

# Wild Times

A Free Publication of the Wyoming Game & Fish Department

Fall 2008

## THE HABITAT CONNECTION: WYOMING FISH HABITAT

**T**wisting and turning through Wyoming, the cool, clear streams not only provide water for all of Wyoming's wildlife, but they also provide a place for many species, or kinds, of fish to live. This is called habitat. Habitat is the food, water, shelter and space that all wildlife needs to survive in the wild.



A Johnny darter

LuRay Parker

A sauger's habitat is large, warm, turbid rivers. Turbid means not clear. Look closely and you might see a white sucker, longnose sucker or even a Johnny darter zooming in the same warm waters as a sauger.

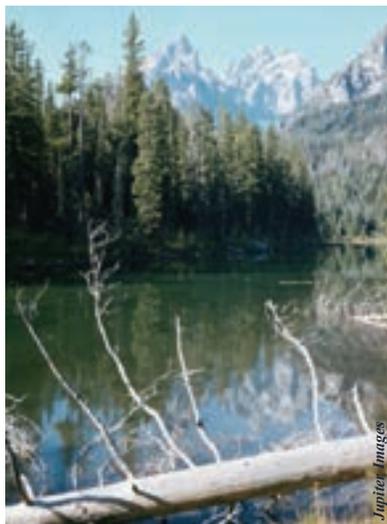
### Habitat is food.

Depending on what kind of fish you are, you eat different foods. Some fish eat other fish—they are called "piscivorous." Most fish eat aquatic insects, which are insects that live in the water. Fish even eat small plants floating around called phytoplankton.



Stonefly larva are aquatic insects that are fish food.

LuRay Parker



When trees fall into the water they provide cover for fish.

Jupiter Images

### Habitat is shelter.

Think of all things that eat fish. Bears, birds and humans just to name a few. Fish need shelter and cover to have a place to hide.

### Habitat is space.

You can't have too many fish in one area because they will be competing for the same food, water and shelter. They must have space so they can spread out.

### Habitat is water.

It seems silly to say, but fish need water too. Not only do fish use their gills to breathe the oxygen that's in the water so they can survive, but water provides them homes. Aquatic, or water, habitat can be cold, cool or warm depending on what kind of fish you are. You will find a cutthroat trout taking cover in a cold, shady stream. If you look closer you might find a sculpin, longnose dace or speckled dace darting in the cold water too. If you don't know what a sculpin is, check out Wildlife Profiles.



Mark Gocke

Streams twist and turn, or meander, through Wyoming.



Mark Gocke

# FIELD Wildlife Journal

## Tracy Stephens, Fisheries Biologist

Tracy Stephens is a fisheries biologist in the Jackson Region with the Wyoming Game and Fish Department. She does many fun things in her job, but her main responsibility is studying fish populations. She studies fish numbers, their habitat and their health to help improve fisheries for anglers and also to help restore fisheries. Restoring fisheries is returning them to the way they were.

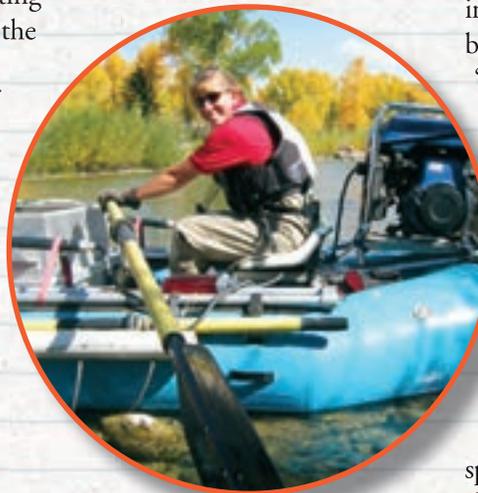
Biologist Stephens uses many different techniques to do this. "Sometimes in lakes we set gill nets to help us determine what kinds of fish are there. Once we catch the fish in the nets, we weigh and measure them to help understand how the fish in the lake are doing," says Biologist Stephens. Populations, or numbers of fish, tell biologists a lot. They can determine if the fish are healthy, getting enough food and how the fishing is for anglers, just to name a few of the things biologists look at.

