

## **Introduction**

Hello and welcome to the Kentucky 4-H Virtual Experience. My name is Joey Barnard and I am the Extension Specialist for 4-H Camping. Today, we'll be visiting North Central 4-H Camp where the Environmental Educators will be sharing with us a lesson about Kentucky Mammals.

Well hello there! My name is Andy, welcome to the North-Central 4-H camp center. Over the next several weeks, me and a few of my fellow instructors are going to be teaching you all about how to explore the great outdoors. So make sure you put on those learning caps, maybe even those detective caps, because today we are going to be talking about Kentucky mammals.

Now, you may be wondering: Andy, what on Earth is a mammal? Well, let me tell you: All of us have experience with mammals in one form or another, you may just not realize it yet. Now, mammals are a sort of specific kind of animal that has certain characteristics that separate it from other ones. Kind of like how a bird has feathers and hollows bones. So, when we talk about mammals, we're going to talk about 4 particular characteristics that they're going to have. Now, that's not the only thing that makes a mammal a mammal, but they're some of the more easy ones to identify that are going to be simple for you all to notice as you go out and look into the natural world around you.

## **Four Common Features of Mammals**

Number one: All mammals have fur, and this fur does all sorts of important things for the mammal. It acts as protection, kind of like a big, fuzzy suit of armor that they might be wearing. It also helps them regulate their body temperature, which is really important for mammals because they're what we call endotherms, which just means they're warm-blooded.

It's actually the second thing that all mammals have in common: They control their own body temperature. For humans, for example that floats around 98.6 degrees. Actually, why don't you do a little experiment at home really quick—I want you to pause this video, and then go find a thermometer and take your own body temperature, see about where it lands. Let me know what you find.

The third of the characteristic is that all mammals have what we call a backbone (making them this fancy word we use called vertebrates), and the backbone is super important because not only does it give our body a shape—it allows us to stand up, or it allows quadruped animals to keep the shape that they have—it also protects this thing they have called a spinal cord, and a spinal cord is very important. It's one of the major aspects of our nervous system. They communicate with our brain, and allows it to tell our body to wiggle our fingers, touch our nose, walk, move, talk, breathe—all those things. So it's a very important thing for us to keep protected, and that's what that backbone does.

And then the last thing that we're going to talk about, and the most important (and the most unique) to mammals, is that all mammals drink milk when they are young. Think about a cow, or think about baby kittens or baby puppies, they all have milk they drink from their parents. And on that note—all mammals, except for one species, are actually born by live birth. I don't know about you, but I've never seen a horse lay an egg before. The only one that doesn't adhere to that is what we call the platypus.

Now I want to talk a little more specifically about mammals that appear in Kentucky. So, not all animals appear in the same place. We have what we call native species, and we're going to spend some time

today looking at the different native mammals that we have. But I need you all to put on your detective caps, because I'm not just going to tell you what they are.

Here's what I need you to do: Grab a piece of paper and a pencil, or a pen, and I want you to mark it down from numbers ones to six. Then, we're going to show you six different mammal furs from animals that live in Kentucky, and we want you to try and guess and figure out what you think they are. NO CHEATING—you can't look it up on the computer. After you've done that, we'll go back and talk about them and see which ones you got right.

[Show Pelts]

### **Mammal 1**

Animal number one is actually the Kentucky state animal. You probably see this guy all over the place. A few things about them. They're what we call an herbivore, which means they primarily eat plant-based foods, although sometimes they'll prey on bird's nests if they're having trouble finding food of their own. This guy, in particular, loves acorns. They'll run around in the fall collecting them and bury them in random places. That way, during the winter and early spring, they can dig them up and have a source of food to eat. Research shows that they'll end finding about 90% of these caches, meaning the rest will stay buried and eventually turn into oak trees that produce acorns all on their own.

They're also a type of rodent, which means they are related to mice, rats, and mammal number five coming up. This is easy to tell by their large front teeth, which they use to chew through hard acorn shells, defend themselves, and chew through branches and twigs to create their homes. You've probably seen one of their homes before: it's called a drey and it looks like a pile of leaves up in the tops of the trees. My favorite thing about these guys by far is their tails, which they use for all sorts of things, including communicating with one another by shaking them in certain ways. They love to climb, can range in color from grey to brown, and sit at roughly a foot high. Have you figured out what it is yet? If not, don't worry. I'll let you know! This is the ever-popular, bushy-tail-shaking gray squirrel. An Eastern gray squirrel, if we're being specific.

### **Mammal 2**

Mammal number two is also a Kentucky favorite, and our only native wild feline, meaning it is a type of cat. Unlike the gray squirrel, they are primarily carnivorous, so they prefer to eat meat (especially rabbits and mice). They are also what we call crepuscular, meaning they are most active in the early morning and the evening—when their prey (or food) is most active. Makes sense, doesn't it? Be awake when your food is awake. And let me tell you, there is no escaping this excellent predator. They have excellent hearing, excellent eyesight, and an impeccable sense of smell. And, as if they weren't deadly enough on the ground, they can climb AND swim. They are also incredibly quiet, and excellent at sneaking up on and pouncing onto their prey, which they can then take down with their teeth and powerful jaws, or their sharp, retractable claws.

