

# SKY VET REPORT

## FEBRUARY 2017 TO MAY 2017



## SKY VET QUARTERLY OVERVIEW

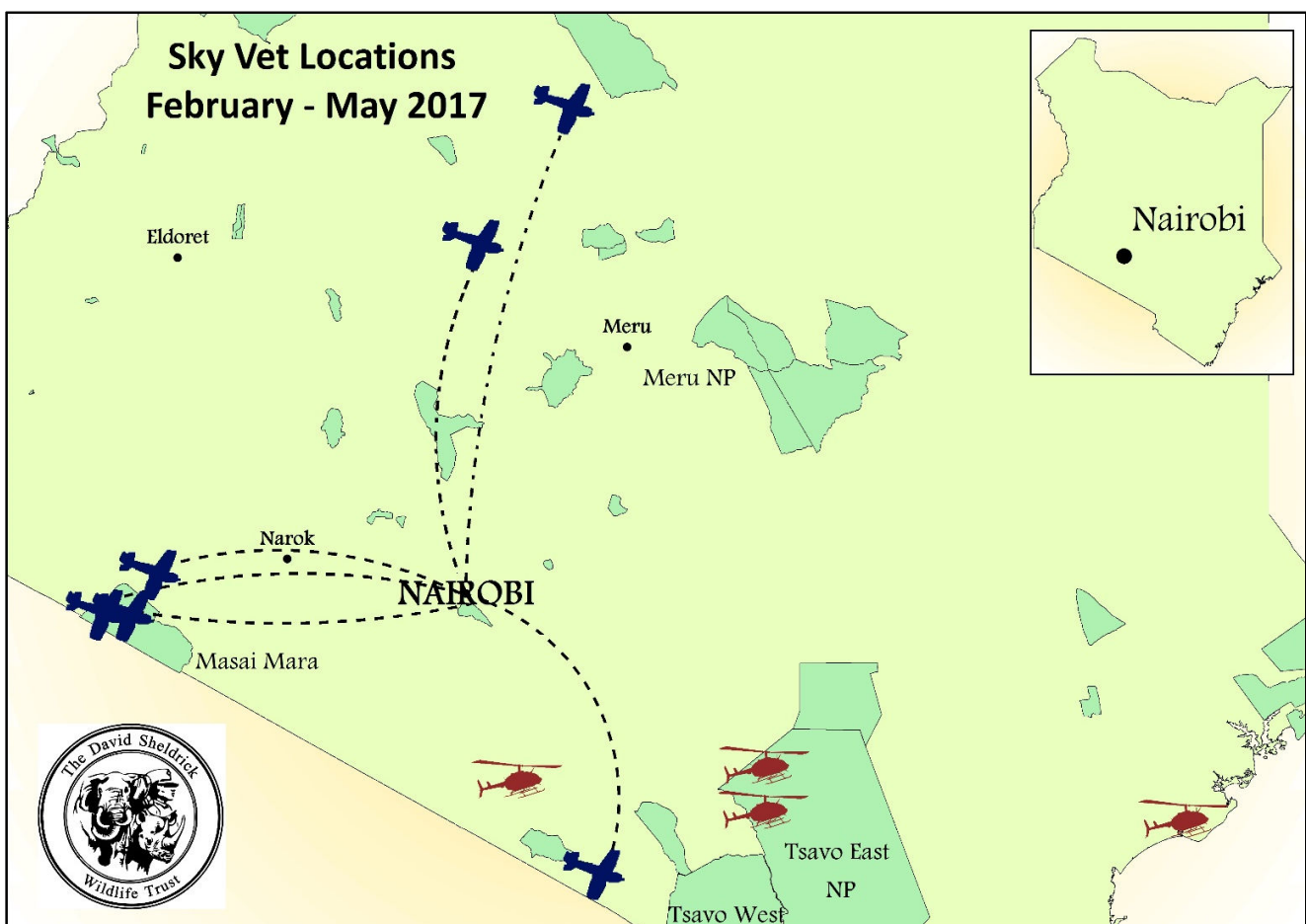
During February to May 2017 the DSWT/KWS Sky Vet program was called to handle **10 wildlife cases** several of which were supported by the DSWT helicopter or outsourced helicopters to help with elephant darting operations as well as search and monitoring operations using the DSWT's fixed-wing aircrafts.

