



2016

the wyoming game & fish department

# CASPER REGION angler newsletter

## Get Involved in Fish Management

### It's Regulation Season - learn about proposed Regulations and how to get involved in the process

Several proposed changes are being considered for Fishing and Watercraft Regulations for 2017. Proposals of interest to anglers in the Casper Region include recommendations to: increase the walleye creel limit at Pathfinder Reservoir and Miracle Mile, clarify fishing with trout beads and classify burbot as a nongame fish. Rationale for these proposed changes is presented in this newsletter.

Eleven public information gathering meetings will be held across the state in April and May to discuss proposed changes to regulations. The Casper public meeting will be at the Casper Regional office starting at 7:00 pm on May 17<sup>th</sup>. The final recommendations will be taken to the Wyoming Game and Fish Commission at their July 7-8, 2016 meeting in Pinedale. We encourage you to get involved in the process. Full descriptions of proposed changes to Fishing and Watercraft regulations can be accessed online.

Proposed fishing regulation (Chapter 46) changes:

<http://wgfd.wyo.gov/2017-fishing-regulations>

Proposed watercraft regulation (Chapter 22) changes:

<http://wgfd.wyo.gov/Get-Involved/Public-Meetingscan>

Public input on the proposed changes will be accepted from April 19 through June 3, 2016. Written comments can be submitted online at the web addresses listed above, provided by mail or by attending a public meeting. All comments must include your name and city.

Comments can be mailed to:

Fishing Regulation Comments:

Wyoming Game and Fish Department  
Attn: Fishing Regulations  
5400 Bishop Blvd.  
Cheyenne, WY 82006

Watercraft Regulation  
Comments:

Wyoming Game and Fish  
Department  
Attn: Regulations  
3030 Energy Lane  
Casper, WY 82604

### Inside the 2016 Angler News:

#### Minnows

Info about baitfish regulations

#### Fishing Outlook

Current status of popular fisheries around the region: Seminoe, Miracle Mile, Pathfinder, North Platte, Alcova, Glendo, 33-Mile Ponds, Bryan Stock Trail, Goldeneye

#### Niobrara Native Fishes

Northern pike invasion threatens sensitive native species near Lusk

# Minnows

## Why the regulations are complex and some proposed changes for 2017

If you fish with live minnows ("live baitfish" is the term used in regulations) you know they are expensive and at times can be very difficult to find. Wyoming's cold, dry climate does not provide abundant ponds brim full of baitfish. In recent years live baitfish dealers have had to rely on wild-caught baitfish for their supply. Due to cost and availability, many anglers seine their own baitfish. Whether you seine or purchase from a bait dealer, if you fish with live baitfish, you know our regulations for wild-caught baitfish are complex. Regulation complexity results from attempting to allow anglers to use live baitfish while preventing potential problems from their use. Potential problems include the introduction of new fish species or disease into new waters. Unfortunately this has already happened in some areas including Brook Stickleback in the North Platte Drainage and white suckers in the Snake and Green River drainages. Disease presence and fish species differ along the course of the North Platte River Drainage in Wyoming. To prevent a disease or fish species from being introduced to a new portion of the drainage the North Platte is divided into four sections for live baitfish use. In 2015 a major change was made in baitfish regulations allowing commercial hatcheries and live baitfish dealers to import fathead minnows from approved commercial sources outside the state of Wyoming. Arkansas has rigorous requirements and inspections for its baitfish industry to insure unwanted fish, plants, invertebrates and associated disease are not in their bait fish hatcheries. One hatchery has applied and met our strict protocols and has been allowed to import fathead minnows into Wyoming. We hope that allowing imports will help address baitfish supply and perhaps the high cost.

Fathead minnows from approved commercial hatcheries can be used wherever the use of live baitfish is allowed and live baitfish dealer receipts are good for 30 days. Allowing the importation has addressed the supply problem in many locations. Cost of live baitfish remains high in Wyoming due to shipping costs to and supply of wild-caught baitfish.

Modifications to some live baitfish regulation are being proposed for 2017 to help clarify and prevent potential problems. One proposal would require dealers to decide if to either 1) deal in baitfish that can be used throughout the state (commercially produced fatheads) or 2) deal in wild-caught baitfish that can only be used in the designated locations. They would no longer be able to sell both from the same business location. Dealers selling wild-caught baitfish could augment their supply with commercially produced fatheads but would sell all with the restrictions of wild-caught. This change would allow us to simplify receipt booklets, simplify record keeping for dealers, and eliminate the unintentional sale and use of wild caught minnows outside the areas they were captured.

