

# Wildlife Express!

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Mountain Goat

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Photo courtesy Christopher Gaughan

# Mountain Goats



Photo courtesy Hollie Miyaski

Mountain goats would make any rock climber jealous. They can pull themselves up from ledge to ledge with just their front feet; have been known to leap 10 feet from one rock ledge to another; and can turn around on a platform that is only inches wide! Mountain goats are true acrobats.

They need to be acrobatic. They live on the steep, rocky areas of some of Idaho's tallest mountains. You can find mountain goats in central Idaho's wilderness areas, the mountains in the Panhandle, in the Seven Devils, and in the mountain ranges of eastern Idaho along the Wyoming and Montana borders.

It can be difficult to tell male and female mountain goats apart. They weigh between 150 to 220 pounds; have white coats, beards and slender black horns. The males are slightly larger in size and their horns are a bit larger. The females' horns have a slight bend to them that is missing on the males' horns. Males are called billies. Females are called nannies, and babies are called kids.

There is another clue to try and figure out if you are looking at a billy or nanny goat. Billies are commonly by themselves. Usually the only time billies and nannies are together is during the breeding season. Nannies live together with other nannies and their kids in small groups called bands. There is a social order to mountain goat bands. The older nannies have the highest rank. They get the best resting and feeding spots and get to use the salt licks first. Kids rank the same as their mothers. If a billy goat happens to be around, he ranks the lowest of all. Only during the breeding season do billies rank higher than nannies.

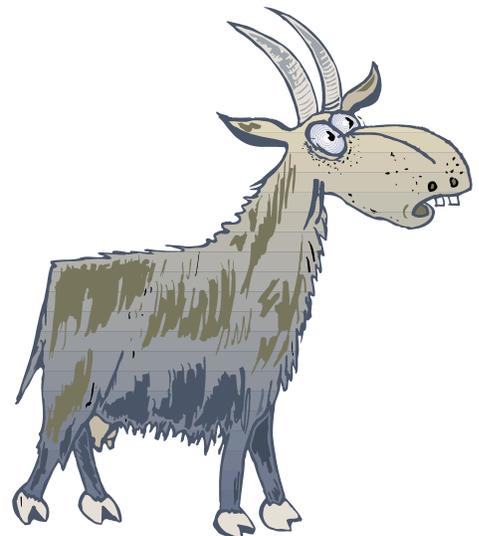
Mountain goats breed in late fall and early winter. Males compete for females. They do not fight head-to-head like bighorn sheep. Billies fight side-to-side and stab each other in the flanks. Thick skin in this area protects them from most serious injuries, but sometimes wounds to the chest, neck or abdomen can cause deaths.

Nannies give birth to their kids in May or June on very steep cliffs to avoid predators. Usually one kid is born, but sometimes two or three are born. Newborn kids weigh about seven pounds and stand soon after birth. Kids drink their mother's milk for three or four months. They will stay with their mother until she gives birth to another kid. This will be about one year.

Mountain goats are grazers; they eat grass. Sometimes food is limited on a mountain side, so they will also eat bushes, mosses, lichens and other plants. One thing mountain goats like is salt. They will travel quite a distance to find rocks with salt minerals.

Mountain goats do not have to worry too much about predators. Mountain lions are their main predator, but the steep cliffs where mountain goats live make it difficult for them to catch a mountain goat. The biggest threat to mountain goats is falling. More goats die from falls and avalanches than by any other way. If mountain goats keep their grip and hang onto the rocks, they usually live until their teeth wear down – about 12 years.

Next time you are hiking in Idaho's high mountains look for mountain goats. Watch them from a distance and be quiet. You may witness some incredible and nimble rock climbing!



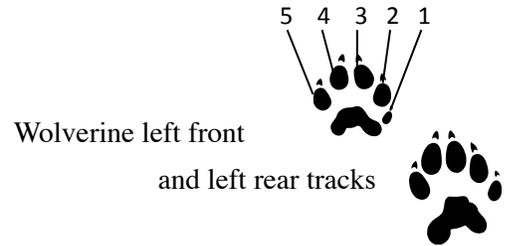
# Tracks!

Snow will soon cover many areas of Idaho. Just after a light snow fall is a great time to look for animal tracks. Tracking can be a lot of fun. It's a bit like playing detective. You observe, gather clues and do your best to put the clues together to solve a mystery. It also can be difficult at times. Here are some tips to consider when figuring out what animal left a track.

Look at the track from all directions. Are there other clues nearby? You may need more than a footprint to guess the animal correctly. Look for clues like chew marks, bones or scat. Scat is animal poop, and it is often one of the best clues you may find to solve an animal mystery.

