

2010 Edition



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There are several new things anglers need to be aware of as the fishing season picks up speed. First, Casper has a new biologist, Nathan Cook. Nathan was recently hired as a fisheries biologist in the Casper Region. Nathan hails from the gateway to the West, Saint Louis, Missouri. He began his career in Casper at the tail end of the field season last September and he is eager to learn more about what the Casper Region has to offer. He received his bachelors' and master's degree from the University of Wyoming and has worked in several locations in Wyoming prior to coming to Casper.

During the ice fishing season a great deal happened for the Aquatic Invasive Species Program. Our state legislature allocated \$1.5 million and authority to the department to implement a new program aimed at preventing the introduction of quagga and zebra mussels to Wyoming waters. Quagga and zebra mussels are not known to occur in Wyoming and we want to keep it that way. While the funding is much needed, it all starts with you and me. We need to do some simple things to prevent the spread of these species. Drain, clean and dry your boat and gear to insure we are not spreading these species. Information about the program is provided in this addition of the angler news.

Special points of interest:

- New aquatic invasive species program
- How are trout doing in the Casper Region?
- Alcova Reservoir walleye
- New Glendo Reservoir walleye regulation
- Pathfinder water levels improve

If you have not already, please look at the new fishing regulations before you begin fishing. Grab a copy where you get your license or the booklet is on our web site (<http://gf.state.wy.us/downloads/pdf/fishregs.pdf>). Changes for the 2010-2011 booklets are highlighted in blue. There are three changes in the Casper Region. A 15-inch minimum length limit for walleye at Glendo Reservoir was adopted. This is just the reservoir and not the North Platte River above or below Glendo Dam. A second change is on the North Platte River from the Lusby Public Fishing Area to the Bessemer Bend Bridge. The creel limit was changed to three trout per day or in possession and only one shall exceed 16 inches. This change will provide more protection for larger fish and provides greater consistency in our river regulations (same regulation as the Miracle Mile). Use of live baitfish is no longer allowed in Goldeneye Reservoir. Trout, tolerant to the level of salt in the reservoir, have been stocked and fishing is improving at Goldeneye.

Don't Move a Mussel: Preventing Aquatic Invasive Species in Wyoming

Aquatic invasive species are organisms that are introduced into new ecosystems where they cause harm and threaten human uses of water resources. Often called "nuisance" species, they can attach to equipment, boats, and gear used in the water and can then be transferred from one body of water to another. Once established, these species cause significant problems for aquatic ecosystems and the people who use them. Two species in particular pose a significant and immediate threat to Wyoming –zebra and quagga mussels.

What are they?

Zebra and quagga mussels are freshwater, bivalve mollusks, typically with a dark and white pattern on their shells. They are native to Eurasia and were first discovered in the Great Lakes in 1988, most likely transported in the ballast water of ocean-going ships. They are up to an inch long and are often found in clusters attached to hard surfaces such as boats, piers, pipes, and other equipment. Invasive mussels reproduce rapidly. There are no known populations of these mussels in Wyoming to date, but they have rapidly invaded waters across the country and are now present in Colorado, Nebraska and Utah.



Zebra and quagga mussels can attach to and ruin boat engines.

Impacts to You

The negative impacts of invasive zebra and quagga mussels cannot be overstated. They impede water delivery and increase maintenance costs by clogging pipes, pumps, turbines and filtration systems. Invasive mussels can clog water intakes on motors, overheating and ruining boat engines. Invasive mussels remove plankton from the water. Plankton is the primary food source for forage fish - which in turn are the food of sport fish. The result is often a catastrophic decline in sport fisheries.

How You Can Help

Overland transport on trailered watercraft poses the greatest risk for spreading aquatic invasive species. To prevent the spread of these mussels to Wyoming and protect our resources, we're asking all boaters and anglers to **Drain, Clean, and Dry**. Drain all water from your equipment and boat, including the livewell, bilge, and ballast. Clean all mud, plants, and debris from your equipment and boat. Dry your equipment and boat thoroughly before launching in another body of water for at least 5 days in summer, 18 days in spring and fall, and 3 days in winter. However, if you have been out of state and on a water with a known infestation within the past 30 days and your boat has not been inspected and sealed, you must have your boat inspected before you launch in Wyoming.

