

COOL AND WARMWATER ANGLING NEWSLETTER
JANUARY 1997

SUPER GROWTH RATES FOR HARRINGTON BASS, BUT WHERE ARE THE CRAPPIE?

35,000 fingerling (1-2 inch) largemouth bass were stocked in July of 1995 and an additional 12,000 bass were stocked in 1996. In June, the bass from the 1995 plant averaged 6.2 inches (range=4.8-7.7). These growth rates were excellent compared to age-1 bass in other states (Illinois=6.3, Montana=3.0, and Missouri=5.4), and Wyoming (Renner Reservoir=2.6). Growth rates will slow somewhat as forage declines, bass density increases, and the reservoir ages. Nonetheless, we should see some "fishable" size bass (>10 inches) next year.

When the bass reproduce for the first time (some in 97, most in 98), there could be a population explosion. If bass survival continues to be good, a large year class will be produced in 1998 and bass will quickly deplete the food supply. Addition of a second forage fish, bluegill for example, may be necessary. Bluegill could act as a food source for bass, while also providing a sportfishery. One suggestion at the meetings was to develop more panfish (crappie, perch, and bluegill) fisheries. I will submit a proposal in early 1997 to stock bluegill. If we do not stock bluegill, there is a very good chance that we will stock bluegill-sunfish hybrids. You may also remember we promised crappie for 1996. We were working on obtaining adult crappie from Montana (Billings area); however, Montana's new import/export law made this impossible. We have requestd crappie from other states for 1997.

REVITALIZING A WORLAND AREA KID'S FISHERY

In response to your concerns (not enough places for kids to fish) we investigated development of South Worland Pond (near golf course). Sampling found an abundance of yellow perch, 5-6 inches in length, and largemouth bass, 7-17 inches. There were few small fish, most likely because perch were eating everything in sight. To reduce predation on smaller fish, we removed some perch by electrofishing. Plans for 1997 include habitat enhancement (Christmas trees) to provide small fish cover and stocking of adult bass. We will continue to stock catchable rainbow trout. Long-range plans included the possibility of stocking bluegill and working with the city on further development (tree plantings, picnic tables, and restroom). Our goal is to develop at least one kid's fishery in each urban area (Powell, Lovell, Basin, Greybull, and Thermopolis). We will be looking at Basin Water Plant Pond this year and have a site in mind for Lovell. Any other ideas?

HORSESHOE RESERVOIR BASS MANAGEMENT SPUTTERS?

Horseshoe (also known as Pond 5) is on the Yellowtail Habitat unit near Lovell. The reservoir was drained in 1992 to remove carp and suckers and repair the outlet structure. Largemouth bass were transplanted from Renner Reservoir in 1993 and 1994. Fathead minnows and shiners were stocked in 1996 for forage. Sampling in 1994 documented good survival of the largemouth bass plants and some reproduction, but gillnet sampling in 1996 (see table) found very few adult bass.

Species	Number	Catch Hour	Mean Length	Length Range
Carp	43	1.16	10.4	7.9-16.2
Largemouth bass	24	0.65	6.2	4.1- 8.8

Bass catch per net hour (CPH) fell from 1.73 in 1994 to 1.16 in 1996. In 1994, 35% of bass were greater than nine inches, compared to 0% in 1996. Two year classes were present in 1996: age-2 and age-3. The lack of larger bass might be explained, in part, by gear selectivity (i.e. large bass are not easily captured in gillnets). Carp CPH also declined from 1994 (4.18). Most carp were 4-6 inches in 1994, but 8-12 inches in 1996. When this year class reaches maturity (i.e. reproductive age), carp density will undoubtedly increase and bass predation will be unable to keep carp in check. Plans for 1997 include habitat enhancement (Christmas trees) to provide cover, sampling (boat electrofishing) to

monitor the bass population, and continued stocking of forage fish (fathead minnows and shiners). We may try to plant more bass if the population has not increased.

MAYLAND STOCK POND-A CHANNEL CATFISH "HONEY HOLE"

Last year Mayland was the most consistent catfish producer in the Basin. In six hours of sampling (angling) we caught 34 cats (see table below); no monsters, but it was fun. Catfish have been stocked six times (6,100 fingerlings total) since 1988 and survived well. Conversely, walleye have been planted five times (210,000 fry total) since 1990 with poor success. The poor survival of walleye is explained by three factors 1) walleye fry plants have a low survival rate (usually less than 1%), the fry that do survive are easy prey for yellow perch, and water level fluctuations inhibit spawning.