Other 2017 regulation proposals require that all live baitfish held by bait dealers and anglers be confined to "aquaria". An "aquaria" could be any indoor or outdoor aquarium, tank, freezer, trough, tub or other container that circulates or aerates water and is isolated from surface waters. Surface waters include ponds, lakes, streams and canals. Although existing regulations and statutes strictly prohibit the stocking, release or escape of baitfish, we know baitfish are sometimes held in live cars and bait buckets in ditches and ponds far from the site of capture. This practice can result in the escape and movement of unwanted species between waters. The proposed changes would require that all baitfish be confined to "aquaria" when not in use, greatly reducing the potential for escape. Please check our web site for all proposed changes and we welcome your input into the process.



*Beginning in 2015 commercial hatcheries and live baitfish dealers were allowed to import fathead minnows from approved commercial sources outside the state of Wyoming. Currently one commercial source outside the state meets our strict protocols to import. Duane Raver/USFWS*



# Fishing Outlook For 2016

## Current conditions for popular regional waters

Our outlook for this year's fishing season is very optimistic. Water storage in the North Platte River Reservoirs is at 136% of average and the snow pack has improved to more than 100% of average with wet heavy spring snow storms. Reservoir levels and stream flows should be very good this season. In addition to our major reservoirs, we are seeing improving conditions in many of our smaller waters too. Goldeneye is one example of the improving conditions.

In this issue of the newsletter you will learn about walleye populations above Casper doing very well and some trout fisheries struggling due to the expanding walleye numbers. We did see some negative impacts due to the low stream flow in the North Platte River last spring and early summer downstream of Casper.

## Seminole Reservoir

Walleye in Seminole Reservoir have been increasing in abundance overall since the regulation was reduced from 20 fish to 6 fish in 2002. The size structure of the population increased for several years after the regulation change and basically stabilized where it is today. Currently, we see large numbers of young walleye produced every 2 or 3 years. Since walleyes grow so slow in this reservoir, it takes them on average 5 years to reach 15 inches. Angler harvest has been sufficient to crop the numbers as they grow past 16 inches and approach 18 inches. While the numbers are reduced, enough survive to reach large sizes that we retain a trophy component to the population (25-32 inches) but numbers of mid-sized walleyes (18-25 inches) are not so high that they have a significant negative impact on the trout population. Given the walleye present, we do have to stock large trout (9-inches) to get sufficient survival of trout to provide a fishery, but without large numbers of walleye larger than 18 inches we have not had to adjust trout stocking rates higher, which comes with considerable expense.



In 2015, we conducted a walleye focused creel survey at Seminole Reservoir during the month of July. Of those interviewed, 245 indicated they were targeting walleye. The average catch rate for these anglers was 0.60 walleye per hour (0.50 fish/hour is generally considered good fishing by fish managers). Anglers reported harvesting 53% of the walleye caught with the average length of a harvested walleye being 14.4 inches.

During 2015, we received 4 separate reports of what may have been burbot caught in Seminole Reservoir. None of the reports were verified as three of them were released, and the fourth amounted to a cleaned carcass at one of the boat ramps which we were unable to locate. Obviously, we are very concerned about the possibility of an illegal burbot introduction into this reservoir. Given the lake is relatively unproductive to begin with (as evidenced by very poor walleye growth rates) an additional predator would further tax the forage base and result in negative impacts to brown trout and walleye. It would also represent an additional predator on stocked rainbow trout and would have additional negative impacts on rainbow survival. We conducted targeted burbot sampling through the ice in January without catching any. We have also begun a targeted burbot sampling program using a type of net called a trammel net, which is far better at catching burbot than the standard floating and sinking gillnets we use to sample trout and walleye. In the meantime, we would ask any angler that has caught or heard of someone catching burbot at Seminole Reservoir to contact the Casper Fish Management crew to report the catch.



## Miracle Mile

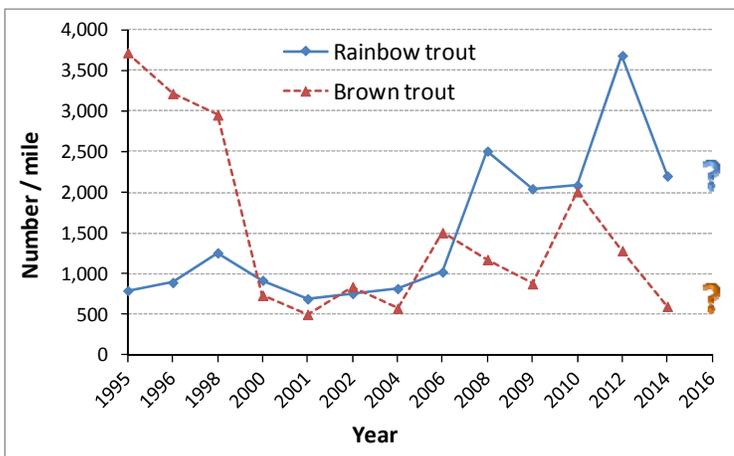
This amazing trout fishery officially lies on about six miles of the North Platte River between Kortez Dam and the confluence of Sage Creek, just upstream of Pathfinder Reservoir. Anglers can fish with bait, lures, or flies and harvest 3 trout per day, or have 3 in possession, one of which may measure 16 inches or larger. Remember to be cautious of stream flows when wade-fishing at the Mile! Operational changes at the power plant can result in rapid increases in water release from Kortez dam.

