

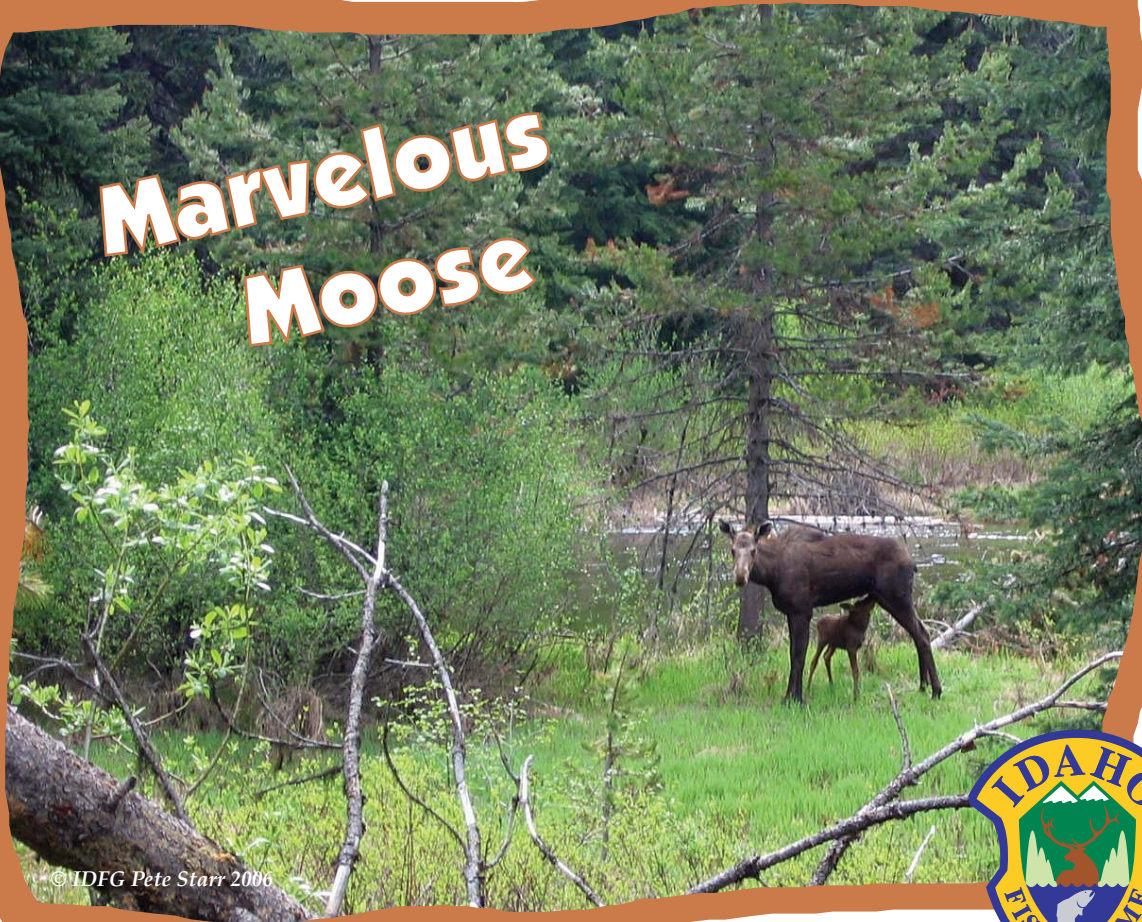
Wildlife Express!

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Marvelous Moose



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Let's Look At...

Moose

There are large shadows in Idaho's forests. They are huge but hide very well. These shadows love to be around wet meadows, streams, lakes and ponds. Sometimes the only way you may know they are there is by the rustling of leaves and shaking of twigs. This shadow is the moose (*Alces americanus*).

The name moose comes from the Algonquian Indian word "mons" which means twig eater. What an appropriate name; moose are herbivores. They eat only plants, and the twigs and leaves of willows, quaking aspen, dogwood and birch are favorites. Moose also love water plants. Moose do not have any upper front teeth, so they don't just nip off leaves and twigs. Instead, they often pull twigs sideways through their mouths. They have really tough lips and tongues. Stripping off two feet of leaves and shoots from a branch is no problem at all for a moose. An adult moose can eat 40 to 50 pounds of food a day! That's a lot of leaves.

Moose are the largest members of the deer family. They have long, thin legs and long, square heads. Only males grow antlers. Both the males and females have a flap of skin and hair hanging from their throats. It's called a bell. The bell helps moose "talk" to each other. The bell has scent glands on it. The smells on a male's bell lets a female know that he likes her. A full grown male, called a bull, may stand six feet high at the shoulder and weigh 1,000 to 1,600 pounds. The female, called a cow, is smaller; she may weigh between 800 and 1,300 pounds.

