

Episode 5: Ruffed Lemurs

Hi! My name is Alanna. Before we go and see some lemurs, I am going to be putting on this mask to ensure my safety and the lemurs' safety.

There are two different species of ruffed lemur here at the Duke Lemur Center: We have the **black and white ruffed lemurs (*Varecia variegata*)** and the **red ruffed lemurs (*Varecia rubra*)**. These two species are closely related, but have a few differences between the two of them.

I'm standing in front of a red ruffed lemur enclosure. The two animals inside are Kalani and Antika. Kalani is our male, and he has darker fur than Antika; Antika is going to have lighter fur. He is currently hiding inside of a box, and she is hanging out on top of a box.

So you might hear a whirring noise in the background. We have fans set up in all of our summer silos that these guys are in, to help create airflow when it gets really hot and humid out here.

The black and white ruffed lemurs that we'll see today are a family of five: mom Halley, dad Ravo, and then their triplets, Sunshine, Sputnik, and Orbit. Sunshine is the girl, and Orbit and Sputnik are boys. Orbit has a tail shave near the tip of his tail, and Sputnik has one around the middle of this tail. Some of our lemurs get tail shaves—like little funky haircuts—and this is to help our staff and our researchers tell our lemurs apart from each other. Because Halley had triplets and they all look very similar to each other, the haircuts are a great non-invasive way that the keepers and staff can tell them apart.

Even though the black and white ruffed lemurs and the red ruffed lemurs live in very similar habitats and have very similar diets, because they live in two different parts of Madagascar and they look very different from each other they are considered to be two separate species. Here at the Lemur Center, we've also seen in their gut microbiomes that they have very different types of bacteria in their digestive tracts, even when living in the same habitats here at the Center.

Both species of ruffed lemurs live along the eastern coast of Madagascar in the tropical rainforest: the red ruffed lemurs live in Masoala peninsula and the black and white ruffed lemurs live in fragmented habitat just south of that peninsula.

These guys are living in one of our summer silos; they're out here just for the summer when it's warm enough for them to be outside both during the day and overnight. Other lemurs are living in our indoor/outdoor habitats where they have multiple different rooms, so they can go inside and outside to form one big complete habitat. Other lemurs get to live out in our NHEs [Natural Habitat Enclosures], which are multi-acre forest spaces where they get to romp around in the trees.

[In Madagascar,] the primary role of both species of ruffed lemur is to function as **seed dispersers**. These guys eat a wide variety of fruits every single day, and they will eat the entire piece of fruit all in one go, including those seeds. Those seeds will pass very quickly through their digestive tracts—sometimes in as little as two to three hours!—before they get pooped out into the forest. And the idea is that those seeds will then grow into more fruit trees that the lemurs will then come back to in a couple of years.

These guys are also the world's largest **pollinators**. One of their favorite flowers is from the Traveler's palm, because it has nice big flowers that they can fit their entire faces in. And as they fit their entire face inside that flower, all of the pollen in that flower gets stuck to that lovely ruff of fur around their faces; and as they move from one flower to the next, they're spreading all that pollen around. But their main role is



still as seed dispersers.

Ruffed lemurs have very thick, fluffy, beautiful fur—but this is *not* to keep them nice and warm during the winter months in Madagascar; instead, it's to keep them nice and dry in the rainforest where they live. Lemurs really don't like getting wet, and so this thick, fluffy fur helps prevent that water from making it down towards their skin. These guys really love their rainforest and they prefer to live in the canopy of the rainforest, all the way up in the tops of the trees.

Unlike other species of lemurs, ruffed lemurs do not carry their babies on their bellies or on their backs. Instead, mom will build a nice, big, round nest up in the very tops of the trees, and she will park all of her babies inside that nest. Both species of ruffed lemur moms will build nests up in the canopy of the rainforest because they can have upwards of six babies at a time, and that would be a lot of babies for mom to carry on her back!

After the mom has parked her babies in the nest, she and the rest of the family members will go out and forage for their favorite food: fruit! If mom and dad and the other family members see any potential threats to themselves or to the little ones, they will sound off their alarm call. Ruffed lemurs have one of the LOUDEST alarm calls out of all different species of primates, which will echo up to a half a mile in every single direction.

[*Ruffed lemurs vocalizing in their characteristic roar-shriek chorus.*]

When those baby ruffed lemurs hear that call as they're starting to explore out of that nest, that's a really great signal for them to go run back and hide in that nest to avoid any potential threats.

Both species of ruffed lemur are listed as Critically Endangered. The Duke Lemur Center is doing our part working on various conservation projects over in Madagascar, but you can also help out with conservation in your own backyard! Pollinators in general—not just lemurs—are very important for the health of the planet, so planting flowers and plants that your local pollinators might enjoy, is going to help them and your local community. We have lots of different plants here in our silo area. We've got bees and butterflies flying around, including special butterfly waystations and a butterfly house. We have milkweed planted, and we see a variety of butterflies, including monarchs, every single summer.

If you decide to plant flowers in your own backyard, you'll also get to see some of these really fascinating creatures as well!

