Country Profile

Republic of Cameroon

Giraffe Conservation Status Report

August 2019

General statistics

Size of country: 475,400 km²

Size of protected areas / percentage protected area coverage: 15.2 %

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 where 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one species (*Giraffa camelopardalis*) and nine subspecies of giraffe (Muller *et al*. 2016) historically based on outdated assessments of their morphological features and geographic ranges.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. tippleskirchi*), 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, over the past decade 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) from all major natural populations of giraffe throughout their range in Africa. As a result, an update to the traditional taxonomy now exists. This study revealed that there are four distinct species of giraffe and likely five 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*). Nubian giraffe (*G. c. camelopardalis*), Kordofan giraffe (*G. c. antiquorum*), West African giraffe (*G. c. peralta*) are the three subspecies of the northern giraffe, while Angolan giraffe (*G. g. angolensis*) and South African giraffe (*G. g. giraffa*) fall under the southern giraffe. Rothschild's giraffe is genetically identical to the Nubian giraffe, and thus subsumed into it. Similarly, preliminary data suggests that the Thornicroft's giraffe is genetically similar to the Masai giraffe, however, additional research is necessary to determine if they are genetically identical or should be considered a subspecies of Masai giraffe (Winter *et al.* 2018). 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 in Cameroon:

Species: Northern giraffe (*Giraffa camelopardalis*)

Subspecies: Kordofan giraffe (*Giraffa camelopardalis antiquorum*)

Conservation Status

IUCN Red List (IUCN 2018):

Giraffa camelopardalis (as a species, old taxonomy) – Vulnerable (Muller *et al.* 2016)

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

In the Republic of Cameroon:

Giraffe in the Republic of Cameroon (referred to as Cameroon in this report) are classified as a Class A species under Wildlife Law No. 94/01 of 1994 to lay down Forestry, Wildlife and Fisheries Regulations. Class A species includes rare or endangered species that benefit from full protection and may not be hunted.

Issues/threats

Cameroon faces major conservation challenges and despite the country's natural riches, several wildlife species are threatened or endangered (Roland 2018, WCS 2012). Dramatic population growth over the past decade, civil unrest due to the increased presence of the terrorist group Boko Haram, illegal hunting and habitat destruction have negatively affected the distribution and range of giraffe and other wildlife in the country (Roland 2018).

An ever-growing human population results in development that encroaches upon and fragments habitats, and causes increased conflict between people and wildlife (Omondi *et al.* 2008; Tsakem *et al.* 2007; Kramkimel *et al.* 2004; Mayaka 2002). Several protected areas in Cameroon are surrounded by densely populated human settlements and, as a result, are under severe anthropogenic pressure (Foguekem *et al.* 2010; Omondi *et al.* 2007; Tsakem *et al.* 2007; Kramkimel *et al.* 2004). High densities of livestock inside and at the peripheries of national parks alongside numerous human activities such as farming, logging, illegal hunting and other forms of development are causing rapid habitat loss that is leading to a decline in overall wildlife numbers in the country (IUCN PACO 2011a, 2011b; Foguekem *et al*. 2010; Omondi *et al*. 2007; Tsakem *et al.* 2007; Kramkimel *et al.* 2004; Mayaka 2002). These human impacts contribute to desertification from poorly managed land use and are compounded by the increasing droughts documented in the northern region of the country (Roland 2018). Gold mining activities in transitional areas surrounding Benoue National Park and petroleum exploration on the northern boundary of Waza National Park pose additional threats to park ecosystems and their wildlife (IUCN PACO 2011a,b).

