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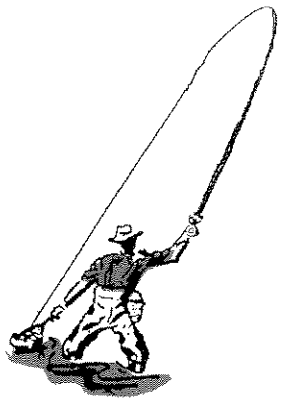

Fishing Log Program
Fisheries Information Services
Montana Fish, Wildlife & Parks
1400 South 19th Avenue
Bozeman MT 59718
(406) 994-6838

FISHING LOG NEWSLETTER

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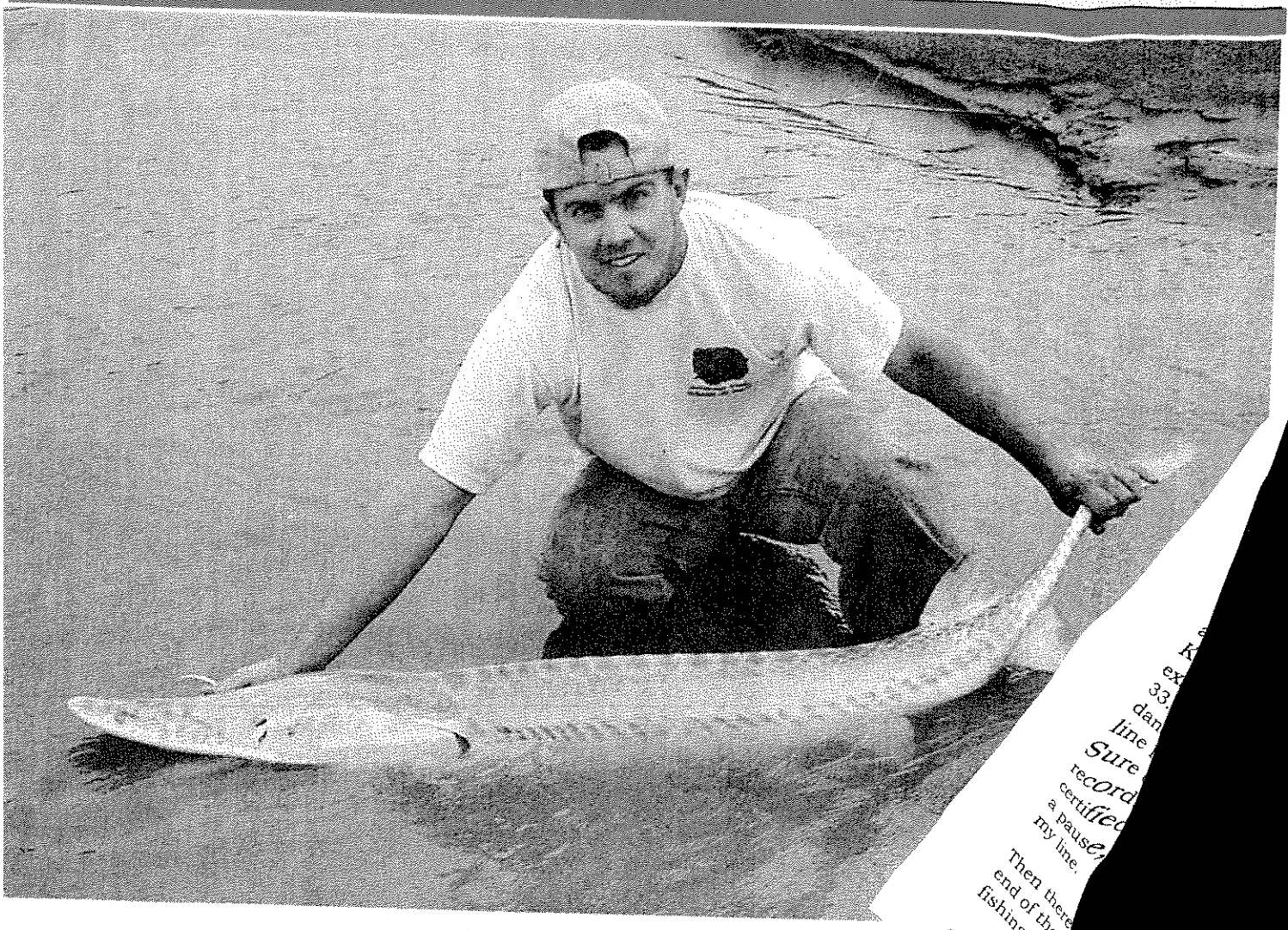


1-2002 Fishing statistics, pg 12-13

Pallid Sturgeon - Fish, Wildl

THE BIG ONE THAT DIDN'T REALLY GET AWAY

– Jim Vashro, Region 1 Fisheries Manager

Most red-blooded anglers dream of catching the "Big One." You know, the fish as long as your leg, three inches between the eyes, the picture alone weighed half a pound. Catching the "Big One" gets you instant notoriety in certain circles and may even get your picture on the wall at the local sport shop. Your fish may even make "The Book," a record list kept by the state or national records kept by the Freshwater Hall of Fame or the International Game Fish Association (IGFA).

For most of us mortals, an encounter with the "Big One" is a chance meeting crossed with disaster, leaving us with a broken line and a broken heart. Some hard-core anglers in the hunt for big fish try to leave little to chance with tuned and matched top-notch equipment, their own copies of record books, and they consult moon charts, barometers, and ouija boards before each trip. On the other end of the spectrum is the kid with a cane pole or a rank beginner with a Popeil Pocket Fisherman who lands a whopper. These kind of stories make the hard core anglers wail and gnash their teeth. Well, prepare for some wailing and gnashing over the stories I've come across in 20 years of managing fish in northwest Montana.

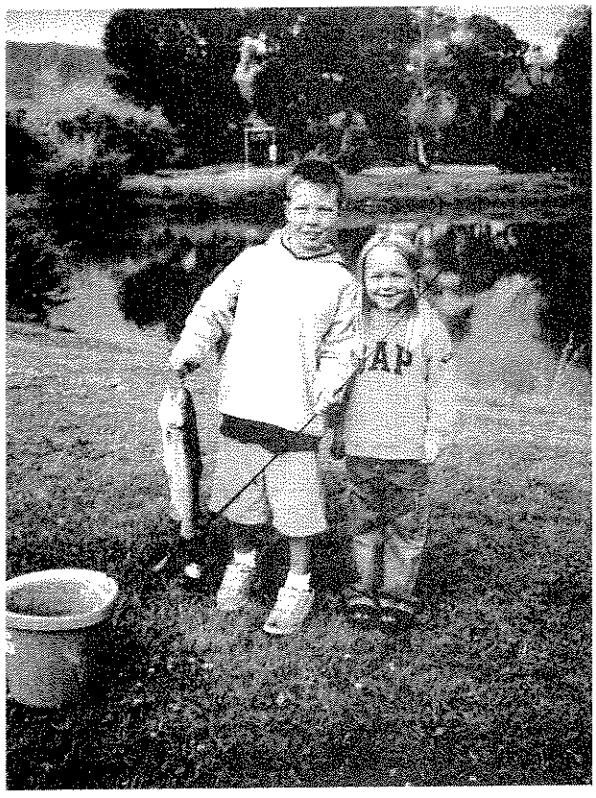
A visitor from Wyoming on a guided trip on Flathead Lake caught a 44 ? inch lake trout that pulled a spring scale to 43 pounds, a pound over the state record 42-pound mack caught in 1979. The man continued to fish, then had trouble finding a certified scale so six hours elapsed before the official weigh-in – at 40.3 pounds. If you get a potential record breaker, keep it wet and get to a certified scale as soon as possible with a witness to the weigh-in.

Of course, there was the lady who called to find out if lake trout were safe to eat from Flathead Lake. I explained there were some size-related consumption advisories and asked how big the fish was? "Oh, 46 inches," she replied. I gulped, said the fish was two inches over the existing record and asked how much it weighed. "Oh, I don't know," she replied, "it's already cut up and on the barbecue when we thought about checking" (an occasional meal by adults is fine – and how many 46-inchers will you get to eat?).

There are other rules to watch, also. This last spring, an angler called to see if a 26-pound rainbow out of the Kootenai River was any kind of record? I told him the existing state record (and former world record) rainbow of 33.1 pounds also came out of the Kootenai but his was a dandy. Then I had a thought. I asked him what pound test line he was using and then checked the IGFA record book. Sure enough, his fish was over the existing line class world record. I told him he had to send in an affidavit with a certified weight and the first 25 feet of line for testing. After a pause, he said, "After catching this big fish I replaced all my line. I took the old stuff to the dump yesterday."

Then there are the anglers who just see a good meal on the end of the line. I talked to a local angler who reported perch fishing had been going downhill in a pond his kids fished. They figured out why when the kids spotted a northern pike that looked like an alligator. The kids managed to hook the pike and an epic battle ensued. They managed to kick the plug out of the 12-foot boat so one held the rod while the other rowed the sinking boat to shore where they landed the fish. "That's a great story," I said. "How big was the pike?" "Oh, 49 inches," he replied. That's bigger than the existing record! "How much did it weigh?" I choked out. "Oh, I don't know," he replied. "We just chunked it up. Got a couple of meals out of it. Kinda boney, though."

The last story is about largemouth bass. The existing record is a 22-inch, 8.29 pound bass that languished in a freezer for a year until someone told the angler he really should have it officially weighed. One fine June evening, a game warden was checking bass anglers on Echo Lake. He pulled up to a boat with an angler from the Midwest and asked how fishing was? "Great," said the angler, "got two bass for dinner." Now, the limit that time of year is one bass per day and it has to be over 22" inches to protect spawners. We won't make you turn a potential record loose, though! The warden asked to see the fish, measured the first one at 19 inches and dropped it overboard. "What are you doing?" the angler exploded. "That's my dinner!" The warden explained the limit and said the man would get a ticket if it didn't swim away (it did). The warden then asked to see the other bass and the man pulled a monster out of his live well, measuring 24 inches. "Is it legal?" the man asked anxiously. "It is," the warden assured him, "but this could be a new state record." He waved at all the bass boats around them and said, "These guys will probably buy you the best steak dinner in town if you'll turn this fish loose." "Nope," replied the man, "I had my heart set on bass for dinner" as he putted off toward camp.



ARTICLES

HISTORY OF THE FISHING LOG PROGRAM

Montana's fishing log program came into being in 1951, the first year the Dingell-Johnson program (Federal Aid in Sport Fish Restoration) started. There was great need for information on what fishes, and how many, were in waters across the state. Chuck Phenicie, Chief Fisheries Biologist, and Clint Bishop, Fisheries Project Biologist, conceived the idea of having cooperating anglers keep diaries of their fishing. This would be one of the Department's earliest encounters with automatic data processing. Step one was to devise a coding system so each water in the state could be assigned an identifying code number, and likewise, each fish species given a code.

In the start-up year of this program, approximately 350 anglers kept logs. Compiling their data was tedious, for the data processing equipment, as great as it was for then, was primitive by today's standards. First, codes for the waters and fish species recorded in each log book were hand written on coding sheets and, in turn, this information transcribed, with graphite pencil, onto mark-sense cards. These were sent to the local IBM Company service bureau for machine processing.

In 1954, the Department bought its own IBM equipment. Department personnel keypunched the information directly onto computer cards, eliminating the mark-sense cards. Next the computer cards were sorted, and sorted, and sorted – for hours, one column at a time on the Departments card sorter until the information was organized. Now the cards could be fed into the unit record printer and a data sheet for each water created.

Information from fishing logs has served well. It was particularly valuable in the late 1950s when each lake and stream in the state received a water quality classification as required by the 1955 Water Pollution Act. For some lakes and streams, information from fishing logs was all that was available, so when log holders reported catching trout, the water was classified as suitable for salmonids.

The information gathered was again extremely useful in identifying the beginning of whirling disease in the state. It was the logbook of a Pennsylvania angler that helped fisheries managers determine the probable year whirling disease showed up in the Madison River.

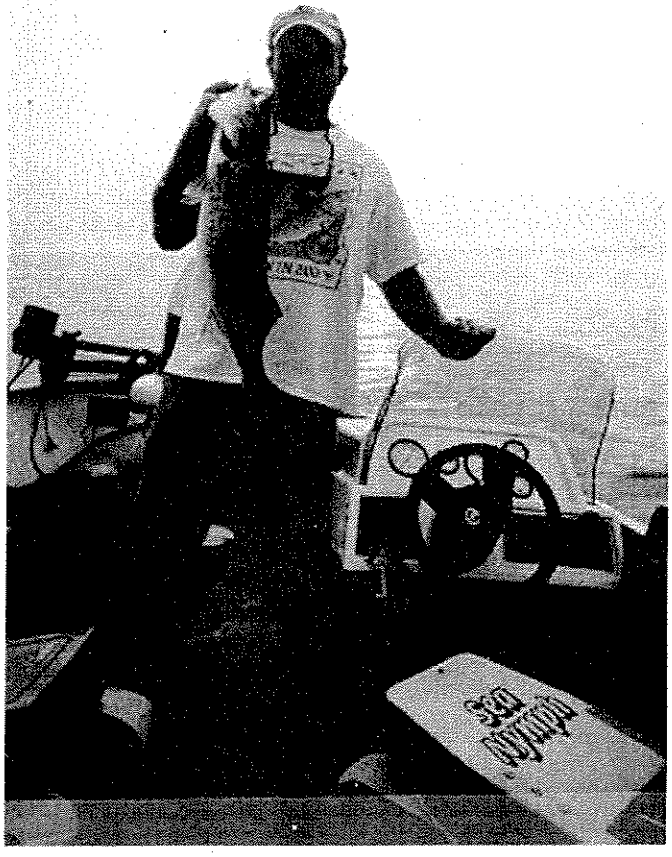
Over the years, the computer processing of log data has been streamlined, but in concept, the system is the same as designed by Phenicie and Bishop 50 years ago. The number of anglers in the program has increased to 848 anglers in 2003, with another 200 receiving just the newsletter each year.

FISHING LOG PROGRAM

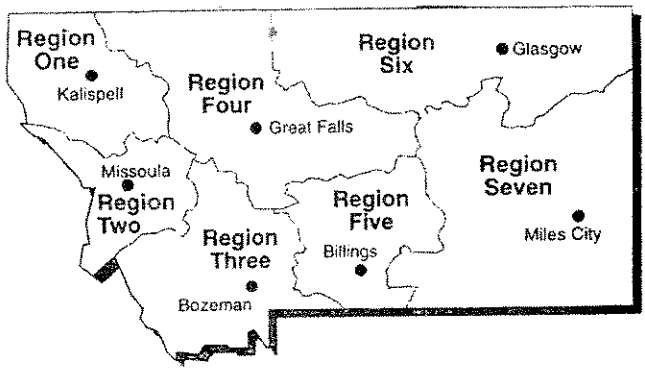
Anglers who have volunteered to record their fishing activities in a log issued by the Department of Fish, Wildlife & Parks comprise the Fishing Log Program. Locations fished, species and number caught, date and miscellaneous information are recorded in the waterproof log. An angler can record a "bragging" size fish if they feel that the fish they caught was of unusually large size for the water they were fishing. Once a year, the Department recalls the logs to record and process the data that the anglers have collected. At this time, the logholder will receive a newsletter with a summary of the previous year's data, a regional update of the fishing activities and some interesting or unusual fishing related articles. The information gathered from the logs is valuable for the management of our fisheries resources.

