



YANKARI GAME RESERVE

WCS QUARTERLY REPORT: JULY - SEPTEMBER 2022



WCS Nigeria

A Wildlife Conservation Society Program

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SUMMARY

This report describes the law enforcement efforts and SMART-based ranger patrols managed by WCS in Yankari Game Reserve for the period July to September 2022. A total of 2,091 patrol man days (35 patrols) were completed by rangers covering a total distance of 3,713km and as a result 1 person was arrested during the period for grazing livestock in the reserve. Although we plan on achieving 48 patrols per quarter, we only managed 35 during this period as ranger turnout during the rainy season continues to be a challenge due to farming activities. No elephant carcass was reported during the reporting period and no elephant poacher was arrested. Elephant crop raiding was reported from the communities of Yalwan Duguri and Shafan Duguri during the period. To assist local farmers mitigate human elephant conflict (HEC), 50 Kenyan top-bar beehives were donated to 10 farmers from Kuka and Maina Maji communities. We provided beekeeping training to the farmers during the period, helped them construct hive fences and supplied them with starter kits, including bee suits, smokers, hive tools and a honey press. We continue to track the elephants with the aid of the two remaining functioning satellite collars put on them to provide better protection and mitigate HEC issues. Eighteen livestock grazing incidences in the reserve were recorded by foot patrols during the period but with only 1 person arrested for grazing offences because most of the grazers send in the cattle unaccompanied by humans. Ten joint patrols with the army were completed to help build ranger morale and as a show of force against criminals that might want to use the reserve as a hiding place.

With the support of WildAid, a 20ft steel shipping container was purchased and fitted out as an armoury to provide secure storage for our firearms and ammunition (see photos page).

For the 3rd consecutive year, Yankari rangers participated in the Tusk Wildlife Ranger Challenge 2022, an annual physical challenge against other ranger teams across Africa, that has helped to draw global attention to the plight of Africa's wildlife and wild places and the vital role that rangers play in protecting them. Our team of four participated in a 2 minute sit up and push up challenges, a general knowledge quiz and a 21km run with full uniforms and a backpack weighing 22kg (48lbs).

The hired grader continued the rehabilitation work of Yankari patrol tracks and reserve boundaries to improve vehicle access in certain locations, reduce wear and tear on our vehicles and reduce the risk of encroachment by farmland as surrounding communities grow.

RESULTS AND DISCUSSION

A total of 35 SMART-based patrols were organized during this period covering a total distance of 3,713km and 2,091 patrol man-days (see Appendix 1 for more details). Levels of protection *within the areas patrolled* are adequate but some areas of the reserve were left unprotected (see Map 1 below) during this reporting period due to poor ranger turnout during the period to organise more patrols as the annual rains settled and many rangers returned to their farms for the planting season. No arrests were made for hunting offences during the period with only one person was arrested for livestock grazing. Ten joint patrols with the army were completed to boost ranger morale and to assure the surrounding communities of our commitment to the security Yankari and its surrounding communities.

PATROL STRATEGY AND CAMPING PATROL SCHEDULE

Due to poor ranger turnout as the rains arrived and farming activities commenced, we can currently only organize three camping patrols each week on average. Three teams

