

Elephant tail hair records their diet history

Isotopic analysis is vital to investigations ranging from the environmental to the industrial.

UPI

January 4, 2006.

Scientists are tracking the diet and movements of elephants in Kenya by analyzing chemicals in the elephant's tail hair.

The study, published in the journal Proceedings of the National Academy of Sciences, was aimed at reducing human–elephant conflicts and determining where to establish sanctuaries to protect the endangered creatures.

'This is a new method to understand elephant behavior and help ensure their survival,' said geochemist Thure Cerling of the University of Utah.

The study involved analysis of 'stable isotopes' of carbon and nitrogen in African elephants' tail hair to determine what and where they ate as they were tracked with GPS collars. Stable isotopes previously have been used to track sources of counterfeit currency, illicit drugs, explosives and bacteria like anthrax.

One of the elephants was a bull named Lewis, who ate lowland grasses in a sanctuary during rainy times, then trekked 25 miles to the mountains, where he ate shrubs and trees by day and raided farmers' corn fields at night. He was shot after the study was completed, possibly by a farmer, researchers said.