The trout population was doing well in 2014, although abundance (2,882 fish/mile) had returned to near average numbers, following an all-time high in 2012 (4,967 fish/mile). This occurred after several years of poor recruitment despite stocking approximately 100,000 fingerling rainbows to hedge against it. Total rainbow trout abundance in 2014 was 2,203 fish/mile. On the bright side, the number of age-3+ rainbows (larger than 17 inches; 227 fish/mile) had remained strong since 2012 (132 fish/mile), and a few Snake River cutthroat trout (80 fish/mile) were establishing in the Mile from stocking in Pathfinder Reservoir. The fishing forecast at the Miracle Mile appears good following a single-pass survey conducted in 2015 as a cursory checkup on the fishery. In 2015, both rainbow and brown trout were sampled that measured over 20 inches. A couple Snake River cutthroats were also sampled up to 17 inches. Average relative weights, a measure of how plump fish are for their lengths, were excellent for all trout species. Juvenile rainbow and brown trout were sampled in the 5-7 inch range, which documented some recruitment from the previous year, which was good news.

Stream flows in the Miracle Mile were near average and also appeared supportive of spawning and rearing of juvenile trout – rising and staying high during the spawning period. These observations showed that habitat conditions and forage availability had remained beneficial for growth and survival of trout at the Mile since 2014. In fact, anglers contacted produced valuable data showing rates of success and overall catch rates exceeding management objectives for the Mile in 2015. A thorough update on the status of the Miracle Mile fishery will come late in 2016, after the Casper Fish Management Crew conducts biennial multiple-pass surveys in July 2016 to monitor the condition of trout and update abundance estimates.



Brown trout (top), rainbow trout (middle) and Snake River Cutthroat (bottom) are three species commonly caught at the Miracle Mile.



Trout population estimates for the Miracle Mile since 1995



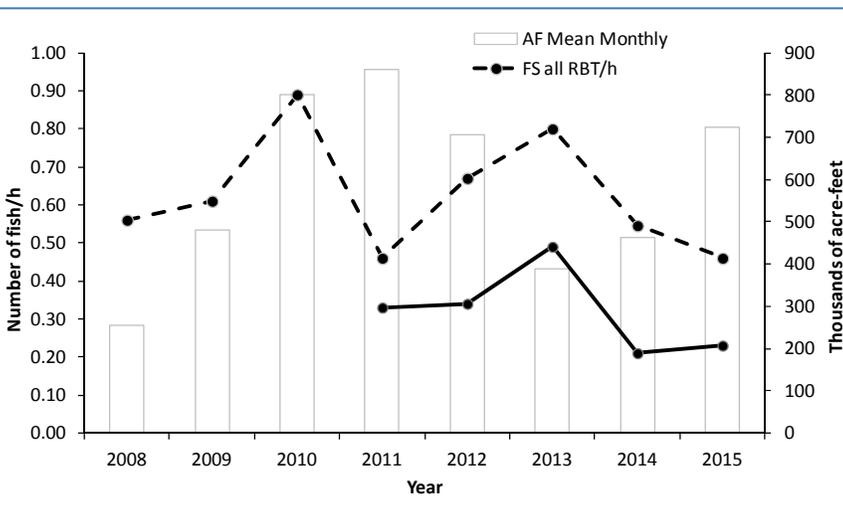
## Pathfinder Reservoir

The water level at Pathfinder Reservoir was about 135% of average during spring gill net surveys in late May 2015, and is predicted to be similar, or possibly a bit closer to normal, for spring 2016. Snowmelt in the upper North Platte basin is predicted to end around or slightly above average in 2016.

Annual spring gillnetting at Pathfinder Reservoir in 2015 indicated that the average size of rainbow trout at Pathfinder was high (17.9 inches), but numbers of trout continued a sharp decline that began in 2013. The overall gill net catch rate for rainbows dropped from 0.80 fish/net-hour in 2013 to 0.46 fish/net-hour in 2015. Rainbow trout in the 10 to 13 inch range were nearly absent in gill net catches over the last two years. These small rainbows normally caught in spring gill net surveys come from the 100,000 catchable-sized (9 inch) fish stocked every fall. They grow quickly to about 12 inches by the following spring. Anglers have also reported a decline in their catch rates during creel surveys, from 0.49 fish/angler-hour in 2013 to 0.23 fish/angler-hour in 2015.

Although anglers may be quite happy with the size and plumpness of rainbow trout they currently catch at Pathfinder, surveys suggest that rainbow trout will be harder to come by over at least the next couple years. Particularly high predation from walleye is strongly suspected to explain the low survival of rainbow trout stocked at Pathfinder during recent years.

