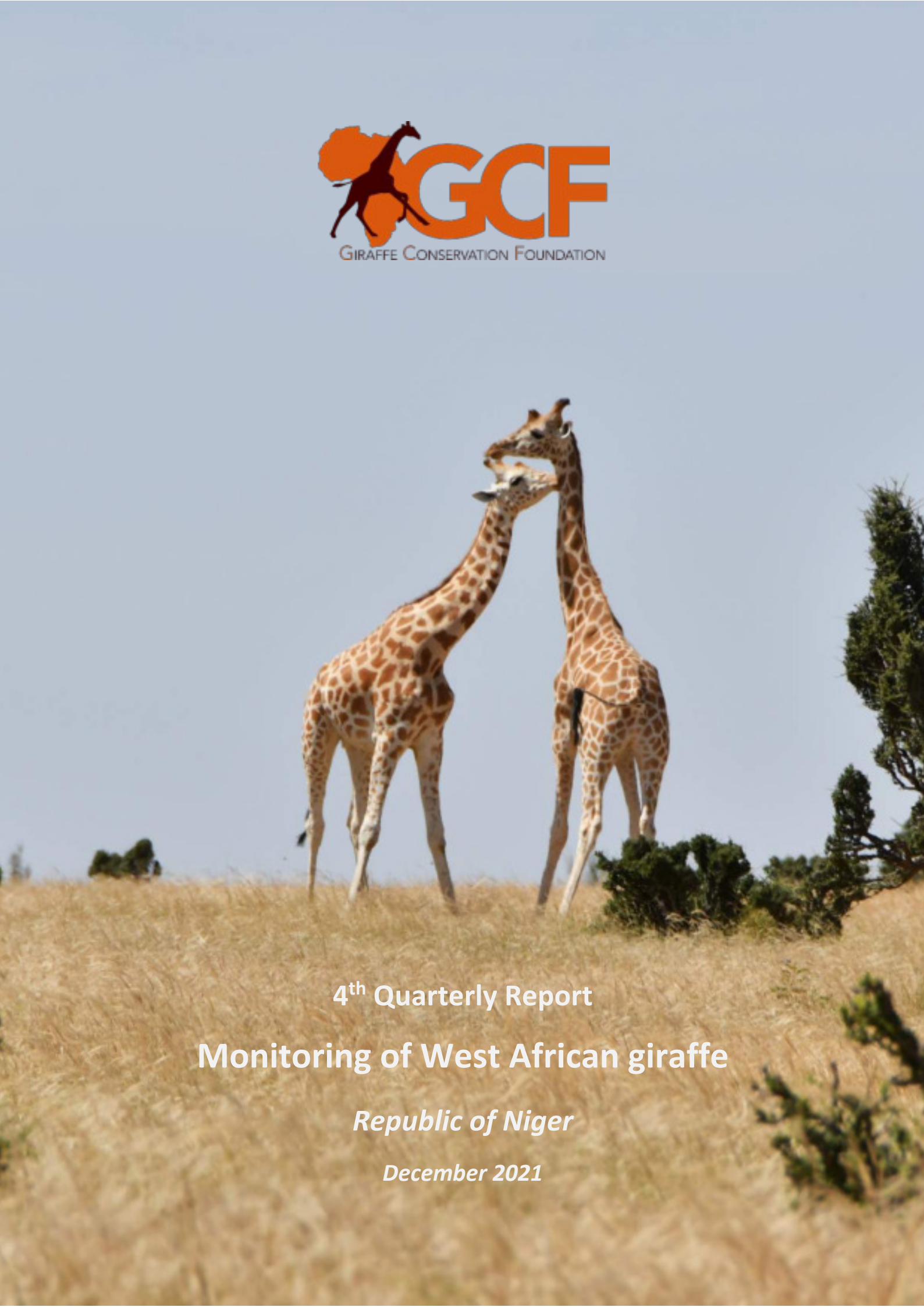

GIRAFFE CONSERVATION FOUNDATION

4th Quarterly Report

Monitoring of West African giraffe

Republic of Niger

December 2021

Introduction

Niger's West African giraffe (*Giraffa camelopardalis peralta*) are the last remaining of their type in the wild. This population is almost exclusively found in the 'Giraffe Zone' (Central Zone of Kouré and Dallol Bosso), a part of the transition zone of the Park W Biosphere Reserve, and further north around Fandou, Dingazi and Simiri. The north-south ephemeral Dallol Bosso Valley stretches for 350 km from the border with Mali southeast to the Niger River on the border with Benin and forms an important lifeline for giraffe seasonally.

