



## YANKARI GAME RESERVE

WCS QUARTERLY REPORT: APRIL - JUNE 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 April to June 2022. A total of 2,090 patrol man days (33 patrols) were completed by rangers covering a total distance of 4,702km and as a result 19 people were arrested during the period (13 hunters, 5 for livestock grazing and 1 for harvesting honey). No elephant carcass was reported during the reporting period. Elephant crop raiding has reduced and was reported from Shafa community only during the period. To help the communities mitigate HEC, four watchtowers were built in two communities (Mainamaji and Kuka) to help the farmers stay safe and better protect their farms from marauding elephants. To further assist these 2 communities, 50 Kenyan Top-bar beehives have been produced to construct a beehive fence that will be donated to 10 chosen farmers with farms closest to the reserve boundary, to protect their farms from crop raiding elephants. We continue to track the elephants with the aid of the three remaining functioning satellite collars put on them to provide better protection and mitigate human elephant conflict issues.

Aerial patrols using a small Cessna plane hired from Private Flyers International, Kaduna was carried out (see picture below) and was able to monitor and mitigate against livestock incursions to secure the reserve for endangered species such as the lions and elephants to recover. The plane also flew in the neighbouring communities to help provide aerial surveillance to these communities as cases of kidnapping continue to occur intermittently around the reserve. A total of 10 aerial patrols (18.5 flying hours) were completed during the period. Fourteen livestock grazing incidences in the reserve were recorded by foot patrols during the period but with only 5 livestock grazers arrested because most of the grazers send in the cattle unaccompanied by humans. Five joint patrols with the army were completed to help build ranger morale and as show of force against criminals that might want to use the reserve as a hiding place. MIKE (Monitoring the Illegal Killing of Elephant) training for the rangers was completed. Approximately 50 rangers attended the training which emphasized the importance of personal safety and crime scene management around elephant carcasses, as well as how to age and sex an elephant carcass. The VHF radio system, crucial for communicating and monitoring patrols and vehicles, that was disrupted by a storm in February has been restored and is now operational again. Assessment of the water and sanitary facilities needs of communities around the reserve was completed during the period as part of the new USAID project. Rehabilitation of access tracks and the reserve boundary has been started.

The Yankari Landscape Director Nachamada Geoffrey left WCS after close to a decade of service and has been replaced by Nuradeen Ahmed (formally the Lion Project Manager)



*The Cessna soars above the reserve providing vital support to ground patrols, May 2022*

## **RESULTS AND DISCUSSION**

A total of 33 SMART-based patrols were organized during this period covering a total distance of 4,702km and 2,090 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 shortage of ammunition to organize more patrols and some of the patrol vehicles becoming very unreliable. Although 13 hunters and 5 grazers were arrested, maintaining and increasing the current efforts will yield greater results in future. Five joint patrols with the army were completed to boost ranger morale and to assure the surrounding communities of our commitment to partnering with other security agencies to keep Yankari and its surrounding communities safe. Eight aerial patrols using a Cessna hired from Private Flyers International, Kaduna was carried out during the period to help monitor elephant movement, chase cattle out of the reserve, and to help provide security to the neighbouring communities from armed men that may try to use Yankari as hiding place.

## **PATROL STRATEGY AND CAMPING PATROL SCHEDULE**

Four teams consisting of 6-7 rangers per team were sent out on camping patrol each week. With only 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



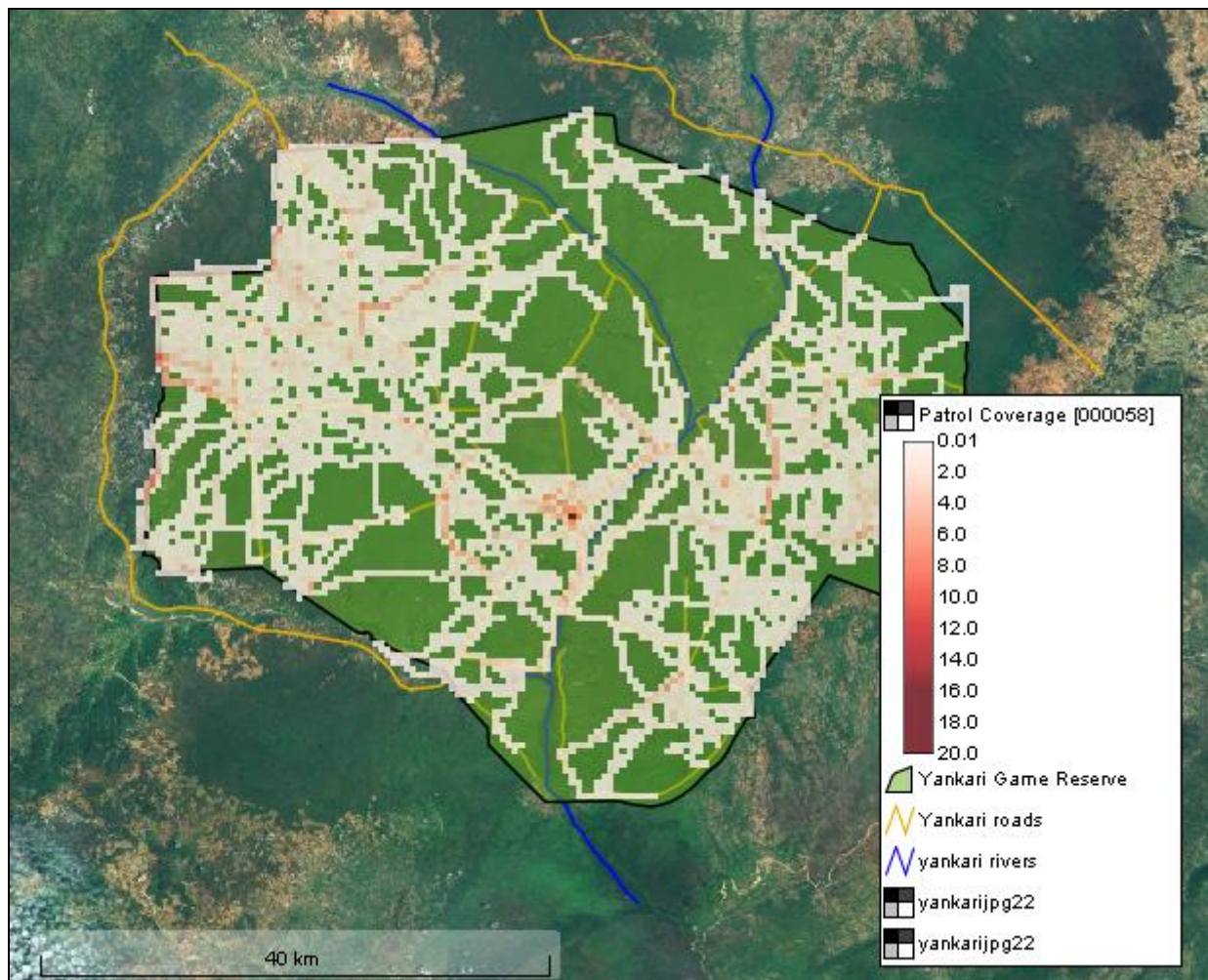
coordinates for every observation and analyzed using SMART software. Table 1 below summarizes the patrol data for the period.

