

# Wildlife Express!



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**Magnificent  
Mulies**



Photo by William H. Mullins©

## Let's Look at...

# Mule Deer

What's the most common large animal in Idaho that jumps stiff-legged on all four legs to escape from danger? It's the mule deer!

Mule deer is one of the two species of deer that live in Idaho. The other kind of deer is called the white-tailed deer.

Scientists call the mule deer *Odocoileus hemionus* (o-do-koy-LEE-us hem-EE-own-us). Hemionus means half-mule. By looking at the mule deer's ears, it is easy to see why it was given this name. Mule deer have large ears that look a bit like mules' ears. These large ears help mule deer listen for sounds of danger.

Mule deer males are called bucks. Bucks average about 250 pounds. Bucks grow antlers during the spring and summer. After the mating season, the antlers will fall off. Bucks use their antlers to show off and fight over females during mating season. The better the quality of food a buck eats the healthier he will be and the larger his antlers will grow. You cannot tell how old a buck is by the size of his antlers. Females, called does, are smaller. They average about 155 pounds. Mule deer babies are called fawns.

Mule deer are found in many different habitats, from high deserts to coastal forests. In Idaho, mule deer like rocky, brushy areas, open meadows, pine forests, aspen tree groves and areas next to waterways. Where you may find mule deer depends a lot on what time of year it is.

Mule deer move, or migrate, to find food. During the summer and spring, mule deer may be found on mountain slopes where shrubs, flowering plants and grasses grow. Does with fawns may be found around aspen tree groves. Aspen stands have lots of flowering plants, called **forbs**. These plants are important for mule deer, especially nursing does, and the trees are great shelter for the fawns. During the winter, deep snow makes it harder for mule deer to get to their food. In winter, mule deer move down out of the mountains into the valleys where food is easier to get to. They may migrate 50 to 75 miles between their summer and winter homes. Sagebrush and bitterbrush are important mule deer food in the winter.

Mule deer like and need to eat the soft tips of shrubs and bushes. Shrubs are high in protein and good nutrients. They also will eat soft plants and some grasses. Grasses make up the smallest part of their diet. Grasses do not have as much nutrition and are harder for mule deer to digest.

The most important habitat for mule deer is the summer habitat. If deer eat well during the summer and are nice and fat when winter comes, they usually can survive very cold harsh winters. But if mule deer cannot find good nutritious food in the summer, no matter how good the winter habitat may be, mule deer will have a hard time surviving the winter.

Keep an eye out for mule deer next time you are out in Idaho's wild places. They are beautiful deer and lots of fun to watch. Especially when they are bouncing away from danger. Mule deer can jump over an eight-foot fence! Wow!!



# Marvelous Mammals

Mule deer are mammals. Their bodies are covered with hair. They are warm-blooded, and they feed their young milk. Can you think of other animals that do this?

Worldwide there are about 4,000 different kinds of mammals. They are found everywhere on Earth. The largest mammal is the blue whale. It can weigh up to 196 tons! The smallest mammal is the bumblebee bat. It weighs about as much as a penny.

Mammals are warm-blooded. The temperature inside their bodies stays about the same all the time. This allows mammals to live in a wide variety of places. Snakes are cold-blooded. Their body temperature is always the same as their surroundings. Humans have a body temperature that is usually about 98.6 degrees Fahrenheit. Are you warm-blooded or cold-blooded?

Many mammals live on land, but not all of them. Whales, porpoises and manatees spend their whole lives in water. After the young are born, the mother helps her babies to the top of the water to take their first breath. Seals, sea lions and walruses spend most of their time in the water, but they leave the water to breed, give birth and rest.

Some mammals lay eggs! Ever heard of a duck-billed platypus or echidna? These are mammals that don't give birth to live babies. The young hatch out of eggs, but they still drink their mothers' milk. Drinking mother's milk is one thing that sets mammals apart from other animals.

Mother's milk is the perfect food for a young mammal. It is full of vitamins, minerals and lots of fat. Fat helps the babies grow quickly. Seals and whales make milk that is almost 50 percent fat! Whole milk you may drink only has four-percent fat. Seals and whales need a layer of fat, called blubber, to insulate them from the cold ocean water. The high fat content of their mothers' milk help them build up a nice layer of blubber to keep warm. Fat is also important to help mammals' brains grow. Mammals have the largest, most developed brains compared to other kinds of animals. Aren't you glad you are a mammal?

