

# Country Profile

## Federal Republic of Nigeria



### Giraffe Conservation Status Report

January 2021

#### General statistics

Size of country: 923,768 km<sup>2</sup>

Size of protected areas / percentage protected area coverage: 124,403 km<sup>2</sup>/13.9%

#### Species and subspecies

In 2016 the International Union for the Conservation of Nature (IUCN) completed the first detailed assessment of the conservation status of giraffe, revealing that their numbers are in peril. This was further emphasised when the majority of the IUCN recognised subspecies were assessed in 2018 – some as *Critically Endangered*. While this update further confirms the real threat to one of Africa's most charismatic megafauna, it also highlights a rather confusing aspect of giraffe conservation: how many species/subspecies of giraffe are there? The IUCN currently recognises one species (*Giraffa camelopardalis*) and nine subspecies of giraffe (Muller *et al.* 2018) historically based on outdated assessments of their morphological features and geographic ranges. The subspecies are thus divided: Angolan giraffe (*G. c. angolensis*), Kordofan giraffe (*G. c. antiquorum*), Masai giraffe (*G. c. tippelskirchi*), Nubian giraffe (*G. c. camelopardalis*), reticulated giraffe (*G. c. reticulata*), Rothschild's giraffe (*G. c. rothschildi*), South African giraffe (*G. c. giraffa*), Thornicroft's giraffe (*G. c. thornicrofti*) and West African giraffe (*G. c. peralta*).

However, GCF together with their partner Senckenberg Biodiversity and Climate Research Centre (BiK-F) have performed the first-ever comprehensive DNA sampling and analysis (genomic, nuclear and mitochondrial) of all major natural populations of giraffe throughout their range in Africa. As a result, an update of the traditional taxonomy now exists. This study revealed that there are four species of giraffe and likely six subspecies (Fennessy *et al.* 2016; Winter *et al.* 2018). The four species are Masai giraffe (*G. tippelskirchi*), northern giraffe (*G. camelopardalis*), reticulated giraffe (*G. reticulata*) and southern giraffe (*G. giraffa*). The northern giraffe has three subspecies: Nubian giraffe (*G. c. camelopardalis*), Kordofan giraffe (*G. c. antiquorum*), and West African giraffe (*G. c. peralta*). The southern giraffe has two subspecies: Angolan giraffe (*G. g. angolensis*) and South African giraffe (*G. g. giraffa*). Two of the former subspecies have been subsumed within other taxa as data supports they are genetically identical: the Rothschild's giraffe (*G. c. rothschildi*) is synonymous with the Nubian giraffe (*G. c. camelopardalis*) and it is likely the Thornicroft's giraffe (*G. c. thornicrofti*) is synonymous with the Masai giraffe (*G. c. tippelskirchi*) (Fennessy *et al.* 2016; Winter *et al.* 2018). Two of the former subspecies are raised to specific rank: *G. c. reticulata* is now the reticulated giraffe (*G. reticulata*) and *G. c. tippelskirchi* is now the Masai giraffe (*G. tippelskirchi*). Based on this research, GCF in all publications refers to the updated giraffe taxonomy of four species, while a taxonomy review by the IUCN is ongoing.

The following species and subspecies of giraffe occur and/or historically occurred in Nigeria:

**Species:** Northern Giraffe (*Giraffa camelopardalis*)  
Southern Giraffe (*Giraffa giraffa*) (Introduced)

**Subspecies:** West African Giraffe (*Giraffa camelopardalis peralta*)

Kordofan Giraffe (*Giraffa camelopardalis antiquorum*)

Angolan Giraffe (*Giraffa giraffa angolensis*) (Introduced)

### Conservation Status

#### IUCN Red List (IUCN 2018):

*Giraffa camelopardalis* (as a species) – Vulnerable (Muller *et al.* 2018)

*Giraffa camelopardalis peralta* – Vulnerable (Fennessy *et al.* 2018)

*Giraffa camelopardalis antiquorum* – Critically Endangered (Fennessy and Marais 2018)

*Giraffa giraffa* (as a species) – Not assessed

*Giraffa camelopardalis angolensis* – Least Concern (Marais *et al.* 2018)

#### In the Federal Republic of Nigeria

Naturally occurring giraffe populations are considered extinct in the Federal Republic of Nigeria (referred to as Nigeria henceforth). In 2006 an extralimital population of Angolan giraffe (*G. g. angolensis*) was introduced to the Sumu Wildlife Reserve in the northern part of the country. Giraffe in Nigeria fall under the category in the Wild Animals Law 1965 that may not be hunted without explicit written permission given by the Minister and only for important scientific purposes or essential administrative reasons.