### PATROL EFFORT

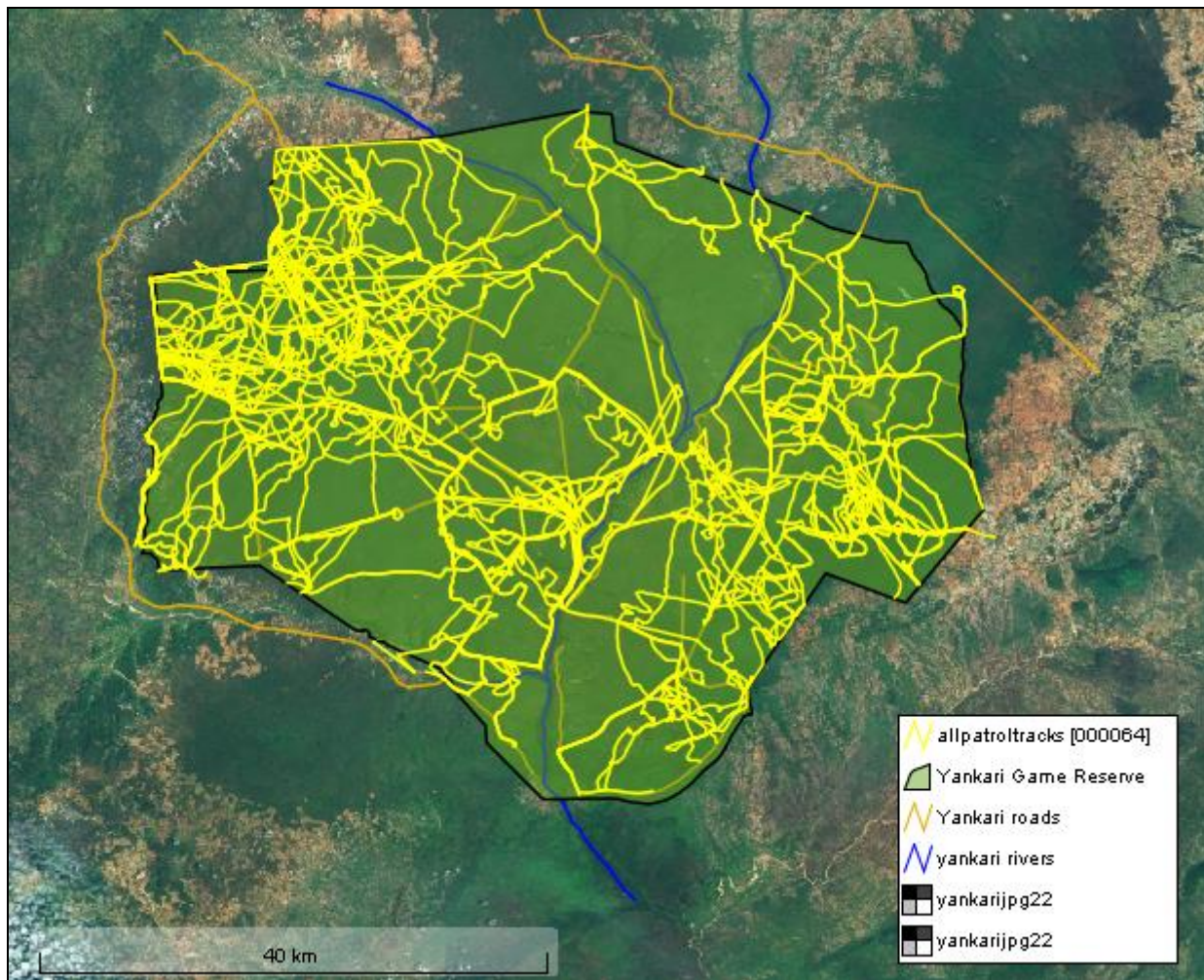
In *Map 1*, the darker red part of the grid map indicates areas that have been more frequently patrolled, the grey portions represent areas that were less patrolled while the un-shaded parts of the grid represent areas that were not patrolled during the reporting period.

