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Sumatran tigers fall 17 per cent and have just two strongholds



A male Sumatran tiger in Bukit Barisan Selatan National Park
Matthew Scott Luskin

By **Aylin Woodward**

Sumatran tigers are running out of places to live. Their population fell by 16.6 per cent between 2000 and 2012, and the remaining tigers are trapped in shrinking forests.

“We’re really at a tipping point in terms of how much habitat is left that tigers need for their long-term survival,” says [Matthew Luskin](#) at Nanyang Technological University in Singapore.

The Sumatran tiger (*Panthera tigris sumatrae*) is a subspecies of tiger, only found on the Indonesian island of Sumatra. It is critically endangered, due to poaching, the expanding [oil palm industry](#) and rampant deforestation.

Luskin and his colleagues spent a year tracking tigers through Sumatran forests, using cameras to track each individual animal. They combined their data with other scientists’ results, allowing them to accurately estimate how many Sumatran tigers are left.

Not enough females

They focused on the number of females able to reproduce, which is a crucial indicator of the tigers’ long-term chances. Conservationists tend to focus on protecting populations that have at least 25 breeding females, to avoid inbreeding.

Luskin’s team found that there are now only two habitats with viable populations, down from the 12 thought to have existed 70 years ago. Gunung Leuser in the north and Kerinci Seblat farther south have 48 and 42 breeding females respectively.

The researchers say the population decline is driven by the rapid loss of the tigers’ habitat. Indonesia has the [fastest deforestation rate](#) of any country: it lost 60,000 square kilometres (37 per cent) of its primary forest between 2000 and 2012. During that period, 16.5 per cent of tiger-occupied forest vanished.

Out of the frying pan

Tigers are already extinct on Java, Bali and Singapore. But in the last 20 years there has been a concerted effort to protect [Indonesia’s last tiger population](#) from extinction.

On one measure, this effort has succeeded. The team found that the density of tiger populations – the number of tigers per square kilometre – has gone up, rising 4.9 per cent annually between 2000 and 2012. Tiger densities were 47 per cent higher in untouched forests, compared to logged forests. “Loggers make roads into the forest, and that makes it easier for poachers to get in and get the tiger out,” says Luskin.

The problem is, says Luskin, “while anti-poaching efforts have been successful, at the same time so much forest has been lost that it’s offset those commendable conservation gains.”

It doesn’t help that Sumatran tigers need larger home ranges than their Indian counterparts. Each tiger needs roughly 240 square kilometres, seven times the size of Manhattan Island. That makes them sensitive to habitat loss. “Each additional hectare lost has a disproportionate impact on the tigers,” says Luskin.

It is critical to protect the two sites with viable populations, says [Joe Walston](#) at the Wildlife Conservation Society in Bronx, New York. The tigers there could ultimately restore the populations elsewhere on the island. “This is a very clear call to arms,” he says.

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