



## Lemur Extinction Looms Due to Multiple Threats

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### Story at-a-glance

- ▶ While there are more than 110 different species of lemurs, they live in only one small spot of the world, which is why it's significant that this animal species is now considered the most endangered in the world
- ▶ Slash-and-burn agriculture and illegal logging are two of the most significant reasons for the lemur population's endangerment, but natives also hunt them for food, and their live capture for the pet trade are growing threats
- ▶ The differences between lemur species varies, with 5-inch types and others measuring nearly 3 feet; red, brown, black and white fur with interesting fur patterns are also seen
- ▶ One study noted that clever lemurs gain social standing within their communities; other highly interesting behaviors include female domination, group singing and male-initiated "stink fights"
- ▶ In 2013, the International Union for Conservation of Nature (IUCN) submitted action plans for saving endangered lemurs, which includes locating new protective areas and enforcing lemur protection legislation

If you're fascinated with animals, you may be aware that the lovable lemur, the furry, wide-eyed creatures whose faces look something like a cross between a mouse and a baby bear, are part of a group called prosimian primates, which are a group of mammals that are neither monkeys nor apes, according to Live Science.<sup>1</sup>

There are at least 110 different varieties of this rather obscure animal, ranging from the indri species, which weighs as much as 22 pounds and measures around 35 inches long, not including their tails, to the Madame Berthe's mouse lemur, weighing just an ounce and measuring a mere 5 inches in length, to the pygmy mouse lemur standing less than 2.5 inches from head to toe, their tails adding another 5 inches.

Lemurs hail from just one area of the world: Madagascar and the tiny Comoro Islands on the east coast of Africa between Mozambique and [Madagascar](#). That small, remote spot is one reason it's so significant that lemurs are now considered the most endangered animal group on the planet — particularly the indri.

In fact, a lemur variety as large as gorillas has already gone extinct. Experts say the main reason for their extinction and current endangered status is habitat loss.<sup>2</sup> According to Mother Nature Network, about 94 percent of all lemur species are on the International Union for Conservation of Nature (IUCN) Red List, with 49 listed as endangered and 24 listed as critically endangered.

As an example, the critically endangered Alaotran gentle lemur now exists only in marshlands around Lake Alaotra, but the loss of this habitat has reduced the entire species to about 2,500 individuals. In addition:

*“Lemurs face an array of dangers across Madagascar, the only place where they exist in the wild. Some people hunt them, or even collect babies for the pet trade — an example of why cuteness can be a double-edged sword. But the single greatest threat to lemurs is the same thing causing most wildlife declines around the world: habitat loss, driven by everything from logging and agriculture to climate change.”<sup>3</sup>*

The BBC noted that indigenous people hunting lemurs to sell them as pets poses a problem in the endangering of lemurs, as does poaching them for food. Christopher Schwitzer, Ph.D. from Bristol Zoological Society explains that this latest threat is growing: “We see commercial hunting as well — probably for local restaurants — and this is a new phenomenon for Madagascar. We didn’t see it at this scale 15 years ago.”<sup>4</sup>

## How to Win ‘Friends’ and Influence Other Lemurs

Other than humans, there are few species with such a raucous, trumpeting call, called “singling,” in some instances for the purpose of group formation and defense. However, a 2016 study<sup>5</sup> reported that younger indri lemurs have a penchant for singing their “loud howling cries” out of synch with the rest of their group.

Researchers noted that males and females who sometimes overlap their songs also echo their pitch variations and rhythm as a mating ritual.

Another highly interesting fact about these animals is that they’re extremely smart, but even more remarkable is that when community members see one of their own performing a particularly clever skill, such as opening a drawer to extract food, it “impresses” them. They often defer to the smart ones, says Ipek Kulahci, Ph.D. the first author of a Princeton University study published in Current Biology.

*“Our findings are highly significant because no other study has previously shown that the relationship between learning and social network position are feedback-based, such that learning influences network connections and position, in addition to being influenced by it ...*

*I was quite impressed that the frequently observed lemurs received more affiliative behaviors, such as grooming, without adjusting their own social behavior. In most primate species, grooming tends to be mutual; it relies on reciprocity between the groomer and the individual being groomed. ...*

*So it is a pretty striking pattern that the frequently observed lemurs received lots of grooming without providing more grooming to others.”<sup>6</sup>*

There are several other notable facts about lemurs. One is that across the board, all lemur societies are headed by females. Duke University biologist Robin Ann Smith, Ph.D. wrote that female lemurs had been known to bite their mates, snatch fruit out of the hands and either “whack them in the head or hove them out of prime sleeping spots.” Females eat before males, and they mark territory with their scent in the same way males of many other species do.

