



YANKARI GAME RESERVE

WCS QUARTERLY REPORT: APRIL-JUNE 2021



WCS Nigeria

A Wildlife Conservation Society Program

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SUMMARY

This report describes law enforcement efforts and SMART-based ranger patrols managed by WCS in Yankari Game Reserve for the period April to June 2021. A total of 1,960 patrol man days (38 patrols) were completed by rangers covering a total distance of 5,007km and as a result thirteen people (12 hunters and 1 firewood collector) were arrested during the period. One elephant died as a result of injuries it sustained from gunshot wounds. Elephant crop raiding cases were reported from Gum, Shaffa, Dagudi, and Gaji communities. We continue to track the elephants with the aid of the satellite collars put on them to provide better protection and mitigate human elephant conflict issues. Several livestock grazing incidences in the reserve were recorded during the period. A team of consultants completed social surveys/community needs assessments around Yankari Game Reserve, to be used to develop a livelihood support strategy (see picture below) and discuss other ways that the communities and the reserve can coexist in harmony, the report is currently in preparation. A 4x4 Land Cruiser to support ranger patrols was purchased with support from the Elephant Crisis Fund.



Consultants conducting livelihood survey, April 2021

RESULTS AND DISCUSSION

A total of 38 SMART-based patrols were organized during this period covering a total distance of 5,007 km and 1,960 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 funds and firearms to organize more patrols. Although a total of twelve hunters were arrested, hunting is now mainly opportunistic as hunters only enter the reserve for a few hours as their chances of being detected and arrested is higher. However, the current efforts needs to be sustained and possibly improved upon. Six joint patrols with the army were completed to boost ranger morale and to assure the surrounding communities of our commitment and partnership with other security agencies to work together and keep Yankari and the surrounding communities safe.

PATROL STRATEGY AND CAMPING PATROL SCHEDULE

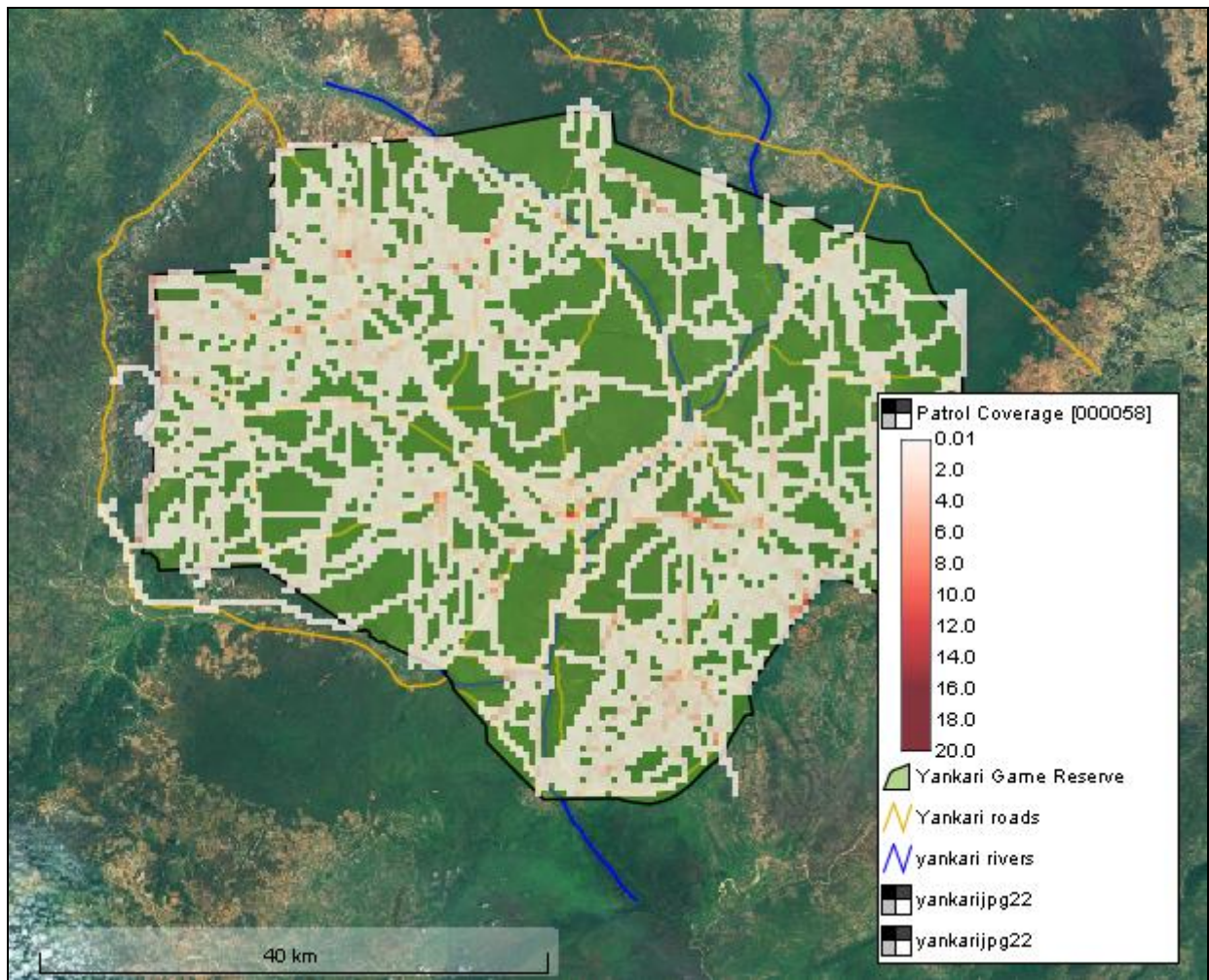
The number of firearms and vehicles available limits the current patrol strategy. Currently, we can only organize four camping patrols each week. Four teams consisting of 6-7 rangers per team were sent out on camping patrol. We improved from seven days patrol that were previously done to eight days so that rangers can spend more time out on patrols and to enable us switch the patrol end and start days weekly. 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 patrols are sent to those areas as well. This strategy has also enabled us to focus more attention on the remaining elephants. There were no fixed camping locations, instead rangers continuously change their location overnight both to increase the area coverage but also to minimize the risk of the camp being discovered by poachers and attacked. Data is collected using handheld computers running CyberTracker software which automatically records GPS coordinates for every observation. Data were analyzed using SMART software. Table 1 below summarizes the patrol data for the period.

