

Field experiments show ungulates fear elephants as much as leopards

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A team of wildlife researchers from the U.S., South Africa and Eswatini (formally known as Swaziland) has found via experiments that ungulates (hooved animals) living in game reserves in Eswatini fear elephants as

much as they do leopards. In their study, reported in the journal *Biology Letters*, the group played animal noises over speakers and recorded the reactions of the ungulates.

As wildlife management officials attempt to provide the best environments for the animals in their care, they study those animals to learn more about them, such as what they like, what they do not like and what things scare them. In this new effort, the researchers looked at the behavior of ungulates when encountering perceived threats, such as from an [apex predator](#) like a leopard. They also wondered if such animals may perceive other nonpredators, such as elephants, as a threat. To find out, they ran three experiments in three wildlife parks in Eswatini.

All three experiments consisted of setting up speakers to play calls from one of three test animals, an elephant, a red-chested cuckoo bird or a leopard. Next, they set up motion sensors near the speakers to capture movement by ungulates (or any other creature that happened by). The [motion sensors](#) triggered the speakers to play a given animal noise upon detecting movement. Cameras automatically captured the reactions of the ungulates to the sounds played by the [speakers](#).

The research team found that the ungulates displayed the same type of fear responses for both elephants and leopards, demonstrating that they fear elephants even though they pose no known threat. In sharp contrast, they barely responded to the bird calls.

The researchers suggest that the fear response could be due to fear of the unknown—elephants had not lived in the area for nearly a century before the reserve was created. They also suggest that ungulates may have witnessed [aggressive behavior](#) by the elephants, causing them anxiety. Another less plausible reason—the elephants represent a competitor for [food resources](#).

More information: Robert J. Fletcher et al, Frightened of giants: fear responses to elephants approach that of predators, *Biology Letters* (2023).
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