



# Kasigau Corridor



Aerial Surveillance

Annual Report

June 2017 - June 2018

KE\_002

By Keith Hellyer



**Executive Summary:**

The objective of the Kasigau Corridor Aerial Surveillance project is to increase aerial support for improved anti-poaching measures in order to protect Tsavo's elephants. Funding from the Elephant Crisis Fund and Wildlife Works REDD+ project has maintained surveillance over the Kasigau Wildlife Corridor between Tsavo East and West and has supported Wildlife Works and KWS' rangers on the ground in anti-poaching activities, locating elephant herds, discovering carcasses, and assisting in rapid response events.

From June 2017 to June 2018, due to the funding from the STE/ECF grant, the team has flown for 670.9 hours over a distance of 49,583 kilometres. This has reduced security threats to both wildlife and wildlife habitat, increased ranger security, been a deterrent to other illegal activity, and allowed daily monitoring of elephant movements with quick response of ground teams to monitor elephant locations.

**Overview:**

Total hours flown: 670.9

Recorded distance covered: 49,583km

Please see Appendix 1 for Recorded Patrol Tracks.

**Table 1: Elephants Deaths:**

Elephant Deaths	Number
Poached, found inside the project area	4
Poached, found outside the project area	1
Related to Human Wildlife Conflict	2
Death from Natural Causes, Unknown or Drought	25
Total	32
Total Ivory Recovered	50
Elephants Injured & Treated	2
Responses to Armed Situations	3

**Summary of conservation accomplishments:**

This year can be celebrated with an all-time low in elephant poaching within the Wildlife Works project area. The consistent aerial surveillance within the Kasigau Corridor to monitor elephant locations, combined with the quick response of well-organized ground teams, has been crucial for elephant protection and been a deterrent against illegal activities. Poaching within the project area over last year saw a record low compared to previous years (see Table 2) which is connected to the continuous operations for locating other illegal activities such as logging, charcoal production, cattle grazing and bush meat poaching. By following the herds and individuals, we have increased wildlife security within the project and surrounding areas.

Using a gyrocopter as a tool for detecting potential crop raiding elephants has enhanced ranger operations. The early detection of elephants advancing on farmlands enabled rangers to set up

blocking points to ensure elephants were less likely to invade farmers' crops. The aircraft was also helpful in the herding of elephants out of farms once they were inside.

Armed poaching was less of a concern compared to last year's operations. Only one elephant was shot and killed by poachers on Dawida ranch in September 2017. It was a small elephant with most likely small tusks, believed to be a fast act of desperation and lack of confidence to succeed in the poaching activity from those responsible.

**Table 2: Elephant Deaths Within the REDD+ Project Area, 2010- June 2018**

<b>YEAR</b>	<b>GUNSHOTS</b>	<b>POISONED ARROW</b>	<b>NATURAL</b>	<b>EUTHANISED</b>	<b>SNARED</b>	<b>TOTAL</b>	<b>IVORY RECOVERED</b>
<b>2010</b>						11	12
<b>2011</b>						22	8
<b>2012</b>	19	7	5	2		33	15
<b>2013</b>	27	7	1	1	1	37	22
<b>2014</b>	29	18	6	1		54	41
<b>2015</b>	9	14	2	2		27	30
<b>2016</b>	1	10	13	0	1	25	27
<b>2017</b>	2	6	2 and 1 unknown	2		13	12
<b>2018</b>		1	2 unknown	1		4	7
<b>TOTAL</b>	<b>87</b>	<b>63</b>	<b>30</b>	<b>9</b>	<b>2</b>	<b>226</b>	<b>174</b>



The majority of the elephant deaths within the ecosystem were during the height of the drought from August – November 2017. Almost exclusively these deaths occurred inside Tsavo East National Park. During this time period, no elephants died from drought related issues within the project area. This was attributed to lack of vegetation inside the park and elephants not knowing how to navigate around the Standard Gauge Railway (SGR) and Mombasa highway. Although it is becoming clearer that individuals and some herds are now learning the safe crossing points, it is still a large concern for the majority of the elephant population when the next dry period arrives. It is becoming evident how important the ranches are for the Tsavo elephants. The vegetation over this area supports a year-round high population that rely heavily on the project area for food and water.



