The Monkey That Inspired *The Lorax* Is Losing Its Trees

Diane Kelly 7/23/18 12:00pm

In 1971, Theodor Geisel, writing as "Dr. Seuss", introduced readers to the Lorax, a grouchy, orange, mustachioed advocate for a habitat being destroyed by the Once-ler and his relatives in their quest for Thneed market saturation. The story has taught generations of schoolchildren that animals and plants depend on one another. And while it was development near his home in La Jolla, California that gave Geisel the initial idea for *The Lorax*, a paper published today in *Nature Ecology and Evolution* argues that its eponymous character was inspired by a monkey in Kenya that faces conservation challenges of its own.

The Lorax wasn't an easy book for Geisel to write. He had read so many dry and statistics-filled technical papers as he did his research that he found inventing amusing and appropriately Seussian text almost impossible. After months of writer's block, his wife suggested a vacation, and the two went to Africa. At the Mount Kenya Safari Club, surrounded by elephants, giraffes, and a suite of unfamiliar plants and animals, inspiration arrived and Geisel wrote most of *The Lorax* in an afternoon.



Patas monkeys have distinctive sideburns and whiskersPhoto: Yvonne de Jong and Tom Butynski A study lead Nathaniel Dominy, a primate ecologist at Dartmouth College, was already familiar with the Seussian appearance of some of these creatures from his field work in Kenya. But after learning that history, he said, "I was motivated to put images of the Lorax right next to the patas monkey, and I was really struck by their similarities."

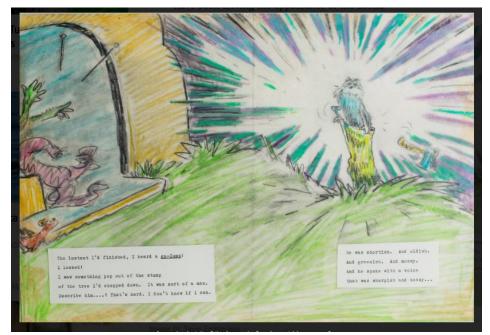
Like the Lorax, patas monkeys, which are found in dry habitats across central Africa, are orange and have a "white, vivid mustache," Dominy told Earther. When they forage, they often stand on their long hind limbs to reach food, echoing the Lorax's upright stance. One of their calls even resembles the Lorax's "sawdusty sneeze".

But those similarities between living monkey and imagined character could still be a coincidence, Dominy thought. "Maybe this is just human bias, maybe this is the story we want to see, rather than the story that really is," he said.

That's when Dominy and his colleagues decided to ask James Higham, an expert in primate communication at New York University (NYU), about his machine learning algorithm for faces.

Higham's research at NYU uses human facial recognition software to study the color patterns on the faces of small primates. After loading both the Lorax and, as a control, a similarly orange, bipedal character from Seuss's 1968 classic *The Foot Book*, into the program and comparing them to images of Kenyan monkey faces from a variety of species, the researchers found that the algorithm put the Lorax, and only the Lorax, closest to the monkeys.

What's more, the program grouped the Lorax closest to two species of monkey, the forest-dwelling blue monkey and the patas monkey. Only the patas monkey lived in the area around the Mount Kenya Safari Club. "That's when we realized



there's something non-random here," Dominy said.
"The patas monkey may have been driving the appearance of the Lorax."

An early sketch of the Lorax, before he got his orange fur.Image: Dr. Seuss Enterprises

There was another similarity. Like the Lorax, the patas monkey in Kenya depends on a tree.

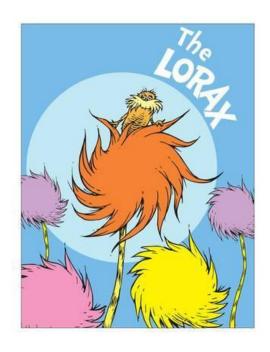
Whistling thorn acacias are short, scruffy trees with feathery leaves and long thorns housing colonies of ants. They make up most of the patas monkey's diet.

"They really like the gum that's on the trees and the ants that are within the swollen thorns," Lynne Isbell, a primatologist at UC Davis who was not involved with the study, told Earther. "Those are their staples." The monkeys also eat the acacia's leaves, flowers, and fruit, picking handfuls and moving on before the ants swarm to protect their trees.

That grab-and-go feeding style is effective when acacias are plentiful. But as the human population of Kenya grows, people have cut down acacias to make charcoal and to clear land for agriculture. Fewer acacias mean fewer patas monkeys. According to Yvonne de Jong, an ecologist studying patas monkey conservation at the Lolldaiga Hills Research Programme in Kenya, the monkeys' range in Kenya has declined 60 percent and they are fast becoming one of Kenya's most threatened primates.

It's the story of *The Lorax* all over again. "Life may be imitating art which was imitating life," Dominy said. This monkey needs some people out there who care a whole lot to help change that.

When not being a biologist, Diane writes about animals, math, and how scientists find out stuff.



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