



# Wild Times

## The Habitat Connection

### SWIM

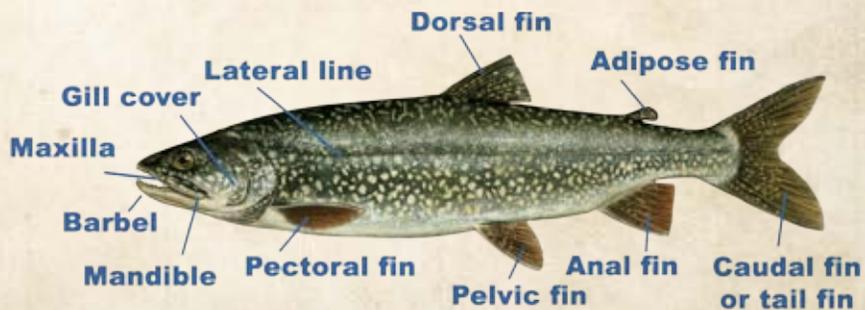
*“Under the sea. Under the sea. Darling it’s better, down where it’s wetter, take it from me,”* sings Sebastain the crab in the Disney movie, *The Little Mermaid*. Wyoming doesn’t have any seas, but we have plenty of streams, rivers, lakes and reservoirs where all sorts of fish find out it’s better down where it’s wetter. Wyoming has trout, kokanee salmon, perch, bass, walleye, darters, dace and even suckers and carp, just to name a few species.

But what does a fish need to enjoy life below the surface? Like any animal, fish need quality habitat. As you probably already know, habitat is the food, water, shelter and space a creature needs to survive. Water is obviously the most important

for fish. Food comes in the form of plants, insects or other fish that live in water. Shelter is also important. Fish need shelter like underwater plants, logs, rocks or structures where they can hide to escape a predator, rest or lay their eggs. And there can’t be too few fish or too many fish in one area. They need other fish, but not so many they compete with one another for food or shelter.

Fish breathe and move about in water. Humans breathe air and move around on land. Humans have lungs that enable us to breath. Fish have gills that allow them to take oxygen out of the water. Fish have fins to help them

move. Humans have arms and legs. In spite of our differences, humans and fish are linked. Almost everything we do on land affects what happens to the fish in our rivers and lakes. Melting snow and rain wash the land surface as they drain into the creek, taking with them not only nutrients, but also trash and pollutants like oil, chemicals and wastes that could harm fish. Keeping the watersheds healthy and our waters clean will help keep Wyoming’s fish healthy and happy.



Wyoming  
**Wildlife**

A Free Publication of  
the Wyoming Game  
& Fish Department  
Summer 2011

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# FIELD Wildlife Journal

## Janet Milek

Aquatic Education Coordinator

Free Fishing Day activities, fishing clinics and workshops, aquatic invasive species, fish identification website and hatchery and rearing stations posters and signs are just a few of the projects that Janet Milek, the Aquatic Education Coordinator with the

Wyoming Game and Fish Department, gets to work on every day.

As the aquatic education coordinator, Janet is responsible for trying to help the public understand the importance of fish, fishing and aquatic habitats. Janet says an educational background in biology is important, because it helps her understand the way ecosystems work and how fish interact within them. She uses her knowledge to teach kids and adults alike about everything “fish” in the Wyoming Game and Fish Department.

One of the issues Janet works on is educating the public about aquatic invasive species. These “aquatic hitchhikers,” like zebra and quagga mussels are found in other states and could spread to Wyoming waters by latching on to boats or other equipment brought in to the state. “If they become established in Wyoming, aquatic invasive species can hurt the water we use to drink, grow crops or raise fish,” Janet explains. She helped the Game and Fish develop their “Drain, Clean, Dry” material and watercraft inspection program.

Despite the many challenges, Janet says she really enjoys her job and what she does for a living.

“The best part about my job is getting to spend time outdoors,” says Janet. “I help coordinate Free Fishing Day activities, work with our camps and coordinate other activities that get me out of the office to enjoy Wyoming’s great fishing resources. My favorite part is teaching someone a new fishing skill.

It’s always fun to see someone catch their very first fish!”



# WILDLIFE PROFILES



# WILDLIFE PROFILES

## Brook Trout

**Size:** 6 to 10 inches

**Eats:** aquatic insects or smaller fish

**Lives:** clean, cold streams in the mountain regions of Wyoming

The brook trout isn't really a trout at all, but rather a char, like the lake trout and bull trout. Brook trout are green to brown, with light spots on a dark background. You can tell them apart from other trout by their red or pink spots with blue halos.

The brook trout spawns, or reproduces, in the fall. Brook trout that live in small streams and ponds may overpopulate the water, outcompeting other trout species for food. There may even be so many brook trout they outcompete one another, causing the brook trout to remain stunted or unable to grow past a relatively small size. The record brook trout in Wyoming was caught in 1976 in Green River Lake. It was 24 inches long and weighed more than 9 pounds.

