Golden Trout Stocking to Return

From 1954 to 1994 the Wyoming Game and Fish Department collected golden trout eggs from Surprise Lake in the Bridger Wilderness. Wildfires in 1988 resulted in large amounts of sediment entering the lake and damaging water quality. This population of golden trout ultimately had to be abandoned as a brood source. From 1994 to 2004, no golden trout were stocked in the state. For the past two years the Department has collected eggs from a lake in the Wind Rivers. In 2005 golden were stocked on the west side of the continental divide, and in 2006 golden trout will be stocked in the Wind River Mountains on the east side of the divide. Stocking in wilderness lakes only occurs in those waters that lack spawning habitat and cannot maintain a viable population through natural reproduction. Though the number of fish available will not be enough to stock all the potential golden waters this year, we hope to reestablish populations in some of the most popular lakes. Leg and Thumb lakes will likely be at the top of the list. The fish will be stocked by helicopter in August. They will be about 4 inches long at the time of stocking, so don’t expect to be able to catch any golden from these lakes until 2007.
Didymo (Didymosphenia geminata) is a freshwater diatom which has historically been found in the cool, clean waters of northern Europe and northern North America. Since the mid-1980s, it has begun to take on the characteristics of an invasive species in its original range, and is being found in new areas. Recently it was confirmed in the Middle Popo Agie River. Didymo lives in moderate-flowing, clear, cool rivers, especially with stable flows. It is beige, brown, or white in color, but not green. Although it looks slimy it doesn’t feel slimy, but rather spongy and scratchy like wet cotton or wool. It may exist as harmless colonies on submerged rocks, boulders and gravel, but may also “bloom,” forming extensive underwater carpets over river beds. In the advanced stage, didymo forms long streaming filamentous carpets several inches long. Streamers turn white at their ends and fragments float downstream similar to clumps of tissue paper.

Severe blooms have the potential to change the habitat for fish food insects by smothering the stream bottom, displacing the large desirable insects (mayflies, caddis and stoneflies) and encouraging proliferation of small, less nourishing species like midges and snails. This could lead to reduced fish growth, smaller average size and condition and possibly fewer trout. Didymo will probably not wipe out trout populations, but may suppress them.

Intense blooms make fishing difficult, and some methods even impossible due to the anchored algae mats and drifting fragments in the water. Reduced water clarity means rivers are visually less attractive and fish are harder to spot.

We need your help to combat this latest threat to our native and sport fish. Please adhere to the following procedures every time you leave any body of water to slow the spread of this latest invasive organism:

- Remove all visible mud, plants, fish/animals from gear.
- Eliminate water from all equipment before transporting anywhere.
- Clean and dry anything that came in contact with the water.
- Do not release or put plants, fish or animals into a body of water unless they came out of that body of water.

If you think you see didymo in any stream in Wyoming, the Game and Fish Department would be interested in hearing from you. Please use any of the contact methods listed on the back page of this newsletter to report your sightings.
Sweetwater Canyon Fishery

Fish sampling was completed at three established sampling sites within Sweetwater Canyon to assess population levels and aid in the evaluation of the riparian pasture/exclosure completed in 2000. For those unfamiliar, the Sweetwater Canyon is a BLM wilderness study area located just south of Lewiston Lakes. The BLM rested the area from livestock grazing for five years, with limited grazing occurring in 2005 on a trial basis. Fish population numbers were last estimated at these sites in 1997. An average at all three sites showed that brown trout numbers increased from 172/mile in 1997 to 413/mile in 2005. Rainbow trout numbers decreased at two sites and increased at one, but the overall average number of rainbow trout remained virtually unchanged from 103/mile in 1997 to 108/mile in 2005.

While healthier riparian and streambank habitat conditions resulting from 5 years of rest from livestock grazing may have provided brown trout with opportunities for population expansion, drought conditions may have prevented similar improvements in the rainbow trout population. The Game and Fish Department has had electronic temperature loggers in the canyon area of the Sweetwater River since 1999. These devices provide a continuous record of the summer water temperature which has shown an increase in maximum and mean temperatures, excepting 2005 when temperatures moderated somewhat. It is likely that this is in direct relation to drought conditions and lower stream flows. These higher temperatures may have been detrimental to rainbow trout survival, while less so for the more tolerant brown trout.

