

Kasigau
Corridor
Aerial
Surveillance
Report



September - November 2016

By Keith Hellyer

QUARTERLY REPORT



1. Summary

The Kasigau Wildlife Corridor is located between Tsavo East and Tsavo West National Parks and covers 200 square kilometers. The 14 group ranches that collectively make up this corridor provide an important habitat and dispersal area for wildlife between these two protected areas. There are approximately 11,000 elephants in the Tsavo ecosystem and roughly 2,000 of them that rely on the corridor as part of their movements in search for water between the two national parks.

Aerial surveillance is one of the most effective means of reducing wildlife crime, and is needed now more than ever in an effort to curb elephant poaching. Our daily aerial patrols are a vital tool in the effective prevention of elephant poaching, whilst increasing security overall and providing essential data needed to protect such expansive areas of land. Furthermore, aerial support also helps in identifying other illegal activities from the air, such as illegal charcoal burning, trespassing, illegal grazers and logging, which poses a great threat to the Kasigau Corridor and the future of the environment.



Above: A view over Rukinga Ranch to Mount Kasigau and Rukinga hill

2. Flight Information

Flight data

Total hours flown 197.3

Approx Distance covered 17,513 km

Fuel used 3110 L



Above: Aerial photo of collared bull Rukinga on Rukinga ranch

3. Collared Elephants

The SGR collared elephants, Rukinga and Taita, were often seen from the air and quite easy to follow. Ndara the collared elephant staying in Tsavo East had stopped moving for several hours on 15/09/16, the air team responded and was happy to find him alive and healthy with other elephants by a water hole. Having the gyrocopter for fast response to such situations is essential for following up on these individual elephants.

Collared elephant data

SGR collared elephants seen3 individuals
Rukinga, Taita and Ndara

KWS collared elephants seen1 bull

See Appendix 1 for sighting listing

SGR collared elephant activity: summary of movements and behaviors

RukingaRukinga has been sticking to the northern end of Rukinga ranch, drinking from the 5.5 water tank, which was being pumped from the Mzima springs line. He has been very social mixing with large herds of bulls and different groups of families. He has repeatedly been seen with the KWS collared bull both at the watering hole and resting in the hills together. The aerial surveillance team has also been able to follow up on the health of Rukinga after he has traveled close to human settlements bordering the project area.

TaitaTaita, who had remained primarily on Koranze ranch and Mkomazi Reserve in Tanzania from July and August, traveled back north to Maungu ranch, then to Sagalla before crossing the Mombasa highway and SGR into Tsavo East with a group of 11 elephants. See Appendix 2 for photo of Taita waiting to cross the Mombasa Highway



Above: Aerial photo of Rukinga (centre) on 01/11/16

4. Elephants and other Wildlife

The Kasigau corridor has been through a very rough few months due to the recent drought, and having eyes in the sky has been key to searching for elephant threats in and around the project area. Elephants have been pushed to their limits, being seen in large concentrations near the remaining water sources. Death numbers have been the highest this quarter for 2016. One orphan elephant was recovered by Wildlife Works rangers and the David Sheldrick Wildlife Trust responded to take the young female to Nairobi orphanage.

Bush meat poaching was reported quite a bit through this time, and the harvesting of meat from animals dying of drought related causes was also seen. The middle of November saw some brief rains, which has filled several dams and has caused the area to become green again. Elephants are currently spreading out throughout the project area and being seen swimming and drinking in the new dams as rains continue.

