



YANKARI GAME RESERVE

WCS QUARTERLY REPORT: OCTOBER-DECEMBER 2020



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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 October to December 2020. A total of 1,974 patrol man days (40 patrols) were completed by rangers covering a total distance of 3,684km. Zero elephant carcasses were recorded and no elephant poacher was arrested during this period. Elephant crop raiding was reported from Pali, Mainamaji, Debigi and Kuka 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. Livestock grazing incidences in the reserve were recorded during the period. Three joint patrols with the army were completed as well. School visits for 320 schoolchildren and 64 teachers from 15 schools was organized (see picture below). A conservation education workshop with the surrounding communities was successfully held.



Schoolchildren during a visit to Yankari, November 2020

RESULTS AND DISCUSSION

A total of 40 SMART-based patrols were organized during this period covering a total distance of 3,684 km and 1,974 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. There is an urgent need to increase the number of patrols as four patrols per week are not enough to cover Yankari entirely. Three 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

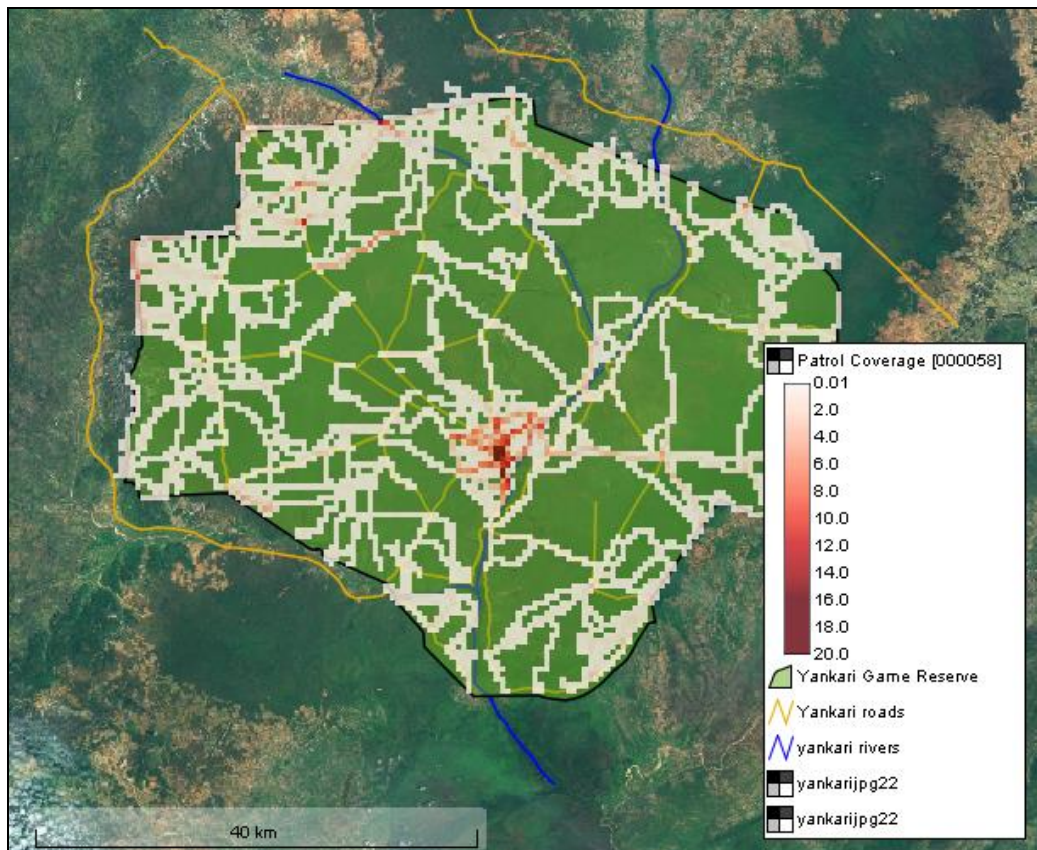
The number of firearms and vehicles available limits the current patrol strategy. Currently, we can only organize four camping patrols each week. Four teams consisting of 6-7 rangers per team were sent out on camping patrol for seven days. With only limited resources available the current patrol strategy targets vulnerable areas rather than trying to cover the entire reserve. 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

