***SCIENCE TREK* 1802 ZOOLOGY WEB SHOW**

Transcribed by Nancy Poore 09/21/16

(MUSIC)

JOAN CARTAN-HANSEN: Hi, I'm Joan CARTAN-HANSEN, and welcome to *Science Trek: The Web Show*.

And welcome to Zoo Boise. Joining me now to answer your questions about zoology are Holly Holman, Zoo Boise's veterinarian, and the director of Zoo Boise, Steve Burns.

Thank you both for being here.   
HOLLY HOLMAN ZOOBOISE VETERINARIAN: Thanks for having us.

STEVE BURNS, DIRECTOR ZOOBOISE: Glad to be here.

CARTAN-HANSEN: Okay, let's go to your questions.

(MUSIC)

isabell: Hi, my name is Isabell. Who studies animals?   
BURNS: So all kinds of people study animals. If you study animals, then you are a zoologist. If you study birds, you're an ornithologist, which is a certain kind of animal. If you study reptiles, you're a herpetologist. If you study just mammals, you're a mammalogist. So it just really there's all kinds of scientists will study, but I think it's important that everybody studies animals.

We live on the same planet as animals. We share the same space. And we want to make sure that animals are around for a really long time. We would hate to see a world in which there's no tigers or no gorillas, no rhinos. And so the more that we study animals, the more that we know about animals, then the greater chance is that those animals will continue to be around, and we can enjoy them forever.

kaden: Hi, my name is Kaden. And my question is how do reptiles push out of their old skin?   
HOLMAN: Reptiles push out of their old skin in an interesting way. They actually form a new skin below the old skin, then they secrete this liquid that almost makes them look a blue color. So we will often say that a snake is blue when they're getting ready to shed. And then that makes the old skin really loose on the outside of the animal, and then they're able to wriggle out of it.

JOSEPH: Hi my name is Joseph. And I would like to know how many types of sharks there are.   
HOLMAN: There are approximately 540 species of sharks in our oceans, and most of them are very friendly. Only a few are dangerous to humans, and the rest of them are important parts of our ecosystem.

JACK: Hi, my name is JACK. My question is do all birds migrate?   
BURNS: No, not all birds migrate. Some birds will stay where they're at. You can imagine there's lots of birds that live on islands, and they live there yearround. And so it just depends on the food source is the biggest reason why birds will migrate. If they live in one place, and there's lots of food, and then winter comes and there's not a lot to eat, they'll migrate to another place that's usually warmer and has more food.

But for many, many birds, particularly those that live on islands, they stay there yearround.

PARKER: Hi, my name is Parker. My question is what is the biggest owl in the world?   
HOLMAN: It depends on if you're looking for the tallest or the fattest. So the great gray owl will live here in Idaho, and it would be the tallest. And the Eurasian eagle owl would be the heaviest.

LIESL: Hi, my name is LIESL. Why do father penguins carry the babies everywhere?   
HOLMAN: Well, father penguins are actually very good parents, but they typically don't carry the babies around. They will trade off parenting duties with the mother so that the mother can go off and eat, herself. So they are good parents, but I don't see them carrying them around very often.   
BURNS: You've got some penguins down in Antarctica, like the emperor penguin. And what they'll do is they'll hold the egg on their feet to keep it up off of the ice and snow, and they'll keep their feathers covering that egg during the whole time in which the egg is incubating. And then when it hatches, then the baby penguins will move around on their own.

JACK: Hi, my name is Jack. Today my question is why don't monkeys have thumbs?   
HOLMAN: Actually, some monkeys do have thumbs. It depends on where they are and whether or not they have a tail that is useful. So some monkeys have what's called a prehensile tail, and it's basically like having an extra hand, which would be really useful for the rest of us. But those animals, typically, don't have an opposable thumb like humans do or other monkeys.

DUHRAM: Hey, my name is Durham. And I want to know how do spiders shoot their webs?   
HOLMAN: Spiders don't really shoot their webs, but they do have spinneret glands at the end of their abdomen, which allows them to weave the silk into a beautiful web and catch their prey.

OWEN: Hi, my name is Owen. My question is how many different types of pandas are there?

Burns: Well, there's two types of pandas by name. They're different species. One is the giant panda, which is a species of bear.

And then living in the same range is another animal called a red panda. And a red panda looks more like the size of a raccoon. And because they both eat bamboo, they both got called pandas, even though they're not really related to each other.

KAYDEN: Hello, my name is KaYden. My question is why don't all birds fly?   
HOLMAN: So some birds do not have hollow bones, which would allow them to be lighter weight, so they do things like swim or run really fast, but they aren't able to get off the ground to fly.

AVA: Hi, I'm Ava. How do meerkats run so fast?   
BURNS: Well, meerkats run so fast because they're trying to run away from something that's trying to eat them. A lot of times you'll have a thing, like a martial eagle or some other bird of prey, trying to get them. And so, you know, they've got burrows, and they've got all these different places in which they'll try to run.

But if you were trying to run away from a big bird that was trying to eat you, you just learn to run really fast.

EVERETT: Hi, my name is Everett. And my question today is why are alligators dangerous?   
HOLMAN: Alligators are dangerous for a variety of reasons. One, obviously, they have sharp teeth, but they're also really good runners, and they have very strong tails, so they can be very dangerous if you're anywhere near them.

MASON: Hi, my name is Mason. How fast can an ostrich run compared to a cheetah?   
HOLMAN: Ostriches can reach a top speed of about 43 miles per hour, where cheetahs are more likely to hit about 75 miles per hour. Cheetahs can only sustain that speed for a very short period of time and are best in a straight line. Ostriches are really good at turning, so they might be able to avoid a cheetah for some period of time if they can zig and zag and get away from them or until they get tired.

RONAN: Hi, my name is RONAN. And I'm from Mrs. Freeland's secondgrade class from Moscow, Idaho. And I would like to know, how do you stop animals from being extinct?   
BURNS: You know, animals go extinct in a variety of ways. The biggest reason why animals go extinct is because their habitat or their home in which they live is destroyed. So if you're an animal, and you live in a particular kind of forest or out in a particular kind of desert and that area gets turned into something else or destroyed, then you don't have a home to live in anymore.

But there's also a variety of other ways. One is that other species, called invasive species, will move in and take over the habitat. Pollution is another way in which an animal might go extinct, pollution from humans. Sometimes it's diseases that will come in and wipe out a whole population of animals.

And so, really, it's a variety of ways. But it's the destruction of that animal's home. You can imagine if all of a sudden you were to have to leave your home and go live out in the middle of the desert somewhere, you may not do very well. It's the same thing if you were an animal; if your home was destroyed, you may not do very well, either.

CARTAN-HANSEN: I'm sorry, we've run out of time. My thanks to Holly and Steve for answering questions.   
HOLMAN: Thank you. It's been lots of fun.   
BURNS: Thanks for having us.

CARTAN-HANSEN: My thanks, also, to the folks here at Zoo Boise for hosting us. If you want to learn more, check out the zoology area on the *Science Trek* website. You'll find facts, links, games, our zoology broadcast show and lots more. And every week check out my blog for the latest science news for kids. All at idahoptv.org.

Thanks for joining us for *Science Trek: The Web Show*.

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