



Volume 30/Issue 4                      Bighorn Sheep                      December 2016

# BIGHORN SHEEP

**INSIDE:**  
Keeping Bighorns in Idaho  
Awesome Antlers  
What is an ungulate?



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# BIGHORN SHEEP

It's a beautiful autumn day hiking along the Salmon River when all of the sudden a crash echoes through the canyon. You jump, take out your binoculars and start to look for what caused the loud noise. Searching across the river, you finally spot them - battling bighorn sheep. What an amazing sight!

It's not difficult to see how bighorn sheep got their name. The rams, or males, have huge curving horns. The females also have horns, but their horns are much smaller. The horns on a ram may weigh up to 30 pounds! Their horns become battering rams in head-to-head duels. During the mating season, the rams charge at each other at speeds over 20 miles-per-hour. The sound caused by the horns crashing may be heard more than a mile away. Bighorn rams may battle like this for over a day until one ram finally gives up. It's a good thing that their skulls are cushioned to absorb the shock!

Bighorn sheep are not afraid of heights. They are right at home in Idaho's southwest desert canyons and central mountains. Their feet are perfectly designed for jumping around on rugged, rocky cliffs. They can hold onto the smallest crook and cranny.

Bighorn sheep are social. They like to live in groups. Usually a herd contains females, called ewes, and their young called lambs. The rams tend to stay in separate groups except for the mating season. Living in groups offers bighorn sheep protection from predators. There are more eyes to look out for danger. They have wonderful eyesight and can spot other animals moving from up to a mile away! They need to watch out for golden eagles. Golden eagles will sometimes swoop down on the lambs to make them lose their grip on the rocks. Wolves and mountain lions will also prey upon bighorn sheep. When these large predators attack, bighorn sheep will group together in a circle and face out toward the predators. This protects the young lambs in the middle of the circle, and the predators have to face many sharp horns!

How would you like to be born on a small steep cliff? It might not seem very safe to us, but that is exactly where bighorn lambs are born. Ewes give birth to one or two lambs in April or May. Lambs can stand and climb shortly after being born. A lamb will stay hidden where it was born for about a week and then start to follow its mother. They drink mother's milk until about five months old. Then they start to eat plants like the adults. Female lambs usually stay with their mothers' group for their entire lives. Young rams leave their mothers' herd and join a male group when they are between two to four years old. In three more years, you may hear the crashing of their horns echoing through the mountains.



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# Keeping Bighorns in Idaho

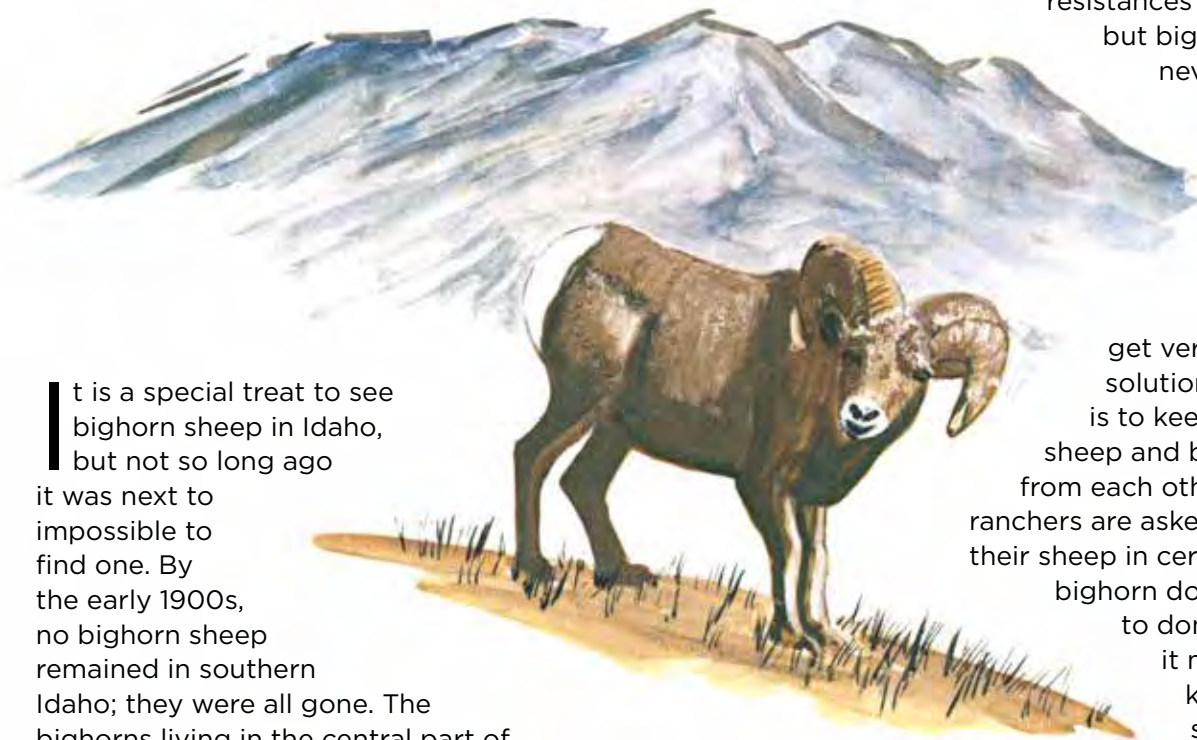
So why are there bighorn sheep in these places now? Fish and Game put them there. What Fish and Game did was go to other states and Canada where bighorns were still plentiful. Bighorn sheep were trapped in those areas and released back into the wild in Idaho. Many of the bighorns did well; their numbers started to increase.