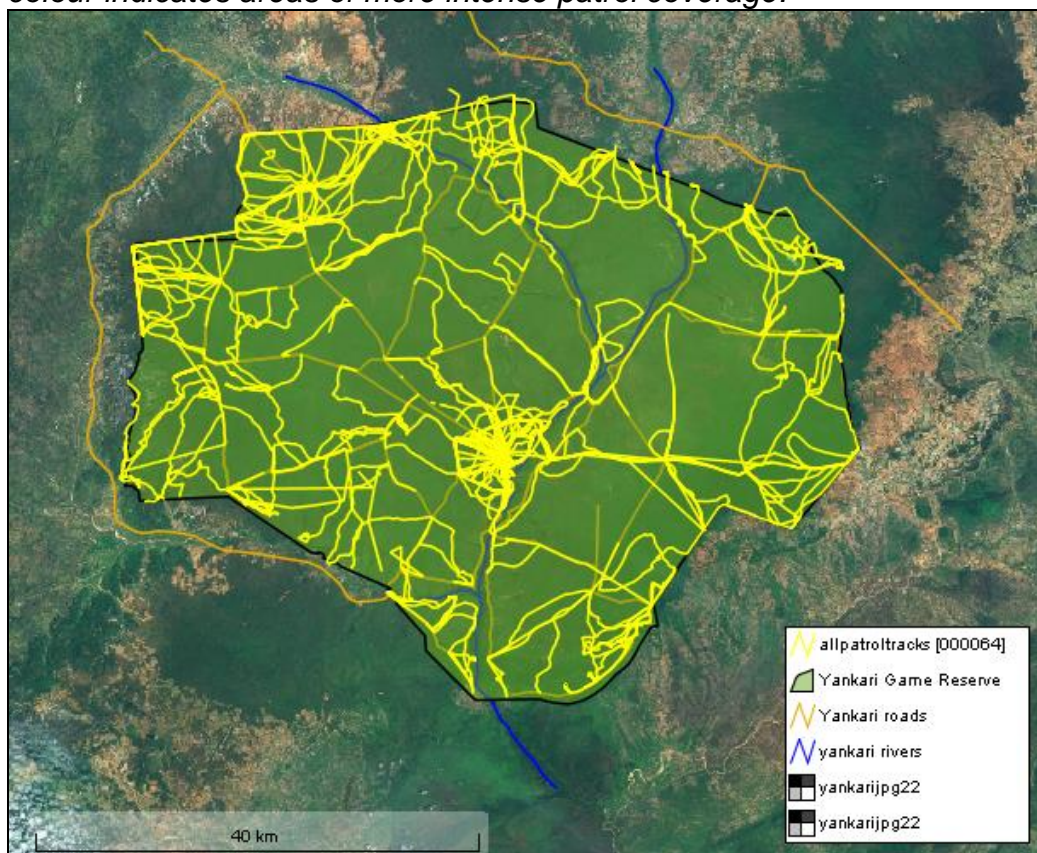
In *Map 1*, the darker red part of the grid map indicates areas that have been more frequently patrolled, the grey portions represent areas that were less patrolled while the un-shaded parts of the grid represents areas that were not patrolled during the reporting period.

Table 1. Summary of patrol effort for the period October to December 2020

<i>No of Patrols</i>	<i>Distance (km)</i>	<i>Hours</i>	<i>No of Days</i>	<i>Patrol Man Days</i>
40	3,684	2,416	302	1,974