Other wildlife data

Maps of all elephant concentrations	See Appendix 3 for map of elephant concentrations
General elephant movements and concentrations	Before the drought the remaining watering holes on Taita and Rukinga ranch lasted until early September until drying up completely. Elephants and other wildlife were then reliant on the Rukinga water tanks, which were being pumped from the Mzima Springs pipeline. Elephants on Taita and LMD ranch were also surviving off the leaks from the pipeline along the Mombasa highway. The air team was able to look for signs of elephants in distress and also deter potential poaching incidents by having a presence in the area. The area along the highway is a high conflict zone between farmers and elephants. Unfortunately some elephants were lost in this area from drought related issues but the majority of the ivory could be recovered. The southern ranch Koranze kept water through until September holding a large herd of over 200 elephants moving between Kenya and Tanzania. The western ranches kept water throughout the drought, with water and food still available on Mgeno and Choke ranches and the Teita Sisal conservancy.
Other interesting wildlife sightings	Grevy Zebras sighting were mainly on the northern ranches, with several larger herds being seen on Taita ranch. See Appendix 4 for a summary of Grevy zebra sightings. Two Grevy carcasses were spotted this quarter, with one being a presumed drought related death and the other being predation from lion. The drought has benefitted the lion and hyena population, creating the opportunity for easy kills, and sightings of the carnivores have been impressive. Melanistic serval cats have also been a reoccurring sighting throughout the ranches.
Elephant carcasses found	There was one firearm related poaching this quarter, when an armed gang had killed a large bull and was presumed to have killed another through the course of September, leaving with the Ivory. There were also several carcasses found both inside and outside the project with poison arrows. These cases were mainly conflict related, being small bulls with small tusks and all tracked back towards community areas. The gyrocopter has been able to give the ranger team almost daily elephant locations, which helps with the general management plans for the rangers and has contributed to the recovery of ivory from both natural and human related elephant deaths. See Appendix 5 for the poaching data sheet and pictures. One of the largest bulls we have been following on the ranches was taken by the drought. The aerial surveillance team spotted the incapacitated bull and the KWS vet team treated him that day. Sadly he was then found dead the next morning by the air recce team. His tusks were recovered and post mortem showed colon impact to be the cause of death. A number of bull elephants were seen with suspected small arrow wounds but deemed not life threatening from KWS vets.
Large mammal carcasses	Many buffalo and zebra carcasses were seen throughout the ranches. It has been hard to tell which were poached, but most appear to have died from drought related causes with some having been harvested by community members.
Other security incidents	711 snares recovered by the ground team, with no snares found for the month of September.

For all patrol tracks month by month see Appendix 6

5. Charcoal

The ground teams were fast to respond to aerial sightings of charcoal and illegal logging thus habitat loss was kept very well under control. Several acres of the Mwatate river on Mgeno and Choke ranch was burned by herders hoping for new grass growth. Also a dispute on the Maungu/Wananchi ranch boundary saw charcoal producers pushing their boundary into the project area. This was quickly stopped. Tree cutting on Rukinga became a problem after cattle from the community were allowed on to a small zone to help with the drought. This was quickly addressed and stopped. One of the major missions for the air team is stopping illegal logging and charcoal activity, which is a huge threat to elephant habitat and a threat for security in general.

Charcoal data	
Charcoal kilns	27
Log piles	59
Charcoal bags	10
Fence posts	62
Charcoal camps found	Several camps founds encroaching into Maungu ranch boundary, but quickly destroyed.
Arrests made	<p>September - One poacher arrested on Choke ranch with dik dik meat, one poacher arrested on Maungu ranch with 5kg bush meat, three poachers arrested Bungule with kudu meat.</p> <p>October - One poacher arrested with dik dik meat on Mgeno, one poacher arrested with six wire snares on Mgeno, three poachers arrested on Maungu ranch ten dik diks and one kudu, two poachers arrested Mgeno with 20 dik diks.</p> <p>November - Two charcoal burners arrested</p>
Arrest comments	Of the three poachers arrested on Bungule, one was a woman with intent to sell the kudu meat. The charcoal burners on Mgeno were caught with one bag of charcoal, two kilns and two piles of logs



Above: Habitat destruction and harvesting of firewood

Other items during the quarter

The Gyrocopter has had very few problems this quarter, meaning flying time was continuous throughout. One major issue being addressed is lifting of the windscreen, which Magni gyro has generously agreed to replace, although no date has been set.

On a positive note, passionate supporters of the project have donated new equipment. Jason Knight donated three new air to ground radios to help with communication from the gyrocopter to the ground rangers. This has already helped in responding to problems more effectively. Jamie Walsh donated a new Canon camera for documenting incidents. Lucy Arndt donated an iPhone to help with tracking and general communication for the pilot. Off-road tires were also purchased to prepare for the rains and help with landing on rough airstrips.



