North Platte Angler Newsletter

2002

NORTH PLATTE RIVER IN CASPER

A blue ribbon trout fishery right in the middle of Casper? This appears to be the case. We electrofished the North Platte River between Robertson Road Bridge and Mills Bridge in September 2001. Dramatic changes have occurred since we last sampled this stretch of river in 1995 (Table 1). Both numbers of trout per mile and pounds of trout per mile have greatly increased. While the estimated 1,125 trout per mile and 1,348 pounds of trout per mile we saw do not approach the numbers we typically see closer to Gray Reef Dam or the Miracle Mile, this area may still offer some exceptional fishing much closer to Casper. Rainbow trout are the primary species present but anglers may also encounter browns and cutthroats.

These dramatic improvements in fisheries seldom happen by accident. The flushing flows that have been conducted since the mid-1990s, in cooperation with the U.S. Bureau of Reclamation, have greatly contributed. Flushing flows transport fine sediments to the riverbanks and further downstream thereby improving trout spawning habitat and increasing natural reproduction. Removing fine sediment should also increase invertebrate production (food for trout).

Table 1. Trout population estimates for the North Platte River between Robertson Road Bridge and Mills Bridge in 1995 and 2001.

Year	Species	Number/Mile	Pounds/Mile
	Rainbow Trout	174	67
1995	Brown Trout	8	4
	All Trout	**184**	**73**
	Rainbow Trout	1,125	1,269
2001	Brown Trout	42	79
	All Trout	**1,167**	**1,348**

PROCESS TO STOCK A TROUT
by Brad Hughes- Speas Fish Rearing Station

Getting most anything done in today's world involves a process of one sort or another. Stocking trout in Wyoming water's is no different. Our hatchery system does a fantastic job raising trout and stocking them all around the state. The following is a synopsis of all the moves that took place before Pathfinder Reservoir could be stocked in 2001. The Casper fish management crew requested the number and sizes of these trout in 1998. The process is set up three years in advance to allow for adequate planning to best utilize space and maximize the capacities of the hatcheries.

Fall Rainbow trout are stocked in Pathfinder Reservoir. Fall Rainbows are a captive broodstock kept at Boulder Fish Rearing Station near Pinedale. Unlike typical rainbows, Fall Rainbows spawn in the fall allowing for better utilization of hatchery space over the calendar year. On October 31st 2000, 635,789 eggs were spawned from 192 female Fall Rainbow trout at Boulder Fish Rearing Station. The fertilized eggs were then shipped to the Ten Sleep Hatchery where they were incubated for 26 days until they hatched. The newly hatched trout, less than one inch long, under constant care and supervision took twenty days to start swimming and eating. Trout are hatched with a yolk sac that provides them nutrition until they begin feeding. These small fish remained at Ten Sleep Hatchery until January 22nd when 273,918 fish (averaging 2.3 inches) were transferred to Wigwam Rearing Station near Ten Sleep; the remaining fish were used to stock various other waters around the state. While at Wigwam, they grew nearly 1½ inches in three months. On May 1st, 220,000 of these fish (averaging 3.9 inches) were transferred to Speas Fish Rearing Station near Casper. This would be their final move until they were stocked in the North Platte Reservoirs. Table 2 shows the moves these fish made and how they grew over time.

Table 2. Summary of moves of 2001 Pathfinder Reservoir fall rainbow trout.

Date	Length	Hatchery
Nov. 2000	eggs	Boulder Hatchery
Dec. 2000	1.6 inches	Ten Sleep Hatchery
Jan. 2001	2.5 inches	Ten Sleep Hatchery
Feb. 2001	3.0 inches	Wigwam Rearing Station
Mar. 2001	3.5 inches	Wigwam Rearing Station
Apr. 2001	3.9 inches	Wigwam Rearing Station
May 2001	4.9 inches	Speas Rearing Station
Jun. 2001	5.8 inches	Speas Rearing Station
Jul. 2001	6.9 inches	Speas Rearing Station
Sep. 2001	8.3 inches	Speas Rearing Station
Sep. 17-18th and Oct 4th	9.1 inches	Stocked at Pathfinder

Speas has a constant flow of 60˚F water allowing trout to grow at tremendous rates. From May through September, these fish grew from about 4 inches to an average of 9.1 inches. In 2001, Pathfinder Reservoir was stocked with 76,000 rainbows from the Speas Rearing Station. On September 17-18th, 67,601 were stocked with the remaining 8,399 stocked on October 4th. The remaining balance of the 220,000 Fall Rainbow trout were stocked in Seminoe Reservoir and the North Platte River. As you can tell, there is a lot of time, effort and careful planning involved in assuring that trout are stocked in Pathfinder Reservoir each year.

