

DETERMINING THE CAUSE OF DEATH

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MONITORING THE
ILLEGAL KILLING
OF ELEPHANTS



CATEGORY (TYPE) OF DEATH: NATURAL

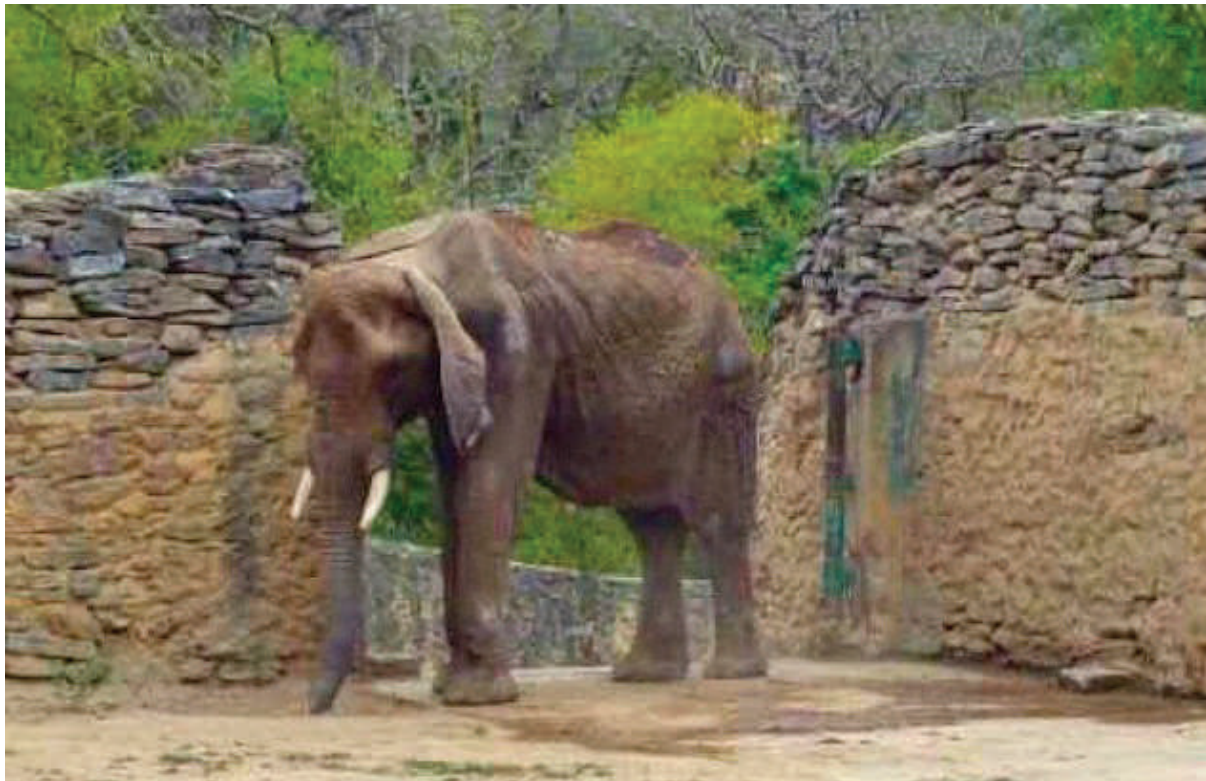
Natural death is defined as death due to natural occurrences or natural phenomena, where there were no human interferences or obstacles that caused death.

Please note: The carcass must be inspected or assessed to ensure there are no signs or evidence of illegal activity.

Depending on the age of the carcass, the following observations can assist in determining the cause of death:

- Overall condition of animal
- Area where the body was located
- Signs of injury
- Status of tusks
- Status of molars

CAUSE OF DEATH (FACTOR)	OBSERVATION / REMARKS
OLD AGE	Adult; drooped ears, floppy skin.
	Overall body condition of elephant will be emaciated (poor condition), with ribs and pelvic bones protruding (showing).
	Often permanently lounging in swamps before death, solitary before death.
	Worn out molar 6: Can't chew food properly and dies of starvation.



6th Molar almost completely worn out.

Cavity at back of jaw completely closed.

REMARKS:

- Elephant is in a very poor condition, emaciated body.
- Only bones with a skin, protruding ribs visible.
- Rump angular with pelvic bones protruding.
- Back bone clearly visible.
- No fat around bones, no fatty tissue in bone marrow.

CAUSE OF DEATH (FACTOR)	OBSERVATION / REMARKS
DISEASES AND WOUNDS	DISEASES
	Different diseases will have different symptoms (find out what diseases are present in your area).
	Blood or fluids oozing from natural openings, indicator often of anthrax.
	Often emaciated body condition before death.
	WOUNDS
	Swollen septic, weeping wounds, can be caused by various factors, we will look at fighting later.
	Emaciated body condition before death.
	Broken hip and other bones.
	Large puncture wounds from tusks, etc.