Left: Jason Knight handing over radio equipment from a online fundraiser he initiated. One base radio for Wildlife Works head ranger vehicle, and two handheld radios for the ground rangers. This equipment has already helped the gyrocopter report security problems and increased ranger security on the ground.



Above: Thanks to these radios, we are able to give live updates to our ground team

Appendix 1: Sighting Listing for Collared Elephants

Rukinga Date: 11.10.2016 – 8:30 AM	KIP541 One Bull Rukinga collared Elephant by himself at Marunga Tower Rukinga Location: 37m 0474045 UTM 9595130
Rukinga Date: 11.10.2016 – 5:10 PM	KIP701 Rukinga One collared bull Elephant with one other Bull at Kudu Point Location: 37m 0470251 UTM 9593078
Rukinga Date: 17.10.2016 – 7:40 AM	KIP758 Rukinga One collared bull elephant with one other bull elephant at Magwede forest near boundary with community Bungule side of Rakunga Location: 37m 0469281 UTM 9590279
Rukinga Date: 26.10.2016 – 5:05 PM	KIP928 Rukinga One collared bull elephant with one other bull elephant at forest (Kivulu Camp forest) Rukinga ranch . Location: 37m 0474821 UTM 9590142
Rukinga Date: 02.09.2016 – 8:30 PM	KIP155 One Bull collared Rukinga at banda forest, Rukinga ranch with one elephant bull Location: 37m 0474592 UTM 9587147
Rukinga Date: 03.09.2016 – 9:15 AM	KIP193 Rukinga collared elephant with other 2 bull elephants at Juliana forest Rukinga Location: 37m 0474482 UTM 9588699
Rukinga Date: 06.09.2016 – 9:40 PM	KIP241 Rukinga collared elephant bull with other 20 elephants at Garawa forest Rukinga ranch Location: 37m 0478677 UTM 9598526
Rukinga Date: 01/11/16 Approx 530pm	Rukinga/jojoba boundary –no GPS taken 13 bulls Water 2km away, No cattle
Rukinga Date: 04.11.16 9:41am	Approx 40 elephants / KWS collared bull in the herd as well, livestock 3km away, Water 5km away, Images yes Location: 37m 0471201 utm 9595530
Rukinga Date: 12.11.16 - 17:15pm	Rukinga with 4 other bulls and 3 family groups nearby, water 500m away Location: 37m 0475948 9601017
Rukinga Date: 14.11.16 - 11:26am	Location 37m 0469012 9588599 Rukinga 6 bulls total.
Taita Date: Date: 31.08.2016 – 5:30 PM	KIP116 Colored Elephant Taita female at Mgeno ranch banda II forest. She was in the group of 11 elephants 8 adults 2 juveniles 2 sub-adults. Location: 37m 0443280 UTM 9598005