SEMINOE RESERVOIR

Anglers should be aware of the walleye regulation change that took effect January 1, 2002 at Seminoe Reservoir. The daily creel and possession limit for walleye was reduced from 20 to the general statewide limit of 6. This regulation change was done in an effort to improve the size structure of the Seminoe walleye population.

Fishing in 2002 at Seminoe Reservoir should be similar to last year with about the same numbers of trout and walleye in the population. Seminoe provides the opportunity to catch a diversity of species. Walleye and rainbow trout are most often caught by anglers but brown trout and cutthroat trout also cruise its waters. Seminoe may also offer anglers their best opportunity to catch a trophy walleye in Wyoming (Table 3). Aging of walleye revealed that many of these 30 inch fish are more than 15 years old.

Table 3. Seminoe gill net summary, September 2001.

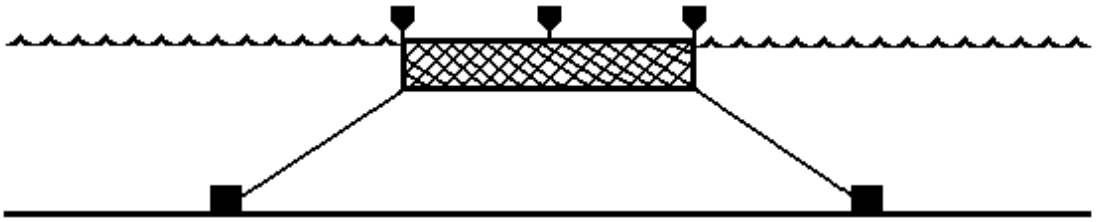
Species	Number Caught	Catch/ Hour	Avg. L (in.)	Largest (in.)	Avg. Wt (lbs.)	Largest (lbs.)
Rainbow Trout	81	0.29	14.7	18.8	1.10	2.40
Cutthroat Trout	9	0.03	15.1	16.8	1.30	1.70
Brown Trout	20	0.07	14.4	21.7	1.10	3.60
Walleye	71	0.41	14.5	30.5	1.60	12.50

Low water levels forecast for 2002 may limit access by boat anglers. The Medicine Bow Arm boat ramp becomes unusable when the reservoir drops below 6,325 feet in elevation. The North Red Hills ramp is Seminoe's best low water ramp, remaining usable for most boats as long as the reservoir stays above 6,300 feet. With probable low water, boaters should be especially cautious as rocks that have been safely below water for years may appear in 2002.

SAMPLING GEAR

Biologists have the ability to sample fish with a lot of different tools. Some you've probably heard about: gill nets, traps, seines, and electrofishing (shocking). Others you may not be familiar with: hydroacoustics, purse seines. Each tool has its advantages and disadvantages. Here's a brief look at one of our most frequently used gears.

Gill nets are an entanglement gear constructed of panels of monofilament mesh of various sizes. Fish are caught when they attempt to swim through, often becoming gilled as the twine slips under the gill cover preventing escape. As you might expect, different mesh sizes generally catch different sizes of fish.



Floating gill net

Wyoming fishery biologists use three kinds of gill nets. **Sinking gill nets** are weighted so that they lie along the bottom of a reservoir and capture fish that swim near the bottom. They are very good at catching trout, walleye, perch, lake trout, and catfish but they also catch lots of nongame species (suckers, carp, etc.). **Floating gill nets** have extra floats along the top line so they float along the surface (see picture). They are particularly useful for catching pelagic (open water) species like rainbow and cutthroat trout and kokanee salmon. Biologists who sample high mountain lakes use **Swedish gill nets** that have very small mesh sizes and are lightweight. Alpine lake fisheries are usually dominated by trout and grayling and have few nongame species that could damage the lightweight monofilament netting. All G&F nets are marked with a float that helps us find the nets. Please do not get too close to these floats as they might become entangled in your boat props.

