Wildlife Express

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Beaver

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Illustration CCBY IDFG

Inside:

IDAHO FISH & GAME

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Beavers

What is the largest rodent in North America? It is the beaver! An adult beaver weighs 22-50 pounds. They may weigh up to 90 pounds, but a 90-pound beaver is rare.

Unlike humans, beavers never stop growing. They will keep growing for as long as they live. People who study beavers are not quite sure how long they may live. Some people think their average life span is around ten years, but some beavers have lived as long as 20-30 years.

Beavers cut down a lot of trees. They use trees to build a dam and make a home. A beaver's home is called a lodge. A lodge looks a bit like an igloo. It is a round pile of sticks, rocks and mud in the beavers' pond or along the side of the pond. The only way into the lodge is by swimming. The lodge has underwater tunnels and entrances. This helps to keep enemies out of the lodge. Inside the lodge, beavers have a place to eat and sleep. Above the eating-place is the beavers' bed. The bed is usually higher, so it will stay dry. Even beavers don't like to sleep in a wet bed!

Trees are also used as food. Beavers eat only plants. They like to eat the bark off of small tree branches, water lilies, berries and grasses. Beavers eat bark off of twigs just like you eat corn off of a cob! Some branches are stored at the bottom of the pond. These branches are food for the winter.

Beaver sounding the alarm photo CCBY Mark Giuliucci on Flickr
Dam illustration CCBY Mary K Johnson for IDFG
Beaver illustration Public Domain from Wikimedia

Beavers use the water for safety. If danger is near, they slap their tails on the water and dive. The tail slap tells other beavers about the danger, and they will dive underwater, too. A beaver can hold its breath for about 15 minutes underwater! Most beavers don't hold their breath that long though. Usually they stay underwater for two to three minutes.

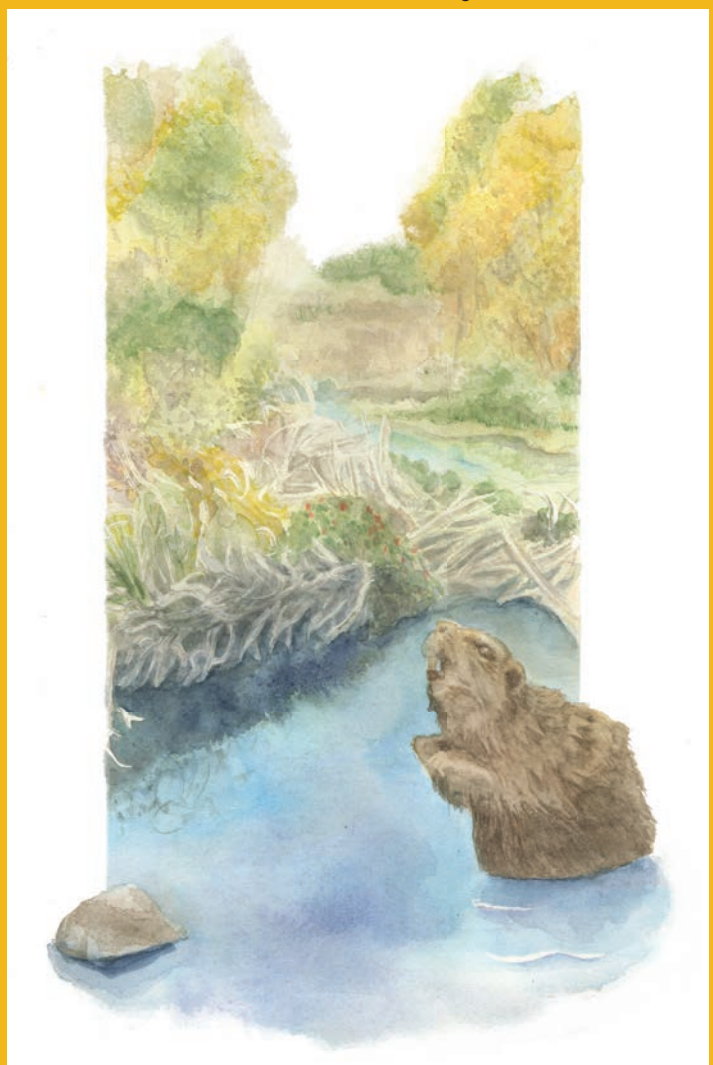
Beavers have special bodies for spending time in water. They have thick fur to keep them warm. At the base of their tails, beavers have two oil glands. One gland makes oil that the beaver combs through its fur. This oil makes the fur waterproof. The other oil gland makes ***castoreum*** (KAS-tor-ee-um) oil. This oil stinks. It smells a bit like honey with a tad of mildew and cow poop. Beavers use this oil to mark their territories or homes. Beavers put castoreum oil on piles of mud around their ponds to let other beavers know the pond is taken.

