



Spring 2012

Wild Times

The Habitat Connection

SWIM

It's easy to view the wildlife around you. There are birds in the air, squirrels in the trees, and deer and antelope grazing alongside the road. But Wyoming's amazing fish species can be a little harder to see every day. Fish hide in the water. In winter and spring, lakes and streams ice over making it impossible to see anything going on below the surface. But the fish are there, if you know where to look!

Wyoming has more than 100 species of fish, thanks to our state's excellent habitat. Habitat is the elements in their environment fish need to survive...food, shelter, space, and of course, water.

Knowing what fish need for habitat can help you find the fish.

Lakes and ponds provide great habitat for fish. They produce plant food and offer plenty of cover for fish to hide. Structures like docks, logs, stumps, and rocks provide shelter, shade, and protection for fish. Weed beds growing in a lake provide food and shelter for smaller fish, which in turn, attract the larger game fish.

In a lake or pond, fish have to move around to find food. In a river or stream, the food usually comes to the fish. Fish that live in moving water find hiding places and wait for insects or smaller fish to come to them. A preferred hiding place for a fish might be under the bank, a sunken tree, or overhanging trees and

bushes. These places provide protection from the swift current and predators lurking above the water. Good feeding areas for fish are places where branches of the creek or stream merge or drop off. Fish really like places where the current slows down, because that's where food collects or sinks.



Wyoming
Wildlife

A Free Publication of
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& Fish Department

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FIELD Wildlife Journal

Lew Stahl

WGFD BIOLOGIST

Birds migrate south for the winter in search of warmer temperatures. Big game animals like elk and antelope migrate to lower ground when the snow flies to find easier access to food and water. But did you know fish also migrate? Fish will move upstream or downstream in search of better habitat just like their four-legged and feathered friends do.



Sometimes human-built structures stop fish from getting where they want to go. Dams, irrigation diversions, and even road culverts can prevent fish from easily navigating the stream. That's where Wyoming Game and Fish Biologist Lew Stahl can help. Stahl is a fish passage coordinator. He works at finding ways to improve fish passage in Wyoming's streams.

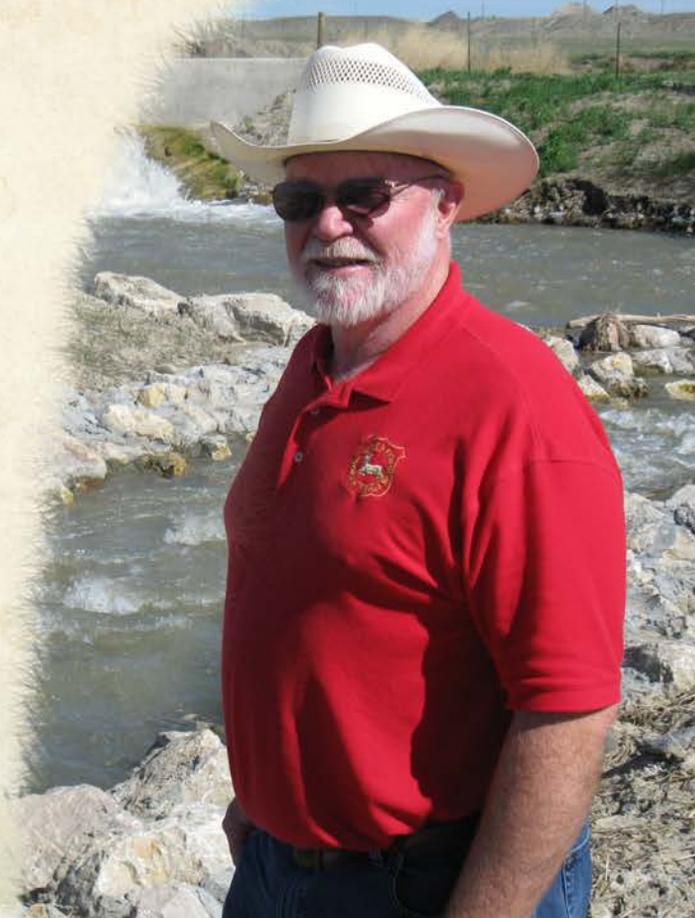
Some of Stahl's time is spent on construction. On Trout Creek, near Cody, fish were getting caught in diversions that were meant to carry water from the creek to nearby hay fields to help crops grow. Stahl and the landowner worked to find screens to cover these diversions and keep the Yellowstone cutthroat trout in the stream, instead of getting swept out to the fields.