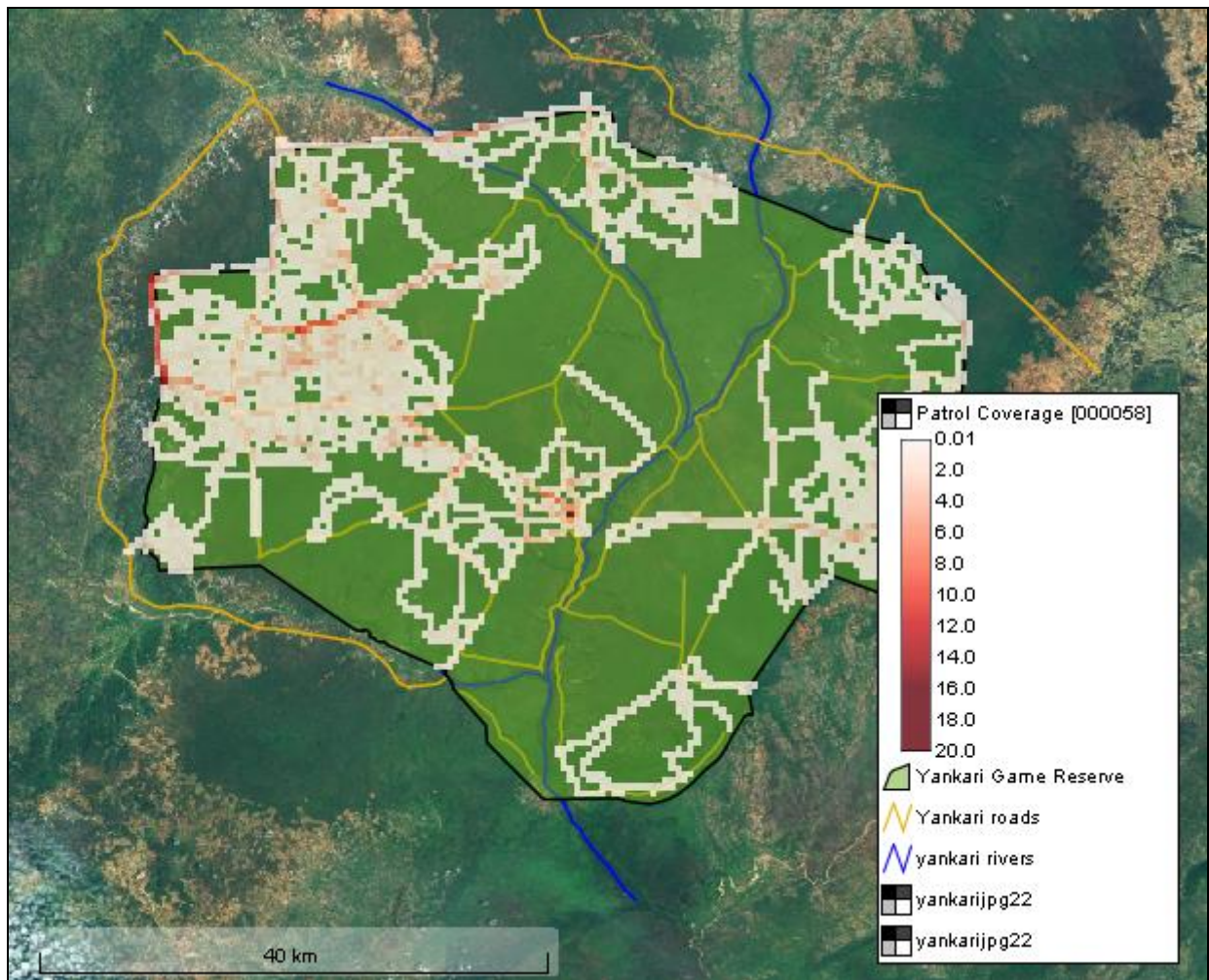
consisting of 6-7 rangers per team were sent out on camping patrol. With the limited resources available, the current patrol strategy targets vulnerable areas rather than trying to cover the entire reserve. However, SMART enables us to see which areas of the reserve haven't been patrolled and we ensure that subsequent patrols are sent to cover those areas. Additionally, the VHF radio also enables us to monitor the patrols in real time. There were no fixed camping locations; instead, rangers continuously change their location overnight both to increase area coverage and to minimize the risk of camp attacks by poachers. Data is collected using handheld computers running CyberTracker software, which automatically records GPS coordinates for every observation and analyzed using SMART software. Table 1 below summarizes the patrol data for the period.

PATROL EFFORT

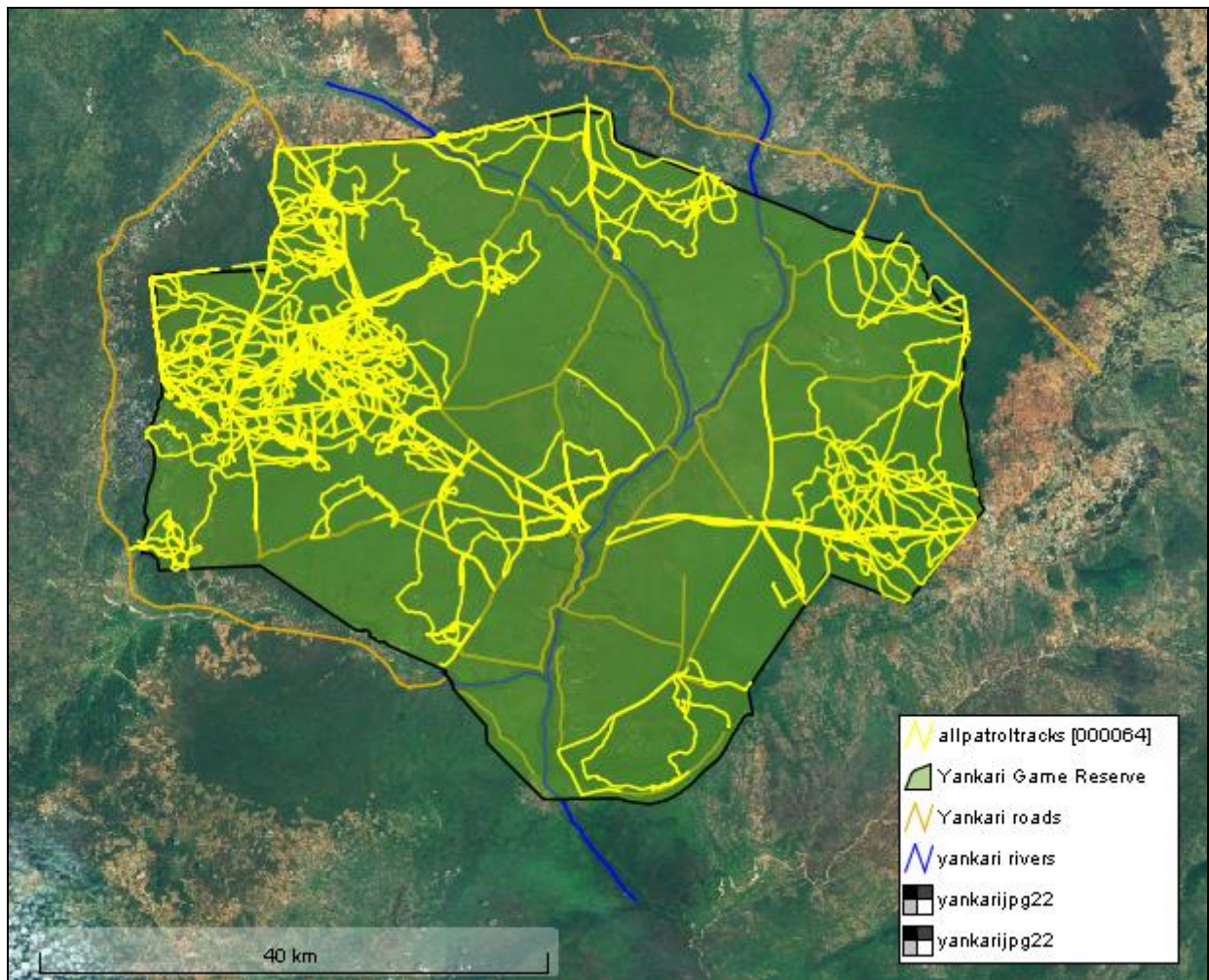
In *Map 1*, the darker red part of the grid map indicates areas that have been more frequently patrolled, the grey portions represent areas that were less patrolled while the un-shaded parts of the grid represents areas that were not patrolled during the reporting period.