The 2010 Legislature passed a new aquatic invasive species bill that allows the establishment of check stations to inspect watercraft for aquatic invasive species and if necessary decontaminate the watercraft. In addition to encountering check stations at boat ramps throughout Wyoming, boaters will need to purchase a Wyoming

Aquatic Invasive Species decal to help fund the program.

For more information, call 307-777-4600 or visit <http://gf.state.wy.us/fish/AIS/index.asp>.

To report an aquatic invasive species sighting, or to request assistance with watercraft decontamination call



1-877-WGFD-AIS.

Aquatic Invasive Species

During the 2010 session, the legislature passed HB0018 requiring the Wyoming Game and Fish Department and State Parks and Cultural Resources to develop a new aquatic invasive species program. We are very fortunate to have the support and backing from our elected officials so we can take aggressive measures to keep Wyoming clean of quagga and zebra mussels. The act provides for:

- Inspection and decontamination of watercraft,
- Authority to develop regulations,
- Civil and criminal penalties,
- A user fee to help pay for the program,
- Funding of \$1.5 million,
- Hiring a coordinator for the program in the Game and Fish Department.

Based on direction from the legislature, the Wyoming Game and Fish Commission and State Parks and Cultural Resources have implemented emergency regulations to address the aquatic invasive species threat. This emergency rule, Chapter 62, was signed by the Governor and will be in effect for 120 days. The Wyoming Game and Fish Commission will consider permanent rule-making for this program in June, following a series of public meetings. Public comments will be accepted from April 13 through May 28. The Casper public meeting will be April 27, Game and Fish Office at 7:00 PM. The emergency rule provides:

- Procedures to establish check stations,
- Methods to inspect and decontaminate watercraft,
- Authority for impoundment and quarantine if necessary,
- Requirement for mandatory reporting of Aquatic Invasive Species,
- Fees and requirements for the decal program (user fee).

All watercraft using Wyoming waters will be required to display an annual Aquatic Invasive Species decal (inflatable watercraft 10 feet in length or less are exempt). Costs for the decal under the emergency regulations are \$10 for motorized watercraft registered in Wyoming, \$30 for motorized watercraft registered in other states, \$5 for non-motorized watercraft owned by Wyoming residents and \$15 for non-motorized watercraft owned by nonresidents. Decals will go on sale on the Game and Fish Department website on April 15 and at automated license selling agents on May 17. All funds collected from the decal program will be used to help fund the Aquatic Invasive Species program – money to help protect your resource. For more information about aquatic invasive species in Wyoming, visit the Game and Fish Department website at <http://gf.state.wy.us>.

With all the discussion about new regulations and check stations we cannot lose sight of what is critically important: **Drain** all water, **Clean** your equipment and **Dry** everything. Our personnel at the check stations will be checking watercraft to be sure they are clean and dry. Drain, Clean and Dry your boat and get your decal. You will help yourself by spending less time getting through the check stations and more importantly, you will be preventing the spread of problem species.

The North Platte - Gray Reef

Creel Survey – If you fished Gray Reef last year, you may have noticed a low flying aircraft passing overhead or been interviewed by one of our employees. Both were part of an 8-month creel survey designed to estimate fishing pressure and catch rates for the river from Gray Reef Dam to Robertson Road. Approximately 18,300 angler-days representing 85,200 hours of fishing occurred between March 15 and October 31, 2009. Approximately 9,400 angler days were shore trips, while 8,800 were boat trips. Total trout catch was estimated as 79,036 fish of which 1,350 or 1.7% were harvested. The season-long catch rate was 0.93 fish per hour. Boat anglers had higher catch rates (1.12 fish per hour) than shore anglers (0.63 fish per hour). Catch rates were highest in March (1.15 fish per hour) and lowest in June (0.73 fish per hour). People from 42 of the 50 states were represented in our sample, as well as New Zealand, Canada and Europe.