Beavers have webbed back feet to help them swim. But only the back feet are webbed. The front feet have long toes with large, sturdy toenails. Beaver use their front feet to grab ahold of branches and dig up mud. Beavers have something else on their back feet that are surprising; they have combs!

The second toe in on each back foot has a special toenail that is split in two parts. This toenail is used like a comb to help beavers get tangles out of their fur.

How would you like to have built-in swim goggles? Beavers do! They have clear eyelids that help them see underwater. They even have flaps in their noses and ears that close to keep the water out when swimming.

Beavers live in family groups which include a male and female, their babies and last year's babies. A baby beaver is called a kit. Kits can see, hear, walk and swim soon after they are born. Baby beavers drink their mother's milk for about six weeks. After that, they will eat only plants. By the time beavers are one year old, they can cut down trees and help repair the dam and lodge. Beavers live with their parents until they are about two years old. Then the young adult beavers leave and find their own place to build a dam and start a family.



THE RODENT FAMILY

A rodent is a mammal whose front teeth never stop growing. Squirrels, rats, mice, and porcupines are all rodents. Most rodents eat plants, but some rodents are predators. They may eat insects or other small animals. There are more rodents in the world than any other type of mammal. Idaho has over 40 different kinds of rodents.

Idaho's largest rodent is the beaver. The largest rodent in the world is the ***capybara*** (kap-ee-BAR-ah). It is about the size of a pig. Capybara can weigh more than 125 pounds and be four feet long! They are naturally found in South America, but some have been brought into the United States. One of the smallest rodents is the pygmy mouse of Africa. It weighs about as much as an unsharpened pencil and is only two inches long.

Because their front teeth never stop growing, rodents need to chew on tough things to keep their teeth from growing too long. If they didn't chew to keep their teeth short, their teeth may actually circle around and grow into their skulls!

If you have a pet rodent like a mouse, hamster or guinea pig, you may have noticed that your pet's front teeth are a yellow-orange color. The teeth are only orange on the outside. Believe it or not, these teeth are supposed to be orange. The orange color is special enamel that helps to make their teeth strong and hard. Imagine cutting down trees like beavers. Wouldn't you want strong teeth? The orange enamel also helps to keep their teeth sharp. The hard, outside of the teeth wear down more slowly than the softer inside. This keeps their teeth chisel sharp.

Rodents are an important part of the ecosystem. They are links in food chains. Many rodents are food for other animals. Even people eat rodents. In Venezuela, some people eat capybara. Venezuelans eat capybara during a traditional holiday, just like we eat turkey for Thanksgiving.

Nature's Engineers

Beavers are known as nature's engineers. An engineer is a person that designs and builds things. Beavers can sure build! They use their long, strong front teeth to cut down trees. The trees are used to build dams across streams and rivers. The dams block the flow of water and make ponds. Beavers use larger branches and trees to make a dam. They take trees and branches and stick them in the mud at the bottom of the stream. Then they put rocks and mud on top on the sticks. They make layers of branches, rocks and mud until the dam is above the water. Beavers will then spread mud on the dam with their paws to stop the water from coming through. In two or three days, the dam is finished.

Where beavers live, they change the land and water. Beaver dams help make habitats or homes for other animals. Beaver ponds are not only a home for beavers, but also a home for fish, frogs, insects, birds and many other animals. Otters, muskrats and raccoons will all visit beaver ponds to find food and water. However, sometimes beaver engineering can cause damage to private property and must be removed.

