

Can big cats co-exist? Study challenges lion threat to cheetah cubs

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This is an image of cheetah cubs from Kgalagadi Transfrontier Park. Credit: Michael Gus Mills

New research into cheetah cub survival has refuted the theory that lions are a cub's main predator and that big cats cannot coexist in conservation areas. The study, published in the *Journal of Zoology*, found that cubs in the Kgalagadi Transfrontier Park were seven times more likely to survive than on the Serengeti Plains and that lions were not found to be

the cubs' main predatory threat.

Previously, research on the Serengeti Plains found that only 4.8% of 125 cheetah cubs (*Acinonyx jubatus*) monitored from the den to adolescence survived. The [theory](#) that cheetah cubs are at high risk from lions has impacted conservation strategies as it is believed protected areas may not be suitable for [cheetahs](#) if they cannot coexist with large predators.

In the latest study the authors visited a series of dens to study the litters of six adult female cheetahs. They found that in Kgalagadi 55% of litters and 53.6% of cubs survived to emergence. Lions were found to account for only 6.7% of mortality cases, in contrast with the Serengeti where 78.2% of cases were ascribed to lions.

The authors argue that rather than being the norm, the low survival of cheetah cubs reported on the Serengeti Plains may be exceptional. The plains are open landscapes, making cubs more vulnerable to predators.

There are also major differences in the cheetah's prey. In the Serengeti, gazelles are migratory, which may make it difficult for adult females to hunt. However in Kgalagadi, the steenbok population is sedentary and represents a constant source of food.



This shows cheetah cubs at Kgalagadi Transfrontier Park. Credit: Michael Gus Mills

"Our study has shown that, contrary to popular belief, cheetah cub mortality may not always be inordinately high, and that lions are not necessarily their major predator," said Dr. Michael Gus Mills. "Cheetahs can coexist successfully in protected areas with other large carnivores."

More information: Michael Mills, Margaret Mills, 'Cheetah cub survival revisited: A re-evaluation of the role of predation, especially by lions, and implications for conservation', *Journal of Zoology*, [DOI: 10.1111/jzo.12087](https://doi.org/10.1111/jzo.12087)

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