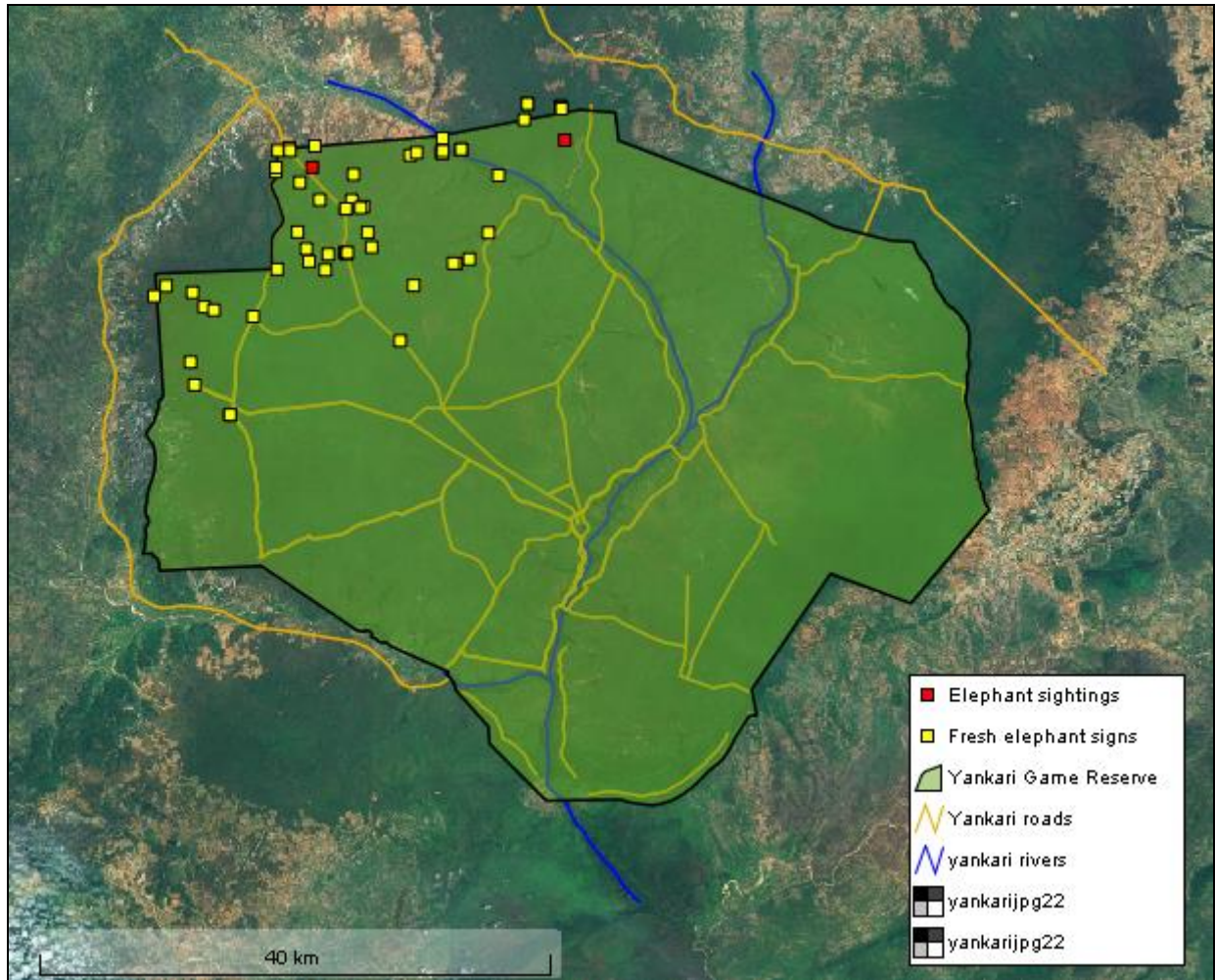
Map 1: Patrol effort in km walked per grid cell for October-December 2020. Darker red colour indicates areas of more intense patrol coverage.



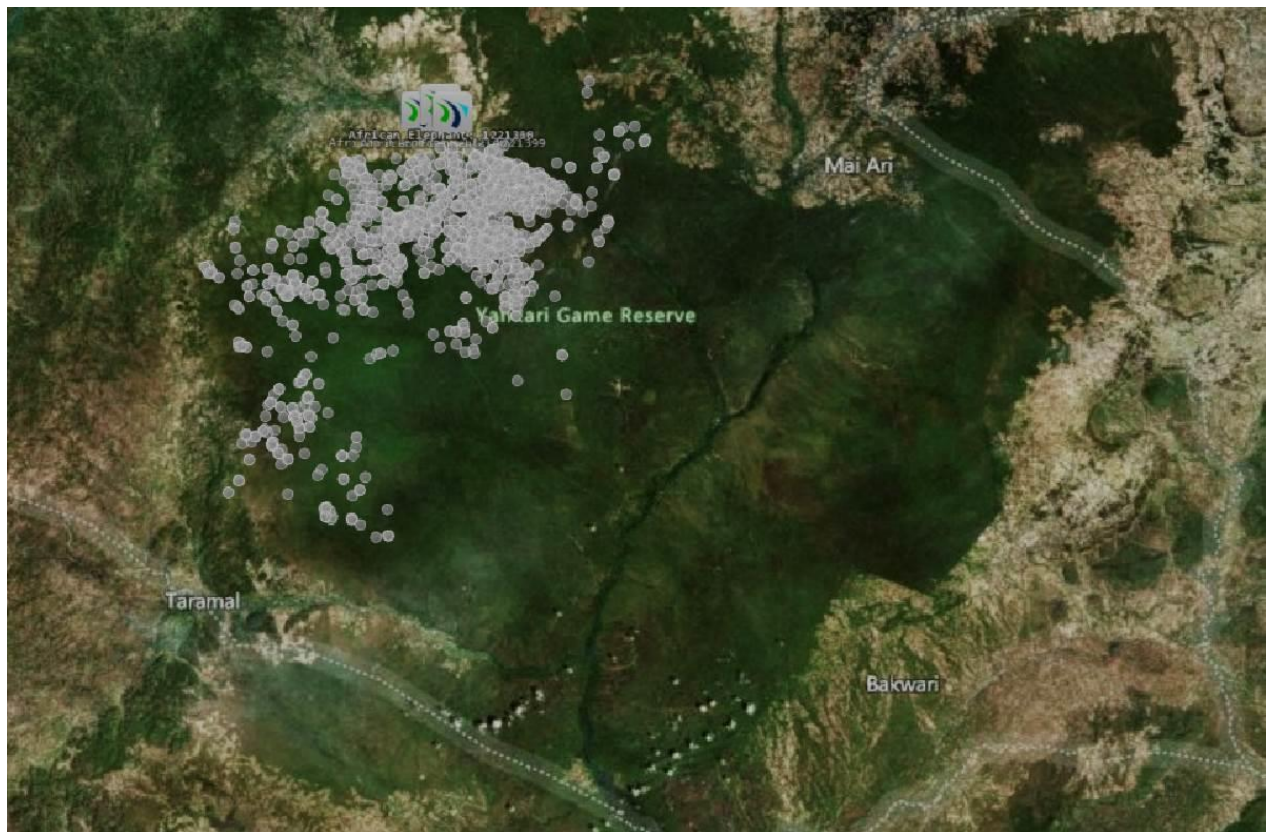
Map 2: Patrol track logs for October-December 2020

