

Meet the newest species of great ape. They're already endangered.

There are only 800 of these glorious orange-furred apes left.

Updated by Brian Resnick

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Sumatran Orangutan Conservation Programme/Maxime Aliaga

In 2013, a male orangutan named Raya died in the care of veterinarians after **a cruel** confrontation with local villagers on the Indonesian island of Sumatra.

Up until that point, biologists believed there were just two species of orangutan, one that lives on the island of **Borneo** and one on **Sumatra**. And they knew that their populations, as with the other non-human great apes on Earth — gorillas, chimpanzees, and bonobos — are dwindling. Only **60,000 orangutans in total are believed to be left**.

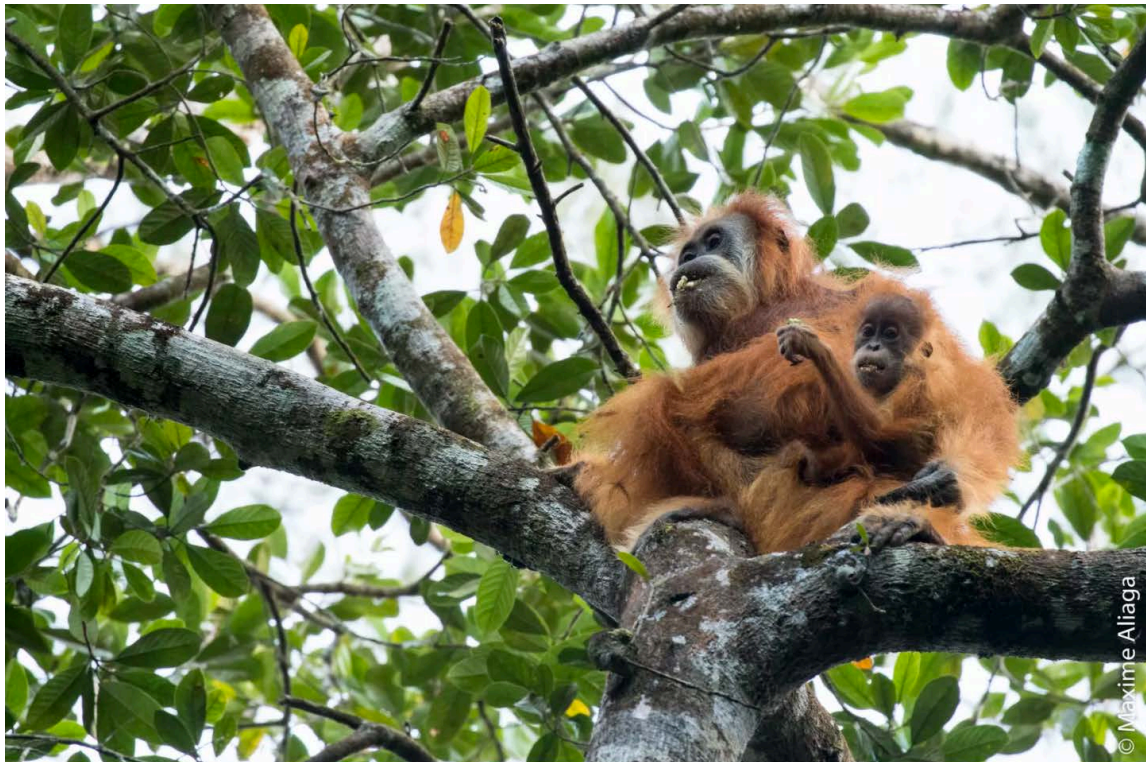
Raya, though, belonged to a special group of around 800 individuals in the **Batang Toru** forest of Sumatra. And biologists suspected that group might be slightly different from the orangutans on the rest of the island. The orangutans of Raya's group have frizzier fur and eat different foods.

An analysis of Raya's skull, coupled with a genetic analysis of some of his relatives, revealed Raya was *not* like the main species of orangutan on the island. Thursday in the journal *Current Biology*, a team of geneticists and biologists has **announced** there's a third species of **orangutan** in the world, *Pongo tapanuliensis*, or the Tapanuli orangutan. It's the first new great ape species to be proposed in the scientific literature **in 90 years**, since the bonobos were discovered in 1927.

But there's not much time to celebrate: This species only has around 800 members, making it **critically endangered**, the highest extinction risk category described by the International Union for Conservation of Nature (IUCN).

"A combination of small population size and geographic isolation is of particularly high conservation concern," the authors of the paper write, "as it may lead to inbreeding ... and threaten population persistence."

These apes are in trouble.



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"We were quite surprised that [Raya's] skull was quite different in some characteristics from anything we had seen before," Matt Nowak, one of the authors of the study, said in a press statement.

Raya and his Tapanuli brethren have smaller skulls than the main species of **orangutan** on Sumatra, the *Pongo abelii*. And overall, they look more similar to the species of **orangutan** found across the sea on Borneo.

And DNA analysis revealed they are, in fact, more genetically similar to their Bornean cousins than to the Sumatrans.

How can that be? Borneo is hundreds of miles across the sea from Sumatra.

At the Atlantic, Ed Yong **explains** that millions of years ago, Borneo and Sumatra were linked in continuous landmass. First, the population that Raya belonged to split off from the main branch of the species. Then another group spread throughout this continuous landmass, becoming the Bornean and main Sumatran **orangutan** we know today.

Not all scientists are buying that these **orangutan** are indeed their own species. The analysis was limited to the one skull and the genetics of just a few individuals. And often nature doesn't provide a clear cutoff between one species and another (as often different **lineages on the tree of life** continue to mate with one another occasionally after they've split apart). Questions about speciation are magnets for debate.

But we know enough to know the Tapanuli orangutan, with its gorgeous long orange fur, is special. And it's in trouble.