To enroll in the Fishing Log Program, please submit your name, address and phone number to:

Montana Fish, Wildlife & Parks
Fisheries Information Services
1400 South 19th
Bozeman, MT 59718
or call (406) 994-6838.



MONTANA REGIONAL UPDATES



REGION ONE - KALISPELL

2003 started out with reasonable rain and snow but then the skies cleared and the thermometer rose to record-setting levels. Many streams were soon flowing only 20-30 percent of normal with water temperatures pushing into the 70s. The drought hit the Thompson River particularly hard and it was closed to fishing from late July to early September. The level of many lakes dropped but the big reservoirs like Hungry Horse and Lake Koocanusa held up well due to conservative management over winter and spring. One small irrigation reservoir, Hubbart Reservoir, was hit hard, being drawn down nearly 90 percent. This was particularly bad since the rainbow and kokanee fishery was just peaking after a rotenone treatment three years earlier to remove tens of thousands of illegally introduced yellow perch. Outflows from the reservoir were suddenly halted in mid-September and biologists estimate as many as 3,000 salmon and trout died in the half-mile of stream down to where the first tributary enters. Despite all this, the reservoir is now refilling and many trout and salmon are still available.

Bull trout continue to dominate fish management in northwest Montana. Unfortunately, as predicted bull trout redd counts (spawning beds) were down in the Flathead. Most bull trout spawn as six-year-olds and the counts from 1992-1997 were the lowest recorded in 24 years of monitoring. The count of 130 redds was a great improvement over the count of 83 redds in 1996 and biologists have surveyed good numbers of juvenile bull trout the last three years so they are optimistic recovery measures are gaining ground. The Swan River redd counts of 425 (index streams) was down slightly from record high levels in 1998. Biologists typically only count index sections on selected streams each year due to limited resources but do basin-wide counts every few years to confirm spawning distribution has not changed. For instance, basin-wide counts this year found 297 redds in the Flathead and 592 redds in the Swan. Each redd represents 2-3 adult spawners and only half to two-thirds of the adults spawn in any one year.

Crews also counted 76 redds in the Hungry Horse Reservoir index streams and along with biologists from British Columbia counted well over 2,000 redds in Lake Koocanusa tributaries. Both Hungry Horse and Koocanusa are now considered at recovery levels and FWP is consulting with the U.S. Fish and Wildlife Service to reopen limited angling opportunities. The initial proposal would be very conservative with a closed season when adult bulls are most vulnerable. Anglers would be allowed to harvest only one fish a day and only two fish per year out of each reservoir. Anglers would be required to carry and fill out a catch card when harvesting a fish. A little extra work but reestablishing fishing on a listed species shows that conservation measures can work and that anglers will be rewarded for their support.

Native fish management is also a dominant theme, particularly when it involves controlling or suppressing non-native fish which are affecting native species. A proposal to control non-native brown and brook trout on the East Fork Bull River was scaled back in response to public comments to gather more data and test techniques on a smaller scale to reach goals with the least disruption. A major project is proposed to remove non-native rainbow and Yellowstone cutthroat from 21 lakes in the South Fork Flathead drainage, mostly in the Bob Marshall Wilderness. The South Fork represents 9 percent of all pure westslope cutthroat habitat and 50 percent of the large system habitat but the non-native trout are trickling down and threaten to hybridize the population. Due to its location, the proposal is controversial with questions about the use of motors and chemicals in the wilderness, impacts on visitor use and amphibians, and requests to leave lakes fishless. Due to the level of interest, FWP, the U.S. Forest Service, and Bonneville Power Administration are preparing a draft EIS scheduled for release winter, 2004.

REGION TWO - MISSOULA

In 2003, we experienced drought conditions that were not expected. The Blackfoot River drainage had the lowest snowpack whereas other areas were similar with near or above normal snowpack. All drainages seemed to have sufficient water to avoid another drought year. However, the summer months brought very dry and hot weather. The Missoula area experienced a record number of 100°F days. About three weeks of this weather happened during July and August. As a result, river flows dropped below

what was expected, though not to critical levels and temperatures rose to above critical levels for trout in some rivers. Fishing was voluntarily restricted to morning only in the lower Bitterroot and throughout the mainstem Blackfoot River. Several tributaries to the Blackfoot River and Rattlesnake Creek had all-day voluntary restrictions to protect bull trout.

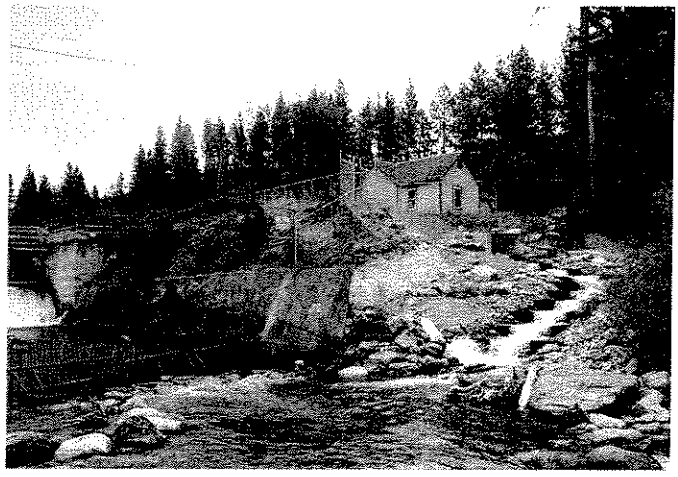
In general for Region 2, fish populations have fared well through the drought. Brown trout are stable to increasing, probably because of their ability to withstand higher temperatures. Cutthroat trout are increasing, primarily due to catch-and-release regulations that are very effective for this easy to catch species. Bull trout have had a mixed response to drought depending on the drainage with stable to declining numbers. Low water in some drainages has resulted in less spawning and rearing habitat or interrupted spawning migrations for this late summer-early fall spawning species.

Populations of rainbow in the region are stable to decreasing as well. The most notable decreases are in the Bitterroot and Blackfoot Rivers where whirling disease is common and expanding. We presume that the decline in rainbow trout is due to the combined effect of whirling disease and drought. Lower water levels during drought concentrate the parasite that cause whirling disease thus raising its incidence. A similar situation may be the cause of the decline of brook trout in Georgetown Lake. We are expecting a rebound of those fish populations that have declined because of drought alone but are not sure what the response will be with the added influence of whirling disease. In addition, populations with low numbers, such as some bull trout populations, may have difficulty recovering.

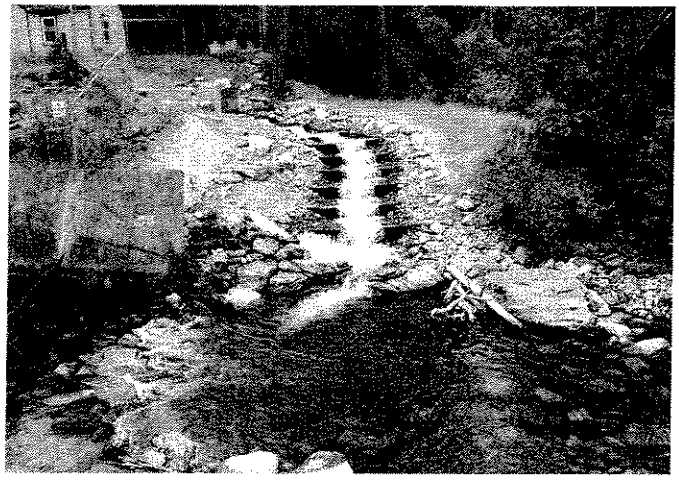
An indirect effect of drought on fish is through fires. Most notable in 2003 was the fire in Copper Creek at the upper end of the Blackfoot River drainage. Copper Creek is an important native fishery with bull trout, westslope cutthroat trout and other native fishes. Our experience after the fires of 2000 in the Bitterroot drainage show that most fish populations quickly rebound after fires. Exceptions to this are when landslides that enter the creek follow the fires. Landslides are more likely after fires because soil is bare and unbound and easily eroded by rain and melting snow.

Fish passage is a major focus in Region 2. Fish passage entails the safe movement of fish up and downstream, usually past structures. The movements are important to fish for completing life cycles (e.g., spawning) and accessing seasonal habitats that increase survival. Projects that include enhancing fish passage are culvert removal and replacements; screening of irrigation ditches; and providing ways for fish to swim around, over or through irrigation, water storage, and hydroelectric dams (e.g., fish ladders). Providing fish passage can have a large benefit to fish populations by allowing access to new habitat (often several to tens of miles of stream) that was previously not available because of one or more easily identified structures. That is, it is a reliable enhancement project that has good bang-for-the-buck.

Three of the larger scale fish passage efforts in the region include screening an irrigation ditch in Skalkaho Creek in the Bitterroot, a fish ladder and bypass at the Mountain Water Company Dam in Rattlesnake Creek near Missoula, and control of northern pike populations in Milltown Reservoir. The screening will keep young fish, including bull and westslope cutthroat trout from being diverted into the ditch and die when irrigation water is no longer diverted into the ditch. Instead they will continue down the creek and enter the Bitterroot River where they will grow and mature. Upstream passage appears possible for at least some fish because a radio-tagged westslope cutthroat trout moved upstream and over the diversion dams. Whether or not to provide easier upstream passage, and presumably allow more fish to move upstream, is being considered.



Below the dams are rainbow and brown trout that may hybridize and compete with the native bull and westslope cutthroat trout above the diversion dams. Westlope cutthroat trout and bull trout are doing reasonably well above the dam without enhanced upstream passage so we are evaluating the need for upstream passage cautiously.



In the Rattlesnake, a ladder and bypass was built around the dam for passing adult fish upstream. Movement of young fish downstream is unimpeded because they fall

over the spillway (about 6 ft. high). Upstream passage was considered o.k. here because westslope cutthroat trout are already hybridized by and live with rainbow trout above the dam; although we try to limit the amount of rainbows passed by opening the ladder when the majority of fish being moved are cutthroat. Also, bull trout were low in number above the dam and a large number of adults were stacking up below the dam attempting to pass and spawn. Already we have increased the number of bull trout redds significantly with this project. This is important because of bull trout's Threatened status under the Endangered Species Act.

At Milltown Reservoir, reservoir drawdowns and netting have helped to greatly reduce the number of northern pike. Northern pike eat trout and other fishes that

attempt to move through the reservoir or reside there. In the past, the large number of northern pike in the reservoir was a barrier to movement of fish. Currently, a vast majority of the northern pike has been removed, the fish community of the reservoir is showing species present prior to the illegal introduction of northern pike, and there have been no trout found in the stomachs of pike. It should be noted that this control effort is uniquely successful because of the ability to manipulate habitat with the drawdowns (this strands young fish that use the shallow areas in dry bays and concentrates older fish for netting) and is expected to be short-term with the removal of the dam and elimination of the habitat that promotes northern pike.

Finally, angler pressure on rivers has increased dramatically. From 1991 to 1999 fishing pressure doubled. The greatest increase in numbers of anglers has been on the Bitterroot, increasing from about 40,000 in 1991 to 80,000 in 1999 angler days during summer. The greatest increase in percentage was in the Blackfoot where the increase was about 140% or from 12,000 to 30,000 angler days during summer. The most pressure is on the Bitterroot River and is double that of the second highest, the Clark Fork below Milltown Dam. When you factor in the area available for fishing (i.e., square miles of river), Rock Creek has the highest density of anglers. These increases have resulted in concerns about fishing pressure on native fish populations, particularly those that have few fish, and social conflicts such as those between different river users and landowners and river users.

Maintaining fish populations and angling opportunity through drought, disease, and fire have been challenges in Region 2. We have enhanced populations through habitat enhancements such as repairing creek channels and providing fish passage. We protect river and stream habitat through hundreds of permits we review every year.

Overall, the fish and fishing in Region 2 is doing well but not without exceptions, and new challenges appearing all the time.

REGION THREE - BOZEMAN

Overall, 2003 was another good fishing year in Region 3, considering the ongoing drought we are in and various other challenges we face, such as the invasion and spread of Aquatic Nuisance Species (ANS) including whirling disease and our continuing challenge to maintain fish habitat in one of the most rapidly developing regions in the country.

The overriding issue of 2003 for fisheries in FWP Region 3 (Southwest Montana) was the continuing drought. Toward that end the following reports are included to give you the reader and idea of where we were water-wise mid summer then at the on-set of winter. Pray for lots of snow this winter and a (much) cooler/wetter summer next year than we had the last!

JULY 2003 DROUGHT REPORT

Conditions in the region have turned toward the worst case scenario since last month. A very dry June topped off by high temperatures that have only gotten worse in July has really aggravated drought conditions. There is very little snow left in the high country and we have had virtually no measurable precipitation for weeks. Irrigation is ongoing in many areas to counter very high air temperatures and very low humidity.

Stream flows in the region are currently at 25-66% of long-term median, with most at 50% or less. The current weather pattern is unfortunate and perhaps a week or two earlier than normal; we usually have more water in streams than we do now.

On the Big Hole and Jefferson, where community based drought plans are in place, those plans will dictate fishing restrictions if any are needed. Elsewhere, we will be monitoring stream flows, water temperatures and ambient weather conditions and forecasts as well as fishing pressure and use patterns to determine if/when restrictions become necessary.

Flows have decreased dramatically in the Big Hole River Basin over the last two weeks. The upper Big Hole River at Wisdom decreased to 20 cfs over the 4th of July weekend. Irrigators initiated irrigation shutdown after July 4 and

flows increased to 38 cfs (long term median 163 cfs) as of Monday July 14. Over the last week daily high water temperatures have ranged between 70-78°F. The Big Hole watershed committee has sent a news release and a mailing to irrigators requesting conservation measures. Anglers would best fish only in morning hours when temperatures are cooler or find alternative places to fish. The Big Hole Drought Management Plan calls for angling closures in the upper 19 mile reach (Rock Creek road to the mouth of the North Fork) when mean daily flows decrease to 20 cfs at Wisdom or when water temperatures exceed 70° F for over 8 hours per day for three consecutive days and there is evidence of thermally-induced stress and flows are 25-30 cfs, or when temperatures exceed 70°F for over 8 hours per day for three consecutive days and flows are 25 cfs or less. Thermally induced stress is being monitored on a daily basis.

The middle reach of the Big Hole (mouth of the North Fork to Dickie Bridge) monitored at the USGS Mudd Creek gauge has also seen a dramatic decline with flows currently at 152 cfs (long term median 250 cfs). The Drought Management Plan calls for an angling closure in this reach at 60 cfs.

