



the wyoming game & fish department

CASPER REGION newsletter

North Platte River

Flushing Flows

Ten cycles of spring flushing flows were negotiated with the Bureau of Reclamation and completed from March 7 through 16 in the North Platte River below Gray Reef. During the early hours of March 7, flows were increased from 500 cubic feet per second to 4,000



cubic feet per second and then gradually decreased back to 500 cubic feet per second. This cycle was repeated each day of the flushing flows.

Flushing flows began in 1995 as a method to reduce the amount of fine material (silt and sand) in spawning gravels. Research has found with cleaner spawning gravel (less fine material) trout egg survival is much improved. Matt Hahn, Casper fishery biologist, collected gravel samples from spawning locations pre-flush, after five cycles and post flushing to evaluate spawning habitat conditions as part of an ongoing study. A technique called freeze core was used to collect the gravel samples. A pipe is pushed into the spawning substrate, then liquid nitrogen is poured down the pipe freezing all material in about an eight-inch diameter around the pipe. The gravel samples will be analyzed in the lab to determine the reduction in fine material following the flushing flows. The gravel analysis is documenting the importance of the flushing flows to maintaining the quality of spawning habitat in the North Platte River below Gray Reef Reservoir. In addition to spawning habitat, the flows also enhance aquatic insect production by reducing fine material in the gravel. The Wyoming Game and Fish would like to thank the Bureau of Reclamation for their continued support of this project.

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On the Ground

Winter and Wildlife

Casper Area

Winter conditions finally broke in February, providing big game with a much needed break in the Casper area. While 2015-2016 was generally mild throughout most of the Region, areas around Casper experienced significant basin snowpack with persistent cold temperatures. Casper did not receive bitter cold snaps of below-zero temperatures, but daytime highs were not above freezing for three straight

months. This led to crusted snow cover that persisted from early November through early February. Thanks to a timely warm-up, these conditions broke in early February with unseasonably warm temperatures over the last three weeks. The crusted snow conditions were of particular concern for wintering pronghorn south and west of Casper.

During the winter, pronghorn rely on sagebrush for the vast majority of their winter diet. In these areas, Wyoming Big Sagebrush is typically a lower growth shrub that can be much harder for big game to access when deep crusted snow per-



sists. On the contrary, mule deer in these areas likely fared better as they rely on mixed mountain

shrubs such as True Mountain Mahogany and Antelope Bitterbrush for most of their winter diet. These shrubs are much taller and much more readily available above snow levels. Regardless, such snow conditions require increased energetic demands for simple daily movements. Given the dramatic warm-up exper-

enced in February, coupled with the fact that big game entered this winter in relatively good body condition, both mule deer and pronghorn should come out of this winter in fairly good shape.

Casper Wildlife Biologist Heather O'Brien conducted a mid-winter trend count of pronghorn in Hunt Areas 71 and 72. This trend count has been conducted annually since 2011 to assess overwinter mortality of antelope in the Rattlesnake Pronghorn Herd. The 2016 count was slightly higher than totals counted the previous few years. Range conditions in this area were dry but good, with lots of open country for pronghorn to move and find winter forage. Large groups of pronghorn were found in their typical winter ranges, with smaller groups scattered around open habitats throughout the herd unit. This trend count helps confirm the herd can support proposed hunting seasons for the upcoming fall.



Black Hills Area

Overall, winter in the northeast corner of the state has been relatively mild, and game animals and game birds are fairing very well. Really strong numbers of fawn and yearling deer and antelope persist, as these game animals begin to move towards transitional ranges. A recent survey of elk in the Wyoming southern Black Hills that was conducted in concert with South Dakota Game Fish & Parks found just over 1,100 wintering elk, including some larger groups at fairly high altitude. This is probably due to the low snow pack. In the Black Hills, snowfall and the amount of moisture received have been well below normal, with measured areas in Wyoming currently standing at about 75% of the 30-year average.



Although the blue birds are just showing up, early migrations of some waterfowl have been seen with the mild weather. Notably, according to recent news accounts, worldwide, this February was the warmest month on record based on satellite acquired temperature data. This is probably affecting avian migrations. But, in the Black Hills, we will know spring is here for sure when the turkey vultures arrive.

Range conditions continue to be in really good shape for the most part, as excellent moisture during last year's growing season fostered good growth. In addition, below objective levels of big game animals on the landscape have meant reduced over-winter use of forage resources by big game

Most of the Black Hills wild turkey numbers are beginning to improve. However, just north of Newcastle, within the 63,000 acres of the 2012 Oil Creek Fire burned area, wild turkey numbers have continued to decline. It appears the loss of canopy cover has lowered the carrying capacity of this once very productive wild turkey habitat. Very few wintering turkeys have been observed this year. Also near the Wyoming/South Dakota state line, turkey numbers also seem to be suppressed compared to other areas in the Black Hills.

Lusk Area

Like many areas recently, Lusk has had fierce winds. These winds combined with dry grasses led to many grass fires in the area in February. The fire in this photo burned approximately 40 acres.



In the Water

Gizzard Shad

Fisheries Biologist Gordon Edwards put the finishing touches on paperwork for importing gizzard shad from Nebraska for Glendo Reservoir. Gizzard shad are an extremely important forage species for walleye in the reservoirs. The long cold winter of 2013-2014 nearly eradicated the gizzard shad and we hope to import adults to help jump start the population in the reservoirs.



Of Interest

Russian Olive Removal, Bald Eagle Surveys

Russian olive removal at the Dave Johnston Powerplant and Walk-In Area continues with hand cutting of the remaining Russian olive trees. Mastication was used to remove a majority of the trees last year, leaving only trees in areas difficult to access. Tree stumps are being sprayed with herbicide as they are removed to assist in preventing re-growth.

The entire project area will be sprayed for re-growth this coming fall. Spraying in the fall results in 90-95% effectiveness since plants are actively transporting nutrients, as well as the applied chemical to their roots. This is in contrast to growing season spraying which results in only about 50% kill, since plants have a greater opportunity to recover following chemical application.



Depending on the level of re-growth controlled this fall, re-planting of native trees and shrubs in this area may occur as early as the fall of 2017. Cottonwoods as well as beneficial fruit-bearing shrubs will be used to increase habitat value in this area. All plants will have tree tubes placed around them to protect them from drift herbicide, since it will be necessary to maintain the project with on-going, but low intensity, herbicide applications throughout the future to prevent further invasion of Russian olives.



Casper Wildlife Biologist Heather O'Brien surveyed nesting bald eagles along the North Platte River and its tributaries. There are a small number of pairs that nest in cottonwood galleries along riparian areas in the region. Local biologists check nesting status of these pairs annually to confirm whether or not they are still present. Surveys are conducted in late winter or early spring, when bald eagles are incubating eggs or have chicks. The early surveys are also easier for biologists, as nest trees still have no leaves to conceal eagles on their nests. All nests checked were active with incubating pairs of bald eagles in 2016, and one brand new nest was found and recorded.



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