The current West African giraffe population is estimated at 664 individuals based on the 2019 annual survey. However, this might be an over-estimate as the survey methodology may not be ideal for this population. The Association for the Promotion of Eco-tourism in Niger (AVEN) and the Giraffe Conservation Foundation (GCF) are now working together to improve the quality of these surveys in the future.

An analysis of the current situation in the 'Giraffe Zone', an area approximately 80 km east of Niamey, has highlighted a range of threats to the giraffe and their habitat, in particular a high level of environmental degradation and political insecurity. The habitat degradation in the area is multi-faceted, continuous and intense, and varies thoughout the region. Anthropogenic actions associated with climate change have led to a concentration of rural communities in and around Kouré, which has resulted in increased degradation of natural resources in this area. As a result, the giraffe's habitat has been considerably reduced over the past few decades due to expancing agricultural practices, habitat loss and degradation mainly due to human population growth. The balance that previously existed between the environment, giraffe and local communities now appears to have changed. Taking note of this crisis, AVEN with the ongoing collaborative support from GCF is committed to establishing a dedicated long-term monitoring programme of the last West African giraffe to help inform future management decisions in the area.

In 2018, eight giraffe (five females and the males) were translocated from Kouré to the Gadabeji Biosphere Reserve in the North Maradi Region – a distance of approx. 800 km. This conservation translocation was undertaken in accordance with the National Giraffe Conservation Strategy and Action Plan developed by the Ministry of Environment in October 2015, and the subsequent feasibility study. Following the translocation of the giraffe to Gadabeji Biosphere Reserve, two local community ecoguards were recruited by GCF to ensure their close monitoring.

The objective of this programme is to undertake long-term regular monitoring of the West African giraffe throughout their range in Niger. This programme seeks to directly support their long-term conservation and management, and feed into relevant regional and national initiatives. Specifically, it aims to:

- Determine the seasonal and annual population status, distribution and ranging patterns of giraffe throughout the 'Giraffe Zone' and Dallol Bosso Valley;
- Identify and mitigate threats, as appropriate;
- Understand their spatial ecology (movements, habitat use, etc.);
- Regularly monitor the health and social dynamic status of the translocated giraffe;
- Sensitise the local community on the conservation of giraffe and their habitat; and
- Build capacity and create employment opportunities.