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 Pali, Mainamaji, Debigi and Kuka 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.



Map 3: Elephant Activities Recorded by All Ranger Patrols October-December 2020



Map 4: Elephant Movement Data from Satellite Collar Recorded during October-December 2020

LION CONSERVATION

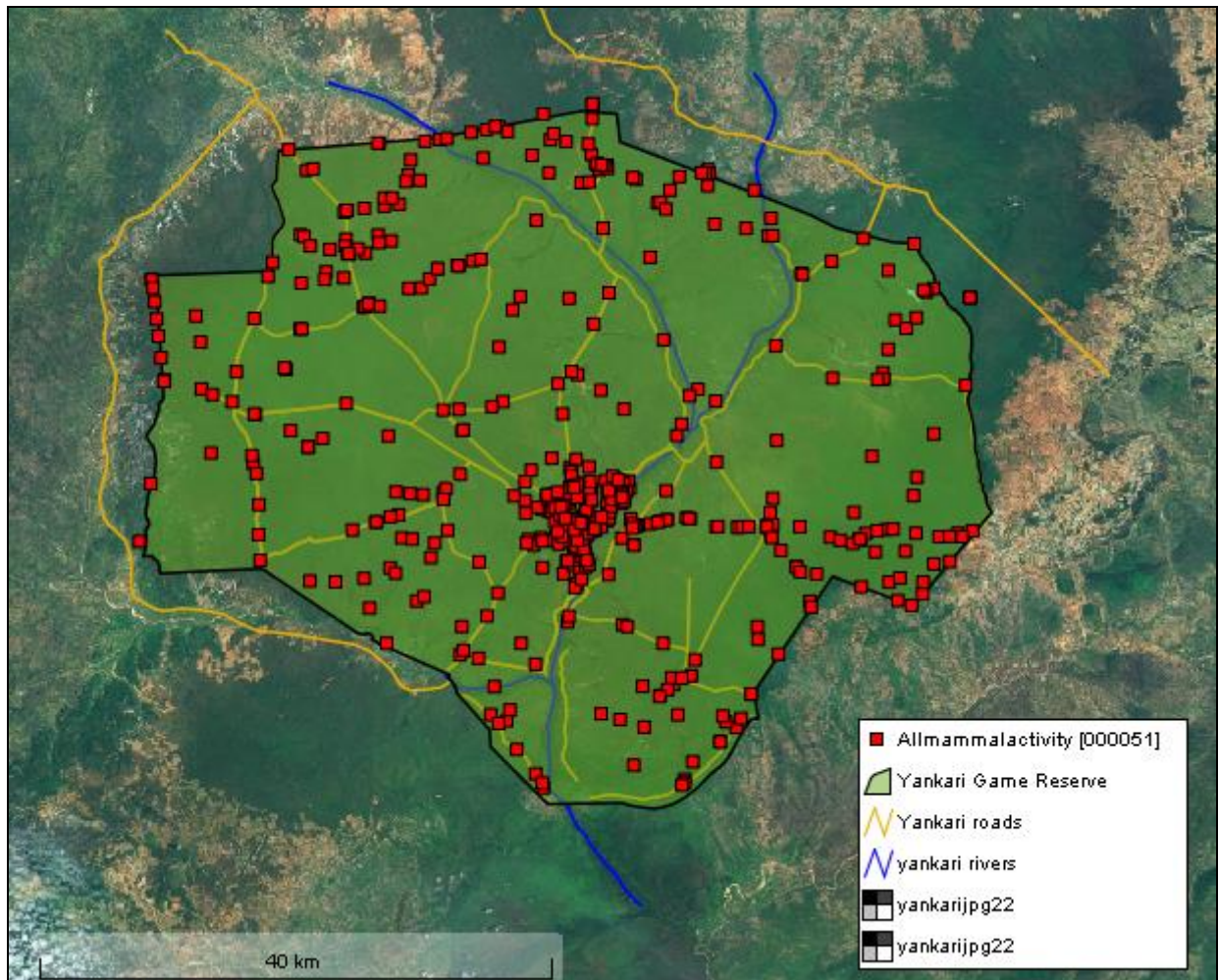
No fresh lion sign was reported by ranger patrols during the period. Fresh lion sign meant sign that is 1-3 days old. Lion roaring was reported twice at night from the Wikki camp. Lion sighting was reported by tourist at one of the saltlicks as well. We have put out camera traps in those locations as well as other parts of the reserve.