Species	Number	Catch/ Hour	Average Length	Length Range
ANGLING				
C. catfish	34	2.96	15.8	12.6-18.5
NETTING				
C. catfish	1	0.03	10.8	10.8-10.8
L. bass	2	0.06	13.8	13.2-14.3
Walleye	7	0.20	16.3	8.2-23.1
Y. perch	38	1.10	4.7	4.0-13.4

The good news is we sampled more walleye in 96 than in previous years. This increase may be related to the reduction in perch numbers, which was caused by increased predation from catfish. Yellow perch density was extremely high in 1990. Following the introduction of predators, catfish and walleye, perch numbers have declined and stabilized at lower levels. At the meetings, you (the anglers) indicated an interest in managing the reservoir for yellow perch and walleye. Success of the fishery will depend upon maintaining a predator-prey balance, which is somewhat complicated by the fact that perch act as both predator (on walleye fry plants) and prey (for larger catfish and walleye). The following recommendations should help to achieve this balance: 1) Stock catfish in alternate years to prevent stockpiling, maintain a good mix of sizes and age classes, and help keep perch in check. 2) Plant walleye fingerlings annually (if only fry are available, plant at higher than normal densities to offset impacts of predation). 3) Work with the Irrigation District on water level management. Our goal is to develop a walleye fishery, while maintaining adequate numbers of larger perch. Plans for 97 include spring netting and electrofishing to monitor perch and walleye populations and stocking additional walleye.

COOL/WARMWATER FISH POSTER AVAILABLE

Game & Fish has a new poster, entitled "Wyoming's Most Popular Cool and Warm Water Game Fishes". The poster has colorful pictures of bass (small, largemouth, and rock), perch, walleye, sauger, northern pike, catfish, crappie, and various sunfish. The poster costs \$3.50 and can be ordered by calling Tanya Jones at 1-800-Liv-Wild. If you prefer to use the US Postal Service, write to Tanya at Alternative Enterprises, Wyoming Game and Fish Dept., 5400 Bishop Blvd., Cheyenne, WY 82006-0001. You will need to add \$2.00 for shipping and handling, so you might as well order more than one. A complete list of "goods" available from Game & Fish can be found in the "Discover The Wilds Of Wyoming" products and publications catalog, which is available at the Cody office.

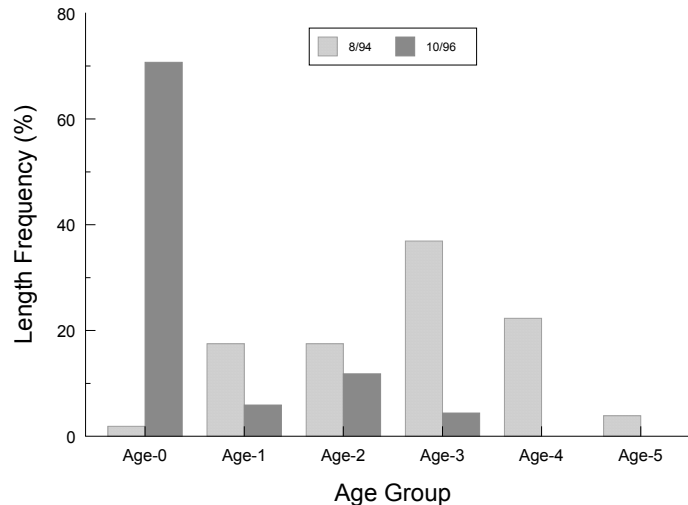
THE LATEST NEWS ON WARDELL RESERVOIR

We sampled Wardell in October (boat electrofishing), hoping to get an estimate of walleye abundance and determine success of past crappie plants (1992 and 1993). However, water level was extremely low, which hindered electrofishing efficiency (i.e. no estimate possible). Sampling results are illustrated in the table below.

Both white and black crappie were present, but in very low numbers. In 1994, catch rates for crappie in both trap (young-of-year) and gillnets (adults from 1992 and 1993 plant) were high. The low number sampled during 1996 electrofishing may reflect poor reproductive success during 1995 and 1996. I did talk to one angler who recently caught some nice crappie, which may indicate there are more crappie than what we think.