Something else that has affected bighorn sheep are domestic sheep. When people brought domestic sheep to Idaho, they also brought sheep diseases. Diseases that make domestic sheep sick will also make bighorn sheep sick. It's just like how you catch a cold from a sick friend.

Domestic sheep have developed some resistances to their diseases, but bighorn sheep have never been exposed to the sheep diseases before. Their bodies don't know how to fight off the sickness, so they get very sick or die. The solution to this problem is to keep domestic sheep and bighorns away from each other. Sheep ranchers are asked to only graze their sheep in certain places. If a bighorn does get too close to domestic sheep, it may need to be killed. This may seem cruel, but if that bighorn goes back to the

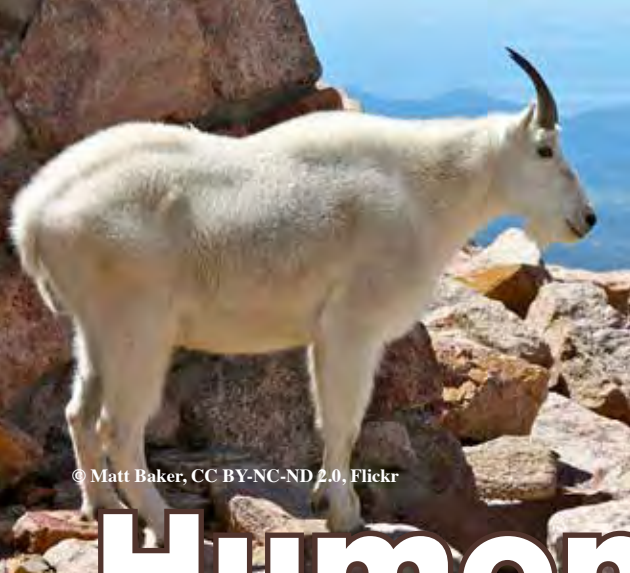
herd and makes them sick the whole herd could die. Killing one bighorn may help save the entire group.

Bighorn are an important part of Idaho's history. They are also an important piece of Idaho's environmental puzzle. If they disappear from Idaho's deserts and canyons, the environment won't be as healthy. People would miss the great battles of rams and balancing act of bighorns walking along canyon cliffs. Fish and Game is trying to make sure that bighorn sheep will always be a part of Idaho.



It is a special treat to see bighorn sheep in Idaho, but not so long ago it was next to impossible to find one. By the early 1900s, no bighorn sheep remained in southern Idaho; they were all gone. The bighorns living in the central part of Idaho were almost wiped out. What happened?

Along the Snake and Salmon Rivers, Native Americans carved images on rocks of bighorn sheep hunts. They depended upon bighorn sheep as a source of food. They used their horns to build bows and used their hides to make clothing and containers. Bighorn sheep were important to Native American survival. When pioneers, settlers and miners moved into Idaho, they also hunted bighorns. At that time, there were no regulations or laws about when to hunt or how many bighorns a person could harvest. These early hunters put a lot of pressure on bighorns; they killed more bighorns than were being born. Bighorns couldn't replenish their numbers quickly enough to make up for the losses from unregulated hunting.



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# Humongous Horns



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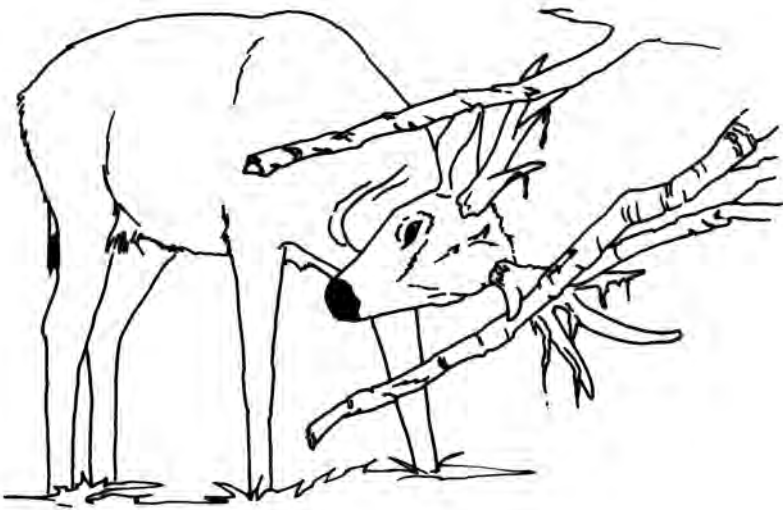
**B**ighorn sheep, pronghorn, mountain goats, and bison all have horns. Horns are a bit different than antlers. How do you tell horns and antlers apart from each other?

