



SKY VET QUARTERLY REPORT

June 2015 to September 2015

FROM THE DAVID SHELDRIK WILDLIFE TRUST

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JUNE 2015 TO SEPTEMBER 2015



SKY VET QUARTERLY OVERVIEW

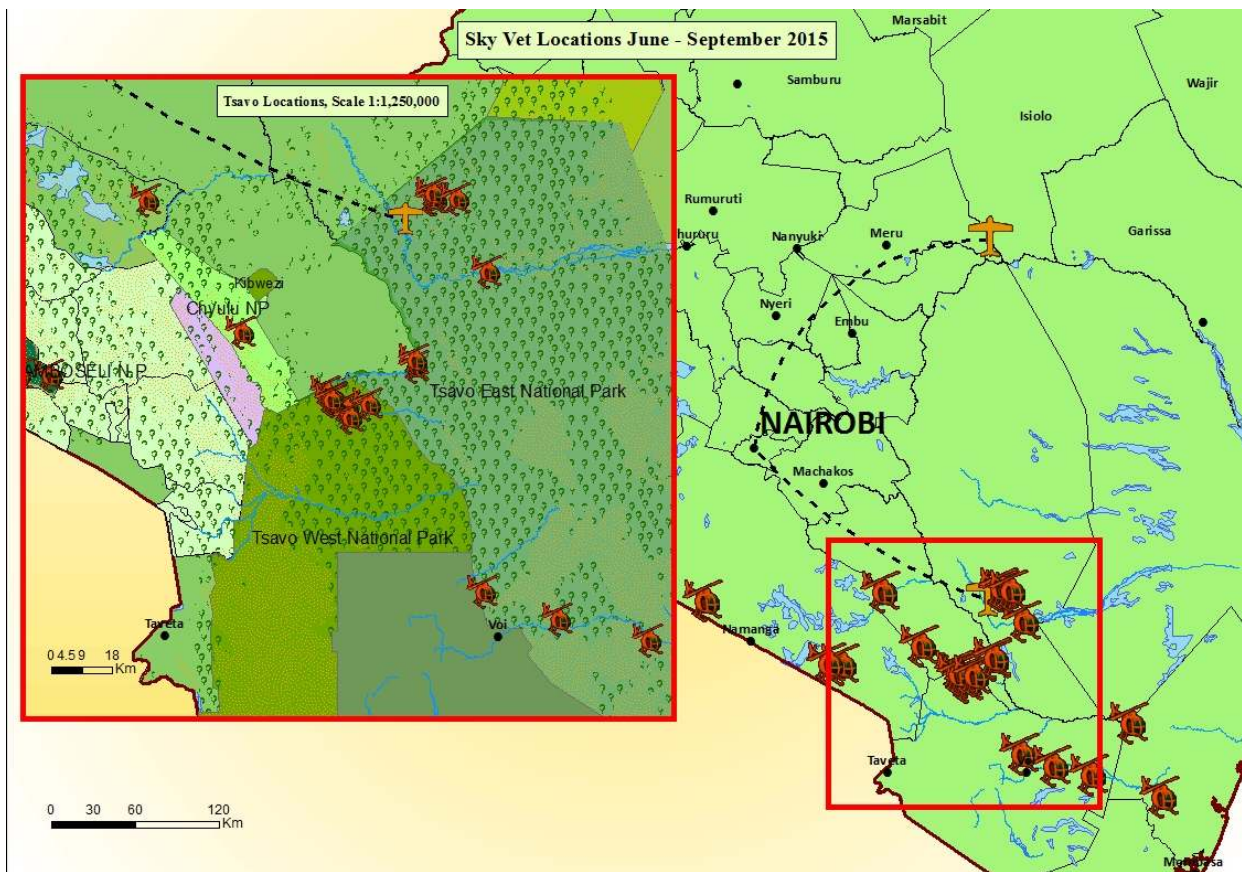
During June 2015 to September 2015 the DSWT/KWS Sky Vet program was called to handle **29 wildlife cases** many of which were supported by the DSWT helicopter to help with elephant darting operations as well as search and monitoring operations using the DSWT’s fixed-wing aircrafts.

