

2014 Edition



# Laramie Region Angler Update



*“Conserving Wildlife - Serving People”*

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*The moments our agency seeks to create for hunters, anglers and wildlife enthusiasts wouldn't be possible without the active participation of landowners, conservation groups, industry agriculture, retailers, outfitter and guides, each and every one of you, and so many other partners. Thank You*

**Forever Wild Families Program**

The Forever Wild Families program is coming to Laramie. The program harnesses the power of family and community to attract new hunters and anglers so they can start creating their own Moments. Forever Wild Families offers a series of customized outings for those with limited hunting or fishing experience. The workshops involve entire families, who remain in the program until they graduate. The program lasts an entire year, in which time families participate in intensive learning sessions that teach the skills necessary to safely and ethically pursue hunting, fishing, and other forms of outdoor recreation on their own. Workshops are tailored to meet the families' needs. In the second year, families are paired with mentors and continue more advanced fishing, hunting and outdoor activities. The events are free, except for the price of hunting and fishing licenses. Don't miss out on this life-changing opportunity, space is limited. If your family is interested in participating, or you know of a family that is, please contact [Tasha.Sorensen@wyo.gov](mailto:Tasha.Sorensen@wyo.gov) or [Robin.Kepple@wyo.gov](mailto:Robin.Kepple@wyo.gov).

**2014-2016**

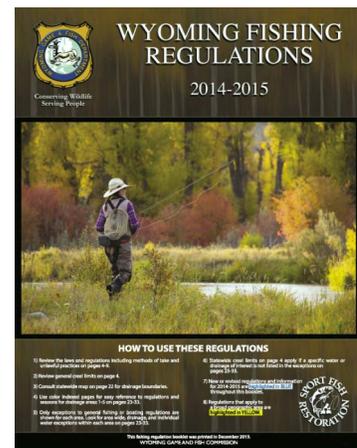
***Fish Regulations Changes in Laramie Region***

Lake Hattie and Wheatland Reservoir #3 in the Laramie Region were added to the Special Winter Ice Fishing Provision in 2014. The Special Winter Ice Fishing Provision (Page 6 in Fishing Regulations) allows the use of up to six lines during the ice covered period. When using more than two lines the angler's name must be attached to each line, pole, or tip-up. In addition the angler must not be more than 300 yards from all lines.

Within Area 5, which includes the Laramie and Casper Fisheries Management Regions brook trout are now included in the Trout Category for Lakes. This allows anglers to take home up to six trout (includes brook, brown, cutthroat, grayling, golden, rainbow, salmon, splake and other trout hybrids) from Area 5 Lakes. At Area 5 streams anglers can still harvest up to 16 brook trout.

**Special points of interest:**

- Wyoming's Free Fishing day is Saturday June 7 2014!
- Aquatic Invasive Species Update
- What's PAS?
- Restoring habitat within streams and rivers
- Look for WGFD on Facebook and YouTube!



## *TU donation benefits Meeboer Lake*

A popular fishing lake received some much-needed improvements thanks to help from the Laramie Valley Trout Unlimited Chapter.

Meeboer Lake, located 10 miles west of Laramie, is a natural, shallow depression with an average depth of only 5.7 feet. This makes the aquatic community susceptible to winterkill. Winterkill occurs when fish suffocate from lack of dissolved oxygen. When snow and ice cover a lake in winter, sunlight often cannot reach the aquatic plants growing in the water. The plants respond by producing less oxygen. If the vegetation dies from lack of sunlight, the plants start to decompose, which uses even more oxygen. When oxygen depletion becomes severe enough, fish die. Winterkill can have devastating effects on fish populations and fishing quality.

Meeboer Lake is a very productive lake and a popular fishery. Around 25,000 six-to-seven-inch rainbow trout are stocked annually in the spring, and by September there are a lot of 16-inch fish in the lake. If it doesn't winterkill there can be 20-inch fish by the next spring.