Biologists also use electrofishing to study fish in rivers at streams. The biologists shoot an electric shock into the water. This shock stuns the fish for a few minutes, and they float to the top of the water. Then biologists can look at them. The fish are weighed and measured, and biologists even determine what kind of fish they are. The biologists then release the fish back into the water.



Fish are measured and weighed by fish biologists.

## Fisheries biologist crews electrofish from a raft.



Biologists work hard to provide good fishing for anglers.

Biologist Stephens first became interested in becoming a fish biologist when she was young, "I would spend time outside fishing with my family and I realized I really liked fishing and being outdoors. Then, when I was in school I had a great science teacher and decided to become a fisheries biologist." When asked what her favorite part of the job is, Biologist Stephens responds, "I love being outside in the Jackson Hole area working with fish. I can't imagine any other job that can be so fun."



Biologist Stephens with a Snake River cutthroat trout.

# WILDLIFE PROFILES

LuRoy Parker



LuRoy Parker



LuRoy Parker



Juppiter Images



# WILDLIFE PROFILES

## Sauger

**Size:** Up to 28 inches and around 8 <sup>3</sup>/<sub>4</sub> pounds.

**Eat:** Aquatic insects and crustaceans as small fish, but as adults they are piscivorous, meaning they eat fish.

**Live:** In rivers and reservoirs.

Sauger and walleye are often confused because they look a lot alike. They are actually different fish. Look on page 6. Can you tell the difference between a sauger and walleye? They look a lot alike, don't they! In Wyoming, sauger are native to streams. Today they are in streams and reservoirs in the Wind-Big Horn Drainage and the Tongue and Powder River drainages. Walleye are not native, but have been stocked for anglers. The state record for sauger was caught just last year in Boysen Reservoir. It was 7 <sup>1</sup>/<sub>2</sub> pounds and 26 <sup>1</sup>/<sub>2</sub> inches long.

## Rainbow Trout

**Size:** The size of fish can vary, but rainbow trout can be as large as 42 pounds and 3 feet, 9 inches long.

**Eat:** Aquatic insects and small fish.

**Live:** In Wyoming, they live in streams, rivers, lakes and reservoirs.

These trout are named rainbow trout because their sides look like rainbows. Their undersides tend to be silvery with a pinkish red stripe along the upper-middle part of the body. Did you know the Wyoming record for a rainbow trout is 23 pounds and 35 <sup>1</sup>/<sub>2</sub> inches long? It was caught in 1969 in Burnt Lake. In Wyoming, rainbow trout are not native. Native means they were naturally in Wyoming. The Wyoming Game and Fish Department stocks them in Wyoming waters for anglers to catch. Have you caught a rainbow trout before? In coastal areas of the western part of the country, a rainbow trout that runs, or swims, to the sea to live there as an adult is called a steelhead. When they are ready to spawn, or lay eggs, they travel back upstream into fresh water.

## Mallard Duck

**Size:** Around 18 to 27 inches long.

**Eats:** Mainly plants.

**Lives:** In wetlands, ponds and rivers.

Did you know that the mallard duck migrates from places in North America to Mexico and Central America when the weather gets cold? That is a long way to fly! The male duck, also called the drake, is the duck with the bright green head. The female duck has dull coloration compared to the male. The male and female even sound different. The male has a soft song while the female has a loud quack. Can you use the Internet or a bird book to find what they call a female mallard? When mallard ducks are born, they can swim and feed themselves immediately, even though they stay close to their mom. Nearly 10 million mallard ducks live in North America. That's a lot! You can watch these ducks on most waters in Wyoming. Have you seen a mallard duck?