Antlers often look like tree branches with a main beam and points coming off of the beam. Horns are usually not branched like antlers; they are shaped similar to the letters “C,” “J,” and “L.” Horns have two parts, a boney middle and an outer sheath. The inside part is bone that is attached to the skull. The outside of the horn, the sheath, is a covering made of a tough fiber-like material called keratin. Your fingernails and hair also contain keratin. What purpose does the sheath serve? It protects what’s underneath!

Both males and females may grow horns. Horns are permanent. In most cases, they continue to grow throughout an animal’s life. Pronghorns are an exception to this rule. A pronghorn will shed and re-grow its sheath each year.

If you take a close look at most horns, you may see rings or segments. Counting the rings will give you an idea of a bighorn sheep’s age. Bighorn sheep have many ridges and lines on their horns. As the horns grow they leave behind a ridge or line. The rings used for aging a bighorn are usually darker, a bit wider and go all the way around the horn. These rings are made during the winter. Horn growth slows down in the winter, and the stress of winter will often leave a mark on the horn. The area between these darker rings is called a segment. Lambs grow their first set of horns by six months and their second horn segment by 18 months. For rams, count the horn segments and subtract one. This will give you an idea of his age. Older rams often wear off the tips of their horns, so some people look for the four year ring. The ring left on the horn during a ram’s fourth year is usually darker and wider than rings left when the ram is younger. It can be difficult to determine the age of ewes by their horns. You may only be able to tell a ewe’s minimum age. Who knew you could learn so much just from a horn!

# AWESOME ANTLERS



point, he could actually bleed to death! Moose don't do much as their antlers are growing; they stay hidden and are not aggressive. Once the antlers have grown, the blood vessels in the velvet close off. The velvet dries up and starts to fall off. By September, the velvet has been completely rubbed off by the moose, and the antlers are hard and polished - ready to show off for the females and intimidate younger males. Moose shed their antlers in early winter and then immediately begin to grow another set. Then the process starts all over again!

**A**ntlers grow on members of the deer family, like moose. They are bones that grow out of the animal's skull. An antler grows faster than any other kind of bone. It can grow up to one inch a day during the summer!

Usually antlers are only found on males. The one exception is caribou; both male and female caribou grow antlers.

Antlers are light and easily damaged until late summer. At this time, they are covered with a thin skin called velvet. Velvet is covered with fine, short hairs and contains thousands of blood vessels. The blood vessels carry calcium and minerals needed for building strong bones. If a moose damages his antlers badly at this





# What **BIG Feet** You Have!

**H**ave you ever looked closely at a picture of an animal's foot? With all the wrinkles, bumps and shapes, animals' feet can be pretty interesting.

A close up picture of an animal's foot can tell you a lot about the animal and where it spends its time. Bighorn sheep have large rough pads on the bottoms of their feet. The pads help bighorn sheep grip onto all the bumps and cracks in the rocks as they climb on the sides of mountains.

The bottoms of porcupine feet are covered by small little bumps. The bumps make their feet look like they are covered in sandpaper. Porcupines' rough feet help them grab onto tree bark as they climb.

Think of a beaver's foot. They have webs between the toes on their back feet. The webs are built-in swim paddles. Many animals that spend a lot of time in the water have webs. Have you ever seen the front feet on a beaver? The front feet do not have webs. The front feet have long toes and claws on them. These feet help the beaver grab onto logs and dig up mud.

Next time you see a picture of an animal's foot, look closely. You may be able to figure out the animal's habitat just by looking at its feet.

# WHAT IS AN UNGULATE?

**B**ighorn sheep are ungulates (UN-gyu-lits). Ungulate is the Latin word for hoof. All ungulates have hooves.

Scientists used to group all ungulates together, but now they are divided into two groups. One group includes animals that have an odd number of toes. Horses are in this group. Animals in the other group have an even number of toes. Which group do you think bighorn sheep are in?

All ungulates are herbivores. They eat plants. Grasses, leaves and twigs are tough to eat. To help them digest plants, ungulates have stomachs divided into different chambers or rooms.