The brown trout population in Pathfinder appeared relatively unchanged in 2015. Most browns ranged from 15-18 inches, with a fair number over 20 inches sampled in the fall. Pathfinder still produces trophy browns too, proven by a 14 pound behemoth sampled in 2015. This fish measured 28.5 inches in length and was at least 11 years old! However few small browns were sampled for the second year in a row. No 6-14 inch browns were sampled in 2015. This paralleled an overall decline in brown trout abundance detected at the Miracle Mile in 2014. Although these observations indicate a recent unknown limiting factor on spawning and recruitment of brown trout in the Pathfinder-Miracle Mile system over recent years, some juvenile browns were sampled in the Miracle Mile in 2015. This was good news that suggests that the brown trout population will rebound from similar lows in the past.



Trends in rainbow trout catch rates (fish/hour) during spring gill net surveys (dashed line) and for anglers interviewed during spot creel surveys (solid line) from 2008 to 2015. White bars show mean annual reservoir storage in thousands of acre-feet.



Floating gillnet used to sample trout



Typical 3-year old rainbow from Pathfinder

The cohort of Snake River cutthroat stocked into Pathfinder Reservoir during 2011 continues to survive very well, although they have not grown as fast as rainbows typically do at Pathfinder. However, they reached an average length of 17 inches in 2015. Trying something new – a new technique or fishing in new areas may discover a way to target these beautiful fish.



Walleye fishing at Pathfinder should be excellent in 2016 with abundant “eater-sized” fish in the 12 to 20 inch range as well as ample opportunities to catch trophy fish. From 2013 to 2015, the overall catch rates for walleye in our fall gill net surveys have held near an all time high observed in 2014 (0.9 fish/net-hour). The long-term gill net survey trend shows that the walleye catch rate in 2015 was more than double the catch rate from 2008. Strong cohorts of age-3 and age-4 walleye were present in 2015, boosting numbers of 15 to 20 inch fish from 11% to 21% of the population in 2015. Higher reservoir levels during recent years have benefitted walleye recruitment and body condition. Take advantage of the strong 2012 and 2013 cohorts of walleye at Pathfinder Reservoir and harvest these fish! Enjoy them as table fare and help manage your fishery at the same time!



*There are plenty of nice “eater” size walleye in Pathfinder right now*

Numbers of large walleye displayed a slightly opposite shift, with a lower percentage of the walleye population that measured 20 inches and larger in 2015 (10%) versus 2014 (21%). Large walleye are still surprisingly common at Pathfinder. Long-term gill net trend data shows that the catch rates of large walleye were 4.5 times higher in 2014 than 2008, and remained 2.2 times higher in 2015 than 2008.

## 12 Walleye Creel Limit Proposed for Pathfinder in 2017

Walleye established in Pathfinder Reservoir in the 1980’s and, for over 30 years, the Casper Region Fisheries Management Crew has attempted to provide diverse fishing opportunities by balancing the trout and walleye fisheries in the reservoir. To continue to provide the diverse balanced fishery, the Casper Region Fisheries Management Crew proposes raising the walleye creel limit from 6 to 12 fish at Pathfinder Reservoir in 2017. Walleye growth at Pathfinder is exceptional between ages 4 and 5, when walleye here approach 20 inches and can prey upon stocked rainbow trout (approximately 9 inches for Pathfinder). Stocked rainbow trout are expensive walleye forage and increased predation on them has negatively impacted the trout fishery as the walleye population has grown.

Trout fishing continues to be popular at Pathfinder despite complaints about poor fishing compared to years past. Angler catch rates for trout have declined 47%, and gill net catch rates have declined 43% since 2013. In the same time frame our angler interviews found that 55% of anglers still targeted trout, 11% were fishing for anything, and 34% targeted walleye. This shows that many Pathfinder anglers continue to desire a trout fishery. Casual anglers, shore fishermen, and families with children can catch trout more easily than walleye.



*A large Pathfinder Walleye is measured before being released*

The Wyoming Game and Fish Department would like to try to rebalance the rainbow trout and walleye fishery at Pathfinder. A regulation designed to modestly reduce the walleye population can help make this happen and still provide a desirable walleye fishery. Further, rapid overfishing of walleye at Pathfinder would be unlikely. In the last two years of excellent walleye fishing at Pathfinder, only 10% of successful walleye anglers (caught at least one walleye) ended up getting their limit of six fish. An even smaller percentage of anglers would achieve catching a limit of 12 walleye, but their success would help manage the fishery.