Table 1. Summary of patrol effort for the period July to September 2022

<i>No of Patrols</i>	<i>Distance (km)</i>	<i>Hours</i>	<i>No of Days</i>	<i>Patrol Man Days</i>
35	3,713	2,334	269	2,091



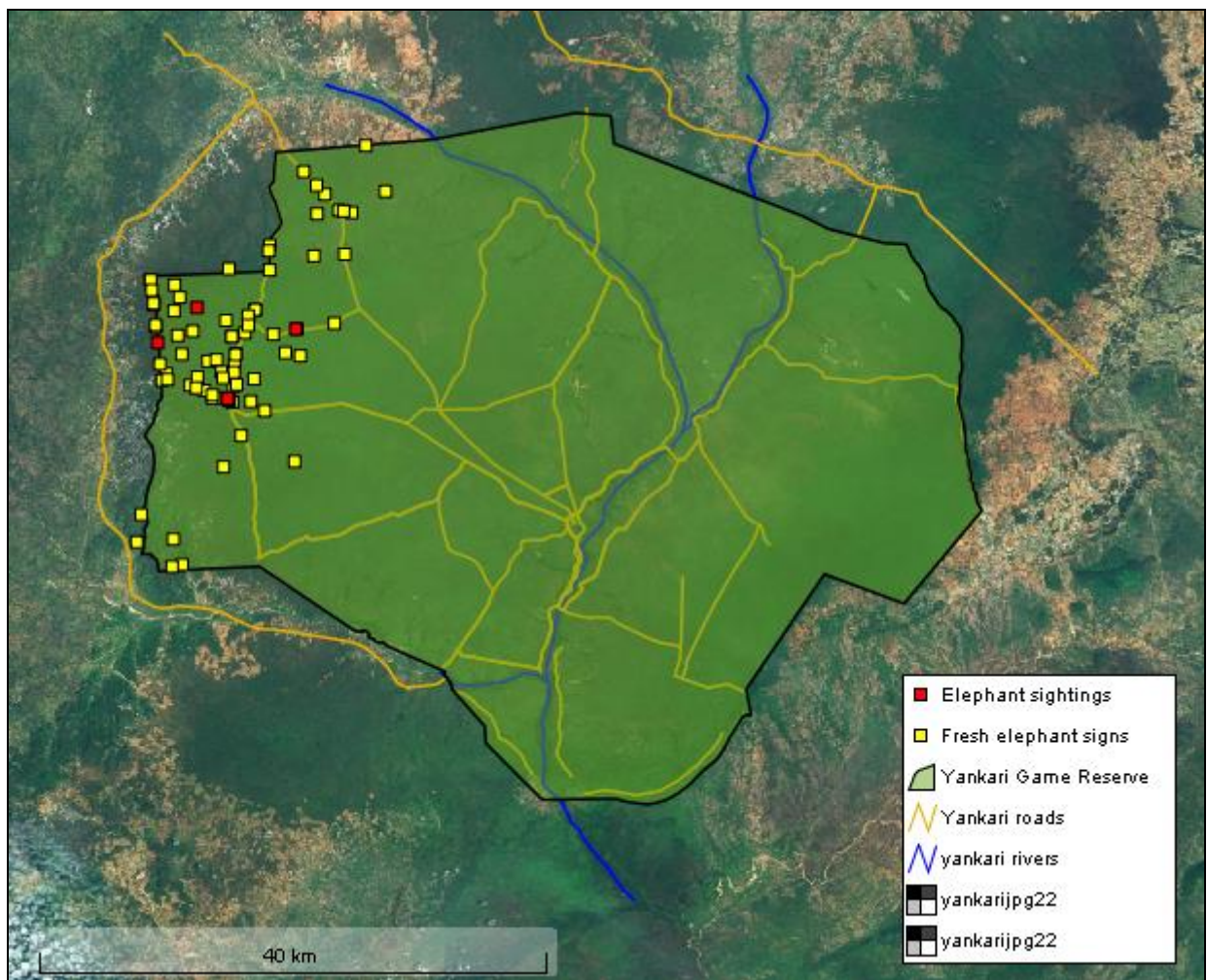
Map 1: Patrol effort in km walked per grid cell for July-September 2022. Darker red colour indicates areas of more intense patrol coverage.