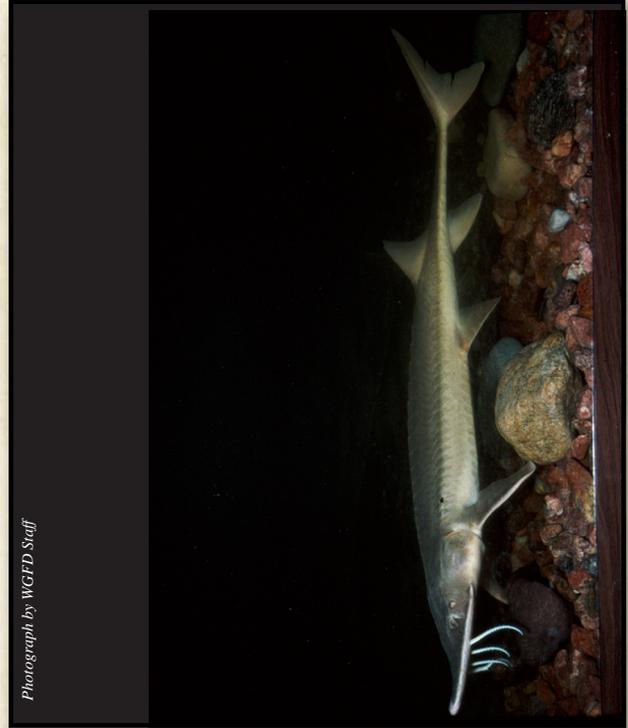
He's also helped create new passages so fish can swim around the barrier and get upstream.

Other days, Stahl might work on putting together a list of other fish barriers across the state that need fixed. Once he knows where the barriers are, he can start pulling together other Game and Fish personnel, landowners, and engineers to find ways to fix the problem. He uses his education in wildlife management and his training as an aquatic habitat biologist to educate anglers and the public about the importance of safe fish migration.

With the help of Stahl and other conservationists, Wyoming's fish can swim their complete waterway to find the quality habitat they need to grow and thrive.



WILDLIFE PROFILES



WILDLIFE PROFILES

Sturgeon

Size: 15 to 38 inches in length

Eats: Insects, crustaceans, worms, and small fish

Lives in: Tributaries, or branches, of the Bighorn River in Wyoming

Shovelnose sturgeon are the smallest species of freshwater sturgeon native to the United States. They get their name from their rounded snout, known as a rostrum in fish, that looks like a shovel.

When the Yellowtail dam was built on the Bighorn River, the native shovelnose sturgeon was eliminated from the river. Before the dam was constructed, shovelnose migrated upstream from the Yellowstone River to spawn in the Bighorn River. More than 15 years ago, the Game and Fish started a program to reintroduce this special species to the Bighorn River. More than half a million sturgeon have been stocked in Wyoming. Try fishing the Greybull River, Nowood River, or Shell Creek to catch one of these unique fish!

Bluehead Sucker

Size: 10 to 15 inches in length

Eats: Insects, algae, and plant debris

Lives in: Western Wyoming

Bluehead suckers are a native, non-game fish. These fish are declining in numbers, mostly because they are being out-competed by species like the white sucker or creek chub. The bluehead sucker has a round snout, large mouth and an elongated, slender sucker. These features help the bluehead sucker scrape algae and other plant matter off of rocks to eat.