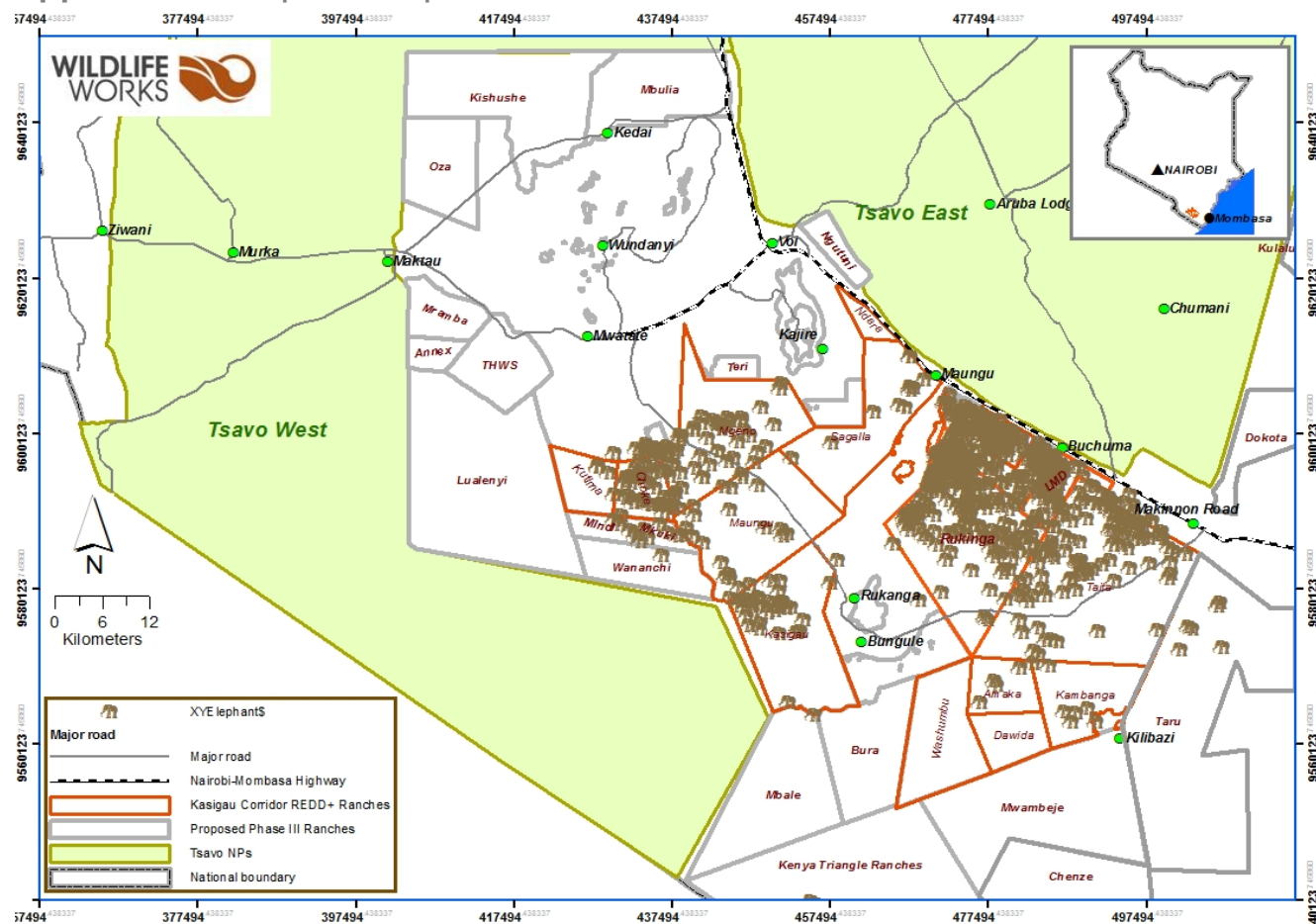
Taita Date: 01.09.2016 – 4:45 PM	KIP136 Collared Elephants Taita female at Sagalla ranch in Ndara area trying to cross Highway. SGR tunnel nearby. Group of 11 elephants. Location: 37m 0467587 UTM 9610006
KWS Bull Date: Date: 20.09.2016 – 7:40 AM	KIP508 One Bull Elephant collared by KWS in the company of one bull at TDC Forest Rukinga renew Location: 37m 0474626 UTM 9591357
KWS Bull Date: 31.08.2016 – 8:45 AM	KIP109 Collared Elephant bull by KWS Koranze ranch Location: 37m 0441347 UTM 9594599

Appendix 2: Taita before crossing Mombasa Highway into Tsavo East.