Flows in the lower Big Hole have been dropping precipitously over the past two weeks. The Melrose gauge recently read 428 cfs, which is about 34% of the long-term median (LTM) for the date. The upper inflection point of the WETP relationship is 650 cfs for the reach. This is obviously an extremely low flow for mid-July. The current hot spell has resulted in water temperatures exceeding 70 degrees over the past 5 days with an observed maximum of about 75 degrees on July 12th. Water termperatures are remaining above 70 for about 8 hours per day. Experience with thermographs in lower reaches near the Notch and Pennington would suggest that that reach is probably experiencing max temps approaching 80 and probably sustaining temps greater than 70 for 12 hours or more per day.

The Red Rock system is in very poor condition.. Lima Reservoir is essentially out of storage, at a current capacity of about 4,000 acre feet. The dam is releasing about 27 cfs, matching Red Rock Creek flow above the upper lakes. As of July 8, no dry reaches had yet been observed and no sign yet of milky white alkali water at Dell. Flows at Buehler Lane at Dell are about 3 - 5 cfs; at Sage Creek Road at Dell they area about 20 cfs; and at Wellborn Lane below Dell they are about 10 cfs. Buehler and Wellborn Lanes are two sites that can be totally dewatered. FWP staff will continue to check flows at these sites.

Storage in Clark Canyon reservoir is down to 30,000 acre feet (17% of Active Conservation Pool) and dropping precipitously. Record- or near-record monthly low inflows continue; inflow was recently 125 cfs, while outflows were about 710 cfs. The predicted shut off of the entire East Bench unit is July 20th. This should make up deficit from last year of about 8,500 acre feet and allow a minimum end of season storage of 10,000 to 12,000 acre feet similar to 2002.

The Ruby River is holding up better than other area waters (upper river was recently flowing at about 77% of LTM - 130 cfs) but is suffering an imbalance in reservoir draft, with dam releases at about 109% of LTM.

Beaverhead River flows increased steeply in recent days at Barretts (145% of LTM) and Dillon (157% of LTM), while flows in the lower river remain far below normal (34% of LTM at Beaverhead Rock). Lower River flows are 74 cfs, up from about 36 cfs as recently as July 10th. Low flows have combined with extremely high water temps (exceeding 70 degrees for most of each day over the past seven days, up to a max of about 80 degrees on July 12th). As noted above, the East Bench should be shut off on July 20th), which should make more water available for the lower river.

Regarding the Jefferson River, flows of 400 cfs (at the Twin Bridges gauge) trigger voluntary stage of the Jefferson drought response plan where FWP advises anglers and outfitters to limit their activities and advise water users of low water conditions to encourage conservation. At 250 cfs, the mandatory restriction phase is triggered. Flows are approaching 400cfs; in fact, the USGS gage will be adjusted soon and may show that actual flows are below 400 at that time.

Water conditions in the Elkhorn Mountains for this time of year are as poor as observed in the last three years. Many if not most drainages absorbed the 100%+ snow pack available in late spring, with below average to much below average runoff. We can only hope that the groundwater was somewhat recharged and will hold flows through summer and fall.

The implications of a less than average snowpack in the Madison basin are beginning to show. While Hebgen storage was up to par, outflows have been decreased to maintain it. Madison River flows are down to near minimums, so little help available to dampen the effects of whirling disease as the rainbow fry emerge. Pulsing flows by PPL Montana were initiated on July 11th to prevent thermal fish kills below Ennis, and will likely continue into the foreseeable future based on weather forecasts.

In the Gallatin basin, just as runoff ended, the first cutting of hay was done and recent returns to full-tilt irrigation depleted the West Gallatin from around 900 cfs at the mouth of the Canyon to about 60 cfs at the Highway 346 bridge (near Manhattan). The Gallatin water commissioner has shut off irrigators with priority dates junior to 1891. The Gallatin went rapidly from feast to famine. Storage is good at Hyalite Reservoir, although most of that will be used for irrigation. The East Gallatin and tributaries are hanging on for now.

Both the Yellowstone River and the Shields River are now well below their long-term median flows. The Shields has already reached water temperatures in the low 70's near its mouth with the recent very hot weather. Runoff brought a healthy amount of the reserve snow pack out - so now we just hope for cool, wet days.

Streamflows of special interest that are gauged by the USGS are shown below:

Stream/Gauge Location	Flow on 7/1602	% of long-term median flow for 7/16
Beaverhead River at Barretts	776 cfs	172%
Beaverhead River near Twin Bridges	64 cfs	37%
Ruby River above Reservoir	121 cfs	72%
Ruby River below Reservoir	355 cfs	109%
Big Hole at Wisdom	26 cfs	21%
Big Hole below Mudd Creek	141 cfs	50%
Big Hole near Melrose	372 cfs	32%
Jefferson near Twin Bridges	530 cfs	29%
Jefferson near Three Forks	295 cfs	23%
Boulder River near Boulder	21 cfs	35%
Madison below Ennis Lake	1,440 cfs	89%
Gallatin near Gallatin Gateway	682 cfs	62%
Gallatin at Logan	233 cfs	35%
Missouri at Toston	1,320 cfs	31%
Yellowstone at Corwin Springs	4,530 cfs	70%
Yellowstone near Livingston	4,630 cfs	64%
Shields near Livingston	79 cfs	33%

OCTOBER 2003 DROUGHT REPORT

Flows in the Upper Yellowstone are low going into winter (approximately 50% of long term median). Conditions could be worse, however, as some moisture occurred recently and water temperatures are reasonable. Tourist season is over, and fishing pressure is lessening, particularly as we approach the general big game season.

In the Gallatin drainage, flows are quite low and poised for trouble in the way of fish survival if we should have much severely cold winter weather. In the Madison drainage, reservoir storage is less than ideal, but far better than further west at Clark Canyon. Reservoir outflows should moderate winter conditions if not too severe.

Jefferson River flow is about 50% of normal for this time of year. This is likely to cause increased winter mortality. The brown trout fishery in the Jeff has declined by at least 30% during this drought cycle. I don't know if it will continue to decline under these conditions, but I do know that we will not see improved fish numbers until it starts snowing and raining. Long term, expensive efforts to improve the water management in the system are the only way I see to prevent future impacts during such dry conditions.

Big Hole flows are still far below normal in the middle and lower reaches, but moderating slowly. An angling closure is still in effect in the upper reach (upper 19 miles). Flows at Wisdom are still near 30 cfs with little sign of recovery. Active diversion and even flood irrigation was occurring as of mid-October in Upper Big Hole Valley- very unusual!!

Red Rock flows below Dell are lower than those observed over the past 3 years, including flows of less than 10 cfs observed at Kidd. An angling closure is in effect between Lima Dam and Clark Canyon Reservoir.

Clark Canyon Reservoir storage is dismal at only 18,000 acre feet. Flow releases from dam are down to 27 cfs. Recent reservoir fish population sampling indicates massive declines in brown and rainbow trout populations, with no observed recruitment into the populations of either species. Bag limit reductions to two trout and two burbot remain in effect. Next year's plant of 200,000 YOY rainbow trout will be diverted to other waters. Only the emergency boat ramp at the dam is currently usable.

Flow releases of only 27 cfs from Clark Canyon Dam are resulting in measurements of less than 40 cfs in the Beaverhead River at High Bridge and less than 50 cfs at Henneberry. Active diversion and irrigation is still ongoing by Class A water users, resulting in flow depletions down to about 30 cfs at Tash Bridge (Hwy 91 South). An angling closure is in effect between Clark Canyon Dam and Dillon. Flows in the lower river (Dillon to Twin Bridges) is beginning to moderate with inverted hydrograph (return flow) but are still stifled by continuing irrigation diversion!

Streamflows of special interest that are gauged by the USGS are shown below:

Stream/Gauge Location	Flow on 10/21/03	% of long-term median flow for 10/21
Beaverhead River at Barretts	102 cfs	31%
Beaverhead River near Twin Bridges	163 cfs	39%
Ruby River above Reservoir	106 cfs	88%
Ruby River below Reservoir	57 cfs	55%
Big Hole at Wisdom	28 cfs	46%
Big Hole below Mudd Creek	107 cfs	64%
Big Hole near Melrose	283 cfs	60%
Jefferson near Twin Bridges[1]	654 cfs	49%
Jefferson near Three Forks	747 cfs	42%
Boulder River near Boulder	17 cfs	50%
Madison below Ennis Lake	1,260 cfs	64%
Gallatin near Gallatin Gateway	312 cfs	73%
Gallatin at Logan	412 cfs	54%
Missouri at Toston	2,280 cfs	50%
Yellowstone at Corwin Springs	1,040 cfs	73%
Yellowstone near Livingston	1,330 cfs	69%
Shields near Livingston	73 cfs	49%

MONTANA REGIONAL UPDATES

YELLOWSTONE RIVER

Trout abundance at different locations throughout the upper Yellowstone River this spring was similar to most estimates compiled in recent years. Trout populations maintain this abundance despite continued low flow conditions. In spring 2003, combined trout abundance for fish seven inches or longer was estimated to be 1,051 fish/mile near the Mill Creek Bridge located in the heart of the Paradise Valley. Combined trout abundance was 1,369 fish/mile at Livingston, and 555 fish/mile near Springdale.

Mountain whitefish abundance in the Mill Creek Bridge, Ninth Street, and Springdale sample sections this spring was generally less compared to estimates from these same locations in 1999 or 2001. Whitefish abundance of fish seven inches or longer this year was estimated to be 7,742, 3,672 , and 2,017 fish/mile at these three locations, respectively. Whitefish numbers in the Springdale section were especially less compared to their high abundance estimated at this location in 2001. A pattern of decreasing whitefish abundance between upstream and downstream locations was similar this spring to previous whitefish estimates from the upper Yellowstone River.

SHIELDS RIVER

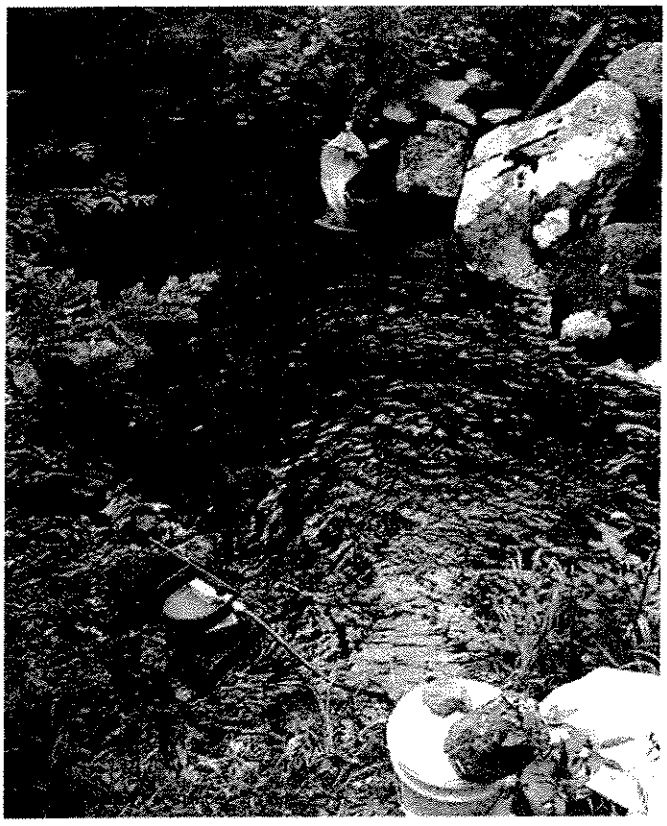
Brown trout abundance was similar in two sections of the Shields River sampled this spring compared to other recent estimates. Abundance of brown trout seven inches or longer was 274 fish/mile in the Convict Grade section near the Shields River mouth, and 200 fish/mile in the Todd section near the town of Clyde Park.

DAILEY LAKE

The average size of rainbow trout in spring gillnet catches at Dailey Lake was 9.1 inches this year. Walleye averaged 12.4 inches, and yellow perch 8.2 inches. Walleye and yellow perch averages are similar to samples collected in 2000 and 2001. The rainbow trout average is slightly less than recent years, explained by a larger number of smaller fish in the sample this year. Survivorship of recently stocked rainbow trout appears very good despite continued drought.

CHERRY CREEK PROJECT - AUGUST 2003

After several years of delay due to legal & administrative challenges, the Cherry Creek Native Fish Introduction Project was implemented in August. The 7-acre, 105 acre-foot Cherry Lake and approximately 11 miles of stream were chemically treated to remove non-native Yellowstone cutthroat trout and rainbow trout to prepare for the eventual introduction of westslope cutthroat trout. Over the next several years, FWP expects to treat an additional 50 miles of stream and to introduce westslope cutthroat after non-native species are removed from the treated sections. In 2003, 3.7 gallons of Fintrol were used to treat Cherry Lake and 1.2 gallons to treat the streams. The project will require several years to complete, and is currently facing a challenge that was filed in federal district court after the project was begun this year.



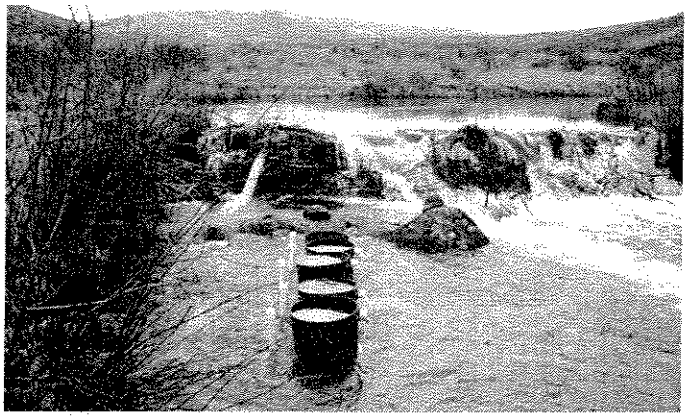
Applying Fintrol to the outlet of a pool on Cherry Lake Creek. The net bag containing sentinel fish is in the head of the pool to measure the effectiveness of the station above this one.

ARCTIC GRAYLING RECOVERY PROGRAM

Fluvial or stream dwelling Arctic grayling once wide spread in the Missouri River and its tributaries upstream of Great Falls, are now restricted to a single tributary, the Big Hole River. In the mid 1980's population densities in the Big Hole River declined causing concern for the future of the species in Montana. As a result, efforts were initiated to secure the Big Hole population and increase species distribution in Montana. Fluvial Arctic grayling are classified as a Species of Special Concern by MFWP and are a candidate species for protection under the Endangered Species Act.

A restoration effort to establish fluvial grayling in the upper Ruby River was initiated in 1997 and continued in 2003. Approximately 36,000 yearling grayling were planted in the May 2003 in the upper Ruby River with the objective of increasing the number of grayling maturing to spawning age to facilitate natural reproduction. The Ruby River has been the only one of four recent efforts to establish grayling in additional streams that natural reproduction has been documented through stocking efforts. Survival of planted grayling was encouraging through the summer and fall. Planted grayling are

offspring of the fluvial broodstock developed from the Big Hole River grayling, spawned each spring, and raised at Big Springs or Bluewater State Fish Hatcheries or the USFWS Bozeman Fish Technology Center.