PATROL EFFORT

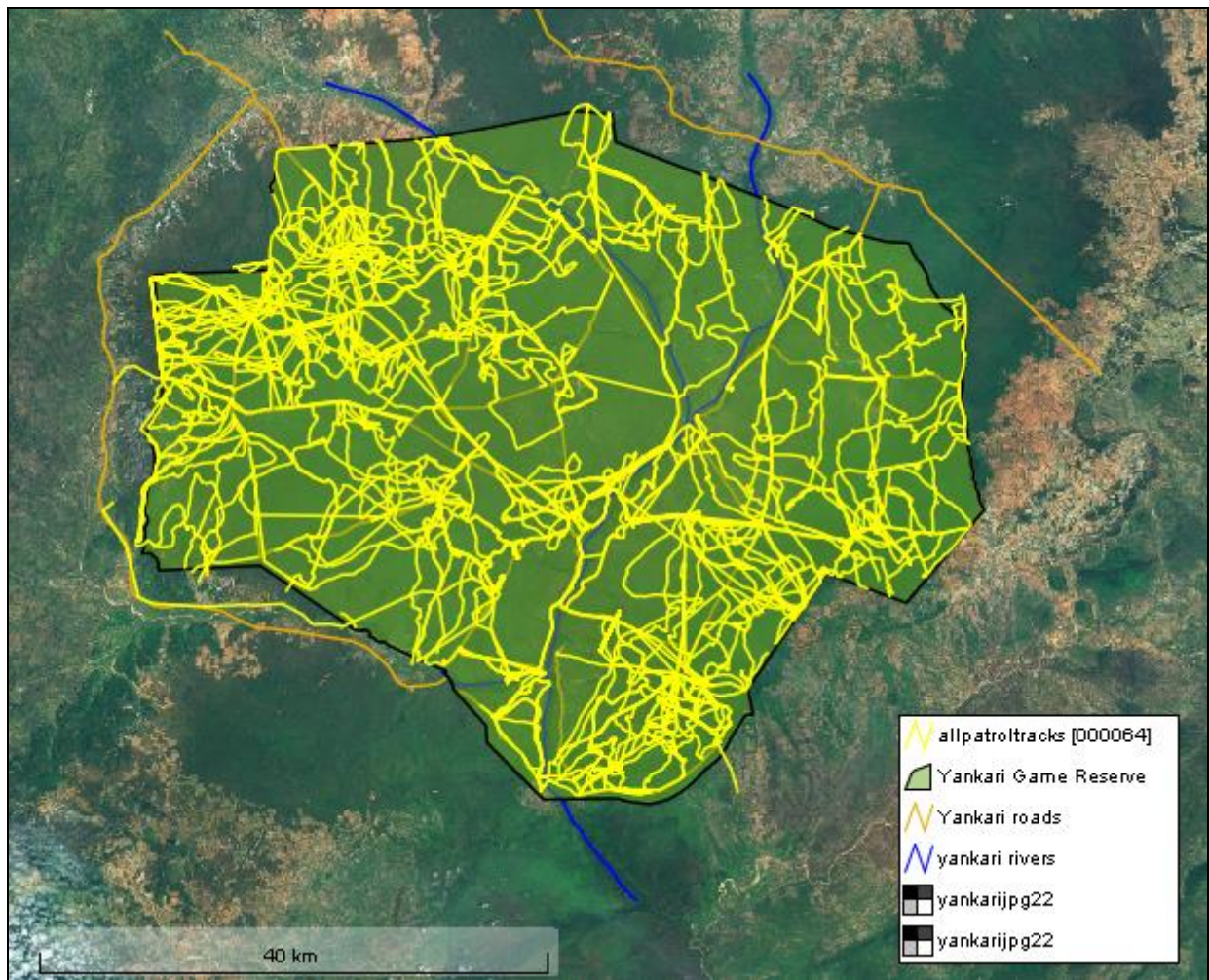
In *Map 1*, the darker red part of the grid map indicates areas that have been more frequently patrolled, the grey portions represent areas that were less patrolled while the un-shaded parts of the grid represents areas that were not patrolled during the reporting period.