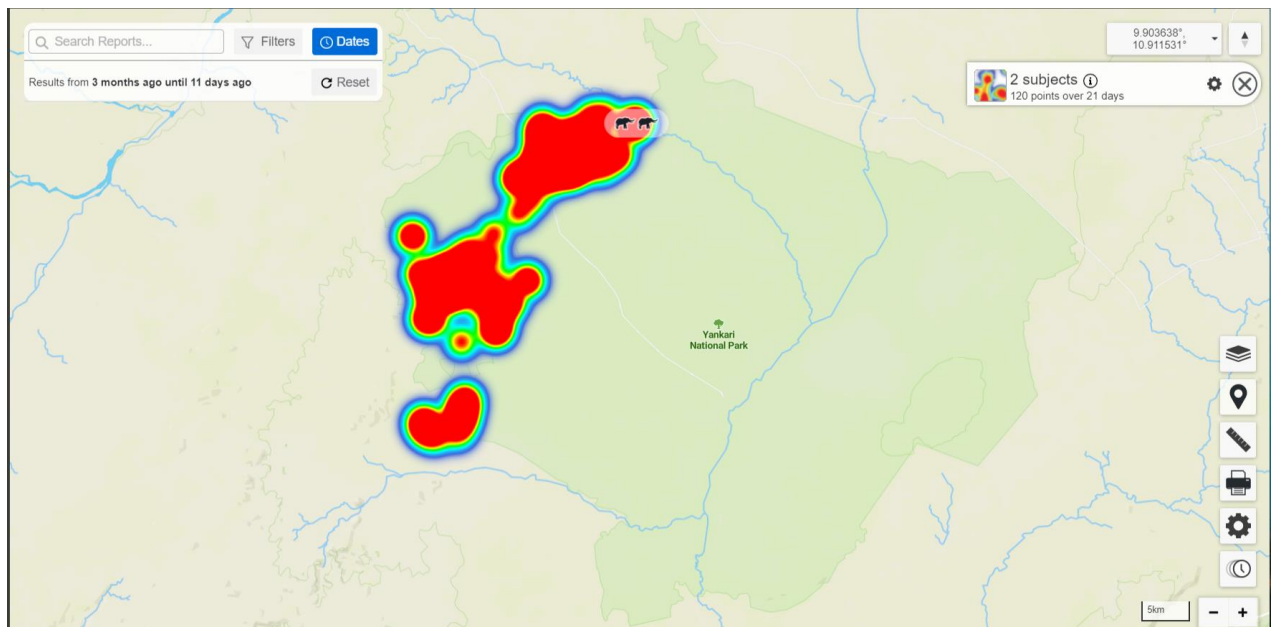
Map 2: Patrol track logs for July-September 2022

ELEPHANT CONSERVATION

Fresh (1-3 days old) elephant signs and elephant sightings were recorded in the reserve during ranger patrols, see Map 3 below. Crop raiding by elephants was reported from Yalwan Duguri and Shafa communities only during the reporting period. Rangers were sent to the area concerned, however, typically the elephants raid crops at night and have returned to the reserve by the following morning when rangers respond to the scene. We have helped install four watchtowers in two communities most affected by elephant crop raiding as a pilot to enable the farmers stay safe while they guard their farms and give them a wider field of vision over the surrounding area. We have also constructed hive fences and trained 10 farmers in beekeeping in the same two communities to trial its effectiveness in deterring marauding elephants. We continue to track the elephants with the aid of two remaining functioning satellite collars, to provide close protection and mitigate human wildlife conflict issues. Data from the collars (Map 4 below) shows that collared elephants spent most of this period in the northwestern part of the reserve where there are plenty of seasonal waterholes and ample browse.



