Forensic Identification of Deer and Human DNA Profiles in a Case of Furtive Hunting

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A number of 22 forensic samples species collected in a case of furtive hunting were analysed in order to determine a possible deer or human origin.

Five bovine STR systems (CSSM14, CSSM16, CSSM19, CSSM22 and ETH225), described as polymorphic in deer (Cervus elaphus) and 6 human STR systems (HUMTH01, HUMTPOX, HUMCSF1PO, HUMF13A01, HUMFES/FPS, HUMVWFA31) were analysed in all the samples. Human and deer controls were also used in our analyses. Positive amplification was obtained for the deer and human markers in the evidentiary samples. The polymorphisms detected in the deer samples allowed us to identify 6 deer DNA profiles which could correspond to, at least 6 different animals. A human DNA profile was also obtained from some of the forensic samples analysed.

Deer STR systems did not amplify for human DNA samples and there were no PCR products observed in the deer samples analysed for human STR loci.

This study shows the utility of specific STR systems in the species determination of evidentiary samples in forensic casework and its use in prosecuting furtive hunting, especially when wild animals are endangered or protected.