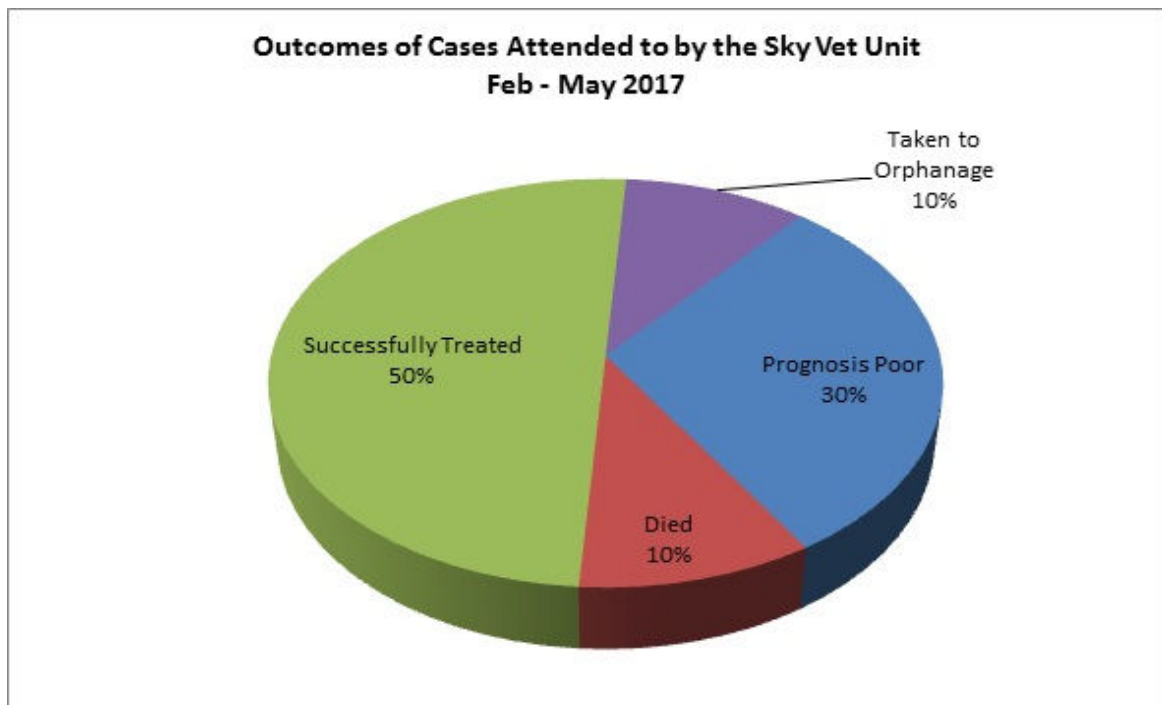
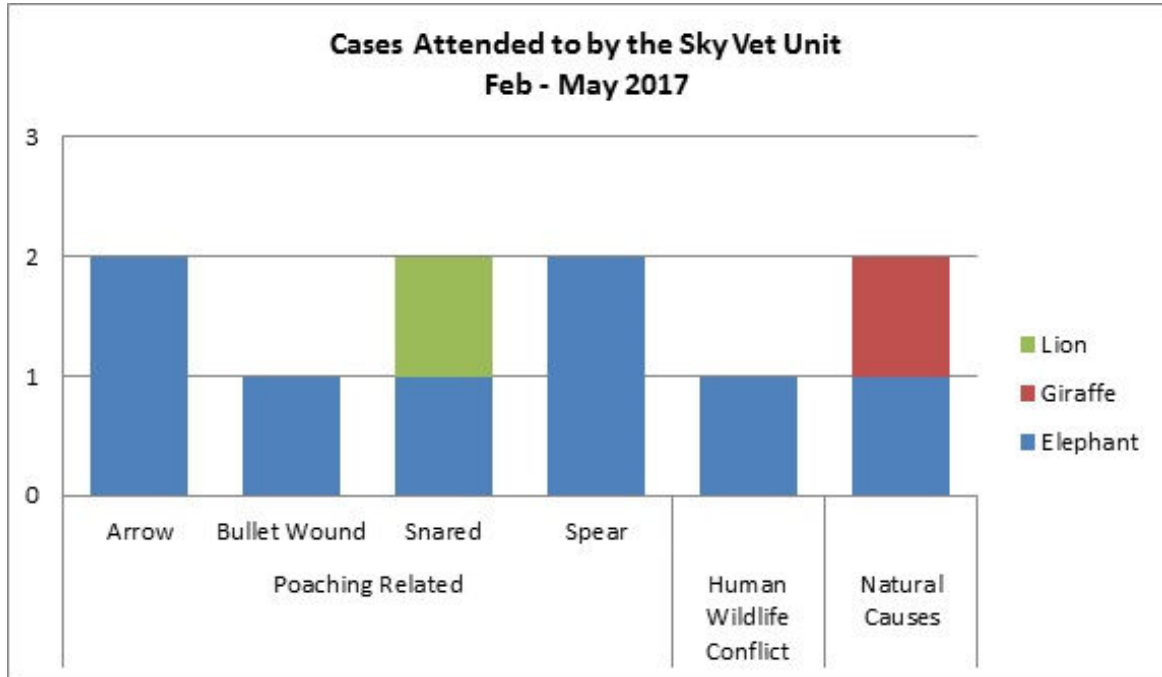
Of all the cases attended there were **8 elephant cases** including 2 spear cases, 1 snare case, 2 poisoned arrow cases, 1 case caused by human-wildlife conflict and 1 case with a natural cause. Sky Vet also attended to **1 snared lion** and **1 giraffe**, which was treated for natural causes.

