river from Warm Springs to Jens. This effort was completed to obtain a better understanding of how fish distribution varies along the river. Brown trout were found to be relatively common throughout much of the river, and the species heavily dominated the catch at all of the sample sections. Rainbow and WCT were also present in many sections of the river. although both species tended to be relatively uncommon. One catch of note was a 27 inch, 13 pound rainbow trout that was captured upstream of Deer Lodge near Racetrack. This fish was abnormally large for the river, and appeared to have originated from the Warm



A nice Upper Clark Fork Brown Trout.

fishery resources in the Upper Clark Fork basin. Sampling was completed at several sites within each of the selected drainages to better characterize changes in species composition and abundance. Riparian and stream habitat condition was also evaluated at the sampled locations. This extensive multi-year sampling project was brought about to assist in identification of restoration priorities to help guide future restoration work and fisheries management in the upper Clark Fork.

Other projects that were initiated during 2009 to assist restoration prioritization efforts were two graduate research projects led by students from Montana State University. Each of these projects is focusing on broad scale fish movement in the upper Clark Fork Basin. The first is a radio telemetry project being done on the upper Clark Fork River. This study will follow approximately

200 trout over the next several vears to learn how trout are using river and tributary habitat, as well as what challenges fish may be facing in completing their life history. The second project is focusing on fish movement in Silver Bow Creek, a stream that is currently being cleaned up under Superfund to clean up historic mining contamination. This project is using PIT technology to monitor the movement of large numbers of fish in the Silver Bow Creek drainage. Of particular interest is how fish in the tributaries are interacting with mainstem Silver Bow Creek.

Finally, the Warm Springs Ponds continued to produce some nice fish in 2009, with anglers sharing stories and

Springs Ponds. The largest brown trout captured in the upper Clark Fork this past spring was 25 inches long, and weighed 5.5 pounds.

Also, during 2009, we continued the tributary sampling effort we started in 2007. Numerous streams from Jens to Butte were electrofished with the goal of improving our understanding of pictures of sizable rainbow and brown trout they caught. This past year was the first year sterile (non-reproducing) rainbow trout were stocked into the ponds. As cleanup of mine wastes continues along Silver Bow Creek, and water quality improves, we are starting to observe a few rainbow trout from the ponds moving upstream into the lower segments of the creek. Several of

the tributaries to Silver Bow Creek (e.g. German Gulch, Brows Gulch, Blacktail Creek) support native WCT, and we hope to protect these populations from the threat of hybridization by eliminating the reproduction risk of the rainbow trout we have traditionally been stocking in the Warm Springs Ponds. The sterile rainbow trout we will now be stocking are expected to perform similarly to the reproductively capable strains that we have stocked in the past.

Milltown Dam Removal

In 2009, the last structures of the dam were removed, and the last of the sediment from the reservoir was shipped by train to Opportunity.

These events marked the transition of contaminant cleanup to river restoration. River restoration began at the upper and lower ends of the project site. At the upper end, the channel was rebuilt. At the lower end where the Clark Fork is still in the bypass channel, the floodplain and river channel have been sculpted. Vegetation has been planted at all sites where work has been done. Ultimately, the goal is to have a floodplain that has riparian vegetation and maintains river form and function. The land is expected to be transferred to the state in 2010 and should subsequently become a state park.

REGION 3 SOUTHWEST MONTANA *Conserving Native Yellowstone Cutthroat*

Trout - Carol Endicott

Promoting fish passage and preventing loss of YCT to irrigation systems are key actions in conserving native YCT. Park Conservation District (CD), FWP, and the USFWS are continuing to collaborate on projects addressing these conservation needs.

The Yellowstone River's cutthroat trout population will benefit from several planned projects. Riverdwelling YCT spawn in tributary streams, and newly emerged fry drift to the river. "We're working towards restoring the ability of spawning cutthroat to access Rock and Locke creeks by modifying impassable railroad culverts," reports Carol Endicott, FWP's YCT restoration biologist. "Both streams were major contributors of cutthroat trout fry when spawners were able to get past these features. We're seeking permanent solutions to restore spawning runs to these streams."

A planned fish screen on an irrigation diversion on Mol Heron Creek will also be beneficial to the Yellowstone River's cutthroat. Mol Heron Creek is among the most heavily used spawning streams in the upper Yellowstone River watershed. The screen will prevent spawning adults and drifting fry from being lost to the irrigation



system.

Efforts are also underway to address the structural stability of the Chadborne Diversion on the Shields River. By limiting passage of rainbow trout moving upstream from the lower Shields River and the Yellowstone River, this structure has been instrumental in maintaining the Shields River watershed as a stronghold for YCT. The aging structure is in need of repair and could fail in the future, which would open the Shields River watershed to invasion by rainbow trout, and present a hard-

Milltown Dam

ship to water users who rely on water delivered by the diversion.

"Our next step is an investigation of the structural stability of the diversion," says Scott Opitz, the Livingston Area fisheries biologist with FWP. "Once we determine how secure the structure is, we can develop a plan that will benefit cutthroat trout and the Lower Shields River Canal Company."

Combined, these projects will translate into substantial conservation benefits to native YCT. "The partnership between Park CD and agencies contributes considerably to our ability to restore YCT in Park County," says Carol Endicott. "Likewise, the support and participation of landowners and water users has been instrumental in promoting cutthroat trout conservation. Locally driven con-

servation works for native fish."

WCT Conservation - Lee Nelson

In 2009, FWP Region-3 continued with numerous projects that help conserve and expand the distribution of Montana's State Fish, the WCT. Though WCT were historically common in most rivers and streams in the Missouri River drainage of southwest Montana, they now occupy less than 5% of their native range in the region. This reduction in range has been attributed to habitat changes and the introduction of nonnative fish species. Recently, completed and on-going WCT conservation efforts in the region have focused on reducing the negative impacts of introduced nonnative trout (i.e., brook and rainbow trout) where they co-exist with threatened WCT populations, and introduction of WCT to suitable

streams. These efforts have prevented the loss of several native populations, and the overall distribution of WCT is now increasing.

Several new WCT conservation and restoration projects were implemented in 2009, including two near Bozeman. Leverich Creek maintains one of the 7 remaining WCT populations in the Gallatin River drainage. The population resides in about 1.4 miles of stream; however, much of this stream reach is also occupied by nonnative brook trout. Brook trout displacement of WCT is common

where the species range overlap, and is recognized as an important reason for the loss of many WCT populations. In an effort to eliminate this threat, a program has been initiated to remove brook trout using electrofishing, and to prevent their reinvasion by constructing a barrier. Thus far, the effort has reduced adult brook trout abundance by about 90%, and with construction of the migratory barrier in 2010 we anticipate brook trout will be eliminated from the project reach by 2011. As a result of this project, the Leverich Creek WCT population should significantly increase in abundance over the next several years. Also near Bozeman, the West Fork of Wilson Creek supports a small WCT population currently threatened by nonnative rainbow trout. In July 2009, 349 eggs were collected from this population and introduced to a naturally fishless stream near Big Sky. The recipient of this egg introduction, Elkhorn Creek, provides about 4 miles of high quality habitat that should eventually support up to 2,000 WCT. As important as expanding the distribution of WCT and creating a new population in the Gallatin drainage, this project also preserves genetic attributes of the West Fork of Wilson population should it be lost.

A similar but much larger WCT restoration project continued in 2009 with the introduction of 8,265 WCT eggs to Cherry Creek in the Madison River drainage. These introductions were initiated in

> 2006, and have thus far established a WCT population of more than 3,000 fish. Natural WCT reproduction should occur in Cherry Creek in 2010. The Cherry Creek project is the largest on-going WCT restoration effort in Missouri River drainage of Montana, and when it is completed over the next several years a secure, genetically pure WCT population occupying about 65 miles of stream will be established.

In some locations, barriers placed to prevent nonnative trout invasion are a keystone to WCT conservation efforts. These structures can require periodic

maintenance or replacement. In Whites Creek near Townsend, a wooden barrier constructed in 1995 was replaced in May 2009 with a concrete structure (see photo). The Whites Creek WCT population is one of only four genetically unaltered populations in the Big Belt Mountains. A decade ago the population numbered fewer than 100 fish, but after removal of nonnative brook trout the WCT population has expanded to more than 1,000 fish. The new barrier should protect this WCT population for many decades.

These projects are just a few of the many WCT conservation and restoration efforts that have





Egg incubators used to introduce WCT to Elkhorn and Cherry creeks (photo courtesy of Tessa Andrews, MSU).

been initiated throughout FWP R-3. The scope of this WCT program requires broad backing from

the public and private landowners, and from our partners who provide critical implementation and financial support for these efforts. These partners include the Beaverhead-Deerlodge, Gallatin and Helena National Forests, the Bureau of Land Management, the US FWS, Montana TU, the Madison-Gallatin Chapter of Trout Unlimited, Montana State University, and Turner Enterprises.

REGION 4 NORTH CENTRAL MON-TANA Great Falls Area - Grant Grisak



Young-of-the-year walleye sampled from a backwater in the Missouri River using a seine

length 18.4 inches [13.7-23.1]), and 8 walleye (average length 14.8 inches [11.8-21.9]). Brown

trout in this section were estimated at 611 per mile and the long term average is 358.

This year biologists initiated surveys to investigate the amount of natural reproduction by walleye in the 50 mile reach of the Missouri River between Cascade and Great Falls. In backwaters where young-of-the-year (YOY) walleye were found, the density was 0.72 per seine haul. Sampling creek mouths yielded 18.6 young of the year walleye per seine haul.

Missouri River

This year marked the 28th year for trout population estimates on the Missouri River. In the Craig section, the estimate of rainbow trout greater than 10 inches long was 3,458 per mile. The 28year mean is 2,917 per mile. This year anglers reported an abundance of large rainbow trout in the Missouri River, which was supported by observations made during the population estimates. For example, 85% of the population was 15 inches or longer, and the 18 inch length group represented 24% of the population. The largest

rainbow sampled this year was 4.88 pounds. Biologists also sampled 16 walleye between 11.5 and 30.4 inches and 72 burbot between 10.5 and 27 inches. Brown trout in this section were estimated at 584 per mile and the long term average is 579.

In the Pelican Point section the estimate was 1,577 rainbows per mile > 10 inches long. The 26-year mean is 1,494 per mile. Sixty-four percent of the population is 15 inches or greater in this section. The largest rainbow was 3.29 pounds. Crews sampled 18 burbot (average spiny softshell turtles at two locations. These findings represent the first documented presence of spiny softshell turtles above the great falls of the Missouri and expands their distribution by nearly 40 miles.

YOY walleye sampled from a backwater in the

projects on the Missouri, biologists discovered

Missouri River using a seine. During the seining

Spiny softshell turtles were sampled at two locations in the Missouri River upstream of the Great Falls.



Spiny softshell turtles were sampled at two locations in the Missouri River upstream of the Great Falls.

Smith River

In 2009, biologists estimated the number of rainbow trout greater than 8 inches at 371 per mile, and the number of browns at 270 per mile in a section downstream of Camp Baker. The 31year average is 522 for rainbows and 315 for browns.

This year the department partnered with the Canyon Ranch, Missouri River Flyfishers and Pat Barnes Missouri River Chapter of Trout Unlimited to launch a pilot study investigating trout behavior in the upper Smith River basin. Biologists surgically

implanted radio transmitters in trout to monitor movements and important habitat locations. Similar studies showed trout tagged in the Missouri River traveled 30 miles up the Smith River during spawning season. This study will help provide a clearer picture of whether trout in the upper portions of the Smith River basin travel long distances to connect with the Missouri River.

Belt Creek

Belt Creek is an important stream for anglers in central Montana. This 83 mile long stream provides excellent fishing for trout (cutthroat, brook, rainbow and brown) as well as mountain whitefish. Since 1982 Belt Creek has averaged about 7,100 angler days per year and ranks number 85 out of 1200 fisheries statewide. Much of the fisheries work in recent years has focused on WCT conservation programs in tributaries upstream of Monarch. This year biologists conducted only the second population estimate in the Sluice Boxes State Park. The estimate for rainbow trout between 8 and 19 inches long was 290 per mile, for brown trout between 8 and 23 inches long was 162 per mile, and for whitefish between 10 and 19 inches long was 122 per mile. The largest fish sampled was a 23 inch brown weighing 3.7 pounds. Eighteen percent of the rainbow trout population was 15 inches long or more and 30% of the whitefish population was 15 inches long or more.

Sun River FAS

A new FAS was acquired along the Sun River approximately 6 miles west of Vaughn. This 164acre site offers a walk-in boat launch to the Sun River and limited hunting for upland birds, waterfowl and deer. The priorities for this site over the next year include, containing noxious weeds, reclaiming evidence of historic mining, and signing. There are three ponds on the site, two of which have potential as fisheries. Regional staff is presently evaluating the site to determine what recreational opportunities can be developed, set recreational objectives and begin enhancing the site for public use.

Choteau Area - Dave Yerk

Tiber Reservoir

It was a most unusual year on Tiber Reservoir

during 2009. Conditions did not look favorable for forage fish production becasue a declining reservoir elevation during the winter months did not bode well for cisco production, and a late, cold spring did not provide much hope that yellow perch produced many young either. However, sometimes Mother Nature responds in interesting ways, and certainly FWP biologists could not have predicted the level of cisco and yellow perch production that occurred in Tiber during 2009. Cisco (also known as lake herring) were introduced into Tiber Reservoir in 1997 and 1998 to provide additional forage for the reservoir's walleye and northern pike fisheries. The initial introduction was very successful, and cisco immediately becoming established. Within just a few short years, cisco became a dominant component of Tiber's fish community. The only thing cisco did not do was reproduce; 2002 was the only year they produced a significant year class since their introduction.