The public comment period for changes to the fishing regulations will be open from April 19<sup>th</sup> to June 3<sup>rd</sup>. Anglers are encouraged to weigh-in with their opinions online or in person at public meetings. More information can be found at:

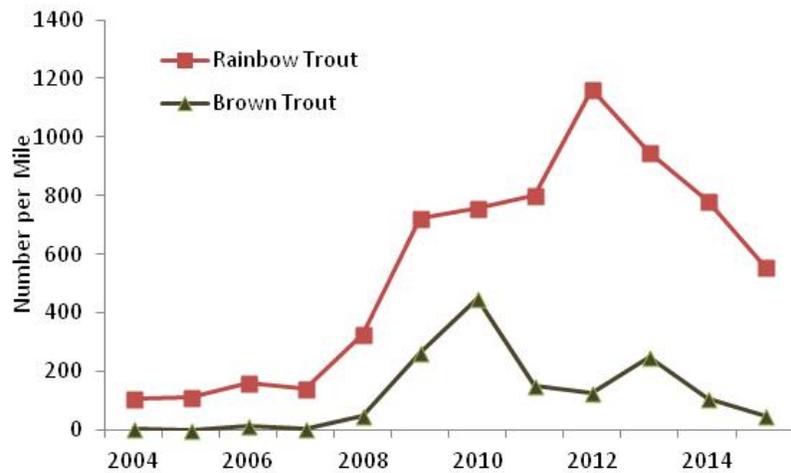
<https://wgfd.wyo.gov/2017-fishing-regulations>

## North Platte – Cardwell

In 2015, the trout population in Cardwell (Fremont Canyon) was 605 fish per mile or 1,138 pounds per mile. Once again, a significant decrease was evident in the number of fish per mile with the overall trend in abundance being downward since 2012. The declining trout population is being driven by declining natural reproduction. Flows in excess of the 75 cfs base flow are moving gravel out of the spawning beds we created and reducing the amount of spawning habitat available to trout.

The pattern of reduced recruitment is not all doom and gloom however, actually the spawning enhancement project had better than expected results and resulted in the high populations seen for several years. Since a stream has a finite amount

of trout it can produce, we saw declining condition, growth rate and maximum size with the high populations. Now that the number of trout is decreasing, we are seeing better condition and growth. We plan to continue to monitor the situation and expect to see an increase in trophy size trout with declining populations. If necessary, we will supplement the gravel supply again if populations fall below objectives.



*Annual population estimates for rainbow and brown trout in the North Platte River - Cardwell.*



*Brown and rainbow trout during sampling at Cardwell*



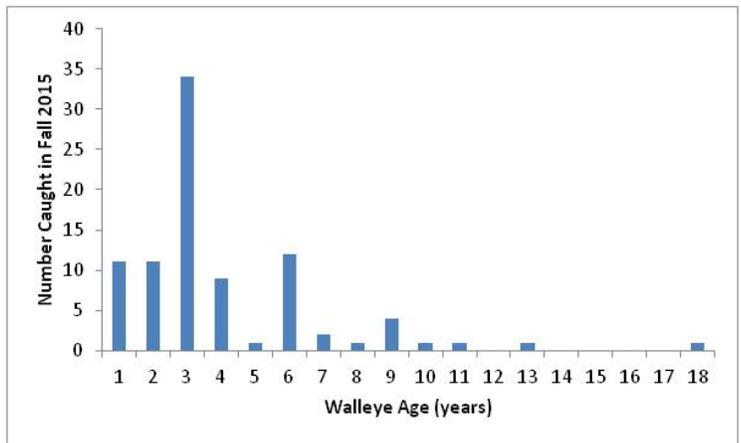
## Alcova Reservoir

We are still struggling to meet our management objectives for trout abundance and angler success at Alcova Reservoir. Due to budget constraints, stocking was reduced considerably in 2014. As a result our netting surveys in 2015 showed far fewer trout in the lake than we would like to see. Luckily, the rainbows stocked in 2012 had excellent survival and those fish are carrying the trout fishery. As a result of the large number of older trout, the average size of rainbows has increased. Unfortunately, rainbow trout are a short-lived fish. Therefore we expect to see catch rates decline through 2016. We have started a new study to look at different species of trout in terms of how well they survive, grow, escape walleye predation and return to anglers. In 2014 and again in 2015 we stocked 15,000 kokanee salmon. We hope to stock kokanee for at least 5 years in a row to allow for a good evaluation of survival, growth and return to anglers. We heard a few reports of anglers catching kokanee in 2015 and we captured a few in our gill nets (which is a good sign since our gill nets don't really target kokanee). The kokanee were running around 14 inches last fall at 1.5 years old, so we are optimistic that they will reach 18-20 inches or more by the time they spawn in several years. The second part of our study kicked off this past fall when we stocked 15,000 Snake River cutthroat and 15,000 Bear River cutthroat, in addition to rainbows. Again, we hope to stock cutthroats in addition to rainbows for a 5-year period in order to gauge survival, growth and return to anglers. We will be collecting creel data throughout the year looking for cutthroat and kokanee in angler creels. At the end of the evaluation period we will have better information in order to tailor our management and stocking to provide the best fishery possible at this popular lake.