Beavers can live anywhere trees and water are found, even in deserts. Beavers that live in dry areas make little oases for other animals. Beaver ponds make the land around them wetter. More plants grow in the damp soil. Soon many different types of plants and lush grasses can be found. Cutting down trees also lets more sunlight touch the ground. This helps new and different plants to grow. Animals may come to eat the plants, and other animals come to eat them. Animals find water to drink, food to eat and shelter at beaver ponds.

Beavers will stay at a pond for as long as there are trees to cut down and eat. When the trees are gone, the beavers leave. With no beavers to take care of the dam, the dam soon starts to leak and break down; the water drains from the pond. The rich mud left behind is the perfect place for a meadow. The meadow will bring new animals to the area. Rabbits, gophers, and elk are just some of the animals that will eat the meadow grasses.

After a long time, trees will start to grow again and take the place of the grasses. A new generation of beavers may find the spot, build a dam and form a pond. The land will again be changed. A circle of change from meadow, to pond and back to meadow again will start. This change over time in the land is called ***succession*** (suk-SESH-un).

Upper Dry Creek beaver dam.
Photo CCBY Mary K Johnson for IDFG

FANTASTIC FUR

Many animals are covered by what is called fur. You know what fur looks like. Beavers, bears and coyotes are all covered by fur. It looks like long, soft hair. However, there is more to fur than meets the eye.

Fur is made up of two different layers of hairs. Guard hairs make up the top layer. Guard hairs do just what their name says. They guard and protect the animal's second layer of fur and skin from weather and water. Animals that spend a lot of time in water don't want their fur and skin to get wet. They might get too cold. Often guard hairs are shiny, because animals put oil on them. Some animals, like beavers, have special glands that make oil just for spreading on their fur. Beavers' oil glands are at the base of their tails. Other animals have very small oil glands all over their skin to help keep the guard hairs oily. Water hits the oily guard hairs and runs off the animals' backs keeping their fur dry.

The second layer of fur is called underfur. Underfur is shorter than the guard hairs. It is usually very soft and fluffy. Underfur keeps animals warm. Animals fluff up their underfur and trap air in it. The animals' bodies warm the trapped air. The warmed air acts like insulation, and the animals stay nice and cozy. This is what happens when you put on a coat. Your body heats the air trapped by the coat, and you stay warmer.

Some animals with fur also have other special hairs on their bodies. Can you think of any? Porcupines may come to mind. Porcupines have fur with quills. The quills are special hard hairs that protect porcupines from their enemies. When danger is near, porcupines will arch their backs and tuck their heads under their bodies. This makes the quills stick straight up in the air. If an animal tries to touch the porcupine, it will get a nasty poke from the quills. Porcupines cannot shoot quills out of their bodies. Remember a quill is just a hair. You can't shoot hairs out of your head, so porcupines can't shoot quills out of their bodies.

Fur sure is a fantastic way for animals to stay warm during the cold winter.

HURRAY FOR HAIR

Some animals have hair on their bodies instead of fur. Fur is made of two different layers of hairs. Hair is usually just one layer, and all the hairs look alike. Hairs are usually thick and stiff. Deer, elk, pronghorn and you, all have hair.
If you looked closely at a deer hair, you would see that it looks a bit like a straw. The hair is hollow. Animals with fur trap air to stay warm. Well, so do animals with hair. When they are cold, they stick their hairs up. They trap air inside and between the hairs. The air trapped in the hairs and between the hairs makes a nice coat of insulation against the cold.

Have you ever gotten goose bumps when you were cold? Look at a bump next time you have goose bumps. You will see a hair sticking up in the middle of the bump. Your body gets cold and tries to trap air by making your hair stand up. We are not very good at trapping air in our hair. Our hairs are too thin and short to trap air.

Many animals grow a thicker layer of hair for the winter. More hair means they can trap more air and stay warmer. Some animals with hair grow a thick woolly layer of special hair close to their skin. Caribou do this. The woolly layer of hair is similar to the underfur that animals with fur have. In the winter, caribou are out in temperatures that can get down to 60 degrees below zero! Now that's cold. Their woolly layer of hair insulates them from the cold and helps to block the icy wind.

In the spring, animals will shed their winter hair and grow thinner summer coats. Animals often look shaggy and strange when they are shedding their long winter coats. People may even think an animal is sick. Once the silky summer hairs grow in, the animal will look nice again.

