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Bees keep elephants off crops

John Whitfield

Beehives protect farms in Kenya.

Beehives might keep African elephants off farms, say researchers. The insects could help stop elephants eating crops, and make lucrative honey for farmers.

Elephants can destroy whole crops, especially where farms border reserves. In Kenya, researchers have enlisted the notoriously touchy African or 'killer' honeybee to help protect plants such as maize and cassava.

The bees (*Apis mellifera scutellata*) attack anything that threatens their hives. Angry swarms are reputed to have chased herds of elephants over several kilometres.

Elephants avoided all the trees hung with full hives, report Fritz Vollrath, of the Mpala Research Centre and Ian Douglas-Hamilton, of the Nairobi-based conservation organization Save the Elephants.



Noise, chillies and smoke have all been tried as elephant deterrents

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Even empty hives were enough to reduce elephant damage, probably through their smell. More than 90% of trees without hives had branches ripped off and bark stripped.

"Beehives would be much cheaper than fences," says Ian Redmond, a UK-based expert on African wildlife and conservation. The local Masai people are skilled beekeepers, Redmond adds: "I can see some people adopting [hives] quite enthusiastically".

Beekeeping is being promoted in East Africa as an environmentally friendly industry. "If it can also deter elephants, that's wonderful", Redmond says. Noise, fences, chillies, smoke and shooting have also been tried as elephant deterrents, with varying degrees of success.

Hives could be deployed like biological minefields around farmland, say Vollrath and Douglas-Hamilton. Or they could be used to protect valuable trees, such as ancient baobabs.

“Beehives would be much cheaper than fences”

Ian Redmond

Conservationist

Elephants may even avoid the sound of bees. One old bull that had been badly stung several years earlier turned tail at a tape recording of a buzzing hive, the researchers point out. The control treatment - a Bach violin concerto - left elephants unmoved.

Surges in elephant populations can also damage wildlife. Because some areas now have more elephants than they can cope with, Botswana, Namibia Zimbabwe and South Africa are calling for a limited trade in ivory to be reopened.

Kenya, concerned that any trade would invite poaching, wants the current ban to continue. The issue will be voted on at the meeting of the Convention on the International Trade in Endangered Species now going on in Santiago, Chile.

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References

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