Species	Number	Catch/ Hour	Average Length	Length Range
B. crappie	8	4.00	7.6	4.2-11.5
Walleye	68	34.00	8.2	5.5-20.0
W. Crappie	3	1.50	4.3	2.1- 5.9
Y. perch	18	36.00	3.8	2.1- 7.3

Many anglers said that walleye fishing was poor this year, which was reflected in our sample. Yellow perch and walleye numbers were high; however, the majority of fish were small. Walleye catch was dominated by age-0 fish (5-6 inches), with very few adults (age-1+) present (see figure below). 1994 and 1995 were poor years for production. These year classes would have been age-1 and age-2 in 1996.



Walleye reproductive success varies greatly among years, leading to good fishing in some years and poor fishing in others. Occasional strong year classes (e.g. 1996) suggests that spawning habitat is not a limiting factor; rather, other environmental variables (e.g. water levels during spawning and water level fluctuations) are limiting reproductive success. Past studies have documented greater reproduction when spawning substrate is maximized (i.e. optimal water levels). In addition, stable or slowly rising water levels lead to the greatest reproductive success.

If springtime sampling could detect weak year classes, stocking could be used to bolster the population. Sampling would have to occur prior to late-June/early-July when fingerling walleye are available. Alternative solutions include 1) stocking fingerlings in a holding pond until sampling can be completed, 2) stocking a limited number of walleye each year, or 3) observing conditions during spawning to determine if supplemental stocking is necessary. Plans for 1997 include nighttime boat electrofishing, monitoring environmental variables (e.g. water level, water level fluctuations, turbidity, and temperature), and encouraging irrigation district to fill prior to walleye spawning and hold water levels until spawning is complete.

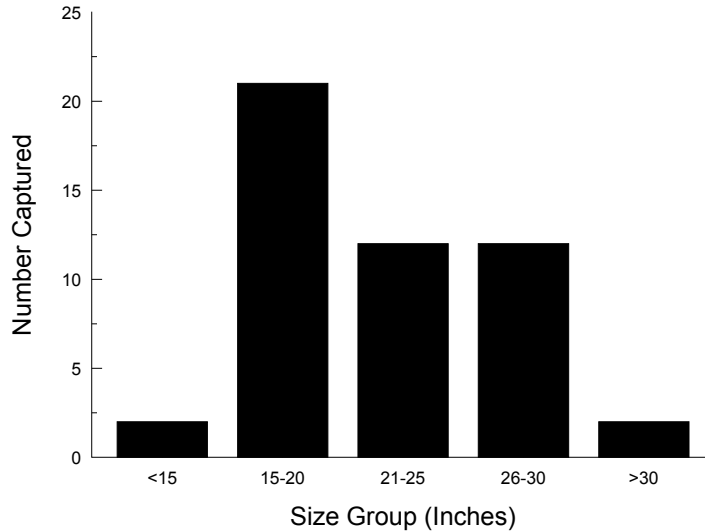
BIG HORN LAKE RECIPROCAL LICENSE AGREEMENT

A reciprocal license proposal was submitted to Montana Department of Fish, Wildlife, and Parks in November. The proposal included historical information on negotiations, background data on the fishery, license sales data, pros/cons of an agreement, and two options. Option 1: *No reciprocal license*. The issue has been addressed and no agreement is possible, or it is not in the best interest of both agencies. Begin work on cooperative study proposal to address limiting factors of the fishery. Option 2: *Begin negotiations for reciprocal license*. Wyoming and Montana are in agreement that a reciprocal license is possible and in the best interest of both agencies. At present, we have not heard back from Montana, but I am less than optimistic that they will agree to a reciprocal license (they have everything to lose and little to gain). Either way, we will have an answer soon. A copy of the proposal is available if anyone is interested.

BIG HORN LAKE/RIVER MONSTER CATS-DOES ANYONE CARE?

In my opinion, Big Horn Lake/River catfish are the most underutilized resource in our area. Why this is, I don't know. Maybe anglers are not interested in catfish. What I've seen in the past three years indicates that anglers are missing out on something special. We sampled Big Horn Lake in May and the river just upstream of the causeway (Highway 14A) in August to determine 1) if we need to stock more catfish and 2) how many catfish are out there. Channel catfish were first planted in the lake in 1974. Subsequent plants included 1976, 1977, 1978, 1994, 1995, and 1996. Channel catfish are native to the Missouri River Drainage and were present when the lake was impounded.

