

Episode 12: The Aye-aye

The next lemur that we'll learn about is the aye-aye. The aye-aye is a very special lemur. The aye-aye is actually the largest nocturnal primate in the world, but that is not even close to as unique as they get!

They are found in the northeastern forests of Madagascar, and you can find them on parts of the west coast as well.

They are very, very fond of eating insects, and my favorite thing about them is the incredibly unique way that they find and eat those insects. Aye-ayes have a specially adapted middle finger. Now, all of their fingers are pretty long and thin; but this middle finger is a very, very thin finger!

Oh, I'm getting interrupted by our ruffed lemurs doing an alarm call. So I'm going to stop and let you listen to that for just a second. [lemurs vocalizing] I know that sounds really loud and scary but honestly it's just them talking.

We're just going to keep on talking even though they feel like interrupting me. The middle finger on the aye-aye is a very thin, long finger that's on a **ball-and-socket joint**. Now, we humans also have ball-and-socket joints in our bodies. And the difference in mobility is pretty obvious if you practice it.

If you take your finger, hold your hand still, and do the biggest circle you can with your finger, it's not very impressive is it? It doesn't move around in a circle very well. Now, if we do the same thing but with our arm, we get a much better range of motion. We can go all the way around in a big circle because we have a ball-and-socket joint [in our shoulder].

If you were an aye-aye, you would have a ball-and-socket joint attaching your middle finger right here. That means that this finger can go all the way around in a big circle so that the aye-aye can use it to search for bugs. But why is going around in a circle useful if you're searching for bugs?

Well, they have even more special adaptations. Aye-ayes have teeth just like a rodent's. The two teeth on the top and the bottom continuously grow throughout the aye-aye's lifetime and are nice and sharp. They use those teeth to chew into the side of wood and other chunks where they can find their favorite foods: the bugs and the grubs that live inside the trees. They can also use those incisors and those special fingers to go after nuts and fruits and vegetables and leaves and all other kinds of stuff. But if you had to make an aye-aye choose, most of the time they would probably take the grub.

So if I were an aye-aye, I would go up to a tree and I would tap with that middle finger, appropriately called the **tapping finger**. *TAP TAP TAP TAP* nice and fast—six to eight times per second—and use my giant, bat-like ears (the biggest ears of any primate, compared to my body size) and listen really closely to hear if I can find a good spot where there might be a bug hiding inside. Then, when I find a good spot, I use my teeth to chew right into the side of the wood and get all that hard bark and outer layer out of the way. Then the tapping finger reaches into that little hole that I've made, circles all the way around in the wood, finds the grub I've been looking for, hooks my claw in, pulls it out, and eats it!

Now, notice I said "claw" there. That's another amazing thing about the aye-aye: They have claws on almost all of their fingers! They only have fingernails on their thumbs.

Aye-ayes are very special animals in part because they are very rare to find in the United States. There are only about 20 of them across the entire United States in human care, and in fact the first aye-aye ever



born within human care in history in North America was born right here at the Duke Lemur Center. They're a species that is very near and dear to our hearts.

The aye-aye that we are meeting in this video is Endora, and she is one of my favorite animals living here at the Duke Lemur Center. Endora is quite the old lady: She is about 37 years old, which is quite aged in aye-aye years! But you wouldn't be able to tell it by looking at her. She's doing great, moving around, having a very happy life enjoying all of her enrichment and her rooms here. And I think the fact that she's now lived a good 15 or so years past her usual life expectancy tells us that she doesn't mind being pampered here at the Duke Lemur Center.

Unfortunately, there are a lot of threats facing aye-ayes in the wild. As with any other lemur, they do have a lot of deforestation threatening the homes where they live; but aye-ayes have the added issue of being kind of unusual-looking.

Aye-ayes have a long history of being viewed as an animal that might be an evil omen, of [being viewed] superstitiously in Malagasy culture. As with any place in the world, Madagascar has lots of folklore, superstitions, and other things surrounding the native animals that live there. Unfortunately for the aye-aye, there is a **fady**, or taboo, against the aye-aye that sometimes causes people to think that it is such bad luck to see an aye-aye near their village that they need to kill the aye-aye to keep the village safe. But it's important to note that not all fadys or superstitions are bad for lemurs. Others, like the Indri, are actually protected by a fady that makes them sacred and protected so they can't be killed.

It really goes to show that it depends on the animal and on how [the animal] looks. Just ask a black cat, an opossum, or any other animal that lives in North America that may not have the best reputation amongst all of us.