**Table 1. Summary of patrol effort for the period October to December 2021**

<i>No of Patrols</i>	<i>Distance (km)</i>	<i>Hours</i>	<i>No of Days</i>	<i>Patrol Man Days</i>
33	4,702	1,745	205	1,416



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



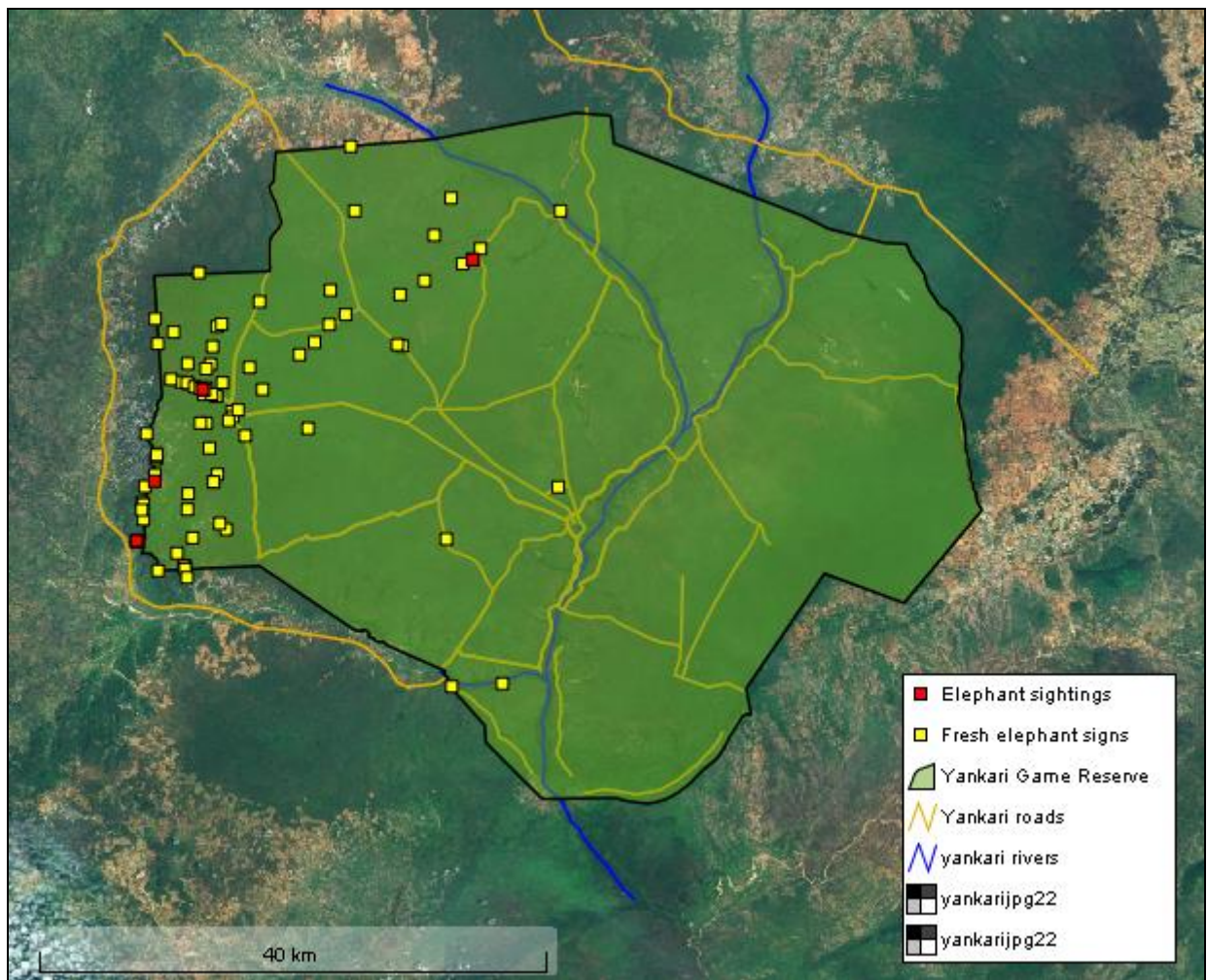
*Map 2: Patrol track logs for April-June 2022*