The vegetation density and vast size of the project area makes it impossible to patrol purely on the ground. If not for consistent aerial patrols by the aerial team, the poaching outcome this year may have shown a much higher figure. The map in Appendix 2 shows the sightings of elephants in 2017 and 2018 from the aerial surveillance team and demonstrates the need for these patrols in areas where road infrastructure is poor or non-existing.

The assistance with the location of livestock within the ranches and inside the national park were a high conservation target. Illegal grazing is a large factor in the lack of food available within the park, as well as a security risk within the ranches. Locating illegal herds and acting on this issue reduced the potential security threats and eased competition for resources. Locating illegal herds within the ranches also helps maintain good relationships with landowners.

The aerial patrols have also allowed the team to identify a wealth of animal biodiversity throughout the area surveyed as well as collecting data on high conservation value species such as Grevy zebra, carnivores and birds. Please see Appendix 3 for a chart of High Conservation Value Species and Appendix 4 for distribution of Grevy Zebra Sightings.

#### **Non-Elephant Poaching Activity:**

Snare and bush meat poaching were a constant concern during the reporting period. Over 61 plains game carcasses were located by both air and ground teams, mainly dik-diks, kudu and giraffe. With well-organized patrols and ambushes, the arrests of 16 poachers were made.

#### **Charcoal and Illegal Logging:**

The nationwide charcoal ban unfortunately did not interrupt much of the attempts for charcoal production within the project. The aerial patrols, however, did lower the number of harvested charcoal kilns into bags, as the kilns were located and destroyed before reaching the market. The snaring activity found around charcoal sites shows the important link between this illegal activity

and the bushmeat trade. Many of the charcoal camps and kiln areas were a hot spot for snares located. In order to combat the local bushmeat trade, a strong stance on removing charcoal makers from the project will stay a priority.

**Table 3: Other Illegal Activity**

Activity	Number
Log piles / Posts	1,052
Charcoal Kilns	174
Charcoal Bags	89
Charcoal Camps	4
Arrests Made	35
Bush Meat Carcasses	61
Snares Collected	551
Poaching Arrests Made	16

**Issues Faced and Recommendations for the Future:**

Communication still remains one of the project’s biggest challenges. Reporting and relaying live messages from aircraft to ground teams is still difficult. Most incidents are communicated by cell phone when in network service, which is patchy throughout the ranches. The purchasing of more air to ground radios will hopefully help solve this issue. Aircraft maintenance was another issue faced this year, with the 2,000-hour heavy service being carried out in March 2018 which grounded the aircraft for two weeks. Smaller issues had previously started grounding the aircraft on and off leading up the service date. A complete engine overhaul will soon be required to carry on with patrols. With an aging engine, a decision will need to be made for the overhaul before the end of 2018.

**Training Accomplishments:**

Daniel Zuma, a local community member made history during the reporting period by becoming the first native born Kenyan gyrocopter pilot. Danny completed his training in the U.K in November 2017 thanks to help from various sponsors and supporters. Danny has now done over 120 hours of flying and has become a remarkable addition to the Wildlife Works Air-Wing.



Wildlife Works was very grateful to be able to participate in a joint training course conducted by “LEAD Ranger” in May 2018. The course hosted pilots and ground rangers from Wildlife Works, Big Life and the David Sheldrick Wildlife Trust. The training was focused on communication procedures between aircraft and rangers, outlining proper signals and response protocols. This included

leading rangers to a potential incident from aircraft, requests from ground teams to aircrafts and clear communications on security threats for both air and ground teams. This will help all partner organizations have a better and clearer understanding on how to respond to each other's directions on security threats.