## Sculpin

**Size:** Adults are around 4 to 6 inches long.

**Eat:** Aquatic insects, but will also eat crustaceans, small fish, fish eggs, and some plant material.

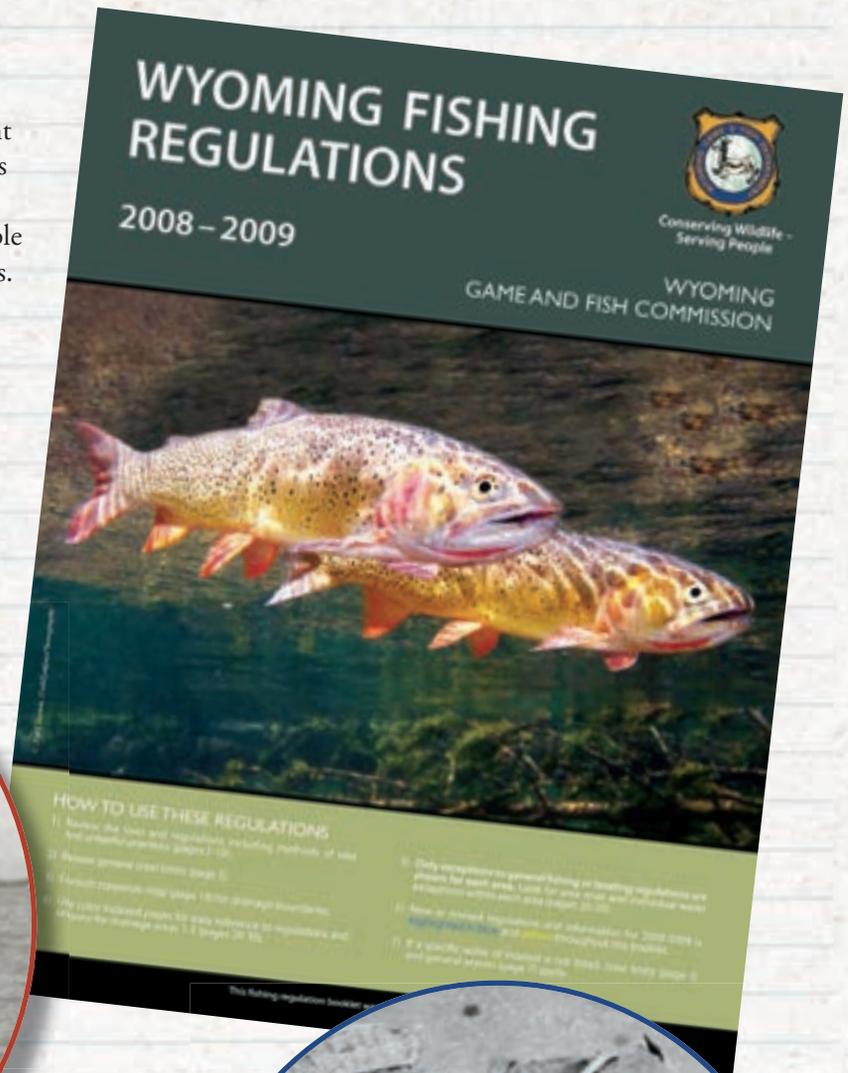
**Live:** In clear, cold streams with rock or gravel bottoms.

These bottom-feeding fish are generally not considered good to eat. They have sharp spines rather than scales. Sculpin can live for several hours out of water if kept moist. They use their large pectoral fins to stabilize themselves on the floor of flowing creeks and rivers. The female enters the nest, sometimes turns upside down, and deposits her eggs on the ceiling, where they adhere. Typically several females will deposit eggs in a nest, then the male fertilizes and guards them, fanning the eggs with his pectoral fins.