Cisco are late fall spawners, thus their eggs incubate all winter long under the ice. They deposit their eggs in shoreline areas in relatively shallow water. Because of this, it is critical that water levels do not drop too much during the winter months or the eggs could be dewatered and perish. Additionally, ice cover helps protect the eggs from wave action that can dislodge and deposit them onto the shoreline. Thus, optimal conditions for promoting cisco production are an early and extended ice cover period with minimal reservoir drawdown. During the 2009 winter. Tiber had adequate ice cover from late December through early April, but the reservoir's water level dropped over five feet during those winter months.

Because cisco are typically found in open water habitat, biologists use vertical gill nets to monitor Tiber's cisco population. These nets are set each month during the ice-free period, and are fished in open water areas in about 100 feet of water. YOY cisco are first captured in these nets beginning in August when they are four to five inches in length. When just a few YOY cisco were sampled in the nets this past August and September, biologists assumed little production had occurred yet again. However, there was a big surprise in October when a significant number showed up in

the nets. Tiber cisco had finally produced another year class, and a timely one at that.

The production of cisco during 2009 was critical for their continued persistence in the reservoir.

Currently, Tiber's cisco population is dominated by the 2002 year class. When they reached age 6 in 2008, biologists expected adult cisco numbers to begin to diminish in the reservoir as this year class aged out. This was not the case, however. Apparently, the reduced growth rates resulting from this strong year class may have increased their longevity by at least a year or more. This is evidenced by the continued persistence of the 2002 year class through 2009, although their numbers have declined slightly over the past two years.

Except for producing the current Montana state record walleye in 2007, some would argue the cisco introduction has not greatly benefited Tiber's walleye population. However, the improvements to Tiber's northern pike fishery cannot be disputed; cisco have become the primary prey fish in their diets and has resulted in the development of a trophy pike fishery. Indirectly, this has benefited Tiber's walleye

this has benefited Tiber's walleye fishery. Because northern pike are now keying in on cisco, predation pressure on suckers and especially yellow perch has been reduced. Tiber's walleye exhibit strong preference for yellow perch in their diets, thus they are the key to the health of this fishery.

Yellow perch spawn in the spring at a time when most reservoirs in Montana are at their lowest water elevation due to winter releases and minimal inflows. Because of this annual fluctuation of water level, it is difficult for shoreline vegetation to become established under these conditions. Yellow perch are substrate spawners, meaning they prefer to utilize vegetation or other structures to deposit their egg skeins on. Once these eggs are deposited and incubating, hatching success is dependent upon the water temperature gradually warming as the eggs develop. This is a chal-

lenge in Montana, as strong cold fronts often hit in the springtime, causing water temperature to plummet. Thus, fluctuating water elevation and variable spring weather are the two primary variables affecting yellow perch recruitment.

The spring of 2009 was a cold one. Tiber's water temperature did not warm appreciably through mid to late April, the period when perch are typically spawning. When this occurs, fish often will resorb their eggs and not spawn at all. Interestingly. Tiber's perch just delayed spawning about two weeks, as we observed egg skeins in mid May deposited on Christmas trees placed in certain locales in the reservoir to monitor perch spawning activities. This was unusually late in the spring for perch to be spawning.

Production of perch and other shoreline forage species are monitored annually in Tiber by seining shallow shoreline areas in mid to late August. Biologists

did not expect to see much perch production because of the late spawn, but the exact opposite occurred—2009 was the highest level of perch production ever documented on Tiber. Seine catches were 10 to 20 times greater than what they were most previous years.

Biologists can only surmise why perch production was so high in 2009. Possibly water temperatures warmed optimally in late May for egg development? Tiber's water elevation steadily rose throughout May, so maybe the limited shoreline vegetation that is available was flooded when spawning finally occurred? Most likely it was a



Juvenile cisco (top) and yellow perch (bot-

tom) are important forage in Tiber

Reservoir.

combination of several variables.

So what does the excellent production of cisco and yellow perch in 2009 mean for Tiber's fishery? It means cisco will continue to be a part of the forage equation in Tiber. Although cisco grow quickly and are too large by the time they are yearlings for most of the reservoir's walleye to prey upon, they will continue to serve as an important food source for Tiber's northern pike population. The yellow perch production that occurred in 2009 should result in improved growth rates for Tiber's walleye. This population has been forage limited in the past, meaning oftentimes there has not been adequate numbers or size of forage available. Thus, Tiber's walleve have grown slowly and are typically small in size, usually averaging about 15 inches or less in length. The paucity of smaller-sized forage in Tiber has created a 'bottleneck' within the walleve population. Because the average walleve

has not been able to grow much larger than 15 inches with available forage, they typically do not reach sufficient size to be able to prey on adult cisco (about 11.5 inches in length).

This is the difference between the Fort Peck and Tiber walleye populations. On Fort Peck, the forage base is diverse and abundant enough that walleye consistently grow large enough to convert to feeding on adult cisco. Once they make that conversion, their growth increases sharply, resulting in an excellent fishery with abundant trophy-sized fish. The strong year class of yellow perch in Tiber has the potential to bring

about some interesting changes to the walleye population. It is hoped walleye growth rates will improve such that anglers will have the opportunity to enjoy more trophy-sized walleye in Tiber. The two pieces of the forage puzzle are there, cisco and yellow perch, and certainly the potential is there—the state record is evidence of that!

Yellow Perch Spawning Survey Project

The ongoing efforts to improve yellow perch

spawning habitat and identify preferred spawning areas in Tiber Reservoir continued in 2009. FWPs, Great Falls Chapter of Walleyes Unlimited, area Hi Line sportsmen, and the North Middle School Fishing Club out of Great Falls have been working cooperatively on this project since 2004.

Work in 2009 was directed at trying to identify if Tiber's yellow perch have preferred spawning areas in the reservoir. Paired Christmas trees were anchored, marked with floats, and placed in shoreline areas at 80 locations throughout the reservoir. These trees were pulled weekly and checked for egg skeins. If skeins were present, they were counted and stage of egg development was noted.

As mentioned earlier, 2009 was a cold spring and spawning was delayed by several weeks. The first egg skeins were not observed on any of the trees until early May, and spawning



Bob Bahr and Darrel Beach of the Great Falls Chapter of Walleyes Unlimited tally egg skeins while monitoring yellow perch spawning activity on Tiber Reservoir.

peaked around the middle of the month. Perch spawning was documented in all areas of the reservoir, but the greatest density of skeins occurred in the Bootlegger area, which is about mid reservoir. This was not expected, as one would assume perch would be attracted to spawning in the shallower, warmer water in the upper end of the Willow Creek and Marias arms of the reservoir. Ice-off occurs first in these areas, and the shallow, turbid water can warm up very quickly during calm, sunny days.

We are planning on repeating these efforts in 2010 to see if

our results are consistent with what we observed in 2009. If they are, in the future we will likely focus most of our habitat enhancement efforts in the Bootlegger area.

Lake Frances

Yellow perch production in Lake Frances returned to more typical levels in 2009 following a record year in 2008. This provided a much needed reprieve for walleye anglers, as last year juvenile

perch were so abundant the walleye fishing remained slow and difficult throughout the summer and fall months. During 2009, the walleye bite followed a more normal pattern: catch rates were good post-spawn beginning in late May, peaked in June, then dropped off in July as juvenile perch become available as forage again. Anglers then enjoyed an excellent fall bite, as apparently many of the juvenile perch were cropped off and walleye were once again having to seek their next meal.

Our fall gill net survey indicated the walleye population in Lake Frances remains very healthy. Overall net numbers dropped a bit compared to the record high catch in 2008, but the size structure of the population is diverse with both large and small fish sampled in good numbers. Of particular interest to anglers, we sampled some of the largest walleye we have seen in many years, and overall they averaged just over 17 inches in length. This is going to lead to some excellent walleye fishing in the near future on Lake Frances.

Bynum Reservoir

It is almost as if there is a new fishing destination on the Rocky Mountain Front, and it is creating a bit of excitement amongst local anglers. Anglers are once again heading to Bynum Reservoir, but it is not for the nice-sized walleye that were so popular 10 years ago—rather, anglers are excited about the large rainbow trout Bynum is now producing.

Bynum received substantial water inflows from the upper Teton River in 2008 after being at or near dead storage for the past several years. Netting completed by FWP that year indicated the once abundant walleye were gone, and just two yellow perch and one lonely adult sucker were sampled. Because the needed forage was essentially gone, restocking walleye into the reservoir was not an option. Instead, approximately 12,000 surplus rainbow trout were stocked. Rainbow trout tend to grow very quickly in the reservoirs on the Rocky Mountain Front, but they especially thrived in Bynum in the absence of any competition for food and space from other fish species. Anglers began catching the stocked rainbow trout in the fall of 2008, but the fishing really turned on this past summer. By the end of the summer, these yearling rainbow trout were over 18 inches in length and weighed three to four pounds! Word traveled quickly about the quality of these fish, and Bynum was once again busy with anglers.

Look for the excellent rainbow trout fishing to continue on Bynum as long as the water conditions hold up. The irrigation company that operates the reservoir has junior water rights on the Teton, so an excellent snowpack and high spring runoff are needed to maintain adequate conditions to sustain the fishery. As long as the water conditions hold up, FWP will continue to stock and promote this recreational fishery. In fact, in 2009, 70,000 more rainbow trout and 80,000 kokanee salmon were stocked. Look for fishing to be even better in 2010!

After being dewatered for several years, Bynum Reservoir is producing excellent-sized rainbow trout.

Nilan and Willow Creek Reservoirs

Anglers and biologists alike (especially fishing biologists) have been frustrated with the recent poor rainbow trout fishing on Nilan and Willow Creek reservoirs. For the past several years, annual plants of 80,000 rainbow trout into Nilan Reservoir and 75,000 into Willow Creek Reservoir have not survived well and has led to poor fishing on both of these popular reservoirs in the Sun River drainage.

Why the stocked rainbows have not done well is not clear. However, it is suspected that bird depredation is likely contributing to the poor returns on these plants. There is a large gull nesting colony on the west end of Willow Creek Reservoir, and these birds are quick to key in on the arrival of hatchery trucks. Also, many white pelicans and double crested cormorants call these waters home during the summer months. To try and minimize impacts of bird depredation on these plants, hatchery personnel are now stocking the rainbows at night to provide time for these fish to disperse into deeper water before daylight hours. Although it is too soon to tell, hopefully we see

a sufficient increase in survival of stocked fish to offset the loss of sleep by hatchery personnel.

Biologists have also requested a change in stocking time to try and promote better survival of the hatchery rainbow trout. In previous years, hatchery personnel raised the fish to a specific size before stocking them. In the future, they will raise the rainbows as large as possible, but stock them out by mid June at the latest. This stocking time should coincide with when plankton is blooming in these reservoirs, which provides a readily available food source for the stocked fingerlings. Hopefully, this change will also promote better survival of the rainbows.

In addition to trying different stocking strategies on both Nilan and Willow Creek reservoirs, FWP is also stocking additional fish into both reservoirs when they are available. During 2009, each reservoir received an additional stocking of 80,000 rainbow trout in addition to their scheduled plants. It is hoped these additional fish will help restore the excellent fishing anglers once enjoyed on these reservoirs.

Tunnel and Wood Lakes

Both Tunnel and Wood lakes are excellent destinations for family fishing trips. Tunnel Lake is a small 14-acre natural pothole lake west of Augusta near the mouth of the Sun Canyon. It is stocked annually with WCT and Arctic grayling that are transplanted from the Sunnyslope Canal. Both cutthroat and grayling are aggressive feeders that are readily caught by young anglers. Wood Lake is a small (20 acre) mountain lake accessed via the Benchmark Road out of Augusta. It also is stocked annually with WCT. The Lewis and Clark National Forest offers a campsite and picnic area at the lake for public use. Motorized boating is not permitted on Wood Lake. For directions to either of these lakes or additional information, contact the Choteau FWP office at 466-5621.

<u>Pallid Sturgeon Recover in the Middle Mis</u>souri - Bill Gardner

A small population of pallid sturgeon (an endangered species) exists in the 240-mile reach of Missouri River from Morony Dam to the Musselshell River near Fort Peck Reservoir. A stocking program was initiated in 1998 to preserve the gene pool and begin to repopulate the species in this recovery area. The goal is to build the population to about 1000 adult pallid sturgeon by 2025.

This year the pallid sturgeon propagation program was fairly successful and we stocked totals of 25,366 fingerlings and 6,486 yearling pallid sturgeon in this reach. Since 1998 we have stocked nine year-classes, totaling to 208,228 hatcherv pallid sturgeon. Survival success of the stocked pallids appears to be variable with the 1997 year-class having a high survival rate (yearling to 2-year-old) of 74% and the 2005 year-class having a lower survival rate (yearling to 2-year-old) of 21%. The survival estimates for the 2001, 2003 and 2004 year-classes could not be determined because of the low number of recaptures, but it is believed survival rates for these year-classes is very poor. The survival success for the other four year-classes is unknown at this time, but further monitoring will provide information in upcoming years. The growth rate of these juvenile pallid sturgeon has improved somewhat over last year, with the 12-year-old fish now averaging 29.4 inches fork-length and weighing 3.6 pounds.