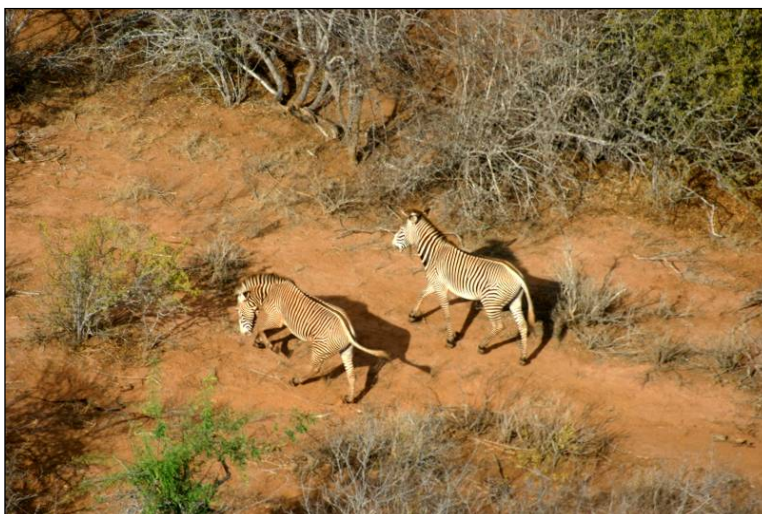
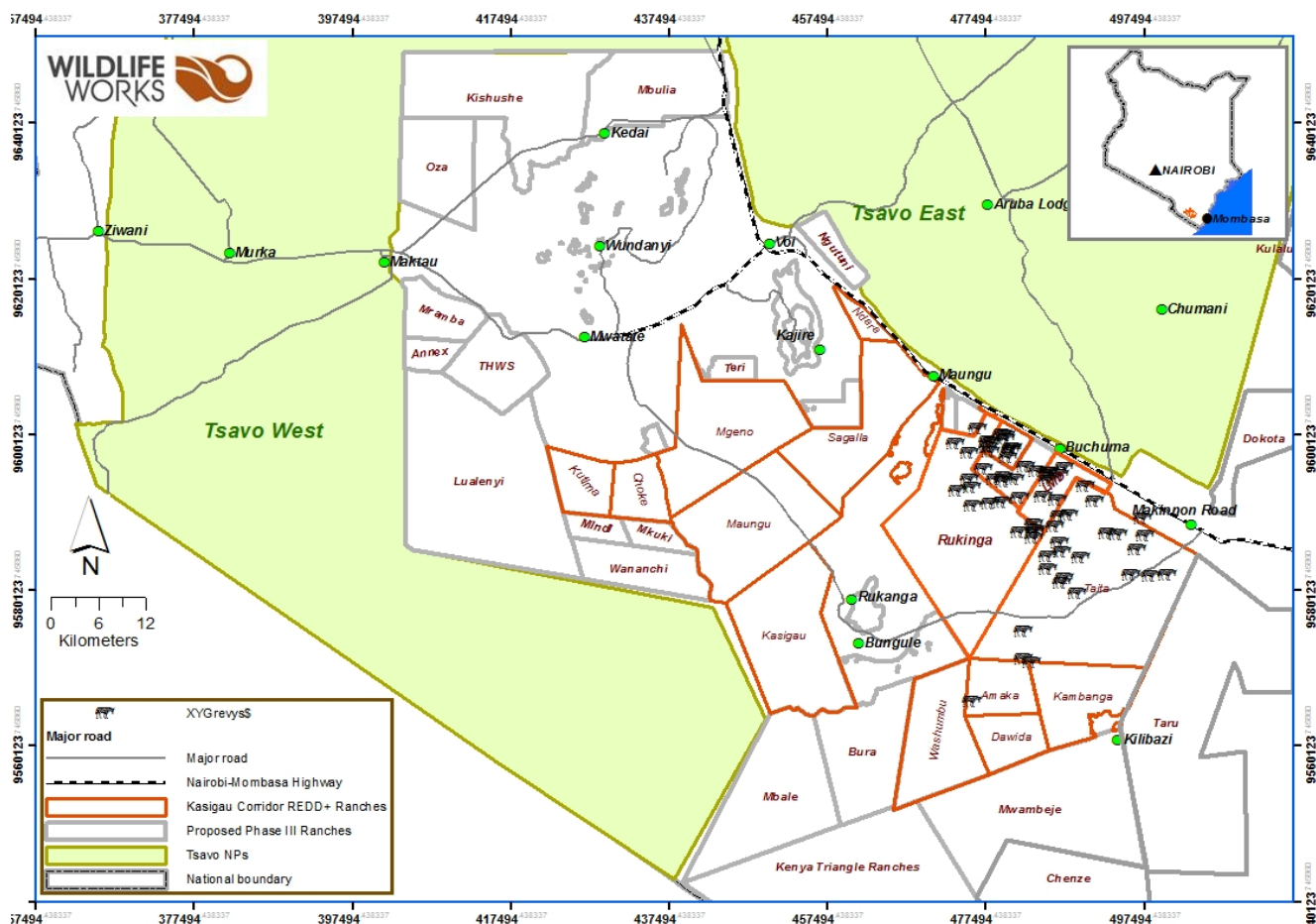
Above: Taita waiting to cross the Mombasa Highway