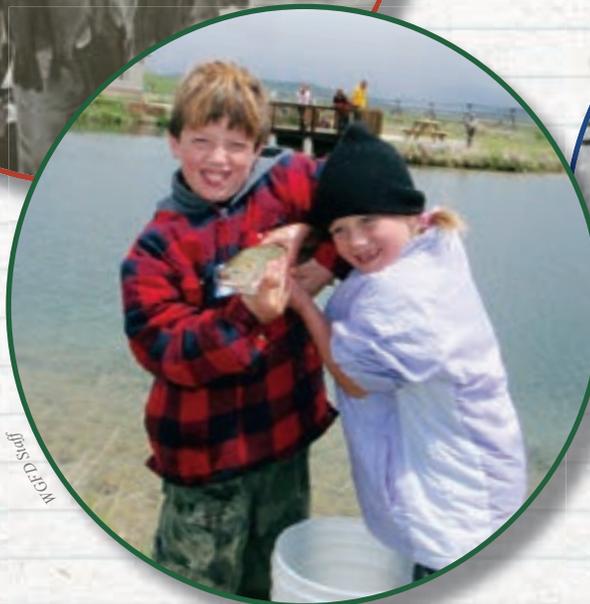
# OUR Wildlife Heritage

## Why do we have fishing regulations?

Fishing dates back long ago to when people of ancient times would fish for food. Pieces of bone were used as hooks and lengths of vine as line. Do you think you could catch a fish using a vine? Through history people used various ways to catch fish, like nets or cane poles. People continued to fish for food throughout history. Many years ago people could take as many fish as they wanted. That led to many areas not having enough fish anymore. Today we use science to determine what numbers and species of fish can be taken home to help keep a good number of fish in the water. That way, people can go fishing for sport and also have some for supper.



Courtesy Wyoming State Archives



WFS/CCJ/M



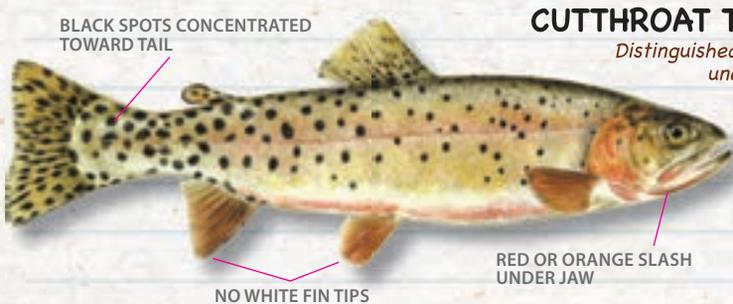
Courtesy Wyoming State Archives

# Around Wyoming

## Cutt? Bow? Or Cuttbow?

Did you know that cutthroat trout and rainbow trout are closely related? The cutthroat trout are native to Wyoming, while the rainbow trout are not. Native means that the cutthroat trout were naturally in Wyoming. Rainbow trout are native to coastal streams along the Pacific Ocean from Alaska to Baja California and Mexico. Rainbow trout were stocked, or added by people, into Wyoming's waters.

Anglers across Wyoming often have a hard time telling the difference between the two kinds of fish. It is important to know because in places there are different limits of fish you can keep for each kind of fish. Make sure to check the regulations before going fishing so you know your fish and your limits.

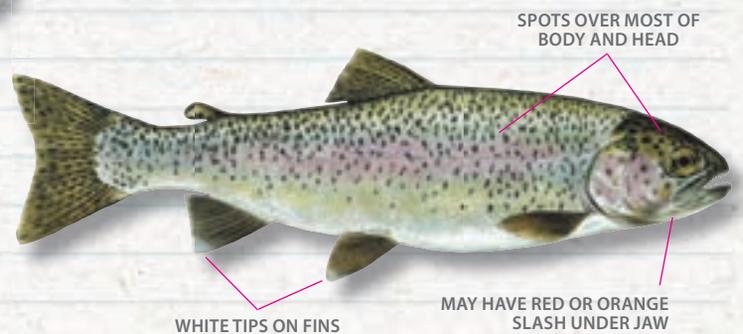


### CUTTHROAT TROUT

*Distinguished from rainbow trout and hybrids by the presence of red or orange slash under the jaw and NO white tips on anal and pelvic fins. Other characteristics include black spotting generally concentrated toward the tail (except on the Snake River cutthroat which has uniform distribution of fine black spots) and few or no spots on the head.*