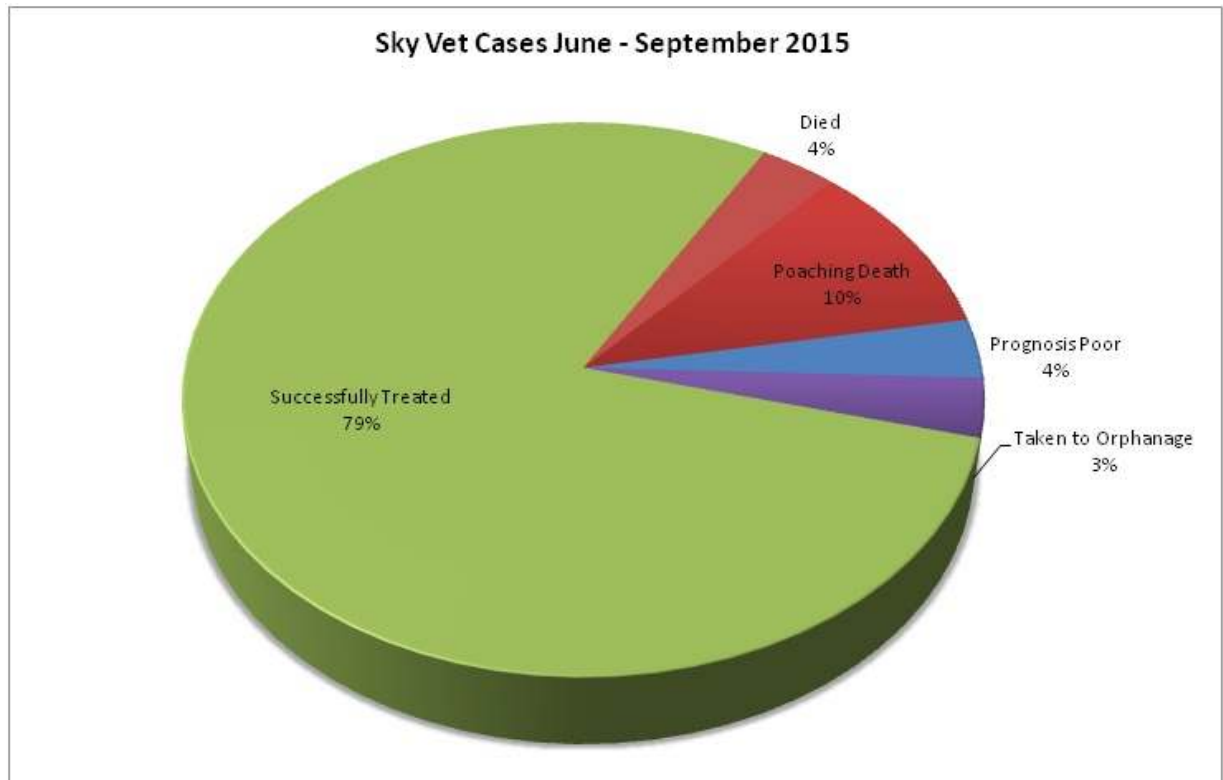
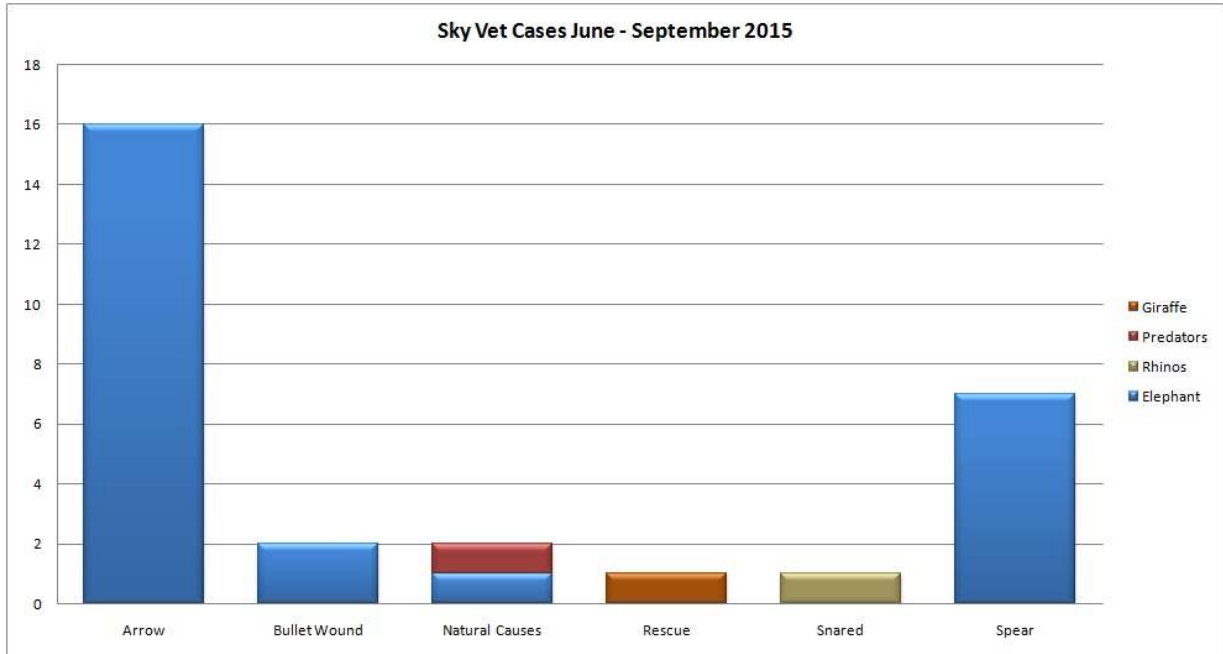
Of all the cases attended, **26 treatments were of elephants** with injuries including poisoned arrow, spear and gunshot wounds. KWS Veterinary Officers, namely Dr Poghon and Dr Njoroge, were flown predominantly to Tsavo East and West National Parks, as well as the Chyulu Hills National Park and Amboseli to treat these emergency elephant cases, whilst a vet was also dispatched to Meru National Park to treat and rescue an orphaned baby giraffe. Other species treated during this reporting period included a lion and ‘Bahati’ a 3-year old rhino calf caught in a snare.

Out of all the cases, **79% were given a positive prognosis** whilst 14% were reached too late to be saved due to their severe injuries. Just 4% of the cases were given a poor prognosis which shows the high level of veterinary care available. These cases continue to be monitored by the DSWT’s Aerial Unit and ground teams.

During this reporting period Sky Vets saw a significant increase in cases attended, caused primarily by the onset of the dry season and the escalation in poaching activities created by wildlife, particularly elephants, congregating around the few remaining water resources in the Tsavo Conservation Area, making themselves easy targets for poachers. On-the-ground activities of the DSWT/KWS Mobile Veterinary Units continue to cover many cases, yet the veterinary officers are reliant on the support of the helicopter to ensure the success of each darting operation as well as the fixed-wing aircrafts for backup support.