In addition Remote Stream Incubators (RSI) were used in the upper Ruby River for the first time in spring 2003. RSI's (see picture) allow fertilized eggs taken from fluvial brood stocks to develop onsight and imprint on local environmental factors unique to the stream. Results from using RSI were encouraging in 2003 with over 100 progeny captured during fall surveys.

The Big Hole River experienced severe drought conditions for the fourth consecutive year in 2003. The Drought Management Plan and Flow Enhancement Program have been used to mitigating low instream flows. Montana Fish, Wildlife and Parks worked closely with the U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program, Big Hole Watershed Committee, local waterusers and sportspersons to initiate these conservation programs.

In the upper Big Hole River 19 wells, 2 spring, and 2 pipeline developments were instrumental as alternative stockwater sources used to maintain instream flows rather than diverting water from the Big Hole River. To further protect fisheries during low flow and high temperature regimes, angling closures were placed on the upper and middle reach of the Big Hole during late summer and fall.

Grayling abundance has been depleted due to consecutive drought years, however adequate flows during May and June created productive spawning and rearing habitats. As a result fall surveys indicate encouraging numbers of young-of-the-year from the spring 2003 spawn. Population monitoring will continue in spring 2004.

CHANGES IN RAINBOW TROUT STOCKING AT CANYON FERRY RESERVOIR IN 2003

Survival of rainbow trout stocked in Canyon Ferry Reservoir declined significantly in recent years and the rainbow trout fishery reached an all-time low in 2002. Reduced survival of yearling rainbow trout stocked annually during May and June is believed to be due to predation losses to walleye and fish-eating birds.

In response to the decline in rainbow trout abundance, MDFWP implemented new strategies to improve survival of stocked trout in 2003. Larger fish were stocked at Canyon Ferry Reservoir in 2003. The 8-inch trout stocked in 2003 are much more likely to avoid mortality due to bird and fish predation than the 6 to 7-inch trout stocked between 1995 and 2002. In addition to stocking larger fish, the program was modified to stock approximately half the annual allotment of fish during spring and half during fall.

Fall stocking is expected to result in lower predation mortality due to bird migration and reduced food demand by walleye. FWP will compare success of fall and spring stocking to determine future hatchery requests at Canyon Ferry Reservoir. Preliminary results of monitoring in 2003 indicate that stocking larger fish has improved the survival of hatchery-reared rainbow trout in Canyon Ferry Reservoir.

REGION FOUR - GREAT FALLS

Sorry, no report from Region Four this year!

REGION FIVE - BILLINGS

BIGHORN RIVER

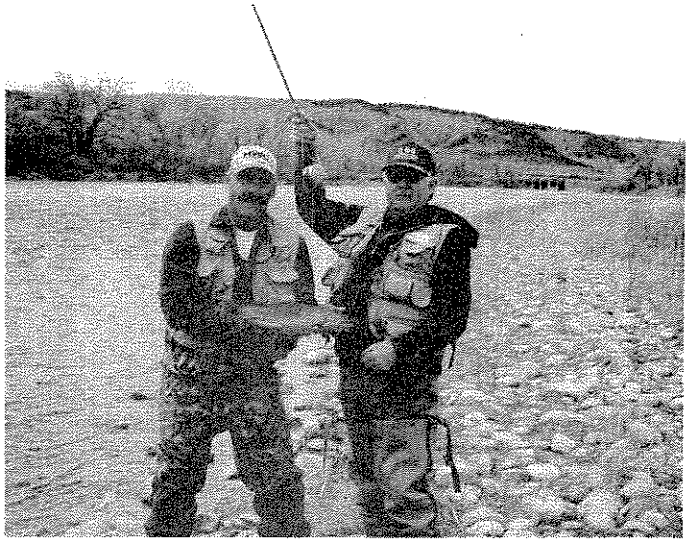
Drought continued to be the driving theme behind most of the fisheries in Region 5 in 2003, and the Bighorn Drainage was one of the hardest hit areas. The Bighorn River is in the middle of the worst drought conditions experienced since Montana Fish, Wildlife and Parks (FWP) started managing the fishery in 1981.

The Bureau of Reclamation (BOR) manages Yellowtail Dam and thus controls flows in the Bighorn River. The BOR has always strived to maintain the best flow conditions possible for the river fishery based on the amount of water available in the drainage and other mandated operating criteria. Under good water conditions the BOR maintains river flows at or above 2,500 cfs. This flow level maintains most of the important side channels along the river and helps maintain river trout populations near maximum levels for the water available. During drier times, the BOR still tries to keep river flows above 2,000 cfs, which is the minimum target flow necessary to support a good fishery. Flow levels below 2,000 cfs start to seriously dewater key side channel habitat along the Bighorn. During serious drought conditions, the BOR operates the Bighorn River around a third flow level of 1,500 cfs, which has always been considered the absolute minimum flow acceptable for the Bighorn River. At this flow level, over 60% of the side-channel habitat has been lost, and the river fishery is seriously impacted.

Prior to the current ongoing drought, the worst drought conditions experienced in the Bighorn River were in 1988 and 1989, when river flows were below 2,000 cfs for almost 500 continuous days. However, river flows only dropped below 1,600 cfs for 45 continuous days during this period. In 1994 - 1995 river flows dropped below

2,000 cfs for 320 continuous days and were below 1,600 cfs for 179 days. Both of these low-flow periods had serious impacts on trout populations in the Bighorn River.

As of November 1, 2003, Bighorn River flows have been below 2,000 cfs for 906 days and below 1,600 cfs for 768 days. On October 27, 2002 Bighorn flows were reduced below the absolute minimum fisheries flow of 1,500 cfs to only 1,300 cfs. The river remained at this operational level until June 8, 2003 (225 days) before coming back up to 1,500 cfs. Based on the most probable forecast from the BOR, river flows will remain at the absolute minimum flow of 1,500 cfs at least until spring runoff in 2004.



Flow levels have always been considered the single greatest factor controlling trout population levels in the Bighorn River. Although the Bighorn is a more productive stream than many streams in Montana, a given volume of water can still only support a certain number of pounds of fish flesh over an extended period of time. During past low-water periods in the Bighorn, trout populations have dropped and bottomed out about the time flow conditions returned to normal. Fortunately, population levels recovered fairly rapidly with improving flows.

The current period of low flows is different from anything experienced on the Bighorn River in the past. Both rainbow and brown trout populations in the upper Bighorn started to decline in 1999, and continued to fall through 2002. The brown trout population in the upper river had reached the second highest level ever recorded (over 8,800 brown trout per mile) in 1998. Bighorn flows had been well above normal for several years in a row in advance of this estimate. By 2002 the estimated brown trout population in the upper river had declined to only about 800 9" and longer brown trout per mile, with numbers of smaller brown trout too low to allow an estimate. Effects on the rainbow population first appeared as a loss of smaller fish. In 1999, it was only possible to get an estimate of rainbows 11 in and longer, and in 2000 and 2001 it was only possible to estimate numbers of rainbow 15 in and longer. There were not enough marked rainbows recaptured in 2002 to allow any kind of valid rainbow estimate to be calculated for the upper Bighorn River.

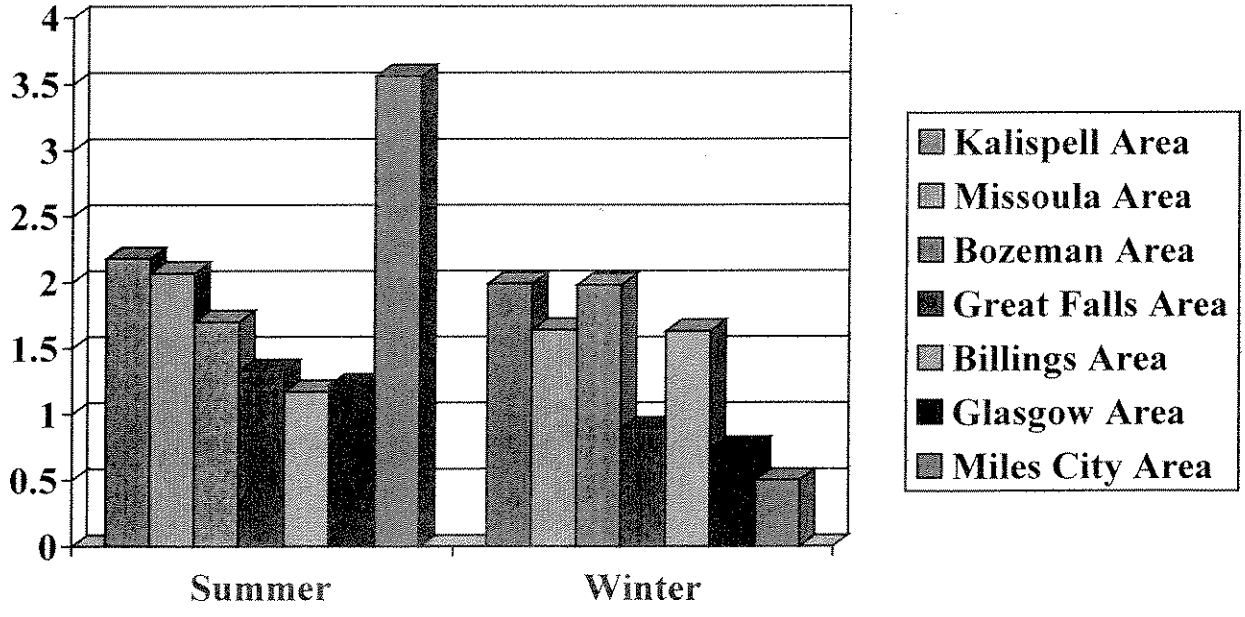
No trout estimates have yet been calculated using the 2003-mark/recapture data, but the numbers of fish handled in 2003 were similar to what was seen in 2002. It appears the Bighorn trout populations may be starting to stabilize around the new low-flow levels that have been present in the river since the fall of 2001. Numbers of rainbow recaptured in 2003 were again low enough that it may not be possible to calculate a rainbow estimate for the upper Bighorn for 2003.

The trout population structure observed in the upper Bighorn in 2003 was similar to that seen in 2002. Good numbers of yearling rainbow and brown trout were captured, indicating successful reproduction is still occurring for both species. As in 2002, however, there were very few trout between about 6 and 15 in present in the river, indicating that recruitment of smaller trout into the population was very limited. The larger rainbow and brown trout sampled in the upper river in 2003 were in the best condition recorded since sampling was initiated on the river. This high condition factor was due to a combination of less competition from small trout plus heavy predation by larger trout on the smaller trout that were being produced. These great condition factors added to the problem of low trout numbers by tying up most of the biomass that the river could support in low numbers of large trout. On the positive side, the fish anglers did catch in 2003 were large, and it didn't take many fish to make a very good day of fishing.

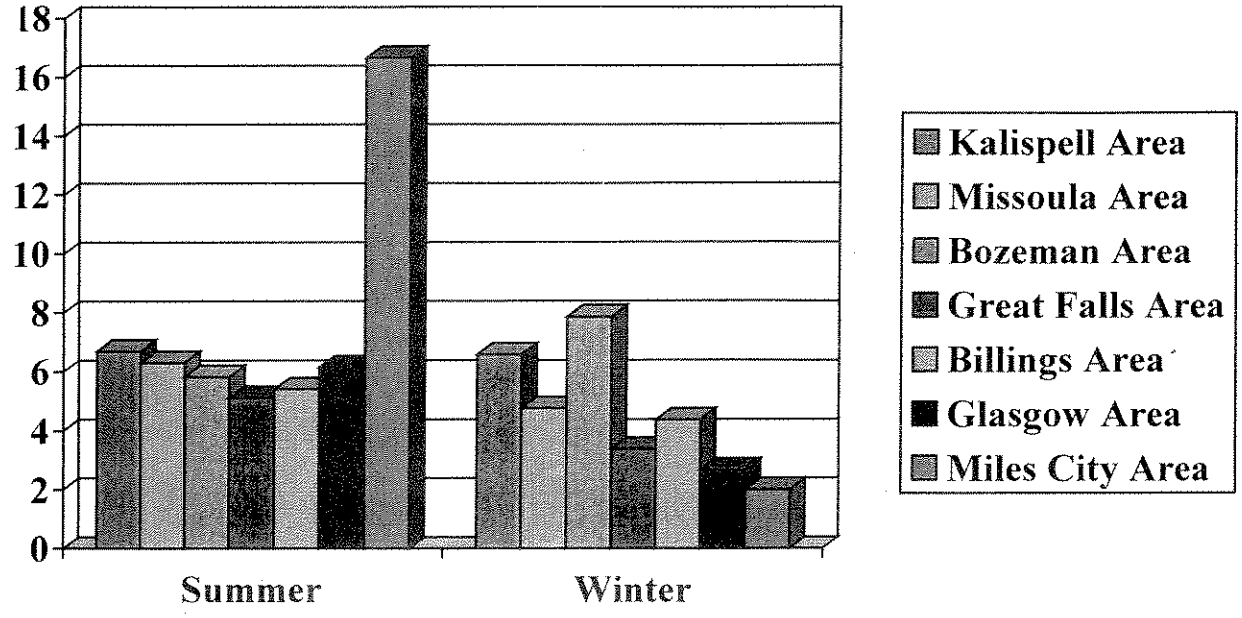
Many of the larger rainbow and brown trout in the Bighorn have reached the point where they are going to be lost from the system due to old age. Hopefully, much of the biomass in the river will be replaced by higher numbers of smaller trout as the big fish age out. Some of this shift was observed while electrofishing the lower river in the fall of 2003. The size distribution of both rainbow and brown trout populations in the lower river looked much healthier than was observed in the upper river. Large fish comprised a much smaller part of the total population, and 7 to 11 in fish dominated both lower river populations. Hopefully, some of these smaller fish will move up river to fill the void left as the older fish die and pass out of the system. One Bighorn outfitter did report that his clients were beginning to catch a lot more small trout in the upper river this fall.

Anglers should be prepared for a possible drop in angler success rates on the Bighorn some time in the future when flow conditions return to normal. As the river comes up and the remaining trout populations are spread through a much larger volume of water, it could become harder to find trout in the Bighorn. With lower numbers of spawning-aged trout left in the river, it may take longer than in the past for trout populations in the Bighorn River to recover with increasing flows.