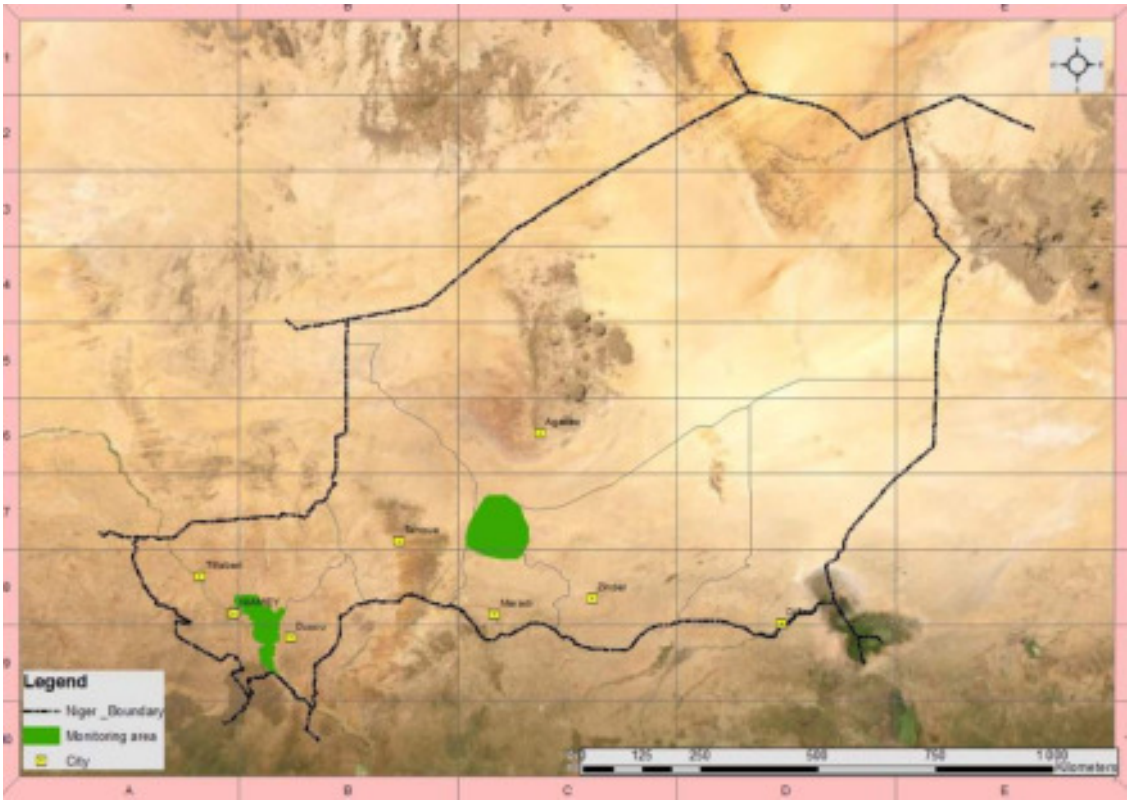

Figure 1. Giraffe monitoring programme in the 'Giraffe Zone' and Gadabedji Biosphere Reserve, Niger

I. "Giraffe Zone" Monitoring

Materials and Methods

The equipment used for the monitoring includes:

- a motorcycle
- a GPS Garmin InReach+ (N.B. during monitoring surveys, GPS coordinates are recorded every 10 minutes and tracks are automatically stored)
- a cybertracker installed on rough smartphone (Crosscall Trekker M1)
- a pair binocular

The 'Giraffe Zone' was initially subdivided into two sectors in which monitoring activities were to be conducted by the designated AVEN guides. The two sectors were subdivided into multiple zones, using villages and other features to set the limits. Originally conceived for four field officers, the methodology was subsequently adapted as only two AVEN guides recruited were interested following an initial trial. Additionally, following the government's ban on motorbikes in certain areas for safety reasons, surveys in Sector 1 were carried out by bicycle, however, it was later decided to only continue the work in Sector 2 (see Figure 2).

A 'relay system' was implemented where both guides conducted surveys in alternating weeks. Similar to a transect based survey, the different zones are repeatedly surveyed in a systematic manner. Giraffe observed are recorded and photographed. The guides also record any identified threats and other interesting behaviours they observe. As highlighted, the field officers were provided with monitoring tools and trained in using these for data collection.