## **ELEPHANT CONSERVATION**

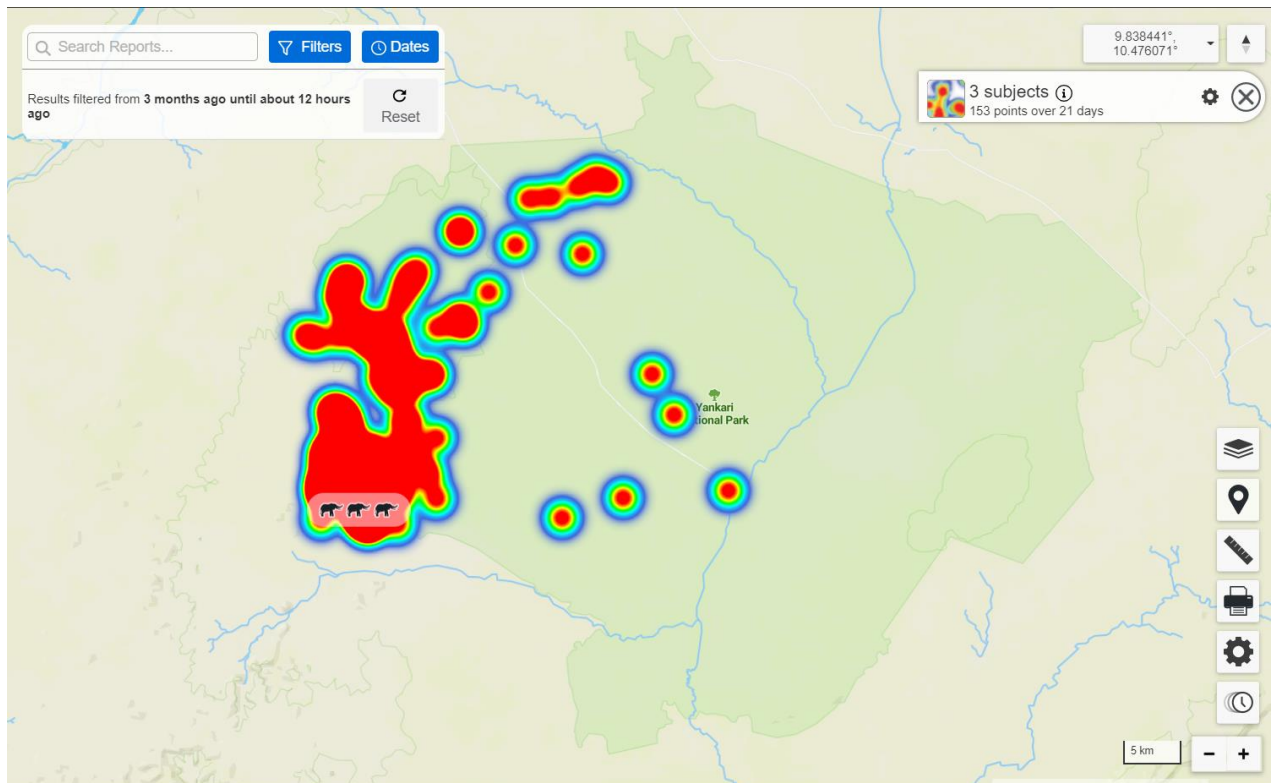
Fresh (1-3 days old) elephant signs and elephant sightings were recorded in the reserve during ranger patrols, see Map 3 below. Crop raiding by elephants was reported from Shafa community only during the reporting period, as the rainy season is just commencing, and most farms are currently being planted. 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 made 50 beehives that will be used to construct hive fences in the same two communities where the elephants habitually leave the reserve to enter farmlands, to trial its effectiveness in deterring marauding elephants. We continue to track the elephants with the aid of three 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 western to south-western part of the reserve and we suspect that with the onset of the rainy season, many watering holes in those areas are starting to fill up. The region also has very dense vegetation and hills and valleys they likely feel safe in as well as a plentiful supply of ripening fruits of the Fan palm (*Borassus*



*sambiranensis*) which they relish based on dung evidence. The other spots of activity closer to the centre of the reserve are from earlier in the period when the elephants were still largely dependent on the river as the only permanent water body in the reserve.



*Map 3: Elephant activities recorded by all ranger patrols April-June 2022*



*Map 4: Heat map for elephant movement from satellite collar recorded during April-June 2022*



*The Top-bar hives dry in the sun after receiving their donor branding.*

## **LION CONSERVATION**

No lion signs were recorded by ranger patrol and no reports of lion vocalizations were received during the period. The four lion collars purchased with funding from Lion Recovery Fund have arrived in Yankari (see photo below) and collaring is planned for January 2023 after the grasses have been burnt.