White-tail deer at the Camas Wildlife Refuge.
Photo CCBY Dave Albiston for IDFG
Under-hair photo CCBY IDFG with help from the MK Nature Center.

Furbearers and Trapping


River Otter

Furbearers are special animals. Furbearers are animals that are trapped or hunted for their fur. Their fur is valuable to people. Furbearers not only supply people with fur. They also are fun to watch, interesting to study, and connect people with their historic past.

Idaho considers the following animals to be furbearers: badger, beaver, bobcat, fisher, lynx, marten, mink, muskrat, red fox, and river otter. In Idaho, no trapping or hunting is allowed for lynx or fisher. They are protected because their numbers are so low. Badger, bobcat and red fox are the only furbearers that may be hunted and trapped.


Mink

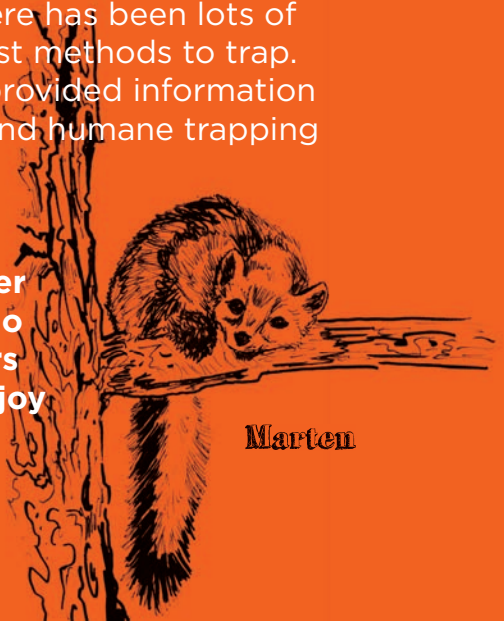
Why do people trap? Some people trap because they like getting outside. Trapping is one way to enjoy beautiful winter weather and wildlife. It is also a way to provide their families with extra money. Many times trapping is used when there are too many animals in an area. Too many animals in an area may spread diseases or damage habitats. Sometimes animals are trapped alive and moved to areas where their numbers are low. Trapping furbearers is one way to manage animals. And the money from hunting and trapping licenses goes to conservation programs.

Fish and Game wants to make sure people always have the chance to trap furbearers. There are many rules that people must follow when trapping. These laws protect people and animals. People who want to trap must take a trapper education class and buy a trapping license. Any trapper who purchased their first trapping license before June 30, 2011, does not need to take the trapper education class.


Muskrat

Even a trapper with lots of experience can learn from a trapper education class. What will a trapper education class teach you? The class will teach you how to be a safe and responsible trapper. Tools, techniques and where to put traps will be covered. You will learn about animal behavior, what equipment works best for an animal and situation, and how to care for pelts. You will also learn about the regulations that need to be followed. There has been lots of research on the best methods to trap. This research has provided information on safe, effective and humane trapping methods.

With responsible trappers and proper management, Idaho will have furbearers for everyone to enjoy for years to come.