Gill nets let us catch fish so we can obtain lengths, weights, aging structures, and other measurements. They don't allow us to count fish very well, since catch is at the mercy of the fish. Fish behavior dramatically influences capture of passive gear types like gill nets, which rely on fish movement. We have other tools, called active gears, by which we go after the fish more actively. But that's another Newsletter.

GLENDO RESERVOIR

The walleye fishery continues to be strong at Glendo Reservoir. We caught nearly the same number of walleye in 2001 that we did in our 2000 netting sample (Figure 1). Average length of walleye in 2001 was unchanged from 2000. What was different in 2001 was the average walleye was skinnier than the year before. We hoped to stock up to 2,000 adult gizzard shad in 2001 but had collecting problems and were able to stock only 440. There also appear to be fewer yellow perch, a favorite food of walleye, in 2001. Overall, the walleye population looks good and small walleye are recruiting into the population (Figure 2). If we can keep forage levels up, walleye fishing should remain good for the near future.

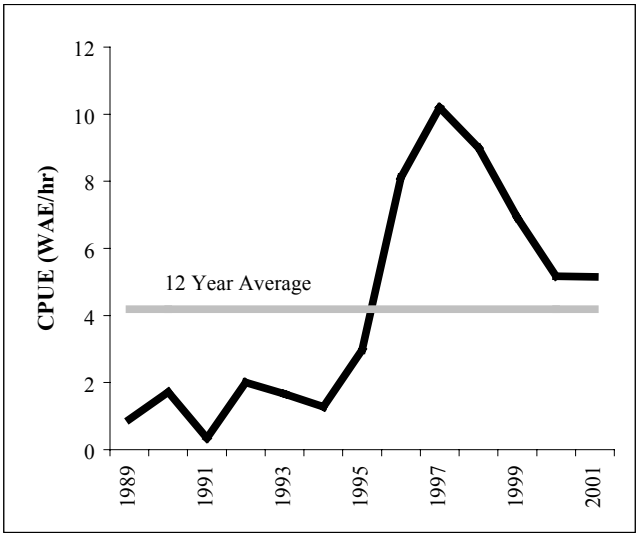


Figure 1. Catch per unit effort of walleye.

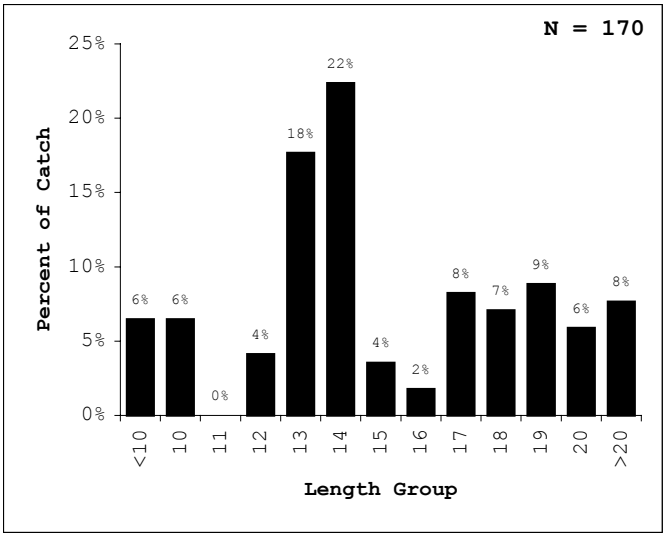


Figure 2. Walleye size distribution in 2002.

As I said earlier, yellow perch numbers have really gone down. If you want to catch yellow perch, Glendo is likely not going to be your hot spot in 2002. With walleye numbers remaining high in the near future, yellow perch numbers will take a while to improve.

Channel catfish are in great shape in Glendo. When we conducted a creel survey in 2000, we found very few anglers targeted catfish. The average catfish in our netting sample was 18.5 inches and weighed nearly 2.5 pounds. Anglers who eat catfish claim they are one of the best eating fish in Wyoming. The most productive time to catch catfish is likely at night. If you plan to camp at Glendo in 2002 consider giving catfishing a try.