## Yellow Perch

**Size:** 4 to 10 inches

**Eats:** plankton, aquatic insects and small fish

**Lives:** ponds, lakes or reservoirs with spring aquatic vegetation

Yellow perch are yellow or gold, with black vertical bars down the length of their body. They travel in schools, or groups, with other perch of similar size and age. As night approaches, the schools of perch move in toward shore. After dark, when they can no longer see each other, the perch will separate and move to the bottom of the lake and stay still. When the sun comes up the next day, they rejoin their school and move back out to deeper water.

Yellow perch are usually easy to catch, and taste great. Try catching them with worms or insect larvae. They are also fun to catch when ice fishing. Wyoming's record yellow perch weighed 2.2 pounds and was 16 inches long.

## Splake

**Size:** 10 to 18 inches

**Eats:** other fish

**Lives:** rivers and lakes

Splake are a cross between a male brook trout and a female lake trout. The name comes from the SP in speckled trout (another name for brook trout) and the LAKE in lake trout. Splake can resemble a brook trout, but have a body with a dark background with white spots. Their tail fins are not as deeply forked as a lake trout.

Splake are highly piscivorous, which means they eat other fish. The Wyoming Game and Fish Department uses splake to help control undesirable species such as longnose and white suckers in cold reservoirs, or stunted brook trout populations in alpine lakes. The record splake caught in Wyoming was in 2011 in North Crow Reservoir. It weighed 13.6 pounds and was 29.6 inches long.

## Johnny darter

**Size:** up to 3 inches

**Eats:** small aquatic insects

**Lives:** small, clear streams and reservoirs of the North Platte River

Johnny darters have brown or black markings on a light body. They can be identified by the black "w" or "x" shapes on their sides. If you look close, you might think they resemble a walleye or sauger. They are members of the perch family, like walleye, sauger or yellow perch.

Johnny darters prefer to sit motionless on the bottom of the stream, then dart after their prey, hence their name. In the spring, Johnny darters spawn on the underside of flat rocks. The male prepares the nest site for the female, who will lay 30 to 100 eggs. The male then stays to guard the eggs until they hatch.



# Our Wildlife Heritage

## YELLOWSTONE CUTTHROAT TROUT RESTORATION

**T**oday, Wyoming is home to more than nine species of trout including rainbow, brown and brook trout. These species are fun to fish for and are good eating, but they are not native to our state. Wyoming's only native trout are the cutthroat trout species. We know from studying fossils that these species lived in Wyoming well before the first adventurers explored our state. Other trout species, like the rainbow trout are native to the Pacific coast. Rainbow trout were brought to Wyoming by people who wanted to fish for them here.

**Y**ellowstone cutthroat trout are an important part of the natural heritage of northwest Wyoming, but have been outcompeted by brook trout in many streams they once lived.

The Wyoming Game and Fish wants to increase the numbers of Yellowstone cutthroat trout in Wyoming, so kids like you can still fish for them 50 or 500 years from now!



**G**ame and Fish personnel have started restoration efforts

in several streams in northwest Wyoming, including Buckskin Ed Creek, Little Tongue River and Dead Indian Creek. The process begins by chemically removing competing trout from the creek. Game and Fish personnel set up drip stations that release a chemical into the water that will kill competing fish but is not harmful to people or other animals. This process may be repeated over a few summers to make sure all the competing fish have been removed. It would be a waste of time and money if personnel missed a few brook trout that would eventually reestablish themselves and compete with the cutthroat trout again!

**N**ext, WGFD personnel stock native Yellowstone cutthroat trout into these waters. Some streams are stocked with Yellowstone cutthroats raised by Wyoming hatcheries. Others are stocked with grown fish from existing populations. These restoration efforts require a great deal of time, money and effort. But Game and Fish hopes their work will create a vibrant population of the Yellowstone cutthroat trout in their native habitat, and creating a popular place to fish in the future for these amazing fish.



# AROUND WYOMING

## Did you know Wyoming has a day where anyone can fish for free?

**W**yoming Free Fishing Day this summer will be on Saturday, June 4. Wyoming residents and nonresidents can fish any Wyoming water without a fishing license or conservation stamp. You can catch trout, bluegill, sunfish or any of Wyoming's other game fish. All you need to do is grab your pole and follow Wyoming's fishing rules. What a great way to kick off your summer...by enjoying some time fishing with your friends and family.

**M**any communities and groups in Wyoming offer fun activities on this day, including workshops and clinics to learn more about fishing. Other communities offer a kids' fishing day, with activities and information just for kids like you! Topics might

include fishing safety, hook baiting, fish handling, knot tying or fish identification. You could also win cool prizes, like a new fishing rod or tackle box.

**I**f spending a day fishing sounds like fun to you, get your parent's permission and visit the Wyoming Game and Fish website at <http://gf.state.wy.us/fish/fishing/freefishday.asp> to find information on fishing opportunities for kids where you live!