Table 1. Summary of patrol effort for the period April to June 2021

<i>No of Patrols</i>	<i>Distance (km)</i>	<i>Hours</i>	<i>No of Days</i>	<i>Patrol Man Days</i>
38	5,007	5,608	304	1,960



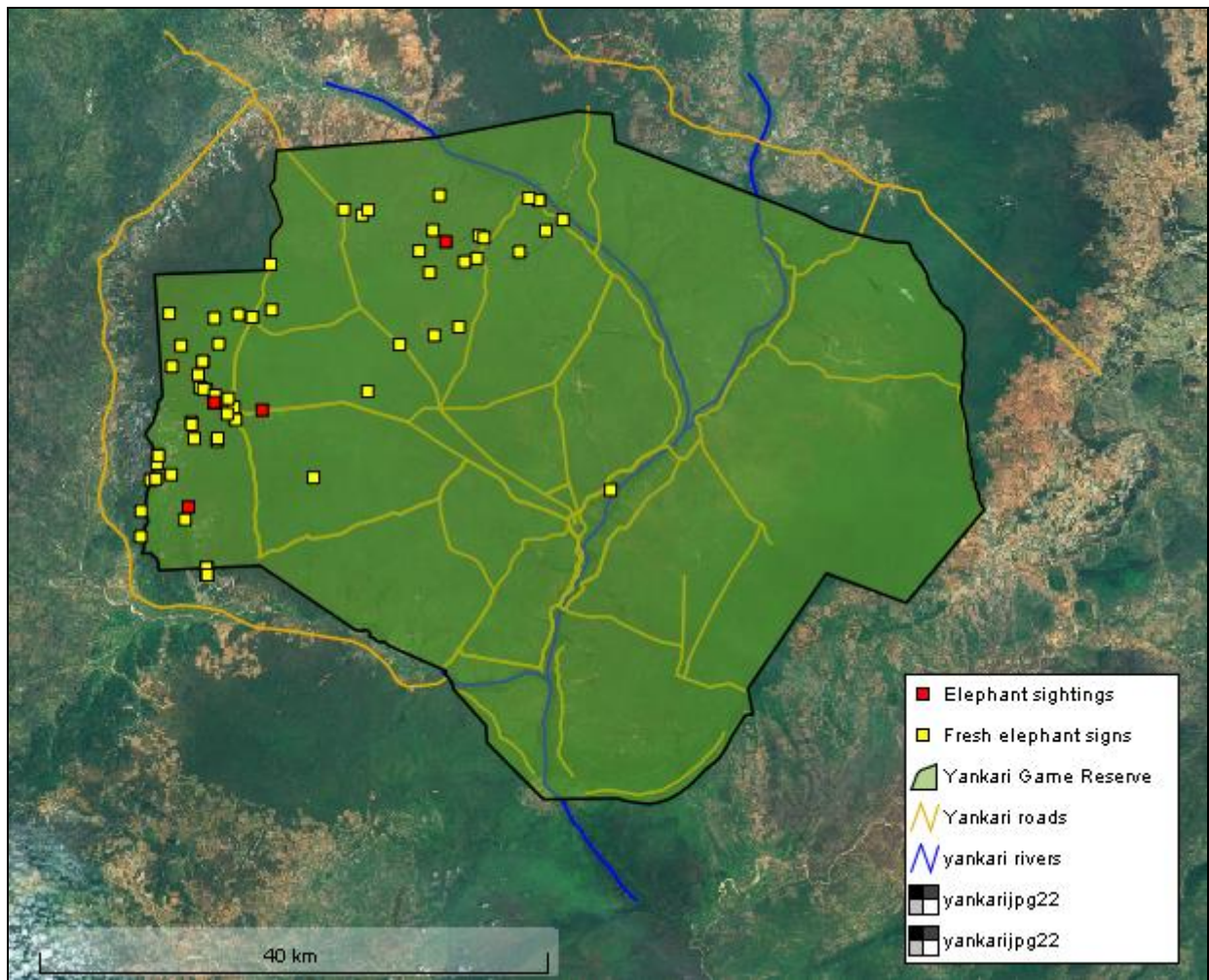
Map 1: Patrol effort in km walked per grid cell for April-June 2021. Darker red colour indicates areas of more intense patrol coverage.