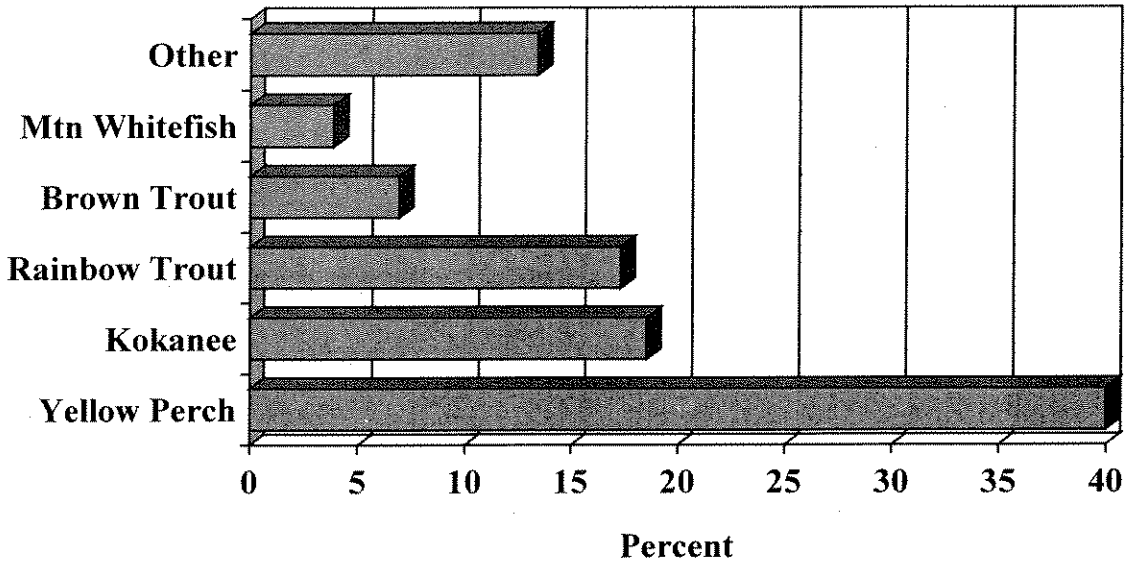
Average Number of Fish Caught Per Hour
2002 Log Year



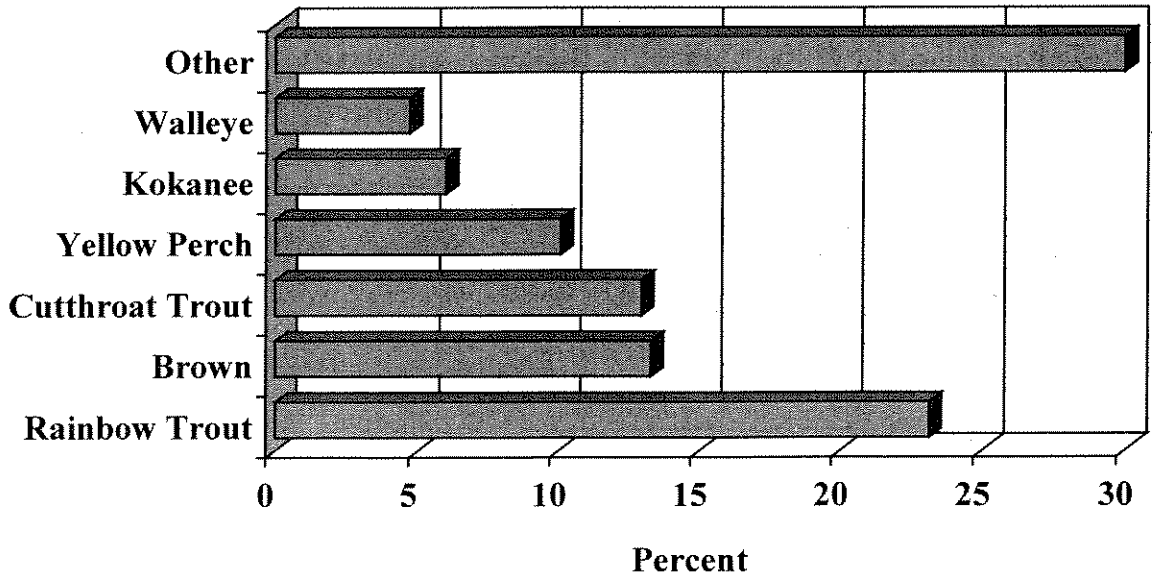
Average Number of Fish Caught Per Day
2002 Log Year



Statewide Top Game and Sport Fish
December 2001 Through April 2002



Statewide Top Game and Sport Fish
May 2002 Through November 2002



BOULDER RIVER DRAINAGE

During the summer of 2003, fish monitoring in the Boulder River drainage focused mainly on the upper river and its tributary streams. Four sites were electrofished in the East Boulder River and the fish populations were healthy and robust. The cutthroat trout population at the headwaters of the East Boulder River is in very good shape despite the drought. Many of the tributaries to the main Boulder were surveyed during the summer of 2003. From 4-Mile Creek upstream, many cutthroat trout are present in the tributary streams. Rainbow trout are also present in the main river and tributaries, leading to many hybridized fish in the populations.

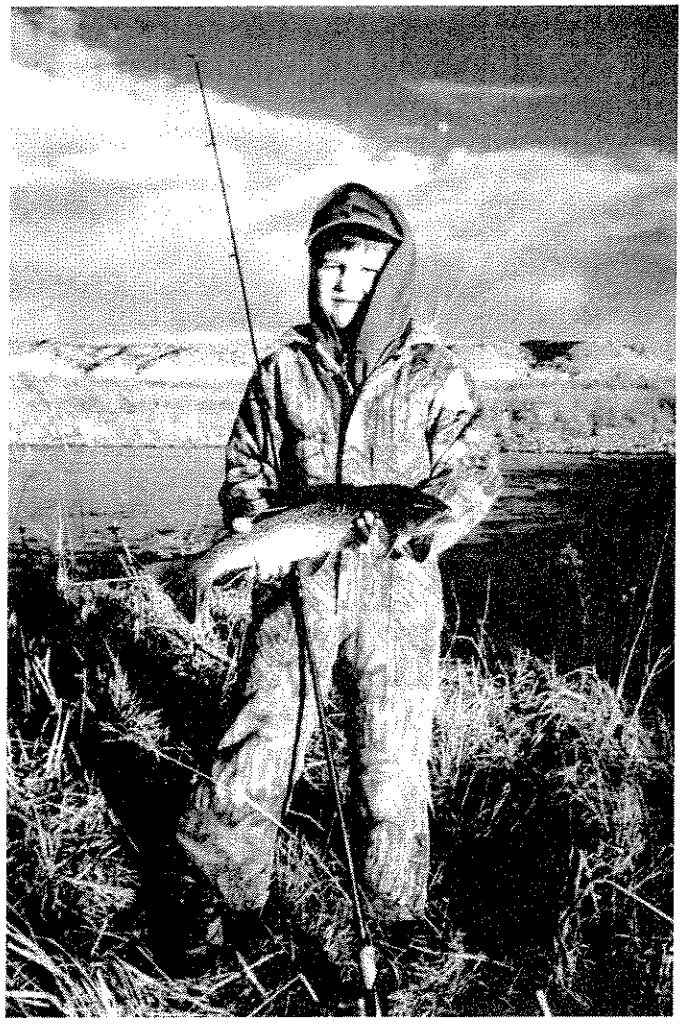
Fish spawning surveys were performed in the spring and fall for rainbow and brown trout in the area just below Natural Bridge. This spawning area is extensively used by both resident fish and fish migrating from the Yellowstone River. The surveys are a continuation of the monitoring performed over the past four years to document the trends in spawning activity at the Beaver Meadows Ranch, where a bank stabilization project was performed in the fall of 2001. During spring 2003, rainbow trout spawning numbers were substantially higher than the previous three years. The size of spawning fish was also larger than observed in previous years, suggesting a large influx of rainbow trout from the Yellowstone spawning in Beaver Meadows. Brown trout spawning numbers in the fall were similar to the previous three years.

Plans are moving forward to install a fish screen on the Lamp-Nelson Ditch on the Boulder River between 8-mile bridge and Big Timber. The project is being funded through FWP's Future Fisheries Improvement program along with funding from the Boulder Watershed Group, Skip Herman, and the Joe Brooks Chapter of Trout Unlimited. The screen is scheduled to be installed before the next irrigation season. Another fish rescue was performed in 2003 in the ditch with volunteers from Montana Trout Unlimited. Prior to the headgate being completely closed, 143 trout (ranging from 2.4 to 17.2 in and averaging 6.3 in) were captured and returned to the Boulder River.

STILLWATER RIVER DRAINAGE

Population estimates performed in the Stillwater River near Absarokee, and at the Moraine Fishing Access Site, suggest that in spite of the drought, trout populations are doing quite well. In the lower river through Absarokee there has been an increase in the numbers of older age-classes of fish, meaning there are more opportunities for anglers to catch larger fish. Younger age-classes were only slightly down from previous years. A tagging study has been initiated on the Stillwater River to monitor the growth, movement and catch statistics of trout in the river. We would appreciate anglers looking for a small plastic tag immediately behind the dorsal fin on fish they catch. When anglers contact our Region 5 headquarters with information about the size and location of a tagged fish, it contributes greatly to our ability to manage our fisheries.

Yellowstone cutthroat trout were reintroduced into the upper portions of Bad Canyon Creek following the removal of brown trout in 2003. Five thousand LeHardy Rapids cutthroats were donated to Montana by Wyoming and used to restock the stream. LeHardy Rapids fish come from the Yellowstone River in Yellowstone National Park and are considered to be a good stock of cutthroat trout to be used in stream environments. This is the first time this source of fish has been planted in Montana, and the success of the population will be monitored closely in the future.



YELLOWSTONE RIVER

Fish population monitoring in the Big Timber area, conducted during spring 2003, suggested that brown and rainbow trout populations are down slightly from previous years. This decline is likely a natural adjustment to low water levels in the Yellowstone over the past 4 or 5 years. Less space means fewer fish. Fortunately though, the adult fish population appears robust for both browns and rainbows, and anglers have boasted of very good fishing at times. Although there are fewer fish, they may be more concentrated and in shallower areas of the river, because low water conditions make them more vulnerable to anglers. The most notable change in the fish population in

this reach of the river is that Yellowstone cutthroat trout that previously appeared to be increasing (216/mi in 1999) were all but absent in 2003. Only three cutthroats were captured in the 6-mile section in the spring of 2003. Big Timber appears to be the farthest downstream cutthroat trout occur at measurable numbers in the Yellowstone, and we were encouraged by the previous upward trend in their numbers. The drought conditions and warm stream temperatures, however, may have led to a reversal of this trend.

For the first time, the Yellowstone River from the Highway 191 Bridge in Big Timber to beyond Billings was closed to fishing from noon until midnight, because of the extremely warm water temperatures. This closure went into effect August 1st and was enacted because daily water temperatures in the Yellowstone from Big Timber downstream peaked at over 73°F for most of August. Stream temperatures at the Buffalo Mirage Fishing Access Site frequently peaked at 76°F and above. Fish become stressed at high temperatures, making them more vulnerable to disease, particularly if stress is increased by anglers catching and releasing fish.

Low flows continued to limit sampling on the Yellowstone River in 2003. Limited fall survey shocking on the lower river, up- and downstream of Capitan Clark Fishing Access Site, captured good numbers of channel catfish and smallmouth bass. The largest channel catfish was 28.5 in long and weighed 12.7 lb. The largest smallmouth was slightly less than 3 lb. Three sauger were captured, and all will be sent in for genetic analysis as part of an ongoing study to determine if there is genetic variability among sauger populations around the state. Anglers reported good catfish fishing on the lower Yellowstone throughout the spring and summer, and more anglers are starting to key into the smallmouth bass fishery in the river.

Approximately 80,000 Yellowstone cutthroat trout were again stocked into the Yellowstone River between Billings and Laurel, in an ongoing effort to develop and urban trout fishery in this section of river. Anglers had good luck on these fish shortly after they were released, but few reports were received of anglers catching these fish later in the season. Low water levels have really limited attempts to evaluate this program using electrofishing, so any reports from anglers fishing this section of the Yellowstone would be greatly appreciated.

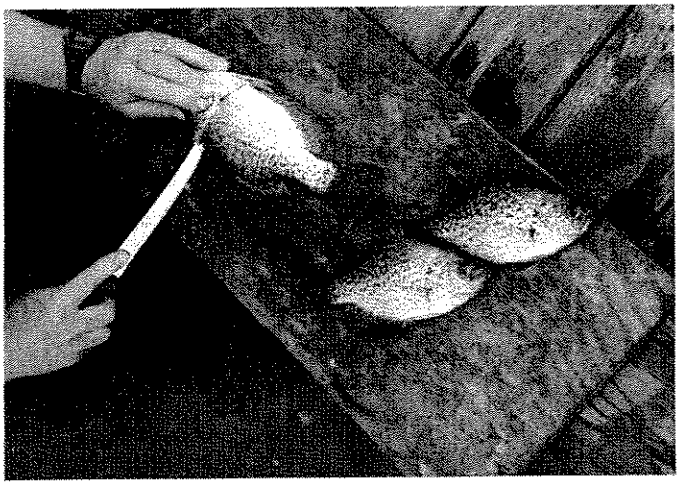
The Yellowstone County Access Group is continuing to meet in an effort to identify and help develop additional public access along the Yellowstone River within the county. The group has keyed into a couple of sites to test what it will take to open and area for the public. Hopefully, the work of this group will serve as a model for other counties along the Yellowstone.

MUSSELSHELL RIVER

The Musselshell drainage has been impacted by a continuous drought for a longer period than any other water in Region 5, yet the fishery is still hanging on, although at a greatly reduced level. Numbers of brown trout handled during a mark/recapture effort on the upper river near Selkirk Fishing Access Site were down slightly from 2002 levels. A total of 114 brown trout were handled during two days of electrofishing. Over 61% of the brown trout handled in 2003 were less than 6 in long.

A similar trend was observed in 2002. These data showed that the remaining mature brown trout were still successfully reproducing in the river. Yet a strong population of yearling brown trout is not enough to maintain a fishery, if these small fish are not being successfully recruited into the population. Only eight of the brown trout handled in 2003 were between 6 and 15 in long, indicating that few of the strong yearling year-class observed in 2002 had survived. The largest brown trout captured in 2003 was 20 in long and weighed 2.41 lb. Like the Bighorn River fishery, many of the older brown trout in the Musselshell are probably due to die out as a result of old age. Without good recruitment of younger fish into the population, the brown trout fishery will likely continue to decline until the drought breaks.