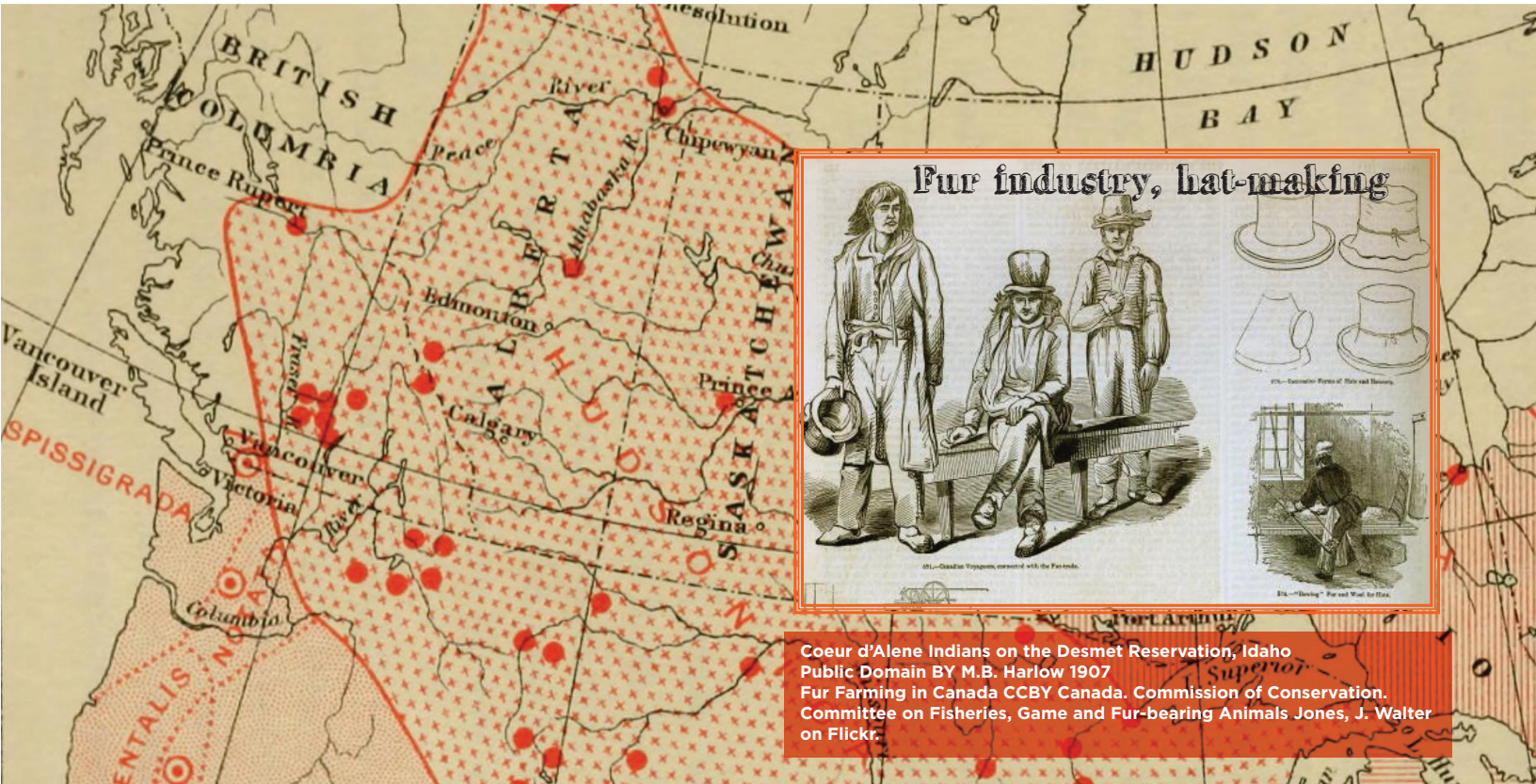

Marten

Furbearers in Idaho History

Furbearers have played an important role in Idaho history. Native Americans have always depended on nature. Plants and animals once supplied all the food, clothing and materials they needed. Furbearer pelts were used for many things, not just clothing. Some were used as containers. The long pelt of a river otter makes a great quiver. A quiver is a case to hold arrows.

Furbearers, especially beavers, are one of the reasons European people first came to this area. In the early 1800s, fur was used to make coats, hats, gloves and other pieces of clothing. Beaver hats were very popular; every man wanted one. Beavers were getting harder to find. Trappers started looking to the west to find beavers.

In 1809, David Thompson built Kullyspell House by Lake Pend Oreille. This was the first European building built in Idaho. The house was built for the Northwest Fur Company. Soon other trappers heard about all the beavers in the area.



Coeur d'Alene Indians on the Desmet Reservation, Idaho
Public Domain BY M.B. Harlow 1907
Fur Farming in Canada CCBY Canada. Commission of Conservation. Committee on Fisheries, Game and Fur-bearing Animals Jones, J. Walter on Flickr.

By 1811, four fur companies were trapping animals in Idaho. Mountain men, that were not members of fur companies, were also trapping animals.