### Fishing Day Communities:

Casper	Jackson	Powell
Cheyenne	Kemmerer	Riverton
Cody	Lander	Saratoga
Basin	Laramie	Wright
Dubois	Lovell	<i>and more!</i>
Evanston	Pinedale	



# Outdoor Classroom

**Would you like to see how fish grow from an egg to an adult? Maybe you'd like to learn more about the species of fish the Wyoming Game and Fish Department raises to stock in our rivers and lakes?**



If this sounds interesting, you need to check out a Game and Fish hatchery or rearing station.

Wyoming has ten fish hatcheries and rearing stations. The men and women at these facilities are responsible for raising the fish that eventually end up in your local streams, lakes or on your dinner table. They raise fish like Colorado River cutthroat trout, rainbow trout, kokanee salmon and splake to help provide quality fishing, native species restoration and fisheries management. The Game and Fish personnel at the hatcheries feed the fish, clean the facilities and oversee fish health by monitoring disease, water temperature and water chemistry.

## SEE THE LIFE CYCLE OF A HATCHERY FISH

**E**gg and Larval Stage: Fertilized eggs develop into fish. Threats to eggs include changes in water temperature and oxygen levels, flooding or sedimentation, predators and disease. Game and Fish personnel place the eggs into hatching jars, where the eggs are carefully watched and monitored.

Once the egg hatches, it spills from the hatching jar into a trough and quickly begins growing. Larval fish live off a yolk sac attached to their bodies. When the yolk sac is fully absorbed the young fish are called fry.

**F**ry Stage: Fry are ready to start eating on their own. Hatchery personnel feed the growing fry up to eight times a day! Fry undergo several more developmental stages, which vary by species as they mature into adults.

**J**uvenile Stage: The time fish spend developing from fry into reproductively-mature adults varies among species. Once the fry reach the fingerling stage in a hatchery, they may be transferred to a rearing station or moved outside into larger raceways. Fingerlings are usually fed two to four times a day until they reach the size desired for stocking. You may see a Game and Fish stocking truck this summer, driving around the state. They are stocking, or releasing the fish, into lakes, streams and reservoirs. There, the fish continue to grow into adults.

**A**dult Stage: When fish are able to reproduce, they are considered adults. The time it takes to reach maturity varies among species and individual fish. You can see adult fish at some Wyoming hatcheries and rearing stations. They are the brood stocks, the adult fish that produce and fertilize eggs. These are the "big fish" at a hatchery.

**H**atcheries and rearing stations are usually open to the public and available for tours. Sometimes a facility will be closed for construction, so it's a good idea to call ahead and make sure the public is welcome. Wyoming's fish rearing facilities are the Auburn Hatchery, Boulder Fish Rearing Station, Clark's Fork Hatchery, Daniel Fish Hatchery, Dan Speas Rearing Station (Casper), Dubois Fish Hatchery, Story Hatchery, Ten Sleep Hatchery, Tillett Springs Rearing Station (Lovell) and Wigwam Rearing Station (Ten Sleep). Visit the Game and Fish website with your teacher or parent (<http://gf.state.wy.us>) to find a hatchery or rearing station near you and arrange a visit!

# ▶ TEST YOUR KNOWLEDGE ◀

## *Fish Frenzy*

Wyoming has a lot of freshwater streams and lakes, but some fish can only live in salt water. Can you identify which species live in Wyoming's fresh water and which must live in the salt water in oceans and on the coast?

*a. Brown trout*



*b. Kokanee salmon*



*d. Walleye*



*c. Clown fish*



*e. Tuna*



Answers: a. Fresh water; b. Fresh water; c. Salt water; d. Fresh water; e. Salt water

# ▶ LEARNING LINKS ◀

Book: *Hook, Line and Sinker: Everything Kids Want to Know About Fishing!* by Italo Labignan and Jock MacRae

Start fishing with this guide designed just for kids! Learn about finding bait for your hook, figuring out what kind of rod, pole or reel to use, casting, and finally, landing your catch. There are also all kinds of fun activities to get your hands wet such as tying knots, making a tackle box, catching bait and making a float and sinker. Start your summer off with a splash!

Book: *A Kid's Guide to Flyfishing: It's More than Catching Fish* by Tyler Befus

Do you already have basic fishing skills and are looking for something new to challenge you this summer? Try landing this book and start fly-fishing! Author Tyler Befus is a kid himself – he was eight when he wrote it. He'll help you learn more about where fish live, what fish eat, equipment, knots and fly casting. Fly fishing doesn't have to just be for grown-ups!



Volume 9, No. 4  
Summer 2011  
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Wyoming Wildlife's Wild Times is published four times during the school year (October, December, February and April). Please direct inquiries and changes of address to: Wild Times, Education Branch, 5400 Bishop Blvd., Cheyenne, WY 82006; (307) 777-4538.

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