Increased numbers of brown trout within the Sweetwater Canyon should mean better fishing for this beautiful stretch of river.

Dubois Hatchery Renovation Complete!!

The extensive renovations and improvements at the Dubois Hatchery have been completed and they are raising fish again for stocking in the waters of Wyoming. A new water supply system and new technologies for filtering and treating the water have been installed. After being closed to visitors during construction in 2005, the hatchery is now fully operational and welcoming visitors once again. If you’re in the neighborhood, stop in for a tour.

If you are interested in receiving a wealth of information and news in your e-mail inbox each month, consider subscribing to the Game and Fish Department’s electronic newsletter. Check it out at: http://gf.state.wy.us/newsview/frmSubscribe.aspx
Boysen Reservoir

The increasing abundance of fish in Boysen Reservoir is no secret. Over the past few years increasing water levels have flooded terrestrial vegetation that now provides valuable nursery habitat for small fish. Anglers have reported seeing schools of shiners and have noticed that most game fish have fattened over the past year. Anglers should expect to catch more small (10 to 14 inch) walleye, than in recent years.

Walleye abundance is measured every fall through standardized netting programs to follow trends in abundance and size structure at Boysen Reservoir. The majority of walleye sampled in 2005 were relatively young fish and for this reason we observed a half-inch decrease in average size from 2004 to 2005. Walleye ranged from 7 to 29 inches in our September survey. Average walleye length was 16.2 inches.

\[ 	ext{Number of walleye captured in September with the WGFD's standardized netting program, 1995-2005.} \]

To attract crappie for the purpose of enhancing fishing opportunities at Boysen Reservoir, fisheries biologists are sinking trees in the bays just north of Tough Creek. Black crappies prefer habitat that provides 50% to 90% cover. This year we’ll be working approximately two weeks on this project collecting trees and brush, forming concrete weights, and sinking trees. We sank 21 trees last year and expect to sink about 30 trees in 2006. Members from the North Platte Walleyes Unlimited club (NPWU) from Casper, have been interested in this project. The NPWU chose to provide $2,800 for materials required for this years work. Information for the NPWU is located on the web at http://www.npwalleyes.com/. We’ll be evaluating the habitat structures in 2007 to determine if they are being inhabited by fish.
If you are unfamiliar with the Dubois area and are looking for a place to go fishing, check out the map below. Though it by no means contains all the available fishing spots, many of the most popular and productive sites are included. Good luck and have fun.

**Fishing in the Dubois Area**

<table>
<thead>
<tr>
<th>Water</th>
<th>RBT</th>
<th>BNT</th>
<th>LAT</th>
<th>CUT</th>
<th>GRL</th>
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<tbody>
<tr>
<td>Brooks Lake</td>
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<td>Wind River Lake</td>
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<td>Pelham Lake</td>
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<td>Trout Creek Lake</td>
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<td>Fish Lake</td>
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<tr>
<td>Wind River, East Fork Drainage</td>
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</tbody>
</table>

RBT = Rainbow trout, BNT = Brown trout, LAT = Lake trout, CUT = Cutthroat trout, GRL = Grayling.
Sawmill Stream Improvement Project

The Wyoming Game and Fish Department has a public fishing easement along the Wind River east of the Town of Dubois, at the old Sawmill Site. This easement was provided by The Nature Conservancy. This is a flat-bottomed section of river devoid of diversity due to historic activities within the stream channel. This project was planned and designed to provide pool-forming features. Two rock structures were placed in the river upstream of the bridge. The upper structure is an upstream “V” and the lower one is a “J” hook.

An upstream “V” structure designed to create a pool and holding areas for trout.

The Dubois Anglers and Wildlife Group (DAWG) was able to get the boulders delivered free to the site by the Dubois Telephone Exchange. The large boulders were excavated during placement of the fiber optic telephone line to Dubois. The DAWG’s also paid for the placement of the boulders by Rice/Kilroy Construction Company, Inc. The 404 permitting process was expedited as much as possible by the Wyoming Regulatory Office of the Army Corps of Engineers.