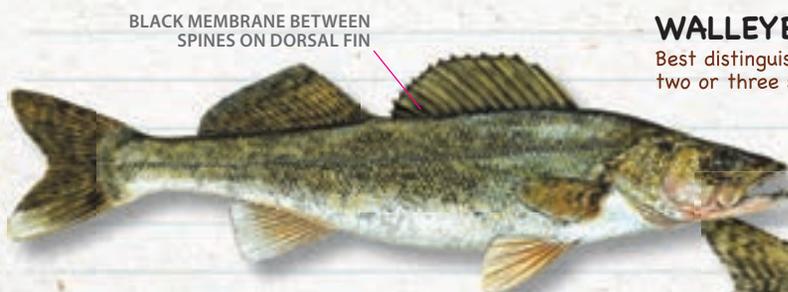
### RAINBOW TROUT AND RAINBOW-CUTTHROAT HYBRID (CUTTBOW) TROUT

*Distinguished from cutthroat trout by presence of white tips on the fins. Other characteristics include more uniform black spots and more spots on the head, and may or may not have red or orange slash on the lower jaw.*



## Sauger or Walleye?

Did you know there are other kinds of fish that are having the same problem as the cutthroat and the rainbows? They are called sauger and walleye. In this case, sauger are the native fish to Wyoming. Be sure you can tell the difference! And remember, if you don't know, let it go!

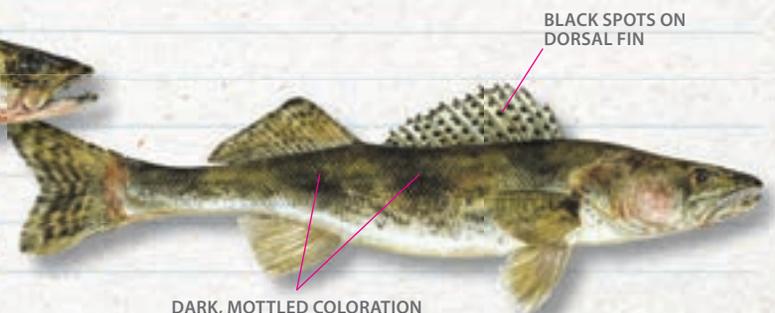


### SAUGER

Best distinguished from walleye by black spots on dorsal fin. Dark, mottled coloration often present on sides.

### WALLEYE

Best distinguished from sauger by black membranes between last two or three spines of the first dorsal fin.



**IF YOU DON'T KNOW, LET IT GO!**

# Outdoor Classroom

## Tracking Trout

Have you ever wondered where a fish goes when it is under water? Well, now you might be able to find out for yourself! Wyoming's Trout Unlimited has started a program just for kids that allows them to "Adopt-A-Trout."

During the winter and spring of 2008, the students at Colter Elementary School in Jackson, Wyoming, participated in a pilot version of this program. Trout Unlimited, in partnership with the Jackson Hole Chapter of TU and Wyoming Game and Fish Department were all involved. They visited the classroom where students learned about trout, where they live, how they move, what they eat. They even learned how to track the fish! From there students got to adopt a trout. They named their fish and followed it through the Gros Ventre River valley. Students took a field trip to learn how to track fish with telemetry and worked with local biologists.