Map 3: Elephant activities recorded by all ranger patrols July-September 2022



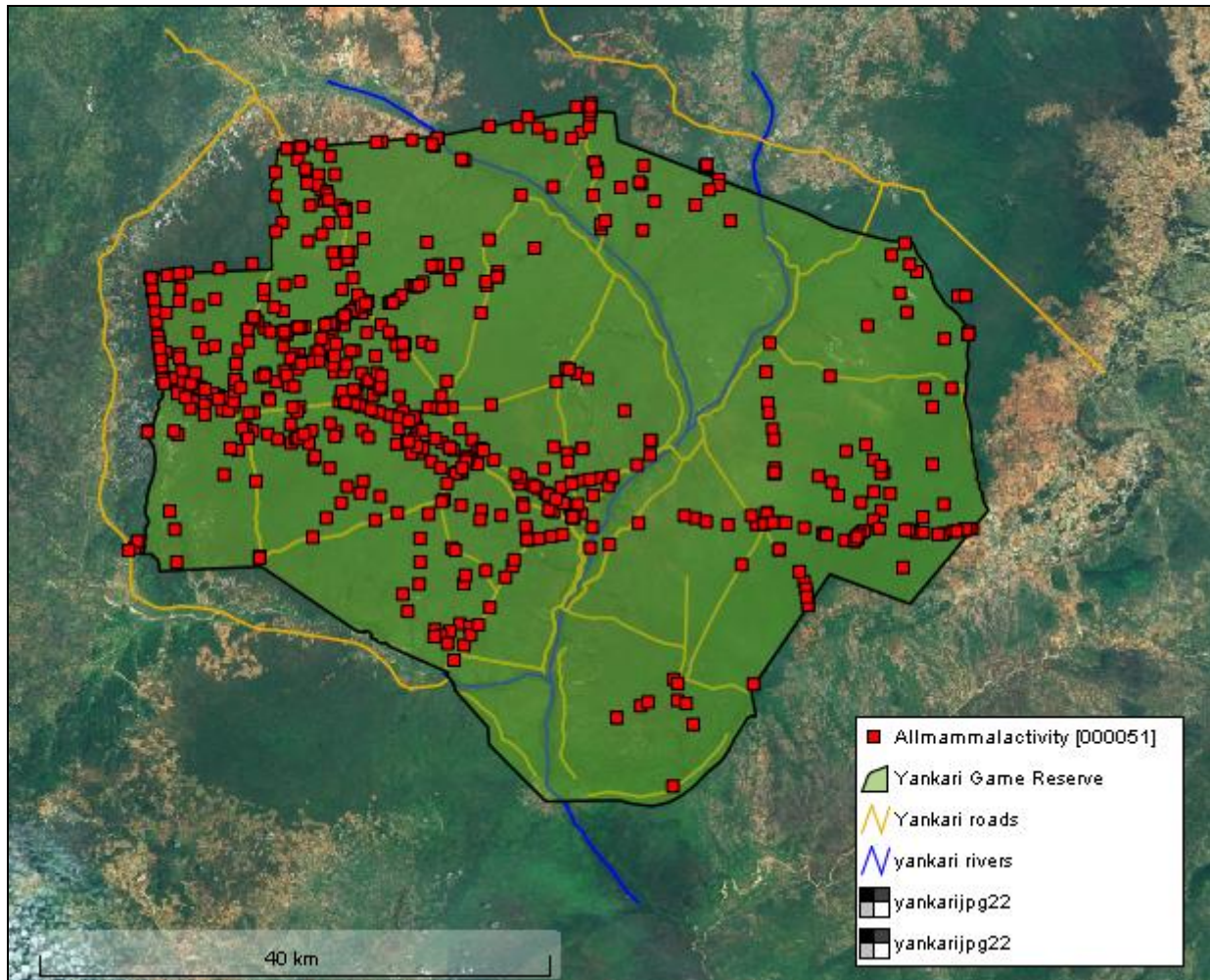
Map 4: Heat map for elephant movement from satellite collar recorded during July-September 2022

LION CONSERVATION

No lion signs were recorded by ranger patrol however reports of lion vocalizations were received during the month of September.

ALL OTHER MAMMAL SIGHTINGS

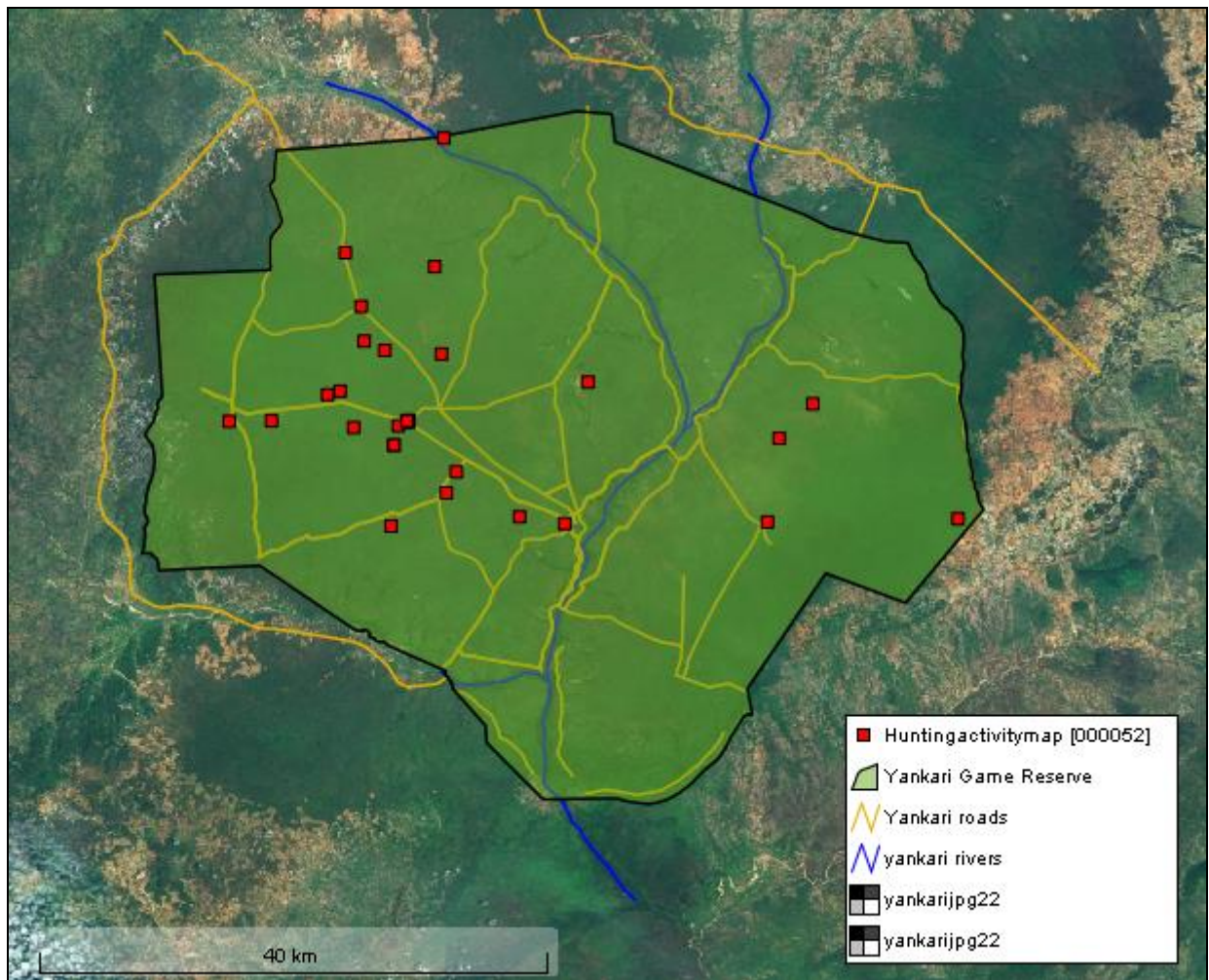
Various other large mammals were sighted within the reserve (see Map 6 below) including hippos, baboons, waterbuck, roan antelope, buffalo, hartebeest, patas monkey, tantalus monkey, bushbuck and warthog.