Idaho was abundant territory, competing interests were many. The United States and Great Britain signed a treaty in 1818 that let people from both countries live on the land. Neither country owned the land, but both wanted to own it. Great Britain operated The Hudson's Bay Fur Company. They wanted to create a "fur desert" to keep the Americans out of the area and claim the land for Great Britain. They thought that if they trapped all the beavers out of the area, no Americans would want to come here. **Between 1818 and 1827, they trapped 85,000 beavers out of the Snake River alone!** Now that is a lot of beavers. Trapping all of those beavers didn't keep Americans out of the area. Russia gave the Northwest Territory, which included Idaho, to the United States in 1824.

Pioneers and homesteaders also trapped animals. Trapping was one way to feed a family and earn money. Many animals were becoming hard to find. Some people thought beavers needed protection. In 1899, a law was passed in Idaho that protected beavers from being trapped or hunted. The law helped, and beavers became more common. In 1957, people were once again allowed to trap beavers. Beavers are now found throughout the state. With care, beavers and other furbearers will continue to be a part of Idaho's heritage.

Alberta 1890s Furtrader CCBY Wikimedia
Woman in Furs 1923 CCBY Lawless on Flickr
Snake River in Weiser, ID, 1915 by Kyes Photo. Public Domain on Flickr

Be Outside ---Counting Critters

Winter is here! It's a great time to enjoy the outdoors with many fun activities to do. Go skiing or snowshoeing, build snowmen and snow forts, make snow angels, have a snowball fight, count wildlife---wait, what? Count wildlife? Winter is a great time to check out your wild neighbors. Wildlife biologists count many animals during the winter when the leaves are gone and there's snow on the ground. A fresh snowfall provides the perfect place to look for animal tracks. You might be amazed at how many different kinds of animals also call your neighborhood, home.

When you find some tracks, see if you can identify the animal that left the track. Can you can tell what the animal was doing and where it was headed. Was the animal alone or did it have friends? Was it headed in one direction or did it explore and leave a wandering trail? Bring a notebook to make sketches of the tracks you see. Visit the same place every time there is a fresh snow. Do you see the same kind of tracks or different ones? Count the sets of tracks you find to get an idea about how many animals might be living nearby.

BE OUTSIDE
IDAHO CHILDREN IN NATURE

Another fun way to learn about your wild neighbors is to participate in the Christmas Bird Count. It's one of the oldest wildlife counts in the world. This year will be the 120th year of the count! That's a lot of birds and bird watchers. The Christmas Bird Count, or CBC, started in 1900 with 27 bird watchers. Today, the event attracts over 75,000 birdwatchers all over North America. In 2018, they counted 59,242,067 birds---wow!

Bird watchers of all ages can participate in the CBC, including students like you. Participants walk, drive, snowshoe, cross-country ski or use other ways to get around their count area. You can join a group of birders or stay at home and count the birds that visit your feeders. Local Audubon groups organize the CBC and are happy to welcome new birders. These counts occur between December 15 and January 5. All the information that is collected helps scientists learn about bird populations in areas large and small. And this is good for birds because people learn how to help birds and their habitats. To learn more about the CBC, check out the Audubon Society's webpage at **https://www.audubon.org/conservation/join-christmas-bird-count**

Eagle photo CCBY Matthew Schwartz on Unsplash
Pygmy Nut photo CCBY IDFG
Black-Capped Chickadee CCBY Peter Lewis on Unsplash
Snow scene CCBY IDFG

Beaver Boggle

Unscramble the letters to discover these words associated with beavers. Then use the numbered letters to answer the question below.

VEEARB ☐☐☐☐☐☐ (4)

RUMSAETOC ☐☐☐☐☐☐☐☐☐ (2)

RUF ☐☐☐ (1)

ETRES ☐☐☐☐☐ (7)

DOELG ☐☐☐☐☐

TIK ☐☐☐

MWSI ☐☐☐☐

PATR ☐☐☐☐ (3 6)

NETROD ☐☐☐☐☐☐ (9 8)

WERAT ☐☐☐☐☐ (5)

Beavers have fur that is valuable to people. Because of this, beavers are in what special group of animals?

☐☐☐☐☐☐☐☐☐

1 2 3 4 5 6 7 8 9

Upper Dry Creek between beaver dams. Photo CCBY Mary K Johnson for IDFG
Beaver tail photo CCBY Rachel Knickmeyer on Flickr

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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:
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