mystery science

Grades K-5
Mini-Lesson: “How do we know if an animal is an endangered species?”

VIDEO TRANSCRIPT

Hey, it's Esther! So a while back, I visited a really epic library. At this library, instead of looking at books, you look at bugs. This is the INHS insect collection at the University of Illinois. The manager of the library, Tommy, showed me around the millions of insects they'd collected. A jar full of ticks, shiny metallic beetles, and so many different kinds of butterflies. While he was showing me the different bugs, Tommy told me that some of these insects are endangered. Someone named John has a question about endangered animals. Let's call John now.

[Video Call]

- Hi, Esther!

- Hi, John!

- I have a question for you. How do we know if an animal is an endangered species?

- That's a great question.

So I'm super curious about this topic, and it seems like a lot of you are curious about this, too. We've gotten so many questions in our question jar about endangered animals. Here are just a few of the questions you all have asked. Why are red pandas endangered? Why are sea otters endangered? How do animals become endangered? Why does it matter if an animal is endangered? What can we do to protect endangered animals? These are all awesome questions. So we're going to spend three episodes thinking and asking questions all about

endangered animals. So what is an endangered animal? You probably noticed the word danger right in the middle of the phrase, but what kind of danger are we talking about here? I wonder what you think. Now would be a good time to pause the video and discuss. Okay, ready? When I hear “endangered animal”, at first, I think of animals endangered in stories, like Peter Rabbit running away from farmer McGregor. But in real life, it's not always that simple. Like, see this animal here? Right now, she's doing fine. She's taking a nap in the sun, but she's still considered an endangered animal. Why is that? This is a Himalayan red panda. There are thousands of Himalayan red pandas in the world. The word we use to describe the whole group of Himalayan red pandas, the word we use to describe all the animals of this same kind is species. Every living thing is part of a species. All these pandas are the same species. The species called Himalayan red pandas, and every human on earth, including you and me, are all the same species. We're all humans. But back to the napping panda. Even though this one panda is doing fine, she's considered an endangered animal, because her species is in danger. These days, there are around 10,000 Himalayan pandas. That might sound like a lot, but there used to be way more. And wildlife experts are afraid that one day there might be zero red pandas. The number of living things in a species changes constantly. Every time a new baby of the species is born, the number goes up by one. Every time a member of the species dies, the number goes down by one. If there are more deaths than new babies, the number will keep going down, and eventually, there won't be any animals of that species left at all. When there are zero of a species left, we call that extinction. So when a species is at risk of extinction it's called an endangered species, because the species is in danger of going extinct. Extinction is a big deal. So far, when species go extinct, they don't come back. For example, in Indiana where I live, there used to be lots of these, animals called sabertooth cats, but they went extinct many years ago. I've lived here for a long time and I've never seen one. Maybe you can think of other

extinct animals, too. Dinosaurs like tyrannosaurus Rex or this bird called a dodo. These species don't exist today either. When a species goes extinct, there are no animals left to have babies, so there are no new babies. But you might be wondering how do we know if an animal is endangered. To know that it would help to know how many of a species are left. To get an idea of how many species are left, we'd have to go out into the wild and count all the animals in that species that we can. And that sounds really hard, doesn't it? Go ahead and try this. Count all the birds you see here. That was hard, right? There are a lot of them and they keep moving. Now, try this: count how many of these snowshoe hares show up in these woods. Do you even see any? I don't. But if you look really closely, there's one here hidden in the trees. Like I said, not easy. To count endangered animals scientists need help. Technology can help. Scientists use tools like GPS trackers, heat-sensing cameras, and drones to track animals in the wild. And teamwork helps too. The more people help count endangered animals, the better idea will have of their numbers. Like these students in India. They set up a camera outside their school to capture pictures of nearby wildlife, like this tiger. Then, they sent the pictures they collected to scientists who study endangered tigers. Or check this out: These volunteers in Wisconsin are putting tags on endangered monarch butterflies. This helps scientists track them and find out if their numbers fall dangerously low. So in summary, what is an endangered species? Well, when the number of animals in a species goes down to zero, that's called extinction. A species in danger of extinction is an endangered species. Counting endangered animals in the wild is tricky, but with tools and teamwork, we can keep an eye on endangered animals around the world. When we know which species need help, we can find ways to keep them from going extinct. That's all for this week's question. Thanks for asking, John!