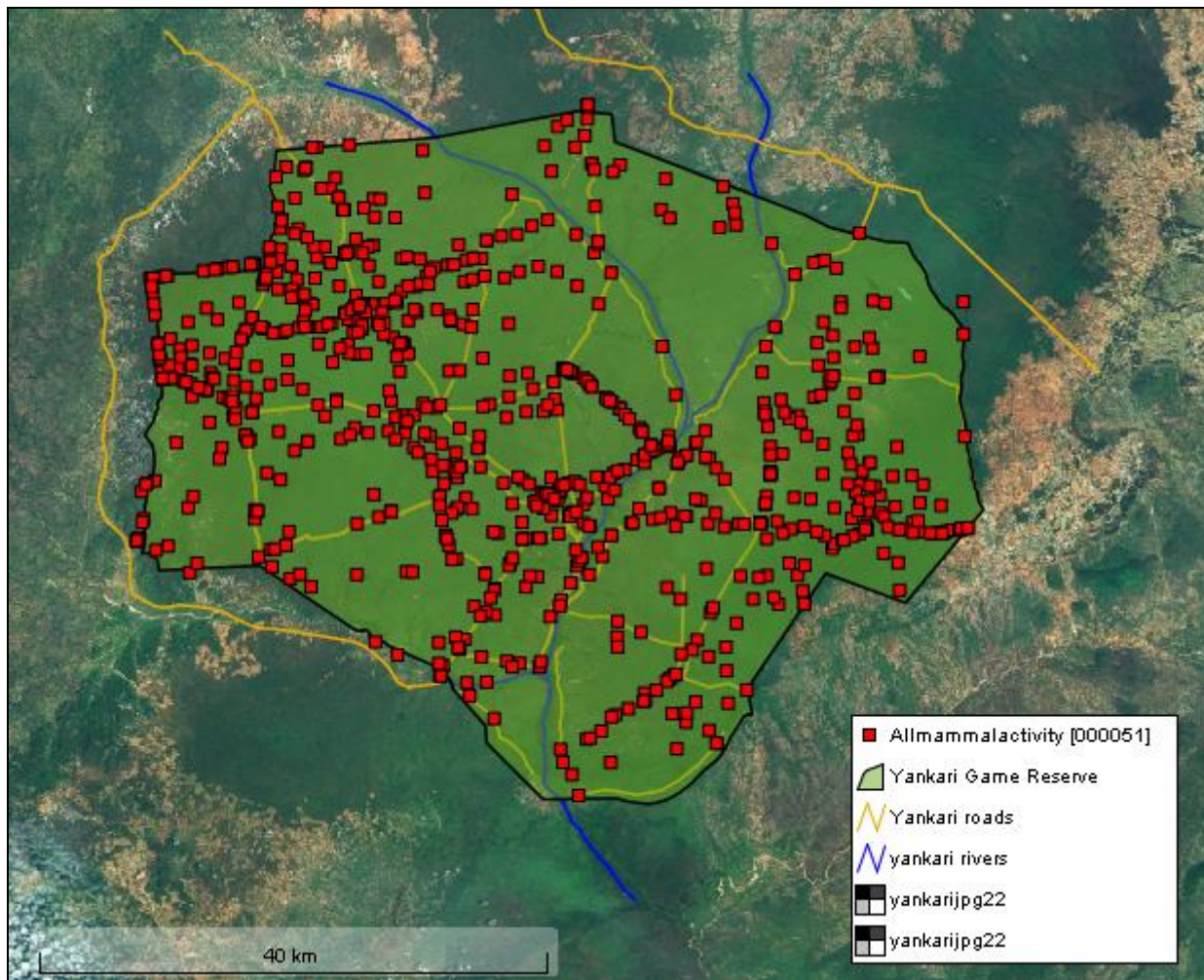


*Lion collars ready for fitting on the animals later this year.*

#### **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, tanzania monkey, bushbuck and warthog.

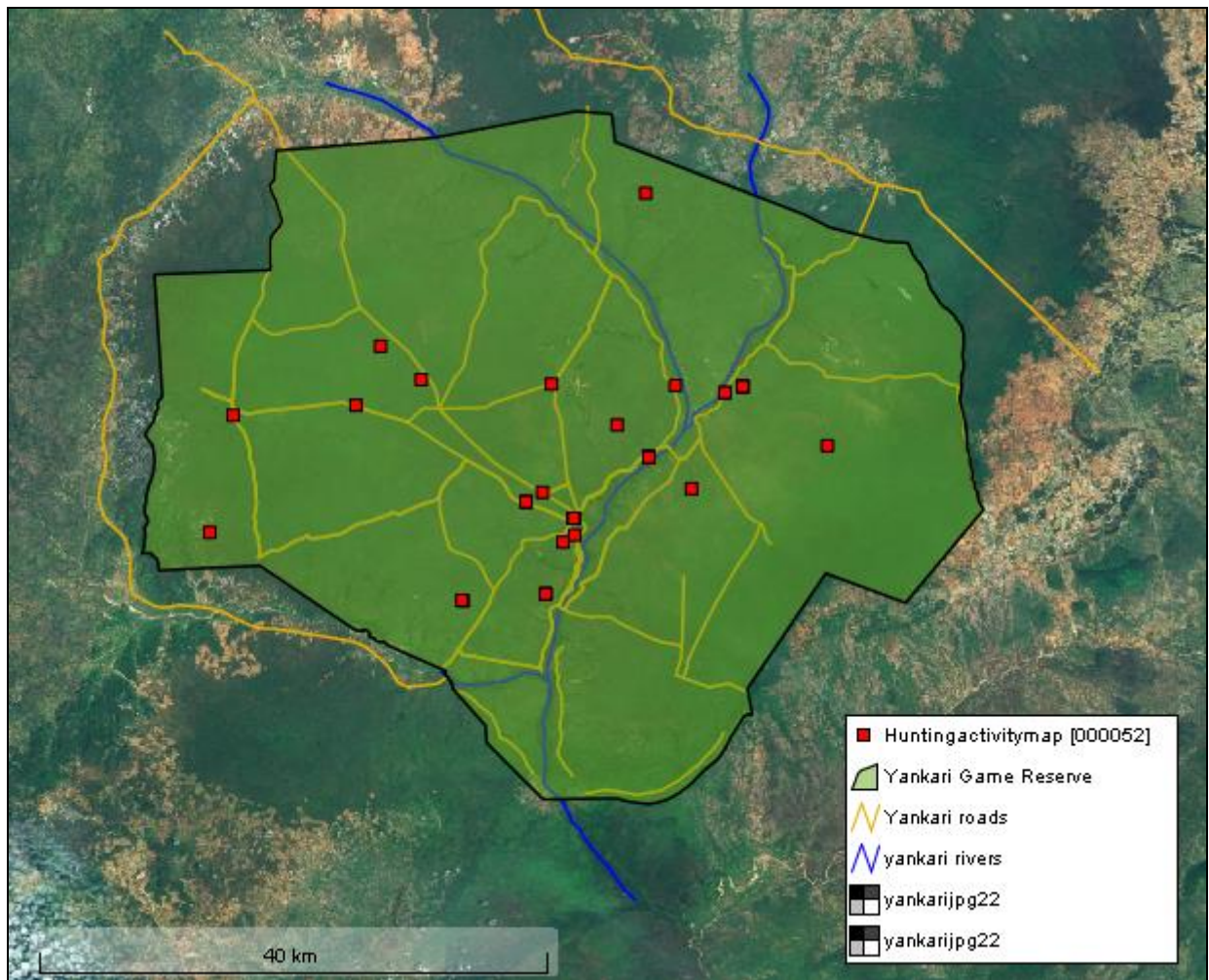




*Map 6: Location of All Other Mammal Sightings April-June 2022*

## **HUNTING EVIDENCE**

Although thirteen hunters were arrested during the period, hunting pressure is much reduced in the reserve see Map 7 below. 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. Additionally, the importance of intelligence and the VHF radio enables us to send patrols where it is needed most. Hopefully, with the revisions to the outdated wildlife law at an advanced stage, and the tougher punishments that it proposes, we should see further reductions in illegal activities in the reserve.

