

Wildlife Express!



Volume 18

Issue 4

December 2004



Colorful
Cutthroat



Let's Look at...

Cutthroat Trout

Cutthroat trout are America's native western trout, and Idaho's state fish! They are found from the Rocky Mountains west to the Pacific Ocean and from Alaska south to New Mexico.

Cutthroat trout live in many different places depending on the type of habitat. They may live in small mountain streams, large rivers like the Snake River, or huge desert lakes. There are even cutthroat trout that spend part of their lives in the ocean! Cutthroats can live in very cold places like Stanley, Idaho and very hot deserts.

As you might guess, cutthroat trout are adapted to many different habitats. They have many different lifestyles and come in different shapes, sizes and colors. There are cutthroat trout that never get larger than six inches long. Other cutthroats may weigh more than 40 pounds. There are silvery cutthroat, golden cutthroat and cutthroat that look like rainbow trout. Some cutthroat have large spots; some have tiny spots. Still others have almost no spots at all.

There are at least 14 **subspecies**, or types, of cutthroat trout living on the planet. Calling something a subspecies is a way of separating plants or animals that are very similar. Take apples, for example. We can divide apples into three categories based upon color. They might be red, green or yellow. Let's say we wanted to bake an apple pie. If we just said we wanted a red pie apple, who knows what we would get. But if we asked for a certain type of red apple, a Jonathan, then we would know exactly what to expect. The Jonathan part is like the subspecies. It describes exactly which type of red apple we want.

Here is how subspecies work in cutthroat trout. All cutthroat are members of the Pacific trout and salmon family. The scientific name for this family is *Oncorhynchus*. At the next level (color in the apple example), they are all cutthroat trout, *Oncorhynchus clarki*. If we see the name *Oncorhynchus clarki*, we know it's a



cutthroat trout. Now, when we get really picky and want to know exactly what kind of cutthroat it is, we add a subspecies name. Our state fish, westslope cutthroat trout, is *Oncorhynchus clarki lewisi*. Can you guess who it is named after?

But no matter what their names, shapes, sizes, colors or lifestyles, cutthroat all have at least three things in common. They are all beautiful, and they are all well adapted to their western habitats. They all also have the striking "birthmarks" for which they were named. These are the bright red/orange slash marks under their throats.



What is a Fish?

Fish are vertebrates. They have backbones, just like you. Fish also breathe through gills, have fins and live in water. That seems pretty simple, right? Well in nature things aren't always as simple as we would like them to be.

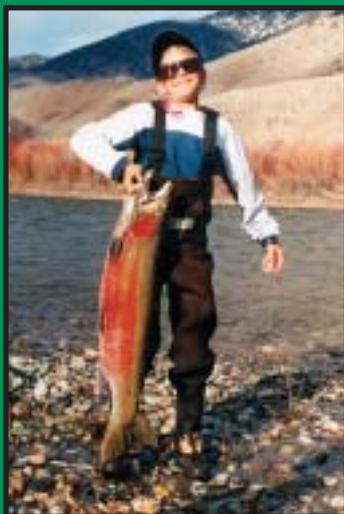
Take that backbone for example. We know what our backbone is like, but in the fish world, not all backbones are created equal. Sharks and sturgeon have a backbone made of the same stuff that supports your nose and ears! It is called cartilage. Cartilage is not hard at all!

Fish need oxygen to survive. Most fish have a special way to get oxygen out of the water they live in – gills. Water, with oxygen in it, passes over the gills when the fish swims. The skin on the gills is thin. Oxygen can pass through the skin into the fish's bloodstream.

Does this mean that all fish use gills to get the oxygen they need? No, some fish actually have lungs! In fact, the African lungfish is so dependent upon breathing air above the water's surface that it will "drown" if kept under water. The Australian lungfish can survive out of water for months if it is in a wet burrow. Lungfishes are examples of fish that break the "gill rule".

We usually think of fish as having fins on each side of their bodies, but what about lampreys? Lampreys look like eels. They don't have paired fins or jaws, and they are still fish. In fact, lampreys represent some of the first freshwater fish to appear on Earth.