Middle Missouri River Fisheries Survey

Sauger is one of the more important game species found in the Middle Missouri River; however, this species suffered sharp declines during the late 1980's. Because of this, sauger have been on the watch list for the past 10 years and fisheries crews have been monitoring this species for several years now. The 2009 electrofishing surveys found that sauger are now in good numbers throughout this reach. Upriver areas near Morony Dam and Fort Benton showed the greatest improvements with catch rates 120% higher than average. Sauger were sampled in greatest number at the Robinson Bridge Section, however, over half of these fish sampled were the younger sub-adult fish. Smallmouth bass numbers rebounded back to near-normal abundance in 2009 compared to the declines noticed in 2008. Greatest abundance of bass was surveyed in the Morony Section. Interest in channel catfish angling continues to grow. In May, 2009 the new state record channel catfish (37.6 inches/30.1 pounds)

was caught in the Missouri River near the Robinson Bridge.

A sauger radio telemetry study was initiated in 2008 to determine locations of sauger spawning sites. Forty sauger sampled throughout the river were radio tagged and most (85%) of these fish traveled downstream 40 –173 miles to spawn at several discrete sites within 10 miles of the Robinson Bridge. This study demonstrates the importance of the Robinson Bridge area for sauger spawning. The sauger radio telemetry will continue next year attempting to radio tag fish from other locations so that a more complete picture of sauger spawning site locations can be determined.

Lewistown Area - Ann Tews

Fish were in excellent condition in most waters sampled in 2009 and many reservoirs in Northcentral Montana have had good water levels for 2 – 3 consecutive years. Nice largemouth bass and yellow perch were captured in several breaks ponds. Upper Carter Pond, Martinsdale and Ackley all filled after repairs were completed in 2008. Repair work on Dry Blood Reservoir was completed in the spring of 2009 and did not fill. The BLM has installed windmills on Payola, South Fork Blood and Whisker Reservoirs.



Breaks Bass May 2009

Ackley Lake

In gill nets, rainbow trout up to 2 pounds were captured but most rainbow trout were around 9 inches. Water levels were higher than seen in years.

Buffalo Wallow Reservoir

The outlet structure at Buffalo Wallow Reservoir has been non-functional for several years and

was partially breached by BLM to prevent the dam from washing out. In 2009, the maximum depth was about 10 feet deep. Rainbow trout averaged 0.5 pounds, with the largest netted fish weighing one pound. The BLM plans to repair the dam in 2011, but this pond currently has a high potential for winterkill.

Big Casino Creek Reservoir (Casino Creek Reservoir)

The illegally stocked yellow perch are doing well in Big Casino Reservoir with mean gill net catch exceeding 100 per net. In fall gill nets the average yellow perch was 8 inches long 0.3 pounds. Rainbow trout continue to have poor catch rates and only one walleye (12-inches) was captured.

East Fork Reservoir

Average northern pike have been about 22 inches in recent years. This year the largest northern captured was nearly seven pounds. East Fork is producing a few large yellow perch exceeding eleven inches but the mean size was 7.5 inches and 3 ounces. Five thousand 2-inch largemouth bass were stocked in 2009. The environmental review for that introduction was completed in March 2007.

Martinsdale Reservoir

Martinsdale filled in 2009 for the first time in a decade and water levels remained high into the winter. Seventy thousand 4-inch Arlee rainbow trout were stocked in 2009. Gill nets captured rainbow trout up to 3.74 pounds. Trout stocked in 2009 had an average weight exceeding 0.5 pounds by late September and should provide excellent fishing in 2010.

Petrolia Reservoir

Catch rates were low during FWP sampling but walleye up to 6 pounds, yellow perch up to 0.7 pounds and northern pike up to 15 pounds were captured.

Yellow Water Reservoir

Fishing should be excellent here in 2010. Rainbow trout continue to be the only species captured in nets and water level remains high. Rainbow trout up to about 19 inches and 3.5 pounds were captured in nets, with 31% exceeding 2 pounds. A fish kill of unknown origin occurred in

late July 2009. Trout of all sizes were killed, but three-gill nets captured over 200 rainbow trout soon afterwards.

Big Spring Creek

Adult trout appear to be doing well in Big Spring Creek and were generally in good condition. Most trout were 12 - 14 inches long but a few 20-inch brown trout (3 - 4 pounds) were captured during FWP surveys. At Carroll Trail, below Lewistown, adult rainbow trout numbers have been steadily decreasing from the record highs observed in 2000, but brown trout were at record highs in 2009. The 1500/mile of 10-inch plus trout observed for Carroll Trail this year was near average. Historically Carroll Trail has averaged about 670 small (6 – 10 inch) rainbow trout per mile. In the last two years, numbers have been too low for accurate estimates of small trout. In 2009, estimates for 10 inch plus trout in the Burleigh Section, upstream of Lewistown were 1000 per mile, the highest observed for over 20 vears and nearly double the 10-year average. Brown trout had the second highest population observed. In the sampling section immediately below the FWP hatchery there were about 1000 small rainbow trout per mile. Numbers of small rainbow have increased more than 5 fold in this section since 2004 and the hatchery section was the only location with sufficient small trout for a good estimate. This area may be a rainbow trout source for downstream areas. Whirling disease infection levels, as determined from fish cage studies, continue to be high downstream from the East Fork. Infection is low to non-existent below the lower hatchery. FWP has developed a PCB clean-up plan that has been approved by Environmental Protection Agency (EPA) and will involve suction dredging the fines out of the stream bottom of 2.7 miles of Big Spring Creek upstream of East Fork.

<u>Westslope Cutthroat Trout – David Moser</u>

WCT are the only trout native to the Missouri River drainage. First described by Lewis and Clark on the mainstem Missouri River near Great Falls, the species has since been relegated to headwater habitats and only occupies a small fraction of its original range (less than 4% of original stream miles in northcentral Montana). Because of past widespread stocking of non-native fishes, populations of genetically pure westslope can only persist upstream of fish barriers (e.g. waterfalls, irrigation reservoirs). Five fish barrier projects are currently underway in northcentral Montana. Two of the planned projects are on state land, two are on national forest land and one is located on private land. These projects require removal of non-native fishes upstream of constructed barriers prior to restoration of westslope. Other westslope restoration projects that are currently underway involve selective removal of brook trout (with backpack electrofishers) in competition with westslope and transfers of nonhybridized westslope to fishless headwater habitats above waterfalls.

In 2009, WCT were transferred to Cottonwood Creek on the Beartooth Wildlife Management Area. A concrete fish barrier was constructed on Cottonwood Creek in 2000. Non-native brook trout were removed with piscicides (rotenone) over the next several years. This year, nearly 5,000 westslope eggs were collected from spawning fish in a separate stream and hatched in bucket incubators placed along the length of Cottonwood Creek. Cottonwood Creek holds nearly 8 miles of excellent fish habitat and will provide for a unique opportunity to fish for westslope, Montana's State fish, in a pristine natural setting. Elkhorn Creek, also on the Beartooth Management Area, was restored to native westslope back in 1972 by a FWP fish biologist. Since then, the original fish barrier, through wear and tear has started to fail. A new, more effective barrier is slated for construction in an effort to maintain this native fishery into the future. Without maintenance of this barrier. large cutthroat common in this stream would be replaced by brook trout. Funds for design of both these projects was provided by PPL Montana. Construction funds have also been provided by Future Fisheries, a program of Montana FWP.

A small native westslope population in a tributary of the Teton River provided seed fish for a transfer to Lange Creek, a tributary to Gibson Reservoir in Sun Drainage. Lange Creek has always been fishless because of multiple fish barriers. The transfer of 140 juvenile and adult westslope fish will eventually result in a thriving native westslope fishery in over 3 miles of Lange

Creek. Fish were transferred by helicopter with funding provided by a generous donation from the Missouri River Flyfishers, a chapter of TU and the Federation of Fly Fishers.

Barrier construction projects are moving forward in two streams in the Highwood Mountains.

Smith Creek. on private land, historically held WCT but is now dominated by brook trout. The landowners approached FWP in hopes of restoring the westslope that they remembered fishing for as children. Funds for de-



Native westslope cutthroat trout transferred to Lange Creek

sign and construction of a barrier were obtained from grants supplied by PPL Montana, Future Fisheries of Montana, and the National Fish and Wildlife Foundation. A similar project is slated for North Fork Highwood Creek located on national forest land. Both these projects when implemented will provide excellent habitat for replication of two of the four remaining westslope populations still surviving in the Highwood Mountains.

An ongoing project to restore westslope to Jumping Creek in the Little Belt Mountains is nearly complete. In this project, westslope had dwindled down to less than 80 fish because of competition with brook trout. The last remaining westslope were rescued and moved to empty habitat in another stream. In 2008 and 2009, piscicides were then used to remove the invading brook trout from upstream of a constructed falls barrier. Native westslope will be transferred back to Jumping Creek in 2010 and 2011.

<u>Upper Missouri River Reservoir Fisheries</u> <u>Management Plan - Eric Roberts</u>

Much of 2009 was spent updating the Upper Missouri River Reservoir Fisheries Management Plan, which includes Canyon Ferry, Hauser, and Holter Reservoirs and the Missouri River from Toston to Canyon Ferry and between Hauser Dam and Holter Reservoir. The old management plan was implemented in 2000 and is set to expire at the end of 2009. The new management plan is designed to guide fisheries management in the system for the next 10 years.

In an effort to identify issues and develop management strategies, FWP recruited the help of an 18-member citizen workgroup. The workgroup represented a variety of interests, including warm-water and cold-water anglers, sportsmen's groups, business, local government, among others. Through seven meetings, FWP presented data and the workgroup discussed numerous fisheries issues. Some of the topics discussed included walleye management in the system, supplementing and enhancing perch populations, improving angler access and kid's fishing opportunities, reducing boater and angler conflicts in the river sections, among many other topics.

A draft of the management plan went out for public comment in the fall of 2009. During the comment period, FWP also hosted open houses throughout the region so people could review and provide comments to the draft plan. Nearly 175 individuals provided written comments on the draft plan.

FWP will meet with the citizen workgroup in December 2009 to review public comments and to consider FWP preferred alternatives for the final management plan. After final revisions, the plan will be sent to the Director's Office for approval, which should occur early in 2010. To learn more about the management plan and to see what changes have been made and when they will be implemented, check the FWP website at fwp.mt.gov

Canyon Ferry Reservoir - Adam Strainer

Fishing for rainbow trout at Canyon Ferry Reservoir was good throughout 2009. Angler catch rates (ACR's) for rainbows during the winter were 0.22 fish per hour (long term winter average is 0.34 fish per hour) while the summer rainbow ACR was 0.40 fish per hour (long term average is 0.27 fish per hour). An ACR of 0.25 fish per

hour is widely regarded as excellent fishing. The average rainbow caught in 2009, both winter and summer, was 18.25 inches. Winter catch rates increased monthly from January to March, with best catch rates just before ice-off. Jigs tipped with many forms of bait are the best method. Spring rainbow fishing from shore was very good when spawning fish were cruising the shallows

(late April through June). Eggs or worms, spoons and flies work well from shore, while trolling cowbells, wedding rings and crankbaits are effective from a boat. Rainbow fishing was also really good in the fall. Most of the action was around Confederate, the Silos, and off the south dikes.

Improvements to rainbow fishing are attributable to changes to the stocking plan. FWP now stocks larger-sized, 8-inch rainbow to

avoid predation by walleye and birds. In 2009, about 150,000 rainbows were stocked in the spring and about 140,000 rainbows were stocked in the fall. To avoid predation by walleye, fish are stocked in locations where walleye densities are lower. Stocking about half of the fish in the spring and the other half in the fall allows more efficient use of hatchery space and provides additional time for the fish to grow to larger sizes at stocking. Also, predation is lower in the fall because energy demands for walleye declines as water temperatures cool and typically birds are not a factor because they have already flown south for the winter.

Walleye fishing was excellent at Canyon Ferry throughout the summer of 2009. Anglers targeting walleye saw an ACR of 0.43 fish per hour, up from 0.27 fish per hour in 2008. Average walleye lengths remained under 16 inches, but the possibilities of catching a trophy fish (30+ inches) still exists. Walleye fishing from late May to July was stellar in 2009. A majority of the action was on the south end and at various bay points throughout the reservoir. Anglers were targeting depths ranging from 10 to 40 feet of water using primarily bottom bouncers, worm harnesses and jigs tipped with worms, leeches or salted minnows. The bite slowed down later in the summer, but



picked up again once water temperatures began to cool in the fall.

Walleye tagging studies continued in 2009 to learn more about walleye harvest (exploitation) throughout the reservoir. Orange reward tags (worth \$75!) were not implanted in 2009, but some remain in the reservoir from tagging ef-

forts in the past. These walleye tagging studies not only help us learn about the effects of harvest on the population, but we can also track seasonal movement trends, identify seasonal habitats, and determine rates of growth. If you catch a walleye with a tag, please contact the Helena Area Resource Office at 406-495-3260 with information about the fish and FWP can provide when the fish was tagged, size and sex at tagging, whether it has been

caught before, and any other pertinent information. And if you're lucky enough to catch a reward tagged fish, you might be able to pay for your fishing trip!