When bighorn sheep eat, they nip off grass, leaves and twigs. They don't chew their food much before swallowing it. The plants go into the first chamber of their stomachs. The first chamber is full of bacteria and other organisms that help break down the plants. Later, bighorn sheep spit up the food and chew it more thoroughly. Have you ever heard of cows chewing their cud? They are chewing food regurgitated from their stomachs. Once chewed, the food passes into the second, third and fourth parts of their stomachs where water and nutrients are taken out of the food.

Having a stomach with many chambers not only allows animals to eat tough plants, it also helps to keep them safe. Many animals are at risk when they eat. Predators are more likely to see a deer eating in a clearing than hiding under a tree, so deer eat quickly. They nip off plants, chew them just a little and then swallow them. Once their first stomach is full, the deer finds a place to rest and hide. Now the deer can fully chew and digest their food, without having to constantly look out for danger. Don't ungulates have some amazing adaptations to help them eat and stay safe?



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# Wildlife Watching

**L**et's go wildlife watching! We are lucky to live in a state with such a diversity of wildlife species and watching them can be so much fun! While out enjoying our natural wonders, it's important to keep some things in mind, not only to protect wildlife but also to protect yourself.

One very important thing to remember is wild animals are WILD. Animals are often unpredictable. They may look calm, but then suddenly charge. If an animal has its head raised and ears pointed in your direction, it knows you are there. If the animal is pacing and jumping around, stomping its feet or making alarm calls, move farther away. These are all signs that you are too close and are disturbing the animal. Use quiet, slow movements and try not to startle an animal. Never chase, feed or try to pick up wild animals. You are putting yourself in danger when you do.

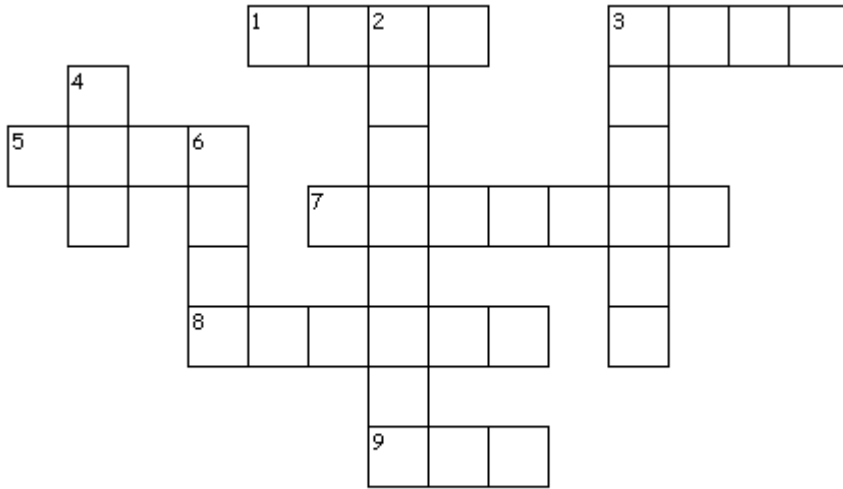
The most important thing to have is a good pair of binoculars. High powered binoculars or a spotting scope will let you observe wildlife from a safe distance. Field guides will help you identify what you are looking at.

A perfect place to watch bighorn sheep is at a wildlife viewing site. The Red Rock Bighorn Sheep Viewing Site is located along Highway 93 north of Salmon, Idaho. The Buffalo Jump Bighorn Viewing Station is near Challis, Idaho at the intersection of Highways 75 and 93. The sites have information about bighorn sheep and high-powered scopes to spot bighorns from a safe distance.

Watching animals can teach you so much. You might learn something about the animal you are watching, and you might also learn something about yourself. You might discover hidden skills you never knew you had.



# Bighorn Criss-Cross



## Words

Bows  
Curving  
Ewe  
Four  
Lamb  
Pads  
Pounds  
Ram  
Sheath  
Ungulate

### Across

1. The number of chambers a bighorn stomach contains.
3. The rough \_\_\_\_\_ on a bighorn's feet help it grip onto rocks.
5. This is what a baby bighorn sheep is called.
7. Male bighorn sheep have large \_\_\_\_\_ horns.
8. The outside of a horn.
9. This is the name for a female bighorn sheep.

### Down

2. The Latin word for hoof.
3. A bighorn sheep's horns may weigh 30 \_\_\_\_\_.
4. The name for a male bighorn sheep.
6. Native Americans made \_\_\_\_\_ out of bighorn sheep horns.

## WILDLIFE EXPRESS

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**Lead Writer:** Adare Evans

**Layout:** Glenna Gomez

**Contributors:** Adare Evans, Lori Adams, Vicky Runnoe



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:

[adare.evans@idfg.idaho.gov](mailto:adare.evans@idfg.idaho.gov)

or

Wildlife Express, Idaho Fish and Game  
PO Box 25, Boise, ID 83707