Camera trap photo of hartebeest at one of the salt licks, December 2020

ALL OTHER MAMMAL SIGHTINGS

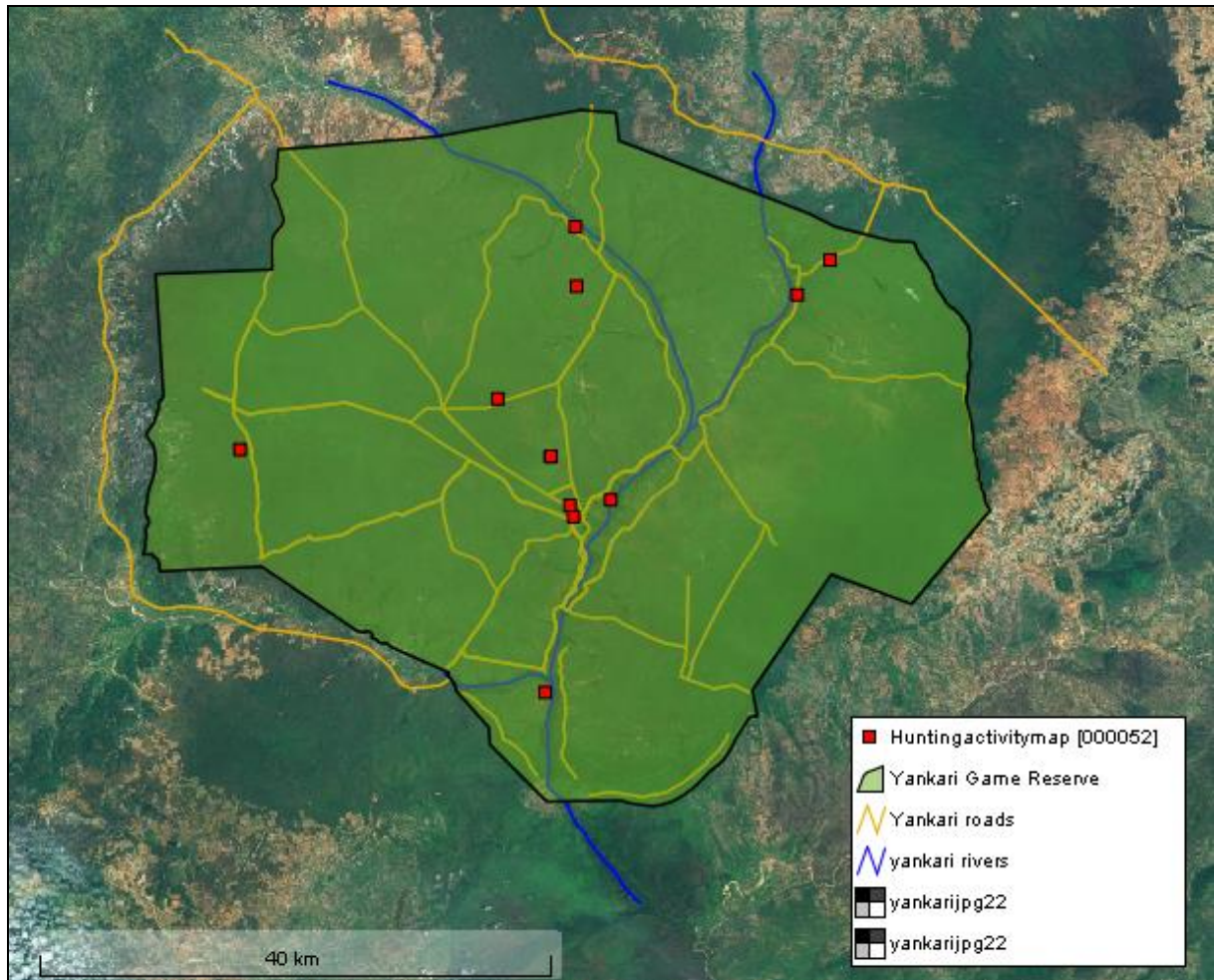
Various other large mammals were sighted within the reserve (see Map 5 below) including hippos, baboons, waterbuck, roan antelope, buffalo, hartebeest, patas monkey, tantalus monkey, bushbuck and warthog.