The KWS Veterinary Officers involved in these cases were flown throughout Kenya during this reporting period including cases in Tsavo East, Amboseli National Park, the Chyulu Hills, the Masai Mara, Lamu District, Laikipia North and Namunyak Conservancy in northern Kenya.

Out of the cases treated there was a 60% success rate with positive prognoses. Without rapid veterinary response, the majority of these cases would have died from their injuries.

The Sky Vet program has deployed KWS vets to the following locations during this reporting period





## CASE 1: 2<sup>nd</sup> February 2017

### AMBOSELI NATIONAL PARK

### INJURED ELEPHANT

#### INTRODUCTION

The elephant bull was spotted in Osewan conservancy Amboseli with fresh blood oozing from its leg. The vet was airlifted from Tsavo east by a DSWT fixed wing aeroplane to attend to the case. After searching for about an hour the Elephant was not spotted due to thick bushes. The next morning a request for a chopper was made and it arrived that morning. The Elephant bull was finally spotted after a two-hour search by the DSWT chopper.

#### CHEMICAL IMMOBILIZATION & TREATMENT

The elephant was located with the aid of DSWT chopper and darted with 18 mgs of Etorphine in a Dan-Inject dart from a Dan-Inject dart gun. It took him 7 minutes to go down on sternal recumbency and he was pushed to lateral recumbency to access the wounded part of the leg.

There was a fresh deep penetrating wound caused by a spear on the lateral aspect of the left front leg. Necrotic tissues, plus and blood were drained out, and the wound then cleaned using water mixed with Hydrogen peroxide.