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





CASE 1: 5TH JULY 2015

ITHUMBA, TSAVO EAST

WOUNDED ELEPHANT

Species	Elephant	Sex	Male
Age	Adult		

INTRODUCTION

One of the DSWT's pilots flew to Ithumba early in the morning and located an injured elephant, it was a few kilometres from where it had been sighted the evening before at the Ithumba stockades. The 35 year old bull had a wound to his right front leg. Having located him, the pilot flew direct to Amboseli and picked up Dr Njoroge, who was waiting at the airstrip with his equipment. Meanwhile, the DSWT helicopter flew to Ithumba and awaited the arrival of the vet.

CHEMICAL IMMOBILIZATION& TREATMENT

Whilst the vet prepared the darts and loaded the helicopter the other pilot re-located the elephant and then guided the helicopter and Dr Njoroge to it. The elephant was in thick bush, limping and already proving difficult to move using the helicopter. We decided that we would not be able to push it all the way to the road (about 2 km) and so we used the helicopter to push the limping elephant 500m to the nearest open area.

As the visible wound was on the front of the animal's right leg the vet calculated that we would be able to reach the wound whichever side it fell on. So, we decided to go ahead and dart the elephant there, which Dr Njoroge did very neatly with the first shot. The elephant went down on its right side, at 11.55 am (6 minutes after the dart went in), he was still in the clear area we had kept him in. This was lucky as a major wound then became visible just behind the left leg. The wound on the right leg proved to be only a severe abrasion of the skin.

Dr Njoroge had begun the treatment with the drugs and equipment in the helicopter "vet box" and after the pilots returned it was only a few minutes before the treatment was finished. Dr Njoroge and his assistants gave the bull the revival injection. After a while the elephant finally got up.

PROGNOSIS

Doctor Njoroge gave the elephant a 90% chance of a full recovery.



CASE 2: JULY 6TH 2015

BAMBA, KILIFI

ELEPHANT WITH A GUNSHOT WOUND

Species	Elephant	Sex	Female
Age	Adult		

INTRODUCTION

A report was received from the KWS security officers of an injured elephant spotted near Bamba Township together with four others with leg carrying lameness. This elephant was falling and being helped to stand by other members of the herd. The team had rushed to the area the previous day but could not find the elephants due to thick bush. A helicopter was called in and assisted in spotting the elephant.

CHEMICAL IMMOBILIZATION & TREATMENT

The elephant was easily spotted from the chopper lying down with the other elephants surrounding her. The helicopter landed nearby and waited for the ground team to arrive by vehicle. The team arrived and moved to the site where the elephants were and found the lone injured elephant still lying down on her right flank and struggling to stand. She was anaesthetized using 15 mgs of Etorphine and the injured limb examined closely.

There was a penetrating wound to the left thigh with swelling of the muscles, tenderness and bending of the limb distal to the injury. Probing revealed a fractured femoral bone with haemorrhaging. A decision was made to euthanize the elephant as the wounds were untreatable.

CONCLUSION

An autopsy confirmed the diagnosis of a complex femoral fracture and a bullet head was recovered from the injured site. This was a case of attempted poaching by gun shot.



CASE 3: JULY 13TH 2015

IRIMIA, TSAVO EAST

ELEPHANT WITH ARROW WOUND

Species	Elephant	Sex	Male
Age	Adult		

INTRODUCTION

A report of an injured elephant bull was made to the Tsavo unit by the DSWT de-snaring team. The elephant was foraging near Irima hill with pus dripping from the abdominal wall. The team rushed in to find the massive bull near the area together with another bull. A team from CNN international flew in from Ithumba to film the treatment exercise.

CHEMICAL IMMOBILIZATION & TREATMENT

The elephant was immobilised using 18mgs Etorphine and 60 mgs of Xylazine in a 1.5 ml Dan - inject dart from a vehicle. The helicopter was used to keep the elephant from running into thick bush. He was immobilized in 7 minutes and went down lying on the injured flank. Ropes were fastened around the front legs and he was rolled onto the other side using the vet vehicle.

Examination revealed a penetrating arrow wound with an accumulation of pus below it in a pouch. An incision was made into the lowest part of the pouch so the pus could drain. The wound was then cleaned using water mixed with Hydrogen peroxide, disinfected with tincture of Iodine and then green clay was applied. An intravenous administration of Dexamethasone Hcl was given through the ear vein.

PROGNOSIS

The elephant has been given a good prognosis and should not need further treatment although the rangers on the ground will continue to monitor his progress.



CASE 4: JULY 20TH 2015

KIBIKO - CHYULU HILLS NP

INJURED ELEPHANT- SPEAR WOUND

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

This elephant had been treated earlier for a serious right forelimb spear injury. Due to the severity of the wound a repeat treatment was necessary on this elephant. The Kiboko Rangers were sensitized and hence began an intensive search for the elephant when the time came. After several days of a thorough searching, the elephant was spotted and the Veterinary Team was immediately notified. Plans were made to airlift the vet and a ranger via a helicopter to the site where after examination, a decision was made to immobilize and treat the elephant.

CHEMICAL IMMOBILIZATION & EXAMINATION

Darting was relatively easy from the DSWT helicopter though the terrain was rough and bushy. The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart using the Dan-inject system from the helicopter. Full immobilization took place after 5 minutes and he fell in a dog sitting position. The rangers helped flip the elephant to right lateral recumbency for easy access to the wound and safety of the elephant. The trunk was maintained patent using a piece

of stick placed across the nostril entrances. The ears were used as blindfold. Plenty of water was doused on the ears and the entire body to help cool the elephant during the operation.

On examination, the wound was on its way to recovery and the condition had greatly improved. 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 before topical antibiotic cream, spray and green clay were then applied into the wound to facilitate healing and avoid infection. The elephant was then injected with 200 ml Amoxycillin L.A and 100 ml Flunixinemeglumine at different sites intramuscularly. The entire operation lasted about 20 minutes.