Anthrax

REMARKS:

- Tusks still present.
- No evidence to show any human interferences.
- Disturbed soil in front of legs and head far back, show pain prior to death.
- Black tarry substance oozing from anus (Anthrax).
- Often blood will flow from all body openings and wounds.
- Other animals in area also affected.

CAUSE OF DEATH (FACTOR)	OBSERVATION / REMARKS
DROUGHT	Extended period without rainfall/failures of normal rainy season conditions will be indicative of drought.
	Elephant's body emaciated and thin, protruding rib cage and hip bones.
	During drought spells it is often a shortage of nutritious food that leads to starvation.



Body condition poor and environmental conditions very poor

REMARKS:

- Body condition poor.
- Tusks still present.
- No human interferences.
- Surrounding area dry and no vegetation (no food available).

CAUSE OF DEATH (FACTOR)

OBSERVATION / REMARKS

PREDATION

Lion/Hyena kills elephant calves and juvenile animals.

Fresh carcass: Wounds will be visible, tear marks on skin and bite marks on skin/bones (not to be confused with scavengers).

It will be difficult to determinate that predation was the cause of death when an old carcass is found.

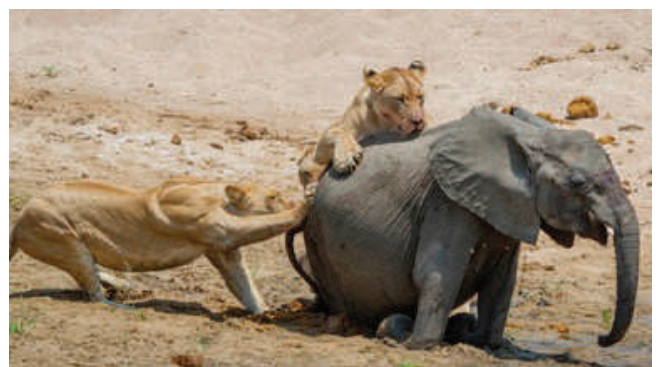
Eye witness accounts might be valuable (eg. Tour operators or tourists).



Left: Marks from lion teeth present, predators still at carcass. Claw marks will also be visible especially on the rump and back area.



Gnawing on bones, left by scavengers.



REMARKS:

- Tear marks on the ears, can only be from lion/hyena teeth.
- Skin, under abdomen ripped open. Often also around the anus and genitals.
- Claw-marks will be found on fresh carcasses, often on rump, back, trunk and neck.

CAUSE OF DEATH (FACTOR)

OBSERVATION / REMARKS

NATURAL ACCIDENTS

Falling from cliffs, river bank valleys and steep slopes. Carcasses are found at the bottom of such features and will have a lot of broken bones and injuries.

However, illegal killing might be suspected if tusks are found missing.

Stuck in natural water holes, mud or gullies. Animal will often die from exhaustion.



Stuck in mud. Surrounding evidence testifies to a large struggle by elephant. Tusks are still present.



Fallen off cliff. Many broken bones (ribs, legs) and internal bleeding, visible from nose and mouth.

REMARKS:

- Elephants stuck in mud or natural water holes will put up a large struggle prior to death, often the animal dies due to exhaustion.
- Elephants falling from cliff will have broken bones and often broken spines. Blood and other wounds will be visible with organ damage. Broken ribs can also puncture the lungs and heart.

CAUSE OF DEATH (FACTOR)	OBSERVATION / REMARKS
FIGHTING/AGGRESSION	Large puncture wounds rupturing vital organs in the body.
	Remains of tusks inside body of dead animal.
	Fighting bulls and young calves attacked by adults will have noticeable wounds.



REMARKS:

- Large puncture wounds will be seen; pay attention to the head, neck, thorax and/or abdominal regions.
- In older carcasses, look for damage to bones and puncture wounds in the skin.

CAUSE OF DEATH (FACTOR)	OBSERVATION / REMARKS
MATING INJURY/ WOUNDS	A rarity but known to happen.
	Often requires an eye witness account of the struggle.
	Broken spine, hip bones, shoulder bones (scapula) or limbs could be observed, often happens to sub-adult females if bulls are too heavy.



DROWNING	Body/carcass inside the river covered by sand or mud.
	Usually in a lake or swamp after getting stuck in mud.
	Sometimes happens during large floods or when herds cross large rivers and juveniles are swept downstream.

Elephant below was dragged out of the water hole and an autopsy revealed water in the lungs and ruptured arteries in the lungs



Bloated body and water in lungs, often tongue will be swollen and blue

STILL BIRTH	Dead calf still stuck inside the birth canal, most often mother will also die.
	Or dead calf with hair covering whole body and umbilical cord still visible.
	These usually disappear quickly due to scavenger action.



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