Our sampling showed there were some very large catfish in both the lake and river (see figure below). There were several year classes present, which indicates that catfish are reproducing. However, it is tough to determine how many catfish we have out there. At present, I think that catfish density is high in the river, but that supplemental stocking is needed in the lake.



We will sample again in June and August this year. We will also be fin clipping stocked catfish (20,000 scheduled this year) to determine how well they survive and the ratio of stocked/native catfish. In the meantime, I hope more anglers will take advantage of this unique opportunity. We have one of the best catfish fisheries in the state right in our own back yard. If you need any tips give me a call.

BIG HORN LAKE WALLEYE/SAUGER POPULATIONS BUILDING

Each year we set gillnets in the fall to monitor the fish population. In 1996 we set six experimental gillnets (118 hours) at six locations within Wyoming. The table below summarizes 1995 and 1996 netting information for the three major gamefish species, channel catfish, sauger, and walleye. Other species collected include brown trout, burbot, black crappie, carp, emerald shiner, longnose sucker, river carpsucker, shorthead redhorse, and white sucker.

Gillnet catch per hour (CPH) was dominated by nongame fish (66%), but the percentage was much lower than 1995 (87%). Gillnet CPH of sauger and walleye was significantly higher in comparison to 1995. Average length of walleye increased considerably from 1995, while sauger average length remained fairly constant. During 1995 sampling, very few adult walleye were captured. In 1996 most walleye were age-2, which led to an increase in CPH (size more vulnerable to gillnets) and average length. The bottom line: sauger and walleye populations are building, which should lead to improved fishing for 1997.

Species	Number	CPH	Average Length	Length Range	Average Weight	Weight Range
1995						

C. catfish	26	0.11	17.3	5.6-27.8	2.16	0.18- 7.17
Sauger	33	0.14	14.8	7.4-20.0	1.44	0.12- 2.95
Walleye	37	0.16	7.9	6.0-18.2	0.32	0.12- 2.21
1996						
C. catfish	12	0.10	16.1	8.5-25.8	2.00	0.18- 7.83
Sauger	72	0.61	15.4	9.8-22.6	1.43	0.18- 4.32
Walleye	40	0.34	13.1	5.4-19.8	0.92	0.04- 3.09

The fishery is largely dependent upon water level management, which is the responsibility of the United States Bureau of Reclamation (Billings office). Water level determines the amount of available habitat (low water=less habitat) and also influences forage fish production. These factors are critical to gamefish growth and survival. If we can keep more water in the lake and stock walleye fingerlings each year, the fishery will continue to develop. Our fish culture section is committed to getting walleye fingerlings, but water level management will continue to be a problem. Big Horn Lake is caught between two important fisheries (Boysen Reservoir and Big Horn River tailwater fishery) and is primarily managed for hydropower generation and water storage. Recreation, in my opinion, is on the bottom of the list. Big Horn Lake must be recognized as a important recreational area and managed as such.

Plans for 1997 include catfish sampling (June), annual fall netting (September), and development of a study proposal in cooperation with Montana Fish Wildlife, and Parks. The study proposal will focus on factors affecting survival of stocked walleye and native sauger and catfish populations. Stocking will include walleye and catfish.

NOTES FROM THE ANNUAL BIG HORN LAKE COORDINATION MEETING

The Big Horn Lake coordination meeting is held annually to discuss management issues and coordinate activities among the state and federal management agencies. The meeting typically includes representatives from the US Bureau of Reclamation (USBR-Billings), National Park Service (NPS), Montana Department of Fish Wildlife and Parks, Walleyes Unlimited, the Crow Tribe, United States Fish and Wildlife Service, and Horseshoe Bend Marina.

Some major points of the meeting were:

- USBR is willing to work with Montana and Wyoming on water level manipulations to benefit fisheries.
- Public meetings in the Big Horn Basin indicated that anglers were greatly dissatisfied with the quality of fishing in Big Horn Lake and USBR water management.
- Montana has a new bait import law that will affect Wyoming anglers fishing the Montana section of the lake.
- Results of the programmed (1992) and annual NPS creel surveys were similar, indicating the value of NPS data.
- Neither Wyoming nor Montana has found evidence of whirling disease in the Big Horn River system.
- Walleye egg collection by Montana in Big Horn Lake has been discontinued. Wyoming will request 4.5 million walleye fry or 100,000 fingerlings annually. Montana will plant 4 million fry or 200,000 fingerlings.
- Update on status of shovelnose sturgeon reintroduction and flushing flow study.
- Wyoming will work on a reciprocal license proposal. We will have a yes or no answer by the next meeting.