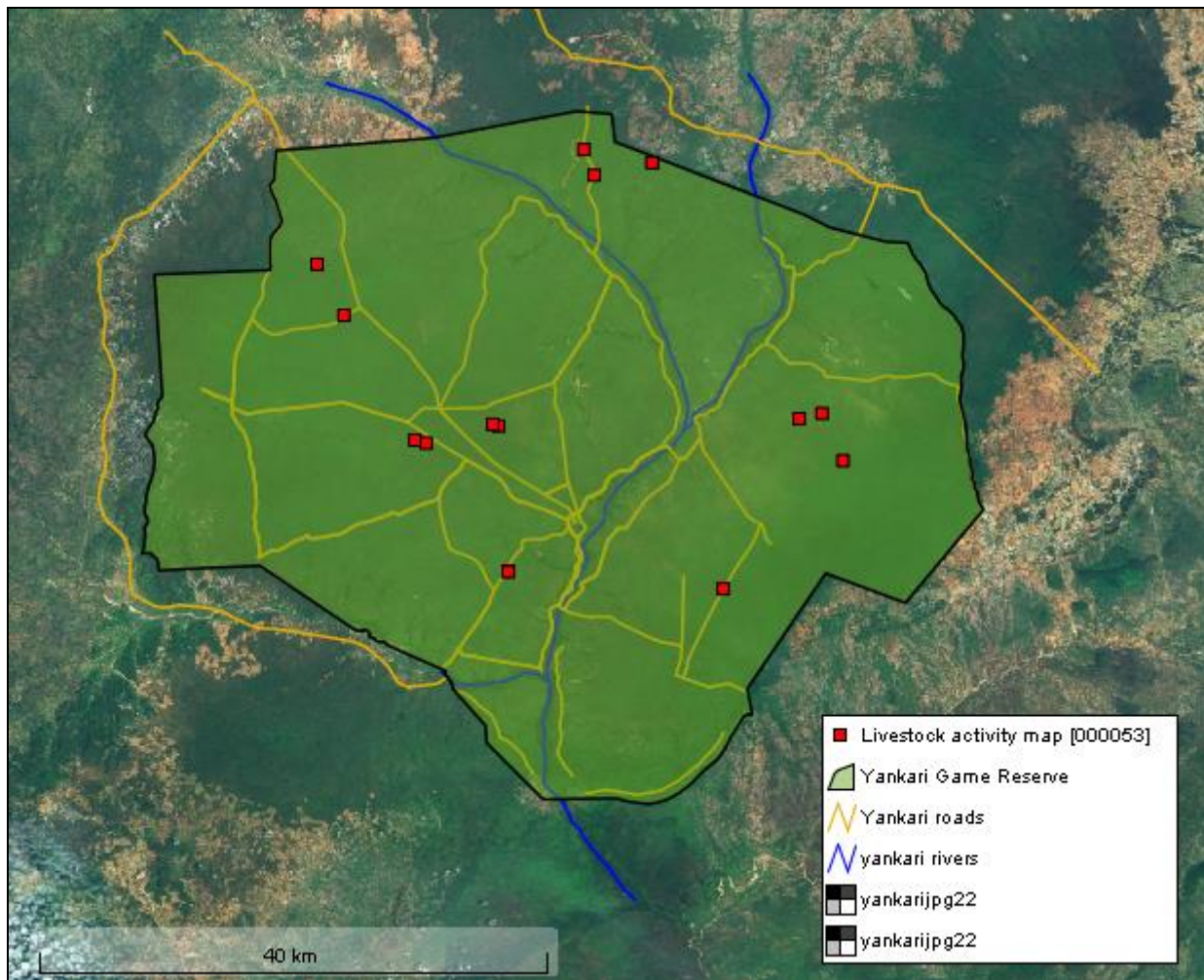


*Map 7: Hunting activity recorded by all ranger patrols April-June 2022*

### **LIVESTOCK GRAZING**

Several livestock incursions in the reserve were recorded from the plane and some others were recorded by foot patrols during the period (see map 8 below). Although, five arrests were made for livestock grazing offences in the reserve during the reporting period, the rate of livestock grazing in the reserve has also reduced considerably because rangers have dominated the reserve with continuous patrols, aerial support, constant supervision and zero tolerance to corruption.