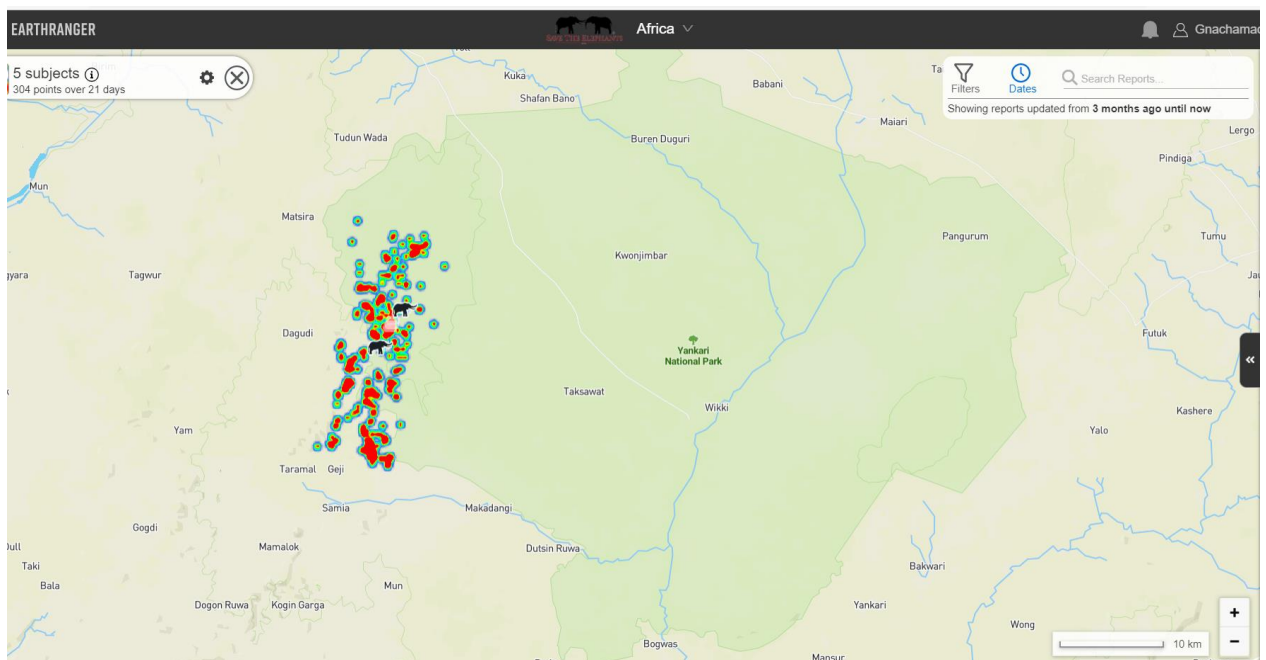
Map 2: Patrol track logs for April-June 2021

ELEPHANT CONSERVATION

Fresh (1-3 days old) elephant sign and elephant sighting was recorded in the reserve during ranger patrols, see Map 3 below. Crop raiding by elephants was reported from Gum, Shaffa, Dagudi, and Gaji communities. Rangers were sent to the areas concerned, although typically elephants raid crops overnight and by the time the rangers arrive the following morning the elephants have already left and returned to the reserve. We continue to track the elephants with the aid of the satellite collars put on them to provide close protection and mitigate human wildlife conflict issues. Data from the collars on the heat map 4 below shows that collared elephants stayed in the NW part of the reserve same thing they did around this season last year. The heat map is very informative since it is able to show us where the elephants have spent more or less time over the period. Collared elephants did not go to other parts of the reserve during the period although there is one fresh sign recorded by ranger patrols in the central part of the reserve, which is likely from a herd that is not collared.



Map 3: Elephant Activities Recorded by All Ranger Patrols April-June 2021



Map 4: Heat Map for Elephant Movement from Satellite Collar Recorded during April-June 2021