Map 6: Location of all other mammal sightings July-September 2022

HUNTING EVIDENCE

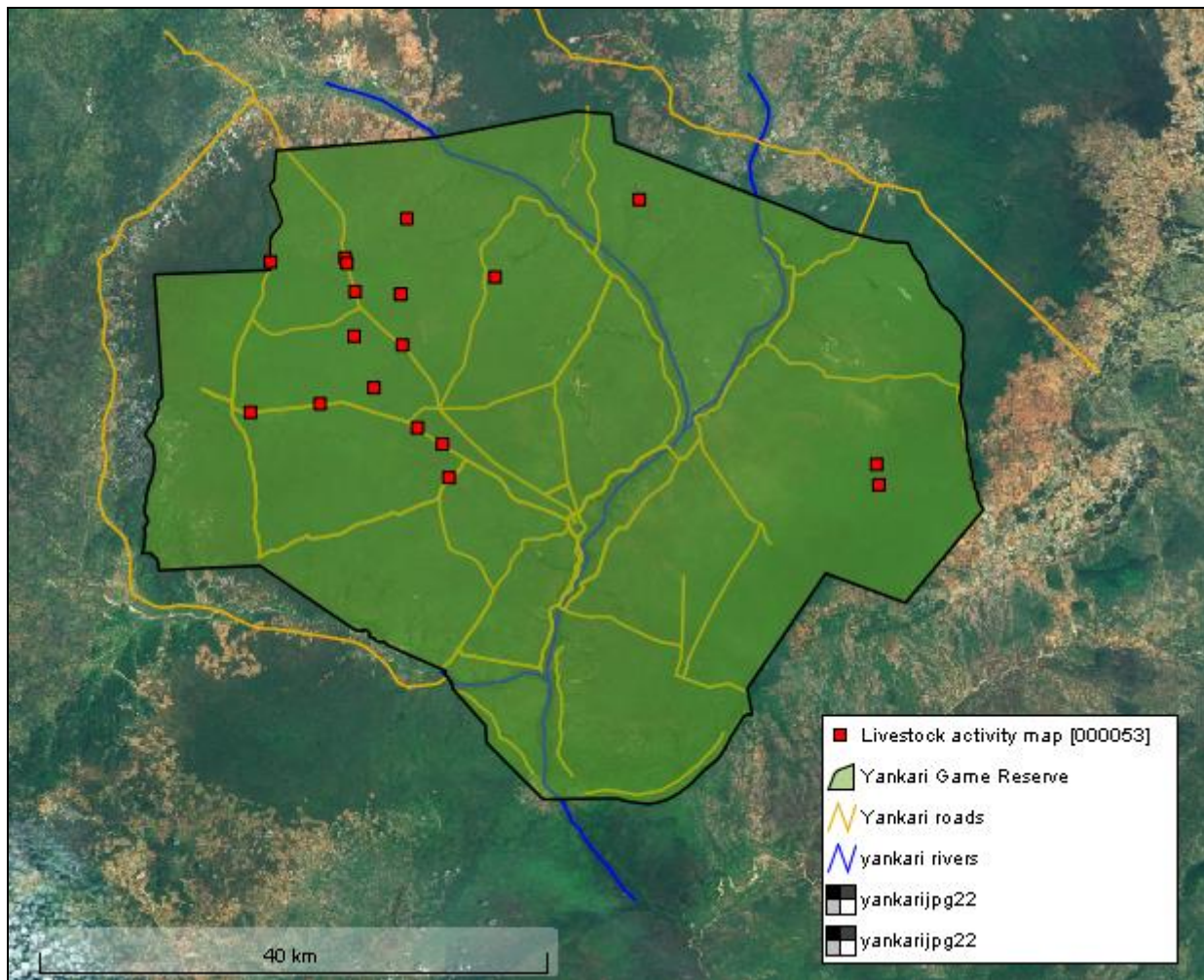
Although twenty six human signs were encountered by rangers during the period (see Map 7 below) no arrests for hunting were made during the period as generally hunting pressure is greatly reduced in the reserve. The hunters now only hunt opportunistically and do not remain for long in the reserve. Continuous ranger training and the provision of allowances, bonuses, food rations, kit and equipment has built the morale of the rangers and honed their skills. Additionally, the importance of intelligence and the VHF radio enables us to send patrols where it is needed most.



