The problem of wildlife crime



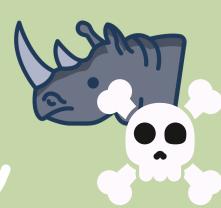
Inclusive of timber and fish products the illegal wildlife trade is the fourth largest illegal international trade

Involves the exploitation of at least **6000 species**



149 countries have played a recorded role, either as importers, exporters or transit countries

Wildlife crime has contributed to the **extinction** of at least one species and put several others at risk.





Conviction rates are low

we aren't catching the criminals committing these crimes so they continue to persist.



Not all seized wildlife is immediately identifiable so the current question wildlife forensics asks is "what is it?" i.e. species identification.

Specialist skills are required for species identification work so wildlife seizures will go to a dedicated wildlife laboratory for processing.



Other evidence found in relation to wildlife crimes, such as weapons or traps, will go to a standard forensic laboratory. Here investigators will attempt to retrieve trace evidence such as fingerprints or human DNA.

but....

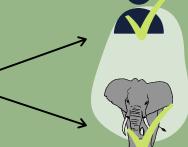
What if the wildlife specimen is the only evidence available? We may be able to answer the question of what is it? but are now at a dead end regarding who did it?

we propose....

Considering the wildlife specimen as a piece of evidence like any other and testing it for trace evidence as well as considering species identification. To do this we must establish and validate the best methods of trace evidence retrieval from different taxa. Substrate type will influence the method used and factors such as texture, porosity and colour all need to be taken into account, traits that vary widely between a reptile or bird for example.







Objectives

Work package 1

Establishing best practices for **fingerprint retrieval** from trafficked animal specimens



Dusting?



Forenscope imaging?



Gellifters?

Work package 2

Establishing best practices for **trace DNA retrieval** from trafficked animal specimens



Gellifters?



Swabs?



Tape lifting?

Work package 3

Attempting **validation and implementation** of techniques in the UK and overseas



Training?



Resources?



Biometric databases?

Alexandra Thomas PhD Student: a.s.thomas@2021.ljmu.ac.uk "Strengthening the wildlife forensic toolkit through the adoption of human specific approaches to identification"

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