Biologists are working to learn more about the bluehead sucker. Game and Fish personnel have been surveying rivers and removing non-native species to help the bluehead sucker and other native sucker species. If you happen to catch a bluehead sucker, help conserve the species and release it back into the water.

Mountain Whitefish

Size: 10 to 15 inches in length

Eats: Insects, snails, plankton, and crayfish

Lives in: Large, clear streams in Wyoming

Some anglers call them cheekers, whistlers, or even trash fish. But mountain whitefish provide fun fishing opportunities in Wyoming's cold mountain streams. These feisty fish put up a great fight when caught and can be readily caught during some of the coldest months of the year. Whitefish can also be great to eat, especially when smoked!

When fish mate, it is known as spawning. The whitefish is a fall spawner, with spawning usually beginning in mid-October. Whitefish seek out areas of coarse gravel or cobble and scatter their eggs so they sink to the bottom of the stream or lake where the eggs are less vulnerable to predators. The eggs then develop slowly through the winter, usually hatching 6 to 10 weeks later in early spring.

Wood Frog

Size: 1 to 2 inches in length

Eats: Beetles, flies, caterpillars, and other insects

Lives in: Medicine Bow and Bighorn Mountains of Wyoming

The wood frog is a small, brown frog with a black mask behind its eyes, sometimes called a robber mask. Female wood frogs are usually larger and redder than the males. The color of a wood frog can change due to the temperature of the climate where it lives. Wood frogs are rare in Wyoming but are common in many places across the United States.

Wood frogs live in some Wyoming mountain ranges. They prefer habitats like beaver ponds, slowly moving streams, small lakes, wet meadows, and willow thickets. These little frogs hide from predators in logs, humus, leaf-litter, or under logs and rocks. You might hear them calling early in the spring. Listen for a frog that sounds like a duck quacking!

Our Wildlife Heritage

RAISING FISH NOW AND THEN

For more than 100 years, the Wyoming Game and Fish Department has been raising fish to stock in Wyoming waters. These hatchery-raised fish add to the populations of wild fish that grow in our rivers, streams, and lakes, and provide a great recreational opportunity for anglers to test their fishing skills. Fish like cutthroat trout, rainbow trout, brook trout, grayling, and even golden trout are raised in Wyoming hatcheries. Species such as walleye, catfish, perch, or bluegill come from hatcheries in other states but are stocked here in Wyoming.

Today, the business of raising fish is pretty high tech. Fish are raised in fiberglass troughs or concrete raceways. Many hatcheries have automatic feeders that run on a timer. These feeders provide small amounts of premade food to the growing fish throughout the day. The hatcheries also have machines that make the water better for fish health by adding oxygen or removing bacteria or nitrogen.



Fish are transported across the state in special stocking trucks with giant fish tanks in the back. These tanks provide oxygen in the water and aerate the water in the tank to break up carbon dioxide produced from fish



respiration in the tanks. Some fish are even stocked in high mountain lakes using a helicopter!

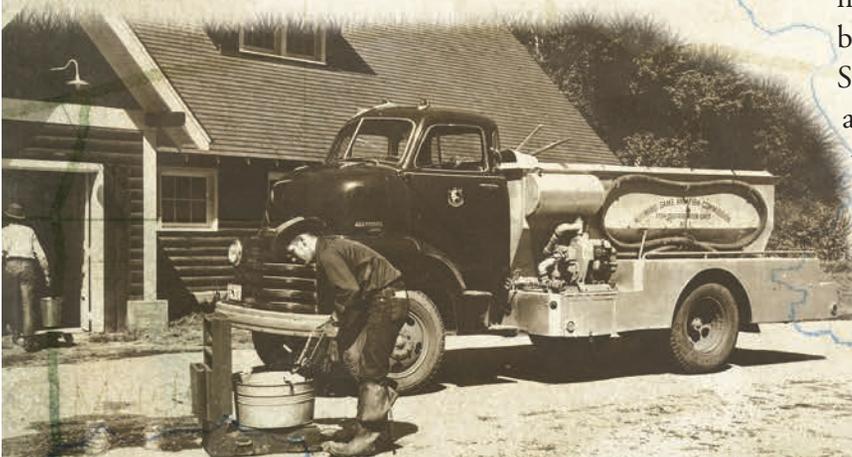
Wyoming's oldest hatchery, the Story Fish Hatchery, was built in the early 1900s. When Wyoming's hatcheries were first built, many of these technologies didn't exist. So how did hatchery personnel feed, care for, and transport fish?