Meeboer Lake has experienced winterkill events seven times since 1998, with the most recent occurring in 2012. Bottled oxygen systems were installed in 1999 to help prevent winterkill, and worked well until 2006. Mild winters during this time helped fish survive the winter. Continued overwinter survival of fish created an outstanding fishery by 2006, when the average length was 20.3 inches and average weight 4.4 pounds. But due to severe winter conditions, the bottled oxygen system failed to prevent winterkill in 2007. With bottled oxygen prices rising, it was decided to install a solar aeration system in the fall of 2007. The solar aeration system has prevented complete winterkills, but the majority of stocked fish are still not surviving. Meeboer Lake has partially winterkilled from 2009 to 2012. The Laramie Fisheries Management Crew determined that a new aeration system was needed.

The Laramie Valley Trout Unlimited Chapter stepped up to help this fishery with \$35,000 to pay for the equipment and electrical service installation. The new aerator system includes a four-compressor, 12-diffuser system that is powered by supplied electricity and has been in operation 24 hours a day since being turned on in January 2014. The Wyoming Game and Fish Department is paying for the monthly electrical service.



*Laramie Valley TU Chapter members hook up the air supply hoses at Meeboer Lake*

The current solar aeration systems at Meeboer Lake were relocated to Gelatt Lake and Alsop Lake. Due to Meeboer Lake's size, this new system is a benefit over the solar aerator systems which stopped working during the day to recharge. Eleven volunteers from Laramie Valley Trout Unlimited, along with Wyoming Game and Fish Department fish biologists, installed the equipment in October 2013.



*Meeboer Lake rainbow trout that had survived two winters*

## *Laramie Plains Lakes Update*

All of the trout in the Laramie Region Plains Lakes are reared and stocked by Wyoming Game and Fish Department fish hatcheries. In order to make sure these valuable fish are being used effectively, biologists use a number of methods to evaluate the management of each lake. Fisheries biologists use biological metrics such as relative abundance from netting, growth rates, condition or plumpness and fish lengths to evaluate the management of a fishery. Of equal importance are the measurements of angler catch rates and satisfaction. Fishery biologists use Proportional Angling Success or PAS to determine the percentage of anglers who have catch rates at or above a specific level. For example a  $PAS_{0.5}$  would measure the percentage of anglers who caught more than 0.5 fish for each hour of angling. A 0.5 fish per hour catch rate has been a normal standard in the Laramie Region. The target or expected PAS number is based on the pounds of fish stocked per lake surface acre. When used in combination with biological netting data better management decisions can be made.

### Results

**Lake Hattie:** From April through June, 2013, fisheries workers interviewed 281 anglers. Most were bank anglers. During these months 15% of anglers caught more than 0.5 fish per hour ( $PAS_{0.5} = 15$ ). People fishing from boats were more successful with 55% catching at least 0.5 fish per hour ( $PAS_{0.5} = 55$ ). Ten percent of bank anglers caught more than 0.5 fish per hour ( $PAS_{0.5} = 10$ ). The average length of rainbow trout anglers kept was 18.1 inches.

**Gelatt Lake:** With the winterkill during 2012-2013 not as many people fished Gelatt Lake, but those that did had good success, once fish stocked in April reached catchable size in May/June. Around 28% of anglers experience a catch rate of at least 0.5 fish per hour ( $PAS_{0.5} = 28$ ). An additional aerator was installed in 2013 and continued annual stocking of fish will lead to good catch rates in 2014.

**Leazenby Lake:** About 10% of anglers caught at least 0.5 fish per hour from April through June ( $PAS_{0.5} = 10$ ), which was lower than expected. Biological netting data indicates a healthy population of game fish.

**Alsop Lake:** Alsop Lake is managed with a special regulation that allows fishing with flies and lures only. Only two fish can be kept and they must be at least 16 inches. Almost 40% of anglers experienced a catch rate of at least 0.5 fish per hour ( $PAS_{0.5} = 38\%$ ) and average length of fish caught was 18.3 inches. If the addition of an aerator and periodic water purchases continue to help avoid winter kill the lake should provide large fish this spring and into the future.

