

Thieving chimps changing the way African farmers feed their families

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A chimpanzee in Rwandan forest. Credit: Shane McGuinness

Light-fingered chimpanzees are changing the way subsistence farmers make a living in Africa by causing them to grow different crops and spend more time guarding their goods. This is according to work performed by researchers from Trinity College Dublin's School of Geography, who say that communities near the edge of tropical forests are experiencing a lack of 'dietary diversity' and an increased exposure

to disease-carrying insects as a result.

Through crop raiding, a form of human-wildlife conflict, hundreds of thousands of marginalised [farmers](#) are losing edible crops to damage from these troublesome animals each year. Farmers are reducing their cultivation of maize, beans and other staples, which are highly prized by raiding species. In addition, by guarding their existing crops during the night, farmers are increasingly exposed to malaria carried by mosquitos and soil-based worms which cause elephantiasis.

Despite the positive actions taken by affected farmers working around the Gishwati Forest fragment in western Rwanda, the shifts in farming practice are having a cumulative, negative effect on their communities. The damage might be minor on each occasion, but the losses soon add up, and an increased risk of disease is a major problem.

"Unsurprisingly, non-human primates are quite fond of the [food crops](#) we grow! The chimps are basically imposing a 'natural tax' on farmers growing crops near the nutrient-rich soils of the forest," said Shane McGuinness, lead author on the research and PhD student in Geography at Trinity, who conducted the interview-based study with the help of the Great Apes Trust and local conservation workers.

Although their numbers are small in this forest, chimpanzees are an internationally protected species and have the potential to generate substantial amounts of tourism-driven revenue. Sylvain Nyandwi of the Great Apes Trust of Iowa (the organisation currently charged with conserving the forest), said that 19 chimps had been identified but there were likely to be more elusive thieves out there that had yet to be accounted for.

Actions to reduce the impact of the chimps must be carefully measured to balance the conservation of the important habitat in which they live,

while protecting the lives and livelihoods of local people. Farmers changed the [crops](#) they were growing to reduce the risk of crop raiding without needing to be prompted by conservation organisations.

McGuinness added: "This is a great, positive step towards proper, community-led conservation. Using local knowledge and appropriate scientific know-how to solve these human-wildlife conflicts is imperative to implementing lasting and robust conflict mitigation."

Work is now being finalised on a much larger project around the Volcanoes National Park in northern Rwanda, made famous by the film *Gorillas in the Mist*, where McGuinness is assessing the impacts of mountain gorilla, buffalo and golden monkey on the conservation of this park and the development of surrounding human communities.

The study is published in the international peer-reviewed journal *Human Dimensions of Wildlife*.

Provided by Trinity College Dublin

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