PROGNOSIS

The anaesthetic was reversed using 54mg Diprenorphine Hydrochloride into the ear vein. The elephant took about 4 minutes to be fully awake from the anaesthesia and walk away from the site. Prognosis is good.



CASE 5: AUGUST 6TH 2015

ITHUMBA, TSAVO EAST

INJURED ELEPHANT – ARROW WOUND

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

The sky vet program was very convenient and successful in the timely intervention of this particular case. The injured elephant bull was sighted and reported within a herd of 10 members. He had a round and reddish swelling on the dorsal aspect left flank suspected to be an arrow wound. The herd was observed taking water and bathing at in a muddy pool and immediately reported to the David Sheldrick Wildlife Trust (DSWT). The operation was planned and executed by the help of a veterinary team from the Kenya Wildlife Service Headquarters in Nairobi.

The animal was observed to be strong and still in good body condition with fairly normal appetite. The arrow was suspected to be from a failed poaching attempt. On the day of the intervention, they were seen at the water pool not far from the Ithumba air strip. All the members of the herd were very protective of the injured bull; this made our attempts to immobilize him quite a challenge especially with the thick bush. The bull was still in good body condition and not isolated from the family.

ANAESTHESIA AND TREATMENT

This was a great challenge as the herd walled the injured bull of from the vet for a better part of the day. Darting was attempted on foot and the thick dry shrubs made the intervention quite difficult. After 7 hours of persistent attempts from very determined personnel comprising the ground team and the reliable support DSWT fixed wing we finally succeeded to dart the already distressed elephant.

EtorphineHcl, 18mg (0.98%) (M99®) (Novartis South Africa (Pty) Ltd) topped up with sterile water for injection in a 3 ml Dart was used during the chemical immobilization. Two attempts on darting did not succeed as both darts were deflected by the thick vegetation. Effective anaesthesia achieved within 12 minutes with a right lateral recumbence.

Specific examination confirmed a subcuticular abscess on the dorsal wall of the left flank. Close examination revealed an arrow head entry point from the dorsal aspect. The abscess was lanced from the most ventral point and we managed to express about 10 litres of foul smelling purulent discharge. While carefully probing through the wound, we managed to retrieve an arrow head encapsulated within a tuft of fibrous tissue. The wound was thoroughly cleaned with copious volumes of clean water and hydrogen peroxide used to disinfect. Lugol's iodine was used to destroy the pyrogenic membrane. Green clay was then applied for residual antibiotics and the wound was sprayed with antibiotic spray which would also act as a fly repellent. The wound was left open to drain and heal by secondary intention.

PROGNOSIS

Good since the foreign body that would interfere with healing was removed. The elephant is also within a very protective herd and this will work well to better the prognosis.



CASE 6: AUGUST 10TH 2015

KALUKU, TSAVO EAST

INJURED ELEPHANT – ARROW WOUND

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

An elephant bull was seen by a DSWT pilot near the airstrip with a wound on the right thigh that was oozing pus. The vet team was airlifted to the area.

ANAESTHESIA AND TREATMENT

The elephant was immobilised using 18mg Etorphine in a 1.5 ml Dan - inject dart using a Dan inject dart rifle from a helicopter. The helicopter prevented the elephant from running into thick bush whilst the drugs took effect. He was immobilized in 7 minutes and went down lying on the injured flank. Ropes fastened to the front legs were used to roll him over using the vet vehicle. A penetrating arrow wound with accumulation of pus below it was observed. An incision was made at the lowest point of the pus filled pouch; the pus was drained and the wound cleaned using water mixed with Hydrogen Peroxide. Tincture of iodine was sprayed on the wound and wetted green clay applied.

An intravenous administration of Dexamethasone Hcl was given through the ear vein and long acting amoxicillin administered parenterally.

PROGNOSIS

Good.

CASE 7: AUGUST 12TH 2015

ITHUMBA, TSAVO EAST

INJURED ELEPHANT - ARROW

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

A report was received from Ithumba in the north of Tsavo east of an injured elephant bull that is well known to the orphanage keepers there. A plane was sent down to Voi to pick the vet for fast response. After search the initial bull was not spotted but another two were seen with injuries.

ANAESTHESIA AND TREATMENT

The elephant was immobilised using 18mg Etorphine in a 1.5 ml Dan - inject dart using a Dan inject dart rifle from a vehicle whilst the helicopter was used to keep the elephant from running into thick bush. The Elephant was darted and was immobilized after 20 minutes and went down lying on the right flank exposing the wounded side. A penetrating arrow wound was observed to the left abdominal wall. An incision was made at the lowest point of the swelling so the pus could be drained and the wound cleaned using water mixed with Hydrogen Peroxide. Tincture of iodine was sprayed on the wound and wetted green clay applied. An intravenous administration of Dexamethasone Hcl was administered through the ear vein

PROGNOSIS

Good

CASE 8: AUGUST 12TH2015

ITHUMBA, TSAVO EAST

INJURED ELEPHANT - ARROW

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

After the team was through with treatment of the first elephant, they embarked on treating a huge bull with big tusks also with arrow injuries.

ANAESTHESIA AND TREATMENT

The elephant was immobilised using 18mg Etorphine in a 1.5 ml Dan - inject dart using a Dan inject dart rifle from a vehicle whilst the helicopter was used to keep the elephant from running into thick bush. The Elephant was darted and the helicopter attempted to guide it to an open area near the airstrip but it refused and was immobilized after 8 minutes, lying on the injured flank. Ropes and a tractor were used to turn him over to access the injured side. A penetrating arrow wound was observed on the left abdominal wall. An incision was made at the lowest point of the pus collection under the skin. The pus was drained and wound cleaned using water mixed with Hydrogen Peroxide. Tincture of iodine was sprayed on the wound and wetted green clay applied. An intravenous administration of Dexamethasone Hcl was given through the ear vein.