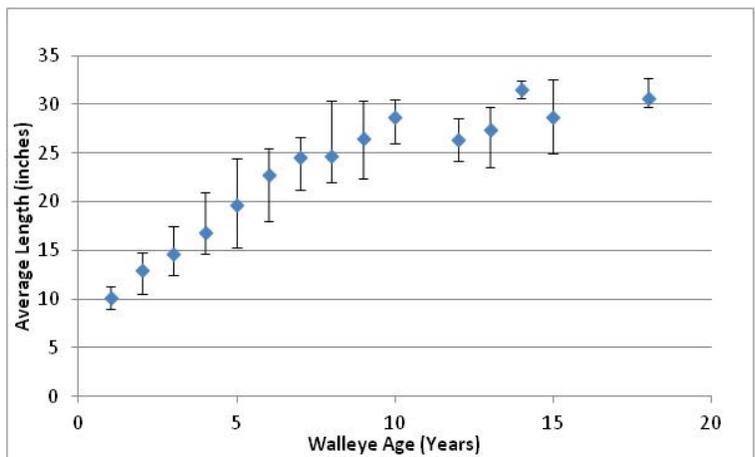
The walleye population in Alcova is currently in a holding pattern where we are not seeing increases or decreases in abundance. The walleye population in 2016 will be dominated by 4 year old and 7 year old fish with quite a few 10 year old walleye present as well. The incoming year classes which will be age 2 and 3 this summer looked to be about average. The 4-year old walleye will range from 15-20 inches, the 7 year old fish are in the 25-inch range and the 10 year old walleye will be 26 to more than 30 inches in length. What this should mean for walleye anglers is that in 2016 the average size of walleye caught will be bigger than the last several years and the chance at a trophy walleye is excellent.



10-inch kokanee in July 2015 at Alcova



Number and age of walleye captured during our fall gillnetting sample at Alcova Reservoir.



Average length of walleye at each age (diamond) with the range of observed values (error bars) from Alcova Reservoir using pooled data since 2012.

## North Platte – Gray Reef

In fall 2015 we conducted population estimates at Robertson Road and Big Muddy Bridge. At the Robertson Road reach, we estimated 1,055 trout per mile of which 110 fish per mile are brown trout, the rest are rainbows. Currently, the population in this reach is meeting our population objective for at least 1,000 trout per mile. Downstream at the Big Muddy reach is a different story. We measured a steep decline in population since the last estimate was conducted in 2013. In 2015, we estimated 249 trout per mile which is significantly below our objective for this reach of 500 trout per mile. The reason for the decline in trout is due to the fact that this reach is almost entirely dependent upon stocked trout since trout do not successfully reproduce below Casper. Due to budget cuts, we were unable to stock this reach in 2014, as a result, one-year-old rainbows were nearly absent from the reach, accounting for the sharp decline in numbers. We did stock this reach again in 2015 and stocked in spring 2016. We expect the population to be at or above objective this fall once again.

Water temperatures last June became elevated in the river below Sechist due to lower than normal flows and above average air temperatures. We measured water temperatures in excess of 80 degrees in town and at Big Muddy. These high temperatures certainly caused stress and likely even some mortality, although thankfully we did not see any large fishkills. We monitor river conditions each summer and put out information through media outlets warning anglers of high temperatures with recommendations on practices to limit unnecessary mortality. As a general rule of thumb, trout anglers should always carry a thermometer in the summer and limit the number of fish they catch and release when water temperatures are above 68 degrees. Do not attempt to catch and release trout at water temperatures above 73 degrees as mortality increases greatly.



## Glendo Reservoir

Walleye fishing at Glendo Reservoir is falling into a cyclic slump and will take a few years of good recruitment to recover. Water levels have been good during recent years, but spring spawning conditions may not have been conducive to egg and fry survival. Glendo was 142% of average storage during sampling in August 2015. Overall abundance, indexed by standardized August gill netting, declined sharply from 1.98 fish/net-hour in 2014 to 0.74 fish/net-hour in 2015. The percentage of walleye measuring from 10 to 15 inches increased from 15% in 2014 to 36% in 2015. A prominent cohort of age-2 fish (about 13 inches) and age-3 to age-5 fish (15 to 18 inches) dominated the population structure in 2015. This differed from 2014 when smaller, young fish were not as common. Age-1 walleye (8 to 10 inches) were nearly absent in 2013 and have remained scarce the last couple years. The return of some age-1 and age-2 walleye, however slight, was a good sign for the future at Glendo. A few large walleye were also sampled, up to 27.8 inches and 6.4 pounds. The percentage of the walleye population measuring at least 15 inches continued increasing from 2012 (57%) clear through to 2015 (90%). A measure of 90% is very high and reflects a population of walleye that lacks young fish, in this case, due to several years of poor recruitment.