Appendix 3: Maps of elephant concentrations



Above: Large Elephant concentrations on Mgeno Ranch

Appendix 4: Grevy Zebra sightings



Appendix 5: Poaching Data Sheet and Pictures

ELEPHANT DEATHS WITHIN & BORDERING PROJECT AREA SEPTEMBER - NOVEMBER 2016					
Date	Sex	Duration of death	Location	GPS location	Cause of death / Tusk status
5/09/2016	unknown	2 months	Mwasui ranch outside of project area	37m0438071 utm 9589145	unknown. Tusks missing, presumed poached. Possibly related to armed gang.
09/09/16	male 45-50 yrs	3 days	Kasigau ranch	37m0447007 utm 95793012	multiple gunshots Tusks missing, 2 fragments recovered
12/09/16	unknown	2 months	Taita Ranch	37m 0488637 utm 9582151	unknown, tusks recovered.
29/09/16	female	3 weeks	kisimenyi outside of project area	37m 0458764 utm 9585084	poison arrow, tusks missing
22/10/16	male 35-40 yrs	fresh	Taita ranch, Makina community boundary.	37m 0499429 Utm 9586482	unknown, tusks recovered
24/10/16	male 5- 10yrs	2 days	Wangala	37m 0479871 utm 9599320	persumed natural tusks recovered
04/11/16	male 45-50 years	2 months	Kambanga	37m 049263 utm 9566236	unknown, tusks missing presumed poached
10/11/16	male 45-50 yrs	fresh	Miasenyi reserve out side of project area	37m 0491031 utm 9593605	colon impact due to constipation, tusks recovered
02/11/16	female 30- 35	3 days	Sagalla/ mgeno boundary	37m 0454497 utm 9600494	snare, born tuskless
15/11/16	male 15-20	fresh	mgeno	37m 0438629 utm 9596611	human wildlife conflict poison arrow tusks recovered
15/11/16	male 15-20	fresh	LMD ranch outside of project	37m 0495824 utm 9590930	poison arrow, human wildlife conflict tusks recovered
20/11/16	male 10-18	1 week	mgeno	37m 0445814 utm 9599149	presumed human wildlife conflict poison arrow tusks recovered
20/11/16	male-5-8 yrs	fresh	kamubonga village near choke ranch outside of project	37m 0432473utm959 7403	unknown, small tusks recovered

