

When angry African bees buzz, elephants run

BEIJING, Oct. 9 (Xinhuanet) -- They're the largest animals on land, but when bees buzz elephants run, causing researchers to wonder if strategically placed beehives might reduce deadly confrontations between man and beast by serving as low-tech deterrents.

"If we could use bees to reduce elephant crop-raiding and tree destruction and enhance local income through the sale of honey, this could be a significant step forward towards sustainable human-elephant coexistence," said zoologist Lucy King at the University of Oxford in an e-mail sent from Kenya's Samburu National Reserve.



A young elephant feeds in Kenya's Samburu game reserve Jan. 6, 2006. Established in the 1970's, Samburu national reserve is situated in northern Kenya, 325km(200 miles) north of the capital Nairobi.(File Photo)

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Scientists had previously suspected that elephants preferred to steer clear of bees. For instance, in Kenya, observers noticed that elephants damaged acacia trees with empty or occupied beehives significantly less than trees without hives. In Zimbabwe, researchers saw elephants forging new trails in order to avoid beehives.

King and her colleagues sought to confirm whether bees could drive away elephant herds and thus serve as deterrents. First, the team digitally recorded the buzz of agitated African bees, which are known to be aggressive, in some instances killing buffalo.

"We recorded our bee sounds from a wild hive that we found inside a tree trunk along the Ewaso Ng'iro river in Samburu," King said. "Recording the sounds was tricky as I wanted to disturb the beehive to record the real aggressive sound that elephants might encounter if they were to disturb a beehive in the wild."

The researchers played back four-minute clips of this buzzing using wireless speakers hidden inside fake plastic tree trunks to elephant families resting under trees in Kenya during the midday heat. Of the 17 families tested, 16 fled within 80 seconds of hearing the bee sound, and half responded within just 10 seconds. The one family that did not respond to the buzzing was young and perhaps had not experienced bee attacks before.

"When you first mention this idea to people, they usually chuckle at the images it invokes, as it seems so improbable that such a large, powerful creature like an elephant could possibly be afraid of tiny bees," King told LiveScience. Still, "the sting of an African bee is absolute agony to humans — believe me, I know! — so it's not impossible to imagine that being stung in the sensitive areas around the eyes, behind the ears and even up the trunk would be similarly painful to an elephant."

A key aspect of these new findings is "that whole herds of elephants moved away together from the sound," King explained. "If only one or two moved away, the use of bees as a deterrent would only be partially useful." The scientists detailed their findings in the October 9 issue of the journal *Current Biology*.

The hope now is to use beehives to deter elephant herds from human farmland "and therefore contribute to a safer future for both elephants and the people who have to live with them," King said.

(Agencies)

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