**Meeboer Lake:** Meeboer winter killed during the winter of 2012-2013. Anglers did not return to fishing the lake until the fall of 2013 even though 12-14 inch fish were available. See a related article on Page 6 on the installation of a new aeration system at Meeboer Lake.

**Twin Buttes:** Both biological netting data and PAS measurement confirmed an excellent fishery at Twin Buttes in 2013. Over 30% of anglers caught at least 0.5 fish per hour ( $PAS_{0.5} = 31\%$ ) and average length of rainbow trout caught was 17.1 inches. The Twin Buttes fishery is returning to levels experienced prior to the drought of the 2000's.

**Sodergreen Lake:** Sodergreen Lake is managed differently than other Plains Lakes. Very low winter water levels dictate the use of catchable size fish and physical factors make it less productive than surrounding lakes. Almost 40% of anglers caught at least 0.5 fish per hour ( $PAS_{0.5} = 39\%$ ) and average length of fish kept by anglers was 11.6



*Successful day at Lake Hattie*

## *Looking for a Lunker?*

The largemouth bass is an important game species in warmer lakes and ponds within Wyoming. Largemouth bass can successfully reproduce in Wyoming waters with the right habitat. They are also stocked by the Wyoming Game and Fish Department who obtain them from out-of-state hatcheries who trade fry, fingerling, or juvenile largemouth bass for trout eggs from our Fish Culture Section.



There are a number of largemouth bass waters within the Laramie Fisheries Management Region. A number of these were sampled in 2013 using boat electrofishing at night, when largemouth bass are near the shoreline and susceptible to capture. Laramie Fisheries Biologists collect necessary information from captured largemouth bass such as length, weight, relative abundance, age and growth information to help evaluate management strategies, such as stocking, regulations, or habitat manipulation. Some of the waters sampled in 2013 were Hawk Springs Reservoir, Lake Absarraca, Packers Lake, Rock Lake, and Sloans Lake. Information pertaining to each water can be found on our online Fishing Guide at: <http://wgfd.wyo.gov/web2011/fishing-1000428.aspx>



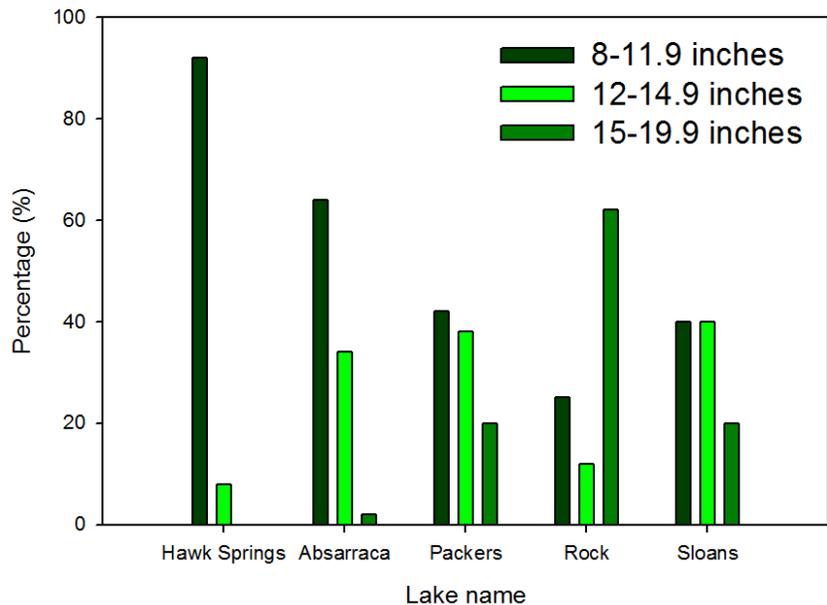
*Laramie Fisheries Biologists use an electrofishing boat at night to evaluate bass fisheries*

In general, Lake Absarraca has an abundant largemouth bass population with most bass <12 inches. Packers Lake, Rock Lake, and Sloans Lake have more largemouth bass >12 inches available for bass anglers. Most largemouth bass within Hawk Springs Reservoir are around the face of the dam and are <12 inches.