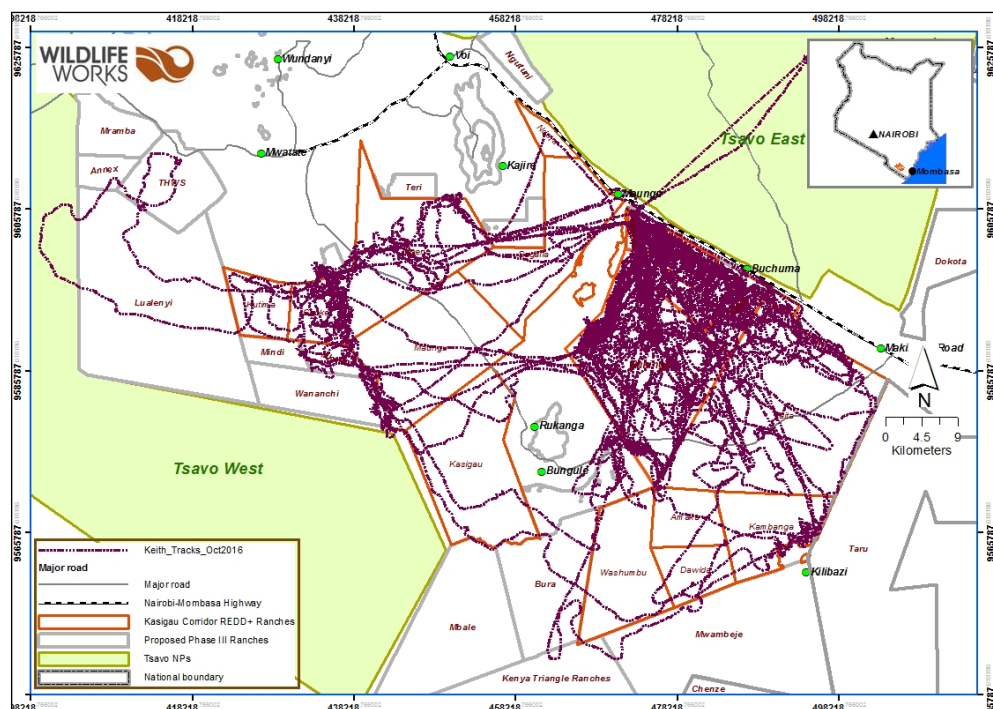
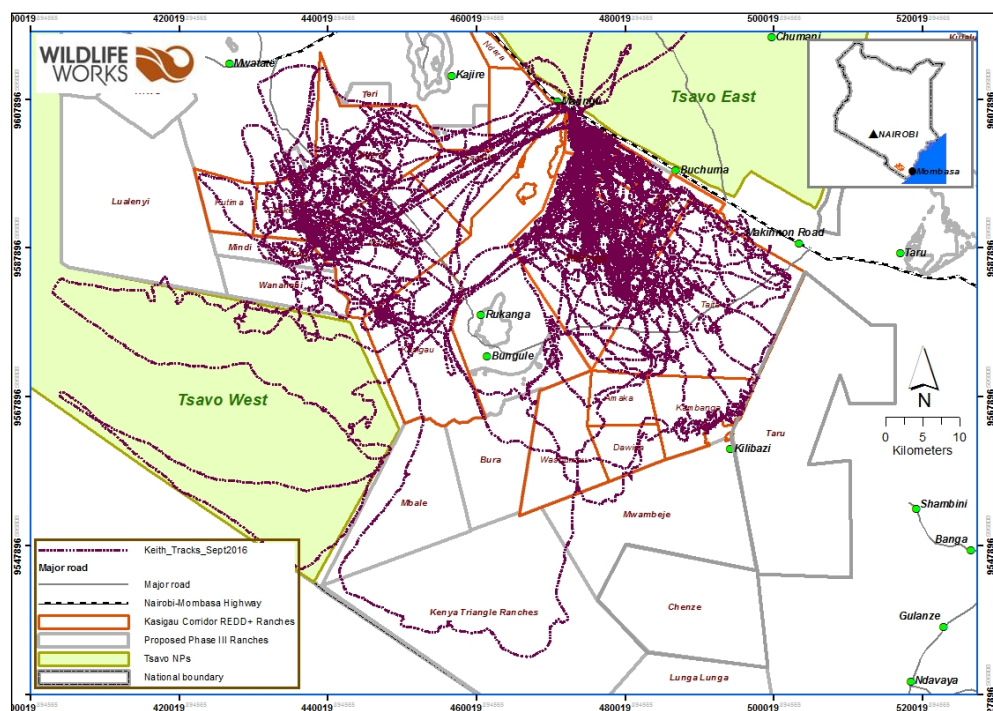


Left: Regularly seen Bull died of natural causes. Right: Bull killed by multiple gunshots, Kasigau Ranch.



Left: Rangers being led in by air team to carcass found on Mwasui Ranch.

Appendix 6: Patrol tracks by month September-November





Regularly seen large Tusker over the project area

Thank you for your support!



Elephants On Choke Ranch



Rukinga the collared elephant with 12 other Bulls