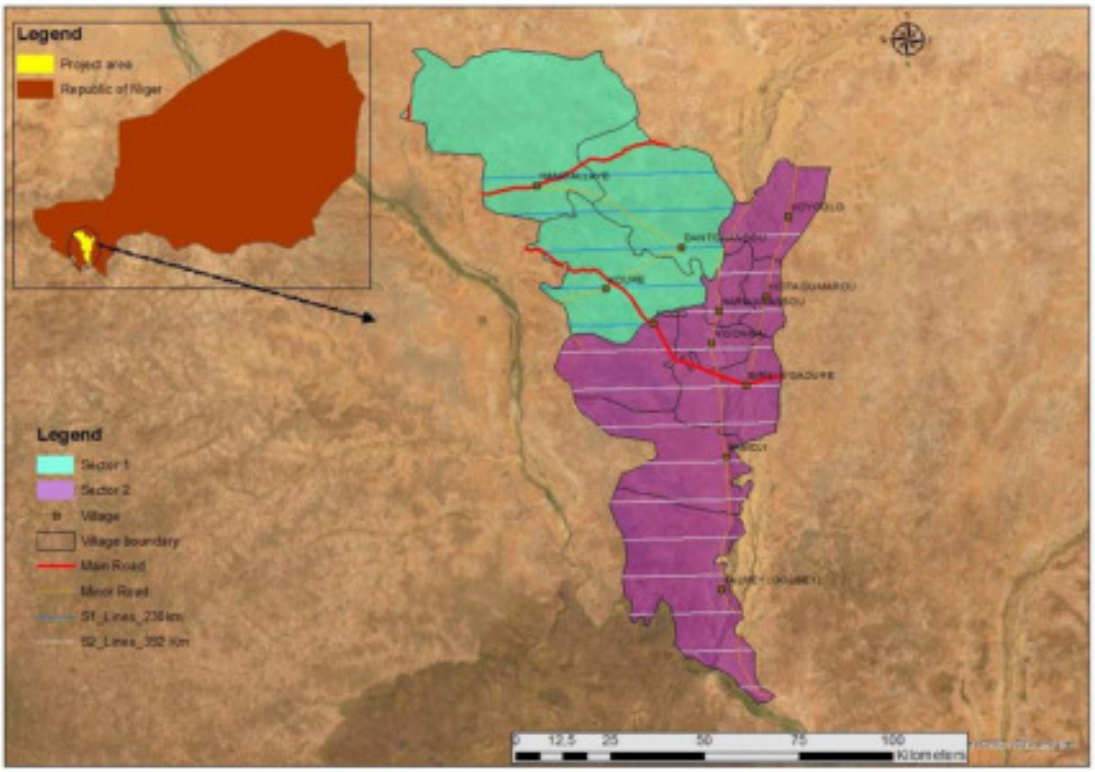

Figure 2. Survey areas: Sector 1 (green) and Sector 2 (purple) in the 'Giraffe Zone', Koure area, Niger

Results

Two AVEN guides conducted daily surveys from October to December 2021. In total, they conducted 82 days and travelled 2,397 km. Over the three months, 376 individual sightings of giraffe were recorded, 58.5% of these were females.

Table 1: Giraffe observations in the 'Giraffe Zone' during the 4th quarter 2021

Giraffe age and sex categories	October	November	December
Adult female	44	37	86
Adult male	19	15	22
Sub-adult female	6	7	8
Sub-adult male	7	4	7
Young female	4	12	11
Young male	7	3	15
Calf female	2	2	1
Calf male	5	2	4
Unknow calf	14	15	17
Total	**108**	**97**	**171**

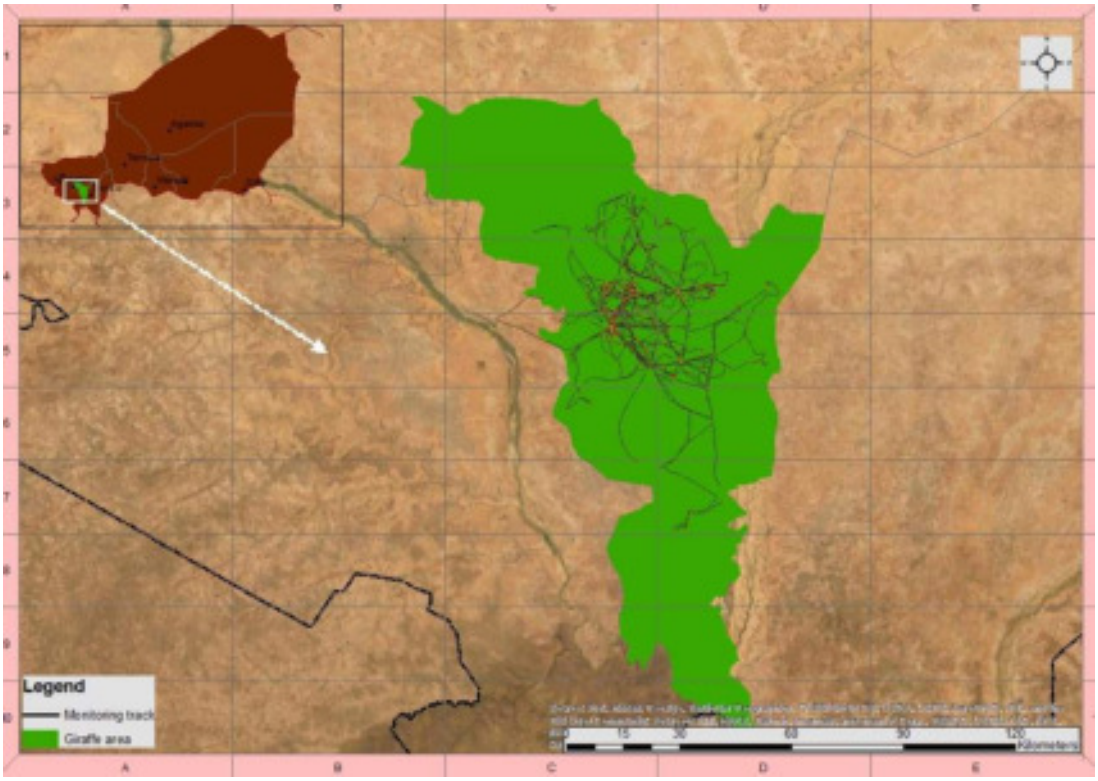

Figure 3. Survey areas covered during monitoring activities of the 'Giraffe Zone' in the 4th quarter 2021