Below is a figure of the percentage of largemouth bass captured  $\geq 8$  inches within size categories by lake. For example, at Hawk Springs Reservoir 92% of largemouth captured were 8-11.9 inches and 8% were 12-14.9 inches.



*Sloans Lake largemouth bass*



## *Aquatic Assessment Crew* by Bobby Compton (AAC Fish Biologist)

Based out of the Wyoming Game and Fish Department Regional offices, regional fisheries biologists manage and monitor sport fisheries and native non-game fish populations. In addition to regional fisheries biologists, the Department has a crew of biologists that work throughout Wyoming. The Aquatic Assessment Crew is composed of two contracted herpetologists, one contracted native mussel biologist, and three fisheries biologists. The crew assists fish management regions with management of important sport fisheries and leads efforts to describe and conserve populations of native fish, amphibians, reptiles, mollusks and crustaceans. Some recent herpetology projects include monitoring boreal toad populations around the State, Wyoming toad populations near Laramie, Colombia spotted and wood frog populations in the Bighorn Mountains, and reptiles in northern Wyoming, while the mussel biologist is surveying native mussel populations in rivers within southern Wyoming. One fisheries biologist in Casper leads efforts to use boat hydroacoustic equipment (underwater sonar) to estimate reservoir fish populations and map lake bathymetry. The other two fisheries biologists, based in Casper and Laramie, work primarily with native fishes. Some of their projects include assessing mountain whitefish populations in western Wyoming, monitoring invasive northern pike in the Little Snake River, and studying larval sauger in the Bighorn River, as well as assisting regional biologists in southwest Wyoming restore populations of native bluehead sucker, flannelmouth sucker, and roundtail chub.

A new project initiated by Aquatic Assessment Crew fisheries biologists aims to gain a better understanding of the distribution of native fishes in prairie streams



*Aquatic Assessment Crew sampling for northern pike on the Little Snake River.*

of southeast Wyoming, and how intermittent stream flows affect those populations. With help from regional biologists in Casper and Laramie, fish populations and water flows will be monitored in the Laramie River, Niobrara River, Lodgepole Creek, and Horse Creek. Aerial surveys will be used to track the changes in river flows and identify areas of intermittency, and fish surveys will be conducted to study their distribution within these intermittent reaches to better understand the seasonal distribution of prairie stream fishes in these drainages. This is a good example of regional and statewide fish biologists working together to describe and conserve populations of native fishes such as pearl dace, plains topminnow, brassy minnow, and Orangethroat darter.



*Plains topminnow*

### Meet your native fish

The plains topminnow is found in the North Platte, South Platte, Niobrara, and Cheyenne River drainages in Wyoming. It is a small fish that can reach a length of up to 3 inches. Its color is olive green above, paler below, with a mid-dorsal dark stripe. Its bottom fins are edged with red, with the caudal fin mostly red in spawning males. Plains topminnow prefer shallow water in clear streams with sand or gravel substrate and considerable vegetation. It can also thrive in backwaters with significant vegetation. Little is known about the life history of this species. Conservation of this species within its native range in Wyoming is important to help maintain the diversity of native fishes in the state.

## *Decreasing bank erosion (one size does not fit all)* by Christina Barrineau (Aquatic Habitat Biologist)

As the Laramie Region Aquatic Habitat Biologist, I have been involved in a variety of habitat projects over the years. I can surely say that “one size does not fit all” when it comes to improving aquatic and riparian habitats. Each project requires its own prescription.

One of the most common aquatic habitat “problems” people are interested in fixing is bank erosion. Bank erosion can degrade fish habitat by increased siltation and reduced cover. Streambank erosion is a natural process for a river, but too much bank erosion is not normal. Excessive bank erosion is often a symptom of other problems that go beyond the streambank.

Over the past few decades, the methods for decreasing bank erosion have improved. It used to be quite common to stabilize banks with old car bodies, while today we try to use natural materials like rock and vegetation. We also now look at river processes to maintain stable banks and enhance fish habitat.

