



CODY REGION newsletter

Game and Fish dedicated to ensuring sustainability of trout fishery in Buffalo Bill Reservoir and the North Fork

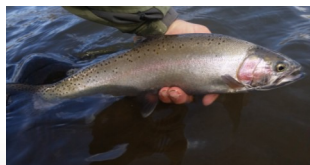


Buffalo Bill Reservoir is a self-sustaining, wild trout reservoir located west of Cody.

Buffalo Bill Reservoir, located approximately 10 miles west of Cody, is one of the most unique and important standing water fisheries in the Bighorn Basin. Unlike other reservoirs in Wyoming, Buffalo Bill is not stocked with hatchery fish. “The fact that Buffalo Bill Reservoir is not stocked is extraordinary,” said Cody Region Fisheries Biologist Jason Burckhardt. “In fact, it is the only self-sustaining, wild trout reservoir that exists in Wyoming.”

But there is much more to the story than just a quality wild trout reservoir fishery. Each spring, adult rainbow trout, Yellowstone cutthroat trout and their hybrids (cutbows) run up the North Fork Shoshone River and tributaries to spawn. This spawning run is well known to anglers near and far; thousands of anglers descend on the North Fork and its tributaries each summer to fish for the migratory trout.

With the illegal introduction of walleye in the reservoir in the early 2000’s, this trout fishery and the unique angling opportunities it offers are threatened. Efforts are currently underway to ensure the sustainability of this incredible trout fishery for future generations.



A Buffalo Bill Reservoir cutbow.

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In the water

Ensuring sustainability of trout in Buffalo Bill Reservoir and the North Fork cont.

During the summer of 2008, anglers began catching walleye in Buffalo Bill Reservoir and Game and Fish confirmed that walleye had been illegally introduced. “Walleye and trout living together in a reservoir, more often than not, leads to a decline in the trout population,” Burckhardt said. “In these situations trout are often the primary forage base for walleye and as the walleye population expands, the trout population declines. In the end, managing for a quality fishery for either species is difficult.”

Given the popularity with anglers and the uniqueness of this trout fishery, Game and Fish is remiss to let the situation play out unchecked. “We wanted to approach this situation in a thoughtful and coordinated fashion,” Burckhardt said. “So we came up with a game plan based on experiences of other professional fish managers grappling with similar challenges.”

Game and Fish had to answer two looming questions in order to determine how the illegal introduction of walleye could influence the trout population. The first was a food web study to determine lake trout and walleye consumption rates on trout. “This food web study was essentially a ‘who’s eating whom’ investigation where we determined the diets of all predatory fish in the reservoir,” Burckhardt said. “What we found was that trout, specifically juvenile trout, comprise a majority of a walleye’s diet. This research confirmed what we had feared; that the introduced walleye had the potential to significantly impact the Buffalo Bill trout fishery, especially if that population continued to grow.

The second series of questions that Game and Fish had to answer was how many walleye are in Buffalo Bill, how many are being harvested by anglers, and what would it take in terms of removal efforts to keep the walleye population from expanding. Beginning in 2016, in collaboration with researchers from Montana State University, Game and Fish began investigating the feasibility of suppressing walleye in Buffalo Bill Reservoir in order to sustain the trout fishery.



Gracie Osterland with a stringer of trout at Buffalo Bill Reservoir.

To estimate abundance of walleye and angler exploitation rates, Game and Fish tagged approximately 500 walleye in the spring of 2016 with reward tags. “We determined that the Buffalo Bill Reservoir walleye population was smaller than we anticipated, with only a few thousand sexually mature fish in the entire reservoir. We also determined that anglers harvested approximately twenty percent of the tagged fish which was a bit surprising given the fairly low abundance of walleye in the Reservoir.” Burckhardt said.

“Now that we had these key pieces of information, the final question was how many walleye could we remove with the tools we have available,” Burckhardt said. In the spring of 2017, when the walleye were congregating during spawning, Game and Fish used electrofishing and gillnetting to remove as many walleye as possible to determine if it is feasible to keep the walleye population low enough to prevent it from growing to the point that it may affect the Buffalo Bill Reservoir trout fishery. Over the course of three weeks a little over 800 walleye were removed from Buffalo Bill. While the field work is completed, the analysis of the data will continue through this winter.

A brief history: Stocking Buffalo Bill Reservoir

- Buffalo Bill Reservoir was constructed in 1910 at the confluence of two major tributaries, the North and South Fork Shoshone Rivers.
- A variety of trout were stocked soon after the dam’s closure including rainbow trout, lake trout, and Yellowstone cutthroat trout.
- Rainbow trout were last stocked in 1949; lake trout in 1955.
- From 1955 through 1995, Yellowstone cutthroat trout were stocked.
- All stocking was discontinued in 1995 when it was determined that stocked fish were not substantially contributing to the fishery and that natural reproducing “wild” trout could support the fishery.

On the ground

Biologists conduct line transect surveys for pronghorn

In late May, Wildlife Biologist Bart Kroger and Game Wardens Matt Lentsch and Bengie Brown conducted a line transect survey for pronghorn in the 15-Mile Herd Unit, which includes pronghorn Hunt Areas 77, 83 and 110.

“Pronghorn line transects survey flights are conducted every 3-5 years in most herd units to give us better estimates and trends of the populations,” Kroger said.

The survey is conducted by flying a fixed winged airplane along established lines and counting pronghorn in each survey band. The bands are represented by A, B, C, D and E perpendicular to the strut of the aircraft. Once completed, a population estimate is generated based on how many pronghorn were observed in each band. Surveys usually take 2-5 days to complete depending on size of the herd unit and the number of lines flown.