Can you imagine how much fun it would be to track and follow your fish? Do you want to learn more about trout? Do you want to learn what telemetry is? Then the Adopt-A-Trout program is for you! Who knows, your class might be the next school out tracking fish! If your classroom would like to participate in an Adopt-A-Trout program, visit [www.wyomingtu.org/adopt-a-trout](http://www.wyomingtu.org/adopt-a-trout) and download the Program and Activity Guide for more information. You can also write to Wild Times for more information.



Images by WGFED Staff

Images by WGFED Staff

# ▶ TEST YOUR KNOWLEDGE ◀

## Crossword Puzzle

### ACROSS

- Free floating plants that many fish eat for food are called \_\_\_\_\_.
- A male Mallard Duck is called a \_\_\_\_\_.
- It is important to follow Fish \_\_\_\_\_, which are the rules and laws, when fishing.

### DOWN

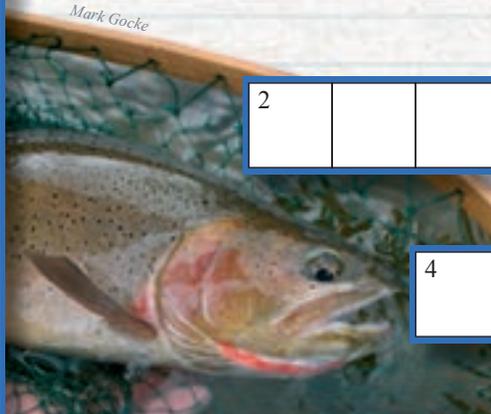
- Fish are called \_\_\_\_\_ when they eat other fish
- When water is cloudy or muddy it may be called \_\_\_\_\_.

1. Piscivorous 4. Turbid

### DOWN

5. Regulations 2. Phytoplankton 4. Drake

### ACROSS



## Fish Quiz

Can you identify what kind of fish is in the picture above?

Write your answer here: \_\_\_\_\_

*Answer at bottom of page.*

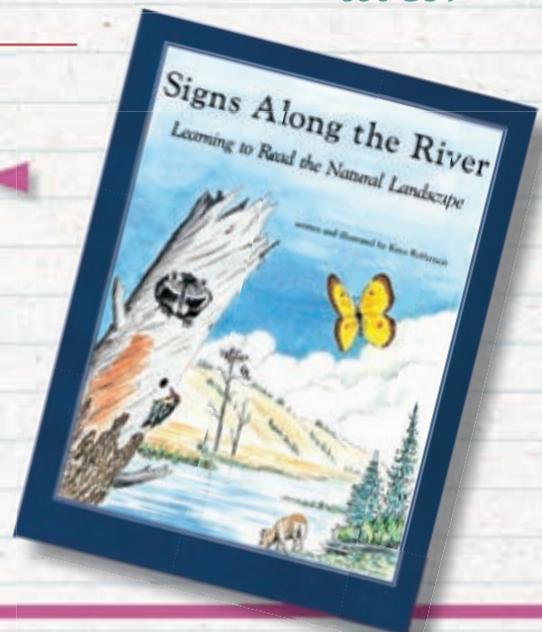
# ▶ LEARNING LINKS ◀

## Book

### Signs Along the River: Learning to Read the Natural Landscape

by Kayo Robertson

Can you walk along a riverbank and tell which animals live there? In this book, you will learn about the different hints or "signs" each animal leaves behind.



Volume 7, No. 1  
Fall 2008  
Editor: Janet Milek  
Assistant Editor: Ty Stockton  
Contributor: Mark Gocke  
Graphic Design: Byron Hardwick

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.

Printed in the USA. Copyright 2008 by the Wyoming Game and Fish Department. All rights reserved.

The Wyoming Game and Fish Department receives financial assistance in Sport Fish and Wildlife Restoration. Under title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, age, sex, or disability. If you believe that you have been discriminated against in any program, activity, or facility as described above, or if you desire further information please write to: Department of Interior, U.S. Fish and Wildlife Service, Division of Human Resources, 4401 N. Fairfax Drive, Mail stop: 2000, Arlington, Virginia 22203.