So as you can see, a simple job like defining what a fish is, is not so simple. Fish have been a part of our planet for 450 million years. There are over 20,000 different kinds of fish worldwide. They have had some time to adapt to many underwater (and even out of water) habitats.



What's in a Name?

Names are interesting things. Learning where names come from and what they mean can be lots of fun. The cutthroat has had many names over the years.

The explorers Lewis and Clark were the first white people to see and describe cutthroat trout. In honor of Lewis and Clark, the westslope cutthroat trout was named after them. The scientific name for the westslope cutthroat is *Oncorhynchus clarki lewisi*. The first part of the name, *Oncorhynchus*, means hooked nose. Clarki and lewisi are for the explorers.

When Lewis and Clark first saw the cutthroat trout, the red slash marks on the fish's neck caught their eyes. They mentioned this in their writings, and the fish got the common name of cutthroat trout.

The first people that ever saw cutthroat trout, Native Americans, had their own name for them. The Nez Perce people called them Wal'alam. This name has nothing to do with the red slash marks like the English name. It is linked to where and how the fish was caught. Waha Lake is located south of Lewiston, Idaho. It is part of the homeland of the Nez

Perce. The lake once contained lots of cutthroat trout, and the name given to the cutthroat came from the lake. Unfortunately, Waha Lake no longer has cutthroat trout in it. Non-native fish pushed the cutthroat out.

Next time you hear the name of an animal. Think about how that animal got its name. There can be some interesting stories behind animal names!



William Clark



Mule deer are native to Idaho

There's No Place Like Home

Are you a native? If you were born in Idaho, you are! You are also native to America, because you were born here.

We say animals are native if their species, or kind, has lived in the same place a very long time. Cutthroat trout have been in Idaho for about one million years, so they are definitely native to Idaho.

Mule deer are native too. So are black bears, moose and bald eagles. These species have lived in Idaho for hundreds or

thousands of years. They may be native to other states as well, like Montana or Utah. These animals can't move around as easily as we can, so they usually stay in the same places unless people move them.

Sometimes, a species can disappear from its native land altogether! Grizzly bears once lived as far east as Iowa and were native in all the western states. Now they only live in small pockets around Yellowstone National Park, northern Idaho, Canada and Alaska.

Wolves are native to Idaho, too. They lived here for thousands of years but then disappeared. Now they are back.

Many wildlife managers in America are trying to restore wildlife to areas where they once were native. Why? Native wildlife has had a very long time to adapt to the climate and habitats that exist in an area. You might say they know it like their own backyard. The ecosystem is healthiest when native animals and plants live there.

Cutthroats in History

When you think of wildlife and history, do cutthroat trout spring into your mind? They might not. You may think of buffalo or beaver. But, cutthroat trout have played an important role in Idaho history, too.

Cutthroat trout were important to Native Americans. They were and still are an important food just like salmon, berries or deer. Their relationship to cutthroat trout can be traced back about 10,000 years. They ate fresh fish and dried fish on racks. The dried fish would stay fresh a long time. It was eaten during the cold months of winter.

The cutthroat also played a role in the journey of Lewis and Clark. Lewis and Clark were the first white men to discover many wild animals. Cutthroat trout was one of the animals they discovered. They saw the fish in 1805 in Montana. This was just before they entered the land we now call Idaho. Captain William Clark wrote in his journal what the fish looked like. He was the first white person to do that.

Cutthroats were also important to early explorers and settlers. People on the Oregon Trail ate cutthroat trout while traveling through Idaho. Cutthroat trout also fed early miners. Thousands of trout were harvested from the Coeur d'Alene and Salmon Rivers to feed miners.

Cutthroat trout also hold a special place in Idaho. In 1990, they become our state fish. They were named our state fish because of their importance in our history and because they are fun to catch! You can fish for cutthroats today. They are lots of fun to catch, and you can add these beautiful fish to your personal history by catching them.



Stranger in a Strange Land

If you moved to Idaho from another state or country, you are a “non-native.” It probably seemed strange to you when you first got here, because you were used to something else. But most people probably made you feel welcome. Many people in America move around and don’t live in their native state or country anymore. People that moved to Idaho from Michigan, Connecticut, or anywhere else are “non-natives.”

