

Groundbreaking DNA tests could trap deer poachers

September 9 2011



This is Dr. Shanan Tobe of the University of Strathclyde. Credit: University of Strathclyde

Poachers could be tracked down through tests for human DNA on deer remains, according to research led by scientists at the University of Strathclyde.

Identifying [deer](#) poachers can be problematic, as the crimes are often committed in remote areas and are not discovered until some time after the event. Poachers' practice of disassembling a carcass also often means

that little physical evidence, and consequently little human DNA, is left behind.

However, researchers at Strathclyde and Jim Govan, a [Forensic Scientist](#) with the Scottish Police Services Authority, have devised a method which could pick up low levels of DNA and identify poachers. The chances of the DNA profiles it picked up being randomly found within the population would be less than one in a billion.

The study is thought to be the first time that human [DNA profiles](#) have been obtained successfully from an animal carcass and the potential for using this process on other animals is currently being investigated.

Scottish Minister for Environment and [Climate Change](#), Stewart Stevenson said: "I welcome this development which demonstrates Scotland is at the forefront of the application of this cutting-edge science. The ability to test for the remains of [human DNA](#) on animal carcasses, gives [law enforcers](#) more tools to protect our wildlife from criminal activity. I look forward to hearing more about how this development can be used practically in tackling the illegal activity of deer poaching."

Dr Shanan Tobe, a Research Fellow in the Centre for [Forensic Science](#) in Strathclyde's Department of Pure and Applied Chemistry, conducted the research. He said: "Poaching can be extremely difficult to investigate and prosecute owing to the nature of the evidence available. There are particular problems with deer poaching because deer can be legally hunted in season and identifying deer alone would not show whether or not they had been killed in the course of poaching.

"Our research has picked up DNA at very low levels and could be a significant breakthrough in wildlife crime. It could not only help to catch existing poachers but could also act as a deterrent to others."

The researchers obtained samples from the legs of 10 deer which had been legally culled and examined them for matches for DNA provided by volunteers who had taken part in the cull. The tests yielded results that could be matched back to the volunteer hunter. The method has potential to be used on other evidence in wildlife crime, such as feathers, eggs, snares or traps.

More than half of the funding for the research came from PAW (Partnership for Action Against Wildlife Crime) Scotland which was managed by Scottish Natural Heritage. With the remaining funds coming from the Deer Commission for Scotland (now part of SNH), the British Association for Shooting & Conservation and the British Deer Society.

All deer samples used in the study were obtained from deer as part of an annual cull. No animals were harmed for the purpose of the research.

More information: The research paper, Recovery of human DNA profiles from poached deer remains: A feasibility study, has been published in the journal *Science and Justice* and is available online ([doi:10.1016/j.scijus.2011.06.002](https://doi.org/10.1016/j.scijus.2011.06.002)).

Provided by University of Strathclyde

Citation: Groundbreaking DNA tests could trap deer poachers (2011, September 9) retrieved 26 April 2024 from <https://phys.org/news/2011-09-groundbreaking-dna-deer-poachers.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.