### **Reporting to other Organizations:**

Daily reporting to the Kenya Wildlife Service is always the first priority for the aerial surveillance team. The daily documentation of elephant details and reporting of locations is in the best interest of all parties involved. Wildlife Works operates hand in hand with the KWS "Y" company for operations over the ranches. Security information is also shared between other key organizations within the ecosystem, including KWS, Tsavo Trust, The David Sheldrick Wildlife Trust, Kenya Forest Service and the Kenya Police department.

To assist the Save the Elephants' branch 'Elephants and Bees Project', the aerial team provided informal updates about advancing elephant herds on local farms and collared elephant information, as well as taking researchers for patrols around their project area.

### **Publicity:**

- In August 2017, Keith Hellyer visited the Magni Gyrocopter factory in Italy to speak with the manufacturer about the usefulness of their product as a conservation tool and its existing funding from the ECF. The presentation was made known to their 1,100 client base and their followers.
- Filmmakers producing a 25-minute television program for NTV visited in March/April 2018 to document the efforts of Wildlife Works over the Kasigau Corridor and the Air-Wing supported by the Elephant Crisis Fund. The program is scheduled to air in September.
- An article was published in Nomad Magazine in December 2017 documenting the gyrocopter-led conservation efforts in the Tsavo ecosystem.
- Wildlife Works blog posts have been shared throughout social media. You can read the stories at: [blog.willdifeworks.com](http://blog.willdifeworks.com).

### **In Conclusion:**

The Elephant Protection Trust is very grateful to the Elephant Crisis Fund, Save the Elephants and Magni Gyro for the support over the last two years of the EPT aerial operations. The conservation achievements made over this period could not have been accomplished without this support. The EPT will be actively looking for further sponsorship to continue excelling in wildlife conservation activities.

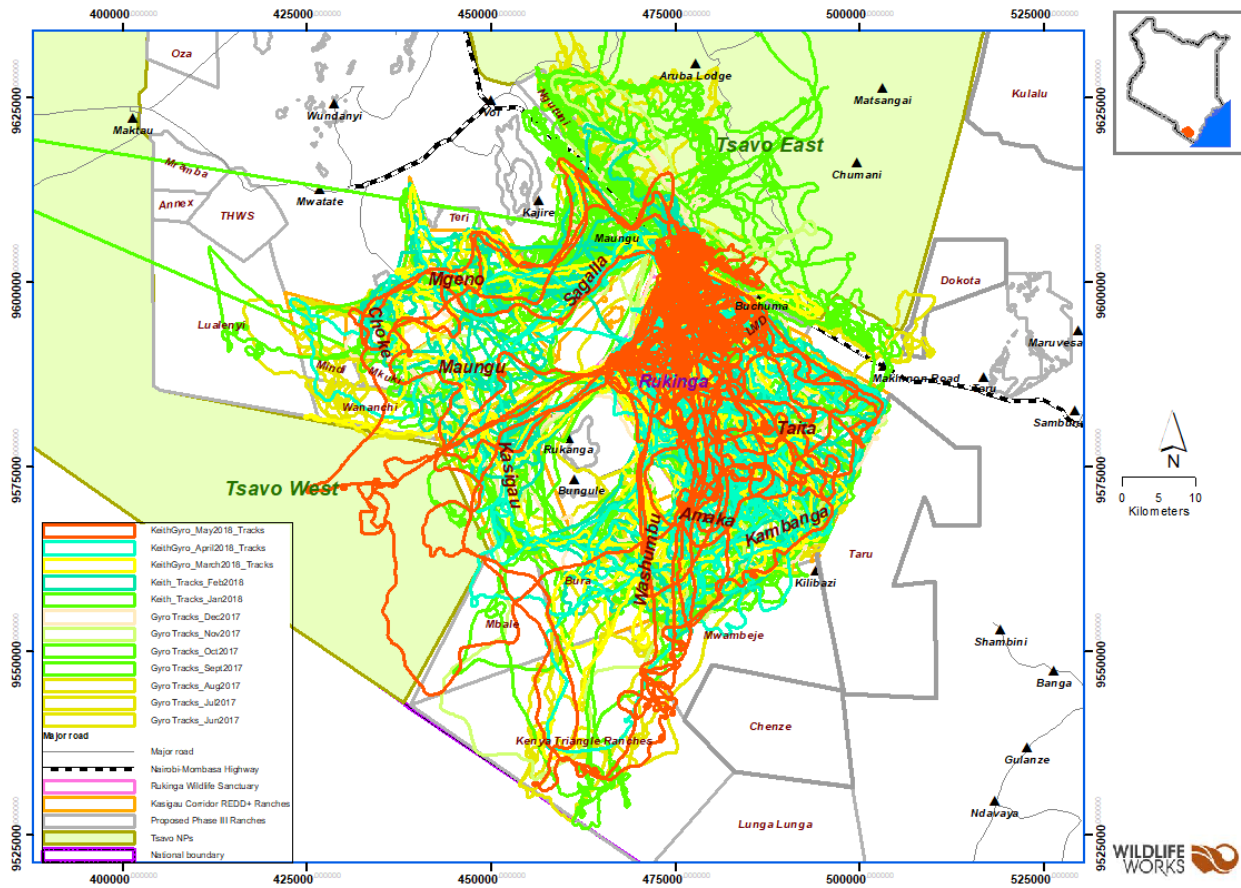
Thank you for your continued support!