Anyway, if these guys are around, you'll probably never notice. Their fur camouflages them very well. In fact, you likely only know they're there if you hear their call: a loud, high-pitched scream. They sit maybe two to three feet off the ground, their fur can be easily recognized by the spotted pattern on their

bellies, and the short—what we call a ‘bobbed’—tail. In fact, that’s part of where their name comes from. Yes, friends, this is none other than the bobcat—let’s get a look at that underfur real quick. (See that nice spotted pattern?)

### **Mammal 3**

On to mammal number three! This mammal is herbivorous and largely crepuscular, although sometimes they end up being more nocturnal, or most active at night. They are incredibly common in Kentucky, largely because they have no more natural predators, although bobcats or a pack of coyotes hunt the babies, which we call fauns. It’s because of this that the fauns are born with some special camouflage: white spots that disappear as they get older, and actually have no natural scent, making them harder to find. Males of this species are called stags or bucks, and they can be told apart from the females by their antlers, which fall and regrow every year. When they grow back, they’re covered in this stuff called velvet, kind of like skin, and they rub them off on trees leaving markings that are called, logically, tree rubbings. The female of this species, which we call a doe, has a tendency to birth twins, so populations can grow pretty fast. In fact, these guys have an official hunting season to help keep their numbers manageable, which is probably a good thing, as they are actually one of the deadliest animals in Kentucky, mostly because they are the cause of many car accidents every year. Do you know what it is yet? It’s the white-tailed deer! Which gets its name from—you guessed it—the white underside of their tail.

### **Mammal 4**

Before you ask: No, mammal four is NOT a wolf, but one of its smaller cousins that moved here from the west, once wolves had been removed. It’s in the canine family, which means if you have a pet dog, it’s also related to them. It’s very evident from their fantastic sense of smell, the way they yip, bark, and howl, and by the name we refer to them as they’re young: pups. They are nocturnal and primarily carnivorous, most eating mice and carrion (or things they find that are already dead), but have been known to take down smaller white-tail deer and fauns. These are very adaptable animals, fitting into many environments, although they do prefer forestlands. But it’s not unusual to find them around farms, bushy areas, even malls and houses. This mammal also tends to work in small family groups, or packs, and form close bonds. Some research even shows they mate for life with one partner—how romantic! What’s more, both the male and female will care for the children, which is unusual for wild animals. Who would’ve that this animal had a soft spot, eh? Anyway, if you haven’t guessed already, mammal number four is the coyote.

### **Mammal 5**

Alright, meet mammal number five: the largest rodent in Kentucky. This mammal is primarily diurnal, meaning it is most active during the day, and an herbivore. It’s also highly adapted for aquatic life. They actually have two layers of fur! The bottom layer is short and thick, and it helps keep this guy warm in that cold water. The outer layer is rough and longer, and has special glands at the bottom that secrete an oil they rub all over their body that helps make them waterproof. Their fur was so nice and warm, and (importantly) waterproof, that they were trapped and killed to make hats—including the one Abraham Lincoln wore! Sadly, these guys almost went extinct because of it. They also have a second

pair of eyelids that are clear. They use these so that they can see underwater, but still protect their eyes from whatever might be floating around in the water. They have webbed hind feet so they can swim better, and they can hold their breath for right around fifteen minutes.

What you'll probably recognize most though, are their teeth and their tails. Like all rodents, they have four large incisors right in the front of their mouth, and these never stop growing. They use these bad boys to chew through small trees and plants, and they use them to make their homes, called lodges. They also use their flat, scaly tails to pat down the excess leaves and twigs they use to fill in the gaps in the lodge to keep the water from getting in. You see, they build their homes in places like creeks, rivers, and lakes, and have a tendency to dam them up, which can really change the way our environment looks. That's one reason while mammal number five, the beaver, is so important to Kentucky ecosystems.

### **Mammal 6**

Last, but not least, we have our first true omnivore of the group, meaning he eats both plants and animals. This is one of the largest predator mammals in Kentucky, although not as big as people tend to think. A full grown male may get upwards of four and a half feet tall when standing on its hind legs. However, that doesn't mean they can't be dangerous. Although they are more likely to leave an area that a human is in, if their young (which we call cubs) are threatened, they can become very aggressive. And good luck getting away from one of these guys: they're sense of smell is the best among Kentucky mammals, and they can run upwards of 30 miles per hour, and they are expert climbers and swimmers. Again though, they tend to leave humans alone, and prefer diets made mostly of bugs, berries, and fruit. What's more, they go through long periods of low activity during the winter months when it's hard to find food, to conserve energy. In more Northern areas, they may even go into full hibernation, although that is pretty uncommon in Kentucky. These guys were once hunted almost entirely out of Kentucky, but in the past 30 years or so, they've started to make a comeback, especially in the mountains of the East. So make sure you keep an eye out for this guy, the black bear, if you're off exploring in the woods.

### **Conclusion**

Alright, there we have it. How'd you do? Feel free to leave your score in the comments below! It's okay if you missed a couple. What's important is that we're learning and we're trying new things. I also encourage you continue your learning at home. Get on google, do a couple searches, figure out some other interesting facts and share them with us in the message below. If you have any questions, do the same. Tune in next week for another awesome episode of Exploring the Outdoors, and we'll see you then!