LION CONSERVATION

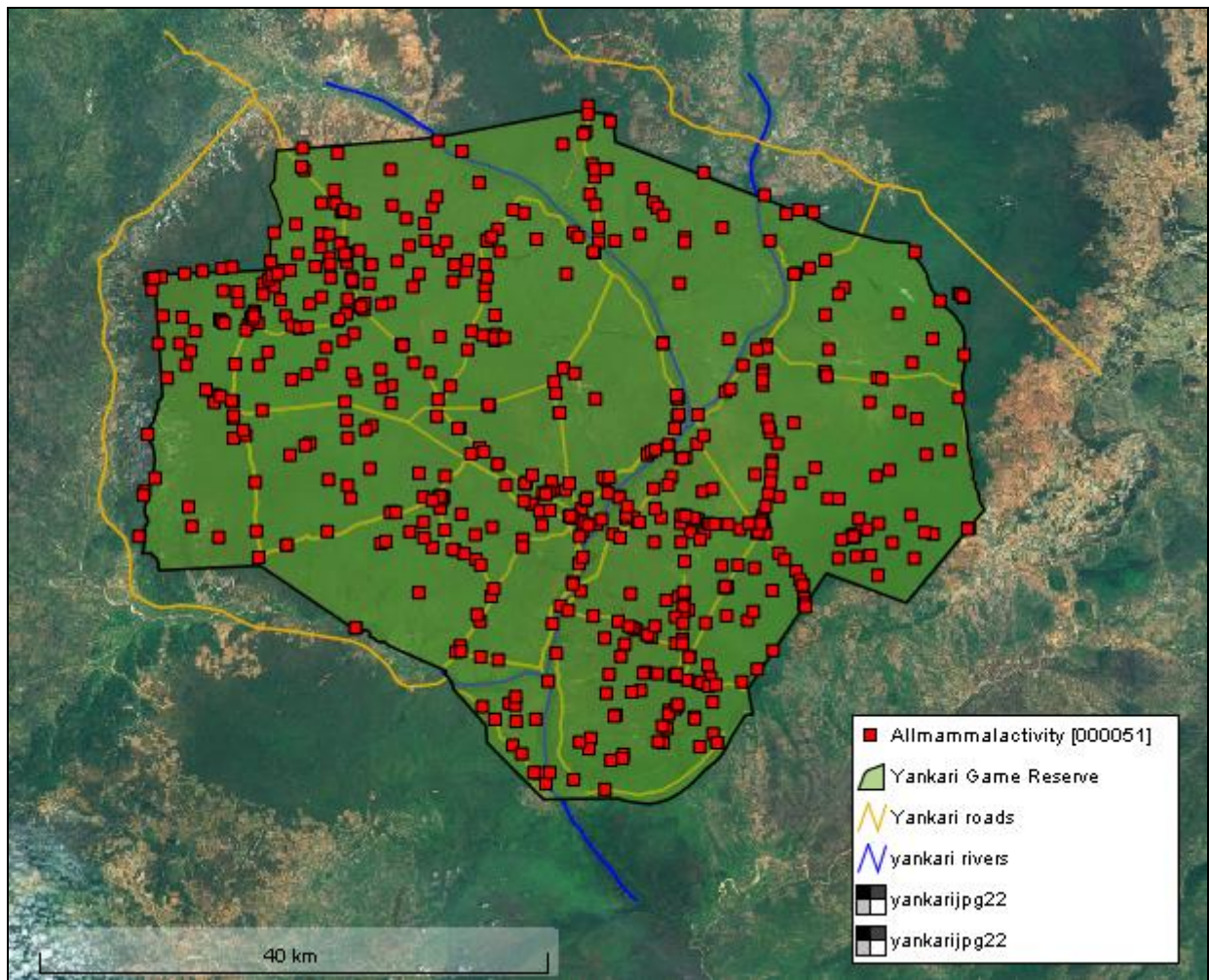
No fresh lion sign was reported by ranger patrols during the period. Fresh lion sign meant sign that is 1-3 days old. Lion roaring was reported twice at night from the Wikki camp. We have put out camera traps in those locations as well as other parts of the reserve. We are planning to put collars on lions before the year runs out.

ALL OTHER MAMMAL SIGHTINGS

Various other large mammals were sighted within the reserve (see Map 5 below) including hippos, baboons, waterbuck, roan antelope, buffalo, hartebeest, patas monkey, tantalus monkey, bushbuck and warthog.



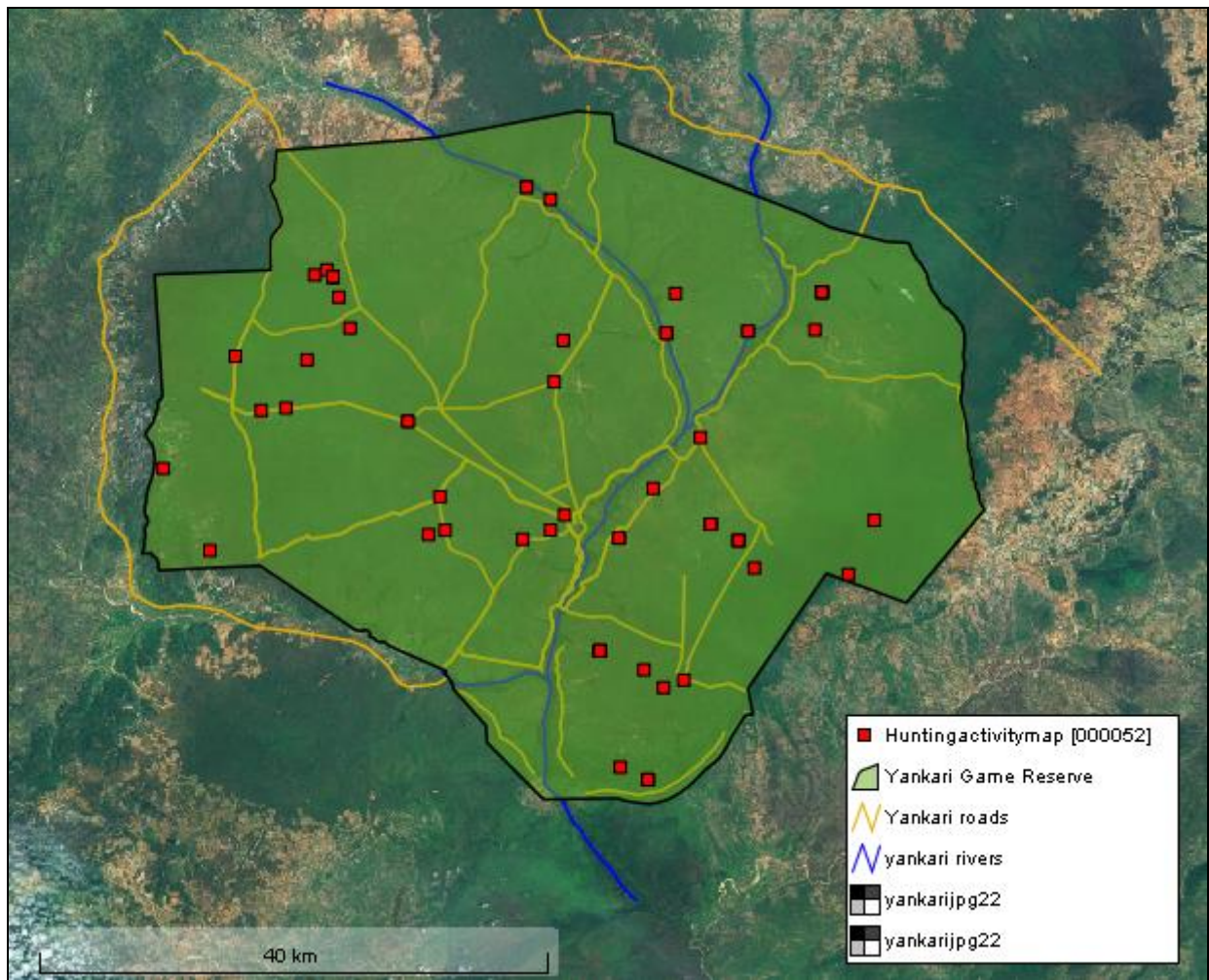
Camera trap photo of roan antelope, June 2021