Moose are covered by a thick layer of dark hair. During the winter, it is a nice warm coat that absorbs heat from the sun. During the summer, it becomes a burden. Moose do have a thinner layer of hair in the summer, but they still get hot. Moose cool off the same way you might. They go swimming! Moose love the water. A thick forest with lots of shade is also a welcome retreat for a hot moose.

In late May or early June, a cow moose seeks out a quiet, hidden place to give birth to her baby, called a calf. Usually the cow will give birth to one calf, but sometime twins are born. The mother will keep the calf well hidden for the first few weeks. A moose is very protective of her calf. She will charge anything that gets too close by rushing forward and striking with both front feet.

A calf weighs between 20 to 35 pounds when born, but it grows quickly on its mother's rich milk. By the time the calf is one week old, it can run faster than a man. Plants become part of a calf's diet when it is two weeks old. By the second month, a calf can gain over two pounds a day! A six month old calf will weigh around 400 pounds. Wow! The calf stays with its mother for the first winter. Then it has to live by itself.

Moose are magnificent! They may look big and awkward on their long legs, but watch them for awhile. You might see what powerful, graceful creatures they truly are.



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Magnificent Mammals

Moose 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 species of mammals. They are found everywhere on Earth. The largest mammal is the blue whale. It can weigh up to 196 tons! One of the smallest mammals is the bumblebee bat. It weighs about as much as a penny. Shrews are also small; they weigh about the same as three paper clips.

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 temperatures are always the same as their surroundings. Humans have a body temperature that is usually about 98.6 degrees Fahrenheit. Does this make 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 their young are born, the mothers help their 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! Have you ever heard of a duck-billed platypus or echidna (a-KID-na)? 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 half fat! That's 50 percent! Whole milk you may drink from cows 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 helps 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?

What is an Ungulate?

Moose 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 moose are in?

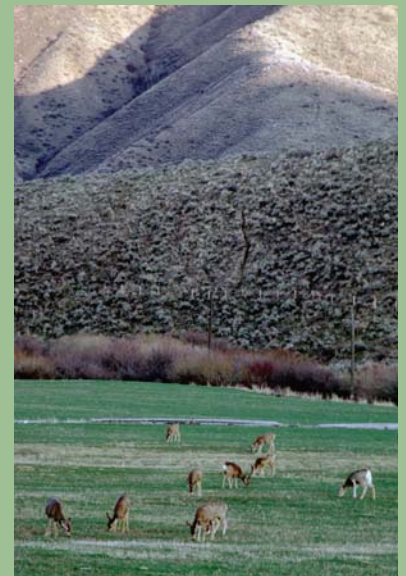
All ungulates are **herbivores**. They eat plants. Grasses, leaves and twigs are tough to eat. To help them digest plants, ungulates have stomachs divided into four different chambers or rooms.

When moose eat, they nip off aspen leaves and stems. 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, moose 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 passes into the second and third parts of their stomachs where water is taken out of the food. The fourth chamber of their stomachs is the one that is most like your stomach. It absorbs the nutrients 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?



Antlers



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Antlers 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.

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 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. A set of antlers may weigh 60 pounds! Moose shed their antlers in early winter and then immediately begin to grow another set.

Antlers are most often used to settle differences about territory and strength. A moose that has a large set of antlers is most likely strong and healthy. He would be regarded highly by others moose.

Together or Alone?

Moose are animals that like to live alone. They usually don't live in groups like elk. Why do some animals live together and others live alone?

Elk are animals that live in groups. Usually, the female elk and their young live in herds. The main reason they live together is for protection. Females leave the group to give birth, but soon come back when their babies are a few weeks old. By living together, elk have more sets of eyes looking out for danger. If a predator does attack, there will be more hooves to fight it off. Elk can also take advantage of babysitters. Elk take turns eating and looking after their young. A well fed mother can take better care of herself and her baby.

Wolves also usually live in groups called packs. Wolves like to eat elk. One wolf would have a difficult time bringing down a large elk by itself, but by working together, wolves are more successful hunters.

Moose like to live alone. Moose can eat 40 to 50 pounds of food a day. It wouldn't take a group of moose very long to do some serious damage to a grove of trees. By spacing out, they help to keep the habitat productive. Sometimes moose live together in groups called "yards." You are likely to see a yard of moose during the winter.

Food is often limited and more difficult to find covered in snow. Moose are sometimes forced to live together if food is only found in a few places. When food is plentiful, moose don't want or have to share.

These are just a few examples of why animals may live in groups or by themselves. Can you think of other animals that live in groups? How does this strategy help them survive? What about a solitary animal? Does living alone offer it benefits?