Tincture of iodine and Oxytetracycline spray were applied and a final cover of wetted green clay was used to cover the wound. An intravenous administration of 100 cc Dexamethasone Hcl was given through the ear vein and 200 cc of long acting Amoxicillin injected intramuscularly

#### PROGNOSIS

Drug reversal was achieved by administration of Diprenorphine Hcl at three times the Etorphine dose. He stood up and walked away calmly. Prognosis is guarded.



## CASE 2: 11<sup>th</sup> February 2017

### MARA TRIANGLE

### RESCUE/TREATMENT ELEPHANT CALF

#### INTRODUCTION

A baby elephant was spotted one evening by Mara Triangle Rangers on patrol. She was in a big herd with a tight snare round her trunk. Mara Triangle management asked their rangers to keep vigil and called on the Mobile Veterinary Unit to come first thing the next morning as it was already late when they spotted her. The next day the herd was found in a forested area. It was obviously difficult to capture her without pushing the herd out of the bush so the services of the Mara Elephant Project helicopter were sought to push the herd out of the thicket. The herd came out with the baby elephant who appeared to be in great pain.

#### CHEMICAL IMMOBILIZATION & TREATMENT

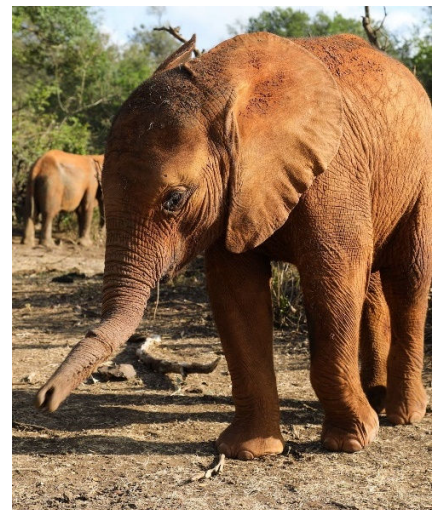
The baby elephant was captured by use of 1mg Etorphine hydrochloride delivered in a 1.5ml Dan- Inject dart from a vehicle. It took ten minutes for the drugs to take full effect. The mother was pushed aside to allow for her examination which revealed a tight snare round her trunk that had cut deep and partially exposed the nares. The snare was more proximal on the trunk, a point at which if amputated would leave a small stump about a third of its total length. The elephant was breathing through the damaged part but the distal part of the trunk was still viable.

The team arrived at three options, to amputate the trunk, try to reconstruct it or conservative management. However, none of the options could be undertaken in the field as this required constant medication and monitoring. Feeding and drinking water would really be difficult without assistance as she recuperates. Her survival in the wild was considered at stake hence after considerations and consultations, the team decided to refer her to DSWT elephant orphanage in Nairobi for possible surgical reconstruction.

The wound was thoroughly cleaned and temporarily reconstructed before the baby elephant was airlifted to DSWT orphanage for further management. She was given 20mgs Dexamethasone sodium anti-inflammatory intravenously and another 20mgs intramuscularly to ease pain and avoid shock. By the time she was on the plane this baby elephant had metabolised the anaesthetic and was fully conscious on transit.

#### PROGNOSIS

The baby elephant has been named Enkesha and is currently doing well at the Nairobi Nursery. Her wound was managed well; it was decided not to amputate, which was a good decision considering the severe wound has healed miraculously with constant care and Enkesha now has full use of her trunk.



### CASE 3: 23<sup>rd</sup> February 2017

ITHUMBA, TSAVO EAST

INJURED COW ELEPHANT

#### INTRODUCTION

Reports indicated that the condition of an elephant cow treated on 31st January in the Tiva River area had deteriorated hence repeat treatment was necessary. The vet was airlifted by DSWT aircraft to Kaluku then by helicopter to the site for easier darting. The lame Elephant was found inside Tiva river bed in great pain.