### Issues/threats

Nigeria is the largest country in West Africa and has the largest human population of any African nation (CIA 2019; East 1999). Despite Nigeria hosting sub-Saharan Africa's largest economy due to the oil industry, the country suffers an extreme wealth disparity (CIA 2019; AWF 2018). Due to rapid urbanization, significant overpopulation (population density of 215 people/km<sup>2</sup>), and a historical lack of priority given to wildlife and environmental conservation, a dramatic decline in wildlife populations has resulted making Nigeria a veritable 'faunal desert' for large mammals (Pletcher 2020; CIA 2019; East 1999). The establishment of eight national parks beginning in the 1970's and improved collaboration of NGO's with the government has resulted in increased conservation efforts over the past few decades. Nevertheless, wildlife is still under severe persecution from large scale habitat destruction, poaching and over-hunting, climate change, and civil unrest from terrorist groups (CIA 2019; Sawe 2019; Idowu & Morkenikeji 2015; Ejidike & Ajayi 2012; Aruofor 2001). It is estimated that over the last 25 years, Nigeria has experienced a decline of >40% in their wildlife and habitats directly related to human activities (Ihua-Maduenyi 2018).

The Nigerian government has a history of demonstrating apathy towards wildlife conservation efforts, evidenced by resting on the erroneous idea that wildlife numbers were plentiful and under no threat of extinction and by inadequate funding and support of law enforcement (Ihua-Maduenyi 2018; East 1999). Indeed, despite development of new policies, inadequate funding and the lack of manpower remains a large impediment to overall implementation and enforcement of conservation initiatives (WCS 2019; AWF 2018). To further undermine any increased conservation efforts, there is evidence of corruption within the ranger forces of many national parks (AWF 2018).

Not only has the lack of government enforcement contributed to the dramatic decline of Nigeria's wildlife populations, but the high level of illiteracy and lack of awareness amongst Nigeria's general population perpetuate the ongoing decline (Ejudike & Ajayi 2012). Most inhabitants around national parks and protected areas still do not view poaching as a crime but rather believe wildlife and natural resources are gifts to be used by the people (Ejudike & Ajayi 2012). Little regard is given to sustainable use of natural resources and



due to the high unemployment rate of communities surrounding protected areas, many families rely on harvesting/exploiting wildlife and the natural habitats of protected areas as their main occupation (Ejudike & Ajayi 2012).

Northern Nigeria has been the main operating base for the Boko Haram terrorist group since the late 1990's (CNN 2019). The Boko Haram insurgency has been responsible for hundreds of deaths and more than one thousand kidnappings, rendering northern Nigeria a veritable war zone (CNN 2019). The group is known to mainly inhabit the northern states of Yobe, Kano, Bauchi, Borno and Kaduna, which is where three major national parks are located but also the majority of the historic range of giraffe in country (CNN 2019; East 1999, Sidney 1965; Hapold 1969). By being located in the northern sector of Nigeria, Boko Haram poses a significant threat to giraffe conservation efforts not just in Nigeria but also to neighbouring Cameroon and Niger.