Sometimes, a plant or animal species can be a non-native too! Plants and animals are a bit different than people. Most don’t move on their own, especially plants! But people have moved both plants and animals. Sometimes on purpose and sometimes by mistake.

I’ll bet you just had a big turkey for Thanksgiving or maybe you will have one for Christmas dinner! Your turkey probably came from the store and was raised on a farm. Maybe your mom or dad went out and hunted a wild turkey for your dinner table! The wild turkey is not native to Idaho, but we have them now. They were brought to Idaho for people to hunt. The turkey has adapted well to its new homeland.

Sometimes, non-native species adapt too well. They can actually push out and replace the native ones that live there. This can cause problems. All over America, there are examples of non-native species taking over habitats from native species. More than 250 non-native species make their home in the Great Lakes! Many of these hitchhiked their way into the Great Lakes from other countries far, far away. Scientists are worried that over time, these non-natives will change the entire Great Lakes ecosystem. Non-natives are not always welcome!



The wild turkey is not native to Idaho.

Family Trees

Have you ever made a family tree? It's fun to write down how all of your relatives are related to each other. You might have brothers and sisters, aunts and uncles or cousins. With a little research and hard work, you might be able to trace back your ancestors for hundreds of years.

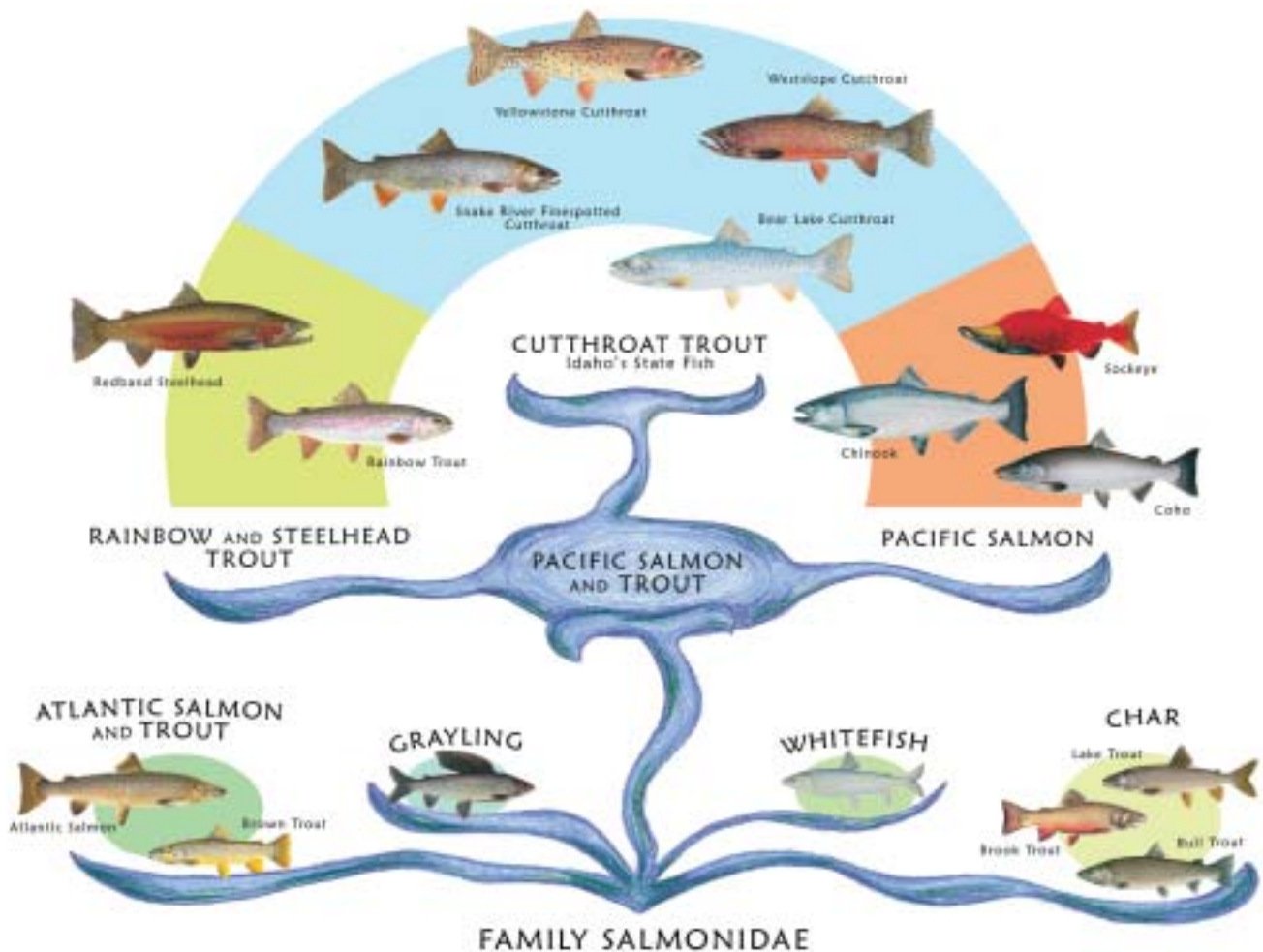
Biologists can trace back the ancestors of animals, too. One way to trace back an animal's family tree is to look at fossils. If we look at cutthroat trout, we can find evidence of them living on our planet about one million years ago. Their ancestors first appeared on Earth about 100 million years ago! That's a very long time.