Map 5: Location of All Other Mammal Sightings October-December 2020

HUNTING EVIDENCE

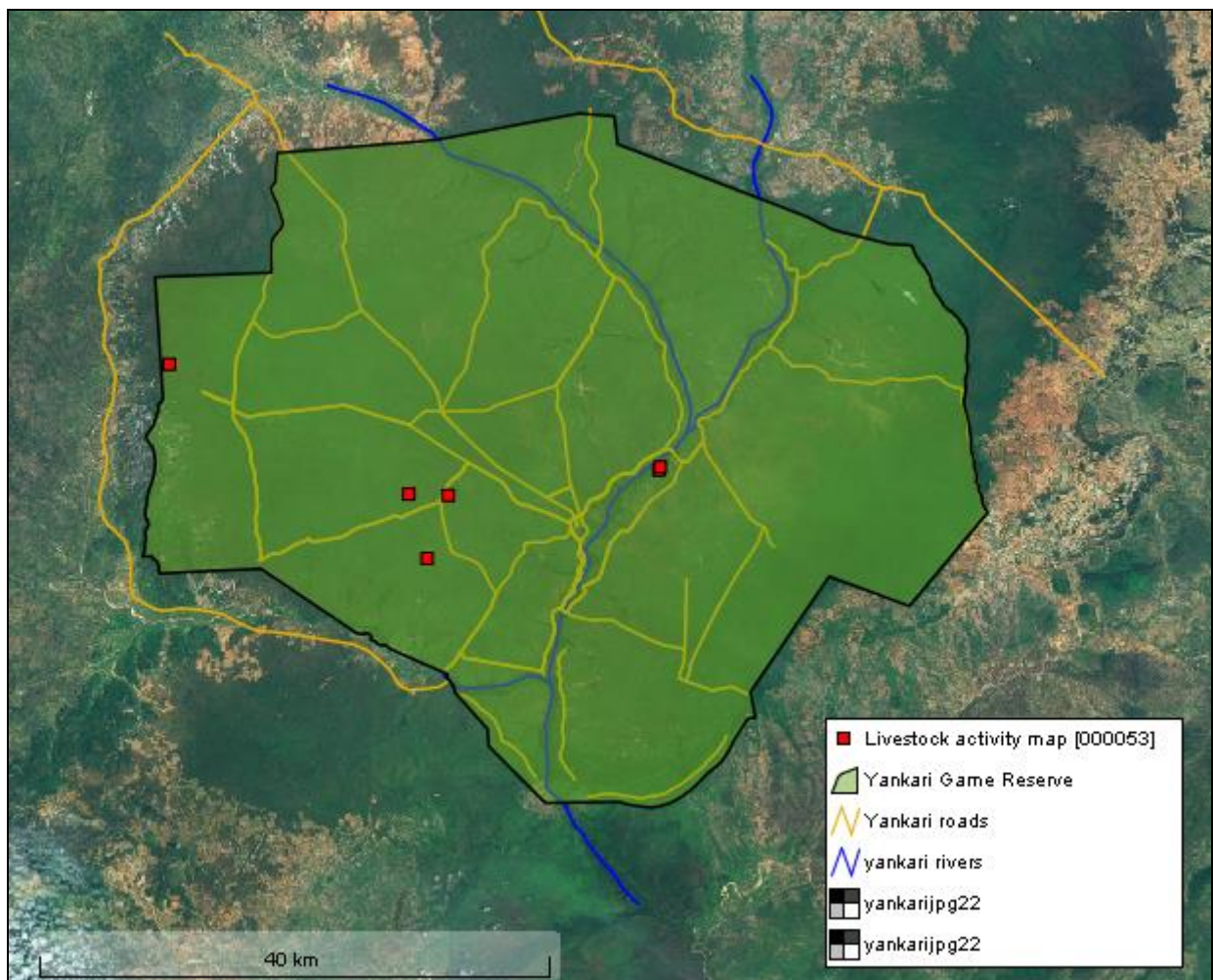
Hunting was not a major problem during the period as a result no hunter was arrested. Most of the hunters are also farmers so they were mostly busy harvesting crops on their farms. In addition, the grasses were tall and difficult to see wildlife. The outdated wildlife law does not provide sufficient 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. We expect hunting pressure to increase the coming season because most farms have been harvested.