#### CHEMICAL IMMOBILIZATION & TREATMENT

The elephant was approached on foot and darted with 18 mgs of Etorphine from a Dan-inject dart gun. It took about 6 minutes for the anesthetic to take effect and the elephant went down in left lateral recumbency.

There was a septic wound with pus oozing out on the medial aspect of the right front limb near the fetlock joint. The wound was opened for the necrotic tissues and the pus to be drained out, then cleaned using water mixed with Hydrogen peroxide. Tincture of iodine and Oxytetracycline spray were applied before a cover of wetted green clay was used to cover the wound. An intravenous administration of 50 cc Dexamethasone Hcl was administered through the ear vein and 100 cc of long acting Amoxicillin injected intramuscularly.

#### PROGNOSIS

The anesthetic was reversed by administration of Diprenorphine Hcl at three times the Etorphine dose. She was helped onto her feet by ropes tied onto a Landcruiser. Prognosis is poor.



## CASE 4: 28<sup>th</sup> February 2017

### MARA NORTH CONSERVANCY

### INJURED ELEPHANT

#### INTRODUCTION

The Mara North Conservancy rangers reported a case of an injured elephant in the conservancy. The DSWT made plans to have a chartered aircraft fly a veterinary team to the conservancy from Nairobi. Plans had been made earlier to have the Mara conservancy helicopter on sight for easy sighting and darting. On arrival, the elephant was in thick bush with tall trees rendering it impossible to dart from the helicopter. Foot darting had to be employed at this moment.

#### CHEMICAL IMMOBILIZATION & TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water for injection. Darting was done using the Dan Inject system via foot darting. Tracking was done and finally the elephant was successfully darted after 1.5 hours. The elephant went down on lateral recumbence. The trunk was maintained patent using a piece of stick placed across the nostril entrances. The temperature was high hence plenty of water was doused on the elephant to keep the body temperatures low. The ears were used as blindfold.

On physical examination, the elephant had a wound approximately 4 cm (width) and 8 cm (deep) about 3-4 weeks old on the left flank region but close to the hip region. The wound was septic and had necrotic tissue. An incision was made distal to the wound where there was a pus pocket to allow access and drainage of pus from the wound. The wound is likely to have been caused by a bullet. The dead tissue was debrided and removed. The wound was then thoroughly cleaned using water and Hydrogen Peroxide. It was then lavaged using tincture of Iodine. Topical antibiotic cream and green clay was then applied into the wound to facilitate healing and avoid infection. The elephant was then injected with 200ml Oxytetracycline L.A and 100ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 45 minutes.

#### PROGNOSIS

The veterinary team gave this elephant a successful prognosis.



## CASE 5: 21<sup>st</sup> March 2017

ITHUMBA, TSAVO EAST

INJURED ELEPHANT

### INTRODUCTION

An elephant bull frequenting the Ithumba Stockade water hole was spotted with an injury on the side of the body. The vet was airlifted by DSWT aircraft to Ithumba.

### CHEMICAL IMMOBILIZATION & TREATMENT

The elephant was immobilized using 18 mgs of Etorphine in a dan-inject dart from a Dan-inject dart gun. The elephant was initially approached on foot but avoided all attempts at darting. He was eventually darted from the helicopter and it took about 6 minutes for the drugs to take full effect.

Examination revealed a septic wound with pus oozing out on the medial right abdominal area. An arrow head was removed from the wound, then the wound was opened and necrotic tissues mixed with pus drained out. The area was then cleaned using water mixed with hydrogen peroxide before iodine and Oxytetracycline spray were applied. Wetted green clay was then used to cover the wound.

An intravenous administration of 50 cc Dexamethasone Hcl was administered through the ear vein and 100 cc of long acting Amoxicillin injected intramuscularly.

### PROGNOSIS

Drug reversal was done by administration of Diprenorphine Hcl at three times the Etorphine dose. Prognosis is good.





