

Genetics helps to crack down on chimpanzee smuggling

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The population of chimpanzees across western Africa has decreased by 75% in the past 30 years, due in part to widespread chimp hunting. New strategies are needed to curb this illegal activity. Research published in BioMed Central's open access journal *BMC Ecology* suggests that genetics may provide valuable clues as to how to crack down on the animal smuggling trade, while also helping to safely reintroduce rescued apes into the wild.

A smuggler can get up to US \$20,000 for a live chimpanzee on the international black market and around US \$100 in the local market in Cameroon. It's perhaps not surprising then that despite the existence of enforced wildlife protection laws, smugglers in this poor country will risk the penalties.

In a collaboration between the University at Albany, State University of New York and Limbe Wildlife Centre in Cameroon, researchers have been comparing genetic sequences from rescued chimpanzees with those of their wild counterparts across several areas of the country and its border with Nigeria. In doing so, they hoped to determine where the rescued chimps come from and thereby assess whether smuggling was a widespread problem, or if hunting hotspots existed. Lead scientist Mary Katherine Gonder said, "The data that we collected were put into a sophisticated computer program that mapped out the origins of the rescued chimpanzees. We found that all the rescued chimps were from Cameroon, implying that international smuggling is less of a problem than local trade. Worryingly though, the problem seems to occur



throughout Cameroon, with some rescued chimps even coming from protected areas".

Chimps are often taken while hunters poach other animals, many of which are also endangered, so it is hoped that by identifying hunting patterns in smuggling routes the study could help reduce other illegal animal trade. Since as many as ten chimpanzees are killed for every one that is rescued, the findings of this study could have a significant impact on the restoration of the population. Happily, for those chimpanzees that are rescued, the genetic information obtained in the study will also help to reunite them with their relatives in the wild. According to Gonder, "Most of the chimpanzees at Limbe Wildlife Centre belong to the most endangered subspecies of chimpanzee. They only inhabit Nigeria and adjacent parts of Cameroon. In 2004, this subspecies was predicted to be extinct within the next 25 years if current rates of decline continue. For these reasons, understanding where these refuge chimps are from is really important from a conservation point of view".

More information: Tracing the origins of rescued chimpanzees reveals widespread chimpanzee hunting in Cameroon, Lora Ghobrial, Felix Lankester, John A Kiyang, Akih E Akih, Simone de Vries, Roger Fotso, Elizabeth L Gadsby, Peter D Jenkins Jr and Mary K Gonder, *BMC Ecology* (in press), www.biomedcentral.com/bmcecol/

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