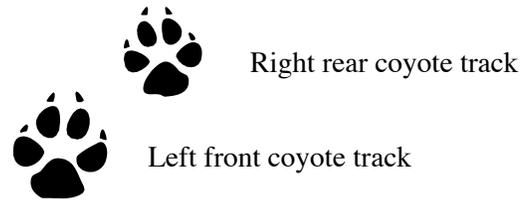
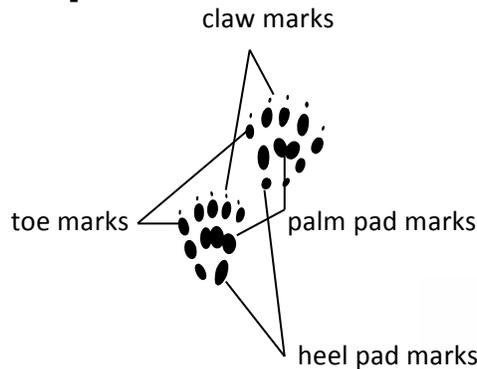
Notice the size of the track and its shape. Mammal tracks are usually made up of marks left by the claws, toes, palms, heels and the space in between the toes and pads. Not every track will show all of these things, of course. It all depends upon the animal, and what the animal was doing at the time the track was left.

don't usually see it in a track. Coyote tracks usually have four clear marks left by the toes, and the front foot tracks are always larger than the rear foot tracks.



These are just some of the things to consider when looking at tracks. The mammal track comparison chart below will help you tell some tracks apart. At least you may be able to tell if the animal is from a certain group. Good Luck!

## Spotted Skunk Track



How many toe marks show in the track? Weasels have five toes on both the front and back feet, but sometimes only four toes leave marks. Hares have four toes only on their back feet; the front feet have five toes. In tracking guides, toes are numbered one to five beginning with the inside toe and moving outward. The smallest toe (#1) is usually found on the inside of most mammals' feet. This can help you tell if a track is from the left or right foot of an animal.

The front legs of dogs actually have five toes! The first toe is found high up on the leg, so you

Mammal Family Track Key

Toes	Claws	General Shape & Outline	Common Gait	Shape of Pads	Family
4	Yes				Dog
4	No				Cat
4 or 5	Rare				Rabbit
4 or 5	Varies				Rodent
5 <sup>th</sup> toe may not show	Sometimes				Bear
5 <sup>th</sup> toe may not show	Sometimes				Weasel
5	Sometimes				Raccoon
5 (last toe)	No				Shrew
2	Dew Claws				Deer

# Bovids

What are bovids you ask? Bovids are members of the animal family Bovidae. Mountain goats are in this family. Cattle, bison, goats, sheep and antelopes are also members. Some people call the North American pronghorn an antelope, but they are actually members of a different family.

There are about 140 species of bovids in the world. They are found in Africa, Europe, Asia and North America. Africa has more types of bovids than any other continent. Just think of the African Plains with herds of roaming animals! North America has only five native species of bovids. They are the mountain goat, bighorn sheep, Dall's sheep, bison, and muskox.

There is much diversity among the bovids. The largest bovid is the gaur. It is found on the continent of Asia in Nepal and India. The gaur is huge. It can weigh up to 2,200 pounds and stand 10 feet at the shoulder. The smallest bovid is the royal antelope in Africa. It weighs up to six pounds and is only about 10 inches tall. It is about the size of a small pet cat!

Bovids are ungulates (UN-gyu-lits). All ungulates have hooves. They are also herbivores; they eat plants. Grasses, leaves and twigs are tough to eat. To help them digest plants, ungulates have stomachs divided into four different chambers or rooms. They nip off plants, but they don't chew their food much before swallowing it. The plants go into the first chamber of the stomach. It is full of bacteria and other organisms that help break down the plants. Later, bovids spit up the food and chew it again. Have you ever heard of cows chewing their cud? They are chewing food regurgitated from their stomachs. Once chewed, the food is swallowed again and passes into the second and third parts of the stomach where water is taken out. The fourth chamber is the one that is most like your stomach. It absorbs the nutrients out of the food.

One thing that sets bovids apart from other ungulates is horns. All male bovid species have horns. Some female species also have horns, but the female's horns are always smaller at the base than the male's horns. This is the case with the mountain goat.

Many wild bovids have been domesticated by people. Over the years, people have bred these wild animals into species to provide goods for people. Can you think of a domesticated animal whose ancestors came from a wild bovid? There are many!

# What Big Feet You Have

Have 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. Mountain goats have large squishy pads on the bottoms of their feet. The pads help mountain goats grip onto rocks as they climb on the sides of mountains.

Snowshoe hares have a large amount of fur between their toes and on the bottom of their feet. The fur not only keeps the snowshoe hare's feet warm, it also helps the hare walk on top of the snow. This is how the snowshoe hare got its name. Its large, furry feet really do act like snowshoes, so the hare stays on top of the snow when traveling.

The bottoms of porcupine feet are covered by small little bumps. The bumps make their feet look like they are covered in sandpaper. Their rough feet help porcupines climb trees. The bumps allow them to grab onto all the small grooves in the tree bark as they climb.

Think of beavers' feet. 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. The front feet are helpful in grabbing onto logs and branches.

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.



# Living at the Top

Mountain goats live in areas that few animals dare to tread. They live on the steep, rocky tops and cliffs of mountains. We would consider the top of an 8,000 foot mountain a hostile environment, but mountain goats are made to live there. They have many adaptations that allow them to live “at the top of the world.”