Map 5: Location of All Other Mammal Sightings April-June 2021

HUNTING EVIDENCE

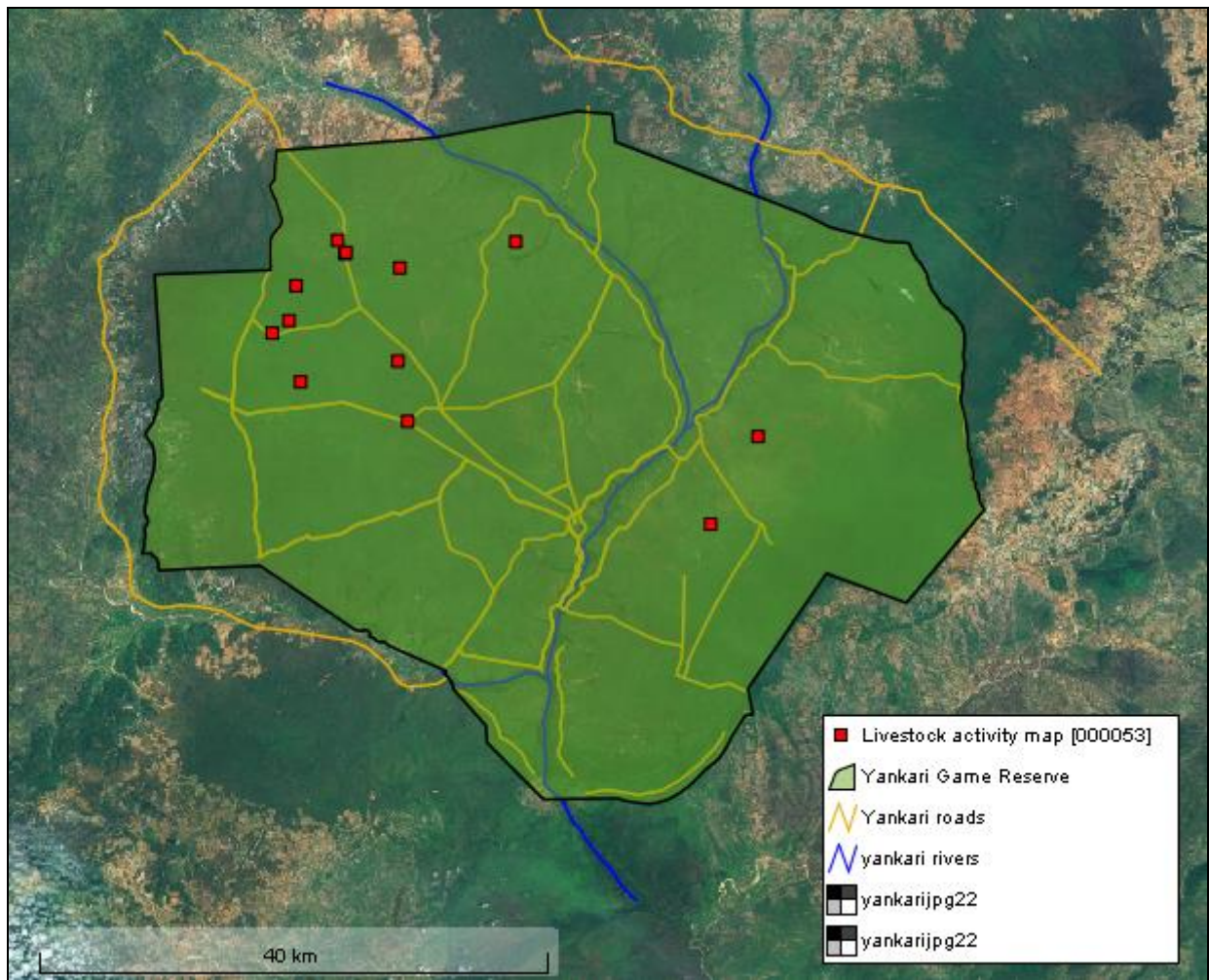
Although twelve (12) hunters were arrested during the period, hunting pressure has significantly been reduced in the reserve. The hunters now only hunt opportunistic and are afraid of staying for long periods hunting in the reserve. Continuous ranger training and the provision of allowances, bonuses, food rations, kits and equipment has built the morale of the rangers. Additionally the importance of intelligence from the communities cannot be overemphasized. Unfortunately, the outdated wildlife law does not provide sufficient deterrent to poachers. We are working closely with the government to revise the wildlife law to provide tougher punishment that will serve as deterrent. Hunting signs recorded this period are shown in Map 6 below.