# Ungu-what?

Ever hear someone call an animal an **ungulate** (UN-gyoo-let)? Ungulate is the Latin word for hoof. All ungulates have hoofs, that means mule deer are ungulates, too.

Scientists used to group all ungulates together, but now they divide them into two different groups. One group includes animals that have an odd number of toes. Horses, zebras and rhinos are in this group. Animals in the other group have an even number of toes. Which group do you think mule deer 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 four different chambers or rooms.

When mule deer eat, they nip off leaves and small branches on bushes. 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, mule deer spit up the food and chew it again. Ever heard of cows chewing their cud? They are chewing food regurgitated from their stomachs.

Once chewed, the food passes into the second and third parts of their stomachs where it is broken down into smaller and smaller pieces, and water is taken out of the food. The fourth chamber of their stomachs is the one that is most like your stomach. This stomach is full of acids that help digest 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 the first chamber of their stomach is full, deer find 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 for survival?



# Home Sweet Home

An animal's home is called its **habitat**. A habitat contains four things: food, water, shelter and space. If one part is missing, an animal will not survive.

It is often easy to see the importance of food, water and shelter. You probably enjoy eating. A big glass of ice water sure hits the spot on a hot summer day. You wouldn't want to stand outside during a thunderstorm. But the space part of habitat is just as important as food, water or shelter.

Animals need enough space to find the things they need without having to fight for them. When animals have to fight over food, they use precious energy. Animals gathered together in small spaces can also make each other sick. Think of a student that has a cough. In the small space of a classroom, that student's germs quickly spread to other students who also get sick.

Next time you see an animal, think about its habitat. What is around that the animal might eat? Is there water nearby? Is there a bush, hole or cave for shelter? Does it seem like many other animals are around? Answering these questions will tell you a lot about the life and habitat of the animal you saw.



# What's Your Niche?

Think of the town where you live. People in your community have jobs that make it a nice place to live. There are doctors that keep you healthy. People that take your garbage away, and people that make food for you to eat.

Animals, plants and other organisms also have jobs and roles to play where they live. This role is called an **ecological** (e-ka-LOJ-i-kel) **niche** (NICH). An animal's niche includes such things as where and how the animal gathers food and its link in a food chain.

Within ecosystems, every living thing has important jobs and roles. If one of these organisms is missing, the ecosystem will be unhealthy. At times, it may be hard to see what an animal's niche is. Leeches are something that spring to mind. You might just think of leeches as pesky, slimy bloodsuckers, but even leeches have important roles in ecosystems. Fish love to eat leeches. Some doctors use leeches to help people. After a person has surgery, doctors will sometimes put leeches around the wound. The leeches suck up unwanted blood and help the person heal faster.

What's your niche? Do you have an important job or role to play in your family or school?