Other species like crappie, both black and white, and largemouth bass numbers are fairly low. With the high walleye population in recent years, reproductive success of these species has likely suffered. There is a chance to catch a quality crappie in 2002.

WALK-IN FISHING ACCESS

Game and Fish workers in the Casper Region have been busy signing up more fishing areas for anglers to enjoy this year. Landowners have generously accepted the Game and Fish's Walk-In program in this region and several more landowners are watching these areas to see how anglers respect the sites before they will sign up.

Walk-In Areas for fishing in the Casper Region has increased compared to last year. A new Walk-In fishing area is available at Outhouse Hole below Gray Reef Dam and on Deer Creek. Anglers need to show respect for the landowner and his land if the program is going to succeed. Last year most of the anglers were very good about parking only in designated areas and packing out their trash.

Unfortunately some landowners dropped out of the program because a few showed a lack of respect for private property. Landowners reported tires being shot out on sprinkler systems and 4-wheelers driving off designated roads.

The success of this program depends on you. Please report violators by calling the STOP POACHING hotline at 1-800-442-4331.

Please stop by or call Brian Olsen at the Casper G&F office (473-3400) or license-selling agent for more information on the Walk-In fishing areas anglers can take advantage of this year. Information will be available for Walk-In Hunting and Hunter Management areas at G&F offices across the state after August 1. More information is also available on the G&F website at http://gf.state.wy.us

MIRACLE MILE

The Miracle Mile fishery received a lot of attention from G&F in 2001. We did our standard population estimate in July, sampled the river several other times to determine species composition and ran a creel survey from April through October.

The trout population continued to decline in 2001 (Table 4). Estimated numbers have declined while our estimate of total pounds of trout has remained fairly stable. What this means is there are less fish but they are, on average, bigger. That does not bode well for the near future of trout numbers in the Miracle Mile. The brown trout have suffered the largest losses of numbers and pounds. This could be a result of the recent stretch of high water (from 1995-2000) resulting in less brown trout habitat in the Miracle Mile. When Pathfinder Reservoir is near full, the river habitat is shortened from around 12 miles to around 6 miles. Perhaps this additional 6 miles of river habitat during times of low water is beneficial to brown trout spawning or critical habitats? If this is the case, the recent low water levels may improve brown trout numbers in the near future.

Table 4. Population estimates, mean length and weight for trout greater than 6.0 inches captured from the Miracle Mile electrofishing station, North Platte River.

Date	*Species*	*No./Mile*	*Pounds/Mile*	*Mean L (in.)*	*Mean Wt (lbs)*	*Mean C*
7/01	BNT	501	547	11.9	1.13	41.3
	RBT	692	1,102	15.3	1.97	42.5
	SRC	588	1,304	17.8	2.21	38.9
	All TRT	**1,781**	**2,953**			
7/00	BNT	735	662	13.0	1.17	42.2
	RBT	920	1,350	14.4	1.70	45.8
	SRC	687	1,348	17.3	2.01	38.5
	All TRT	**2,342**	**3,360**			
7/98	BNT	2,953	1,205	10.5	0.73	43.9
	RBT	1,257	1,662	14.3	1.71	50.1
	SRC	229	474	17.8	2.06	36.9
	All TRT	**4,439**	**3,341**			
7/96	BNT	3,216	2,120	10.8	0.75	47.0
	RBT	893	946	12.7	1.16	46.9
	All TRT	**4,109**	**3,066**			
6/95	BNT	3,719	2,920	9.3	0.82	44.4
	RBT	793	1,407	15.1	1.71	46.2
	All TRT	**4,513**	**4,327**			
6/93	BNT	1,378	2,811	14.8	1.86	45.0
	RBT	192	419	14.4	1.72	50.4
	All TRT	**1,570**	**3,230**			

From spring through fall, the species composition at the Miracle Mile shifts from predominantly rainbow trout (RBT) to brown trout (BNT) (Table 5). Snake River cutthroat trout (SRC) are present in small numbers until July when they composed 16% of the overall sample, likely accounted for by a spawning run out of Pathfinder Reservoir. There appears to be a large exchange of all three trout species between Pathfinder Reservoir and the Miracle Mile depending on time of year.