SEDIMENT REDUCTION PROJECT SHOULD ENHANCE BIG HORN RIVER FISHERY

The Washakie County Conservation District (WCCD) initiated a study in 1994 to determine the major sources of sediment and identify associated impacts to water quality. The WCCD contacted Game and Fish in 1994 to request assistance in the study. Specifically, information was needed on present status of the fish population, past data collected on the fishery, observations of limiting factors for fish, and input on project plans that might positively impact the fishery. In September, we used raft electrofishing to sample the river upstream of the Worland boat ramp. We shocked a 1.45 mile section on three consecutive days. Sportfish catch is illustrated in the following table. Other species (non-sportfish) captured included carp, emerald shiner, flathead chub, longnose dace, longnose, mountain, and white sucker, northern redhorse, and river carpsucker.

SPECIES CODE	NUMBER CAPTURED	CPUE	AVERAGE SIZE	SIZE RANGE	AVERAGE WEIGHT	WEIGHT RANGE
Burbot (ling)	4	** 2.76	22.2	19.1-26.9	1.93	1.14- 3.38
Channel catfish	25	**17.24	19.4	14.9-28.7	3.22	1.05-10.00
Whitefish	1	* 0.69	17.6	17.6-17.6	0.71	0.71- 0.71
Sauger	54	**150.00	16.0	6.0-21.1	1.36	0.06- 3.31
Smallmouth bass	5	** 3.45	7.4	7.0- 8.2	0.21	0.16- 0.29
Stonecat	5	** 3.45	6.5	5.0- 7.4	0.10	0.04- 0.15
Walleye	2	** 1.38	14.4	12.9-15.8	0.97	0.66- 1.27

*CPUE=number per hour and **CPUE=number per mile

Our estimate found that there were about 150 sauger per mile. Interestingly, this was nearly identical to an estimate from 1986. Based on these two years it appears the sauger population is holding steady. We expected to find sauger, but the number of larger catfish was a pleasant surprise. If the proposal goes through, we will be sampling several locations in Washakie County. However, we don't plan to wait on the Conservation District. We will begin to collect more data on the river sauger population (Yellowtail Reservoir to Worland) this spring.

SHOVELNOSE STURGEON SWIM AGAIN IN BIG HORN RIVER

As many of you know, we are working on reintroducing sturgeon into the river. Sturgeon were native to the Big Horn, but disappeared after construction of dams in Montana (Yellowtail was one). The dams blocked sturgeon migration routes and they slowly disappeared from the river.

Our plans were to stock sturgeon in 1995, but we had very poor survival of hatched fry and had to postpone initial stocking until 1996. This year, we stocked sturgeon at the Worland boat ramp (185 juveniles and 10,000 fry), downstream of Worland (186 juveniles and 10,000 fry), Nowood River (10,000 fry), Greybull boat ramp (1,766 juveniles and 5,000 fry), and Shell Creek (5,000 fry). Plant survival estimates were near 100% for juveniles, but ranged from 50-95% for fry.

We plan to stock sturgeon at least two more years and then begin annual sampling to monitor the population. Even if we have excellent survival of stocked fish, it may take many years before a fishery develops. Sturgeon growth is relatively slow (in South Dakota a 5 year old is about 15 inches) and reproduction does not occur until age-5 for males and age-7 for females. In addition, females may spawn only once every two or three years. We will have to be patient while the fishery develops. If you are thinking about being the first angler to catch a Big Horn sturgeon, forget it. A Worland angler caught a small (7 inch) sturgeon several weeks after they were stocked. At least we know that one survived.

RENNER RESERVOIR UPDATE

Renner was sampled (boat electrofishing) in the spring and fall to gather data for future management decisions. Of special interest was the first year evaluation of the new regulation. The old regulation was a 10 bass limit; all 10-15 inch bass must be released; only one bass may exceed 15 inches. The new regulation (effective January 1, 1996) is six bass limit; only two bass may be between 10-15 inches; only one bass may exceed 15 inches. The regulation was changed in 1996, because anglers wanted to harvest bass in the 10-15 inch slot. A harvest of two fish in the slot was a compromise reached at our regulation meetings. Results of 1996 sampling, and comparisons to previous sampling, are illustrated in the table and figure below.