*Two mule deer*

# Where Are the Mule Deer?

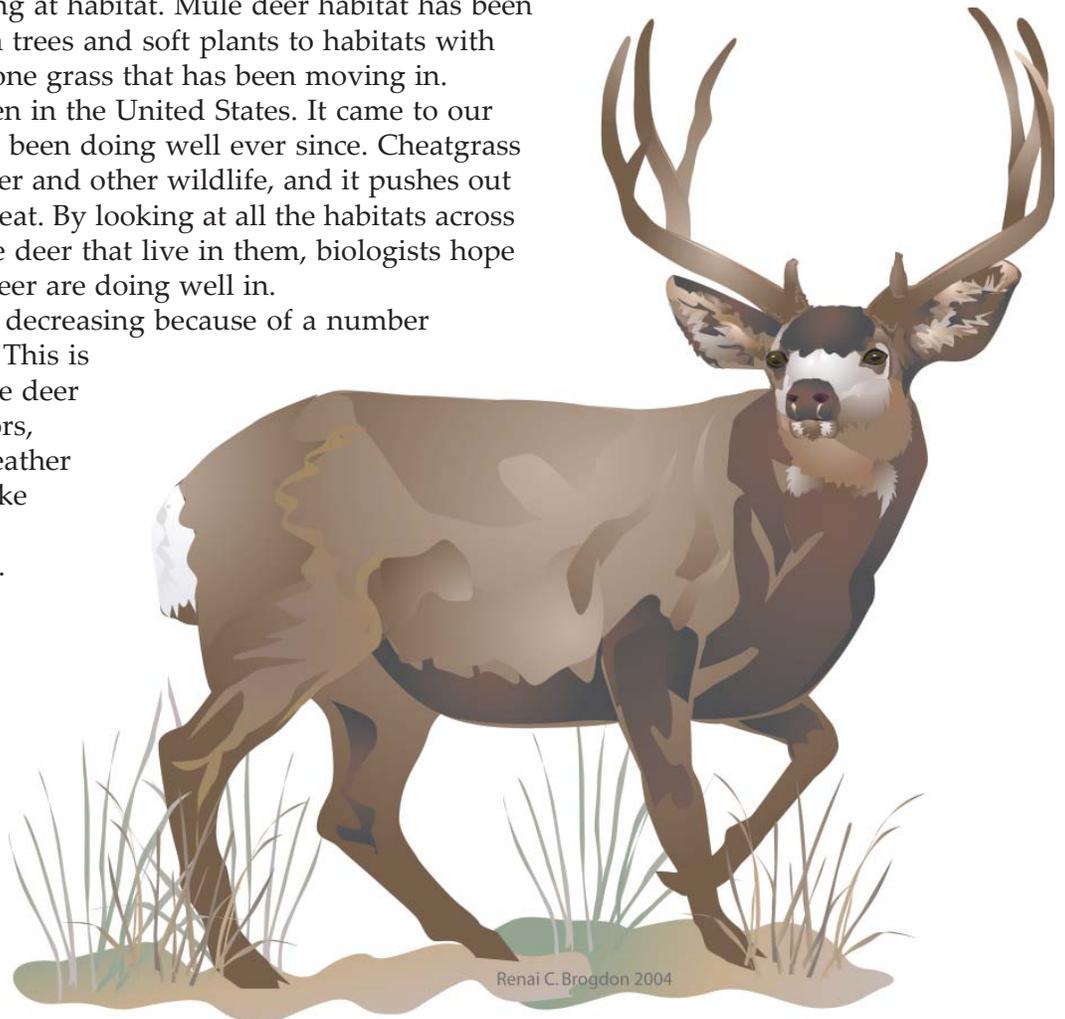
Over the past 30 years, the number of mule deer in Idaho has been going down. Mule deer numbers have not just been getting lower in Idaho. Mule deer are getting harder to find in every state in the West.

Why is this happening, and how can Fish and Game help? To answer these questions, we must first learn everything we can about mule deer. In Idaho, scientists have been studying mule deer and their habitats.

One thing biologists have been doing is looking at predators. Scientists wanted to know if removing mountain lions and coyotes would help increase the number of mule deer. Coyotes will eat mule deer fawns, and mountain lions eat both the fawns and adults. For six years, mountain lions and coyotes were removed from certain areas in southern Idaho. They found out that predators do play a role in the amount of mule deer in an area, but it is a small role. Just how much predators affect mule deer depends upon the habitat and weather. Removing predators from an area also costs a lot of money.

Scientists are also looking at habitat. Mule deer habitat has been changing from shrubs, aspen trees and soft plants to habitats with more grasses. Cheatgrass is one grass that has been moving in. Cheatgrass hasn't always been in the United States. It came to our country in the 1800s and has been doing well ever since. Cheatgrass is not good food for mule deer and other wildlife, and it pushes out the plants wildlife do like to eat. By looking at all the habitats across southern Idaho and the mule deer that live in them, biologists hope to see which habitats mule deer are doing well in.

Mule deer numbers are decreasing because of a number of things, not just one thing. This is one reason why helping mule deer is going to be tough. Predators, habitat changes, fires and weather all affect mule deer. It will take time, money and patience to increase mule deer numbers.



# Managing Mulies

Helping mule deer is tricky business. Fish and Game needs to manage and help mule deer. The problem is Fish and Game doesn't own the land where the deer live, but here are some things they can do.

One thing Fish and Game does is make suggestions to landowners. Landowners can make their land mule deer friendly by planting shrubs mule deer like to eat.

Fish and Game also sets hunting seasons. If the population of mule deer is high, managers can let hunters hunt more deer. If populations are low, managers may not let hunters hunt does or fawns. This may help increase the population in the future.

To get an idea of the number of mule deer, Fish and Game goes up in the air. How would you like to buzz over a herd of mule deer in a helicopter? About 1,000 hours are spent every year up in the air counting mule deer. Fish and Game can't fly over the whole state, so they pick important wintering grounds to fly over. Deer are grouped together in the winter, so this is the time to count. It is also easier to see brown deer in white snow. While flying over the deer in a helicopter or plane, people count all the deer they can see.