Table 5. Species percentage in shocking sample over time. July data is from the standard population estimate station.

Month	*Sample Size*	*BNT %*	*RBT %*	*SRC %*
Apr	98	26%	74%	0%
May	33	15%	82%	3%
Jun	22	45%	50%	5%
Jul	577	46%	38%	16%
Sep	253	62%	34%	4%
Oct	213	60%	37%	3%

A creel survey was conducted from April through October; our creel clerk may have contacted many of you. Overall, catch rates have declined from 0.62 trout/hour in 1995-6 to 0.36 trout/hour in 2001. The decline in brown trout numbers appears primarily responsible for this decline.

ALCOVA RESERVOIR CREEL SURVEY

Virtually no natural reproduction of rainbow trout occurs in Alcova Reservoir. Nearly every trout that anglers catch is a result of stocking by the Wyoming Game and Fish Department. An extensive study was conducted in the mid-1990s that helped us refine our stocking program to maximize benefits to anglers while keeping hatchery costs as low as possible. We currently stock about 92,000 catchable (about 8 inch) rainbow trout in Alcova every year.

A creel survey was conducted on Alcova between April and October of 2001. Many of you who fish Alcova probably encountered one of our creel clerks this summer. Creel clerks interviewed 1,729 anglers, 90% of which were Wyoming residents. Anglers had a catch rate of 0.58 fish per hour in 2001 compared to 0.48 fish per hour during the 1995-1996 creel survey. Changes made to the stocking program as a result of what we found in the 1995-6 coded-wire tag study appear to have improved trout fishing at Alcova Reservoir. The average size of rainbow trout harvested by anglers was 14.9 inches. The largest trout seen by our creel clerk was a 20.1 inch rainbow trout. Anglers had the highest catch rates in June and October. Alcova continues to provide anglers with an excellent opportunity to catch fish.

PATHFINDER RESERVOIR

Water levels at Pathfinder Reservoir fell in 2001 to the lowest level since 1995. Many boats found unwanted rocks while running across the reservoir. With the water forecast being bleak in early 2002, be aware that several boating hazards will possibly continue to appear throughout 2002.

The fishing at Pathfinder should be good in 2002. Rainbow trout catch in our nets fell in 2001 from 2000 levels. This was likely a result of stocking less trout in 2000. In 2002, we are scheduled to stock 120,000 trout.

The average rainbow trout was 18.2 inches and weighed over 2 pounds (Table 6). Walleye averaged 14.8

inches. There are also strong walleye year classes in the 11 to 14 inch range. Although they are not big, there should be good walleye fishing for years to come.

Table 6. Pathfinder gill net summary, June 2001.

Species	Number Caught	Catch/ Hour	Avg. L (in.)	Largest (in.)	Avg. Wt (lbs.)	Largest (lbs.)
Rainbow Trout	94	0.37	17.2	21.6	2.11	3.28
Cutthroat Trout	32	0.13	18.2	19.7	2.29	2.82
Brown Trout	28	0.24	17.4	22.5	1.95	3.83
Walleye	75	0.63	14.8	29.7	1.39	9.67

The boat ramp at the Marina was improved in 2001. Hopefully this improvement will make the launching and retrieval of boats easier in 2002. With Natrona County Parks, we are also looking into developing a low water ramp in the Bishop's Point area in 2002.

GRAY REEF TO BESSEMER BEND CREEL SURVEY

Our creel clerks had a very busy summer. In addition to creel surveys on Alcova and the Miracle Mile, anglers fishing between Gray Reef Dam and Bessemer Bend Bridge were also interviewed. Anglers who fish this stretch of river have much to be happy about. The overall catch rate was 0.84 fish per hour. Rainbow trout were the species most often caught by anglers followed by browns and cutthroats.

Differences emerged between anglers fishing above and below the Lusby Public Fishing Area (Table 7). Anglers fishing above Lusby were more likely to be nonresidents, have higher catch rates, and are less likely to keep fish than anglers fishing below Lusby.

While you may have noticed that more anglers are fishing this stretch of river in recent years the fishery has continued to improve. Even though access is currently pretty good, we are constantly looking for ways to increase angler opportunity in this exceptional fishery.