Counting Gray Reef anglers from the air

Population Estimates – There were 1,224 trout per mile in the upper river, representing 2,393 pounds of trout per mile in 2009. Rainbows are by far the most common species representing 97% of the total trout population. Brown trout are present in much lower numbers (30 per mile) and pure Snake River cutthroat are quite rare (less than 10 per mile). Hybrids between rain-



A nice brown from "the narrows"

bow trout and cutthroat trout are common and are included in the rainbow trout estimates. The average size of rainbow trout was 16.9 inches and 2.02 pounds. Brown trout averaged 18.8 inches and 2.78 pounds. Eighty eight percent of rainbows were larger than 16 inches with 5% larger than 20 inches.

There are more fish in the Bessemer reach (Sechrist – Bessemer Bridge) than the upper river, but they are smaller on average. We estimate 1,525 trout per mile in this reach. Brown trout are only slightly more common here (60 per mile). Rainbows averaged 13.2 inches and 1.27 pounds. Browns averaged 14.6 inches and 1.82 pounds. In contrast with the upper river, 40% of the rainbows were larger than 16 inches with 1% larger than 20 inches. The reason for fewer large fish in this reach is that the population is largely made-up of 1 and 2 year-old fish. As these fish mature they move into the upper reaches. As expected, poor recruitment in 2007 and again in 2008 has resulted in a 40% decrease in the total trout population. In response, we stocked over 60,000 rainbow trout below Lusby to buffer the effect of decreased recruitment in 2008. This supplemental stocking resulted in an increase of roughly 500 age-1 rainbow trout per mile, which basically doubled the number of fish of this age. The benefits of the supplemental stocking will be realized in 2011 and 2012 when this age-class moves past 16 inches and makes up the bulk of the Gray Reef trout catch.

The North Platte—Cardwell

Our current population estimate is 987 trout per mile (1,453 pounds per mile). There is good news for brown trout enthusiasts, as the brown population has significantly expanded over the last three years with the current estimate standing at 264 browns per mile. The majority of browns captured in 2009 were less than 10 inches, indicating strong natural reproduction in 2008. Cardwell remains one of the best places in the region if not the state, to catch a truly large rainbow, with fish over 27 inches and 7.5 pounds captured.



In April 2009, we completed a habitat project designed to increase the available spawning area. We added over 700 cubic yards of gravel to create six spawning pads. We observed browns spawning on the new gravel in November, and as of late March we observed rainbows beginning to spawn in the same areas. The expansion of available spawning habitat should serve to increase and stabilize yearly trout production in this reach.



The North Platte—Miracle Mile



31-inch brown trout from the Miracle Mile

A population estimate was conducted at the Miracle Mile during July 2009 using raft electrofishing. Estimates for 2009 were 2,924 trout and 2,075 pounds of trout per mile. Approximately 70% of the fish were rainbow trout, 30% brown trout, and < 1% cutthroat trout. Although the number of trout in 2009 decreased slightly from 2008, pounds of trout in the Miracle Mile actually increased. Rainbow trout averaged 12.1 inches in length and brown trout averaged 11.1 inches. Both rainbow and brown trout were in excellent body condition. Many trout in the Miracle Mile swim upstream from Pathfinder Reservoir, and increased water levels in the reservoir have improved trout numbers and condition in both Pathfinder and the Miracle Mile.

From 2005-2009, equal numbers (approximately 40,000 each) of Eagle Lake strain rainbow trout (ELR) and Firehole River strain rainbow trout (FHR) were stocked in the Miracle Mile to determine if either strain survives better, grows bigger, and is caught more often by anglers. The trout were marked by right (ELR) or left (FHR) pelvic fin clips prior to stocking. This evaluation indicated that neither strain performed better than the other. In the future the Miracle Mile will be stocked with FHR, not because it is a superior rainbow trout strain, but because it is most available from our hatchery system. Strain evaluations have indicated that wild rainbow trout comprise

50-61% of the population. These wild rainbow trout, as well as brown trout, which are all wild in this system, continue to be an important source of recruitment for the Miracle Mile fishery.

If you fished the Miracle Mile during 2009, you were probably interviewed by our personnel to learn about your fishing experience. An angler creel survey was conducted from March 15th to October 31st to assess fishing pressure and angler success. During this creel survey, a total of 1254 anglers were interviewed, 29% were Wyoming residents and 71% were from other states. Most (82%) of the nonresidents were from Colorado. An estimated 4,277 anglers fished the Miracle Mile during the survey period. In 19,824 hours, anglers caught 10,107 trout, for a catch rate of 0.51 trout per hour. Compared to past creel surveys, angler use of the Miracle Mile is down considerably.