Map 6: Hunting Activity Recorded by All Ranger Patrols April-June 2021

LIVESTOCK GRAZING

Twelve livestock grazing activities in the reserve were recorded during the period (see map 7 below). No 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 because rangers have dominated the reserve with continuous patrols and constant supervision.



Map 7: Livestock Grazing Activity Recorded by All Ranger Patrols April-June 2021

CHALLENGES FACED

- **Outdated wildlife law and the lack of deterrent.** The Yankari protection law is outdated and the penalties need strengthening to act as a deterrent. If there are tough enough jail sentences to offenders as deterrent, hunting pressure would be mitigated.
- **Problems with Patrol Vehicles.** The four vehicles we have which help to support ranger teams while on patrol are old now 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 forty (40) 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.
- **Firearms.** The firearms that the rangers use are old now and would need replacement and if possible an upgrade from using shotguns to rifles.
- **Elephant crop raiding and human-elephant conflict.**
- **Lack of proper real time communication** between the ranger teams on patrol and the operations room. Since the mast on which our antenna for the VHF radio system was knocked down by heavy winds about a year ago, proper communication between ranger teams on patrol and the operations room has become difficult. Rangers have to depend on mobile network on their cell phones which is not available in most parts of the reserve. We now have approval from Airtel to allow us use their masts to reinstall our radio system and the equipment are currently been purchased.

RECOMMENDATIONS

1. Purchase new patrol vehicles.
2. Revise the wildlife law.
3. Bauchi State should provide some financial support to augment WCS's effort so that Yankari can be better protected.
4. Acquire new firearms for rangers preferably rifles.

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), and the A.P. Leventis Conservation Foundation for their support.

Appendix 1: Thirteen Arrests Made and Court Outcome April-June 2021

Date	Name	Location	Offence and exhibit	Village	Outcome
05/04/21	1. Saidu Nainno 2. Ibrahim Ashiru 3. Mohammed LAwal	Gwambaza	Arrested for hunting in the reserve with 3 Dane guns, smoked bushbuck, a cellphone & torchlight	Kirfi	Mohammed Lawan was released on bail while the rest were transferred to the police in Mainamaji. Sent one year in jail.
14/04/21	4. Danjuma Sale	Guturu	Arrested for hunting in the reserve with a Dane gun, empty sacks, 3 cooking pots, torchlight	Kukawa	Sent one year in jail
19/03/21	5. Mohammed Bello Abdullahi	Dukkee	Arrested for hunting in the reserve with a Dane gun and knife	Sangar	Sent three months in jail
23/04/21	6. Abdullahi Sirajo	Jirbin-Nayaya	Arrested for hunting in the reserve with a Dane gun, cutlass, a knife	Gum	Six months in jail
04/05/21	7. Adamu Bello	Guturu	Arrested for hunting in the reserve with 2 Dane guns, 2 knives, empty sacks, 3 cooking pots, torchlight	Kukawa	Sent one year in jail
11/05/21	8. Maidauda Bello	Kali-Imam	Arrested for hunting in the reserve with a Dane gun, python skin, smoked duiker, cellphone, rifle ammunition & a knife	Kargo	Sent one year months in jail
21/05/21	9. Umar Sahabi	Belayibi	Arrested for removing firewood in the reserve with a motorcycle	Kashere	Sent three months in jail
25/05/21	10. Buba Kuri	Jarkasa	Arrested for hunting in the reserve with a Danegun, cellphone,	Papa Maimadi	Sent one year in jail

			torchlight, cutlass, & a knife		
19/06/21	11. Israel Chiroma 12. Sunday Buyihana	Tungan-Baki	Arrested for hunting in the reserve with a Dane gun, 1 knife, cutlass, hoe, smoked civet, empty sacks, mosquito net, cooking pot, torchlight	Rimi	Sent one year in jail
22/06/21	13. Baushe Umaru	Tattabara	Arrested for hunting in the reserve with a Dane gun, 3 knives, empty sacks, mosquito net, cooking pot, torchlight	Lawanti, Gombe State	Sent to remand awaiting trial

Appendix 2: Elephant Carcass Data April-June 2021

Date	GPS Long	GPS Lat	Carcass Age	Age	Sex	Death cause	Meat taken	Ivory status	Hec_ situation	comment
13/06/21	N10.28 508°	E9.83 474°	Fresh	Adult	Male	It had sign of gunshot	No	Ivory was intact	There were cases of elephant crop raiding reported from the area during the period.	The elephant had gun shot signs around the ear closer to the head likely with a Dane gun but the pellets passed through. A vet treated the elephant but it had already suffered before it was discovered.