Table 7. Summary of the 2001 Grey Reef Dam to Bessemer Bend Bridge creel survey.

	Catch Rate (trout per hour)	% Wyoming Residents	% Fishing Only With Flies or Lures	% of Trout Released
All Anglers	0.84	46%	80%	97%
Above Lusby Anglers	0.91	29%	100%	99%
Below Lusby Anglers	0.65	76%	51%	86%

AccessYes PROGRAM

Anglers purchasing their 2002 fishing licenses have the opportunity to do something about one of their more common complaints of having a place to fish.

To help improve the access situation, the G&F has a program called AccessYes in which hunters and anglers can donate money when applying for or purchasing a hunting or fishing license. If every angler donated just $1 to this program, nearly $500,000 could be raised.

Examples of how the money will be used include expansion of walk-in acreage, increased access through private lands to reach public lands and additional fishing easements. The amount of access provided will be determined solely by the amount of contributions.

The Walk-in Fishing Atlas, available at license agents and G&F offices, offers anglers nearly 60 fishing locations around the state. These areas are predominately on private lands that either offered limited access or no access before the G&F Access Program was developed.

More areas will be signed up as long as there's funding available to run the program. Please consider donating to the AccessYes program the next time you purchase your hunting or fishing license. If you want to find out more about the G&F Access Program, contact your local G&F office or visit their website at http://gf.state.wy.us

HOW OLD IS THAT WALLEYE?

In 2001, we collected age data on most of the major walleye waters in Wyoming. To age walleye, we collected scales, spines or otoliths from walleye in our nets. Otoliths are the inner ear bones that are typically very reliable in aging walleye.

With scales, the scales were dried then pressed on acetate slides using a jeweler's press. These impressions were then "read" on a microfiche reader. Like most fish, walleye grow faster in the summer when food is abundant and slower over the winter months. These differences in growth rates are seen on the scales as annuli (similar to counting rings on a tree), essentially periods of slower and faster growth. Scales seem to work well for aging walleye at waters where growth is fast. On slower growing waters, spines or otoliths were used to age fish.

In order to actively manage WAE, we need to better understand their populations. By doing age and growth work, we will be able to distinguish cohorts (specific age groups of fish), evaluate regulation changes or the need for special regulations, better understand WAE population dynamics and, perhaps most importantly, better communicate with WAE anglers.

Figure 3 shows the time it takes to grow a walleye to 15 inches in most Wyoming walleye waters. Glendo, Hawk Springs and Grayrocks reservoirs all produce a 15-inch walleye in 3 years or less. The upper North Platte Reservoirs typically have cooler water temperatures (higher elevations) and less forage so it takes 4-5 years to produce a 15-inch walleye.