Map 7: Hunting activity recorded by all ranger patrols July-September 2022

LIVESTOCK GRAZING

Several livestock incursions in the reserve were recorded by patrol teams during the period (see map 8 below), However, the rate of livestock grazing in the reserve has also reduced considerably because rangers have dominated the reserve with continuous patrols, along with regular aerial support, constant supervision and zero tolerance to corruption.



Map 8: Livestock grazing activity recorded by all ranger patrols July-September 2022

OTHER ACCOMPLISHMENTS DURING THE REPORTING PERIOD

Beekeeping training and hive fence construction

An 11-day introductory beekeeping training for 10 farmers from Maina Maji and Yashi communities was completed during August 2022. With funding support from the Elephant Crisis Fund, the farmers have each been equipped with beekeeping starter kits including; 5 Kenyan top-bar hives each, beesuits, hive tools and smokers. The hive fences were constructed, using metal and bush poles, strong steel wire and with dummy hives to extend the fence length, at three vulnerable sites where elephants frequently leave the reserve to enter farms. The farmers were taught how to identify the different classes of bees in a colony, how to differentiate the brooding cells of queens, workers and drones as well as practical skills such as lighting smokers, baiting hives with molten wax and how to transfer colonies from a traditional log-hive to the top-bar hive. We await successful colonization of the hives to continue the training in hive management and harvest techniques (see cover photo & below).



Farmers learn to transfer colony from traditional log hive to a top-bar hive, August 2022.

Rehabilitation of access roads and reserve boundary

The grader has continued to work to improve some of our most deteriorated patrol tracks and stretches of the reserve boundary. Over the period of this report, the grader has re-defined the northern boundary of the reserve which had become badly overgrown, making access difficult and therefore leaving it vulnerable to farmland encroachment as well as making it an easy access point for poachers. Now with that stretch opened up, our patrol teams can drive along a significant portion of the Northern boundary and can easily detect and poachers' footprints leading into the reserve.



Boundary road rehabilitated by the grader showing farmland (left) and reserve (right)

Installation of armoury container

A 20ft shipping container was purchased and fitted out to provide a new secure armoury for our firearms and ammunition stockpile. Furthermore, it will allow a more structured organised space for maintenance of the firearms.



Front elevation of armoury container with adjoining IWT container, September 2022

Tusk Wildlife Ranger Challenge 2022

For the 3rd consecutive year since the inception of the competition, a team of rangers from Yankari participated in the annual Tusk WRC 2022. This years competition one again saw our ranger join over 100 other teams across Africa competing in 2 minute push-up and sit-up challenges, an online general knowledge quiz and a half marathon run in full uniform, carrying a 22kg backpack. The competition helps raise awareness of the vital role of rangers in protecting African biodiversity and brings rangers across the continent together.



Marathon team (squatting) and support team in good spirit after the race, Sept 2022.

CHALLENGES FACED

- **Growing insecurity in the region.** A recent and developing threat within Yankari, its neighboring communities as neighboring states, is the issue of kidnappings by armed bandits. Armed with AK-47 type assault rifles, these criminals have staged many attacks in communities surrounding the reserve, killing a number of individuals and collecting huge ransom fees from the already struggling family members of the victims. These criminal elements are believed to escape into Yankari Game Reserve with kidnap victims, to hide for a period before moving on. These criminals pose significant threat to our patrol staff as they often move in large gangs with each individual heavily armed.
- **Unsupervised rangers in remote outposts.** Outposts within surrounding villages were created under past management regimes, probably as far back as when the reserve was managed under the National Parks Service. These outposts presented a means of gaining intelligence on the movement of poachers and other potential threats. However, these outposts also present a loophole and potential avenue for corruption amongst rangers to prosper as they are impossible to manage and adequately supervise.
- **Ranger turnout for patrols.** Low ranger turnout for patrols, particularly during the rainy season, continues to hinder us from consistently achieving our target of 4 patrol teams per patrol week. With low government salaries and the temptation of earning significant money from farming as food prices continue to rise, many

rangers would rather now avoid the previously mentioned hazards in the bush to work on their farms or other lower risk menial labour jobs.

RECOMMENDATIONS

1. With the rising insecurity in the region, we need to hold regular meetings with key stakeholders within the local government, including government officials, military, police to update each other on the latest intelligence and foster long term solutions.
2. Complete the process of renewal of the plane charter agreement. Regular aerial patrols play a crucial role in our conservation activity as it allows us to spot, people, smoke plumes and illegal livestock in locations where ground patrol teams may miss them. With the new threat of kidnappers, the plane may allow us to spot the hideouts of such individuals and help coordinate the efforts of the military to bring an end to this menace.
3. Collaring of the remaining Yankari lions to monitor their movements and provide closer ranger protection.
4. Place additional collars on the elephant herd as only two of the existing ones remain functioning and the batteries on these may fail at any time.
5. Government salaries for Yankari rangers are very low. Funds permitting, we would like to supplement salaries of Yankari rangers with a small top-up allowance each month to supplement their existing meagre salaries.
6. Recruit rangers on WCS salaries to bolster our patrol efforts and ensure we meet the targeted 48 patrols per quarter.