Walleye abundance in fall population surveys found walleye abundance decreased from 4.3 fish per net in 2008 to 2.7 fish per net in 2009. Declines in abundance are largely attributable to lack of fish between 15 to 20 inches. Most fish caught were less than 15 inches (66% were less than 15 inches). Overall growth rates for walleve have slowed down the past couple of years. but Canyon Ferry walleye still grow faster than most other walleye populations in the state. Also during fall surveys, there were a number of nice fish around 25 inches which appear to be on the cusp of growing up into trophy size range in the next couple of years. Alternatives proposed in the new management plan include strategies to improve the size range of walleye across several year-classes.

Yellow perch numbers remained well below historical levels in Canyon Ferry. Although abundance was at low levels, perch fishing improved a little bit in 2009. Angler catch rates were 0.30 fish per hour for anglers who targeted yellow perch through the ice in 2009 (3-year average is 0.67

fish per hour), but the size of fish improved, with many anglers catching 12-inch perch. Remember, due to low perch abundance, regulations only allow yellow perch harvest at 15 daily and in possession at Canyon Ferry.

FWP, in conjunction with local civic and sportsman's groups, continued the yellow perch Christmas tree habitat enhancement project in 2009. The trees are hauled to Canyon Ferry by the City of Helena, bound and weighted by volunteers from Walleyes Unlimited and lifted into place using a DNRC helicopter. The project creates spawning and rearing habitat for yellow perch to help bolster population levels. The project will continue in 2010 and if interested, please contact the Helena Area Resource Office at 406-495-3260.

Hauser Reservoir - Eric Roberts

Overall, fishing was better on Hauser Reservoir in 2009. Rainbow fishing was good throughout the summer, with an average angler catch rate of 0.17 rainbows per hour. Size of rainbows was also good, with the average fish caught measuring about 18-inches long. Hauser was stocked with 43,000 Eagle Lake rainbows in the summer and another 90,000 Arlee strain rainbows in the fall. Just like Canyon Ferry and Holter, Hauser is also stocked with 8-inch long rainbows to reduce impacts from predation by walleye.

Angler catch rates for walleye reached record

levels in 2009, at 0.28 walleye per hour. Catch rates were highest in August with angler catch rates at 0.52 walleye per hour. Even though catch rates were high, the size of fish was small, with the average fish caught during peak fishing measuring only 12.7-inches long.

Flushing of fish over Canyon Ferry Dam heavily influences walleye abundance in Hauser. When Canyon Ferry spills water over the spillway gates, typically in late spring or early summer, thousands of walleye fry are flushed downstream into Hauser Reservoir. Hauser walleye population abundance has hovered

at or near record-highs for the past four years, in large part due to flushing of walleye through Canyon Ferry Dam. Hauser has historically sustained a low-level walleye population, but population levels currently in the reservoir are too high relative to the amount of forage that is available. This leads to lots of small, hungry walleye—which isn't all bad considering hungry walleye are much easier to catch.

Yellow perch are a preferred forage fish for walleye, and perch abundance has declined to record low levels with increases in walleye numbers. During summer beach seining surveys, which look at annual production of juvenile perch, walleye, suckers, and other small fishes, numbers of walleye (predators) captured outnumbered the perch (prey) captured. This predator-prey imbalance will complicate fish management for all species in Hauser until flushing issues can be addressed. The new management plan includes strategies to identify and explore opportunities to reduce impacts of fish flushing from Canyon Ferry to achieve a balance between walleye and other fish in the reservoir.

Holter Reservoir - Eric Roberts

Rainbow trout were the species of choice on Holter Reservoir in 2009. Summer angler catch rates for rainbows reached record highs, at 0.42 fish per hour. Angler catch rates were highest in the spring, when catch rates averaged 1.30 fish per hour. Spring shoreline fishing is excellent as the rainbows cruise the shallow shorelines looking for a place to spawn. Many of the fish actually swim

back to the boat ramps where they were stocked, so most fishing action is at the BLM and Log Gulch boat ramps. Some people voice concern about harvesting spawning fish, but these hatchery fish rarely spawn successfully in the reservoir. They are stocked to increase fishing opportunity, and even high levels of spring harvest should have little effect on the overall population as long as people observe legal bag limits. It also provides an excellent opportunity to take a kid fishing because the odds of catching a fish are pretty high.

Angler catch rates for walleye were also good in summer 2009. Peak walleye catch rates were in July at 1.06 walleye per hour. Much like



Hauser, fish were smaller in Holter with the average fish caught in July measuring 12.8-inches long. Also like Hauser, Holter is influenced by walleve flushing in from upstream. Walleve abundance approached record levels again in 2009, and average abundance over the past three vears is the highest on record. Prior to 1997 (when the Canyon Ferry walleye population took off) Holter exhibited a well-balanced fishery between walleve, rainbow trout, and yellow perch. Now there are too many walleye relative to the amount of forage available. Strategies in the new management plan propose to increase the level of walleye harvest, especially for smaller sized fish. Hopefully, increasing harvest will reduce walleye numbers, bringing population numbers to levels more appropriate for forage abundance.

<u>Helena Valley Regulating Reservoir - Eric</u> <u>Roberts</u>

The kokanee salmon fishery at the Helena Valley Regulating Reservoir continues to confound anglers and managers alike. This 550-acre reservoir in the Helena valley is one of the remaining kokanee fisheries east of the Continental Divide. Angler catch rates typically vary, but winter catch rates of 0.24 fish per hour in 2009 was below the long-term average of 0.44 kokanee per hour. With lower angler catch rates, FWP expected population numbers to also be lower. However, during summer population surveys, kokanee abundance averaged 5.2 fish per net, which was

actually higher than long-term averages. In spring and summer 2009, over 93,000 kokanee were stocked (the most ever) which will hopefully improve fishing over the next couple of years. FWP will continue to monitor kokanee populations in the Regulating Reservoir, as well as evaluate the effects of flushing, water quality, and reservoir levels to the kokanee population.

REGION 5 SOUTH CENTRAL MON-

<u> Bighorn River - Mike Ruggles</u>

Water continues to be an issue as a balance between reservoir

elevations and river flows is sought. Unlike much of the past 10 years, there was plenty of water for both the river and reservoir in 2009. The reservoir provided the 5th largest discharge recorded since 1967 with a daily average release of 12,800 cfs on June 23rd, 2009. Higher maximum daily averages were only recorded in 4 years since the dam was closed. Maximum daily discharges recorded in 1967, 1968, 1970, and 1995 were 24,800 cfs, 13,200 cfs, 15,500 cfs, and 14,500 cfs respectively.

2009 was also a year that low water releases were an issue in the river, particularly on two occasions. A gate malfunction at the Afterbay Dam occurred in late July with instantaneous river flows rapidly dropping from around 3,600 cfs to about 1,000 cfs for a short period. Again in early October, during a planned reduction of flows to measure seepage below the big dam, river flows were suppose to be stepped down over a period of 5 days from about 3,200 cfs to 400 cfs. During the middle of this step-down process a lack of communication between the Montana and Wvoming area offices of the Bureau of Reclamation (BOR) resulted in a rapid drop from about 1,700 cfs down to about 700 cfs followed by a sudden increase to about 4,000 cfs, and then another quick flow reduction to try and stabilize flows where they were suppose to be in the drawdown process. FWP staff and anglers documented dead, dying, and stranded fish during both of



Fish like this young-of-the-year rainbow were left dry atop aquatic moss and grass when the river level spiked, then suddenly dropped.

these incidents. FWP and its partners will continue to work with the BOR in an effort to find a better balance for management between the river flows and the reservoir levels.

Fish like this YOY rainbow were left dry atop aquatic moss and grass when the river level spiked, then suddenly dropped.

River releases averaged slightly below the recommended minimum flow of 2,500 cfs for much of the fall of 2008 and winter of 2009. As a result, brown trout side-channel spawning may have been somewhat limited

in the fall, but rearing conditions have remained fairly good for young trout during the past two years. Rainbow trout experienced good spawning flows in 2009 beginning the spawn with river flows near 3,000 cfs and reaching 4,000 cfs and rising post spawn. Flows exceeded 10,000 cfs during incubation and initial emergence. All in all 2009 should have been a good year for spawning and rearing for both rainbow and brown trout on the Bighorn.

Cold water temperatures resulting from a cold spring and early summer seemed to limit growth rates of YOY trout in the Bighorn River this year. Large numbers of smaller than average YOY brown trout were collected during fall sampling while very few YOY rainbows were captured. Many very small rainbows were seen swimming in small side channel areas and numerous YOY rainbows were found stranded in side channel pools during the October dewatering event. Apparently most of these YOY rainbows were still too small to be effectively sampled by electrofishing in late September. Sampling next summer will provided better insight into the recruitment of the potentially large 2009 year class. Mark/recapture population estimate sampling was conducted in the upper and lower sections of the Bighorn River in 2009, but statistically valid population estimates could not be calculated for rainbow or brown trout in the lower section due to low numbers of marked and recaptured fish. Electrofishing in the lower section captured hundreds of 3 to 4 inch YOY brown trout. These fish typically would be 5 to 6 inches at this time of year, but the cool weather during early development, as noted before, likely limited growth. Hot weather during fall sampling may have moved adult fish into areas difficult to sample with electrofishing equipment. While we were not able to capture enough larger trout to get a valid estimate, anglers reported good fishing in this section of river, with most fish being caught in deeper holes near the middle of the river. Enough larger rainbow and brown trout were sampled in the upper section to provide reliable estimates. Adult rainbow over 14 inches were estimated at over 3,000 per mile making 2009 a record year for rainbow abundance with many nice fish present. Anglers were generally very happy with the fishing this year, and we saw many boats with fish

on while working on the upper river. Adult brown trout over 13 inches exceeded 1,500 fish per mile which was similar to the 2008 estimate but half of the 2007 estimate. A good year class from 2003-2004 is likely fading out but it appears the 2009 year class should help sustain good angler catch rates for the next few years. Anglers should also see good representation from the 2006 and 2007 year class next summer.

Lower Bighorn River

The Bighorn River below Two Leggins Diversion was sampled to assess which fish are using the area and to provide some insight into the sizes of those fish. This area is a mix of warm and cool water fish and can provide some great fishing opportunity. This year 122 fish were sampled with rainbow trout being the most numerous. Also collected were brown trout, channel catfish, ling and smallmouth bass. Rainbow trout ranged from 10 to 22 inches with most being between 16 and 21 inches long. The brown trout catch included a good number of YOY fish but a few brown trout larger than 20 inches were also captured. Catfish were between 18 and 24 inches long and the bass were all smaller between 7 and 10 inches.

Bighorn Lake

Bighorn Lake experienced above average inflows during 2009 and started and ended the 2009 water year near the base of the flood pool at 3640 msl (mean sea level). The lowest elevation of 3619.5 msl was reached on May 20th with a peak elevation reached on July 6th at 3647.9 msl, a difference of 28.4 feet in 47 days. The reservoir was operated in the flood pool, above 3640 msl, from June 17th to September 21st. The BOR plans to manage the reservoir for similar elevations in water year 2010 without supplying high discharges to the river.

Sauger and walleye populations continue to produce good fishing throughout most of the season. Smallmouth bass, yellow perch, catfish, and occasional brown trout and ling all added to the excitement of fishing Bighorn Lake. Anglers have indicated sporadic success, but when they found fish it was typically very good fishing. Spring and fall netting efforts produced 92 sauger, 61 walleye 37 bass, 57 catfish, 21 brown trout and 19 ling in 2009. Walleye and sauger catch was highest

on the lower reservoir during the fall sampling with 33 sauger and 29 walleye captured. Bass, catfish, and brown trout had the highest capture in the upper reach with 22 bass, 24 catfish, and 12 brown trout caught in the fall sampling. Ling had the highest catch in the upper section with 15 captured. While our netting efforts are not designed specifically to collect the largest specimens, the big fish for each species is interesting for many. The big fish this year was a walleve at 24.8 inches and 5.5 pounds followed by a catfish at 24.2 inches and 5.3 pounds, a brown trout at 23.2 inches and 4.3 pounds, a ling at 25.5 inches and 4.1 pounds, a sauger at 21.7 inches and 3.4 pounds and a bass at 15.8 inches and 1.9 pounds.

Walleye fingerlings were stocked in Yellowtail Reservoir in 2009, but for the first time in Montana's stocking history they were nearly 100% sterile. The Fort Peck Hatchery staff is working toward development of a procedure to produce 100% sterile walleye when requested. They are being requested for Yellowtail in an effort to reduce the potential of walleye and sauger cross breeding to preserve sauger stocks in the Bighorn River in Wyoming. Over 53,000 finger-

lings were stocked from two test groups of fish. The hatchery is close to perfecting the procedures as one batch had 96%



sterility and the other exceeded 99% sterility. Thanks to the hatchery staff for the extra effort.

Yellowstone River

A lower Yellowstone River telemetry study initiated in 2006 concluded in July of 2009. Pallid sturgeon from the hatchery system, channel catfish, ling, sauger and soft shell turtles were monitored. Pallid sturgeon stocked above Ranchers Diversion and in the Lower Bighorn River moved out of the area over the fall and winter of 2008 with no pallid sturgeon located in the area in 2009. The

sturgeon dispersed downstream with many residing in the lower Yellowstone River and Missouri River in Montana and North Dakota. The sauger telemetry work indicated the area around Billings is populated by adult sauger and they remain in the area and don't disperse as much as sauger in the lower Yellowstone and Missouri Rivers. This may indicate a spawning population exists in the mid-Yellowstone, however YOY sauger are not collected in the Huntley to Billings area. They may rear in the lower river and return as adults. Huntley diversion dam may be a limiting factor to returning fish. Efforts with local landowners, the USFWS and BOR, and FWP are underway to repair the fish bypass channel at Huntley Dam, which would improve passage for sauger and other fish species. Radio tagged channel catfish and ling also appeared to remain in areas near the tagging sites but difficulties with keeping the tags in the fish were encountered limiting the data collected for these species.