## CASE 6: 28<sup>th</sup> March 2017

### NAMUNYAK CONSERVANCY

### INJURED ELEPHANT

#### INTRODUCTION

Namunyak conservancy reported lameness in a lactating female elephant which had a one year old calf. We immobilized this elephant for examination and treatment on 28/03/17.

#### CHEMICAL IMMOBILIZATION & TREATMENT

For immobilization, we used Captivon® 18mg delivered in a 3 millilitre Dan-Inject dart. The elephant was darted from foot after tracking the elephant in a lugga (dry river bed). Induction time was seven minutes and the elephant fell onto right lateral recumbency.

Examination showed a deformity of the left hind leg. It had a swelling on its left stifle joint which was shorter than its right hind leg. Palpation revealed a hard mass deduced as bone. This deformity was caused by a healed dislocation/ fracture. Anti-inflammatory drugs were injected and the animal revived.

#### PROGNOSIS

Both mother and calf were in good health and given a good prognosis. Local conservancy rangers continued to monitor the mothers condition.



## CASE 7: 4<sup>th</sup> April 2017

LOISABA, LAIKIPIA

INJURED ELEPHANT

### INTRODUCTION

The elephant was spotted by the Loisaba personnel while on routine patrol. The DSWT made plans to airlift a KWS vet from Nairobi to Laikipia immediately. The veterinary team attended to the case for assessment and treatment. The elephant was darted from a vehicle.

### CHEMICAL IMMOBILIZATION & TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water for injection. Darting was done using the Dan Inject system and was done from a vehicle. The elephant went down in a dog sitting position after 6 minutes and therefore had to be flipped to access the wound and for the safety of the elephant. The trunk was maintained patent using a piece of stick placed across the nostril entrances. The temperature was high hence plenty of water was doused on the elephant to keep the body temperatures low. The ears were used as blindfold.

On physical examination, the elephant had a wound (approx. 1 month old) on the left rear limb. No fracture was evident as the suspected bullet had exited via soft tissue muscles. The wound was septic and had necrotic tissue. The wounds were thoroughly cleaned using water and Hydrogen Peroxide. Necrotic tissue was also debrided to hasten healing. It was then lavaged using tincture of Iodine. Topical antibiotic cream and green clay was then applied into the wound to facilitate healing and avoid infection. The elephant was then injected with 200 ml Betamox L.A and 100 ml Flunixin Meglumine at different sites intramuscularly. The entire operation lasted about 30 minutes. Diprenorphine Hydrochloride (48mgs) into the ear vein was used. It took about 5 minutes to be fully awake from anesthesia.

### PROGNOSIS

Guarded. Bullet injuries are severe and recovery is difficult. The local rangers have been monitoring this elephants condition and will request a secondary treatment if deemed necessary.



## CASE 8: 15<sup>th</sup> April 2017

KIPINI, LAMU DISTRICT

INJURED LION

### INTRODUCTION

This mane-less lion was spotted by Kipini rangers with a right forelimb injury caused by a nylon rope near the ankle joint. The snare is suspected to have been set by bush meat hunters in the area due to plenty of wild game.

The lion was found in a shady area eating a fresh buffalo carcass. One of the DSWT SuperCub aircrafts flew Dr Poghon of the Tsavo Mobile Vet Unit down to the remote Lamu area to treat this lion

### CHEMICAL IMMOBILIZATION & TREATMENT

The vet used a dart containing 300 mgs of Ketamine and 4 mgs of Medetomidine to sedate the lion. It took about 12 minutes for the lion to be fully immobilized. T

he eyes were covered with a towel then the tough nylon snare was cut loose and the wound cleaned using water mixed with Hydrogen Peroxide. Tincture of iodine and Oxytetracycline spray was then applied followed by a coating of green clay.

### PROGNOSIS

Further follow up from the local rangers indicate improvement.