The anaesthetic was reversed by intravenous administration of Diprenorphinehcl at 3 times the Etorphine dose. He struggled to get up and once more the tractor was called in, the elephant was tied with ropes and pulled onto its feet.

PROGNOSIS

A favourable prognosis has been given to this elephant.

CASE 9: AUGUST 13TH 2015

ITHUMBA, TSAVO EAST

INJURED ELEPHANT - ARROW

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

After the team were through with the treatment of the two elephants and returned to Voi the elephant being sought initially for treatment re-appeared. The next morning the vet team was quickly airlifted by the DSWT aeroplane from Voi where they found the helicopter on standby to assist in the operation.

ANAESTHESIA AND TREATMENT

The elephant was immobilised using 18mg Etorphine in a 1.5 ml Dan - inject dart using a Dan inject dart rifle from a vehicle whilst the helicopter was used to keep the elephant from running into thick bush. It was immobilized after 12 minutes and went down lying on his chest but shortly fell on the injured side. Ropes and a tractor were used to turn him over to access the injured side. A penetrating arrow wound was observed on the left abdominal wall. An incision was made at the lowest point of the wound. The pus was drained, the dead flesh cut out and the wound cleaned using water mixed with Hydrogen Peroxide. Tincture of iodine was sprayed on the wound and wetted green clay applied. An intravenous administration of dexamethasone Hcl was given through the ear vein and long acting amoxicillin administered by intra muscular injection. Reversal of the anaesthetic was attained through intravenous administration of Diprenorphinehcl at 3 times the Etorphine dose. He struggled to get up so the tractor was called in and with the use of ropes the elephant was pulled to his feet.

PROGNOSIS

Good.

CASE 10: AUGUST 14TH 2015

ITHUMBA, TSAVO EAST

INJURED ELEPHANT - ARROW

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

The DSWT rangers reported to have seen a male elephant with a suspected arrow head injury on the left hind quarters. The DSWT helicopter collected the vet team from Amboseli and flew to the location to search for the injured elephant. The elephant was finally spotted in thick bush and in the midst of its family.

ANAESTHESIA AND TREATMENT

The elephant was immobilised with 18mg Etorphine topped up with water for injection in a 3 ml dan - inject dart using the Dan Inject system from a helicopter. The elephant first went down on sternal recumbence after 8 minutes and was then flipped over to lateral recumbence using a tractor. 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 temperature low. The ears were used as blindfold.

On physical examination the elephant had a penetrating wound to the left hindquarters. The wound was septic and had necrotic tissue. The wound is likely to have been caused by an arrow which had fallen off with time. The dead tissue was debrided and removed. The wound were then thoroughly cleaned using clean 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 100 ml Betamox L.A, 1200 mg and 100 ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 30 minutes.

PROGNOSIS

Good.



CASE 11: AUGUST 19TH 2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - SPEAR

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

The KWS Kamboyo staff reported to have spotted a male elephant with a suspected arrow injury to the left hind quarters. The Trusts helicopter collected the vet team from Amboseli and went in search of the elephant which was finally spotted at a water hole near the Kamboyo campsite. Though the injured individual was in the midst of a large herd, it was successfully darted from the Trusts helicopter. The rest of the herd was herded away by both the helicopter and a vehicle to pave way for subsequent procedures.

ANAESTHESIA AND TREATMENT

The elephant was immobilised with 18mg Etorphine topped up with water for injection in a 3 ml dan - inject dart using the Dan Inject system from a vehicle. The elephant went down onto lateral recumbence after 11 minutes. 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 penetrating wound to the left hindquarters. The wound was septic with necrotic tissue and most likely caused by an arrow. The dead tissue was debrided and removed before the wound were thoroughly cleaned using clean water and Hydrogen Peroxide. It was then lavaged using tincture of Iodine and topical antibiotic cream and green clay was applied into the wound to facilitate healing and avoid infection. The elephant was then injected with 200 ml Betamox L.A, 1200 mg and 100 ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 20 minutes.

PROGNOSIS

Good.



CASE 12: AUGUST 19TH 2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - SPEAR

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

The DSWT pilot and vet surgeon while on their search for another reported case spotted an injured elephant in the area. The terrain was bushy and therefore darting from a helicopter was the best option.

ANAESTHESIA AND TREATMENT

The elephant was immobilised with 18mg Etorphine topped up with water for injection in a 3 ml dan - inject dart using the Dan Inject system from a vehicle. Full immobilization took place after 7 minutes and he fell on lateral recumbency. The elephant was then flipped over using a land cruiser to access the wound. The trunk was maintained patent using a piece of stick placed across the nostril entrances. The ears were used as blindfold. Water was doused on the ear pinnae due to the high temperatures of the Tsavo area. On physical examination the elephant had a small wound to the right flank region. The wound was lightly septic and most likely caused by an arrow. 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 100 ml Betamox L.A at different sites intramuscularly. The entire operation lasted about 15 minutes.

PROGNOSIS

Good.

CASE 13: AUGUST 19TH 2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - SPEAR

Species Elephant
Age Adult

Sex Male

**INTRODUCTION**

This elephant was also spotted while doing treatment of the second case. The elephant was in a bush but relatively easy to dart using the helicopter after it was seen from the light aircraft.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 18 mgs Etorphine Hydrochloride in a 3cc dart topped up using water the Dan Inject system from a helicopter. The elephant went down on lateral recumbence after 6 minutes. He was then flipped over to access the wound on the right flank. 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 an approximately 15 cm long wound (1 month old) on the right lower flank 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. The wound had been caused by a spear likely to have been thrown from a platform. About 0.8 kg of necrotic tissue was debrided and 2 litres of pus drained.