Musselshell River

The Musselshell River had a fair water year combined with the 2008 flushing flows may have provided additional spawning area for trout in the upper reaches and in the lower reaches may have had another good year for catfish and other species to move up from the lower river to populate the lower stretch in Region 5. Some anglers reported good catfish fishing in the Roundup area and sporadic fishing for brown trout in the Selkirk FAS area. Electrofishing survey work in the spring of 2009 indicated the presence of YOY fish with adults captured ranging from 16 to 18 inches.

Deadmans Basin Reservoir

Water conditions in Deadmans Basin Reservoir have been slowly improving over the past couple of years, but 2009 was the first year in recent history that Deadmans Basin was totally refilled. Unfortunately, these good water conditions were short lived. Repairs were required at the toe of the dam and the outlet canals, and for safety of the crews working below the dam, water had to be evacuated to about 40% of full storage over the summer and fall. It's anticipated the reservoir can begin filling again in the winter of 2009/2010 and if adequate snow and rain hits the basin the reservoir could be full again

in 2010. Nearly 100,000 kokanee and 200,000 rainbow trout were stocked in Deadmans in 2008 and 2009. Kokanee stocks from the 2009 stocking appeared to be in excellent condition and survived in high numbers. Kokanee averaged over 100 per net in the fall netting which may be the highest rate recorded and they were already 9 inches in October of 2009. These fish should provide some good ice fishing this winter and over the next two years. In contrast the fall and spring sampling in 2008 and spring sampling in 2009 indicated less than 12 kokanee per net. Rainbow trout continue to look good with average lengths around 13 inches and a catch rate of over 10 fish per net. A handful of nice brown trout were collected with the average fish being larger than 20 inches.

Tiger muskies have been sampled nearly annually and this year was no exception with a 44-inch, 25lb muskie captured in the spring of 2009. Most of the muskie sampled since 2006 have been from the 1998, 1999, and 2000 stocks with only 1 being sampled from the 2006 stocking. Muskie are great at reducing white sucker populations which in turn improves the growth of kokanee and trout while providing a unique fishing opportunity. FWP will continue to monitor the white sucker population. White sucker numbers in the nets have averaged around 8 per net over 4 sampling periods with the average size approximately 11 inches.

Lake Elmo

Lake Elmo provided many hours of fishing this past year for kids and adults alike and continues to produce some good catfish, rainbow and cutthroat trout, and occasional nice size crappie and yellow perch, along with the abundant smaller perch. The nets captured plenty of white suckers, which is the reason tiger muskies were stocked in 2006 and 2007. Seven stocked tiger muskies have been caught in nets since they were first planted, with one caught in 2009: a whooper at 3 years old and already 31.5 inches and 9 pounds. The fish was released in great condition. Growth like that has to come from lots of white suckers and smaller crappie and perch. In 2007, the 5 muskies caught from the 2006 stocking averaged 23 inches and 3 pounds.

Broadview Pond

Broadview pond is on it's way back as a nice community fishery, after years of drought. Several groups worked to revitalize the reservoir with many thanks going to Pike Masters for rehabilitating the dike and sponsors of the project including Fish America Foundation, Walmart, Pro Line Manufacturing, FWP, Hi-Ball Trucking, Modern Machinery, Eagle Construction, Donnes Construction. Concrete and Excavation Inc. C&S Construction, Tractor Equipment Company, Stockon Oil, Siewert Trucking, and Magic City Flyfishers. Broadview filled in 2006 and bass were stocked to start the fishery. Bass were also stocked in 2007 with rainbow trout stocked in 2008 and 2009. The bass have started to naturally reproduce and growth on the stocked fish has already produced fish over 1 pound in just a couple of years. Rainbow trout typically stocked at 7 to 8 inches have also grown well with some reaching 13 to 14 inches in length.



Cooney Reservoir - Jeremiah Wood

Cooney Reservoir continues to provide a quality fishery for both rainbow trout and walleye in south-central Montana. Spring electrofishing surveys identified a healthy level of juvenile walleye recruitment and some very large older walleyes. In addition, rainbow trout abundance was noticeably greater than in past years. Improved rainbow trout survival has been attributed to the stocking of fewer, larger fish (>7" long), which are less vulnerable to predation from walleyes. A great indication of the improving rainbow trout fishery in Cooney was the high level of ice fishing activity in 2009 compared to previous years when the lake was virtually void of anglers for most of

the winter. In 2009, anglers reported catching decent numbers of fat, 14-16" rainbows throughout the winter and well into the spring. All of the larger (>7" long) rainbows stocked in Cooney this year were marked with an adipose fin clip to compare their survival to the smaller (2") rainbows that are stocked in Cooney in the winter.

In addition to rainbows and walleyes, a new species of sport fish appears to be emerging in Cooney. Over the past few years, we have begun catching burbot (commonly known as ling) during our routine fish sampling. We suspect that these fish may have been incidentally stocked as part of the walleye introduction in the early 1980's and are just beginning to establish a sizeable population. Increased fishing activity through the ice this winter also resulted in the incidental catch of several burbot by anglers. In February, we began an effort to sample these fish through the ice by fishing with tip-ups after dark. Over the course of three nights, we captured 17 burbot of a variety of size and age classes. This information will be extremely valuable for the future monitoring and management of this newly established fish species.

<u>Mountain Lakes</u>

Each summer, two seasonal fisheries technicians and two college interns take to the high-elevation mountain lakes in the Absaroka-Beartooth Wilderness Area to sample fish populations. This year, the crew braved extreme conditions to sample some of the highest lakes in the area – the lakes that serve as refugia for stocked populations of YCT. Most of these high elevation cutthroat lakes are managed as trophy fisheries and are stocked at low densities every eight years to maximize fish growth. The crew's fish and habitat sampling efforts help quide future management decisions in the 320+ fish-bearing lakes and also provide updated information for anglers seeking a fishing adventure in the A-B Wilderness. The A-B Mountain Lakes Guide, which also includes information on lakes in the Crazy Mountains, is available electronically at http://fwp.mt.gov/r5/mountainlakes.html.

Yellowstone Cutthroat Restoration

Opportunities abound for the restoration of YCT populations in south-central Montana, an area

where this native species was historically prevalent. This year, FWP personnel completed the chemical reclamation of Goose Creek, a tributary to the Stillwater River, adding 6 miles of stream habitat and three small lakes to the list of waters containing YCT in the region. A project to remove rainbow trout from two lakes in the upper Boulder River was also completed, and the lakes were stocked with YCT. Two new projects were initiated in 2009 to establish new YCT populations in stream segments that were once void of fish. Lower Deer Creek and Duck Creek are tributaries to the Yellowstone River near Big Timber and Springdale, Montana, respectively. Both contain indigenous populations of YCT that have been substantially reduced and are being further threatened by nonnative fish. Brown trout are out-competing YCT in both creeks, while Lower Deer Creek faces the added threat of hybridization (interbreeding) with rainbow trout, which would dilute the genetic integrity of these fish. Region 5 personnel began an effort to protect these populations by re-establishing them in refuge areas above natural waterfalls that are inaccessible to other fish. This was done by collecting adult YCT during their spawning period and artificially fertilizing their eggs. Eggs were then transferred to areas of stream above the waterfalls and planted in the stream gravel. Preliminary results in Lower Deer Creek indicate a successful egg transfer, while further evaluation is needed in Duck Creek. Egg transfers and monitoring will continue for at least two years with the hope of establishing a self-sustaining YCT population above the falls in each stream.

Crooked Creek - Mike Ruggles

Crooked Creek in the Pryor Mountains contains the eastern-most core population of indigenous YCT left in their historic range. Fire and subsequent rainstorms altered the creek allowing brown trout to invade the isolated YCT population in the early and mid 2000's. Effort to remove brown trout and create a new barrier started in 2004-2006 and in 2008 a permanent barrier was in place and a rotenone project was completed above the barrier to remove brown trout. Extensive sampling in 2009 above the new permanent barrier indicates this project has been successful. Brown trout were not found above the barrier and a few YCT had begun colonizing the rehabilitated

area. Young YCT were not captured in 2009, sampling is planned in 2010 to evaluate if additional recruitment is occurring from upstream or if natural reproduction occurred in 2009 or 2010 and to ensure brown trout have been eradicated from this reach. Brown trout were captured immediately below the barrier with some large adults and YOY fish sampled.

Sage Creek

Sage Creek in the Pryor Mountains was historically a YCT stream but they have been extirpated over time by rainbow and brook trout. Plans are underway to treat the Creek with rotenone and re-establish a YCT fishery in this drainage in 2010.

Region 6 Northeast Montana

Fort Peck Reservoir - Heath Headley

Fort Peck Reservoir elevations rose nearly 10 feet from early April into July 2009 thanks to slightly better than average snow pack in the mountains and plains along with generous amounts of spring precipitation. Since then, water levels have stabilized and are forecasted to remain stable throughout the winter months. With the increase in water levels during 2009 came large-scale flooding of shoreline vegetation much like 2008. Approximately 17,000 acres

of shoreline were flooded which provided a tremendous amount of new habitat to a variety of fish species. Additionally, this newly flooded shoreline adds valuable nutrients that increases overall lake productivity and benefits the entire Fort Peck Reservoir fish community.

Unlike 2008, the walleye spawn in 2009 was a huge success; 132 million eggs were collected exceeding the 80-million egg goal. Success was due in part to favorable spawning conditions during

mid April. Although ice cover was late and water temperatures were cooler than usual, a gradual warming trend developed at a critical time during the walleye spawn. This triggered large numbers of pre-spawn walleyes to begin cruising the shoreline in the Big Dry Arm of Fort Peck. The resulting fry filled the rearing ponds of the Fort Peck and Miles City Fish Hatcheries.

A total 45.5 million fry and 3.2 million fingerlings were stocked throughout Fort Peck Reservoir in 2009. 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 eggtake that benefits other Montana walleye fisheries.

Fort Peck walleye relative abundance and size structure is showing signs of improvement. Walleye abundance, as measured by number of fish per net, increased slightly from 2.8 in 2008, to 3.3 in 2009. Walleyes in the 12 to 18 inch range were the most abundant, but anglers can be encouraged to know that a good number of walleyes greater than 24 inches are sampled. Walleye were found to be more abundant in the Hell Creek and Rock Creek areas of the reservoir during the July-August sampling. Similar to 2008, walleye anglers had good success fishing the newly flooded vegetation that attracted shoreline forage fish, which in turn attracted smaller walleye.



This year marked one of the most successful years for northern pike reproduction since the mid to late 1990's. So, if the walleye aren't cooperating, anglers should try their luck for northern pike or smallmouth bass. Pike populations should continue to increase with the newly flooded vegetation providing excellent spawning and rearing habitat. Additionally, smallmouth bass populations continue to expand

throughout the reservoir as indicated by sampling surveys. Anglers should expect decent catches of smaller fish but also have a shot at others up to 18 inches.

Seining surveys were difficult again in 2009 due to the abundant flooded thistles, salt cedar, willows, and grasses. However, it was evident that this provided great cover for shoreline forage fish including small crappie, yellow perch, spottail, and emerald shiners. This is encouraging because these four species comprise a large portion of the diet for reservoir predators. Seine hauls did indicate that yellow perch successfully spawned, as they were the most abundant species captured during the seining surveys.

Cisco had an excellent year of reproduction with catches increasing from 2008 levels of 113 cisco per net to 274 cisco per net in 2009. This record increase in YOY cisco can be attributed to early ice cover on the reservoir and stable water levels during the winter months. Early ice cover decreases wave action that causes sediment to cover eggs resulting in mortality. Severe decreases in water levels during the winter months can dewater the eggs resulting in near complete year class loss. Strong cisco production bodes well for chinook salmon, lake trout, as well as large walleye and northern pike as cisco is a preferred food item of these predators. Many anglers have discovered that targeting the deeper/open water areas during the summer months can be very productive for these large predators.

The chinook salmon program is beginning to show signs of a rebound. In 2009, over 150 female salmon were spawned yielding approximately 537,039 green eggs. This was nearly three times the number of females spawned and eggs taken in 2008. This good return was comprised of a large group of healthy four year old females that ranged from 15 to 20 pounds. Anglers should see decent numbers of two to three year old salmon in 2010, but can expect smaller fish due to the limited numbers of four year old fish. This year, 245,419 chinook fingerlings were released into Fort Peck with 188,906 springstocked at five inches and the remaining 56,513 were fall stocked at 7 inches. Increased size at stocking, improved water levels, and an abundance of cisco have all been playing a crucial role in the growth and survival of the Fort Peck salmon fishery.

The lake trout population in Fort Peck is com-

prised of larger, older individuals with a few up to 30 years old! Aging work has revealed that good reproduction occurred during the last period of increasing reservoir levels in the late 1990's. Increasing reservoir levels provide a greater amount of suitable spawning habitat, most of which near the face of the dam. Limited reproduction occurred through the drought years of the 2000's.