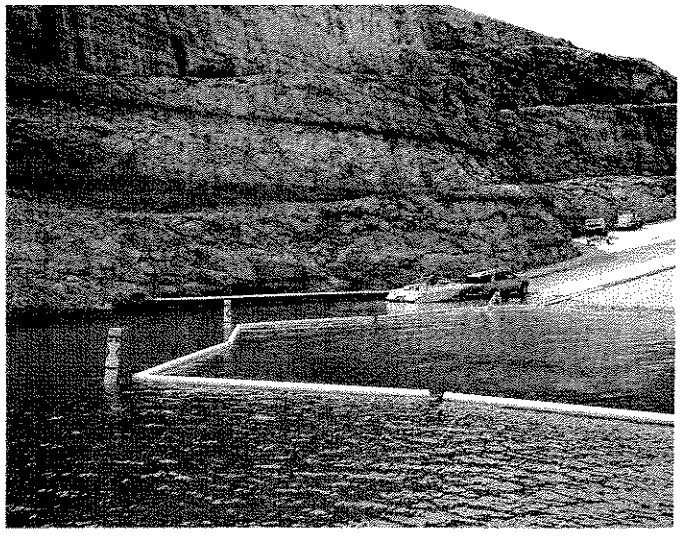
During 2003, water commissioners along the Musselshell were again charged with enforcing decreed water, as well as contract water, along the lower river. As in 2002, river flows throughout the summer were better than flows experienced in 2001, but flows downstream of Roundup again dropped to zero, with the river becoming a series of standing pools. The fish in the lower Musselshell have to be some of the toughest fish around, because some of them continue to survive what has become an annual drying of large sections of the river, leaving standing warm pools for fish to survive in. Anglers reported they were still catching some smallmouth bass downstream of Roundup this summer, with several different age classes present. Hopefully, this means there will still be enough fish left to repopulate the lower river once flow conditions improve.



MONTANA REGIONAL UPDATES

BIGHORN LAKE

Bighorn Lake continued to suffer the effects of an extended drought in 2003. Lake levels dropped to new record lows, with the lake elevations bottoming out almost 10 ft lower than last year when low water kept boaters off the lake for most of the season. Fortunately, the National Park Service was able to react quickly and take advantage of the low water levels to extend the boat ramps at both Ok-a-Beh and Barry's Landing. They gained 10 ft of vertical elevation at Barry's and 15 ft at Ok-a-Beh, so both ramps are now accessible at the same elevation. The extended ramps allowed anglers to access Bighorn Lake by mid-May this year. Once the lake elevation reached the bottom of the ramp, it remained at or above this level for the remainder of the season. Unfortunately, anglers did not find the hot fishing they had hoped for, considering Bighorn Lake had received hardly any fishing pressure in 2002. Anglers reported catching more brown trout than walleye in the spring, and most of the walleye that were caught were small and in poor condition. A 12 lb and a 14.5 lb walleye were reportedly caught during the same week this summer, but few larger walleye were caught throughout the season. An abnormally warm fall, combined with low water levels, kept water temperatures very warm late into the fall, so the walleyes stayed deep and were hard to reach. With these conditions, angler success didn't improve much in the fall.



Netting results seemed to verify what anglers were reporting. Six sinking gill nets were set at standard locations between the dam and Big Bull Elk Creek shortly after the lake was open to boating during spring 2003. Only nine small walleyes were netted between 12.2 and 16.6 in long. One larger walleye, estimated at 6 to 7 lb, dropped out of the net before it could be hauled into the boat. Other game fish captured included a 21 in sauger, a brown trout, a ling, a smallmouth bass and three channel catfish. Five nets set in the upper end of the reservoir near Barry's Landing in mid-June didn't do any better. One net was stolen overnight, but the remaining four nets only caught three small walleye, two channel catfish, and a smallmouth bass. Six nets set in the lower reservoir again in November 2003 caught only five walleyes between 12.8 and 14.2 in, eight brown trout, a sauger, a smallmouth bass, and one channel catfish.

Bighorn Lake received a usual plant of 4 million walleye fry and 200,000 fingerlings in 2003. This same number of walleyes had also been stocked into the lake in 2002. Lack of other forage species in the lake, caused by several years of low water, may be increasing predation on these stocked walleye. Predation, combined with overall lower productivity as a result of low lake levels, appears to be having a cumulative effect on the Bighorn Lake fishery. It will probably take a return to normal lake levels before this fishery can really start to recover.

COONEY RESERVOIR

The mixed walleye/rainbow fishery of Cooney Reservoir is providing anglers with the opportunity to catch excellent, pink-meated rainbows and walleyes up to 15 lb! Fall gill netting data suggest that the walleye population is doing very well. Sampling in 2002 suggested that there were abundant juvenile fish (8-14 in) but very few mid sized fish 15-24 in). This fall, however, several fish in the mid size range were captured, suggesting that smaller fish from the previous year have filled in the mid-sized gap. Numbers of large adult fish also appear relatively consistent with previous years' data, although fewer big fish (> 10 lb) were captured in this spring's sampling than in recent years. The white sucker population, the walleyes main forage, still is large, and more juvenile suckers were noted this year than in years past.

Despite an increase in the numbers of stocked rainbow trout in 2003, very few were captured in our fall gill nets. The reservoir was quite low in the fall due to the high irrigation demand during the summer, possibly making it more difficult for us to capture the rainbows. Although few were caught, the rainbow trout in the reservoir are in extremely good condition. An age-0 fish planted in the spring at 4 in is 12-13 in by fall and weighs 1 lb. One-year-old fish are about 18 in and 3-4 lb and two-year-olds are 20-22 in and 6 lb. A study on the success of the Eagle Lake and Arlee strains of rainbow trout will be completed this winter to determine if there is a strain more suitable to stock in Cooney to provide a quality trout fishery. A creel survey is planned for the reservoir in the future to determine fishing pressure and harvest to aid in managing the reservoir.

DEADMANS BASIN RESERVOIR

For the third year in a row, Deadmans Basin was drawn down to about 9,000 acre-feet by late summer. Normal full pool at Deadmans is about 72,000 acre-feet, which hasn't been approached for several years. Despite these annual drawdowns, the fishery continued to do well. It appears the tiger muskies have almost totally eliminated the white sucker population from the lake. Only 13 white suckers greater than 5 in long were captured in six gill nets set this fall. In comparison, the same net series

before tiger muskies were introduced could easily catch several hundred suckers. The rainbow trout population has responded favorably to the reduced sucker numbers. A good size-distribution of rainbows from 6 in to over 18 in long was captured in the fall net series, and all of these fish were in great condition. An 18 in rainbow in Deadmans Basin weighs close to two pounds.

Angling pressure has been increasing at Deadmans despite the low water conditions, and most anglers are happy with the fishery. Kokanee catch rates were low in the fall net series with only a few mature fish being netted. The largest kokanee captured was 18.3 in and weighed 1.70 lb. More anglers are starting to go to Deadmans specifically to fish for tiger muskies, and at least some of them are having success. One 32.8 in tiger muskie (9.35 lb) was captured in the spring gill-net series. Four tiger muskies were captured in the fall net series. These fish ranged from 34.0 to 38.0 in long, with the largest fish weighing 14.4 lb. The minimum length limit is being increased to 40 in for tiger muskies, and it appears there should be some fish in this size range in Deadmans Basin by next summer.

ABSAROKA-BEARTOOTH LAKES AND STREAMS

Golden trout eggs were collected from Cave Lake in Crazy Mountains for genetic testing as a possible source for eggs and fish to be planted into other lakes. As part of the effort to find ways to reduce the impact of whirling disease on trout populations, rainbow trout eggs were collected from Wounded Man Lake in the Absaroka-Beartooth Mountains to be tested for their resistance to whirling disease. FWP's high mountain lake fish crew sampled an additional 52 lakes over the summer. The primary objective of these surveys is to monitor the fisheries in both self-sustaining and stocked lakes to determine fish health and decide whether stocking rates need to be modified. Interns form half of the four-person crew that surveys the lakes from July to the end of August, providing a great opportunity for college students interested in the fisheries field to gain valuable experience.

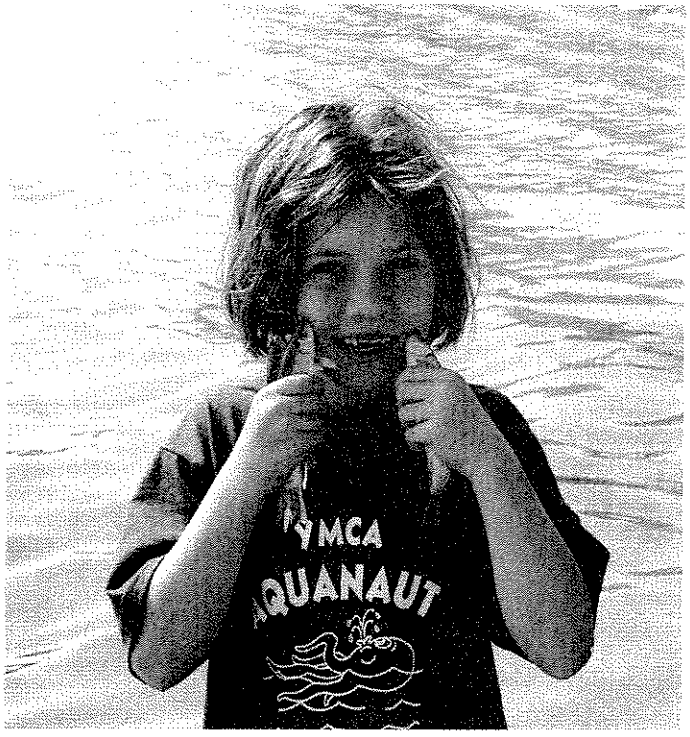
REGIONAL LAKES AND PONDS

LAUREL POND

Laurel Pond is stocked with catchable-sized rainbow trout several times during the year. It provides an excellent opportunity for families and youngsters in the Billings area to get out and enjoy an afternoon of fishing. A second aerator was purchased by the Billings Chapter of Walleyes Unlimited and installed in the pond. With only one aerator, no fish kills occurred in the pond as they had in previous years. With the addition of a second aerator, the amount of available habitat for over-wintering fish will be greatly increased, and the chance of a fish kill due to low oxygen levels is greatly reduced.

WEST ROSEBUD LAKE

West Rosebud Lake was sampled this spring with the aid of Columbus High School's advanced science class taught by Rich Stiff. West Rosebud Lake is stocked annually with rainbow trout, but a wild population of brook and brown trout exists in the lake along with whitefish and suckers. The fish in the lake appear to be in excellent condition. Many brook trout from 8-14 in were captured in the lake. Rainbow trout planted the previous year average 12-13 in. Brown trout are the most abundant fish in the lake and also the hardest to catch. Their average size is approximately 11in, but there are a few fish in the lake that are much larger. A 26 in brown weighing 8lb was caught in one of the nets. This fish had a rainbow trout approximately 12 in long in its belly. You don't see too many people throwing pike-sized lures around this lake, which might improve their chances of catching one of these lunker browns.



LAKE ELMO

Lake Elmo continued to provide a very popular fishery for stocked rainbow trout this season. Spring netting indicated there was a fairly good winter carry-over of planted rainbows, despite very low water levels in Lake Elmo last winter. This carry-over of larger trout, combined with fast growth rates for spring plants, kept most trout anglers happy. Low lake levels last winter did appear to impact yellow perch and crappie populations in Lake Elmo, even though there was no obvious sign of a winter kill. Netting this spring captured very few perch or crappie. Based on summer and fall netting, yellow perch did produce a very strong year class this spring, but crappie numbers remained low. The highlight of the fall net sample was an 11.4 lb channel catfish that was released back into the lake. Anglers reported catching catfish larger than this in the lake this summer.

Lake Elmo received the normal requested plant of 9,600 catchable-sized rainbows split between spring and fall plants, along with an additional plant of 1,000 rainbows in mid-summer. The lake also received the normal request of 7,800 channel catfish. The leaking headgate that resulted in low lake levels last winter has been repaired, so the lake should remain nearly full this winter.

LAKE JOSEPHINE

Lake Josephine continued to be a good location for families to take the kids to catch small crappie and sunfish, with the possibility of hooking onto a nice channel catfish or largemouth bass. An angler brought in a largemouth from Lake Josephine this summer that weighed over 6.5 lb. It was close to the same length as the current state record and, although it didn't make the record books, it was a very nice fish. Lake Josephine received a plant of 10,000 largemouth bass this summer. The lake is stocked every other year to supplement natural reproduction and improve recruitment with the large number of predators that can feed on small bass. Three trap nets were set in Lake Josephine during mid-summer. These nets caught several interesting species besides the crappie they were set for.

A single illegally introduced bluegill sunfish was documented in Lake Josephine a couple of years ago. Bluegills are now well established in the lake and were the most common species in the trap nets. Like the other sunfish species (crappie, and yellow perch) that were already present in the lake, the bluegill will remain stunted in size, will put additional demands on an already limited food supply in the lake, and will hurt rather than help the existing fishery. An illegally introduced northern pike was also captured in one of the traps. Illegal introductions of northern pike have caused serious problems in lakes all over the state, and they could have serious consequences in Lake Josephine if they become established. The trap nets also caught two very large softshell turtles and a large snapping turtle that weighed at least 30 lb.

Both Lake Josephine and Lake Elmo receive their water from the Yellowstone River via irrigation ditches that flow through the area, so they have not been seriously impacted by the drought like most of the other waters in the Region.

BROADVIEW AND ANITA RESERVOIRS

Both Broadview Reservoir and Anita Reservoir have been almost totally dewatered by recent drought conditions, and their fisheries have been lost. All stocking for both ponds has been canceled until water conditions improve.

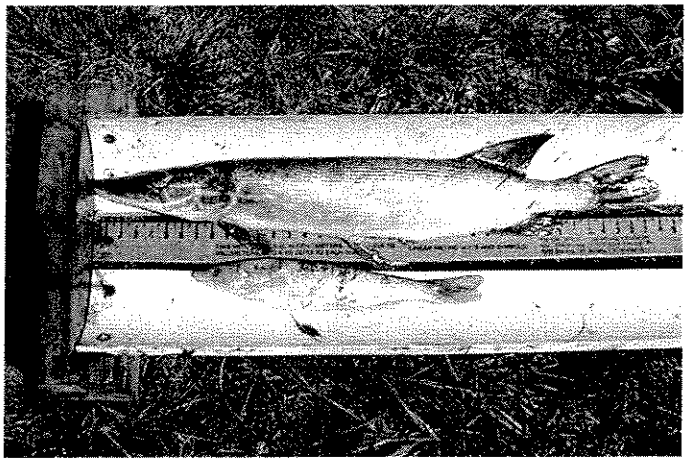
REGION SIX - GLASGOW

FRESNO RESERVOIR AND FRESNO TAILWATER FAS

Spring rain and snow began the process of rebuilding this fishery after 5 years of devastating drought. Hopes were short lived however as the drought quickly returned by mid summer. Walleye condition and numbers had been declining rapidly, along with yellow perch numbers since 1997. Condition of the walleye has improved greatly due to the record low numbers of walleye present and little competition for available food.

Adult perch numbers have increased due to massive transplanting efforts. About 37,500 perch were transplanted in 2001, another 18,500 in 2002 and 37,000 in 2003. These came from Lake Mary Ronan and the Region 1 fisheries guys and volunteers deserve our appreciation for all their work. Though revegetated shorelines set the stage for good perch production, actual production was below the 10-year average and walleye reproduction was poor. Planted walleyes faired poorly also. Temperature extremes at the time of the spawn are suspected as the culprit.