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 packed into the wound to facilitate healing and avoid infection. The

elephant was then injected with 200 ml Betamox L.A and 100 ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 45 minutes.

PROGNOSIS

Good.



CASE 14: AUGUST 19TH 2015**KAMBOYO, TSAVO WEST****INJURED ELEPHANT - ARROW**

Species
Age

Elephant
Adult

Sex

Male

**INTRODUCTION**

The KWS Kamboyo staff reported to have spotted a male elephant with a suspected arrow injury to the right hindquarters. The Trust helicopter went in search of the elephant.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 18 mgs Etorphine Hydrochloride in a 3cc dart topped up using water the Dan Inject system from a helicopter. The elephant initially went down to a sternal recumbence after 10 minutes and was quickly assisted to an appropriate lateral recumbence position making sure that the wound remained 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 blindfold.

On physical examination the elephant had a penetrating wound to the right hip. The wound, most likely inflicted by a poisoned arrow, was septic with necrotic tissue. The dead tissue was debrided, removed and then thoroughly cleaned using clean 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 Dexamethasone at different sites intramuscularly. The entire operation lasted about 30 minutes.

PROGNOSIS

Good.

CASE 15: AUGUST 19TH 2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - ARROW

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

This elephant was spotted whilst searching for the previous patient. It had a fairly large swelling on the left flank region with a little oozing pus. With an already prepared dart, this was immobilized and attended to.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 18 mgs Etorphine Hydrochloride in a 3cc dart topped up using water the Dan Inject system from a helicopter. After 14 minutes, the bull went recumbent but on the wrong side and was thus rolled over to expose the wounded side 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 blindfold.

On physical examination the elephant had a healing wound with a little pus. The wound, most likely inflicted by an arrow, was thoroughly cleaned using clean 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 Dexamethasone at different sites intramuscularly. The entire operation lasted about 10 minutes.

PROGNOSIS

Good.

CASE 16: AUGUST 20TH 2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - ARROW

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

The elephant was spotted while searching for another case on a helicopter in Komboyo area. The elephant was darted from a helicopter.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 18 mgs Etorphine Hydrochloride in a 3cc dart topped up using water the Dan Inject system from a helicopter. The elephant went down in a dog sitting position after 9 minutes. He was the pushed over to 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 an approximately 10 cm long wound (approx. 1 month old) on the right lower flank 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. The wound had been caused by an arrow head which was removed and about 1.5 kg of necrotic tissue was debrided. 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 200 ml Betamox L.A and 100 ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 30 minutes.

PROGNOSIS

Good.

CASE 17: AUGUST 20TH 2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - ARROW

Species Elephant
Age Adult

Sex Male

**INTRODUCTION**

The adult male elephant was spotted within the park while performing an aerial reece in a helicopter. A serious septic wound was visible from the helicopter. A decision was made to immobilize and treat the elephant. Darting was relatively easy from the DSWT helicopter though the terrain was rough and bushy.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water the Dan Inject system from a helicopter. Darting was done using Dan-inject system from the helicopter. Full immobilization took place after 5 minutes and he fell on lateral recumbency. With the help of a land cruiser, the elephant was flipped over for easy access to the wound. The trunk was maintained patent using a piece of stick placed across the nostril entrances. The ears were used as blindfold. Plenty of water was doused on the ears (pinnae) and the entire body to help cool the elephant during the operation.

On examination, the elephant was weak and had poor body condition. He had a serious wound to the dorsal thoracic region and about 5 cm from the spine. The wound was deep (aprox. 90 cm), with a clean cut, septic and most likely to have been caused by a spear thrown from a platform. 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, spray and green clay was then applied into the wound to facilitate healing and avoid infection. The elephant was then injected with 200 ml Amoxycillin L.A 20% and 100 ml Flunixinemeglumine and at different sites intramuscularly. The entire operation lasted about 40 minutes.

PROGNOSIS

Prognosis is guarded and a second treatment is necessary. Monitoring of this elephant is ongoing.

CASE 18: AUGUST 21ST2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - ARROW

Species
AgeElephant
Adult

Sex

female

**INTRODUCTION**

This mother elephant was spotted while doing an aerial search in the helicopter after treating another case. The wound was serious and necessitated darting and treatment. The elephant was darted from a helicopter.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water the Dan Inject system from a helicopter. The elephant went down on dog sitting position after 7 minutes. Her calf would not leave her side and had to be chased away with the vehicle and the helicopter. She was then flipped over to access the wound. 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 an approximately 20 cm long wound (approx. 1 month old) on the left lower flank region to the thoracic 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 had been caused by an arrow head which was removed and about 2 kg of necrotic tissue was debrided. 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 200 ml Betamox L.A and 100 ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 40 minutes.

The anaesthetic was reversed using 54mgs Diprenorphine Hydrochloride into the ear vein. It took about 8 minutes to be fully awake from anaesthesia. The helicopter was then used to driver her in the direction of her calf and the two were reunited.

PROGNOSIS

Good.



CASE 19: AUGUST 21ST2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT - ARROW

Species Elephant
Age Adult

Sex Male

**INTRODUCTION**

The DSWT pilot reported to have spotted a male elephant with a suspected arrow injury to the right limb. The veterinary team had to locate and assess the elephant from the helicopter since the vegetation was thick. The elephant was in a thick bush thicket but relatively easy to dart using the helicopter. The elephant was pushed to a relatively open ground for darting.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water the Dan Inject system from a helicopter. The elephant went down on lateral recumbence after 8 minutes. 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 penetrating wound to the right flank around the thoracic region. The wound was relatively fresh and likely to have been caused by an arrow head. The wound was then thoroughly cleaned using clean 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 100 ml Betamox L.A and 50 ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 25 minutes.

PROGNOSIS

Good.