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Horns

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 the sheath serve? It protects what's underneath!

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. A mountain goat's horns have rings around them. Counting the rings will tell you how old the goat is. Rings are formed each year after the goat is one year old, so the horns of a mountain goat will have one less ring than its age.

Both males and females can grow horns. Antlers are usually only grown by males. Caribou are the exception. 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 letters. One animal has "C" shaped horns. Can you guess it?



Wildlife Watching

Watching wildlife can be so much fun! We are lucky to live in a state with such a diversity of wildlife species. Idaho has 357 bird, 22 reptile, 15 amphibian, 113 mammal and 68 fish species! 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, so don't get too close - especially around moose, bears or rattlesnakes. If an animal has its head raised and ears pointed in your direction, it knows you are watching. 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. Getting too close to nesting birds or young animals may scare the parents away. They might never come back and the young could die.

Use quiet, slow movements and try not to startle an animal. A car or boat is a great place to spy on wildlife. 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. Don't forget to dress for the weather. A great trip can turn sour if your toes or hands get wet and cold.

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 and patience you never knew you had.



Holiday Wishes

During the holiday season, our thoughts are about the things that are closest to us – our family and friends. We think about what gifts we can give them to show we care. If you were to add wildlife to your gift-giving list, what might you give?

Habitat is the most important need for wild animals. A good habitat will provide food, water, shelter and space for an animal. All of these need to be arranged so the animal doesn't have to travel too far to find them. What things could you do to improve habitat in your area?

Conservation is important. Conserve means to protect or preserve or to use carefully or sparingly. If you recycle, you cut down the amount of trash you throw away. If you turn your thermostat down, you're conserving energy. You're on the right path towards helping wildlife by doing these things. Picking up garbage or planting a tree are other things you could do. What other "gifts" could you give wildlife?

Some people like to put out food for birds. If you do this, use good sense. Remember, they are wild animals, and you don't want them to become dependent upon the food you provide.

Here are some fun ideas for bird feeding. Make a garland of air-popped popcorn, cranberries and orange slices. Hang it on a tree outside for decoration and to give a treat to a feathered friend. Another idea is to coat a pine cone with peanut butter, roll it in bird seed and hang it from a branch.

You could also make a seed basket. Cut a grapefruit in half and scoop out the pulp. Poke holes in each side and string yarn through the holes to make a handle. Fill the basket with black oil sunflower seeds or cracked corn and hang it on a tree.

Enjoy watching birds having a holiday feast. Remember, by taking care of habitats, you are taking care of wildlife and giving them a wonderful gift.