Date	Species	Number	CPH	Average Length	Length Range
6/94	L. bass	220	220	10.9	7.3-19.0
10/94	L. bass	161	215	10.9	6.4-12.3
6/95	L. bass	136	272	10.9	2.8-13.0
10/95	L. bass	187	374	11.1	5.5-13.1

6/96	L. bass	138	138	11.0	5.5-14.3
9/96	L. bass	74	106	7.7	2.1-13.0

CPH and average size increased from 1994 to 1995 (peak), before declining dramatically in 1996. The drop in bass numbers and size was due to the loss of larger fish (10-13 inches) between fall 1995 and spring 1996. Fall 1995 CPH for 10-13 inch bass was 338, while spring 1996 CPH for the same size group fell to 114. Conversely, CPH for bass < 10 inches was similar for fall 1995 and spring 1996. Now the obvious question. What caused the decline in large bass numbers? This is difficult to pinpoint, but could be related to angler harvest or natural mortality (old age).

At first glance, angler harvest would appear to be the culprit. The new regulation allowed harvest (2) within the slot, which would have been the 10-13 inch fish. However, the loss of larger bass occurred overwinter when fishing pressure is relatively light (you Renner anglers should correct me if the assumption is wrong), which would rule out angler harvest. Although harvest was likely not responsible for the loss of larger bass overwinter, harvest did impact the population during the summer. Spring 1996 CPH for 10-13 inch bass was 115, while fall CPH was only 37.3.

Natural mortality offers the best explanation. The 10-13 inch bass would have been close to age-8 by 1996, which is near the upper end of life expectancy. Looking at length frequency data for the past nine years (see table below), shows that a similar die-off occurred during the winter of 1989-90.

SIZE GROUP	YEAR									
	1988	1989	1990	1991	1992	1993	1994	1995	Spring 1996	Fall 1996
*PERCENT OF TOTAL POPULATION IN EACH SIZE GROUP										
3-5	0.0	30.8	7.4	2.7	6.9	0.2	0.0	1.7	0.7	33.7
6-8	1.6	0.0	83.0	84.0	25.2	33.1	0.5	2.8	7.2	18.9
9-10	55.7	0.6	5.8	2.7	62.4	63.8	53.2	33.5	20.3	20.3
11	38.9	3.8	0.0	0.0	0.5	2.9	43.2	56.3	56.5	12.2
12	3.8	32.1	0.3	0.0	0.0	0.0	2.7	5.1	13.8	13.5
>13	0.0	32.7	3.4	10.7	5.0	0.0	0.5	0.6	1.4	1.4

*The number in each column represents the percentage of the total population in each size class. For example, in 1996 most bass (33.7%) were 3-5 inches, while very few (1.4%) were greater than 13 inches. Conversely, in 1995 the population was dominated by 11 inch fish (56.5%)

Although we lost some bigger fish, the population is still healthy. The catch rates will be lower, but remember that the strategy is to reduce bass numbers so that growth rates will increase. The problem is finding a regulation that allows some harvest, but keeps bass numbers and size at acceptable levels. We will continue to monitor the fishery (spring and fall sampling scheduled for 1997) and work to enhance growth rates by stocking forage fish. At present, we do not plan to propose a new regulation. We would like to monitor the current regulation for another two years. Any thoughts?

1997 REGULATIONS MEETINGS

The Game and Fish Department holds regulation meetings in odd numbered years and fisheries allocations meetings in even numbered years. In May, the Cody Region will hold a minimum of three regulations meetings, most likely in Greybull, Thermopolis, and Cody. However, we have been toying with the idea of "open house" meetings, which would run for a longer period of time and be held at more communities (Powell, Lovell, Worland, and Basin for example). The dates have not been set, but will likely be during the first week of may. Look for announcements in your local papers around late-April. I do not think that we will have any major or "controversial" proposals this year, but we encourage anglers to come and share their proposals and concerns. If you can't make the meeting, but have a suggestion, you can contact us at the Cody office.

FISH FACTS-DID YOU KNOW THAT....

- Shovelnose sturgeon will swim hundreds of miles upstream to spawn.
- The black bullhead (catfish) has the ability, although limited, to breathe through its skin.