CASE 20: AUGUST 22ND 2015

SATAO, TSAVO EAST

INJURED ELEPHANT CALF

Species
AgeElephant
Infant

Sex

Male

**INTRODUCTION**

An elephant calf was reported by the SataoElerai staff with a swollen left forelimb. The veterinary team attended to the case and decided to immobilize it for examination and treatment.

ANAESTHESIA AND TREATMENT

Physical immobilization was the most appropriate for this young calf. However, the protective mother had to be immobilized first to enable capture of the young elephant. The mother elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 2cc dart topped up using water for injection from a helicopter using the Dan-inject system. Full immobilization took place after 8 minutes and she fell on lateral recumbence. The trunk was maintained patent by the help of a piece of stick which was placed across at the entrances. The ears were used as blindfold. Water was doused on the elephant to cool her down since the temperatures were high. The calf was then physically captured after which 2mg Etorphine was administered intramuscularly to calm her during the treatment

On physical examination the calf had an infected wound to the left forelimb around the hock joint region. The injury could have been as a result of a predator attack. On palpation no crepitation could be felt hence the team decided to go ahead and treat the young calf. The dead tissue was debrided and the wound thoroughly cleaned using water and hydrogen peroxide. It was then lavaged using tincture of Iodine. The calf was injected with 20ml Betamox L.A, 3 vials Dalacin and 30mg Dexamethasone at different sites intramuscularly. Topical antibiotic ointment and grey clay was then applied on the wound to facilitate healing. The operation lasted 30 minutes.

PROGNOSIS

Good.

CASE 21: AUGUST 22nd 2015

SALA GATE, TSAVO EAST

INJURED LION

Species
AgeLion
Sub-adult

Sex

Female

**INTRODUCTION**

A lioness sub adult was spotted by rangers at Galana conservancy and reported to have been lame. The veterinary team immediately attended to the case with the DSWT helicopter and made a decision to immobilize and examine the lion.

ANAESTHESIA AND TREATMENT

The lioness was immobilized using 3.5 mgs Medetomidine and 280 mg Ketamine in a 3cc dart topped up with water using the Dan-inject system from a vehicle. Full immobilization took place after 5 minutes and he fell on lateral recumbence. The lion was blind folded and opticlox applied to the eyes.

On physical examination the lion had suffered from injuries from a buffalo around the head region. There was a fracture around the ocular region and she was very weak and had poor body condition.

PROGNOSIS

It was evident that the lioness had a poor prognosis even with treatment. She was euthanized using 20ml Euthanaze.

CASE 22: AUGUST 23RD 2015

KAMBOYO, TSAVO WEST

INJURED ELEPHANT

Species	Elephant	Sex	Male
Age	Adult		

**INTRODUCTION**

The elephant was spotted from a helicopter during an aerial recce. The veterinary team made a decision to dart, examine and treat the elephant.

ANAESTHESIA AND TREATMENT

The elephant was immobilised with 18mg Etorphine topped up with water for injection in a 3 ml dan - inject dart using the Dan Inject system from the helicopter. The first dart failed to discharge the narcotic and hence a second dart had to be loaded. The elephant went down on lateral recumbence after 8 minutes following the second dart. 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 an approximately 4 cm long healing wound to the dorsal left hind limb. The wound had been caused by an arrow and the elephant attended to previously. This was therefore going to be the final treatment for this elephant who had responded very well to the first treatment. 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 100ml Betamox L.A, and 50ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 25 minutes.

PROGNOSIS

Good

CASE 23: SEPTEMBER 7TH 2015

AMBOSELI

INJURED ELEPHANT - SPEAR

Species Elephant
Age Adult

Sex Male

**INTRODUCTION**

The adult male elephant was spotted within the park while performing routine patrol. A decision was made to immobilize and treat the elephant. The elephant was in a bushy area hence the DSWT helicopter was requested for darting. It was relatively easy from the helicopter though the terrain was rough and bushy.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water for injection. Darting was done using Dan-inject system from the helicopter. Full immobilization took place after 7 minutes and he fell on lateral recumbency. With the help of a land cruiser, the elephant was flipped over for easy access to the wound. The trunk was maintained patent using a piece of stick placed across the nostril entrances. The ears were used as blindfold. Plenty of water was doused on the ears (pinnae) and the entire body to help cool the elephant during the operation.

On examination, the elephant was in fair body condition. He had a serious wound was on the right flank region. The wound had 2 openings and was likely to have been caused by a spear thrown from a platform. 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, spray and green clay was then applied into the wound to facilitate healing and avoid infection. The elephant was then injected with 200 ml Amoxycillin L.A 20% and 100 ml dexamethasone and at different sites intramuscularly. The entire operation lasted about 50 minutes.

2NDTREATMENT

This was carried out after 2 weeks. Procedure was as during the 1st treatment though this time darting was from a motor vehicle. Great signs of improvement were observed and the elephant was given a clean bill of health.

PROGNOSIS

Good.



CASE 24: SEPTEMBER 7TH 2015

AMBOSELI

INJURED ELEPHANT

Species Elephant
Age Adult

Sex Male

INTRODUCTION

Whilst treating the larger bull that day the DSWT Aerial Unit spotted a young bull elephant, approx 25 years old, with a small wound to the back.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 17 mgs Etorphine Hydrochloride in a 3cc dart topped up using water for injection. Darting was done using Dan-inject system from the helicopter. The elephant went down easily and the team on the ground got to the site quickly.

On examination, the elephant was in good body condition and had a small wound to the back, its cause unknown. The bull was treated with antibiotics before being revived.

PROGNOSIS

Good.