Though walleye numbers are low, the population is dominated by 4-6 year old fish that next year should average 2-3 pounds. Water levels have remained fair going into the winter. Northern pike did exceptionally well and will be the first to recover. It is expected to take at least 3-4 years to get the walleye/pike fishery on-line again. Walleye and pike fishing below the dam at the Tailwater Fishing Access Site has been very good, however, fishermen should be aware that the Bureau of Reclamation has closed the favorite fishing area immediately below the dam due to security concerns.



Picture of a northern pikeminnow taken out of the stomach of a northern pike. The pikeminnow is half the size of the pike illustrating the size of prey pike can eat.

NELSON RESERVOIR

Though also affected by the long drought, Nelson fared much better than Fresno in maintaining its fishery. Good catches were reported throughout the year on a wide variety of fish sizes. Though walleye and perch production is down, northern pike are making a fast comeback. The percentage of dead storage is much greater than that at Fresno, and Nelson being an off-stream storage reservoir, has much lower turbidity levels. Fishermen found low-

water boat launches on gravel bars and made due with what they had. Perch numbers are down, but spawning vegetation is abundant and water levels are good going into the winter. Winter fishing should be fair to good.

COW CREEK RESERVOIR

This reservoir was one of the few unaffected by the recent drought. Catches of walleye and channel catfish remain good and tiger muskies are being caught regularly. Though it's a ways out, over miles of gravel, this reservoir is a wonderful destination to fish for some unique species. Fishermen should note that next year the minimum size limit for muskies will increase to 40 inches.

LITTLE WARM RESERVOIR

The reservoir regained some volume this year, but numbers of walleye are down. Good catches of tiger muskies were reported this year. Fishermen should note that the minimum size limit for muskies will increase to 40 inches next year. FWP, with the help of landowner Steve Knudsen, installed a much needed boat ramp from WW II Air Force landing mat. Plans are to install a cattle guard at the entrance in 2004.

MISSOURI RIVER PADDLEFISH ABOVE FORT PECK

This was the sixth consecutive year of low spring flows, which meant paddlefish did not reach the spawning grounds in time to do their thing. Snaggers did very well however, as the fish congregated near the Fred Robinson Bridge.

BEAVER CREEK RESERVOIR

This multi-species water has provided one of the few places for fishing opportunity in the drought stricken Havre area. Good catches of perch and trout were made throughout most of the year. Walleye fishermen are learning how to catch the chunky fish with regularity. Smallmouth bass are providing a great deal of enjoyment. The pike population has been depressed for several years and has allowed for a resurgence of the trout fishery. However, pike production in 2003 was great; trout had better watch their tails for a few years. The upper end is now well vegetated and will undoubtedly provide ample spawning conditions for pike and perch next spring. Huge crowds from around the state are expected to turn out for the winter perch fishing. Trout fishing will be outstanding this winter. This reservoir now receives the second highest fishing pressure in the region behind Ft. Peck Reservoir.

BEAR PAW LAKE

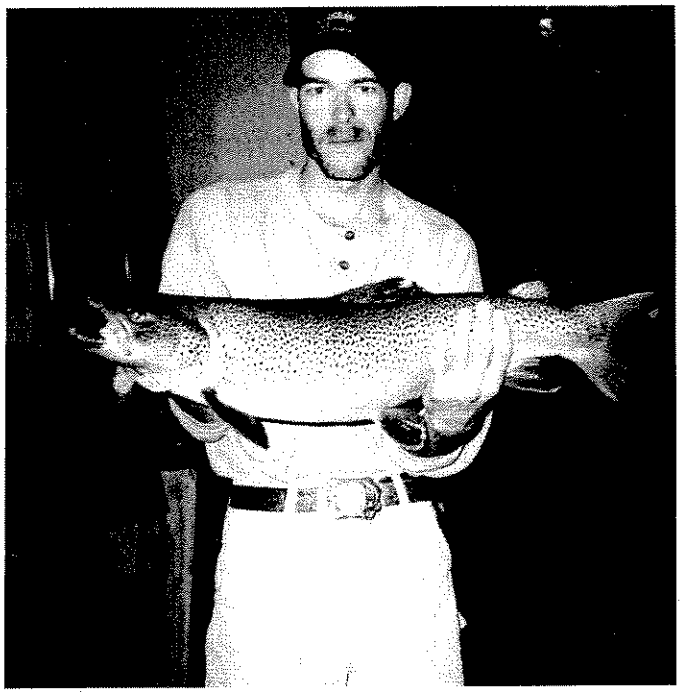
The long-term sucker reduction program is beginning to pay dividends. Growth and condition of stocked rainbow and cutthroat trout has improved substantially and the lake is once again a final destination point for thousands of fishermen. The reservoir ranks number three in fishing pressure in Region Six. Small mouth bass provide icing on the cake. Increased fishing pressure on this body of water instigated a reduction in the trout limit from 5 to 3, which went into affect in March of 2002. Many upgrades to the site were done in the last year with more planned. The reservoir is currently providing a refuge for many brook trout that have relocated from Beaver Creek upstream, due to the drought.

BAILEY RESERVOIR

Though good numbers of ¾ pound perch and crappie reside here, water levels continue to drop and the danger of winterkill looms ominously over this reservoir. Fish are concentrated and available. Fishermen should get to this water early in the winter before oxygen depletions occur.

H.C. KUHR RESERVOIR

The drought all but dewatered this fine trout fishery. Taking advantage of the low water level, FWP seized the opportunity to kill off a remnant perch and sucker population, which would certainly cause problems later. The reservoir was restocked in 2003 and closed to fishing. It will be open the spring of 2004, and anglers can expect to some nice catches of 10-14 inch rainbows.



DRY FORK RESERVOIR

Appropriately named, this 300-acre reservoir went completely dry, eliminating a tremendous northern pike/perch fishery in 2001. Summer rains partially refilled the reservoir and a forage base of minnows, perch and crappie was established in 2003. Unallocated rainbows were also planted and are doing quite well. Northern pike and walleye will be reintroduced in 2004, as the forage base is now up and running.

MONTANA REGIONAL UPDATES

RESER RESERVOIR

The low water and great productivity of this reservoir caused a winterkill in 2002-2003. Rainbow trout and bluegill were stocked in 2003. Fall netting showed poor survival of both. Two aerator windmills were installed in an attempt to increase dissolved oxygen, which seems to be a limiting factor. Fishing success may be marginal in 2004.

ROSS RESERVOIR

This beautiful mountain cutthroat fishery was rehabilitated in 2000 to rid it of suckers. It was closed in 2001 to allow fish to grow to acceptable size. Fishermen were not disappointed when the pond was opened in May of 2002. Good catches of 13-15 inch cutthroat were made. A leak in a drainpipe developed in late spring of 2003 and was temporarily fixed. Water levels are down somewhat and a permanent fix is planned for 2004.

FABER RESERVOIR

This was another reservoir rehabilitated to remove suckers in 2000. It was restocked with fingerling rainbow trout in 2001. The fishery came into it's own this year with large catches of very chunky 13-15 inch rainbows and occasional fish weighing up to 4 pounds. Winter fishing should be great.

OTHER REGIONAL RESERVOIRS

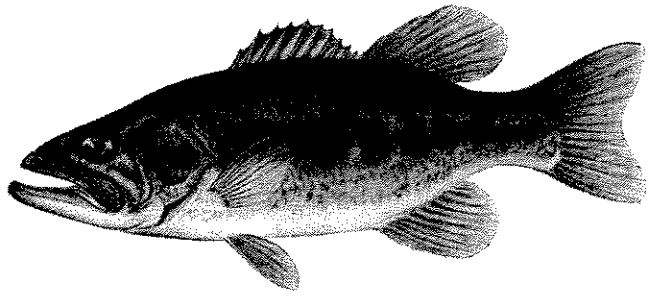
Though a number of waters in the area have filled, many smaller reservoirs and streams in the western part of the region took a hard blow from the drought. Many streams have been almost completely dewatered. Many reservoirs have surviving fish populations, but water levels are so low that a high number are expected to winterkill. Next spring, fishermen are advised to check with the Havre Area Resource Office on the status of reservoirs before venturing long distances to fish.

FORT PECK RESERVOIR

More than 2,500 walleye were captured and released during spring trap netting in the Upper Big Dry Arm. This year's egg-take once again provided its own challenges due to low water, as new trapping locations had to be found. More of the traps were placed in exposed area's, which made them more vulnerable to wind and difficult to run. The upcoming year will leave us in the same predicament, and in addition, the temporary ramp used during the spawn for the several years will require relocation. Stay tuned to find out if we can get in at McGuire Creek or move to Bug Creek or Rock Creek as primary starting points.

Despite all the logistical problems during the drought, the fish and the spawning crew have forged on with excellent results. This year 88 million eggs were collected. The spawning pontoon boat, which was purchased in part with Walleye Unlimited dollars in the late 80's, continues to function very well. All the work at the walleye spawn provided the entire state with its stock of walleye. Fort Peck was stocked with approximately 2 million fingerlings and 26 million fry, which were dispersed from Snow Creek down the Missouri Arm and in the Dry Arm.

Northern pike were spawned in 2003 to provide stocks in Fort Peck during this drought period as well. The bulk of pike fingerlings were supplied by North Dakota, with over 229,000 fingerlings stocked between Rock Creek, the Spillway Bay, Duck Creek and the Pines.



There is no doubt, without the volunteers that annually assist us and both new and returning FWP staff, we couldn't collect the number of eggs we do. Its believed over half of the eggs are collected due to assistance of volunteers. We look forward to seeing the old faces and meeting some new faces in the 2004 spawn.

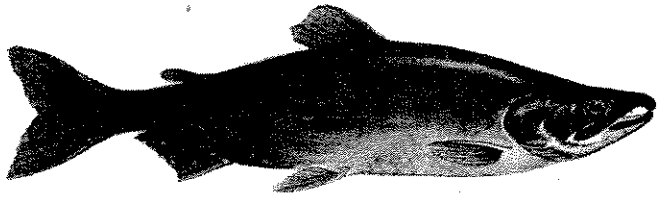
Annual gill net surveys show a stable population of walleye exists throughout the reservoir. The pike results show recruitment is low due to low water levels; the adults in the population are averaging over 7 pounds. The perch population has been reduced during the drought as well.

Annual seining survey also indicated a lack of production by perch. However, in a few areas pike fingerling numbers were up. It's possible some of the old willows from the last drought were available for one last time to produce some pike in areas. The numbers of emerald shiners, spottail shiners and crappie fingerlings were again low, in response to drought conditions. The number of smallmouth bass fingerlings looked good.

Anglers were much more successful in 2003 as compared to 2001 and 2002. The diminishing food supplies lead to hungrier fish and better catch by many anglers. Smallmouth bass anglers also enjoyed a good summer of fishing. This fall also had a fair catch of lake trout and chinook salmon with down riggers.

Vertical cisco netting for young-of-year was dismal this fall with an average of 3 per net. The catch was 6 per net in 2002 and a near record of 220 in the fall of 2001. The ciscos from 2001 are relatively abundant but are around 9 inches at this time. The low numbers of cisco overall due to poor recruitment in 2002 and 2003 also played a part in improving the catch of walleye in 2003. If ice cover comes late this winter, a poor year-class is anticipated for 2004. This may provide anglers with exceptional walleye fishing this summer, but condition of walleye is likely to decline.

Salmon egg-take in 2003 produced over 230,000 eggs, second only to the 1996 Fort Peck egg-take of 394,000. The fish ladder worked well this fall. Thanks to the Glasgow Chapter of WU for assisting in the purchase of the tractor in 2002. Additional thanks goes to South Dakota for collecting another 200,000 eyed eggs for Fort Peck. The combined efforts should result in a strong stock of 200,000 salmon for Fort Peck in 2004. The Giant Springs Hatchery will hatch, rear, and deliver the bulk of the salmon fingerlings in April of 2004. The fingerlings will stocked in net pens at Fort Peck Marina and reared until mid-June. It's hoped we can raise a portion of these fish to 7-8 inches compared to the 3-4 inch salmon normally stocked. The larger fingerlings would be released into the lake in August. This objective will be much easier to accomplish once the new Fort Peck Hatchery comes on line in 2005, as space is currently limited for rearing larger salmon with the current hatchery system.



Over 400,000 salmon fingerlings were stocked in 2003. Half were from South Dakota, and released directly into the lake and were not fin clipped. The other half was from Giant Springs Hatchery in Great Falls. Thanks again to numerous volunteers from the area, it was possible to fin clip all these fish. The clipped fish were pen reared in Fort Peck from late April through June. The returning fish should provide insight into the effectiveness of the pen rearing technique in producing more fish to anglers. In 2004, the stock of larger 7-8 inch fingerlings will be fin clipped to see if they return in lower or higher numbers compared to the spring released salmon. The results of this work won't be evident until at least 2005 and 2006.

Lake trout were also spawned in November for the first time since 1993. Lake trout spawning habitat has become largely unavailable due to dropping reservoir levels. Over 100,000 eggs were taken to supplement the limited natural spawn. The returning fish will be very small fingerlings, as hatchery space is limited in the statewide system.

Unfortunately, lake trout hatching and rearing will not be permitted when the new Fort Peck Hatchery comes on line, due to language in the bill authorizing construction.

The bulk work on fort Peck is conducted by two outstanding FWP employees, they consistently make sure everything is prepared for each task, happily work with all the volunteers at the walleye spawn, salmon clipping days, salmon spawn and other events, put long days in during cold, windy, rainy, hot and the occasional blue bird days. They have a true desire to make the best fishery in Fort Peck as possible. Without Jeff Remus and BJ Erickson working on Fort Peck getting all the extra projects done would be nearly impossible. So again, thanks to them, as well as, the other staff and volunteers that make this fisheries program possible.

LOWER RIVER MISSOURI - YELLOWSTONE RIVER PALLID STURGEON STUDY 2003

Although anglers cannot legally harvest pallid sturgeon in Montana, those who work on this endangered fish species wanted to let the public know of the ongoing recovery effort.

During the last two weeks of April, the FWP Pallid Sturgeon Study crew, the Fort Peck Flow Modification Project crew (Pat Braaten, Dave Fuller, Nathan McClenning, Willie Waller), and the U. S. Fish and Wildlife Service combined efforts to capture adult pallid sturgeon for hatchery brood fish. All sampling was completed within a few river miles of the Fairview Bridge on the Yellowstone River, and the confluence of the Missouri and Yellowstone rivers. Forty-nine pallid sturgeon were captured, consisting of 42 different individuals.

The recapture rate of previously marked pallid sturgeon was very high; only 7 of 42 fish were unmarked (83% recapture rate). This is similar to the 81% recapture rate observed during 2002, and much higher than the 50% recapture rate observed during several years previous to 2002 in these netting efforts. Catch-per-unit-effort of pallid sturgeon from FWP's netting efforts was one pallid captured per 57.8 minutes drift time, or one pallid captured per 7.2 net drifts. Seven pallid sturgeon were transported to Miles City State Fish Hatchery, while 14 were transported to Garrison Dam National Fish Hatchery. Thirteen family groups (unique male x female pairings) resulted from the broodstock collection efforts.