Cutthroats are in a large family of fishes that include salmon, trout, and fish that look like trout. This family is divided into groups. Each group contains fish that have the most in common with each other. These groups are Atlantic salmon and trout, grayling, Pacific salmon and trout, whitefish, and char. Can you guess which group cutthroat trout are in?

The cutthroat trout's closest relatives are in the Pacific group. These fish live in waters that are in the western part of the United States or the "Pacific side" of the country. These fish are the cutthroats' first cousins. They are the five Pacific salmon - sockeye, chinook, coho, chum and pink. Rainbow trout and steelhead are also in this group.

Cutthroat trout are also divided into four groups. The fish are placed in a group depending upon where they live. Idaho has cutthroats in two groups. They are the Yellowstone and the westslope. Yellowstone cutthroats live in and around Yellowstone Park. Westslope cutthroats are found mainly on the west side of the Rocky Mountains. They live north and west of Yellowstone Park.

Tracing back our family trees helps us see our connections to family members. Tracing back an animal's family tree helps biologists see the connections between an animal and its habitat and relatives.



Countdown for the Cutthroat?

The Yellowstone cutthroat trout is one species of trout in trouble. In eastern Idaho, this fish has long lived in the south fork section of the Snake River. Now, a non-native fish in this area is causing cutthroat numbers to decline.

Rainbow trout live in much of Idaho, but they never lived in the south fork before. Why not? They lived in the Snake River on the west side of Shoshone Falls. This natural barrier is 212 feet high. It prevented them from moving east along the Snake River. It was this way for thousands of years until early settlers moved them around the falls and put them on the other side.

It didn't take long for these non-native strangers to adapt to the streams on the eastern side, and their populations grew. At first we thought having both fish would not be a problem. Now we have learned differently.

Because they live in the same streams, cutthroat and rainbow trout can spawn near each other and the resulting eggs create a *hybrid*. When two species of animals cross like this, it is called a hybrid. Sometimes hybrids, whether plants or animals, are a good thing but sometimes they are not. The hybrid created by the cross between the cutthroat and rainbow trout is called a cutbow.

Rainbows and cutbows are now taking over the rivers and streams of eastern Idaho. Less and less Yellowstone Cutthroat Trout are found there because they cannot compete with the other two. Someday, the Yellowstone Cutthroat trout may become an endangered species!

How do we prevent this from happening? Idaho Fish and Game is trying a few things to help reduce the number of rainbow and cutbow where the Yellowstone Cutthroat spawn. Fishermen can keep any rainbow or cutbow they catch in these waters. They must also release any pure cutthroat fish they catch.

