

Grades K-5  
Mini-Lesson: “How many extinct animals are there?”

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VIDEO TRANSCRIPT

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**VIDEO 1**

Hey, it's Esther. A while back, I took a trip to a museum to check out a collection of bugs. Some bugs in this collection are extra special because they are extinct. An extinct animal is a kind of animal that once lived, but now there are zero of this kind of animal alive. Someone named Everlee has a question about extinct animals. Let's give Everlee a call now.

**[Video Call]**

- Hi, Esther.
- Hey, Everlee.
- I have a question for you. How many extinct animals are there?
- That's a great question.

You've probably heard of extinct animals before. Maybe you know dinosaurs like T-rex and Triceratops. They went extinct millions of years ago. Maybe you've heard of this guy, called a dodo bird. They went extinct hundreds of years ago. Or maybe you've heard of animals going extinct recently, like this animal called a Chinese paddlefish. You might also have heard about animals who are in danger of going extinct. They're called endangered animals. If you want to know more about endangered animals, you can check out our series of videos on them. It seems like a lot of animals have gone extinct, but how many? Let's make a list of extinct animals. First, we'll add all the animals that have gone extinct recently. We know these animals

are extinct because we used to be able to find them in the wild, but now we don't see them anymore. They're gone. Next, we need to add all the animals that went extinct long ago, before humans started keeping track, or even before humans existed at all. But how do we know what animals lived before humans were there to see them?

## VIDEO 2

It would be great if we could just hop in a time machine, travel back to the time of the dinosaurs, and see all the animals alive back then. But until we figure out how to do that, scientists use fossils. Fossils are remains of animals who lived a long time ago. When a scientist finds a fossil of a kind of animal that doesn't exist today, that's a clue that the animal went extinct long, long ago. So let's add all the animals we've ever discovered through fossils to our list. That includes dinosaurs like this guy, and this, and these, and also other animals like these and these. This list is going to go on for a while. We discover fossils of new kinds of animals every year. Plus, we know there are still lots of fossils out there that we haven't discovered yet. That makes counting the exact number of extinct animals tricky. Okay, real talk here. At this point, it's impossible to know exactly how many extinct animals there are. There's just too much we don't know. But there is something we do know. Picture all the animals alive on earth today, and I mean all of them. From whales to dung beetles to Komodo dragons to axolotls to mosquitoes to hummingbirds. That's a lot of animals, right? Millions and millions of different kinds of animals. Well, guess what? Scientists think there are more extinct animals than there are living animals. Way more. By using math to make an educated guess, scientists figured out that 99.9% of animals that have ever existed are extinct. I'll say that again because it's just so hard to believe. 99.9% of animals are extinct. That means if this pizza represents all the animals that have ever lived, this whole part here would represent the extinct animals. You have to zoom in on this

teeny tiny slice to see the part that represents animals living today. It's understandable if that sounds scary to you. 99.9% is a lot. But these animals didn't all go extinct yesterday. In fact, most of these animals went extinct long, long ago, before humans even existed. The Earth is constantly changing. Over billions of years of changes, many kinds of animals have died out, and some new ones have shown up. It might be sad that today we'll never see a Pterosaur gliding across the sky, or a Triceratops munching on grass, but that's a part of nature. Nothing lasts forever, and we still have millions and millions of huge, tiny, unusual, and amazing creatures alive on Earth today. Still, these days, humans do have a big impact on animals going extinct. When people put harmful things into the environment, that can put animals at risk. But the good news is, just as humans have a lot of power to harm animals, we also have a lot of power to protect them. When we take care of the places that animals need to live, we keep those animals healthy and keep them off our extinct list. And while we can't yet bring animals back from extinction, there have been rare cases where an animal has been taken off the extinction list. Check this out. This is a Chacoan peccary. For years, many scientists thought this kind of animal was extinct because they couldn't find any in the wild. But in 1971, locals spotted a few in the wild in Argentina. They're still endangered, but now we know they have a fighting chance. So, in summary, it's impossible to know for sure exactly how many animals have gone extinct. Scientists think there are more extinct animals than there are living animals. They think that 99.9% of animals are extinct, but we can help. The more we keep harmful things out of the places animals live, the more we preserve the amazing variety of creatures that share our planet today. That's all for this week's question. Thanks for asking, Everlee.