Fish and Game also puts radio collars on fawns. About 250 fawns have collars placed on them. The collars are used to see how many fawns survive the winter. If many fawns survive the winter, managers know mule deer are doing well. If fewer fawns survive, managers may need to take steps to help the population.

Fish and Game also tries to keep mule deer diseases under control. Have you ever seen a check station before? Fish and Game sets up check stations during hunting seasons. Biologists look at the deer hunters have killed. Sometimes the biologists take samples of blood or other body parts.

Idaho Fish and Game does the best job they can to keep mule deer and all of Idaho's wildlife healthy and strong. But it can be tricky sometimes. Wild animals can't speak and tell you something is wrong. All you can do is look for the clues that something is wrong. Then put on your thinking cap to come up with a way to help.



*Mule deer*

# Horns or Antlers

Many animals grow horns and antlers. Mule deer, bighorn sheep, moose, and mountain goats all can grow horns or antlers.

Some people have a hard time telling horns and antlers apart. Here's how you can tell the difference between horns and antlers.

Antlers are actually made of bone. Antlers are the fastest growing bone in nature. Usually, only males grow antlers, but caribou are different. Both male and female caribou grow antlers. Other animals that grow antlers are deer, elk and moose.

While antlers are growing, they are covered by velvet. Velvet is a fuzzy layer of hairs and blood vessels. Velvet supplies the antlers with the blood and nutrients the bone needs to grow. When the antlers are finished growing, the blood vessels dry up. The velvet is then rubbed off on trees and bushes.

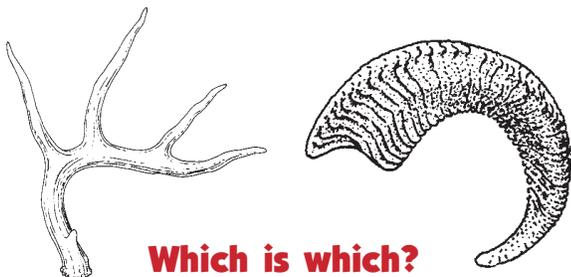
Most antlers are grown to show an animal's strength and health. Males use their antlers to show off and fight over females. All antlers fall off and are grown again each year.

Horns are not solid bone. They have a bony middle covered by a thin outside layer of keratin, called the sheath. Keratin is the same thing your fingernails are made out of.

Horns grow slowly and do not fall off like antlers. Antelope shed part of their horns. The sheath falls off and is replaced each year. Both males and females grow horns. Most antlers look like a tree branch, but horns look like straight daggers. Many animals use their horns for protection, but males may also use them to compete for females.

Horns usually have yearly growth "rings" on them. You can get an idea of an animal's age by counting the number of rings on the horns. Some animals that grow horns are bighorn sheep, mountain goats and pronghorn antelope.

Next time you hear someone say a deer had large horns, tell them they did not see horns but antlers. You can even explain to them the differences between horn and antlers!



**Which is which?  
Can you tell the difference?**



## Weather and Wildlife

I don't know about you, but I really don't enjoy standing out in the rain with the wind howling. Or how about being outside when it is 105 degrees? People might risk death if they did not look for shelter. Wild weather also affects wild animals. Animals may die directly from the cold, but weather can affect animals in other ways, too.

The amount of rain and snow that falls is very important to mule deer. In years of drought, with little or no rainfall, deer may die. Mule deer need to drink water.

Perhaps what is most important is what drought does to mule deer food. Drought really affects the plants mule deer eat. Mule deer need rain and snow to fall at certain times and in certain amounts, so the plants they eat will be healthy. Mule deer need strong, healthy plants to eat, as well as, enough plants to eat. If rain does not fall when the plants need it, they will not be strong and healthy. If the plants are not healthy, mule deer will not be healthy. If we want lots of healthy deer, we need habitats with lots of healthy plants. If the food is not there, the deer won't be there either.

Another problem is what happens in the winter. During times of drought, mule deer don't eat as much food as they should during the summer. They enter Idaho's harsh winters too skinny. A fat deer can make it through even the hardest winter. A skinny deer is almost sure to die.

Next time you are in your warm, cozy house, think of the wildlife outside. How do you think they are dealing with the weather?

# Mule Deer Word Search



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

- |             |             |        |         |
|-------------|-------------|--------|---------|
| ANTLERS     | BITTERBRUSH | BUCK   | DOE     |
| EARS        | FAWN        | FORBS  | HABITAT |
| HERBIVORE   | JUMPS       | MAMMAL | MIGRATE |
| RADIOCOLLAR | UNGULATE    | WATER  | WEATHER |

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