ACKNOWLEDGEMENTS

We are grateful to the Elephant Crisis Fund, the United States Fish and Wildlife Service, Lion Recovery Fund, Tusk Trust, Indianapolis Zoo, the Illegal Wildlife Trade Challenge Fund (DEFRA), the A.P. Leventis Conservation Foundation, the United States Agency for International Development (USAID), and the UNEP African Elephant Fund, for their support.

APPENDICES

Appendix 1: Two arrests made and court outcome July-September 2022

Date	Name	Location	Offence and exhibit	Village	Outcome
02/07/22	1. Bammo Alhaji Sale	Buri	Arrested for grazing livestock in reserve with cutlass, water bottles, torch.	Milin fulani	Sent five months in jail
16/08/22	2. Babawuro Mohammed	Maina Maji boundary	Arrested for grazing livestock in reserve with 1 knife, water bottle	Maina Maji	Sent 12 months in jail

Appendix 2: 27 Camping Patrols Completed July-September 2022

No	Area patrol	Patrol Start	Patrol End	Patrol Man Days
1.	Yalwan Duguri C/L, Hobbaje, Dagudi	08/07/22	12/07/22	35
2.	Libji, Kalban, Tankwalin rijiya, Jibrin Nayaya	13/07/22	20/07/22	56
3.	Daban Maje, Yalo track, Bogga, Malla Junction	13/07/22	20/07/22	56
4.	Hobbaje, Nata'ala, ABB, Shaman track	21/07/22	28/07/22	64
5.	Ruwan goggo, Bela yibi, Tungan Kiyashi, Jada	21/07/22	28/06/22	64
6.	Yalwan Duguri, Maina Maji, Antenna, Dagudi	21/07/22	28/07/22	64
7.	Faliyaram, Dukke Wells, Kuka, Gaji gamu	29/07/22	05/08/22	64
8.	Ahmadu Bello, Shaman, Jibrin Nayaya, Wikki	29/07/22	05/08/22	64
9.	Kalban, Yalwan Duguri, Kwafa, Shaman	29/07/22	05/08/22	64
10.	Shaman, Yalwan Duguri, Dukke, Jibrin Nayaya	06/08/22	13/08/22	56
11.	Libline 3, Borkono, Dauda Usman, Faliya Ram	06/08/22	13/08/22	56
12.	Tungan Kifi, Shau Shau, Kwala road, Bella Yibi	06/08/22	13/08/22	56
13.	Kalban, Buri, Tokwalin Rijiya, Libji	14/08/22	21/08/22	48
14.	Sir Gowan, Buri, Ahmadu Bello, Shaman	14/08/22	21/08/22	48

15.	Dagudi cutline, Kwafa, Kalban, Yalwan Duguri C/L	14/08/22	21/08/22	56
16.	Giwa Track, Ruwan Goggo, Malla Junction, Jada	14/08/22	21/08/22	56
17.	Dauda Usman, Shafa, Gaji Gamu, Gum	22/08/22	29/08/22	64
18.	Garangaran, Nata'ala, Maina Maji, Buri	22/08/22	29/08/22	64
19.	Antenna, Dukke Wells, Kuka C/L, Pali C/L	22/08/22	29/08/22	64
20.	ABB, Dauda Usman, Dogon Ruwa Bypass, Nata'ala	30/08/22	06/09/22	64
21.	Jibrin Nayaya, Kalban, Dagudi, Shaman	30/08/22	06/09/22	64
22.	Shau Shau, Gajin Gwaza, Ampara, Randal	30/08/22	06/09/22	64
23.	ABB, Buri tract, Dauda Usman, Kalban	07/09/22	14/09/22	64
24.	Kwala cutline, Kwafan Rimi, Randal, Bogga	07/09/22	14/09/22	64
25.	Gaji Gamu, Dagudi junction, Shafa, Libji	07/09/22	14/09/22	56
26.	Dukke wells, Hobbaji, Kwankwani, Buri	15/09/22	22/09/22	64
27.	Dauda Usman, Batta, Kariyo, Tungulum	15/09/22	22/09/22	64
28.	Debigi, Hawan Baba Ayuba, Dagudi, Shaman	15/09/22	22/09/22	56
29.	Kalban, ABB, Mai kogo, Jibrin Nayaya	15/09/22	22/09/22	56
30.	Wikki, Garangaran, Jada, Malla Junction	23/09/22	30/09/22	64
31.	Maina Maji C/L, Batta, Shaman, Kalban	23/09/22	30/09/22	64
32.	Libji, Kwafan dagudi, Buri, Jibrin Nayaya	23/09/22	30/09/22	64
33.	Pali C/L, Shaushau, Belayibi, Yalo track	01/10/22	08/10/22	56
34.	Faliyaram, Gobir C/L, Gwambaza, Maikonkoni	01/10/22	08/10/22	64
35.	Shaman, Kwanan dutse, Hobbaje, Shafa	01/10/22	08/10/22	64