

# Key leopard population 'crashing', study warns

April 19 2017, by Marlowe Hood

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The clash between humans and leopards, experts agree, is mostly due to humanity's expanding footprint, especially in Africa, whose population is set to expand by more than a billion before mid-century

The leopard population in a region of South Africa once thick with the big cats is crashing, and could be wiped out within a few years, scientists warned on Wednesday.

Illegal killing of leopards in the Soutpansberg Mountains has reduced their numbers by two-thirds in the last decade, the researchers reported in the *Royal Society Open Science* journal.

"If things don't change, we predict leopards will essentially disappear from the area by about 2020," lead author Samuel Williams, a conservation biologist at Durham University in England, told AFP.

"This is especially alarming given that, in 2008, this area had one of the highest leopard densities in Africa."

The number of leopards in the wild worldwide is not known, but is diminishing elsewhere as well. The "best estimate" for all of South Africa, said Williams, is about 4,500.

What is certain, however, is that the regions these predators roam has shrunk drastically over the last two centuries.

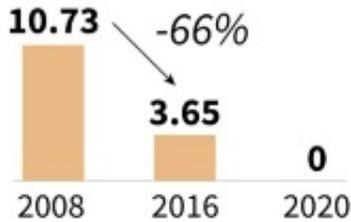
The historic range of *Panthera pardus*, which includes more than half-a-dozen sub-species, covered large swathes of Africa and Asia, and extended well into the Arabian Peninsula.

Leopards once roamed the forests of Sri Lanka and Java unchallenged.

## S. Africa's leopards in danger

In 2008, the Soutpansberg Mountains had 1 of the highest leopard population densities in Africa but *Panthera pardus* could soon vanish

Number of leopards per 100 km<sup>2</sup>

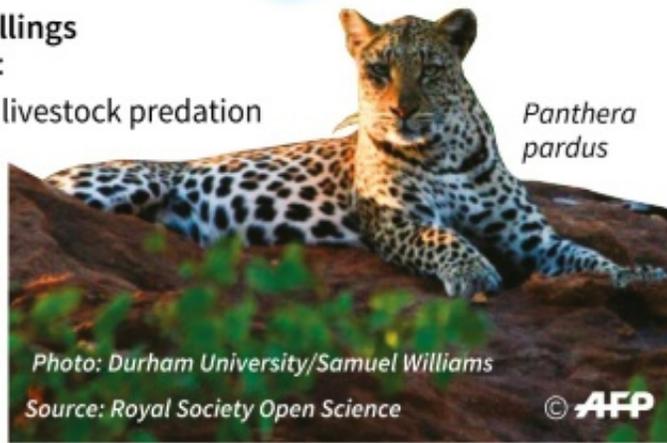


► **Main sources of illegal killings**  
(*snares, shooting, poison*):

- farmers, to stop perceived livestock predation
- poachers, for bushmeat and animal parts

► **Key protection efforts:**

- encourage farms to keep livestock guard dogs
- support ban on trophy hunting



Graphic illustrating the decline of the leopard in South Africa and efforts to save the animal as well as protecting farmers

Today, they occupy barely a quarter of this territory, with some sub-species teetering on the brink of extinction, trapped in one or two percent of their original habitat.

Leopards were classified last year as "vulnerable" to extinction on the International Union for the Conservation of Nature's Red List of endangered species, which tracks the survival status of animals and plants.

South Africa recently suspended trophy hunting of leopards, though experts agree this is not a major cause of the [population decline](#).

## Bleak findings

A 2008 census of leopards in the 6,800-square kilometre (2,600-square mile) Soutpansberg Mountains found a robust population of nearly 11 adult cats for each hundred square kilometres (39 square miles).

To find out how the carnivores had fared since then, Williams and his team set up four dozen motion-triggered camera traps across the area, and left them in place from 2012 to 2016.



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The cameras captured a total of 65 individual leopards during the four-year period: 16 adult males, 28 adult females and 21 younger cats.

They also fitted eight adults with GPS collars to track their movements—or lack thereof.

Only two of the GPS-tagged leopards survived the monitoring period. Three were done in by snares, one was shot by a local resident whose cattle had been attacked, and two went missing, probably killed since they also disappeared from camera surveillance.

A statistical analysis of the results showed "a 66 percent decline over a period just over 7.5 years," the study concluded.

Ironically, the bleak findings helped conservationists and local officials raise money to hire a "community engagement officer."

"One of the things he does is help local people adopt non-lethal techniques" to prevent [leopards](#) from attacking cattle and other livestock, including the use of guard dogs, Williams added.



Lake Fundudzi sits among the foothills of South Africa's Soutpansberg Mountains in the northern province of Limpopo

But the clash between humans and big carnivores, experts agree, is mostly due to humanity's expanding footprint, especially in Africa, whose population is set to expand by more than a billion before mid-century.

As a result, the habitats of most wild megafauna are diminishing, and getting chopped up into smaller and smaller parcels.

"It is extremely alarming that the trends that we are reporting exemplify trends in large carnivores globally," Williams said.

Studies in Africa of lions, black-backed jackals and bat-eared foxes have showed similar rates of decline.

**More information:** Population dynamics and threats to an apex

predator outside protected areas: Implications for carnivore management, *Royal Society Open Science*, [rsos.royalsocietypublishing.org ... /10.1098/rsos.161090](https://rsos.royalsocietypublishing.org/.../10.1098/rsos.161090)

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