Map 6: Hunting Activity Recorded by All Ranger Patrols October-December 2020

LIVESTOCK GRAZING

Livestock grazing in the reserve was also not a major problem encountered during the period and as a result, no arrest was made for livestock grazing in the reserve. This is because most of the lands close to the edge of the reserve are cultivated so it was difficult for grazers to come across as they are usually charged huge fines when they encroach farms. Livestock grazing sign recorded this reporting period is shown in Map 7 below.



Map 7: Livestock Grazing Activity Recorded by Ranger Patrols October-December 2020

CONSERVATION EDUCATION WORKSHOP

The communities surrounding the reserve are key stakeholders for the long-term survival of Yankari. With funding from the French Embassy in Nigeria and the Lion Recovery Fund, we were able to facilitate two workshops. During the first workshop, we hosted all the Fulani Ardos (traditional Fulani leaders) from the surrounding communities to Yankari. The second workshop we hosted all the district heads around Yankari (Duguri, Gwana & Pali), school headmasters, principals, religious leaders, the Chairman for Alkaleri local government area, and the commissioner for Culture and Tourism to Yankari to work with them as key stakeholders for the long-term survival of the reserve. Textbooks were donated to the district heads to distribute to some of the schools in their areas (see picture below).



A cross section of Fulani Ardos during the stakeholder workshop, December 2020

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 thirty three (33) 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.
- **Poaching** remains a big problem. The outdated Yankari wildlife is not a deterrent for people to stop hunting notwithstanding rangers have continued to make significant arrests.
- **Firearms.** The firearms that the rangers use are old now and would need replacement and if possible an upgrade from using shotguns to rifles. This will also enable us to be able to send out more ranger teams on patrol.
- **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. There are ongoing discussions with Airtel to allow us mount the antenna on their existing masts.
- **Livestock grazing** in the reserve remains a problem. The outdated Yankari wildlife is not a deterrent for people to stop illegal livestock grazing in the reserve notwithstanding rangers have continued enforce zero tolerance.

RECOMMENDATIONS

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



Camera trap photo of roan antelope & hartebeest, December 2020

ACKNOWLEDGEMENTS

We are grateful to the Elephant Crisis Fund, United States Fish and Wildlife Service, Lion Recovery Fund, UNEP African Elephant Fund, the Government of the Federal Republic of Germany, French Embassy in Nigeria, Tusk Trust, North Carolina Zoo, Omaha Zoo and the A.P. Leventis Conservation Foundation for their support.