As shown in Table 1, in December almost double the number of giraffe were observed as compared to November. This increase is due to the fact that the DFC organised a data collection mission, which allowed a greater area to be covered with additional people and vehicles involved. Additionally, with the increase in number of observations, giraffe distribution was also greater in December as the giraffe observed were more dispersed than in the two previous months.

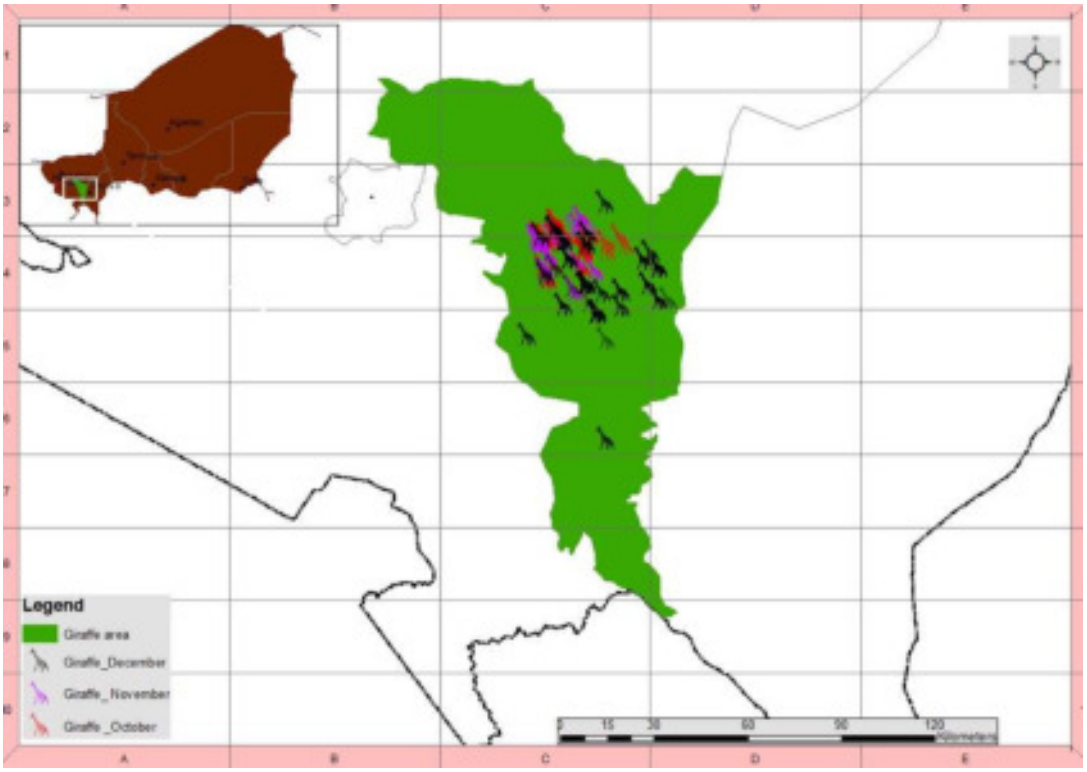

Figure 4. Sightings of giraffe by month in the "Giraffe Zone" during the 4th quarter 2021

Interestingly, the number of calves observed each month was relatively stable (21±2) and did not relate to the total number of giraffe observed. In November, 19.6% of the observations were calves compared to 12.9% in December.

Threats

In October, our team found two giraffe carcasses. One giraffe was an an unidentified adult female , the other one an adult male coded 108/09. The cause of death was unknown for both individuals. Additionally, an adult male got stuck in a community dug well in October. Local communities reported the situation and with the help of the wildlife authorities, GCF-AVEN guides and local community members, the giraffe was rescued (see Figure 5).

Figure 5. In a team effort, this giraffe was rescued from a community dug well.

Equipment

A new motorbike was provided by GCF to the AVEN guides to replace the old motorbike they were using to facilitate the monitoring activities in the 'Giraffe Zone'.