Wildlife Biologist Bart Kroger captured this image during a line transect survey for pronghorn conducted in late May.

Devils Canyon bighorn sheep surveyed



Greybull Biologist Leslie Schreiber surveys bighorn sheep in the Devils Canyon herd unit.



Bighorn sheep observed through a spotting scope in Hunt Area 12 near Lovell.

On May 12, Greybull Biologist Leslie Schreiber surveyed bighorn sheep in the Devils Canyon Herd Unit on ATV’s to get a feel for lamb production and over winter mortality. “We were too early, as we only observed one newborn lamb and a bunch of ewes foraging in the fields,” Schreiber said. “The area was resurveyed on May 26 and 54 ewes with 23 lambs were observed. Devils Canyon sheep are growing and healthy.”

Of interest

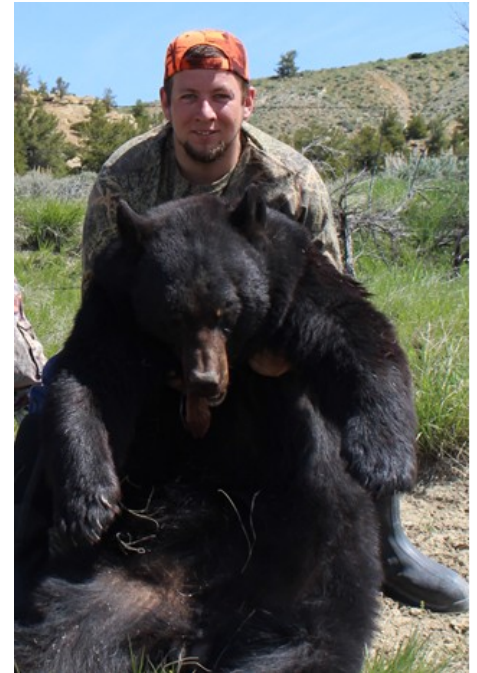
Spring black bear hunters successful

Statewide, black bear populations are doing well and many hunters in the Bighorn Basin reported a successful spring season. June 15 marked the close of the spring seasons in black bear hunt areas across Wyoming that had not already been closed due to reaching the harvest quota of females. This year, Hunt Areas 1 and 2 reached quota and closed May 30, Hunt Areas 3 and 4 closed June 2, and Hunt Areas 23, 25, 26, and 27 closed June 10.

Black bear hunters are reminded of the changes to Chapter 3 Black Bear Hunting Seasons for 2017. One of the most notable changes this year is as follows: For the purpose of receiving preference to register a bait site, any person who fails to either place a bait at a properly registered bait site or provide GPS coordinates for that bait site during the previous calendar year shall lose all preference to register that bait site and shall be considered as a first time registrant for that site the following calendar year.



Lovell Game Warden Dillon Herman checks a black bear bait. In Hunt Area 1 during the spring black bear season .



Derek Potts of Powell harvested this large black bear in Hunt Area 32 on May 7. The male bear was estimated to be over 12 years old.



Gaston Osterland of Cody with a black bear harvested in Hunt Area 4 on June 1.

Community outreach



Left: As part of an outdoor day for Burlington 5th graders on May 16, students had the opportunity to shoot air rifles and air pistols and practice archery, camping skills, and spin casting. The shooting sport activities took place at Gunwerks in Burlington. Worland Game Warden Matt Lentsch (pictured) reviews firearms safety with participants.



Law Enforcement Coordinator Aaron Kerr visits with a family about boating safety during the Lovell Health and Safety Fair May 20. Lovell Game Warden Dillon Herman and Kerr talked to approximately 400 people who attended the event.



Left: Wildlife Management Coordinator Tim Woolley teaches 6th graders from the Cody Middle School about radio telemetry and wildlife management. The program was a part of Natural History Days and took place near Dead Indian campground off the Chief Joseph Highway. As part of Natural History Days, Game and Fish staff also provide large carnivore awareness programs and give students the opportunity to conduct a fish population estimate on Elk Creek, a tributary to Sunlight Creek.

Of interest

Recipients selected for Tom Easterly memorial award

Makyela Sorensen of Greybull, Brandon Teter of Lovell and Stevi Wamhoff of Greybull were recently selected as recipients of the Tom Easterly memorial award. As recipients of the award, each was presented with a free lifetime Wyoming game bird/small game license and lifetime conservation stamp.

From Jan. 1- April 1, youth in the Bighorn Basin ages 14-17 had the opportunity to apply for the award by submitting an application and essay describing why the applicant hunts and why wildlife is important. Applicants were judged by their application qualifications and the content of their essay by a committee of five.

The Tom Easterly memorial award was established in the spirit of former Greybull Biologist Tom Easterly’s belief in our future generations of conservationists. Tom Easterly served as the Wyoming Game and Fish Department Greybull area biologist from 1992 through 2014. Tom’s passion was introducing young hunters to the sport of bird hunting and sharing the importance of well managed wildlife habitat with them.

To be eligible, applicants must reside within the boundaries of the Greybull Biologist District which include Basin, Burlington, Cowley, Greybull, Lovell, Manderson, Ten Sleep and Worland and be a resident who has continuously resided in Wyoming for at least 10 years immediately preceding the date of application. The open application period for next year will be Jan. 1 through April 1, 2018.



Lovell Game Warden Dillon Herman presents Brandon Teter with a lifetime Wyoming game bird/small game license and lifetime conservation stamp.

THE ULTIMATE HUNTING ADVENTURE

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WYOMING SUPER TAG AND SUPER TAG TRIFECTA

Super Tag tickets: \$10
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