You can read more about this treatment here: <https://www.sheldrickwildlifetrust.org/updates/updates.asp?ID=1004>



## CASE 9: 3<sup>rd</sup> May 2017

### MARA TRIANGLE

### INJURED GIRAFFE

#### INTRODUCTION

This is a clinical case report of a female giraffe in Masai Mara National reserve that had difficulties in calving (dystocia) and was sighted with the two hind legs of the fetus hanging outside the vulvar. It kept on straining in an attempt to expel the fetus but it was not possible due to wrong presentation of the fetus. The fetus was already dead and had started decomposing. The veterinary team was mobilized to treat it the following day but the giraffe disappeared at night and the next day it was searched by helicopter for several hours unsuccessfully. The search continued and it was found on the third day in the morning resting under a tree in the open plains, the fetus was still hanging out but was already decomposed with many flies and foul smell around the vulvar.

The veterinary team was flown from Nairobi using a chartered plane organized by the David Sheldrick Wildlife Trust through Sky-vet initiative to attend to this emergency case. When the veterinary team arrived at Masai Mara the giraffe was too weak, lost fear and came close to vehicles and could be seen to be in a lot of pain. This was a case of poor prognosis due to massive septicemia and endotoxin shock from the decomposing fetus and heavily infected uterus but nevertheless something had to be done to save it.

#### CHEMICAL IMMOBILIZATION & TREATMENT

The injured giraffe was found under a tree in the open plains in Mara Triangle, it was quite weak and unable to move. It was darted on the thigh muscles on foot using 7mgs of etorphine Hcl combined with 20mgs of azaperone in a 1.5ml Dan-inject dart. The fetus was in posterior presentation with two hind legs coming out first. Attempts were made to re-align the fetus and gently pull it out. During the process of re-aligning and pulling out the fetus, the mother suddenly became frail and developed apnea, attempts to resuscitate her were not successful and she sadly died.

#### PROGNOSIS

The team went ahead to perform postmortem examination that revealed a completely decomposed and swollen fetus, foul smell, severe endometritis and hemorrhage in the abdomen. The giraffe died of exhaustion from prolonged strain trying to expel the fetus, septicemia and endotoxin shock emanating from the decomposed fetus and endometritis. The intervention came late since it was sighted late and later it disappeared for several hours complicating chances of success.



## CASE 10: 5<sup>th</sup> May 2017

### AMBOSELI NATIONAL PARK

### INJURED ELEPHANT

#### INTRODUCTION

This elephant was spotted by Big Life personnel in Amboseli ecosystem and reported as lame with a swollen fore right limb. The vet was airlifted from KWS veterinary headquarters via the sky vet program sponsored by the David Sheldrick Wildlife Trust. A chartered helicopter flew Dr Njoroge to from Nairobi to Amboseli.

#### CHEMICAL IMMobilIZATION & TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water for injection. Darting was done using the Dan Inject system and was done from a helicopter. The elephant went down in a dog sitting position after 8 minutes. The wound was clearly visible and accessible for treatment. The trunk was maintained patent using a piece of stick placed across the nostril entrances. The temperature was high hence plenty of water was doused on the elephant to keep the body temperatures low. The ears were used as a blindfold.

On physical examination, the elephant had a spear wound going into the skin and had an exit point close to the hock joint. The wound had been caused by a spear which had fallen off with time. The wound was fairly fresh (about 48hrs old) and hence did not have pus. However, there was plenty of necrotic tissue and clotted blood. This was all debrided and clotted blood washed away. The wound was thoroughly cleaned using water and Hydrogen Peroxide. It was then lavaged using tincture of Iodine. Topical antibiotic cream and green clay was then applied into the wound to facilitate healing and avoid infection. The elephant was then injected with 200 ml Betamox L.A and 100 ml flunixin meglumine at different sites intramuscularly. The entire operation lasted about 20 minutes.

#### PROGNOSIS

This elephant was given a good prognosis by the attending KWS vet and has since been monitored by Big Life and given a good bill of health.