Fish were raised in dirt ponds or raceways. Hatchery personnel had to make the food to feed the fish, usually by grinding up frozen horsemeat. That probably doesn't sound very yummy to you, but the fish liked it. Fish were fed by hand.

Sometimes fish were stocked on horseback. Hatchery personnel would pack thousands of small trout into cream cans or special boxes and strap these containers to the back of horses. The horses would carry the trout in their cans or boxes high into the wilderness to be released into the wild. Some fish were even sent across the country on trains!



A lot has changed since Wyoming's hatcheries were first built. As in the past, Wyoming continues to be an excellent place to catch a fish and enjoy the great outdoors.



Around Wyoming

FISH DIVISION ACTIVITIES

JUST LIKE THE WYOMING GAME AND FISH DEPARTMENT HAS A DIVISION DEVOTED EXCLUSIVELY TO OUR STATE'S TERRESTRIAL WILDLIFE, IT ALSO HAS A DIVISION OF EMPLOYEES THAT FOCUS ON NOTHING BUT FISH. THIS TEAM OF MORE THAN 100 MEN AND WOMEN WORK TOGETHER TO HELP RAISE FISH, PROVIDE QUALITY HABITAT, AND CONSERVE THE MANY SPECIES OF FISH, REPTILES, AMPHIBIANS, MOLLUSKS, AND CRUSTACEANS OF WYOMING.

One of the new programs of the Game and Fish is preventing the spread of aquatic invasive species. Aquatic invasive species are nuisance organisms that can take over a water body and destroy the habitat, fishing, and even the drinking water supply. To prevent a species like the New Zealand mud snail or Quagga mussel from invading Wyoming's waters, Game and Fish are inspecting boats before they can be launched. More than 40,000 boats were inspected last year to help keep our waters safe. Did your family's boat get inspected last summer?



Photo taken by Utah Division of Wildlife Resources

Fish biologists spend some of their time conducting surveys of lakes, streams, and rivers to see if our fisheries are healthy. They count the number of fish they find in the water, even measuring the



fish for size and length. Biologists may also count the number of anglers. They use all this information to determine if new rules, known as fishing regulations, are needed to help conserve the fish living in the water. The information can also tell biologists how many and what kind of fish they'll need to stock each year to maintain the fishery.

Some biologists in the Fish Division are responsible for reptiles, amphibians, lizards, and other animals. These



biologists are known as herpetologists. They may spend their time in the field looking for snakes like the rubber boa, or amphibians like the boreal chorus frog. Because not a lot of information is known about many of these species, herpetologists also spend their time educating the public, teaching students and adults about the benefit of snakes, frogs, toads, lizards, and other creatures.



Outdoor Classroom

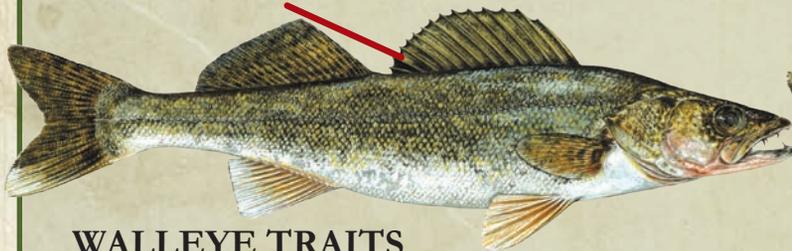
IF YOU DON'T KNOW, LET IT GO

Not all fish are created equal. But some do look an awful lot alike. Learn more about some of Wyoming's commonly confused fish species.

