

Owyesiga's secret

Conservationists and wildlife authorities in Uganda are striving to reconnect an isolated group of chimpanzees with their kin, reports Roman Goergen

American primatologist Nicole Simmons from Makerere University journeyed to western Uganda in 2006, her objective being to arrive at a remote gorge named after the river coursing through it, Kyambura. Accounts told of a secluded group of eastern chimpanzees residing there, shrouded by a dense tropical rainforest and sustained by plentiful fig trees. Simmons, who was intrigued by the lack of scientific data about these animals, particularly their population size, reported: "They were not regularly observed, and it was estimated that there were about 30."

The gorge had gained recognition due to chimpanzee trekking for tourists. The 12-kilometre-long canyon forms a green border between the savannahs of Queen Elizabeth National Park (QENP) and the Kyambura Reserve. These protected areas, located near the Congo border, span 14,000 square kilometres. Uninhabited corridors between them are integral for maintaining wild healthy animal populations, as they enable migration and hence genetic exchange. However, the region also falls within the Albertine Rift, a densely populated rural region in Africa with high levels of poverty where people depend on subsistence farming and wood for fuel. This leads to deforestation and habitat loss.

With the cessation of the civil war in Uganda, early

tourism started in the mid-1990s, and the chimpanzees in the gorge became a main attraction. This coincided with a substantial increase in the number of residents along the Kyambura, especially on the banks of the eight-kilometre stretch that exits the gorge and eventually enters the Kasyoha-Kitomi forest in the south-east.

In 2006, Simmons began exploring the river in the gorge on foot, and from there ventured out into the populated areas, taking a census of the chimpanzees and chatting with local people. Her discoveries were alarming. Unnoticed by everyone and due to these settlements along the riverbanks, the chimpanzees had been cut off from their access to Kasyoha-Kitomi. "The residents told me that they hadn't seen any chimpanzees in the river section outside the gorge for more than 10 years," reports Simmons. With a main road and the savannahs of QENP to the west, the Kazinga Channel to the north, and more people to the east, the chimpanzees' isolation was almost total. Simmons was even more dismayed when she found that only fifteen of them remained.

When female chimpanzees reach sexual maturity at about 12 years, many leave their birth group, which is typically dominated by related males, and seek a mate within a different group. This practice allows chimpanzees to avoid inbreeding and preserve their genetic diversity.

The females select new groups residing in fertile areas with abundant food and a healthy number of males. This enhances genetic selection. But in the absence of female exchange with neighbouring groups, maintaining genetic diversity becomes a challenge for chimpanzee populations.

In the Kyambura group, only five females remained. "Without the chance for female immigrants, their future back then was entirely dependent on the reproduction of these five," remarks Simmons. Since 2017, she has reported a rise in birth rates, and the group has now returned to its original size of about 30. However, this does not mean that these chimpanzees are out of danger.

Although this level of isolation, intensified by unfavourable geography, is still unusual in Uganda, experts have cautioned that factors like the expansion of human populations and the related deforestation are likely to increasingly fragment habitats and isolate other groups. Vernon Reynolds, an anthropologist from the University of Oxford who has been overseeing the Budongo Conservation Field Station since 1990, also studies chimpanzees in the west of the country. "The situation in Kyambura could become exemplary for the future of the chimpanzees in other regions of Uganda," he warns.

Reynolds has identified risks emanating from the country's oil projects, especially two concessions on the shores of Lake Albert: "We now have oil extraction pads throughout Murchison Falls National Park, a processing plant in Hoima, an airport to be built, pipelines to Kampala and more." Construction work brings in guest workers, while fishing communities are relocated to other parts of the country. The population density increases, previously untouched Nature is turned into infrastructure, and the chimpanzees have to make way. "For us in western Uganda, where most of the remaining forest areas are, the worst impact has been the massive road expansion," he adds. Traditional routes used by chimpanzees to move between their ranges and thus ensure genetic exchange are being converted into wide asphalt roads for quick traffic to the oil areas.

Despite chimpanzees' ability to safely cross these roads thanks to their innate intelligence, highways pose a concern in Kyambura too. To illustrate the problem, Joseph Arinaitwe, a warden for the Uganda Wildlife Authority (UWA), points out of his office window. The UWA buildings were erected at a strategic intersection on the highway between Kasese and Mbarara. A dirt road from the side of the ranger barracks leads into QENP, and another track about five kilometres long on the other side of the road leads to the entrance to the gorge. "More than six kilometres further south-west from here begins the Maramagambo Forest, where other chimpanzee groups live. To reach them, the Kyambura chimpanzees would not only have to navigate the savannah with its predators, but also cross this road," says Arinaitwe. Yet for a long time the prospect of establishing a route to Maramagambo seemed the most viable option for authorities and researchers.

The eco-tourism operator Volcanoes Safaris organises projects that aim to support local communities while also facilitating as undisturbed a movement as possible for

the chimpanzees, like a buffer zone that should prevent human-wildlife conflict. Group founder Praveen Moman is recognised as a trailblazer of eco-tourism in Uganda and Rwanda. "For the survival of the Kyambura chimpanzees, a corridor linking them with another population in a neighbouring forest is of crucial importance," he states.



The Kyambura Gorge, Uganda © Shutterstock

Maramagambo has several factors in its favour: an estimated 300 chimpanzees inhabit the forest, and if a protected corridor for exchange could be established, it would be entirely within the protected area of the QENP. According to a plan approved by the UWA, the chimpanzees could reach Maramagambo via newly planted trees. For this purpose, thousands of native fruit and shade trees, including sycamore trees and acacia species, are slated for planting. Genetic exchange could then commence. "The path would enable young female chimpanzees from Maramagambo to join the Kyambura community, and conversely give females from Kyambura the opportunity to migrate to Maramagambo," explains Simmons.

But the tree seedlings need up to five years of care to ensure their long-term survival. Additionally, they need a maturation period of five to ten years before they bear fruit and are large enough to attract chimpanzees. "And after all that, the chimpanzees might simply not accept the offered route," she warns.

Amongst all these considerations, a female chimpanzee named Owyesiga suddenly arrived in 2019. "One day she was just there, and no one knew where she came from," recalls Simmons. Satellite images show that there are isolated fragments of forest between Kyambura and Maramagambo about which little is known. Simmons believes that Owyesiga came from there. Such a route would have a higher likelihood of success than the planned corridor to Maramagambo, because it could have already been accepted by chimpanzees. "2019 changed everything for me. Because if we find this path and another possibly isolated group of chimpanzees, we could save not just one but two populations by connecting them," Simmons tells me. R

Roman Goergen is a London-based German journalist. He has also lived and worked in Canada and South Africa, where he reported extensively on conservation and biodiversity. He travelled to Uganda as a guest of Volcanoes Safaris. www.volcanoessafaris.com



Mweya (left) the new alpha male, with Brutus (right) an earlier alpha male from 2007 to 2017 © Nicole Simmons

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