*Map 8: Livestock Grazing Activity Recorded by All Ranger Patrols October-December 2021*

## **OTHER ACCOMPLISHMENTS DURING THE REPORTING PERIOD**

### **Construction of Rangers Muster Hall at Wikki Camp**

We have continued the development of facilities and infrastructure for our rangers to improve and increase the efficiency of their job with the construction of a muster hall at our ranger barrack. The hall is a multi-function centre that will be used for meetings, briefings, lectures and recreation. The hall is a semi open structure and has a sitting capacity of 80 to 100 persons with a buffer area allowance for lecture podium or multi-media presentation space. It is soon to be furnished with wooden benches with integral desks for trainings and lectures.



The new muster hall at Wikki camp rangers barrack, May 2022.

### **Rehabilitation of access roads and reserve boundary**

As part of our ongoing support to the Bauchi State Government and our commitment to maintaining our law enforcement efforts at Yankari, we have hired a grader this period to begin the process of rehabilitating some of the patrol tracks and boundaries (see picture below). The improvement of the patrol tracks will help to reduce the rapid deterioration of our patrol vehicles as some of the tracks are very challenging even for 4x4 vehicles. The grader has cleared approximately 14km of track in the area it is working so far.

Redefining the boundary will help to stop the ever-growing threat of farm encroachment as the surrounding communities grow and the demand for more farmland increases.





The hired grader rehabilitates tracks in Yankari Game Reserve, June 2022

### **Assessment of existing WASH infrastructure around Yankari**

The communities surrounding Yankari are key stakeholders for the long-term survival of the reserve. With Funding from USAID, WCS is seeking to address some of the basic needs of these communities by helping them gain some security in potable water sources and basic hygiene facilities. During the reporting period, the WCS WASH specialist Eutyclus John, together with the Yankari Project Manager, Nuradeen Ahmed, visited over 30 communities surrounding the Yankari Game Reserve, and the condition, number, and state of existing WASH facilities were noted. The demographics of the community size and spread were also noted in relation to any existing facilities. This information will be used to design a strategy for the implementation and to prioritise the communities most in need of these interventions.



*WCS WASH Specialist, Mr. Eutyclus John, discussed WASH facility needs with community members in Dan village.*

### **VHF Radio repair**

After a 5 month period without our VHF radio, we were finally able to get the engineer over from Kenya to restore this vital communication system that was disrupted following a storm early this year. The importance of the radio system to our conservation efforts cannot be over-emphasized because it allows us to monitor and communicate with our patrol teams and vehicles in real time. We can coordinate teams to respond to any intelligence of poaching activity or other threats that we receive as well as giving us a fast way to get help to rangers in case of any emergency.

### **MIKE Training**

We provided a training session for rangers revolving around the subject of elephant crime scene management. Around fifty rangers participated and it was a lively and interactive session after which many of them commented that they had gained a lot of knowledge. Topics covered included the importance of minimizing contamination of crime scenes, preservation of evidence, determining cause of death and aging carcass.





Rangers participate in the MIKE training, June 2022

## CHALLENGES FACED

- **Problems with Patrol Vehicles.** Some of the existing patrol vehicles break down frequently while on patrol. Only two of the vehicles used to support ranger teams while on patrol are reliable. This is due to overuse, bad road network and frequent breakdown.
- **Lack of Payment of Counterpart funding by the Bauchi State Government (BASG).** WCS is still waiting to receive counterpart funding from the BASG for over fifty months now. The lack of payment of the funds by the state government has put pressure on the limited funds WCS has and made it tough to sustain current patrols and impossible to increase the patrols.

## RECOMMENDATIONS

1. Bauchi State should provide some financial support to augment WCS's effort so that Yankari can be better protected.
2. Collaring of the remaining Yankari lions to monitor their movements and provide closer ranger protection.
3. Place additional collars on the elephant herd as many of the existing have gradually stopped working over the last few months and some have dropped off the animals and were found by patrol teams. The batteries on the current ones may fail at any time.
4. 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.

**ACKNOWLEDGEMENTS**

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



## APPENDICES

### *Appendix 1: Eight Arrests Made and Court Outcome April-June 2022*

Date	Name	Location	Offence and exhibit	Village	Outcome
09/04/22	1. Isyaku Mohammed	Jada	Arrested for hunting in the reserve with 1 Dane gun, ammunition, 1 cutlass, and food items	Gagara Bami	Sent four months in jail
13/04/22	2. Mohammed Adamu 3. Musa Usman	Kwanan dutse	Arrested for hunting in the reserve with 2 dane guns, ammunition, 1 cutlass, 1 knife	Masuri/Fanti	Sent eighteen months in jail
23/04/22	4. Usman Saleh 5. Gibir Adamu 6. Mohammed Rabi Mallam Sambo	Mawulgo	Arrested for hunting in the reserve with 1 Dane gun, ammunition, 1 cutlasses, 1 knife, 2 cellphones, smoked duiker meat, guinea fowl head, honeycomb	Yalwan Duguri	Sent twenty four months in jail.
05/05/22	7. Idi Mohammed Shanono 8. Sani Shamama 9. Babangida Najaya	Gale boundary	Arrested for hunting in the reserve with 2 dane guns, ammunition, 1 cutlass, 2 knives, foodstuff	Bangaje	Sent to jail four months
07/05/22	10. Abdullahi Danlami 11. Mohammed Nura	Lib line 3	Arrested for hunting in the reserve with 2 dane guns, ammunition, 2 knives, 1 cutlass and foodstuff.	Kafi	Sent to jail 24 months
11/05/22	12. Bala Garba	Mai dawa	Arrested for hunting in the reserve with 3 dane guns, ammunition, 2 cutlasses, 1 knife and foodstuff	Dogon Ruwa	Sent to jail 18 months
12/05/22	13. Adamu Alhaji Boderi 14. Manu Alhaji Boderi	Jibrin Nayaya	Arrested for grazing livestock in the reserve with 2 cutlasses	Yobe State	Sent to jail 11 months.