# Appendix 1:

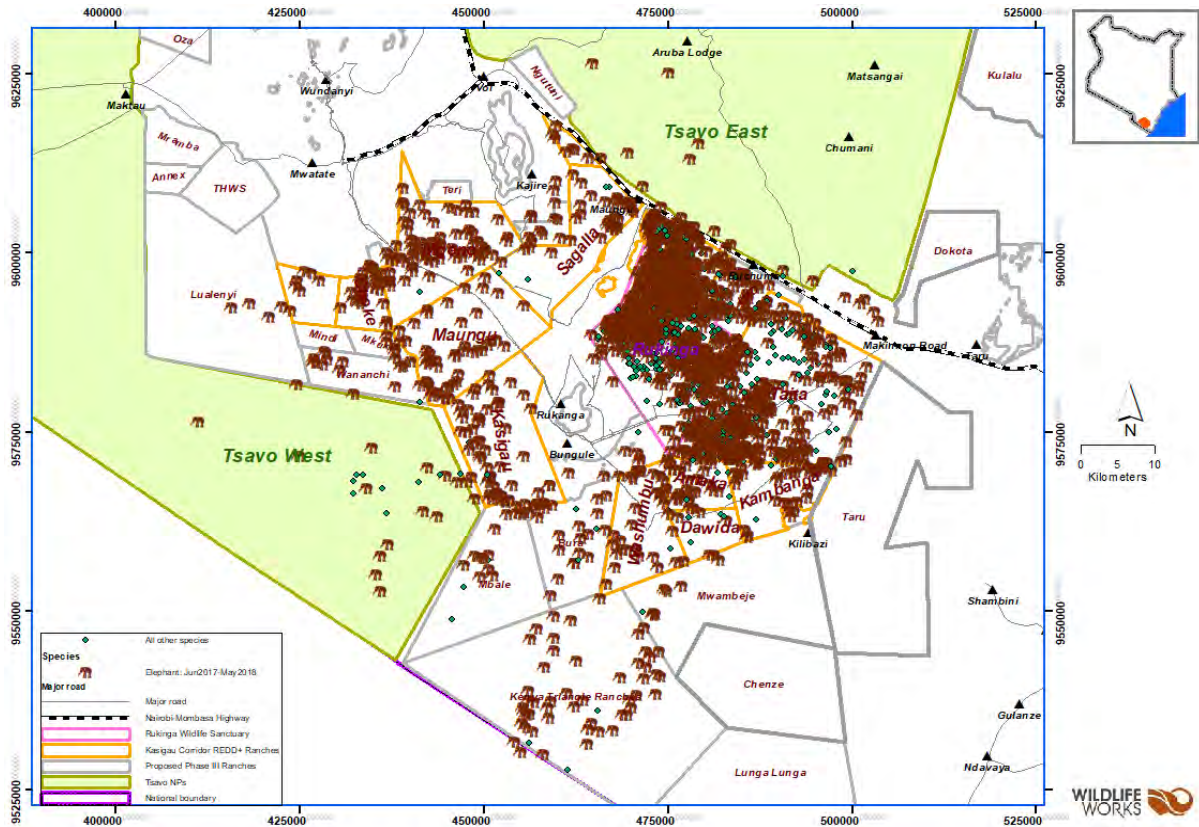
Map of all recorded flights May 2017-May 2018:





## Appendix 2:

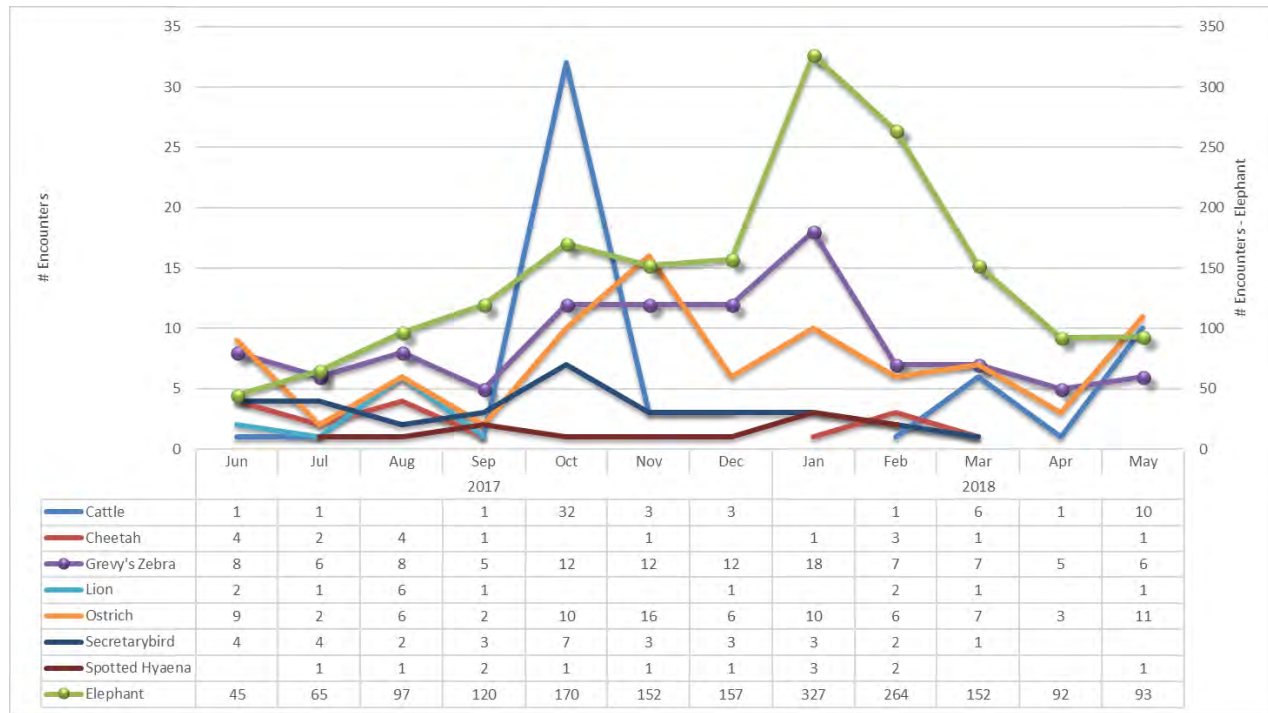
Map of elephant sightings June 2017- May 2018:



(Note that sightings are for elephants seen within the project area or significant sightings in neighbouring areas.)

## Appendix 3:

Graph and Table of High Conservation Value Species sightings:



# Appendix 4:

Map of distribution of Grevy zebra sightings:

