



**giz**

## National Survey Report of the West African Giraffe, Niger

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## **Acronym**

ASGN:	Association pour la Sauvegarde des Girafes du Niger (Association for the Safeguarding of Giraffes of Niger)
AVEN:	Association pour la Valorisation de l'Ecotourisme au Niger (Association for the Valorisation of Ecotourism in Niger)
DFC/AP:	Direction de la Faune, de la Chasse et des Aires Protégées (Directorate of Wildlife Conservation, Hunting and Protected Areas)
DGEF:	Direction Générale des Eaux & Forêts (Directorate of Water & Forests)
GCF:	Giraffe Conservation Foundation
SCF:	Sahara Conservation Fund
NGO:	Non-Government Organisation

## **Acknowledgement**

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## **Survey Team**

**GCF-SCF:** Mr Abdoul Razack MOUSSA ZABEIROU (Programme Officer)  
Ahmed Oumarou (Driver)

**DFC:** Mr Ibrahim MADOUGOU (Chief of Wildlife Division)  
Mr Harouna Nagoundaye  
Mr Ibrahim Issoufou  
Mr Arfou Saley  
Ms Ousseina Magalé,  
Mr Issaka Maman (chargés de programme),  
Drivers (2)  
Stagiaire

**AVEN:** Guides (3)

**ASGN:** Hamadou Oumarou

**Drone Africa Service-GIZ:** Mr Abdoul Aziz Kountché  
Mr Eric Van Sprundel



**Figure.** Survey Team, AVEN offices, Koure, Niger

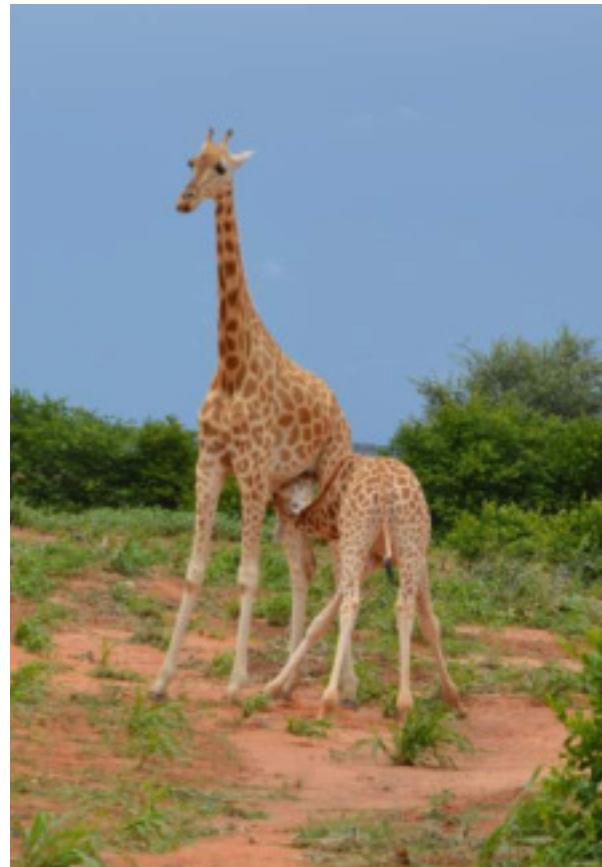
## Introduction

The endangered West African giraffe (*Giraffa camelopardalis peralta*) live freely in an anthropised environment in the transition zone of the Biosphere Reserve of Park W, Niger. Demographic pressure and agricultural practices in this area pose a threat through habitat fragmentation of these West African giraffe, prompting them to change their behaviour over the last few decades.

As part of the conservation of the West African giraffe, the Government of Niger with GCF-SCF and local and international collaborative partners (ASGN, AVEN and RBT / WAP-GIZ Project) undertook the 2017 Annual Survey of the West African giraffe in Niger from 27 July – 12 August 2017 with additional financial support from Born Free Foundation and St Louis Zoo.

The main objective of survey was to determine the current population number and dynamics of the last remaining West African giraffe population of Niger. Specifically, the three aims were to:

- Count the giraffe in Niger.
- Collect as much information about the existing count method as possible to improve it using the Cybertracker and computerize the method for Giraffe Spotter: Wildbook for Giraffe.
- Discuss giraffe conservation and awareness with local people living with the giraffe.



## Methodology

A systematic counting method of the whole population was undertaken, the same as previously used. This method uses direct observation of all individuals and individual photos of the left and right profiles of the giraffe are taken. Additionally, GPS location is recorded and the age and sex of the individual. All surveys were carried out using three vehicles.

Each team (one per vehicle) consisted of four people and their specific roles were:

- Photographer – photograph all individual left and right profiles of the giraffe and communicate detailed information of each photo number to the recorder.
- Recorder – notes all photo numbers, GPS and any additional population dynamics data and observations made
- Guide – acts as an additional observer and subsequently responsible for identifying any giraffe observed using photo albums establish which had all known individual IDs in them.
- Driver

Across the Kouré Region (central or giraffe zone), three teams worked for ten (10) days (27 July – 5 August) to individually identify all giraffe observed. The Kouré Region is ‘home’ to most the giraffe population at this time of year and hence significant amount of time spent there. In Fandou and Dingazi (off-center area) Regions, giraffe surveys were undertaken over two days and three (3) days (8-12 August), respectively, using two vehicles.

## Results

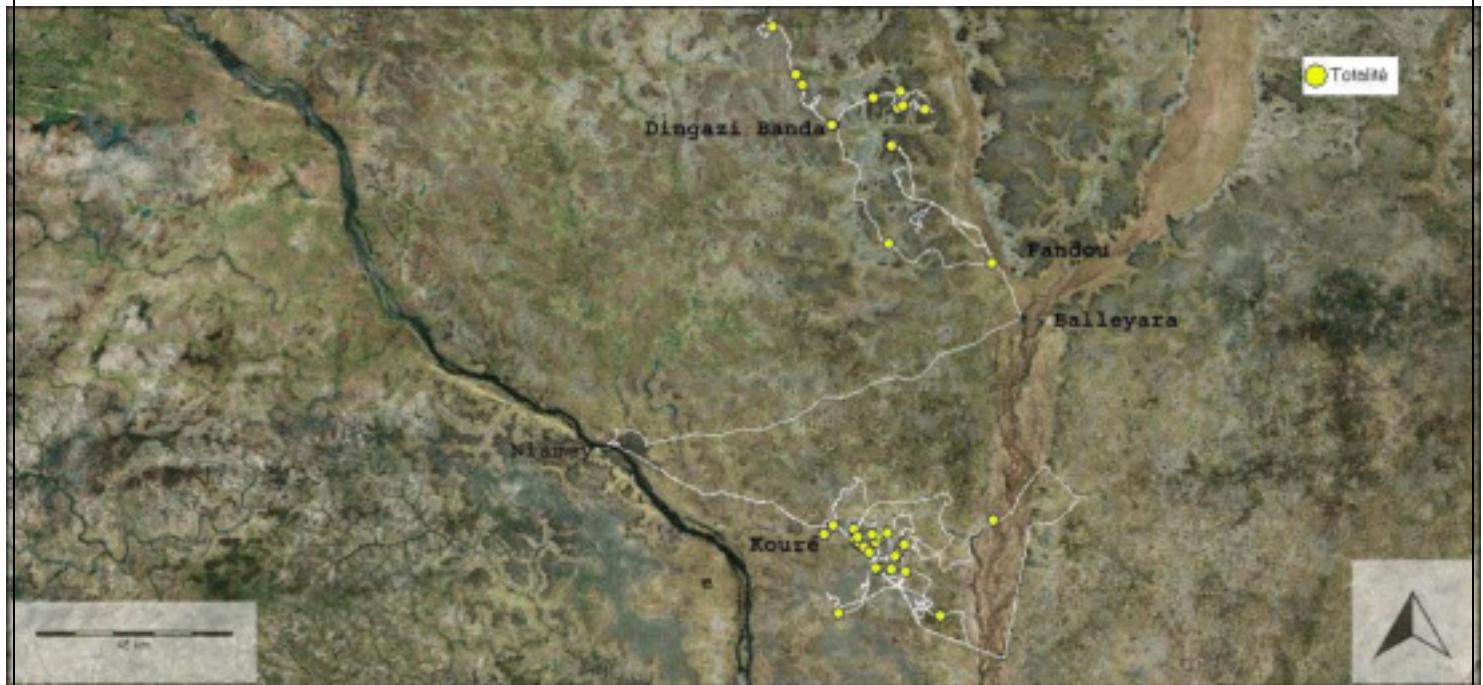
In the Dingazi Region, more than 100 individuals were observed, twice as many during the 2016 Annual Survey. In the Fandou Region, 10 giraffe were counted, compared to no individuals in 2016.

Throughout the field surveys, a total of 783 giraffe were photographed including: 136 calves (individuals aged 0-6 months), 197 juveniles (individuals aged 6-18 months), 181 subadults (individuals aged 18 months to 4 years) and 269 adults (individuals > 4years).

Once out of the field, the photos were individually assessed and duplicates removed, whilst notes were made on those individuals observed in previous years and who were not observed this year or found dead.

	Adults	Subadults	Juveniles	Calves	Total
Males observed	79	11	7	0	97
Females observed	130	22	16	0	168
New Males observed	2	1	20	17	40
New Females observed	2	6	12	25	45
Males not observed	104	23	27	0	154
Females not observed	86	15	11	0	112
<b>Total</b>	<b>403</b>	<b>78</b>	<b>93</b>	<b>42</b>	<b>616</b>
Deceased giraffe 2016-17					9
<b>Total (estimated 2017)</b>					<b>607</b>

Based on the methodology used, the total population of West African giraffe in Niger (and the world – as only remaining) is estimated at 607 individuals. This is an increase of 11.71% on the 587 individuals estimated in 2016 (see Appendix 1 for the distribution table of the giraffe population in Niger).



**Figure.** Survey routes undertaken across all three areas and distribution of giraffe, Niger

#### Drone Trial – Survey

With the support of GIZ, a drone was trialed in the Kouré Region for the first time for the annual survey. The drone made it possible to map the area quicker than using vehicles, as well as managed to capture some images and video of the giraffe.

The drone was used over six (6) days (24-29 July) but was inadequate to share the exact locations with the survey teams so they could count them. Additionally, the ability to capture both the left and right profiles of individual giraffe was not possible because of the noise created by the drone was too much when it attempted to get close to the giraffe, and thus resulted in them moving off. As the camera on the drone had a limited zoom, which is important for individual identification and records for new giraffe calves, the drone would have needed to be relatively close. Therefore, while the drone was valuable for broader area mapping, it was not possible to undertake accurate surveys and identify individuals.



## Data Pre-Processing

Nightly, each of the survey teams came together and collated all data recorded during the day. Each team reviewed the details provided including the age and sex of the individuals, as well as reviewed individual photos to see if they could identify the giraffe observed – matched against previous years' photo album photos.



## Meeting with local actors

During the annual survey, the GCF-SCF team held a meeting with the AVEN guides to discuss current and future giraffe conservation activities in the region. During the meeting AVEN representatives outlined a range of local development actions which they feel would be good to develop further e.g. livestock health support, microcredit programme, bush regeneration and increasing number of wells. Additionally, AVEN is interested to have new uniforms financed and create environmental education projects locally across the giraffe zone.

In Dingazi and Fandou Regions, we held meetings with various actors including the Mayor, the Ministry Forest Chief and a local facilitator working for ASGN in Fandou. Improving local development support across the regions was highlighted.



### **Human-Giraffe Conflict**

As a result of the giraffe moving into the Koure Region and surrounds in the 1990s, the level of human-giraffe conflict has increased with the increasing giraffe and human population numbers. As a pure communal landscape where the giraffe live, they have been recorded to regularly damage fields and gardens as a result of walking through them (none are fenced) or foraging on them e.g. cowpeas, mangoes. Some of the local community often herd the giraffe away from their crops but at night can be observed returning in areas.

Fortunately, many of the local community are very cooperative and support the conservation of the giraffe, in particular the population of Fandou, who assisted the teams on a voluntary basis to locate the giraffes to count them in spite of the damage caused by them.



### **Habitat loss and degradation**

Cutting firewood in the giraffe core habitat has and continues to be a major threat to the loss degradation of giraffe habitat. Additionally, the loss of vegetation is limiting the availability of forage for giraffe and as such it is likely increasing human-giraffe conflict as they eat cowpea crops.

During the survey, we intercepted people who had cut 'green' wood in the central area, and thus the Ministry Forest staff seized the wood. However, for the sake of giraffe a greater effort around maintaining the current vegetation is required, as well as opportunities to increase where possible through targeted revegetation programmes.



## **Conclusion and Next Steps**

The 2017 annual survey of the endangered West African giraffe was successful. A detailed individual identification survey was undertaken of the giraffe across three regions with many new giraffe observed, and a current estimate of 607 giraffe in Niger – an annual increase of greater than 11%.

Additional to the survey, we were able to interact with various local communities living with giraffe, associations and municipal authorities to better understand the existing problems with regards to conflict and discuss local development opportunities.

The next phase of the programme will now be to enter the individual photos into the GiraffeSpotter: Wildbook for Giraffe dataset and initiate the use of this as a valuable survey tool for future assessments. Additionally, GCF-SCF is looking at undertaking an independent giraffe survey using modified methods to help assess the accuracy of the current estimates. This will also be valuable for implementing new and improved methods in future surveys if fruitful.