Figure 6. The GCF Project Officer hands over of the new mortorbike to AVEN for monitoring work in the 'Giraffe Zone'

II. GADABEDJI BIOSPHERE RESERVE MONITORING

Materials and Methods

The equipment used during the monitoring includes:

- three motorcycles
- two GPS Garmin InReach+ (N.B. during monitoring surveys, GPS coordinates are recorded every 10 minutes and tracks are automatically stored)
- two Cybertracker installed on a rough smartphone (Crosscall Trekker M1)

Three ecoguards conducted monitoring activities in the Gadabedji Biosphere Reserve. Two of these ecoguards have been directly recruited by GCF, while the third is employed by a partner project of the government. The following methods were used for data collection:

- Daily survey of the Gadabedji Biosphere Reserve valleys where the giraffe normally occur.
- Regular communication with the local communities around Gadabedji Biosphere Reserve about the presence of giraffe in their area.
- Inform and raise awareness about giraffe conservation with the local population around Gadabedji Biosphere Reserve.

Figure 7. Three of the eight giraffe that were translocated to the Gadabedji Biosphere Reserve in 2018.

Results

The three ecogurads worked a total of 92 days and covered a distance of 3,824 km during this quarter, mostly within the core area of the reserve (see Figure 8).

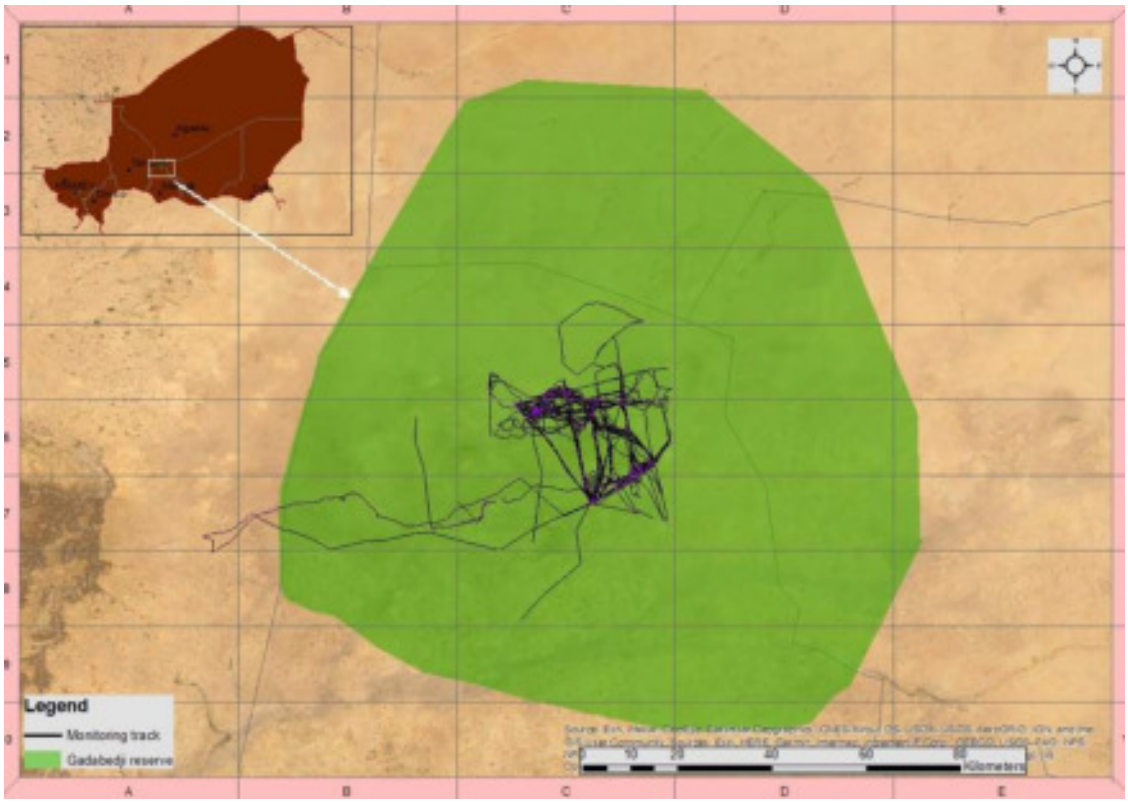

Figure 8. Surveyed areas during monitoring activities in the Gadabedji Biosphere Reserve during the 4th quarter 2021

Similarly to the previous quarter, the giraffe mostly used the area within the Gadabedji Biosphere Reserve with only one male recorded moving out of the reserve for a brief period. These findings continue to highlight that the giraffe have adapted well. No abnormal behaviour was observed.