Estimates of the number of anglers and total hours fished from Miracle Mile creel surveys.

	Number of anglers	Total hours fished
1995	23,012	89,511
2001	14,342	72,943
2009	4,277	19,824



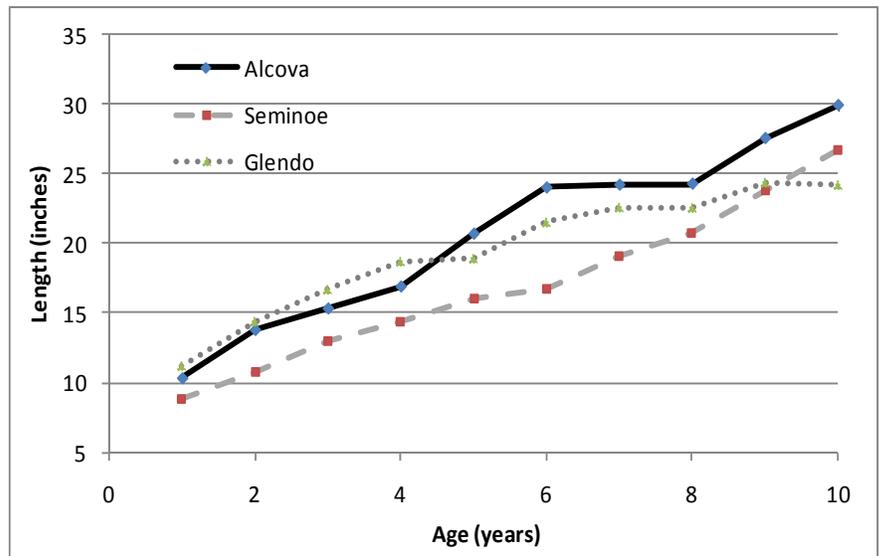
Wild rainbow trout from the Miracle Mile

Alcova Reservoir

“Big walleye and lots of ‘em” is probably the best way to describe the fishery in Alcova Reservoir right now. A combination of low fishing pressure, high growth rates and several years of unprecedented natural reproduction have yielded a walleye population not only high in numbers, but with a size structure that sets it apart from other popular walleye fisheries in the state and nation. Currently, walleye average 18.4 inches and 3.1 pounds. Fish larger than 15 inches make up 77% of the walleye population, 33% of the population exceeds 20 inches, 20% exceed 25 inches and 4% are larger than 30 inches. Creel surveys show 97% of Alcova anglers were fishing for trout. The presence of so many large walleyes is having a negative impact on the trout population. Angler catch rates have been decreasing each year and are now at less than 0.10 trout per hour. In 2009, we were able to stock larger rainbow trout than normal and have increased our hatchery requests from 95,000 to 120,000 rainbow trout annually in an effort to boost the trout population.



The graph to the right shows walleye growth rates to 10 years old from Alcova, Seminoe and Glendo. Notice how Alcova walleye grow at similar rates as Glendo until fish reach 16 inches in length (4 years old) at which point they actually grow faster than Glendo fish. This is largely due to Alcova walleye having rainbow trout available as forage. The same pattern is seen in Seminoe walleye, it just takes them an extra two years to reach the size where they can readily prey on stocked rainbow trout.



Glendo Reservoir

Walleye - Walleye fishing at Glendo Reservoir was good again in 2009. A creel survey in June indicated that anglers were catching 1.11 walleye per hour. Average length of harvested walleye was 16.4 inches. In 2008, it was noted that the age-1 (2007) year-class was relatively weak. Netting in 2009 confirmed there were relatively few age-2 (13-14 inch) walleyes in the population. Since Glendo Walleye grow to about 16 inches in their third year, anglers may see fewer walleye of this length in 2010 than in most years.