In an effort to determine harvest on these old, slow-growing fish, the lake trout tagging program continued in 2009. If you catch a lake trout or any other tagged fish in Fort Peck, please record location of capture, size (length and weight if possible), date caught, tag number and color. After recording the information please call (406) 526-3471 or contact any regional office and they can supply us with the given information. Thanks to all you anglers that have reported tagged fish! This is an important part of fisheries data as it provides insight into movements, harvest rates, and growth that allow us to better manage this world-class multi-species fishery.

Havre Area Fisheries - Cody Nagel

Fresno Reservoir

Fresno Reservoir once again remained a top destination for walleye anglers in 2009. The walleye bite started in May and remained good through September. Standard fall gill netting revealed walleye relative abundance was the second highest on record (highest relative abundance was observed in 2007). The high walleye abundance over the last three years is largely due to relatively stable reservoir levels and the annual plants of 100,000 walleye. Fresno contains multiple age classes of walleye, with high densities of 12-17 inch fish. Fishing opportunities in 2010 should be excellent.

Since 2003 adult yellow perch abundance has decresed slightly, resulting in concern over the status of the forage base in Fresno Reservoir. The current population of yellow perch consists mostly of 8-12 inch fish (good spawners). With favorable water levels during April and May these fish can produce a big year-class. This was evident in 2008 and 2009 with the second and fifth highest abundance of YOY perch recorded in ten

years. Furthermore, good numbers of yearling yellow perch (3-4 inches) were observed throughout the reservoir, indicating a good year-class was produced in 2008.

Crappie anglers reported catching adult crappie upwards of 14 inches from early summer through the fall. The fishery in Fresno is highly depen-

dant on water levels with higher water levels benefiting reproduction and survival of forage and sport fish throughout the reservoir.

Anglers should also note the FAS below Fresno Dam got a face-lift in 2008. Some of the changes include a boat ramp for smaller boats and canoes, a concrete walking path, and a handicapped accessible concrete fishing pier.



Nelson Reservoir

Nelson Reservoir remained a favorite among walleye anglers in 2009. The bite started in early May after the spawn and continued through September. Anglers reported excellent catch rates of 12-15 inch walleye with an occasional fish over 20 inches throughout the reservoir. In 2009, 105,000 walleye fingerlings were stocked into the reservoir from the Fort Peck Hatchery.

Seining surveys revealed spawning success for most species was similar to previous years, with the exception of yellow perch. In 2009, the highest abundance of YOY yellow perch was observed (since 1993). Annual fall gillnetting yielded the highest yellow perch per net (19/net) since FWP standardized their locations in 1991. The yellow perch population is mainly comprised of 6-8 inch fish.

The northern pike population remains good and there is a good mix of year-classes with northern pike up to 42 inches. The majority of northern pike sampled ranged from 16-28 inches. Angling opportunities on Nelson Reservoir are far from over as the fishing experienced by many anglers during the summer and fall will carry over into the winter months and ice fishing should be very productive for eater sized walleye, northern pike, yellow perch, and black crappie.

Beaver Creek and Bear Paw Reservoirs

These two fisheries once again provided excellent fishing opportunities for anglers simply looking to catch fish, and lots of them! Anglers targeting rainbow trout experienced high catch rates for 8-12 inch fish in both reservoirs.



Rainbow trout were not the only fish biting this summer. Anglers fishing along the rock rip-rap dams of both reservoirs experienced excellent smallmouth bass fishing. Most of these fish ranged from 12-15 inches.

Yellow perch abundance in Beaver Creek Reservoir remains very high and the ice fishing opportunities should be as good if not better than what was experienced last winter, for yellow perch ranging from 8-9 inches.

Missouri River Paddlefish above Fort Peck

A valuable recreational snag fishery occurs each year for paddlefish above Fort Peck Reservoir in areas down river of the Fred Robinson Bridge. In recent years, harvest of Fort Peck paddlefish has varied depending on strength of run and river discharges. Typically 300 to 600 paddlefish are harvested annually. In 2009 a 500 fish quota was implemented and the season was closed just prior to the Memorial Day holiday. The quota was instituted in 2008 in response to declining num-

bers of larger (older) fish. Historically anglers would catch numerous paddlefish over 100 lbs, however these fish are aging and being removed form the population. Limited reproduction has occurred during the drought cycle (paddlefish need high river flows and a high reservoir levels on Fort Peck Reservoir). As the reservoir comes up, new and productive habitat is flooded that is critical to the survival of the young paddlefish. If are not often seen in our standard trammel nets or otter trawls. It is important to researchers that our captures represent all year classes of pallid sturgeon that are in the river to help build more robust survival models. Understanding the rate at which hatchery reared pallid sturgeon survive is used in determining how many fish need to be stocked into the river to one day meet the adult pallid sturgeon population objectives. If we stock

reservoir levels remain low, younger paddlefish do not grow as large and may be vulnerable to predation for a longer period of time.



too many pallids they could suffer from lack of food or space, whereas stocking to few could mean not enough will make it to sexual maturity.

Another big highlight of the year was catching a wild adult pallid sturgeon upstream of Culbertson in one of our 1-inch mesh trammel nets. This

FWP continues to study and monitor these important fish. Survival, growth and harvest is determined by tagging paddlefish and relying on anglers to return tags

with information on location and size of fish harvested. Please direct all tag returns to the Havre Area Resource Office. In 2005, FWP and the University of Idaho started installing radio transmitters in paddlefish to study how spawning locations and spawning success vary with differences in annual flows. The habitat use of adult migratory fish under different river flow conditions is also being evaluated to gauge the effects of annual environmental variability on paddlefish migratory behavior and eventual year class strength. FWP asks paddlefish snaggers to release any paddlefish implanted with transmitters. In the event that a tagged fish is harvested, tags should be returned to the Havre Areas Resource Office so that they can be re-implanted into another paddlefish.

The pallid sturgeon population assessment team continued monitoring pallid sturgeon and other fishes in the Missouri River downstream of Fort Peck Dam during 2009. One of the highlights of the 2009 field season was a three-day intensive sampling effort in the lower portion of the river that yielded 63 hatchery reared juvenile pallid sturgeon consisting of at least nine distinct age classes. As was seen in 2008, trotlines caught some older age classes of pallid sturgeon that

was the first adult pallid sturgeon captured by our crew during four years of standard monitoring. Radio telemetry data show that some adults still use the Missouri River below Fort Peck Dam on an annual basis. Although the population assessment program is aimed at monitoring juvenile pallid sturgeon, each spring a number large adult pallid sturgeon are handled during broodstock collection. These fish represent the last of the wild pallid sturgeon which are projected to die out by 2016 unless significant habitat alterations are made to the Yellowstone or Missouri Rivers. Limited spawning has occurred but no survival has taken place in three to four decades. Past and present research has determined that many of the remaining wild adult pallid sturgeon congregate in and around the confluence of the Yellowstone and Missouri Rivers in the spring before they spawn. These fish are captured before they spawn and are taken to various hatcheries including Miles City State Fish Hatchery where they are spawned and the progeny released back into the river. The hatchery-produced progeny are then used for supplementing the current population in Montana and other states as well as for research. The broodstock effort is a collaborative effort between several state and federal agencies.

Most juvenile pallid sturgeon that are captured are tagged. Fish are tagged prior to release and the tags provide information such as hatchery where the fish was reared, age of fish and the location where the fish was stocked. However, some pallid sturgeon are not tagged; these are identified as "unmarked". Obviously, we want to know if these fish are naturally produced so a small tissue sample from its pectoral fin, which is sent off to a genetics laboratory. By looking at the fish's DNA the laboratory can tell us if the fish is indeed a pallid sturgeon, shovelnose sturgeon or a hybrid between the two as well as if the fish originated from a hatchery or the wild. Over the past four field seasons we have not captured any juvenile pallid sturgeon that we believe were produced naturally in the Missouri or Yellowstone Rivers.

Over the past four years of sampling in the Missouri River it is apparent that Fort Peck Dam greatly influences native fish distribution and fish growth in the Missouri River. Many of the native minnow species have much greater abundances in the furthest most downstream areas near Culbertson to the border where water temperatures

and turbidities are more naturalized. Whereas, many of these species are either not present or are in very limited numbers in the upstream portions of the river near the dam where the water is cold and clear. In addition, game fish like channel catfish and sauger appear to be significantly smaller in the Missouri River downstream of Fort Peck Dam than in neighboring waters like the Milk River and Yellowstone River. The likely cause of the slower growth and altered distribution of fishes is the unnatural cold clear water that comes out of Fort Peck Dam throughout the summer growing season. Although this cold clear water is likely detrimental to many native

fishes, it is beneficial to the non-native salmonids that occupy the tailrace waters. Both rainbow and brown trout are found in the waters below Fort Peck Dam and while we know little about these populations we do know that quality fish are being caught on an annual basis. One of our goals of the near future is to better understand the tailwater fishery to make sure it is sustainable.

REGION 7 SOUTHEAST MONTANA Yellowstone River Paddlefish

The mountain snow pack in the Yellowstone River drainage was average to above average and resulted in good Yellowstone River flows for the entire summer. The 2009 paddlefish season began May 15 with flows at the Intake FAS in the 12,000 cfs. range. The first ten days of the season saw 10 to 40 paddlefish caught per day. Then as the flows climbed to the 30,000 cfs range the fishing really took off and the harvest was about 100 paddlefish per day until the harvest season was closed at the end of the fishing day on June 3.

The estimated harvest for the Lake Sakakawea/ Yellowstone River paddlefish population in Montana was 967 fish. This was the first year since the 1,000 fish harvest quota was established that the quota was not exceeded. Sixty-seven percent of the paddlefish harvested from the Yellow-

stone River in 2009 were males and once again the 1995 yearclass dominated the catch. Overall, fifty percent of the paddlefish harvested from the Yellowstone River in 2009 were males from the 1995 year-class. Since the 1995 year-class is the only yearclass that has survived in significant numbers to recruit into the fishery in over a decade it is likely that the harvest of paddlefish will need to be further restricted.

Paddlefish spawning success is attributed to adequate nursery habitats found in the upper end of Lake Sakakawea. During years when reservoir levels are rising such as in 2009. abundant shal-

low water flats are available to young paddlefish that utilize the turbid waters for cover and feed on zooplankton produced in these types of waters. Even though it was a good water year, a survey of YOY paddlefish in the upper end of Lake Saka-



kawea indicates that 2009 was a poor production year.

The one regulation change during the 2009 paddlefish season was to restrict catch-and-release fishing to the Intake FAS only.

Other Yellowstone River Fishing Opportunities

The lower Yellowstone River continues to provide exceptional angling opportunity for a variety of warm-water game and non-game species. Channel catfish are abundant the entire length of the lower river. Five to ten pounds cats are common and fish up to 20 pounds are a possibility.

Sauger and walleye fishing is usually best in the spring and fall when water temperatures are cooler and the water is clear. Sauger numbers tend

to increase as you move downstream. Smallmouth bass prefer the clearer water found above the mouth of Powder River and can be caught spring through fall.

Above average mountain snow pack resulted in above average flows in the Yellowstone River for all of 2009. Along with the higher flows, came higher turbidity, which made some Yellowstone River fish species like sauger and smallmouth bass harder to catch.

Other fish available to the angler include shovelnose sturgeon, fresh water drum and burbot. Goldeye can be readily caught using bait, lures or with a fly rod and dry flies when they are feeding on the surface. You never know for sure what you might find on the end of your line when fishing the lower Yellowstone River.

Tongue River

Fish sampling continued in Tongue River in 2009 to determine the extent to which fish are using the fish bypass structure at the T&Y Diversion Dam (River Mile 20). Fish migrating out of the Yellowstone River use Tongue River for spawning and rearing. The T&Y Diversion Dam was a complete barrier to upstream fish movements until the bypass structure was completed in the fall of 2007. Sampling in 2008 and 2009 show that thousands of fish of many species are using the bypass channel to access the Tongue River above the dam. Four species of fish not seen above the T&Y Diversion since fish sampling began in the Tongue were found there in 2008. These four fish were goldeye, fresh water drum, western silvery minnow and smallmouth buffalo. Added to the list of species using the bypass channel in 2009 were sturgeon chub, which is a species of special concern in Montana and sauger. Shovelnose sturgeon did not use the bypass channel in 2008 or 2009, but modifications are planned to attempt to get shovelnose sturgeon around the diversion dam.



The SH Diversion Dam located 51 miles upstream from the T&Y Diversion was removed in 2008. The removal of the SH Diversion was possible because it had been abandoned and no longer used for irrigation. The SH Diversion was a complete barrier to the upstream movement of fish. For the first time in 100 years migrating Yellowstone River fish were able to access all 189 miles of

the Tongue River from the Tongue River Reservoir Dam to the confluence with the Yellowstone River. In 2009, goldeye and fresh water drum were found just below Tongue River Dam (River Mile 189).

Tongue River Reservoir

The Tongue River drainage had above average snow pack coming into spring of 2009 which resulted in above average stream flows though out the rest of the year. The reservoir filled early and stayed full to overflowing through most of the summer. Flooded shoreline vegetation provides excellent spawning and rearing habitat for many reservoir fish species. Department seining efforts

in August indicated good spawning success and survival.

Tongue River Reservoir is managed primarily for crappie fishing. A cool rainy spring made for slow crappie fishing through May and into June. There was some concern that the cool weather and water temperatures might prevent crappie from spawning but seining results showed an abundance of YOY crappie. Most of the crappie harvested by anglers is in the 8 to 10 inch range.