All the varieties are intriguing to compare, from the black-and-white ruffed lemur (*Varecia variegata*) with their interesting body patterns and bushy white sideburns and beards, to the Coquerel’s Sifaka (*Propithecus coquereli*) with a white back and tail and a black (or red) face and stomach, and the nocturnal Aye-aye, which some of the more superstitious people in Madagascar call monsters, due to their impossibly long middle fingers, used for finding food.

Male Ring-tails are known to settle disputes over food, mates and territory with “stink fights,” particularly during mating season. The fights can turn into brawls, but the scent glands at their wrists and shoulders can emit a vile, “brown toothpaste-like substance” and produce a volatile intimidation in battle.

## The International Conservancy Group’s Action Plan

After reviewing and comparing the latest research and threats on lemur populations, 105 of the 110 or so lemur species and their respective habitats in Madagascar were placed on the IUCN’s imminently endangered list. That Madagascar’s favorite species is so compromised is “indicative of the grave threats to Madagascar biodiversity as a whole,” said Global Wildlife Conservation Primate Specialist Group chair, Russ Mittermeier, Ph.D.

One of the most important steps in the process of identifying the greatest problems for this group of animals is sorting out the most urgent priorities for their conservation. The “lemur action plan” being implemented to save the animals is closely associated with the plans to save their habitats, too.

One of the first items on the group’s agenda is to address the poverty that drives locals to hunt them, possibly through ecotourism schemes, which Schwitzer hopes will galvanize the world to action.

The IUCN’s paper, “Lemurs of Madagascar: A Strategy for Their Conservation 2013-2016,”<sup>7</sup> notes that the island is the fourth largest in the world but that it’s been extensively documented over the last 20 years or so as “one of the most heavily impacted countries in the world in terms of habitat loss.”

In fact, as much as 90 percent of the island’s natural vegetation has already been destroyed, and the rest left devastated. Erosion is as great a problem there as anywhere on Earth, the authors assert; so much so that prevention of further habitat and species loss should be a global priority.

Immediate, large-scale measures are recommended. The strategy mentions that although a plan of action involving raising them in captivity had never been successful, it was implemented in the 1970s “when primate captive husbandry was at a very early stage.” However:

*“We should experiment with keeping this animal in a semi-natural setting in Madagascar, and then investigate possibilities for establishing breeding groups in key zoos on a long-term loan basis, similar to what has been achieved with the giant panda ...*

*[T]here exists a strong cadre of professional lemur conservationists, both in Madagascar and internationally. As should be evident from this plan, we know what is needed to prevent lemur extinctions.”*

## What Lemur Conservation Has and What Is Needed

The IUCN’s strategy for action acknowledged having “a strong cadre of professional lemur conservationists, both in Madagascar and internationally” at the time of its writing, as well as the crucial assets, availability and strong foundation of knowledge on several key points:

- Where most lemur species occur
- Locations of key protected areas and where new ones should be located
- Providing proper enforcement of lemur protection legislation
- Engaging local communities to protect lemurs and their habitats

- Creating ways to ensure communities improve their quality of life in the process

As always, one of the greatest impediments for implementing its list of strategies is the lack of funds. Still, Leon Rajaobelina, regional vice president of Conservation International until his death in early 2018,<sup>8</sup> wrote an impassioned plea to those interested in the protection and sustenance of lemurs, stating his confidence in the ability of the animals to imprint themselves on people and groups that will help save them:

*“Seeing lemurs in their natural habitats once in a lifetime is a dream for nature lovers and naturalists around the world. Notably, tourism contributes a substantial amount of foreign exchange to Madagascar’s economy.*

*Conservation is a collective task that demands the involvement of all of us. Implementing this lemur conservation strategy will thus only be successful if we work together to face the challenges ahead. We will not let the lemurs vanish from our forests because we are not alone in our battle. Lemurs are a world heritage for future generations.”<sup>9</sup>*