Channel Catfish - Catch of channel catfish in our gill netting has declined steadily since 2002. The smallest CCF captured in 2009 was 23 inches long. No stocking of CCF occurred between 2001 and 2004 in Glendo Reservoir or the North Platte River upstream. Channel catfish natural reproduction is limited in the Glendo-North Platte system, so all fish captured in Glendo Reservoir in 2009 were likely stocked prior to 2001. About 20,000 channel cats were stocked in the reservoir and the river upstream from 2005-2008, but these fish have not begun to be captured in our nets.

Other species- The Glendo Reservoir yellow perch population tends to vary in abundance, going up or down every two years. Yellow perch abundance was down in 2008 and 2009, so 2010 is expected to be a "boom" year for perch at Glendo. The catch of crappie in gill nets in Glendo Reservoir has historically been rather low and 2009 was no exception. Only one black crappie was captured in standard gill netting. However, a new state record white crappie was caught by an angler on August 31st, 2009. The new record measured 16.25 inches and weighed 2.45 pounds, beating the old record (also caught at Glendo reservoir) by 0.14 pounds.



VERY IMPORTANT

REGULATION CHANGE FOR GLENDO RESERVOIR

Starting January 1, 2010 all walleye less than 15 inches long caught at Glendo Reservoir must be released to the water immediately. As part of this new regulation, walleye must be kept whole (gills and entrails may be removed) until the angler is off the water or ice and done fishing for the day. Anglers are encouraged to see the 2010-2011 Fishing Regulations for details.

This new regulation is the result of a walleye tagging study initiated in 2006 which revealed that anglers were harvesting 35% of the walleye population annually. This high level of harvest combined with the fast growth of Glendo walleye suggested that a minimum length limit would likely increase the size structure of the walleye population and the size of fish harvested by anglers. The length limit may also benefit the walleye population by limiting the harvest of juvenile fish that would otherwise not have an opportunity to spawn. WGFD will monitor the effects of the new regulation on the walleye population and angler catch and harvest rates in the years to come.

Pathfinder Reservoir

Pathfinder Reservoir water levels in 2009 were the highest since 2001, peaking at 71% capacity in November. The lowest water level in 2009 was 34% capacity, which was near the peak water level in 2008 (36%) and above the peak level in 2007 (28%). Increased water levels appear to be positively impacting both the trout and walleye fisheries in Pathfinder Reservoir.

Trout - Body condition of rainbow trout captured in gill nets was exceptionally good in 2009. Rainbow trout averaged about 15 inches in length and about 1.5 pounds in weight. Rainbow trout must be stocked at large sizes to avoid being eaten by large walleye, which are now abundant in Pathfinder Reservoir. Almost 100,000 rainbow trout that were greater than 9 inches in length were stocked in Pathfinder in the fall of 2009. This stocking, combined with a relatively full reservoir, should lead to a good rainbow trout population in 2010. No brown trout are stocked in Pathfinder Reservoir, but they reproduce naturally in the Miracle Mile upstream of the reservoir. Although they are relatively rare, brown trout up to 20 inches can be found in Pathfinder Reservoir.



Walleye - Catch rate of walleye in gill nets in 2009 was the highest we have seen in the last 5 years. The size structure of the walleye population has also increased with most of the population greater than 15 inches in length. Walleyes in our fall netting averaged 17.2 inches and 2.2 pounds.

Dome Rock Reservoir

Too much of a good thing? That is the case right now at Dome Rock Reservoir. This small impoundment between Alcova and the Miracle Mile is managed for trophy size cutthroat trout. The reservoir typically grows cutthroat trout to 20 inches and larger with 3-5 pound fish being relatively common. However, gill net catch of Snake River cutthroat in 2009 was the highest it has been in the last 9 years. Most of the cutthroat were small, with an average length of 11.1 inches and maximum length of 17.6 inches. Length of cutthroat in 2009 was significantly lower than all other years except 2008. Relative weight (a measure of a fish's condition) was the lowest it has been in the last nine years. Increased competition, caused by abundant small cutthroat, is likely responsible for the relatively poor condition of trout in Dome Rock Reservoir. Dome Rock has been stocked with about 400 Snake River cutthroat annually since 2001. In response to the increased population and small size, Dome Rock will not be stocked in 2010. We will begin stocking trout every other year in an effort to reduce the population thereby increasing growth rates and size of trout in this fishery. If you fish Dome Rock, remember it is managed under a "trophy" regulation where the limit is one trout (all trout less than 20 inches must be released), fishing is permitted by the use of artificial flies and lures only.