Appendix 1: 40 Camping Patrols Completed October-December 2020

	Area patrol	Patrol Start	Patrol End	Patrol Man Days
1	Libji, Shaman, Duguri, Mainamaji, Yelwan-Duguri, Tonglong	03/10/20	09/10/20	56
2	Faliyaram, Nata'ala, Kalban, Dogon-Ruwa	03/10/20	09/10/20	49
3	Borkono, Kwala, Bogga, Pali, Gale, Hawan-Zubairu, Adamu-Jumba	03/10/20	09/10/20	49
4	Malla, Ruwan-Gogo, Batta, Bogwas, Jada, Tungan-Kiyashi	10/10/20	16/10/20	49
5	Jarkasa, Dogon-Ruwa, Faliyaram, Nata'ala, Maikonkoni, Saltlick A & B	10/10/20	16/10/20	49
6	Dogon-Ruwa, Maikonkoni, Duguri, Libji, Tonglong, Gajigamu, Shafa, Konkoni	10/10/20	16/10/20	42
7	Giwa, Shaushau, Kariyo, Gale, Yalo, Kwala, Tungankiyashi, Malla, Wolakerol	17/10/20	23/10/20	56
8	Mainamaji, Buri, Fararkasa, Maikonkoni, Dagudi	17/10/20	23/10/20	56
9	Guruntum, Libji, Saltlick A & B, Borkono, Tabakare	17/10/20	23/10/20	35
10	Giwa, Shaushau, Kwala, Jada, Kwala	24/10/20	30/10/20	49
11	Batta, Gaji-Gamu, Tonlong, Buri, Tonglong	24/10/20	30/10/20	49
12	Hawan-Kantana, Buri, Faliyaram, Garangaran, Maikonkoni	31/10/20	06/11/20	42
13	Dagudi, Jibrin-Nayaya, Mainamaji, Batta, Gawambaza	31/10/20	06/11/20	49
14	Tungulum, Filin-Tsintsiya, Shaushau, Kariyo, Malla	31/10/20	06/11/20	49
15	Libji, Shaman, Duguri, Mainamaji, Yelwan-Duguri, Tonglong	07/11/20	13/11/20	56
16	Faliyaram, Nata'ala, Kalban, Dogon-Ruwa	07/11/20	13/11/20	49
17	Borkono, Kwala, Bogga, Pali, Gale, Hawan-Zubairu, Adamu-Jumba	07/11/20	13/11/20	49
18	Malla, Ruwan-Gogo, Batta, Bogwas, Jada, Tungan-Kiyashi	14/11/20	23/11/20	49
19	Jarkasa, Dogon-Ruwa, Faliyaram, Nata'ala, Maikonkoni, Saltlick A & B	14/11/20	23/11/20	56
20	Dogon-Ruwa, Maikonkoni, Duguri, Libji, Tonglong, Gajigamu,	14/11/20	23/11/20	56

	Shafa, Konkoni			
21	Giwa, Shaushau, Kariyo, Gale, Yalo, Kwala, Tungankiyashi, Malla, Wolakerol	24/11/20	30/11/20	56
22	Mainamaji, Buri, Fararkasa, Maikonkoni, Dagudi	24/11/20	30/11/20	56
23	Guruntum, Libji, Saltlick A & B, Borkono, Tabakare	24/11/20	30/11/20	56
24	Borkono, Kwala, Bogga, Pali, Gale, Hawan-Zubairu, Adamu-Jumba	01/12/20	07/12/20	49
25	Rimi, Gale, Mansur, Bogga	01/12/20	07/12/20	56
26	Yalo, Tungan-Kifi, Duguri, Dogon-Ruwa	01/12/20	07/12/20	35
27	Faliyaram, Hawan-Kantana, Pali	08/12/20	14/12/20	35
28	Kuka, Debigi, Mainamaji, Saltlick A & B	08/12/20	14/12/20	42
29	Tungan Baki, Wolakerol, Libji, Libline	08/12/20	14/12/20	42
30	Giwa, Shaushau, Kariyo, Gale, Yalo, Kwala, Tungankiyashi, Malla, Wolakerol	08/12/20	14/12/20	49
31	Bultu, Guruntum, Shaman, Tukurua	15/12/20	21/12/20	42
32	Guruntum, Libji, Saltlick A & B, Borkono, Tabakare	15/12/20	21/12/20	56
33	Libji, Shaman, Duguri, Mainamaji, Yelwan-Duguri, Tonglong	15/12/20	21/12/20	56
34	Faliyaram, Nata'ala, Kalban, Dogon-Ruwa	15/12/20	21/12/20	42
35	Borkono, Kwala, Bogga, Pali, Gale, Hawan-Zubairu, Adamu-Jumba	22/12/20	28/12/20	42
36	Borkono, Kwala, Bogga, Pali, Gale, Hawan-Zubairu, Adamu-Jumba	22/12/20	28/12/20	56
37	Malla, Ruwan-Gogo, Batta, Bogwas, Jada, Tungan-Kiyashi	22/12/20	28/12/20	49
38	Jarkasa, Dogon-Ruwa, Faliyaram, Nata'ala, Maikonkoni, Saltlick A & B	29/12/20	04/01/21	56
39	Dogon-Ruwa, Maikonkoni, Duguri, Libji, Tonglong, Gajigamu, Shafa, Konkoni	29/12/20	04/01/21	42
40	Mainamaji, Buri, Fararkasa, Maikonkoni, Dagudi	29/12/20	04/01/21	56