The project was done on October 5, 2005, the day after a snowstorm. Rice/Kilroy Construction was able to provide one of their more experienced operators, so the project which was expected to take 2 ½ days was completed in one day. The river was very turbid during installation, which made placement of the boulders somewhat difficult. However, since survey equipment was used for placement of the boulders, the final product turned out fine. The boulder structures will be monitored over the next few years for stability and function, and the project may be expanded to the lower section of the public fishing area in the future.

For more information about the DAWG’s, got to:

http://www.dawgsonline.org
East Fork Wind River Gully Plug Project

The irrigation returns from the irrigated fields on the Spence/Moriarity Wildlife Habitat Management Area (WHMA) have created some large gullies, which have a negative impact to the East Fork fisheries. The designs for the Save Ocean Lake grade controls used broken concrete from the rehabilitation of the Midvale Irrigation delivery system. These grade controls have been in place for over 15 years and have functioned as designed. The Dubois Hatchery rebuild involved removing the old concrete raceways, which were going to be hauled to the local landfill, at an extra expense to the Game and Fish Department. Putting these two ideas together, a stabilization project was completed, using concrete from the hatchery to install gully plugs in drainages flowing into the East fork River. The Statewide Habitat Access Maintenance Section and Dubois Hatchery were able to coordinate the removal and storage of the concrete on the Spence/Moriarity WHMA for later use for the gully plugs. The gully plugs were installed at two sites during the fall of 2005. There is additional concrete stored for future gully plugs, if this technique is successful in this area.

Burbot - A Native Fish in Peril?

Burbot or “ling” is a coldwater fish species that has received a lot of attention recently. In Idaho, Montana and Wyoming, there has been concern that burbot have decreased in abundance across their native range. But, our standard sampling programs that typically target other fish species have been ineffective for sampling burbot and inadequate for monitoring burbot statistics. This past fall we began evaluating sampling methods for burbot to determine the gear and time of year that is most effective. Our study indicates that trammel nets, one of three gears compared, will be an effective gear for monitoring burbot.

Results from our gear comparison study will benefit future research and will be used by the University of Wyoming’s, Research Unit to study burbot in the upper Wind River drainage. Fieldwork for an upcoming project by the UW Cooperative Research Unit, funded by the WGFD, will begin spring of 2007 and will focus on abundance and size structure of burbot in several lakes and reservoirs in the Wind River watershed and identify factors that may be affecting burbot abundance and structure. Results from this project should be available in 2008.
Many anglers find Wyoming’s bait fish regulations somewhat confusing and burdensome, but they are necessary if we are to protect fishing opportunities into the future. We have tried to address resource concerns and still allow fisherman enough flexibility to enjoy their traditional activities and practices. However, some retail outlets had a limited supply of minnows during the winter of 2005-2006, resulting in some anglers transporting live minnows outside the area for which they were approved. In response, the Game and Fish Department issued a handful of citations and reminded fishermen to heed the regulations on minnow transport.

Wild-caught minnows must be used in the area where they were collected. Wild-caught minnows are as the term implies: minnows collected from streams or lakes by an individual with a license to seine and trap live baitfish. They cannot be taken anywhere else to use as bait because of the opportunity to introduce a new species into a new water or drainage. Minnows purchased from a bait dealer must only be used for the area specified on the receipt. The 10-day minnow receipt provides a method to track the source of minnows.

Movement of baitfish between drainages can have far-reaching and irreversible impacts to native fish and sport fish alike. In 2001, the department spent considerable time and money to remove brook stickleback from ponds and reservoirs in the Badwater Creek Drainage. Brook stickleback are not native to Wyoming and have a reputation for competing with and causing declines of other fish species. They were introduced illegally in the North Platte Drainage, probably in baitfish imported into the state. Fortunately, biologists were able to keep them from reaching Boysen. If they were to establish a population in the reservoir, there would be no feasible way to remove them. Once in Boysen they would have the potential to negatively impact many species, especially perch. Brook stickleback are known to forage on the eggs of other fish and perch eggs are very vulnerable to predation. Biologists perform a rigorous analysis of a body of water and the drainage it is in before introducing a new species, but careless movement by anglers can result in disaster.

The actions of a few anglers may require even stricter regulations in the future. It is unfortunate that conscientious anglers must be inconvenienced because of the illegal actions of others, but the protection of native fishes, and our important game fisheries makes it necessary.