Seminole Reservoir

Walleye abundance in Seminole is as high as it's been in a decade. Slow growth rates and relatively high fishing mortality combine to keep the average size of walleye on the small side. Walleye averaged 14.6 inches and 1.6 pounds in 2009. The majority of walleye (72%) are less than 15 inches. Despite the small average size, there are some very big walleye in Seminole. We captured several fish in the 10-15 pound range last year.



Walleye and brown trout from the Platte arm—Seminole Reservoir

Trout numbers are down following several years of decreased stocking rates. We have not been able to stock as many trout as we would like due to construction at Speas and several other Wyoming hatcheries. Rainbows averaged 17.5 inches and 2.27 pounds. There are a fair number of wild brown trout present which average 17.2 inches and 2.1 pounds. We have increased our trout stocking rates for Seminole in 2010 from 125,000 per year to 175,000 per year, which is possible because of the improvements to the hatcheries. The bottom line: while hatchery construction has resulted in a temporary shortage of rainbows for Seminole, the end result will be better trout fishing in the near future.



Iowa darter



Johnny darter

Native Species Spotlight : darters

The casper region is native range for two species of darter: Iowa darter *Etheostoma exile* and Johnny darter *Etheostoma nigrum*. If you look close, you might think they resemble a walleye or sauger. They are in fact members of the perch family meaning they are relatives of walleye, sauger and yellow perch. Iowa darters are found throughout the North Platte drainage especially in small, clear streams. Johnny darters are common in the mainstem North Platte River and it's reservoirs. These diminutive species seldom exceed 3 inches in length. They prefer to sit motionless on the bottom then "dart" after prey, a behavioral trait responsible for their common name. They feed on small aquatic invertebrates, and in turn are preyed upon by trout and walleye.

Don't Move a Mussel

BEFORE YOU LAUNCH IN ANY WATER,

protect your water resource and
boat motor from invasive zebra and
quagga mussels by doing a

SELF-CHECK

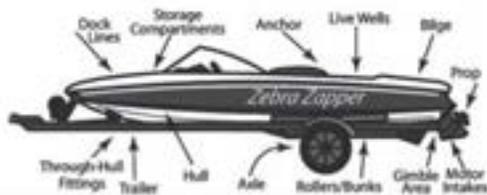
Follow these simple steps to protect your waters:

✓ **DRAIN** All water must be drained from your boat. This includes the ballast bilge, livewell and motor. Leave wet compartments open.

✓ **CLEAN** Remove all plants, mud and debris from equipment and boat.

✓ **DRY** Dry your boat or equipment 5 days in the summer, 18 days spring/fall or 3 days of freezing.

**Help protect Wyoming's
waters by making sure you
Don't Move a Mussel!**



Please contact the Wyoming Game and Fish Department if you see attached mussels on your equipment or in Wyoming waters. We can provide more information and assistance in removal. Call 1-877-WGFD-AIS - (877-943-3247)



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Aquatic Invasive Species Decal to launch.**

Wyoming Game and Fish Department

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Fisheries Management in the Casper Region

Projects in 2010:

We will be conducting our annual gill net surveys on Alcova, Pathfinder and Seminoe in May and September and Glendo in August.

Miracle Mile population estimate in July

Gray Reef, Bessemer and Big Muddy population estimates in October

We will be conducting some night electrofishing on Alcova in April to gauge the feasibility of a walleye tagging study for this water in the near future

We will be collecting creel survey information on Seminoe, Pathfinder and Alcova to gauge angler catch rates and satisfaction with these fisheries

We will be surveying small stream fisheries and habitat in the North Laramie Range, Salt Creek basin and Seminoe Mountains.

AIS inspection stations on region reservoirs

The Casper Fisheries management crew consists of regional fisheries supervisor Al Conder and fisheries biologists Nathan Cook and Matt Hahn. The regional Aquatic Habitat Biologist position is vacant.



Regional Supervisor Al Conder



Fisheries Biologist Matt Hahn



Fisheries Biologist Nathan Cook
