

IDENTIFICATION OF PHYSICAL EVIDENCE PERTAINING TO WILDLIFE CRIME

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INTRODUCTION

- Wildlife forensics is the application of science to legal cases involving wildlife. This field uses scientific procedures to investigate wildlife-related crimes.

PHYSICAL EVIDENCE

- physical evidence is evidence that can be seen, touched, or observed in a crime scene. Physical evidence can be easily contaminated.
- Tyre marks, footprints, toolmarks, fingerprints are the some examples of physical evidence.

TYPES OF PHYSICAL EVIDENCE



(a)



(b)



(c)



(d)

Fig (i): Physical evidence

(a & d): skin, (b): tusk, (c): Skull

Source: Dunham, W. (2022, February 15). Elephant tusk DNA sleuthing reveals ivory trafficking networks. Reuters. <https://www.reuters.com/lifestyle/science/elephant-tusk-dna-sleuthing-reveals-ivory-trafficking-networks-2022-02-14/>

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IDENTIFICATION OF PHYSICAL EVIDENCE

- Animal parts :- it help determine the species
- Poaching tools:- provide information about the method employed and the group/individuals involved
- Footprints and tracks:- helps in identification of species, determine size and tracking down perpetrators
- Pelts/skins:- helps in identifying illegally killed animals and species determination
- Wildlife products:- indicates the presence of illegal wildlife trade
- Trapes, snares/other hunting equipment's:- indicates illegal hunting activities
- Firearms and ammunition:- indicates illegal hunting and poaching activities
- DNA typing has been used in identification of species from processed and dried internal organ and also from products made of tanned skins

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- Blood stain and other body fluids:- DNA testing to identify species
 - Forensic entomology:- To identify species and origin of the item
 - Illegal trade documents:- help identifying illegal activities in wildlife trade chain
 - DNA analysis :- to help identifying species , individual involved, offspring- parents relationship

COLLECTION OF PHYSICAL EVIDENCE

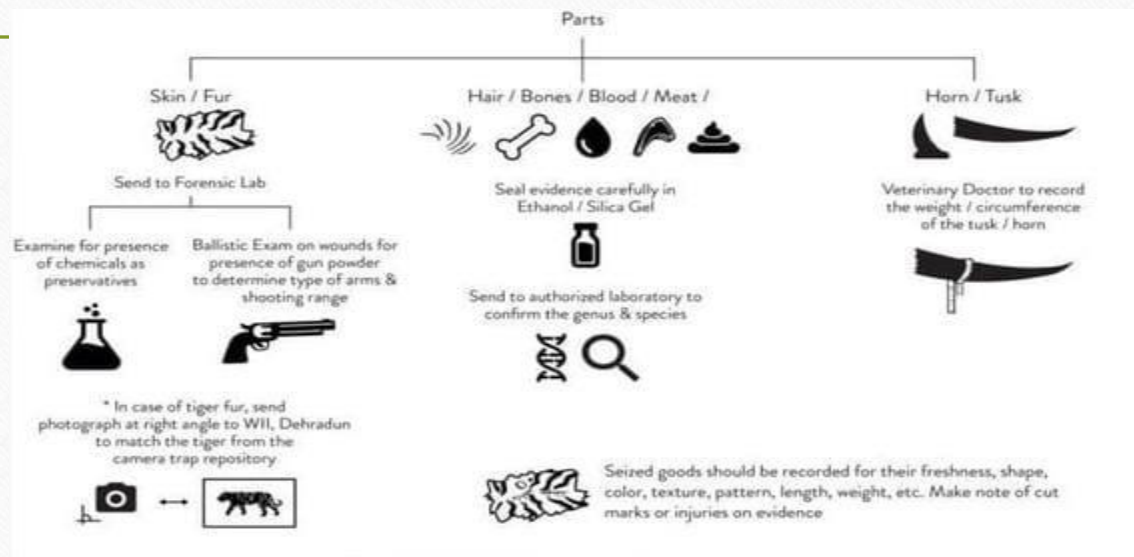
- **Collection Procedure**
- **MEAT SAMPLE:**
- Wear gloves always
- Entire meat should be collected always

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- Entire meat should be collected always
 - Pack meat in box, with all information
 - Freeze the sample & ship in an ice packed, sealed Styrofoam container. (temp.-below 80)
 - submit

- **HAIR/FIBER/FEATURE/SCALES**

- Wear gloves always
- Use tweezer to pluck the hair with root
- Collect at least 25 hair samples with hair follicle.

- Handle hair from tip not root
- Pack hair in paper paper bag.
- Write all required details.
- Submit.



Fig(ii): collection of physical evidence

Source: Identification of Physical Evidence pertaining to Wildlife Forensics. (n.d.-b). PPT.
<https://www.slideshare.net/RakeshMia/identification-of-physical-evidence-pertaining-to-wildlife-forensicsces>.

CONCLUSION

- Accurate identification of physical evidence is crucial for effective investigation and prosecution
- Physical evidences provide information about species, methods used etc.
- Identification processes, including DNA analysis, forensic techniques investigators can determine the origin, species, and individuals involved in wildlife crimes.

REFERENCE

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THANK YOU