Smallmouth bass, bullheads, northern pike, channel catfish and walleye make up the remainder of the angler harvest at Tongue River Reservoir but lag far behind crappie in numbers caught and angler preference.

Southeastern Montana Ponds

There are over 100 ponds and reservoirs being managed for fish in Region 7's pond program. Many of these ponds are privately owned with the landowner allowing public fishing. As with access to all private lands, landowner permission is a must. The remaining ponds and reservoirs are on state or federal land.

While mountain snow pack has been good in recent years, snow pack on the plains of southeastern Montana has not been good and timely spring rains that have provided for good grass growth have not been adequate to provide runoff to fill prairie reservoirs. Consequently, southeastern Montana ponds are not providing the fishing opportunities that they have in the past.

The regional fish staff visits about one third of the ponds in the program annually to check on water conditions and the fishery status. A Region 7 Pond Fishing Guide is updated annually with the latest survey data and has maps to help locate the ponds. The booklet is free to the public and can be obtained by contacting the Region 7 office at 406-234-0900.

Montana Aquatic Nuisance Species Program

Eileen Ryce, Montana ANS Coordinator

Aquatic nuisance species (ANS) cause significant ecological and socio-economic problems throughout North America. Invasive species, such as zebra mussels, Eurasian watermilfoil, Asian carp, New Zealand mudsnails and whirling disease are being introduced into new locations at an alarming rate. After introduction, populations often grow quickly and spread rapidly due to lack of natural controls. Once established, they often displace native species, clog waterways, impact municipal and industrial irrigation and power systems, degrade ecosystems, reduce or threaten recreational and commercial fishing opportunities, and can cause wildlife and public health problems.

In Montana we are very fortunate to have had very few issues with invasive species. We also have a lot to protect and a lot to lose. To help protect the aquatic resources of Montana during the 2009 legislative session the Montana Aquatic Invasive Species Act was passed. The new Act will help the state agencies better protect the State from these invasive species that are easily transported and spread to new areas. The Act provides more funds and authorities; however, your help in the fight against aquatic invasive species is needed.

Here are some simple steps you can take to reduce the spread and introduction of these harmful invaders:

- * Inspect your gear for any plants or dirt
- * Wash your gear with clean hot water
- * Thoroughly dry your gear
- * NEVER transport any fish, plants or animals from one body of water to another

Spread the word: encourage others to follow these practices.

Remember: Inspect · Clean · Dry





STATE OF MONTANA HATCHERIES

Big Spring Hatchery

Route 1 Box 1670 Lewistown, MT 59457 (406) 538-5588

Bluewater Hatchery

PO Box 423 Bridger, MT 59014 (406) 668-7443

Flathead Lake 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 Hatchery

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

Murray Springs Trout Hatchery

One component of our hatchery program changed this fall. Genetic samples revealed that our Kamloops broodstock was only 30% Kamloops and the other 70% of the genetic markers were primarily eagle lake strain.

Jocko River Hatchery

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

Miles City Hatchery

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

Murray Springs Hatchery

5475 Sophie Lake Road Eureka, MT 59917 (406) 889-3489

Yellowstone River Trout Hatchery

PO Box 508 Big Timber, MT 59011 (406) 932-4434

Washoe Park Hatchery

600 W Pennsylvania St Anaconda, MT 59711 (406) 563-2531

The primary management objective for our Kamloops rainbows is to produce large, trophy-sized fish that would prey mainly on kokanee salmon in Libby Reservoir. The decision was made to dispose of the Kamloops broodstock. The new alternative calls for acquiring eagle

lake rainbow eggs from the Ennis National Fish Hatchery and rearing them for most of the lakes where we previously stocked our Kamloops.

For waters that have forage fish, such as Libby Reservoir, the Department imported triploid Gerrard rainbow eggs from British Columbia from which we will raise production fish. We got 68,000 triploid Gerrard rainbow eyed-eggs from the Kootenay Trout Hatchery near Wardner, British Columbia. Most of the fish are allocated for Libby Reservoir where the management goal is for the Gerrards to crop off the abundant kokanee salmon and grow to trophy sizes. In their native environment at Kootenay Lake, Gerrards have grown in excess of 20 pounds.



We have been raising Red Band rainbow trout for experimental investigations since 2003. In that process, we produced some production fish that have been used by FWP fisheries biologists for various management projects. Earlier this year. FWP Fisheries Division staff decided to develop a Red Band broodstock from fish that were captured from Callahan Creek, near Troy. Those wild fish have been maintained at the Libby Field Station. The fertilized green eggs were moved into our new isolation facility where they have since hatched. We now have about 1300 fry resulting from the crosses of 13 males and 12 females. It will take three to four years to build the broodstock. The current plan is to maintain the brood at the Murray Springs Hatchery.

We have also helped some local schoolteachers with their Hooked-On-Fishing classes. It has

been very rewarding to see the satisfaction that young kids show after catching fish (possibly their first fish).

In 2009, the Murray Springs Hatchery planted a total of 84 lakes with 285,000 fish. They planted 127,053 Eagle Lake Rainbows, 6,916 Red Bands Rainbows, 43,942 Kamloops Rainbows, and 107,381 WCT.

<u>Flathead Lake Salmon Hatchery, Rose Creek</u> <u>and Sekokini Satellite Facilities</u>

The primary function of the Flathead Lake Salmon Hatchery is to capture wild spawning adult kokanee salmon and collect, incubate, and hatch 1,600,000 eggs for this hatchery's annual stocking program in Montana. To meet all instate requests for kokanee salmon production, a



minimum of 2,800,000 fertilized green kokanee salmon eggs must be collected annually. The hatchery also collects, incubates and distributes grayling, WCT, and Ashley Lake rainbow-cutthroat trout hybrids. This project is also responsible for developing and operating two remote satellite facilities at Rose Creek and Sekokini Springs.

In 2009, Flathead Lake Salmon Hatchery stocked 340,000 kokanee salmon for Big Springs Trout Hatchery, yielding a net savings in distribution costs including transportation, per diem and man hours and reduced fuel expenditures.

A total of 2,800,000 fertilized green kokanee eggs were collected from two lake sources (Lake Mary Ronan and Bitterroot Lake). Surplus fish produc-

tion was stocked into local lakes per recommendations of fisheries managers.

Flathead Lake Salmon Hatchery incubated, hatched and reared 110,000 westslope cutthroat trout for backcountry lakes planting and regional research projects at the Rose Creek satellite facility.

On July 19th, 2009, 227 Westslope Cutthroat trout were transported from Danaher Creek to Sekokini Springs Hatchery. The fish were collected using fly rods and packed out by mule train. The bags were packed in coolers with ice for the 24-mile trip to the trailhead where they were transferred to a hatchery truck for the rest of the trip. Cutthroat trout for genetic infusion of the MO12 broodstock at Washoe Park Trout Hatchery have been collected from four streams in the South Fork Flathead drainage and are also being held at Sekokini until the 2010-spawning season. Grayling eggs were taken in Roger's only this year for the few lakes we stock. We took 650,000 eggs in about 2 hours time as the run was strong and fish were plentiful.

A total of 1,650,000 kokanee (3,400 pounds), 156,000 grayling (8 pounds) and 20,000 rainbowcutthroat trout hybrids (16 pounds) were stocked into 19 waters in Montana.

Jocko River Trout Hatchery

Jocko River Trout Hatchery's (JRTH) primary function is to maintain Montana's domesticated Arlee rainbow broodstock and perform associated spawning activities. Egg production goals were met and all requests were filled. Approximately 5,040,337 green eggs were produced. 1,495,405 eyed eggs were shipped to state, federal, and private hatcheries, and 424,158 eyed eggs were kept at JRTH for production and future broodstock.

The retired brood went to Triangle Pond, Harpers Lake, Beavertail Hill Pond, Ninepipes Pond, Lake Como, Van Lake, and Snappy's Sports Emporium. During the year and spawn season we gave 16 official tours to 445.

JRTH expanded its triploidy induction program utilizing pressure-treating equipment. Triploids

came back 100% triploid. So far preliminary data doesn't support the theory that they grow faster in the hatchery but a few more seasons should confirm one way or the other.

A total of 373,319 fish (35,530 lbs) were stocked out of Jocko River Hatchery. Of those, 346,139 were fingerlings, 21,377 were catchables, and 5,803 were brood.

Washoe Park Trout Hatchery

The primary mission of Washoe Park Trout Hatchery (WPTH) is to manage Montana's only WCT broodstock. The founding population of today's broodstock was taken from tributaries of the Hungry Horse and the lower Clark Fork drainages in 1984 and 1985 along with continuing contributions from wild populations as necessary to ensure genetic diversity.



The staff is working to expand the production of WCT in the raceway space formerly occupied by Eagle Lake rainbow trout. Brood numbers are currently being expanded to keep up with increased fish and egg requests. Capacity for raising catchable-size fish has doubled and our production has increased respectively.

Our air plants went well this year. We had about 25 lakes, so it was a pretty quick season. The weather couldn't have been better, we were able to load the helicopter up in Twin Bridges, chase the pilots to Ennis and fly a couple loads out of there, then chase them again to Helena to finish out the day. We were able to get most of our fish out. The next week we flew a few flights out of

Condon and that was the extent of our air plants this year.

We did two of our backcountry plants on horseback through cooperation with the Forest Service using their stock. The first lake they planted was Tamarack Lake here in the Pintler wilderness and the group camped out overnight. The second lake, Upper Baldy, which is east of Helena, was a day trip in-and-out. It was a great cooperation

between both agencies and we'd like to thank the USFS for the extra manpower and stock to successfully complete both plants.

We did our first lot of triploid WCT this year, and ended up with about 6,000 fish total. We planted 1,000 of them into Missoula Lake near Superior and we're keeping the rest until fall of 2010 to use for rehab work in Region 3. The tests came back on our fish at 100% triploids so

our "recipe" with the pressure chamber was very successful.

Washoe Park produced approximately 1,172,792 eyed westslope cutthroat trout eggs in 2009. Approximately 30,000 of these eggs were kept at the facility for future broodstock and 317,000 for production fish. A total of 826,000 WCT eggs were shipped to two other state hatcheries and one federal hatchery in Montana for their production needs as well as three, state-run hatcheries in Idaho. A total of 139,079 westslope cutthroat trout totaling 5,510 pounds were stocked into seventy-seven waters in Montana in 2009.

Giant Springs Trout Hatchery

The primary function of Giant Springs Trout Hatchery is the production and distribution of brook trout and four strains of rainbow trout for population maintenance and urban fisheries.

We continue to experience problems with coldwater disease at the hatchery. Manipulating rearing densities, disinfection of water supplies & packed columns, and treatments with all suitable drugs have had little or no effect on the number of outbreaks that occur.

The causative agent for whirling disease is immediately adjacent to the hatchery in the Missouri River. To reduce the likelihood of transmission of whirling disease to the hatchery's fish population, the public has been excluded from the area containing the eight outside production raceways while the outside show pond remains open to the public.



As always, being located next to the park, something interesting always seems to happen. Back in June we received a call from Jack Hannah's film crew wanting to do a piece on the Giant Spring and the hatchery. So about mid August, a helicopter flew in landed above the houses. The hatchery received a phone call that Jack Hannah was here and ready to film the hatchery. In October the

hatchery will be featured on Into the Wild which I believe is on animal planet.

A total of 41,839 brook trout totaling 1,089 pounds were stocked into two reservoirs. A total of 226,676 Arlee Rainbows, 250,784 Eagle Lake rainbows, and 48,434 Erwin rainbows totaling 77,813 pounds were stocked into 3 rivers and streams and 43 ponds, lakes and reservoirs.

Big Springs Trout Hatchery

The primary function of Big Springs Trout Hatchery is the production and distribution of kokanee salmon, cutthroat trout, brown trout, and 4-5 strains of rainbow trout for population maintenance, urban fisheries, and native fish population enhancement.

For the past few years we have been going to Garrison National Fish Hatchery in North Dakota to pick up Pallid Sturgeon in the spring. This year we got to do two runs to Garrison one in the spring and one in the fall. The spring group numbered 4,793 fish at 9 inches. The fall group numbered 20,549 fish at 5 inches long. We did some fish trading with Fort Peck this year. We

gave 8700, 8 inch rainbows and 59,800, 4 inch rainbows to them in exchange for 50,000 7 inch Chinook. We are no longer raising Yellowstone Cutthroat.

Ponds that usually have too little water to stock are designated as "chronically dewatered" but remain on the stocking list in case they fill. 2009 has been a good water year and 14 "chronically dewatered" ponds filled and were stocked with 21,500 fingerling Arlee rainbow trout. Only three "chronically dewatered" ponds remained low and were not stocked.

Surplus fish stocked totaled 135,364 fish weighing 8,799 pounds. The breakdown includes: 16,599 fingerling McConaughy rainbow; 96,957 fingerling Arlee rainbow; 9,865 catchable Eagle



Lake rainbow (summer 2008); 4,005 catchable Arlee/Erwin rainbow; and 7,868 fingerling brown trout.

A total of 1,782,091 trout and salmon weighing 168,503 pounds were stocked in the following types of waters: 19 large reservoirs, 57 small reservoirs and ponds, 10 urban ponds, and 6 rivers/streams. Small surplus fish numbering 227,094 and weighing 618 pounds were delivered to Miles City Fish Hatchery as forage fish. In addition, 4,793 pallid sturgeon from Garrison NFH weighing 519 pounds were stocked at four locations on the upper Missouri River above Fort Peck Reservoir.