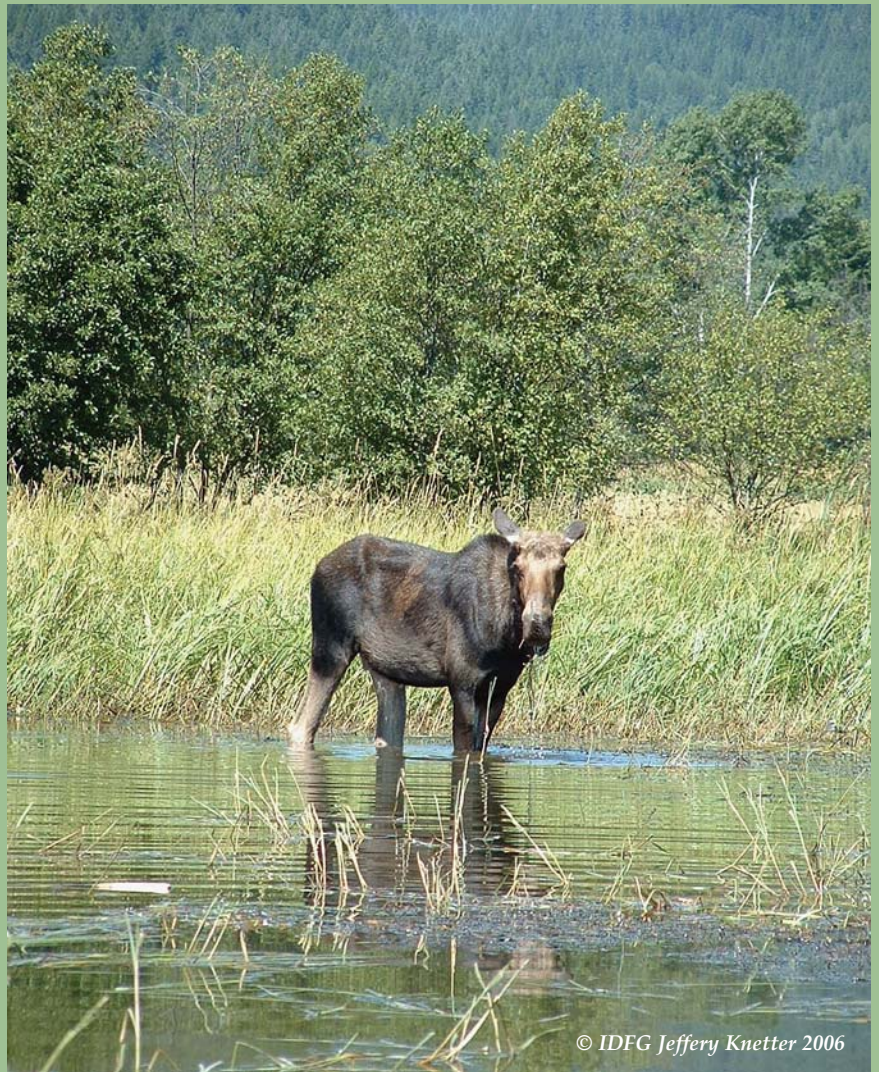


Be Moose Aware

Moose are animals that sometimes come into Idaho's towns and cities. This often happens during the winter. Moose come down out of the snow-covered mountains looking for food. Moose are large, curious animals. They usually don't want to cause harm, but with the average moose weighing about 15 times more than your average fourth grader, things sometimes happen.

If you see a moose, here are some things to remember:

- NEVER feed a moose.
- NEVER get between a cow and a calf. Remember, moose are very protective mothers.
- DON'T walk toward a moose if you can avoid it; try to remain at least 50 feet away.
- NEVER throw anything at a moose.
- ALWAYS keep dogs under control or on a leash. A dog may chase after a moose and suddenly find the moose chasing it. Naturally, the dog runs back to its owner bringing the moose back with it.
- AVOID moose that are in a fenced area or between houses; they may feel cornered.
- REMEMBER, if you see its ears laid back or the hair on its shoulders stand up, the moose is angry or afraid and it may charge.
- TRY to get behind a tree if a moose charges. You can run around the tree better than it can.
- IF A MOOSE ATTACKS YOU, get down on the ground, cover your head as well as you can, and stay very still. Don't wave your arms after you are on the ground.
- IF A MOOSE CHARGES, another option is to raise your hands over your head and spread out your fingers. Hold your arms still, don't wave them. You want your arms to look like antlers. Sometimes the moose will think that you are a bigger moose than he is and will not want to fight.
- REMEMBER MOOSE KICK with their front feet as well as their hind feet.



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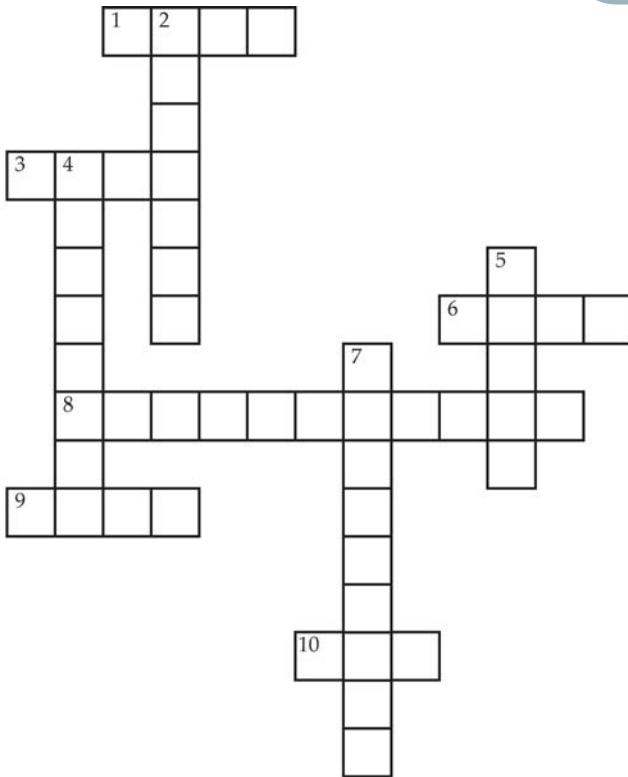
Moose Mingle

Words

Antlers
Aspen Leaves
Bell

Bull
Calf
Cow
Herbivore

Ungulate
Water
Yard



Across

1. A group of moose.
3. Male moose.
6. Baby moose.
8. Moose love to eat these
9. The thing hanging from a moose's throat.
10. Female moose

Down

2. Male moose grow these.
4. An animal with hooves.
5. Moose love to cool off in this.
7. An animal that eats plants.

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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!