APPENDICES

Appendix 3: 38 Camping Patrols Completed April-June 2021

No	Area patrol	Patrol Start	Patrol End	Patrol Man Days
1.	Borkono, Rimi, Kali-Imam, Gale, Kariyo, Tungulum, Bogwas, Shehu-Maska	06/04/21	13/04/21	48
2.	Malla, Tungan-Kiyashi, Kariyo, Malla, Adamu-Jumba	06/04/21	13/04/21	48
3.	Jibrin Nayaya, Batta, Buri, Hawan-Kantanawa, Shaman, Dimil	06/04/21	13/04/21	56
4.	Faliyaram, Buri, Fararkasa, Tukurua, Mainamaji, Sky	06/04/21	13/04/21	56
5.	Kalban, Faliyara, Mainamaji, Gwambaza	14/04/21	21/04/21	48
6.	Buri, Batta, Debigi, Shaman	14/04/21	21/04/21	48
7.	Guruntum, Dogon-Kurmi, Tungulum, Dimil, Bogga, Rendel, Kwala	14/04/21	21/04/21	48
8.	Mustapha-Bawa, Yalo, Shaushau, Adamu-Jumba, Dalamiri, Golkah	22/04/21	29/04/21	56
9.	Batta, Tukurua, Nata'ala, Shaman, Dagudi	22/04/21	29/04/21	48
10.	Jibrin-Nayaya, Buri, Dagudi, Saltlick A & B, Dogon-Kurmi, Tukurua	22/04/21	29/04/21	48
11.	Libji, Shaushau, Kwala, Borkono, Guturu	30/04/21	07/05/21	48
12.	Shaman, Faliyaram, Maikogo, Yelwan-Duguri, Jarkasa	30/04/21	07/05/21	48
13.	Buri, Nata'ala, Faliyaram, Batta	30/04/21	07/05/21	56
14.	Buri, Giwa, Shaushau, Buri, Bogga, Tungulum, Kariyo, Tungan-Dutse, Tungan-Kiyashi	08/05/21	15/05/21	56
15.	Faliyaram, Dagudi, Duguri, Gaji, Shaman, Hobbaji, Kalban	08/05/21	15/05/21	56
16.	Borkono, Belayibi, Mansur, Rimi, Kwafa, Jada, Kargo, Jarkasa, Shaman, Libji	16/05/21	23/05/21	40
17.	Nata'ala, Dagudi, Jibrin Nayaya, Maikonkoni, Wolakerol	16/05/21	23/05/21	48

18.	Shaman, Nata'ala, Duguri, Shafa, Faliyaram	16/05/21	23/05/21	56
19.	Giwa, Malla, Jada, Gale, Rimi, Tungan-Dutse	24/06/21	31/05/21	40
20.	Shehu-Maska, Tungan-Kiyashi, Gale, Bogga	24/06/21	31/05/21	48
21.	Buri, Nata'ala, Kalban, Shafale, Duguri, Faliyaram	24/06/21	31/05/21	48
22.	Duguri, Gaji, Kwaffa, Buri	24/06/21	31/05/21	40
23.	Buri, Kwaffa, Dagudi, Hawan-Kantana, Kalban	01/06/21	08/06/21	48
24.	Shaman, Jibrin-Nayaya, Dagudi, Dogon-Ruwa	01/06/21	08/06/21	48
25.	Mawulgo, Yalo, Bultu, Malla, Kwala, Giwa, Rimi	01/06/21	08/06/21	48
26.	Bultu, Kwala, Rendel, Tungulum, Kali-Imam, Malla, Rimi, Kariyo	01/06/21	08/06/21	48
27.	Libji, Yalo, Karkasa, Kali-Imam, Tungan-Kiyashi, Bogga, Tungulum, Shaushau, Shehu-Maska	09/09/21	16/06/21	48
28.	Kwaffa, Dagudi, Faliyaram, Shaman	09/09/21	16/06/21	48
29.	Libji, Malla, Dogon-Kurmi, Jada, Kwala, Shaushau	09/09/21	16/06/21	56
30.	Buri, Batta, Duguri	09/09/21	16/06/21	48
31.	Buri, Kwaffa, Pali, Yalo, Malla	17/06/21	24/06/21	56
32.	Shaman, Dagudi, Yelwan-Duguri, Batta	17/06/21	24/06/21	56
33.	Jibrin-Nayaya, Bogwas, Buri, Tonglong, Mainamaji	17/06/21	24/06/21	64
34.	Libji, Tungan-Kiyashi, Yalo, Shaushau, Shehu-Maska, Bogga, Kariyo	25/06/21	02/07/21	64
35.	Dimis, Dagudi, Buri, Gaji-Gamu,	25/06/21	02/07/21	64
36.	Shafa, Shaman, Gaji-Gamu, Jibrin-Nayaya	03/07/21	10/07/21	56
37.	Shaushau, Malla, Kariyo	03/07/21	10/07/21	56
38.	Buri, Faliyaram, Garangaran, Dogon-Ruwa	03/07/21	10/07/21	64