Wyoming Game and Fish supplemented the adult gizzard shad population at Glendo with fish from lakes in western Nebraska in May 2015. Adult gizzard shad provide the primary forage base at Glendo Reservoir by spawning prolifically in stages each summer, creating massive cohorts of small fish. Adult gizzard shad aren't very hardy and most do not survive a typical Wyoming winter. Normally, this is a convenient natural control on their population growth. Enough adults typically overwinter at Glendo to repopulate the reservoir and create a forage base. Unfortunately, the exceptionally cold winter of 2013-2014 prolonged ice cover at Glendo (60 days of ice cover is about all shad can handle) and resulted in a nearly complete loss of the gizzard shad population. It was suspected that far too few adults remained to rebuild the population and provide ample forage to support the walleye fishery in the near term.



*Nebraska Game and Parks helped Wyoming Game and Fish import gizzard shad to Wyoming.*

Wyoming Game and Fish Fisheries Biologists and Fish Culturists worked with the Nebraska Game and Parks (NGP) to collect and import shad for Glendo and Keyhole reservoirs. Weather was uncooperative in May 2015 but NGP and WGFD personnel persevered and imported a mere 210 adult shad for Glendo and 70 for Keyhole. The end result was astounding, and large bait-balls of shad were observed at both reservoirs by late summer. Small gizzard shad had replaced other prey items in walleye stomachs as the dominant forage items. At Glendo, the plumpness of walleye bumped up from a value of 85 (fair) in 2014 to 90 (good) in 2015, which will promote growth, survival, and spawning potential. Fisheries Biologists in the Casper and Sheridan regions plan to return to Nebraska to import more adult gizzard shad in 2016 with help from NGP personnel to ensure enough spawning adults remain to produce ample forage in Glendo and Keyhole in 2016. Gizzard shad spawned in 2015 will not reach maturity and begin spawning until age-2 in 2017 or age-3 in 2018 at Glendo and Keyhole reservoirs.





*Due to limited reproduction, catfish in the region depend on stocking to maintain numbers. We get young catfish (top picture) from other states in trade for trout. The stocked catfish typically do well in the North Platte system (bottom picture).*

Fishing for catfish at Glendo in 2016 will be similar to previous years. Abundance of channel catfish during August gill netting was similar in 2015 (0.07 fish/net-hour) to 2014 (0.10 fish/hour). A small group of 10 to 11 inch fish (age-2) showed that some wild catfish recently recruiting to the fishery, which was positive, but not enough to improve catch rates. A few larger, older fish measuring from 20 to 27 inches were also likely wild. Some very nice sized catfish were also sampled in 2015, up to 28 inches in length, 9 pounds, and 16 years old. Catch rates of channel catfish in gill nets remained steady at this low level over the last ten years, while the ability of Wyoming Game and Fish to acquire channel catfish was sporadic. The channel catfish population was more abundant (gill net catch rates near 0.5 fish/hour) when supplemental stocking was consistent. The good news is that the WGFD acquired channel catfish from out of state in 2015 and stocked nearly 50,000 fingerlings throughout the system from Glendo Reservoir upstream to just below Dave Johnston power plant near Glenrock. These fish should establish a strong cohort and provide angling opportunities for many years to come. Even better news is that more channel catfish are on the schedule for importation in spring 2016 and will also bump up numbers in the fishery.

The panfish fishery at Glendo Reservoir remains marginal, but fishing for yellow perch should improve in 2016. Yellow perch abundance continued to rebound substantially, from an all-time low of 0.06 fish/net-hour in 2013, to 0.54 fish/net-hour in 2015. Water levels appeared high enough at Glendo in 2013 and 2014 to support good spawning and rearing conditions for perch in flooded vegetation. In addition, abundant forage for walleye returned with gizzard shad in 2015, shifting predation away from perch. Anecdotally, yellow perch replaced gizzard shad as the most frequently observed prey item in the stomachs of walleye in 2014. Yellow perch provide good forage for young walleye at Glendo before gizzard shad begin spawning in early summer, in addition to providing good table-fare themselves.

### 33-mile ponds and J-U, Texaco

The past several springs have been kind to the ponds north west of Casper known collectively as the 33-mile ponds. Ponds that are currently supporting fisheries include Big Muddy (rainbow, cutthroat and largemouth bass), Sheepherder (rainbow and largemouth bass), Camelhump (rainbow and cutthroat), Greasewood (rainbow and cutthroat), Saltbush (rainbow and cutthroat) and Buffalo Bones (cutthroat). Water conditions look good again for 2016 so we will plan on stocking all the above mentioned ponds. We will have some brook trout available as well as rainbow trout this year so don't be surprised to catch a brookie out there this fall or next year. If you would like more information about these fisheries or assistance locating them, call the Casper Regional Office.

J bar U and Texaco Reservoirs are small reservoirs enrolled in the walk-in fishing program just east of I-25 near Kaycee. Both reservoirs lost their fish populations several years ago due to low water conditions and dam maintenance. We have since been re-building these fisheries and have stocked black crappie, largemouth bass and golden shiners. Green sunfish are present in both and we plan to stock channel catfish this spring.