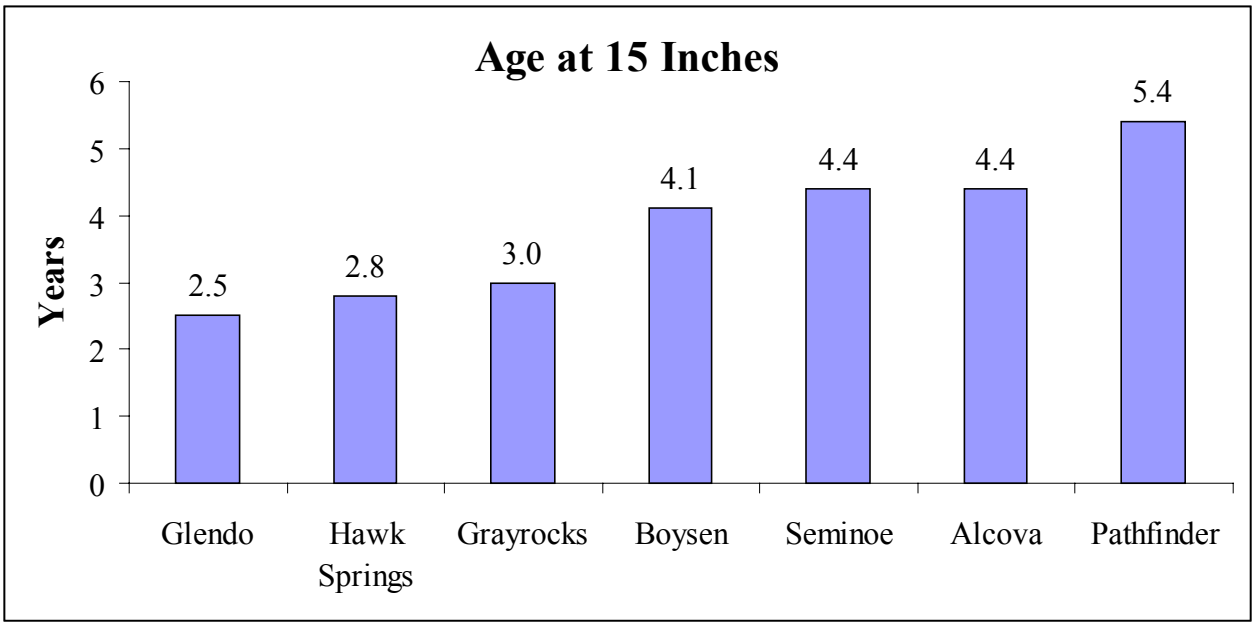


Figure 3. Years to grow a 15-inch walleye at Wyoming walleye waters in 2001.

ODDS AND ENDS

 The town of Midwest offers a unique fishing opportunity in this area. We stocked largemouth bass a few years ago In Midwest Reservoir and they are growing really well. Bass around 12-16 inches can be caught at this reservoir. The reservoir also has a good population of channel catfish and sunfish. To get to the reservoir, go through the town of Midwest, turn south and go over Salt Creek. Once you get to the top of the hill turn right and you're there.

 Reservoir water levels in the 33 Mile area have taken a real beating the last two years with drought conditions. In 2001, we stocked trout in Camel Hump, Old Railroad Grade and two new reservoirs south of Midwest. We transplanted crappie from Keyhole Reservoir to Sheepherder's Reservoir in the early summer. If water conditions improve, we will resume stocking many of the reservoirs we have in the past. A complete list of stocked reservoirs in this area is available in the G&F Office in Casper.

 Following several years of trying to address the carp problem through working with water-right holders, walleye were stocked in Goldeneye Reservoir in 2001. In July, 46,000 walleye that averaged around 3 inches were stocked. We plan to stock walleye for three consecutive years and then evaluate the program. The walleye introduction will be considered a success if we establish fishable populations of walleye by 2004. If we do find walleye in 2002, we may stock some gizzard for them to eat in spring 2002. We'll let you know in next year's newsletter what we found.

 The Cardwell Public Fishing Area located below Pathfinder Dam will have perpetual water flowing through it by the end of summer. Habitat and stream improvements will be completed in spring 2002 by the G&F. A parking area, comfort station, signs and fencing were completed last fall.

The regulation for this stretch of the North Platte River is one trout per day or in possession. All trout less than 20 inches shall be released to the water immediately and fishing is permitted by the use of artificial flies and lure only.

G&F will closely monitor this stretch of the river to see if a wild fishery will develop and modify the management plan as warranted. Trout may migrate from the two reservoirs into this stretch of the river. The G&F plans to stock limited numbers of rainbow trout from a broodstock developed from trout we collected at the Firehole River in Yellowstone National Park.

 Construction of the new Robertson Road Bridge this summer in Casper will prevent boats from being launched from the Robertson Road Public Fishing Area. Boats will be able to take-out above the bridge but anglers and floaters will not be able to launch boats and go under the bridge. The access area will remain open. Construction is scheduled through October 2002.

 There will be no spring flushing flow on the North Platte River through Casper this year due to ice conditions this winter. We plan to request a fall flushing flow from the Bureau of Reclamation in 2002 and resume with spring flushes in 2003.

Thanks go out this year to Brad Hughes, Paul Bailey, Roy Whaley and Brian Olsen for their contributions to this years' newsletter.

Remember that we manage your fisheries for you. We always want to hear from anglers, so let us know what you think. If you have any comments on the information in this newsletter, give us some feedback by phone (1-800-233-8544), letter (Angler Feedback, 3030 Energy Lane, Suite 100, Casper, WY 82604) or e-mail (Paul.Mavrakis@wgf.state.wy.us).