- Not to be outdone by the bullhead, *Clarias batrachus* (walking catfish) can actually move across dry land. Of course it usually picks a time when humidity is high (raining).
- Most fish have a swim bladder, which when inflated with gas, allows them to remain motionless in the water without sinking.
- The current state record yellow perch came from Mayland Stock Pond.
- A female carp can lay up to 2 million eggs each year.
- With most warmwater fish, the female lays the eggs, but the male guards the nest (catfish, bass, bluegill, and fathead minnows are examples).
- The walleye is not native to Wyoming, but it's close cousin the sauger is.
- The current state record sauger came from the Big Horn River.
- It is illegal to dump live baitfish in any water, even if you legally obtained them from that water.
- The fin spines of bullheads have venom glands, which can produce a painful (but not life threatening) reaction. OUCH!
- The stonecat is the smallest Wyoming catfish (rarely exceeds 8 inches).
- When spawning, numerous male and female burbot come together and form a ball of squirming bodies about 30 inches in diameter. And they do this under the ice!

1996 WARMWATER FISH STOCKING

<u>WATER NAME</u>	<u>NUMBER STOCKED, SPECIES, AND SIZE</u>
Beck Lake	1,500 channel catfish fingerlings
Big Horn Lake	3,850,000 walleye fry
	20,000 channel catfish fingerlings
Big Horn River	20,000 shovelnose sturgeon fry
	2,137 shovelnose sturgeon juveniles
	17,726 smallmouth bass fingerlings
Deaver Reservoir	60,000 walleye fry
Greybull River	5,000 shovelnose sturgeon fry
Harrington Reservoir	12,000 largemouth bass fingerlings
Mayland Stock Pond	60,000 walleye fry
	1,000 channel catfish fingerlings
Nowood River	10,000 channel catfish fingerlings
	10,000 shovelnose sturgeon fry
Power's Reservoir	1,150 largemouth bass fingerlings
Shell Creek	5,000 shovelnose sturgeon fry
Shoshone River	31,475 smallmouth bass fingerlings

BE ONE OF THE FEW, THE PROUD, THE FISH VOLUNTEERS

We are currently accepting applications for fisheries volunteers. The pay is low (nothing), but the rewards are great (you get to do stuff that would normally be illegal). I asked for volunteers at the meetings, but did a poor job of using those of you that accepted the invitation. No excuses, but this year will be different. I must say that it is very difficult to coordinate volunteers, so it will be up to you to find out the when, wheres and whys if you choose to participate. The following is a list of activities for next year's field season (April-October) that you might want to volunteer for, or just show up to see what's happening.

April	Big Horn River sauger sampling -boat electrofishing and hoopnets. Location yet to be determined, but most likely between Manderson and Worland.
	Horseshoe Reservoir largemouth bass evaluation -night electrofishing.
May	Mayland Stock Pond sampling -nighttime electrofishing and gillnets.
	Wardell Reservoir -3 nights of boat electrofishing.
	Forage Fish Transplants -seining and hauling fish.
June	Harrington Reservoir -nighttime electrofishing, gillnets, and seining.
	Big Horn River/Lake -channel catfish sampling w/hoop nets and trotlines.
	Big Horn River -shovelnose sturgeon stocking.
	Renner Reservoir -nighttime boat electrofishing.
August	Big Horn River -CCF sampling Worland to Manderson-trotlines.
	Big Horn Lake -catfish marking-fin clip channel catfish plant.
September	Big Horn Lake -annual fall sampling-gillnets and seining.
	Big Horn River -smallmouth bass evaluation (boat/raft electrofishing above Worland).

Renner Reservoir-nighttime boat electrofishing.

I also do a lot of coldwater (mountain streams/lakes, Big Horn at Thermopolis, lowland trout waters) work during the months of July through October. So if you are really a trout fan, and are ready to come out of the closet, let me know. We can use a lot of help with these activities also. Please contact me if you are interested in getting in on one of these activities. The paperwork has to be filed in Cheyenne before any volunteer can work with us. So if you are evenly remotely interested, make sure you stop by the office and get one of the volunteer forms.

NO HYBRIDIZATION BETWEEN SAUGER AND WALLEYE

A recent study by the University of Wyoming found no hybridization between walleye and sauger in Big Horn Lake, or the Big Horn River. The study also looked at sauger populations in Boysen Reservoir and the Wind River, where hybridization was also absent. Walleye and sauger are close relatives and can reproduce in nature, though this is apparently rare. In the Big Horn River, segregation of walleye and sauger may have kept hybridization from occurring. Past studies have shown that sauger spawn later and move farther upstream than walleye. In addition, walleye numbers decrease upriver from Big Horn Lake (most walleye just upriver from the lake, few walleye near Worland). In the Midwest, hybridization occurred following the stocking of saugeye (walleye-sauger hybrid). Stocked saugeye were subsequently misidentified and used to propagate sauger in hatcheries.