28/05/22	15. Shafi'u Alhaji Auta 16. Lawali Ali	Yalo area	Arrested for grazing livestock in the reserve with 1 cutlass	Yalo	Sent to jail 8 months
05/06/22	17. Amadu Babayo	Buri	Arrested for harvesting honey in the reserve with an axe and a plastic bucket	Milin Fulani	Sent to jail 19 months
05/06/22	18. Sallau Yunusa	Buri	Arrested for hunting in the reserve with 2 dane guns, ammunition, 1 knife and 1 cutlass	Milin Fulani	Sent to jail 11 months
14/06/22	19. Abbakar Abdulmumini	Tungan baki	Arrested for grazing livestock in the reserve with 1 cutlass	Rimi	Sent to jail 6 months

*Appendix 2: 27 Camping Patrols Completed April-June 2022*

No	Area patrol	Patrol Start	Patrol End	Patrol Man Days
1.	Karyo hill, Kwala way, Dogon Kurmi, Giwa track	07/04/22	14/04/22	64
2.	Faliyaram, Bultu, Shaman, Tokolin rijiya	07/04/22	14/04/22	64
3.	Dauda Usman, Shafa, Jibrin Nayaya, Kwafan dagudi	07/04/22	14/04/22	56
4.	Hawan B/Ayuba, Kalban, Yalwan duguri, Antenna	15/04/22	22/04/22	56
5.	Kwan-kwani, Salt lick B, Adamu Jumba, Yalo	15/04/22	22/04/22	48
6.	Bogga, Kwanan kirya, Mai kogo, Ruwan Rakumi	17/04/22	28/04/22	64
7.	Shehu Maska, Gale, Jarkasa, Randel	23/04/22	28/04/22	56
8.	Gwambaza, Mawulgo, Guruntum, Lib line 3	23/04/22	28/04/22	56
9.	Buri, Jibrin Nayaya, Shafa, Maina Maji	23/04/22	28/04/22	48
10.	Ahmadu Bello Way, Dagudi, Main maji,	29/04/22	04/05/22	64
11.	Kalli Imam, Malla Junction, Tungan Kiyashi, Jada	05/05/22	12/05/22	64
12.	Garangaran, Mai dawa, Dagudi area, Kwala Road	05/05/22	12/05/22	64
13.	Duguri, Gaji, Mai konkoni,	05/05/22	12/05/22	64



14.	Libji, Tungan Kiyashi, Bogga, Dalamiri	13/05/22	20/05/22	56
15.	Kalban, Tunlong, Shaman	13/05/22	20/05/22	56
16.	Twin bridge, Kwala, Shau Shau, Pali	13/05/22	20/05/22	56
17.	Kalban, Buri, Ahmadu Bello way	13/05/22	20/05/22	56
18.	Faliyaram, Dogon kurmi, Sir Kashim	21/05/22	28/05/22	48
19.	A.B.B, Gajin Gwaza, Tungulun, Kuturun kuka	21/05/22	28/05/22	48
20.	Pali, Shau-Shau, Randal, Bogga	21/05/22	28/05/22	56
21.	Kwafan Gaji, Mai Kwankwani, Nata'ala	21/05/22	28/05/22	56
22.	Randel, Shagamu, Antenna, Kuka cutline	28/05/22	05/06/22	48
23.	Salt lick B, Tukurwa, Dogon Ruwa, Dukke Wells	28/05/22	05/06/22	48
24.	Shaman area, Bakin Dutse, Gaji Gamu	28/05/22	05/06/22	56
25.	Hawa kantanawa, Maina Maji cutline, Mai dawa	28/05/22	05/06/22	48
26.	Kilometer 7, Barkono area, Karyo, Tungulun	06/06/22	13/06/22	48
27.	Walakerol, Rimi, Gale cutline, Kwala road	06/06/22	13/06/22	48
28.	Kwafan Rimi, Buri, Antenna, Shafa	06/06/22	13/06/22	56
29.	Kalban, ABB, Dogon Kurmi,	06/06/22	13/06/22	48
30.	Hawan Baba Ayuba, Jar kasa, Bogga	14/06/22	21/06/22	56
31.	Faliya ram, Jibrin nayaya, Gwambaza	14/06/22	21/06/22	56
32.	Kani, Gaji Gamu, Kwafan Dagudi	14/06/22	21/06/22	56
33.	Dukke Wells, Gaji Gamu, Kuka cutline	22/06/22	29/06/22	56
34.	Borkono, Sir kashim, Mill 9	22/06/22	29/06/22	56
35.	Wikki, Jar kasa, Malla junction, Libji	22/06/22	29/06/22	56
36.	Kwafan Dagudi, Shaman, Yalwan Duguri cutline	30/06/22	07/07/22	48
37.	Bolan Muazu, Karyo, Tungan Kiyashi	30/06/22	07/07/22	48
38.	Garangaran, Ruwan gogo, Yalo track	30/06/22	07/07/22	56