Yellowstone River Trout Hatchery

The primary function of the Yellowstone River

Trout Hatchery is to maintain and enhance the YCT and fluvial arctic grayling broodstocks. Recently, we have taken over wild spawning of golden trout at Sylvan Lake.

The broodstock improvement program is now finished. Over the last four years, we collected gametes from nearly 600 individuals from Goose Lake, north of Cooke City. This year 646 individual fish were spawned. The captive YCT broodstock produced 478,000 eggs. We have been working with the biologist to recover two different areas near Cooke City. A rotenone project removed brook trout below Goose Lake (that is the source of our broodstock). People felt it was only a matter of time before the brook trout would have gotten into the lake and destroyed a large population of wild cutthroat. Our job was to provide cutthroat to replace the lost fisheries in three lakes and Goose Creek, all below the brood lake.

This is the third year the Yellowstone River Trout Hatchery managed the hatchery portion of the Montana grayling recovery program. We will continue to spawn wild grayling at the brood lakes and provide eggs to the recovery program as needed. Additionally, we will over winter a small number of those fish to be returned to the brood lakes and protect the brood in the event of a winterkill. We did plant a number of mountain lakes with these fish and expect them to provide a great fishery in future years. Currently, plans are underway to improve the wild brood by capturing a small number of spawning fish from the Big Hole River next summer.

Golden trout eggs were collected from Sylvan Lake. The spawn timing for these fish is usually July 1st and causes confusion in some of the numbers as they overlap with fiscal years. For FY09, approximately 5,900 eggs were shipped to Wyoming to support that state's mountain lakes stocking program. From the previous year's egg take, 3,350 fry were stocked into 3 Montana high mountain lakes.

Forty-five waters were planted with 102,150 Yellowstone cutthroats, arctic grayling and golden trout weighing 4,095 pounds (includes grayling stocked as eggs). Rainbow trout were transported and stocked by our personnel, but were not

raised at this hatchery. We also provided fish for research purposes to schools, the Bozeman Fish Tech Center and graduate students.

Bluewater Springs Trout Hatchery

The primary mission of the Bluewater Springs Trout Hatchery (BWH) is to rear and stock various species and strains of fish statewide as requested by regional fisheries managers. The majority of fish planted are used to maintain urban and sport fisheries. Three strains of rainbow trout including Arlee, Eagle Lake and Harrison Lake, were reared for distribution. The FWP smallmouth and largemouth bass broodstocks are maintained on station from September to May and transferred back to Miles City Fish hatchery in the spring for summer spawning.

The BWH budget also paid for the cost of rearing 115,000 four-inch rainbow trout at Ennis National Fish Hatchery for stocking into Ruby Reservoir and Hebgen Lake. Rearing these fish at Ennis NFH frees up hatchery space at state hatcheries for rearing other species.

BWH took over a portion of Eagle Lake rainbow trout production that was redirected from Washoe Park Trout Hatchery. This production totaled an additional 79,000 4-5" fish for Clark Canyon and Echo Lake. The hatchery also stocked surplus fish into Bighorn Lake and several urban fisheries in Region 5.

A Study done by Dick Vincent found that the Harrison Lake Strain of rainbow were more resistant to whirling disease than other strains of rainbows. The eggs were taken from Harrison Lake, which is between Ennis and Three Forks. The eggs were eyed at Ennis and raised at Bluewater and Ennis to plant in Hebgen Lake. R-3 came down and adipose clipped about 34,000 of the 180,796 we planted. Those 34,000 were planted in the Madison River above Hebgen Lake. Some fish were also planted in the South Fork Madison River above the lake. Various places around the lake were also planted.

BWH stocked 1,053,007 trout totaling 46,295 pounds into 23 waters located within the state. An additional 373,755 trout totaling 2,416 pounds were produced to meet the Miles City Hatchery's (MCFH) Region 7 air planting program, feed bass broodstock over-wintered at Bluewater, and to supply forage to MCH for their largemouth and smallmouth bass broodstock. Arlee rainbow trout production totaled 606,502 fish weighing 20,967



pounds. Eagle Lake rainbow trout production totaled 594,136 fish weighing 25,706 pounds. Harrison Lake rainbow trout production totaled 180,796 fish weighing 1,653 pounds. Erwin rainbow trout production totaled 45,328 fish weighing 385 pounds.

Miles City Fish Hatchery

The Miles City Fish Hatchery (MCFH) primary goal is to produce warm and cool water fish for distribution throughout the State of Montana.

MCSFH is responsible for coordinating the distribution of rainbow trout in Region 7. All trout are planted by helicopter and because of the risk of infection with whirling disease due to its open water supply, the trout distributed by MCFH are raised at BWH.

This facility maintains FWP's largemouth and smallmouth brood stocks. The post-spawn largemouth and smallmouth brood fish are transported to the BWH for over-wintering because of the availability of suitable forage fish and to save the cost of heating water.

Channel catfish (CCF) adults were collected from the Yellowstone River drainage. They were placed in a 1/2 half acre lined pond to spawn naturally.

Approximately 124,000,000 walleye eggs were collected from Fort Peck Reservoir by the Region 7 Fisheries and Fort Peck Hatchery staffs. These eggs were split between Fort Peck Hatchery and MCFH, with MCFH incubating and hatching 62,000,000 eggs. Walleyes were stocked either as 3-4 day old fry, 1-2" fingerlings approximately 5-6 weeks later, or kept in outside production ponds for stocking as 4-6" advanced fingerlings. Hatchery personnel are involved in the recovery of the endangered pallid sturgeon. They assist with the collection of adults at the Missouri-Yellowstone River confluence. Adult pallid sturgeon are then transported to MCFH. Five males and 2 females were collected in April 2009 and spawned during the month of June. Egg maturation and hatching success was initially very good this year. Poor pallid sturgeon fry survival continues to plague all the facilities involved. For the second year, MCFH furnished the Garrison Dam NFH with shovelnose sturgeon eggs. They will be reared there and planted in the State of Wyoming this fall.

During FY09, MCFH stocked a total of 24,525,369 fish weighing a total of 3,597 pounds of 6 different species (walleye, pallid sturgeon, rainbow trout, channel catfish, smallmouth bass, and largemouth bass) into 97 state waters.

STATE-FISH ART CONTEST

The State-Fish Art Contest is a national contest sponsored by Wildlife Forever to raise awareness of state fish, their biology and conservation. Young artists in grades 4-12 submit artwork and compositions on their state fish. For the last 6 years FWP Region 1 Fisheries along with the Flathead Valley Chapter of TU and Snappy Sport Senter in Kalispell have sponsored a regional contest to increase participation. Entries are displayed at Snappys and judged locally with ribbons and gift certificates awarded. The entries are then forwarded to the national contest where entries within each state are again judged and a winner is chosen for each grade group 4-6, 7-9, and 10-12. For 2009, 100 entries were received locally and forwarded to national.

Siblings Carson and Kendyl Collinsworth of Whitefish and Clay Pape of Stevensville were awarded first place both locally and nationally. In addition, Carson was chosen National Best of Show for Grades 4-6, a remarkable accomplishment for a 5th grader competing with thousands of students across the U.S. To learn more about the State-Fish Art Contest go to www.statefishart. com.



1st Place - Carson Collinsworth 5th Grade - Whitef sh Public School



1st Place - Kendyl Collinsworth 7th Grade - Whitef sh Public School



1st Place - Clay Pape 12th Grade - Stevensville

STATE OF MONTANA - FISH RECORDS (AS OF JANUARY 2010)

Fish	Length (")	Weight (lbs)	Site	Angler	Date
Arctic Grayling	20	3.63	Washtub Lake	Glenn Owens	6/28/03
Bigmouth Buffalo	40.7	57.75	Nelson Reservoir	Craig D. Grassel	6/4/94
Black Bullhead	14.37	2.60	Smiley Slough	Birrell White	6/20/09
Black Crappie	16.7	3.13	Tongue River Reservoir	Al Elser	1973
Bluegill	11	2.64	Peterson's Stock Dam	Brent Fladmo	6/3/83
Blue Sucker	29.75	11.46	Yellowstone River	Doug Askin	10/7/89
Brook Trout		9.06	Lower Two Medicine Lake	John R. Cook	1940
Brown Trout		29	Wade Lake	E H "Peck" Bacon	1966
Bull Trout	37	25.63		James Hver	1916
Burbot	39	17.08	Missouri River	Jeff Fugene Iwen	4/18/89
Channel Catfish	37.6	30.12	Missouri River	Jessey Perry	5/08/09
Chinook Salmon	38	31.13	Fort Peck Reservoir	Carl I Niles	10/2/91
Cisco	17.25	1 75	Below Et Peck	Curt Zimmerman	5/10/01
Coho Salmon	25.5	1.75	Fort Pock Poconyoir		5/20/72
Common Carn	29	4.00	Nolson Posonyoir	Jarod S Albus	5/24/08
Cutthroat Trout	38	40.2	Red Engle Lake	Mm D Sondo	1055
Emerged Chiner	2.42	10	Reu Edgle Lake	Ike Dreaten	6/0/06
Emerald Shiner	3.43	0.01	Park Grove Bridge		6/9/06
Flathead Chub	11.2	0.59	Fort Deale Object Occurs	Douglas Jordan	4/29/01
Freshwater Drum	29.5	21.59	Fort Peck – Ghost Coulee	Matt Washut	5/3/03
Golden Trout	23.5	5.43	Cave Lake	Mike Malixi	7/16/00
Goldeye		3.18	Nelson Reservoir	Don Nevrivy	//4/00
Green Sunfish	9.0	0.84	Hickson's Pond	Bette Schmieding	5/25/09
Kokanee Salmon	26.8	7.85	Hauser Lake	John Bomar	9/23/03
Lake Trout	42.5	42.69	Flathead Lake	Ruth Barber	6/23/04
Lake Whitefish	27	10.46	Flathead Lake	Swan McDonald V	8/26/06
Largemouth Bass	22.5	8.80	Noxon Rapids Reservoir	Darin Williams	5/2/09
Largescale Sucker	23.1	6.16	Woodland Pond	Kevin Fraley	6/27/08
Longnose Sucker		3.27	Marias River - Loma	Ray Quigley	5/8/88
Mottled Sculpin		0.05	Belt Creek	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	Hauser Reservoir	Walt Goodman	10/10/07
Northern Pikeminnow	27.125	7.88	Noxon Rapids Reservoir	Darrel Torgrimson	5/28/91
Paddlefish	77	142.5	Missouri River	Larry Branstetter	5/20/73
Northern Pike		37.5	Tongue River Reservoir	Lance Moyer	1972
Pallid Sturgeon		60	Yellowstone River	Gene Sattler	5/13/79
Peamouth	16.125	1.52	Clark Fork River	Mike Jensen	7/29/07
Pygmy Whitefish (tie record)	8.75, 9,8.25	0.23	Little Bitterroot Lake	K. Hadley,T.Fraley,E.	2/27/05, 09
Pumpkinseed	9.5	0.96	Upper Thompson Lake	Nathan Bache	7/30/06
Rainbow Trout	38.62	33.1	Kootenai River	Jack G. Housel, Jr.	8/11/97
Rainbow-Cutthroat Hybrid Trt	35.75	30.25.	Ashely Lake	Pat Kelley	5/16/82
Redside Shiner	6.5	0.10	Lost Lake	Josh Ahles	8/21/01
River Carpsucker	24	6.95	Fort Peck Reservoir	Brady Miller	8/15/08
Rock Bass	8.6	0.57	Tongue River Reservoir	Don Holzheimer	6/1/89
Sauger	28.2	8.805	Fort Peck Reservoir	Gene Moore	12/12/94
Saugeye		15.66	Fort Peck Reservoir	Myron Kibler	1/11/95
Shortnose Gar	34	7.02	Fort Peck Dredge Cuts	Ron Gulbertson	12/22/03
Shorthead Redhorse	20.25	4.68	Marias River	Rav Quiglev	4/14/85
Shovelnose Sturgeon	39.5	13.72	Missouri River	Sidney Storm	4/19/86
Smallmouth Bass	21	6.66	Fort Peck Reservoir	Mike Otten	7/30/02
Smallmouth Buffalo	38	38	Nelson Reservoir	Brady Miller	4/28/07
Stonecat	10	0.54	Milk River	Dale Bierga	6/16/96
Tiger Muskellunge	46	28.87	Deadman's Basin	Marty Storfa	7/10/06
Tiger Trout	20.6	4 04	Bear Lake	Joe Sobczak	2/9/97
litah Chub	20.0	1.81	Canyon Ferry Reservoir	Fugene Restian	2/5/92
Walleve	35	17 75	Tiber Reservoir	Robert Hart	11/18/07
White Bass	17	2.80	Missouri River	Vernon Pacovelov	10/13/07
White Crappie	18.5	3.68		Gene Bassott	5/10/96
White Sturgeon	10.0	96	Kootenai River	Herb Stout	1968
White Sucker	21 625	5 3 3	Nelson Reservoir	Fred Perry	2/10/82
Vallow Parch	1/ 375	2.30		losh Emmort	2/10/05
Vollow Bullbood	14.575	2.33			5/24/09
renow Duineau	11.0	0.95			5/24/90