One secret mountain goats have that allow them to live in their rugged home are their hooves. Mountain goat hooves have a hard outer shell and rubbery, concave (rounded upward) footpads. The pads of their feet act like suction cups. When mountain goats step down, the footpad spreads and flattens out to grab the rock. They also have flexible toes. They can spread their toes out or pull them in like tweezers to get the best grip.

Mountains can have extreme weather. In the winter, temperatures drop well below freezing, but mountain goats are covered with the perfect coat for challenging weather. During the winter, two layers of hair keep mountain goats warm. The hair close to their bodies is called underfur. It is like the soft wool of a sheep and provides a base layer of insulation. Long thick hairs, called guard hairs, cover the woolly underfur. Guard hairs protect the goat’s body from wind, rain and snow. This coat shields mountain goats from even the frostiest winter nights. By late spring, mountain goats start to shed the winter coat and replace it with a sleek summer coat. The winter coat comes off in chunks, making them look extremely ragged. Often they rub off the itchy winter coat against trees, bushes and rocks, leaving fluffy balls of fur behind.

Mountain goats are even the correct color for living at the top of high mountains – white. Their white coats are the perfect camouflage against the winter snow. Small patches of snow can even be found during the summer at the high elevations where mountain goats live. They can snuggle between the rocks and look like a little patch of snow sheltered from the summer sun.

Mountain goats are named perfectly. They truly are made for the mountains.



Photo courtesy Hollie Miyaski



Photo courtesy Lucas Swanson



Photo courtesy Doug Burton



Photo courtesy Lucas Swanson

# Awesome Antlers

Antlers grow on members of the deer family. 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 only the males grow antlers, but female caribou can grow antlers. There is even a species of deer where neither the male nor female grow antlers – the Chinese water deer.

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 mule deer damages his antlers badly at this point, he could actually bleed to death! Deer 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 October or September, the velvet has been completely rubbed off, and the antlers are hard and polished - ready to show off for the females and intimidate younger males. Deer shed their antlers in early winter and then immediately begin to grow another set. Then the process starts all over again!



Photo courtesy Mike Demick

# Humongous Horns

Mountain goats, bison, pronghorn, and bighorn sheep have horns. Horns are a bit different than antlers. 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



Photo courtesy Chad Wippermann

the sheath serve? It protects the delicate bone 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 segments may give you an idea of an animal's age. Mountain goats' horns grow quickly during their first three years of life. About 94% of the horn growth happens during the first three years. The first year's growth ring is not visible on a mountain goat. To estimate a mountain goat's age, count the segments and add "1" to your total. This is the age of the mountain goat. Who knew you could learn so much just from a horn?

# Winter is coming!



Winter is coming! It is a wonderful season for outdoor exploration. A blanket of new snow makes familiar places look quite different. Noisy streams become silent under ice and snow. Animals that you rarely see can now be “seen” when you find their tracks in the snow. Cold nips your cheeks, and makes you look forward to a cup of hot chocolate after being outside.

Winter activities are many. Skiing and skating are great ways to enjoy winter. So are sledding, snowshoeing, or ice fishing. Even if you do not have any equipment you can still enjoy winter by just taking a walk in the snow. Build a snow fort with your friends or decorate your yard with snowmen. If it is snowing, catch some snowflakes on your mittens and use a magnifying glass to look at the beautiful crystals. Take a walk in new snow to see what animal tracks you can find. Look for bird nests in the trees. If you live near a river or lake, watch for wintering bald eagles and ducks. Don’t forget to check out the winter night sky. Cold, clear winter nights can give you some great opportunities to see the stars.

No matter what kind of winter activity you enjoy, dressing properly is very important. Wear layers that you can take off when you warm up and put back on if you feel cold. Snowpants can help you stay warm and dry. Warm boots are very important for winter fun. And don’t forget a hat and mittens. Wearing a hat is one of the best ways to stay warm, no matter what you are doing. So, get into your winter clothes and head outside for some winter fun. After all, winter is a big part of every year in Idaho!



**BE OUTSIDE**  
IDAHO CHILDREN IN NATURE

# Mountain Goat Wordsearch

D W A U L C I J Q E H G Y H Q  
E H N W K T S A G O Y G U C B  
C I D Z Y D E A O J G Z P K Y  
J T Z P N Z L V U R J S Y H L  
D E I H Y F E J B R L H F Q L  
Q I W P U S O X Z M K A X F I  
Z C K O N O A M A F F I L C B  
C G M R B G Q O G C B T S V I  
K A O U O I A I R X R O Q K W  
C H W F O O T P A D S O V P I  
Y R O C K Y P L Z E D J B I U  
U N X O E C E A E M S Q A A D  
S S N G Y D E Y R D N A B Z T  
R F G A G W S N K I W O X I Q  
A J N E N K U C S F W S K N W

## Words

ACROBAT  
BAND  
BILLY  
BOVID  
CAMOUFLAGE  
CLIFF  
FOOTPADS  
GRAZER  
HOOVES  
HORNS  
KID  
LEDGE  
NANNY  
ROCKY  
WHITE

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