What bank erosion control options are out there? There are many options and each are site specific. One option is to do nothing and let the streambank heal itself. A river can heal itself, although the timeframe may not meet some expectations as it can take years, decades, or even longer. Depending upon the stream size and if the bank erosion is not too excessive, planting riparian vegetation may be an option. I’ve been working with other partners



*Planting willows along the Little Medicine Bow River*

on a willow planting project for a few years at a Walk-In Fishing Access Area on the Little Medicine Bow River. We harvest willow cuttings on a neighboring ranch and then transplant the cuttings to the eroding banks. All it takes is a good source of willows, hand tools, and a small army of volunteers. Planting willow cuttings is labor intensive, but hopefully in a few years the banks will have good vegetation, stability, and provide overhead cover for fish.

The do nothing and re-vegetation option do not require much in the ways of money or purchased materials.

There are other options that require much more planning, funding, and materials. Bank specific stabilization is most often used to fix a symptom without addressing the problem. This type of stabilization is focused only on the eroding bank and may not address the processes that are causing the eroding bank. It can be an easy option because less time and money may be spent, but it may not be a long term solution. The last option for decreasing bank erosion that I’ll mention is river restoration. Although this can be the most expensive option, it offers a long-term solution to bank erosion. If done properly, river restoration addresses river processes. Restoration will improve channel dimensions, pattern, and profile to aid in the efficient movement of sediment and water. River restoration can also enhance existing fish habitat with woody debris habitat structures and a deeper, narrower river.

For decreasing streambank erosion, there is not a “one size fits all” approach. Options will depend upon the interests of a landowner, resources, and reach characteristics. Remember, the aquatic habitat project you saw in one river may not always be the right fit for your river. There are many resources available for improving streambanks and fish habitat. You can contact the Wyoming Game and Fish Department, other local conservation agencies, or private consulting firms for more information.



*Excessive bank erosion along the Encampment River downstream of Riverside*

## *The fight against the invaders: AIS Program update* by Travis Kinsell (Cheyenne AIS Crew Lead)

As the 2014 boating season gets underway, here is an update on what has been happening with the aquatic invasive species(AIS) program. In the 2013 season there was a major shift from inspections taking place primarily at waters, to border port of entries. This change allowed us to focus on watercraft entering Wyoming from states where mussels are currently present. Little will change with the program in 2014. As was the case last year, any watercraft entering the state is required by law to get an inspection before launching on Wyoming waters from March through November. Resident boaters who have not left the State do not need to get an inspection unless they encounter a check station on their route of travel. Any watercraft that has been on a mussel infested water is required to get an inspection prior to launching regardless of the time of year. Check stations will continue to operate at certain port of entries, and on a rotating basis at major waters during the peak boating season from April 26<sup>th</sup> through September 15<sup>th</sup>. One notable change is that a check station will now be operated at Glendo Reservoir every Thursday through Sunday during the season. The check stations at the Laramie, I-25 and I-80 port of entries will be operated seven days a week during the season and inspections will be conducted periodically at Grayrocks, Guernsey, Granite, Hawk Springs and Seminoe reservoirs, as well as other local waters. A list of certified inspection locations and times of operation can be found at: <http://wgfd.wyo.gov/AIS>.

During the 2013 boating season, technicians performed over 40,000 inspections across the state. Of those, 1,515 were considered high-risk and 578 required decontamination. Fourteen watercraft had confirmed zebra or quagga mussels attached and were completely decontaminated. The mussels were determined to be dead on all but one of those vessels. The owner of the watercraft with live mussels was aware of the problem and made arrangements to have the boat quarantined and decontaminated before attempting to use it on Wyoming waters.