In addition, at some places special fences called "weirs" keep all fish from entering streams to spawn. Fish and Game biologists pick up fish at the weir and only place the pure cutthroat on the other side, allowing them to spawn.

If you want to help the Yellowstone Cutthroat, have mom or dad take you fishing for rainbow trout in eastern Idaho this year!

Gone Fishin'!

My dad and I went to Island Park this fall on a fishing trip. We drove for an hour and a half until we reached Ponds Lodge. I ordered a cheeseburger, fries and a small root beer. We talked about our fishing the previous year, about how I got to miss school and how I got a five-pound fish that was full of eggs last year. For desert I had a strawberry shake.



*David Losinski, age 10
Idaho Falls*

Then we got in the car and drove a little ways on the highway, and then we turned off onto a small dirt road. We drove about twenty minutes down the small road until we reached a small fishing pond. To put it as straightforward as possible, we didn't catch anything but abandoned fishing lines and small sticks. We got back in the car, slightly discouraged and drove to the cabin.

We loaded various items such as tackle, sleeping bags and food. We lit a fire inside of the fireplace and roasted marshmallows. Then I read for a half hour and got ready for bed. Then dad told me how his dad took him on fishing trips, too.

The next morning I awoke to the smell of bacon and eggs. Then we packed up and were on our way. First we fished on the Henrys Fork in front of Mack's Inn. We found a Super Duper Lure and two Dry Flies but we didn't catch any fish. We went to the Mill Pond. We saw these huge, two feet long Rainbow Trout. My dad went to the other side of the pond to fish when he saw a mink with a huge Rainbow Trout in its mouth. The fish were jumping out of the water because of the mink. Then an Osprey started circling. There was a lot of seaweed so our lures kept getting stuck. Finally, we decided to leave. But as soon as we got into the car, the Osprey dived and caught a huge Rainbow Trout.

We drove to Ashton Reservoir. My dad fished on top of the ruins of the old bridge, while I fished off the floating dock. Suddenly, I saw a huge brown animal on the other side of the reservoir. "Deer!" I shouted to dad. "It's only a cow." Said dad. A few minutes later dad said "I have something" I ran over to my dad. He had a Brown Trout. He cleaned the fish, we got in the car encouraged, planning for our next fishing trip and headed home.

Create Your Own Hybrid and You Could Win a Prize!

In this month's issue of *Wildlife Express*, we told you about hybrids. The cutthroat trout and the rainbow trout produce the cutbow. One mythical hybrid is the jack-a-lope, a cross between a jack rabbit and an antelope! Here is your chance to be creative and win some prizes. Think of your own imaginary cross between two native Idaho species. Then draw it and write a 100-150 word essay describing your critter (this paragraph is about the length you need). Be sure to include the habitat and niche in which your critter lives and what adaptations it has to live there. Give your critter a creative name and mail your drawing and essay to Idaho Fish and Game by February 1st. Our staff will select their favorite for a future issue of *Wildlife Express*. In addition, the winner will receive some special prizes like posters, wildlife books, t-shirts, and more. Send your entry to: *Wildlife Express* Cutbow Contest, P.O. Box 25, Boise, ID 83707.



jack-a-lope



big horned toad

WILDLIFE EXPRESS

Volume 18 • Issue 4 • *Cutthroat* •
December • 2004

Wildlife Express is published nine times a year (September-May) by the Idaho Department of Fish and Game. Classroom subscriptions and an Educator's Guide are available for \$30.00 per year and includes a classroom set of 30 copies mailed to your school each month. Subscriptions of five copies or less are available for \$10.00.

Wildlife Express is also available on the Idaho Department of Fish and Game website at no charge at <http://.fishandgame.idaho.gov> For more information, call or write: ***Wildlife Express*, Idaho Department of Fish and Game, 600 South Walnut, PO Box 25, Boise, Idaho, 83707 (208) 287-2874.**

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WE WOULD LIKE TO HEAR FROM YOU !

*If you have a letter, poem or question for *Wildlife Express*, it may be included in a future issue! Send it to the address printed above!*