Most of the quarter the eight giraffe stayed together in one herd (five females and three males) with the exception of a few observations where two males separated from the herd for a short period of time.

Note: The data collected during this quarter will be analysed and the results will be presented separately.

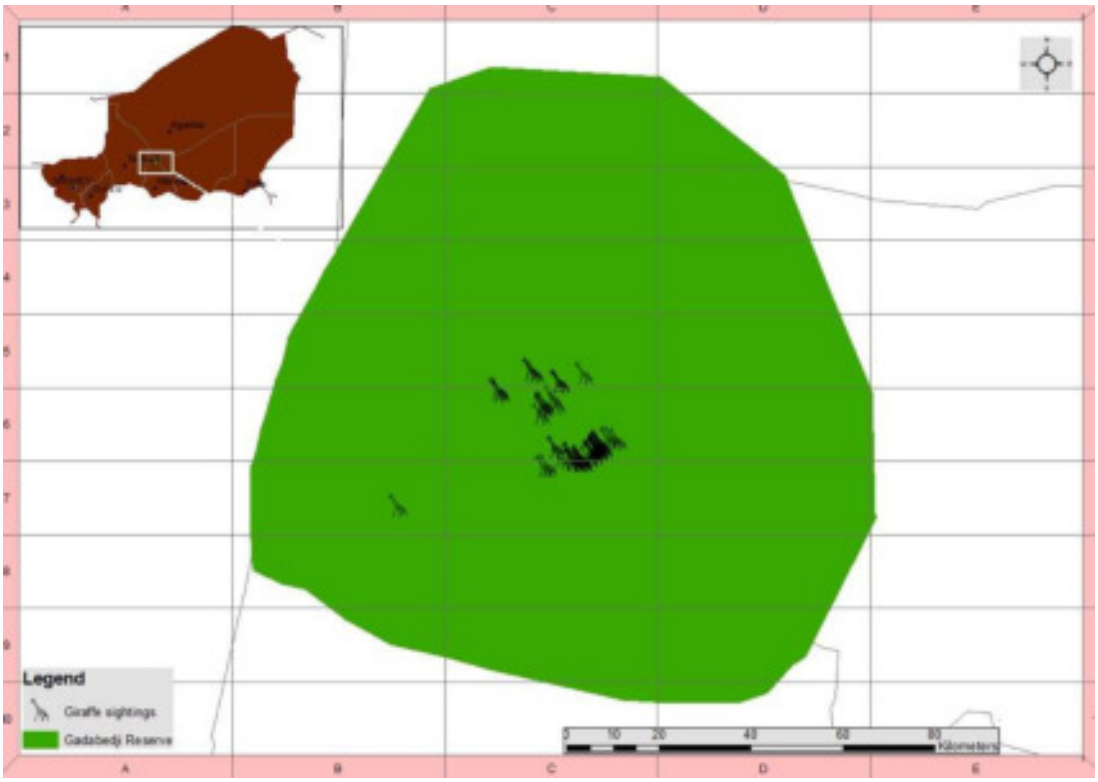

Figure 9. Giraffe sightings in Gadabedji Biosphere Reserve during the 4th quarter 2021.

Table 2: Profile of the eight giraffe that were translocated into the Gadabedji Biosphere Reserve in 2018.

N°	Sex	Code (Kouré)	New Code	Name	Status
1	M	376/18	GDBM1	Kader	
2	M	402/18	GDBM2	Barka	
3	M	414/18	GDBM3	Djanaré	
4	F	306/16	GDBF1	Mounido	Pregnant
5	F	354/17	GDBF2	Tawa	Mating with Kader
6	F	440/18	GDBF3	Kanido	
7	F	411/18	GDBF4	Agaicha	
8	F	425/18	GDBF5	Amulo	Pregnant – to be confirmed

Equipment

Two new motorbikes were provided to the ecoguards by GCF to replace the old motorbikes that were used for monitoring activities in the Gadabedji Biosphere Reserve.

Figure 10. Handing over of the new mortorbikes to the Gadabedji Biosphere Reserve ecoguards