Zebra and quagga mussels are not the only threats to our waters. New Zealand mudsnails, Asian clams, brook stickleback and curly pondweed are already present in some of our waters. In the Laramie region, Asian clams are present in the Laramie River from above Monolith to Grayrocks Reservoir, and in the North Platte River below Guernsey. It is important that everyone does their part to keep invasive species from spreading. Please remember to Drain, Clean and Dry your watercraft and fishing equip-

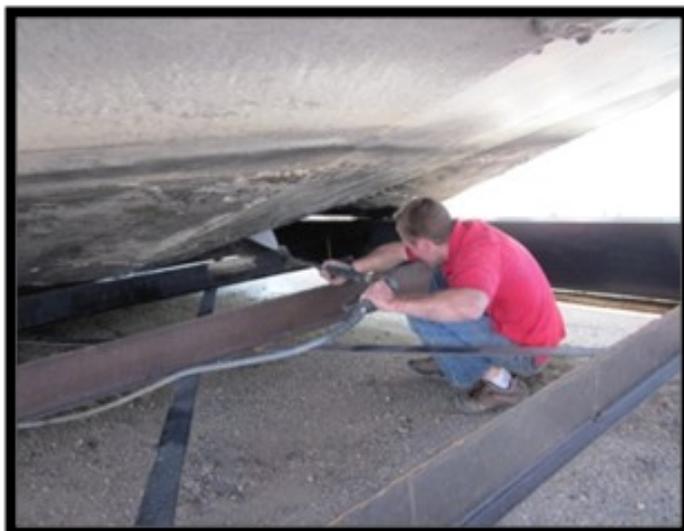
ment: **DRAIN** water from live wells, ballast tanks and the bilge; **CLEAN** mud from wading boots and anchors, and plants from the trailer; allow your equipment to **DRY** before taking it to another water. Help us protect Wyoming water resources so that everyone can enjoy them in the years to come.



**STOP Aquatic Invasive Species**



**✓DRAIN ✓CLEAN ✓DRY**



## Wyoming Game & Fish Department

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WE'RE ON THE WEB!  
[HTTP://WGFD.WYO.GOV](http://wgfd.wyo.gov)  
"Conserving Wildlife — Serving People"



*Look for us on*



## *FISH DIVISION MISSION STATEMENT*

*"As stewards of Wyoming's aquatic resources, we are committed to conservation and enhancement of all aquatic wildlife and their habitats for future generations through scientific resource management and informed public participation. We will use an integrated program of protection, regulation, propagation, restoration and control to provide diverse, quality fisheries resources and angling opportunities. Our efforts will balance the productive capacity of habitats with public desires."*

Many Thanks to Newsletter Contributors: Steve Gale, Lee McDonald, Christina Barrineau, Mike Snigg, Travis Kinsell, Bobby Compton, and Robin Kepple. Photo credits: Steve Gale, Lee McDonald, and Christina Barrineau. Color illustrations of game fish used in this newsletter provided by artist Michelle LaGory.

Laramie Fisheries and Aquatic Habitat Management Crew manage and conserve your aquatic wildlife and habitat in over 5,500 miles of streams and rivers, and in almost 300 lakes and reservoirs in an area that is over 13,000 square miles.

Mike Snigg has been on the Laramie Fisheries Management Crew since 1985 and has been the Regional Fisheries Supervisor since 2003. Mike has over 30 years with the Department. After obtaining his Bachelor's from Simpson College in Iowa, he received his Master's from UW.

Lee McDonald transferred to the Regional Fisheries Biologist position from the Fish Culture Section in 2006. Prior to this assignment he was Superintendent of the Como Bluff Fish Hatchery in Rock River. Lee has over 30 years with the Department. He received his BS in Fishery Science from Colorado State University.

Steve Gale was hired as a Regional Fisheries Biologist in 2005. Steve received his Bachelor's in Fisheries and Wildlife Management from the University of Nebraska and his Master's in Fisheries Management from Montana State University.

Christina Barrineau was hired as the Regional Aquatic Habitat Biologist in 2004. Christina received her Bachelor of Science degree from Warren Wilson College in North Carolina and her Master's in Zoology from the University of Wyoming.



Mike Snigg



Lee McDonald



Christina Barrineau



Steve Gale