The Big Horn Lake/River sauger population had a high number of older individuals. This usually reflects low angler harvest. In areas where angler harvest is high, the population is dominated by younger fish. The study also found that body condition of sauger in Big Horn Lake and the Big Horn River was greater than Boysen Reservoir. Growth of sauger was similar to other northern lakes (e.g. South/North Dakota), but slower than southern lakes. Future management efforts will focus on determining limiting factors for sauger and monitoring trends in the sauger population. Sampling in April will be used to gather data on spawning areas, available habitat, and sauger densities.

QUOTABLE QUOTES

While browsing *The In-Fisherman* February issue, I came across an interesting article entitled "Satisfying Everyone." The article concerns the difficulty in balancing angler desires with sound biology. The writers use the current controversy over striped bass and crappie fisheries in Tennessee as an example. Fisheries Biologists want to manage a reservoir for striped bass, because the reservoir is better suited for this species. On the other hand, many anglers prefer native species and worry that striped bass will damage the crappie fishery. Although the example is in Tennessee, here in Wyoming we face a similar problem.

The article begins, "***Fishery managers face an impossible task. They must produce and protect fisheries, and at the same time, respond to the concerns of the public. Public desires and sound management sometimes conflict.***" I think most biologists would agree with the above statement. Fisheries management is very complex, because it involves both biology and sociology. We use biology to produce and maintain a fishery, but must incorporate sociological aspects (angler concerns and desires). Most Fisheries Biologist are well equipped to handle the biology, but may be less adept with the sociology. The problem is communication between anglers and management. If fish managers develop a great fishery, but it is not what the anglers want, then they have failed. If anglers are unhappy with a fishing quality or a particular regulation, but fail to communicate their displeasure, then they have failed.

The article closes with another quotable quote "***Science provides many answers, but it can't provide all necessary answers. In some cases, anglers rather than managers may be better in touch with the quality of fishing in managed waters. While the opinions of anglers are often biased, anglers function as on-the-water observers and should not be discounted without clear scientific evidence that they are wrong.***" Anglers, especially the experienced ones, know how good a fishery is and whether or not it is declining. Anglers should function as an arm of fish management, by reporting fishing conditions and communicating their desires. More often though, anglers fail or refuse to communicate with management biologists. In the angling community it is easy to stand by and criticize, while not getting involved. In fish management it is easy to point out the

problems and make excuses, without working to improve the fishery. The bottom line is we have to work together to identify and solve our problems.

ODDS AND ENDS

The walleye fishery at Deaver Reservoir continues to develop. Catches of walleye, ranging from 12-20 inches, were reported last year. An angler also reported the presence of brook stickleback, an exotic fish which may negatively impact the fishery. **Beck Lake anglers** have reported catches of channel catfish and some big bass, but many are dissatisfied with the declining perch population. Fewer perch may indicate a rise in predator (catfish and bass) numbers. Speaking of yellow perch, **West Newton Lake** might be a good bet for perch through the ice. The word is that perch are numerous and of good size. If you are looking for panfish, you might also try the crappie at **Fubar (Sand Coulee) Reservoir**. Early spring is best, while the water is clear and crappie are nearshore. Last year most crappie were 6-10 inches. Beginning this year, **Big Horn Lake anglers** will pay an entrance fee to access the Big Horn Canyon National Recreation Area. The National Park Service plans to hold informational meetings sometime early this year. All anglers would be well advised to attend. The entrance fee is a done deal, but where the money goes is still open to debate. If anglers are paying the fee, they should request some of the money go to fishing/recreation. The Worland Chamber of Commerce will once again be sponsoring the **Big Horn River Sauger Derby**. No dates yet, but the derby usually occurs the last week of March or first week of April.

PARTING SHOT

My wife clipped this cartoon for me shortly after we were married. On the way home from our honeymoon, I could not resist the temptation to stop and fish a particular reservoir. I had managed to hide my rods and tackle behind the luggage, knowing that an angler must always be prepared. You never know when the opportunity will arise. She still claims that our first date was a fishing trip, but it had to be the second one. The first date would have been seining bait the day before.