### Estimate population abundance and trends

Taxonomic confusion has surrounded the (sub)species occurrence of giraffe in West and Central Africa. The West African giraffe (*G. c. peralta*) historically ranged north of the Niger-Benue rivers in small populations in Nigeria (Happold 1987). Occasional vagrants from Waza National Park in Cameroon were reported crossing over into north-east Nigeria but no evidence supports permanent populations were formed (Hall 1976; Shorrocks 2016; East 1999). However, genetic work undertaken by Hassanin *et al.* (2007) and recently supported by Fennessy *et al.* (2016) and Winter *et al.* (2018) revealed the giraffe population of Cameroon are not West African giraffe (Dagg 1962), but rather Kordofan giraffe (*G. c. antiquorum*). Therefore it is most likely Nigeria had both West African and Kordofan subspecies, both occurring naturally in the country; however further research is required.

### Historic

Historically, West African giraffe were found all over the region, including some areas now covered by the Sahara Desert (Dagg & Foster 1976; Dekeyser 1955). In Nigeria, the first recorded sighting of giraffe was a specimen reportedly shot to the south-east of the junction of the Niger and Benue Rivers (East 1999). However, there is doubt as to the validity of the location as West African giraffe were thought to be mainly distributed in widespread but scattered populations in the northern third of Nigeria with occasional expansion further south to the northern banks of the Niger and Benue Rivers (Happold 1987). This river system and the forests of Cameroon and Liberia were regarded as effective barriers to the extension of giraffe's geographical range southwards into the apparent suitable savanna woodland habitat (Happold 1969; East 1999). There is evidence giraffe may have been able to cross the Niger River during periods of low rainfall or drought, however there is no record of any permanent population of giraffe south of the Niger River (Happold 1978). Therefore, it is generally accepted giraffe ranged north of the Niger and Benue Rivers in Nigeria (Sidney 1965; Happold 1969). Although giraffe were still widely distributed throughout West Africa by the end of the nineteenth century, a substantial reduction was noted in their distribution due to the introduction of firearms, agriculture development and deforestation by the beginning of the twentieth century (Leroy *et al.* 2009; Ciofolo 1995; Sidney 1965; Mauny 1957).

By 1965 giraffe were considered rare and isolated in small populations in northern Nigeria (Sidney 1965). A survey of Yankari National Park in 1964 estimated only 40-50 giraffe within the entire park (Happold 1969). By 1998 giraffe were assessed to be extinct in the country (East 1999).



## Current

There have been sporadic accounts of occasional giraffe vagrants crossing over from both Niger and Cameroon, but no natural resident populations of giraffe remain in Nigeria (Shorrocks 2016; Margulis 2008; East 1999). Seven West African giraffe were observed to cross into Nigeria from Niger in 2007, however one giraffe was immediately poached by local villagers and it is unknown what happened to the other six (Margulis 2008). Such anecdotal reports have continued as the population of giraffe in Niger expands and ranges further afield. There have also been occasional reports of giraffe in Chad Basin National Park, specifically in the Chingurmi Duguma sector, which are likely Kordofan giraffe crossing over from Waza National Park, Cameroon however no resident population has been re-established (Mohammed Lawan Shettima *et al.* 2017).

In 2006 the Namibian government donated over 250 animals of varying species, including 10 Angolan giraffe (*G. g. angolensis*), to the Nigerian government to support Nigeria's re-wilding of its northern national parks, as well as boosting the tourist sector (Garba 2006). The Angolan giraffe are restricted to the 8 km<sup>2</sup> fenced Sumu Wildlife Park, located within the Lame Burra Reserve in Bauchi State, Nigeria (Adeleke 2017; Esievoidje 2017). Of the 10 giraffe moved, one unfortunately died during the translocation and another died shortly thereafter from an unknown cause (A. Dunn pers. comms.). The remaining eight giraffe adapted well to the park and the population has grown to over 30 individuals in 2019 (A. Dunn pers. comms.).

## **Future Conservation Management**

The following are proposed conservation management options for giraffe in Nigeria:

- Development of a National Giraffe Strategy and Action Plan for Nigeria;
- Evaluation of historic ranges of giraffe species and assessment for future potential conservation translocations;
- Support to dedicated giraffe conservation, habitat protection, education and awareness initiatives (government, NGO and academic); and
- Assess transboundary giraffe conservation and management initiatives with neighbouring countries if giraffe are expanding i.e. Niger and Cameroon.

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### Map