## Bryan Stock Trail Pond (Lake McKenzie)

We are in the process of trying to improve fishing at this popular Casper lake. Each spring we stock 3,000 8-inch trout to improve the fishery. In addition, largemouth bass, bluegill, green sunfish and channel catfish have been stocked in the past to develop a warmwater fishery. Recent sampling has shown that the trout stocked in the spring are not found in the fall. Further, the bass and sunfish populations are a mere fraction of what they should be, given the prolific nature of these species. The smoking gun in this instance appears to be a healthy population of walleye. Walleyes have been in this lake for quite some time due to an illegal introduction likely in the 1980's. The walleye population appears to have recently expanded with evidence of natural reproduction evident in our samples. Further, when we looked at stomach contents of walleye, the most common prey items were largemouth bass, bluegill and green sunfish. This serves as yet another example of how illegal introductions can ruin an entire fishery. We have increased our trout stocking to twice a year now and also began requesting brood cull rainbows which are larger (16-20 inches) and will be able to escape walleye predation. We transplanted adult crappie from Keyhole Reservoir hoping the adults would survive and begin to reproduce. We also supplemented the largemouth bass population stocking 5,000 last summer along with 500 channel catfish.



*Stocking brood cull rainbows through the ice in January*

## Goldeneye Reservoir

The fishery in Goldeneye is well on its way to recovery following the winterkill during the 2013-2014 winter. Good spring moisture resulted in the filling of the reservoir in 2014, 2015 and it is looking good again this year. We sampled the lake in early April, 2016 and found the stocked rainbows, cutthroat and brook trout doing very well. The rainbows and cutthroat ranged from 14 to 19 inches and the brook trout were running in the 14 inch range. Given the extremely high growth rates, the rainbows will begin to surpass 20 inches by June and we expect some trout over 25 inches and 7 pounds by spring 2017, given past growth rates.



*A nice cutthroat from Goldeneye in April 2016*



## Niobrara Native Fishes

Wyoming Game and Fish Department Fisheries Biologists manage native nongame fish, as well as sport fish. We are statutorily mandated to manage “all wildlife” which includes many small lesser-known fishes, including some that are found in only a few places. The Niobrara River drainage begins in Wyoming, just west of Lusk. It’s clear, slow moving water choked with aquatic vegetation and emerging cattails resemble more of a swamp or meadow rather than the typical images that come to mind when thinking about a “river.” The Niobrara is no doubt a river after



*Plains topminnow*

crossing the Wyoming border and gathering tributaries in western Nebraska. Nevertheless, the aquatic and stream-side habitat in the Niobrara drainage are largely unimpacted by human activities and the stream harbors an intact, native fish population including several fish considered species of greatest conservation need in Wyoming, including the brassy minnow, finescale dace, Iowa darter, northern pearl dace, and plains topminnow. This is the only place Wyoming has northern pearl dace and the most secure of only two places where we have finescale dace in the state. Other native fishes here include creek chub, fathead minnow, longnose dace, central stoneroller, and white sucker.

The Wyoming Game and Fish Department has studied the Niobrara River fish community and habitats intensely in the past using federal State Wildlife Grants and continues to return periodically to check up on the fish populations. Native fish have faced two major challenges in recent years: a major flood in early 2015 and the invasion of northern pike. A severe storm in early June 2015 swept across Niobrara County, producing massive and powerful flooding, described as a 500-year event. The upper and lower Niobrara River reaches were impacted by flooding from the storm. The town of Lusk was devastated by the flood. Debris lodged in trees and fences high above the bank full level of the Niobrara River was an obvious remnant of the massive flooding that occurred throughout the drainage. The stream channel and aquatic habitat fared well and remained fairly intact. The native fish community high in the drainage, however, was sparse and many species were not found that were well known here. Surely these endemic fishes have experienced many major floods, some likely larger, in the past. Game and Fish Biologists will continue monitoring the native fish populations to see how they recover.

At the lower end of the drainage, near the Nebraska border, the fish community was fairly intact in 2015 but has faced a new threat in recent years – the invasion of northern pike. Northern pike were known from the Niobrara drainage in Nebraska, and it was feared that they may move upstream into Wyoming following surveys of the drainage in 2008-2009. They were discovered in early 2015 by Wyoming Game and Fish Fisheries Biologists from the statewide Aquatic Assessment Crew, working on prairie streams across eastern Wyoming. Some native fishes in the Niobrara are considered “predator-naïve” such as the finescale dace, brassy minnow, and northern pearl dace. Population impacts from the introduction of a voracious fish eater like northern pike are unknown, but anticipated to be negative. Game and Fish Biologists will continue to keep an eye on the native fishes in the Niobrara and attempt to remove northern pike with electro-fishing gear and nets in 2016 to see if the population can be controlled.



*A northern pike from the Niobrara River*



*A northern pike's stomach contents included northern pearl dace, plains topminnow, and other native fish.*