FWP assisted with the tagging and stocking of hatchery-reared pallid sturgeon spawned at Miles City fish hatchery. Stockings of these fish, which consisted of 4,124 individuals, occurred at Intake, Fairview, Culbertson, and Wolf Point.

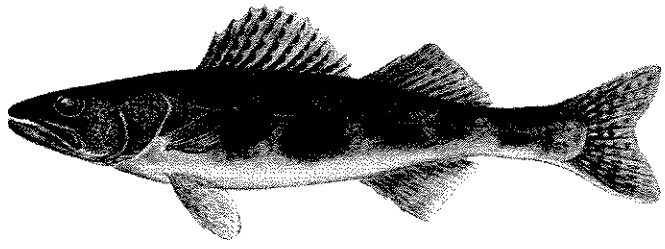
FWP monitored seven sites on the Missouri River below Fort Peck Dam during May - September by netting, trawling, seining, larval fish sampling, and electrofishing. The purpose of the monitoring is to collect and establish baseline information relative to fish populations, water temperatures, and physical habitat of the river. This information will be used to evaluate the possible benefits to the fishery from increased stream flows and warmer water temperatures via the Fort Peck Spillway. It is also an attempt to induce pallid sturgeon movement up the Missouri River for spawning and recruitment to the wild population.

FWP estimated that there are only 151 wild pallid sturgeon remaining in the lower Missouri and Yellowstone Rivers' population, and no evidence of successful recruitment to the population has been documented for at least the past twenty years. Spawning was confirmed during 2002 when

the Fort Peck Flow Modification Project crew sampled two pallid sturgeon larvae downstream from the confluence of the Missouri and Yellowstone rivers. Releases from the Fort Peck Spillway would attempt to somewhat mimic the natural hydrograph of the Missouri River during the spring season; such spring flows have been halted since the construction of the Fort Peck Dam. Even if pallid sturgeon do not respond to the increased flows and warmer water temperatures by migrating upstream and spawning (perhaps because too few fish remain), other native species such as sauger, shovelnose sturgeon, paddlefish, goldeye, freshwater drum, various chub and other species should certainly benefit.

A mini-release was scheduled during 2001; primarily to check the physical integrity of the spillway, and a more substantial release were scheduled to follow during late May and June of 2002. Unfortunately, low water levels in Fort Peck Reservoir and the release schedule from the dam have delayed the proposed spillway discharges. A high snow pack, above-average spring precipitation, and more conservative dam releases are needed in order for spillway releases to occur.

FWP received cost-share funds from the Billings Chapter of Montana Walleyes Unlimited to purchase radio telemetry tags to be used in a Missouri River sauger telemetry study. We began radio transmitter implantation in September of 2002 and will continue our efforts until all 32 tags are implanted. The Fort Peck Flow Modification Project crew has agreed to track the tagged sauger. The information collected during this study will provide a basic understanding of sauger habitat use in this reach of the Missouri River, and will provide additional data to evaluate the Fort Peck Dam flow modifications.



REGION SEVEN - MILES CITY

YELLOWSTONE RIVER PADDLEFISH

The Yellowstone River drainage had near normal mountain snow pack in 2003. The resulting May/June flows on the lower Yellowstone were sufficient to entice good numbers of paddlefish to the Intake Fishing Access Site. The fishing was so good, that 21 days into the normal 45 day season, Montana's harvest cap of 1000 paddlefish was reached. The remainder of the season was open to catch and release fishing only.

The Yellowstone/Missouri River paddlefish population is managed cooperatively by Montana and North Dakota. The 2003 season was the first in which a 1000 fish harvest cap was in place for each state. Previously, the harvest cap was 1500 fish for each state. The cap was reduced to bring the paddlefish harvest into line with recruitment of young fish. Continuing research is shedding more light on the number of young paddlefish entering the spawning migration.

A telephone survey was initiated after the 2003 paddlefish season to the determine state wide harvest of paddlefish, the numbers of paddlefish harvested at sites other than at the Intake Fishing Access site and to determine the level of interest in more or less catch-and-release fishing at Intake. The results of this survey will be used to help guide management efforts.

TONGUE RIVER RESERVOIR

A good spring runoff resulted in better water conditions at Tongue River Reservoir than has been seen in several years. The reservoir was at full pool for much of the spring and early summer fishing season. The stable water levels contributed to good spawning conditions and summer fish sampling showed good crappie and smallmouth bass

reproduction.

Crappie continue to be the main attraction at Tongue River Reservoir with nine inch fish being in great abundance. Crappie fishing was excellent from spring through summer.
Smallmouth bass are abundant in the reservoir and are the most commonly caught species after crappie. Channel catfish are rarely targeted by anglers at Tongue River Reservoir, but are abundant and an overlooked angling opportunity.

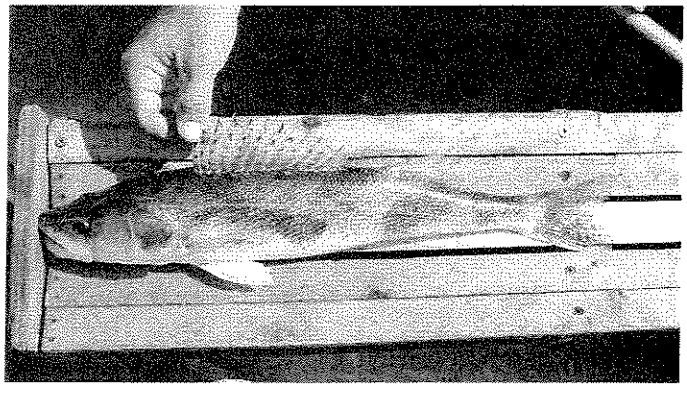
Walleyes caught in overnight gill net sets have declined in recent years but the average size has increased to about 18 inches. An abundance of black bullheads in the reservoir may be making it difficult for stocked walleye fry and fingerlings to survive to adulthood. Black bullheads were the most abundant species caught in gill nets in 2003. Walleye fry marked with a dye before release have been recaptured as one and two year old fish, which proves that fry planting is contributing to the walleye fishery. Efforts are ongoing to determine the contribution of walleye fingerling plants to the fishery.

Sauger were commonly found in the reservoir in the mid-1970's, but have been rarely seen in recent years. In 2003, an experimental sauger spawning effort was undertaken at the Miles City State Fish Hatchery. From this effort, 178,000 sauger fry and 85,000 sauger fingerlings were produced. These fish were stocked in the reservoir to try and increase sauger numbers in the Tongue River drainage.

YELLOWSTONE RIVER

Drought conditions continue in eastern Montana and once the runoff from mountain snow pack was done in mid-June the Yellowstone River was low and clear. Spring and fall sauger fishing was excellent.

The angler harvest portion of the sauger graduate research project was continued through the fall of 2003. Data analysis is ongoing, but angler tag returns suggest a lot of sauger were harvested. Previous years data suggested that angler harvest of sauger was not exceedingly high, but the 2003 data is raising some concerns.



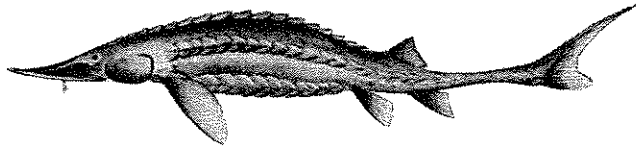
Fifty sauger were captured in the Yellowstone River and brought to the Miles City State Fish Hatchery for an experimental spawning effort. The purpose was to develop techniques and timelines to successfully spawn wild sauger at the hatchery, which may then be for used reintroduction and/or supplementation purposes. All sauger were screened genetically and only pure sauger were used for spawning. Ten per cent of the fish tested were found to be sauger/walleye hybrids and were not used. All but seven of the remaining sauger contributed sperm or eggs to the successful effort.

Hatchery reared pallid sturgeon continue to be stocked in the Yellowstone River below the Intake Diversion Dam in an efforts to help recover this endangered species. Anglers need to be aware of their presence and be on the lookout for the colored lines on the underside of the snout that marks these fish. Anyone catching one of these fish should note the color of the marks, release the fish and report where and when the fish was caught to a department employee.

SOUTHEASTERN MONTANA PONDS

Low reservoir water levels continue to limit fishing opportunities in southeastern Montana ponds. Only a few of the larger, deeper reservoirs are doing well.

In the spring of 2003, a new computer generated Region 7 Pond Book was made available to anglers. This booklet describes pond location, species present and recent survey information. The booklet can be obtained by contacting the Region 7 office in Miles City.



SAVE A LITTLE TIME OR SAVE A LITTLE MONEY

Are you willing to pay a little extra for the convenience of purchasing your hunting and fishing licenses online from your own computer? Or do you want to forgo that expense and purchase your licenses the traditional way from a license agent? License year 2003 was the first year where hunters and anglers had to make that decision. The added cost to purchase your license online was $1.25 plus 2% of the total transaction. So far, in license year 2003, Internet sales are over $230,000 from the sale of over 8,000 licenses.

Please visit our Internet website as we are always adding new information!

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MONTANA'S FISH RECORDS (Through Sept. 30, 2003)

Species	Weight	Angler	Year	Location
Arctic grayling*	3.63 lbs.	Glenn Owens	2003	Washtub Lake
Bigmouth buffalo	57.75 lbs.	Craig D. Grassel	1994	Nelson Reservoir
Black bullhead	2.33 lbs.	Darwin Zempel, Jr.	1994	Lower Flathead River
Black crappie	3.13 lbs.	Al Elser	1973	Tongue River Reservoir
Blue sucker	11.46 lbs.	Doug Askin	1989	Yellowstone River (near Miles City)
Bluegill	2.64 lbs.	Brent Fladmo	1983	Peterson's Stock Dam
Brook trout	9.06 lbs.	John R. Cook	1940	Lower Two Medicine Lake
Brown trout	29.00 lbs.	E. H. "Peck" Bacon	1966	Wade Lake
Bull trout	25.63 lbs.	James Hyer	1916	unknown
Burbot (ling)	17.08 lbs.	Jeff E. Iwen	1989	Missouri River (near Wolf Point)
Common carp	40.20 lbs.	Jared Albus	1998	Nelson Reservoir
Channel catfish	27.17 lbs.	Ed Ellertson	1998	Castle Rock Reservoir
Chinook (king salmon)	31.13 lbs.	Carl L. Niles	1991	Fort Peck Reservoir
Cisco	1.75 lbs.	Curt Zimmerman	2001	Missouri River (below Ft Peck)
Coho salmon	4.88 lbs.	Irven Stohl	1973	Fort Peck Reservoir
Cutthroat trout	16.00 lbs.	William D. Sands	1955	Red Eagle Lake
Flathead chub	0.59 lbs.	Douglas Jordan	2001	Thornton Pond
Freshwater drum*	21.59 lbs.	Matt Washut	2003	Fort Peck Reservoir - Ghost Coulee
Golden trout	**5.43 lbs.**	**Mike Malixi**	**2000**	**Cave Lake**
Goldeye	**3.18 lbs.**	**Don Nevrivy**	**2000**	**Nelson Reservoir**
Green sunfish	**0.56 lbs.**	**Roger Fliger**	**1991**	**Castle Rock Reservoir**
Kokanee (salmon)*	7.85 lbs.	John Bomar	2003	Hauser Reservoir
Lake trout	42.00 lbs.	Dave Larson	1979	Flathead Lake (east shore)
Lake whitefish	10.08 lbs.	Theo Hamby	1995	Lower St. Mary Lake
Largemouth bass	8.29 lbs.	Adam Nelson	1999	Many Lakes
Largescale sucker	5.06 lbs.	Loren Kujawa	1996	Kootenai River
Longnose sucker	3.27 lbs.	Ray Quigley	1988	Marias River
Mottled sculpin	0.05 lbs.	Brad Sullivan	2001	Belt Creek
Mountain sucker	1.6 lbs.	Robert Garwood	2001	Beaver Creek Reservoir
Mountain whitefish	5.09 lbs.	Mervin "Frog" Fenimore	1987	Kootenai River
Northern pike	37.50 lbs.	Lance Moyler	1972	Tongue River Reservoir
Northern pikeminnow	7.88 lbs.	Darrel Torgrimson	1991	Noxon Rapids Reservoir
Paddlefish	142.50 lbs.	Larry Branstetter	1973	Missouri River
Pallid Sturgeon	60.00 lbs.	Gene Sattler	1979	Yellowstone River - near Sidney
Peamouth*	1.05 lbs.	Paul Teichman	2002	Flathead Lake
Pumpkinseed	0.95 lbs.	Tim Colver	1985	Milnor Lake
Pygmy whitefish	0.18 lbs.	Frank Gamma	1999	Ashley Lake
Rainbow trout	33.1 lbs.	Jack Housel , Jr.	1997	Kootenai R. (David Thompson Bridge)
Rainbow-cutthroat hybrid	30.25 lbs.	Pat Kelly	1982	Ashley Lake
Redside shiner	0.1 lbs.	Josh Ahles	2001	Lost Lake
River carpsucker	6.42 lbs.	Bill Odenbach	2000	Yellowstone River near Intake
Rock bass	.057 lbs.	Don Holzheimer	1989	Tongue River Reservoir
Sauger	8.81 lbs.	Gene Moore	1994	Fort Peck Reservoir
Saugeye	15.66 lbs.	Myron Kibler	1995	Fort Peck Reservoir - Squaw Creek
Shorthead redhorse sucker	4.68 lbs.	Ray Quigley	1985	Marias River near Loma
Shortnose gar	3.06 lbs.	John Johnson	1977	Fort Peck dredge cuts
Shovelnose sturgeon	13.72 lbs.	Sidney L. Storm	1986	Missouri River
Smallmouth bass*	6.66 lbs.	Mike Otten	2002	Fort Peck Reservoir
Smallmouth buffalo	32.63 lbs.	Richard Liesener	1994	Nelson Reservoir
Stonecat	0.54 lbs.	Dale Bjerga	1996	Milk River
Tiger muskellunge	27.00 lbs.	Dan Dupea	1994	Lebo Lake
Tiger trout	4.04 lbs.	Joe Sobczak	1997	Bear Lake
Utah chub	1.81 lbs.	Eugene Bastian	1992	Canyon Ferry Reservoir
Walleye	16.63 lbs.	Danny Spence	2000	Fort Peck Reservoir
White bass	2.25 lbs.	Vernon Pacovsky	1998	Missouri River
White crappie	3.68 lbs.	Gene Bassett	1996	Tongue River Reservoir
White sturgeon	96.00 lbs.	Herb Stout	1968	Kootenai River
White sucker	5.33 lbs.	Fred Perry	1983	Nelson Reservoir
Yellow bullhead	0.93 lbs.	Carl Radonski	1996	Tongue River Reservoir
Yellow perch	2.37 lbs.	Vernon Schmid	1988	Ashley Lake

*New Montana record since 2001