Walleye vs. Sauger

Walleye and sauger are closely related species that have a similar appearance. Sauger are native to Wyoming and live in the Wind, Bighorn, Tongue, and Powder River drainages in Wyoming. Walleye are important game fish but are not Wyoming natives. Because sauger numbers are declining in Wyoming, fish biologists are concerned about their long-term survival. Sauger populations are small, so rules limiting the number of sauger you can catch in Wyoming have been created to protect them.

BLACK MEMBRANE BETWEEN SPINES ON DORSAL FIN

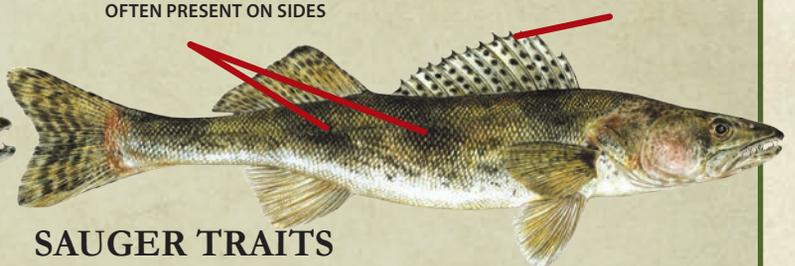


WALLEYE TRAITS

black spots on dorsal fin, dark mottled, also called spotted, coloration on side

DARK, MOTTLED COLORATION OFTEN PRESENT ON SIDES

BLACK SPOTS ON DORSAL FIN



SAUGER TRAITS

black membrane between last two and three spines on front dorsal fin (the fin on a fish's back)

Cutthroat vs. Rainbow Trout

Cutthroat trout and rainbow trout are closely related members of the trout family. Cutthroat trout are native to Wyoming, while rainbow trout were introduced to Wyoming more than a hundred years ago. Cutthroat trout have struggled over the years for many reasons, including being overharvested by anglers. If you're fishing in trout waters, practice good fish conservation and know how to tell a cutthroat from a rainbow trout.

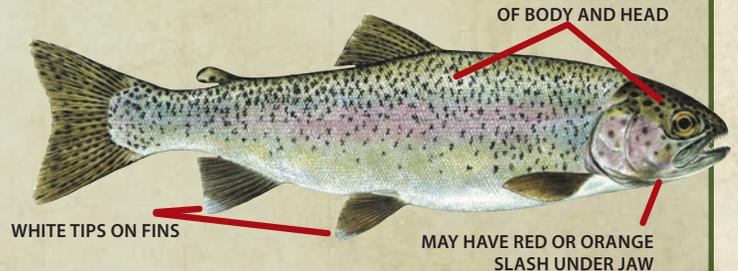
BLACK SPOTS CONCENTRATED TOWARD TAIL



CUTTHROAT TROUT TRAITS

black spots concentrated toward tail, no white tips on fins, red or orange slash under jaw