Images unavailable for this case

CASE 25: SEPTEMBER 15TH 2015

NDII NDAZA, TSAVO EAST

INJURED ELEPHANT

Species Elephant
Age Adult

Sex Male

**ANAESTHESIA AND TREATMENT**

The elephant was immobilised using 18mg EtorphineHcl in a 1.5 ml Dan - inject dart using a Dan-Inject dart rifle from a helicopter. The helicopter was used to keep the other two bulls away whilst the injured bull succumbed to the drugs, which took 8 minutes. . The elephant went down in 12 minutes, lying on the injured side.

The right hind limb was examined and a diagnosis of a complete fracture of the femur bone was made despite the massive swelling of the upper limb muscles. The complete femoral fracture gave it poor prognosis. Three penetrating bullet wounds were also observed to the limb.

The elephant was euthanized due to poor prognosis and autopsy confirmed the complex and complete femoral fracture from gunshots. The tusks were retrieved and handed to the KWS security team.

CASE 26: SEPTEMBER 17TH 2015

BISINADI, MERU NP

ORPHAN GIRAFFE CALF

Species
AgeGiraffe
Infant

Sex

Female

**INTRODUCTION**

On the 17th of September KWS Veterinary Officer Bernard Rono, who heads the DSWT funded Meru Mobile Veterinary Unit, reported having received a baby male reticulated giraffe estimated to be just one week old, which had been rescued by KWS rangers on the Meru National Park boundary. The fate of his mother remains a mystery, but the location where he was found happens to be an area bedevilled by human wildlife conflict

He was flown to the Nairobi Nursery by the Sky Vet program, sparing him what would have been a gruelling and very hot seven to eight hour journey by road. He has been named Kiko a name from Meru National Park, and he is now very much in the Nursery fold, not only with the company of his Keepers whom he loves but also some feathered friends in the form of Pea and Pod and the Trust's two latest little elephant arrivals. Both Weiwei and Loboito love to spend time under his belly resting their trunks on his side and neck, which he happily tolerates. Kiko is extremely playful these days with limbs splaying in all directions he hurtles around the car park and in the open forested glades letting off steam.

CASE 27: SEPTEMBER 20TH 2015

MUKURURO, CHYULU HILLS

SNARED RHINO

Species
AgeRhino
Juvenile

Sex

Male

**INTRODUCTION**

Informed by daily camera trap images, the Mukururo Rhino monitoring teams quickly raised an alarm that sparked a series of events with one objective; saving baby Bahati, an orphaned baby Rhino that narrowly escaped a deadly poaching incident that robbed him of his mother a year ago. Bahati was apparently walking round with a woven wire (cable) snare which was getting tighter and tighter due to the front feet treading on the wire. Championed by the Big Life Foundation and supported by other sister conservation giants (Northern Rangelands Trust, David Sheldrick Wildlife Trust) and fully backed by the Kenya Wildlife Service, resources were mobilized and a search kicked off, both ground and aerial. The first three days which included the DSWT's helicopter and fixed wing aircrafts were unsuccessful but on the fourth day Bahati was spotted and darted from the DSWT's helicopter.

ANAESTHESIA AND TREATMENT

Darting was carried out using the Dan Inject system. All effort was made to get the Rhino to a more secure point before the full immobilization took effect but the Chyulu's rugged, rocky, and thickly covered terrain was a great hindrance. The Rhino finally went down in lateral recumbence after ducking into a totally inaccessible point. This called for emergency effort that saw critical personnel being airlifted to the Rhino site. Sadly, Bahati had already died from his injuries and the ordeal.

CAUSE OF DEATH

A differential diagnosis suggested the septic 5cm deep wire cut around the neck lead to bacterial infection and hence septicaemia. Hyperthermia and hypoxia caused by the effect of the narcotics, high temperatures in the region and the tight snare were other obvious complications that must have contributed to the animal's instantaneous collapse and death. The two Rhino horns were thus retrieved and handed over to the KWS (in charge Mukururo station).

CASE 28: SEPTEMBER 25TH2015

ITHUMBA, TSAVO EAST

INJURED ELEPHANT

Species
AgeElephant
Adult

Sex

Male

**INTRODUCTION**

The elephant was spotted while searching for a reported injured elephant at the Ithumba stockade. The wound was serious and necessitated darting and treatment.

ANAESTHESIA AND TREATMENT

The elephant was immobilized using 18 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 on dog sitting position after 7 minutes. He was flipped over to access the wound. 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 an approximately 20 cm diameter wound (approx. 1 month old) on the dorsal flank region in the thoracic region. The wound was septic and had necrotic tissue. The wound had been caused by an arrow head which had fallen off with time but caused massive tissue damage. 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 Dexamethasone at different sites intramuscularly. The entire operation lasted about 20 minutes.

PROGNOSIS

Good.



CASE 29: SEPTEMBER 28TH2015

SALT LICK, TSAVO EAST

INJURED ELEPHANT

Species Elephant
Age Adult

Sex Male

**INTRODUCTION**

This elephant was spotted in due course of searching for another reported injured elephant in the DSWT helicopter. It had a fairly large swelling on the left flank region with a little oozing pus. With a dart already prepared, this elephant was immobilized and attended to.

ANAESTHESIA AND TREATMENT

EtorphineHcl (0.98%) (M99®) (Norvatis South Africa (Pty) Ltd) 18mg topped up with water for injection in a 3 ml Dan - inject dart was prepared. Darting was carried out using the Dan Inject system from a vehicle. After 10 minutes, the bull went recumbent but on the wrong side and was thus rolled over to expose the wounded side 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 blindfold.

On physical examination the elephant had a healing wound with a little pus. The wound, most likely inflicted by an arrow, had come off with time. This was thoroughly cleaned using clean 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 100 ml Betamox L.A and 100 ml Dexamethasone at different sites intramuscularly. The entire operation lasted about 15 minutes.

PROGNOSIS

Good.