SPOTS OVER MOST OF BODY AND HEAD

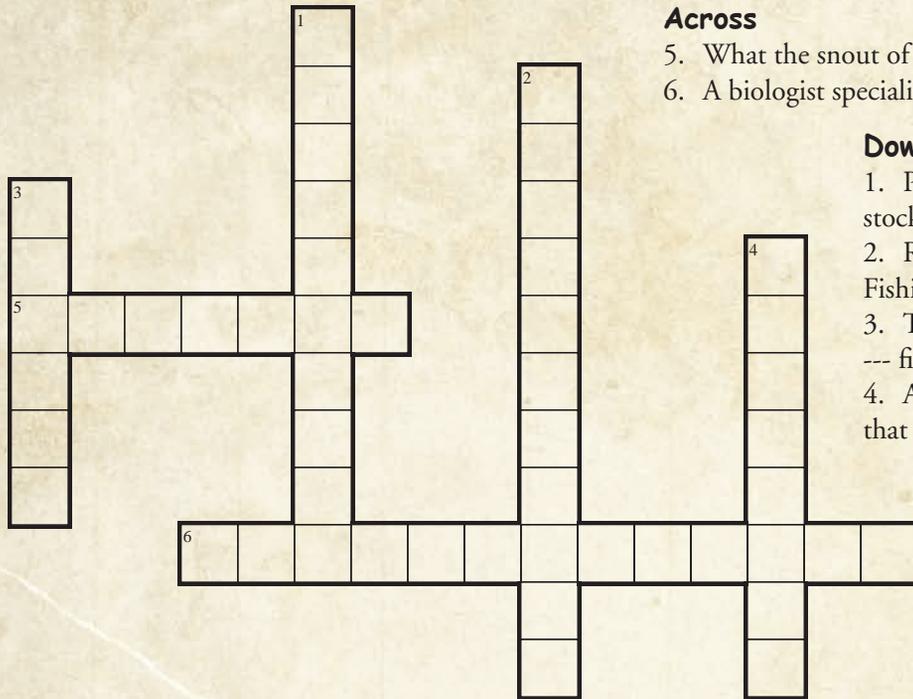


RAINBOW TROUT TRAITS

spots over most of head and body, white spots on tips of fins, may have red or orange slash under jaw

▶ TEST YOUR KNOWLEDGE ◀

Crossword Puzzle



Across

5. What the snout of a fish is called.
6. A biologist specializing in reptiles, amphibians, and lizards.

Down

1. Present day mode of transportation for stocking fish in high mountain lakes.
2. Rules for fishing in Wyoming are called Fishing ---.
3. The fin on the back of the fish is called a --- fin.
4. Aquatic___ Species are nuisance species that can destroy natural habitat.



- Across**
5. Rostrum
 6. Herpetologist
- Down**
1. Helicopter
 2. Regulations
 3. Dorsal
 4. Invasive

▶ LEARNING LINKS ◀

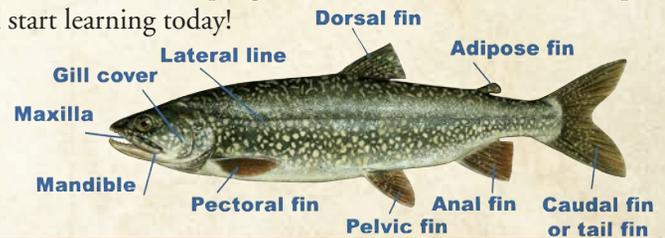
Call of the Wild - Young hunters and anglers on TV

Do you want to learn more about hunting and fishing in Wyoming or see young hunters and anglers in action? Then tune to the Game and Fish's newest TV series, *Wyoming's Call of the Wild*. This TV show features kids, just like you, enjoying Wyoming's great outdoors. You can see kids hunting turkeys and pheasants, or fishing for walleye. You'll learn more about all the great ways you can get outdoors and take advantage of the hunting, fishing, and recreational activities our state has to offer. Ask your parents if you can watch *Wyoming's Call of the Wild* on the Sportsman Channel this spring.



Finish First in Fish Identification

How many species of Wyoming's fish can you identify? Take the online Fish ID quiz and find out! Use this site to learn more about many of Wyoming's game fish, including where they live, how to identify them, and some angling tips. You can study fish illustrations as well as photos of more than twenty species. Knowing your Wyoming fish helps you follow fishing regulations correctly and aids in fish conservation. Visit <http://gf.state.wy.us/fishexam/default.aspx> and start learning today!



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