Economic and political instabilities across Central Africa further complicate efforts to sustainably manage Cameroon's natural resources (WCS 2011). The country's human population is largely impoverished, and many rural communities depend on the hunting of bushmeat for food and as a source of income when sold at local and urban markets (WCS 2012; Kramkimel *et al.* 2004). However, the larger threat to wildlife lies in the rampant illegal hunting involving organised hunters from bordering countries with modern weapons travelling on horseback and decimating the wildlife species (Camer.be 2019; Roland 2018; Nouredine 2012). Cameroon's two largest wildlife areas, Bouba Ndjida and Waza National Parks, are located in close proximity to the borders of Chad, Nigeria and Sudan from where cross-border trafficking and poaching of wildlife occurs (Camer.be 2019; Roland 2018; IUCN PACO 2011b). Incursions of rebels into Bouba Ndjida National Park have also been ongoing throughout the years, with a major upsurge of illegal hunting occurring in 2012 when approximately 200 elephants were slaughtered (Cameroon Tribune 2012; Nouredine 2012). These transgressions were allegedly committed by heavily armed Sudanese rebels, while other sources indicate a mixed teams of Sudanese and Chadian hunters who received local support (Nouredine 2012). Fortunately, it appears as if this specific elephant massacre did not negatively affect other wildlife species such as giraffe (P. Bour pers. comm.).

Cameroon also faces numerous governance challenges (WCS 2012). Illegal activities are aggravated by ineffective and inadequate protection of national parks due to weak or inexistent management structures and law enforcement (Foguekem *et al.* 2010). Waza National Park in particular has suffered from the rise of the Boko Haram insurgence that has caused a major security threat to the northern regions of the country

and has effectively halted any wildlife conservation or surveillance in the park since 2015 (Roland 2018; Elkan *et al*. 2015).

A historical lack of sufficient motivation, infrastructure, equipment and resources along with the large number of people who are involved in the illegal wildlife trade in Cameroon make conventional law enforcement difficult (WCS 2012). However, with increasing value placed on protecting wildlife the government (especially the Ministry of Forestry and Wildlife) now focusses its efforts toward securing park boundaries and protecting wildlife in the northern region with increased anti-poaching patrols, reviewing existing conservation policies, and developing species specific conservation action plans (Camer.be 2019; Roland 2018; Foguekem *et al.* 2010; Omondi *et al.* 2008).

Estimate population abundance and trends

Taxonomic confusion has surrounded the (sub)species of giraffe that occurs in Central Africa. The giraffe population of Cameroon were formerly thought to be West African giraffe (*Giraffa camelopardalis peralta*) (Dagg 1962), but genetic work undertaken by Hassanin *et al*. (2007) and recently supported by Fennessy *et al*. (2016) and Winter *et al.* (2018) clearly show that giraffe in Cameroon are Kordofan giraffe (*G. c. antiquorum*).

Historic

Kordofan giraffe formerly occurred widely in the Far North Region and North Region (North Province until 2008) of Cameroon (East 1999)[1]. Giraffe were historically restricted to the northern savanna woodlands and Sahel Zone, with the North Region being the species' natural southern limit in the country (East 1999). An estimated 1,000 giraffe occurred in Cameroon in the late 1950s (Dagg 1962; Jeannin & Barthe 1958).

East (1999) reported that Waza National Park protected an important and viable giraffe population. From the early 1960s to the early 1990s, giraffe in the park were generally estimated to number between 1,000 and 2,000 individuals (East 1999). Population trends show a decline in giraffe numbers from 1962 to 1977. The giraffe population of Waza National Park was estimated at approximately 2,000 individuals in 1962 (Flizot 1962). In January 1977, van Lavieren (1977) estimated approximately 1,091 giraffe, while an aerial survey conducted in December 1977 estimated approximately 1,262 giraffe (Esser & van Lavieren 1979). This apparent decline was likely due to the rinderpest outbreak of 1968 and the drought of 1972/73 (Vanpraet 1976; Beauvilain 1989). The giraffe population was considered stable from 1977 to 1980 (Ngog 1983) and appeared to increas somewhat over the next decade. Aerial sample counts of the park carried out in 1991 estimated approximately 1,516 giraffe (Tchamba & Elkan 1995).

The first documented ground surveys of Benoue National Park were conducted in 1975 and estimated the giraffe population at approximately 17 individuals (Stark 1977).

By the late 1990s, giraffe were largely restricted to protected areas in Cameroon, when an estimated 1,360 individuals occurred in the country (East 1999). Waza National Park remained an important refuge for giraffe, while the species occurred at lower densities in Bouba Ndjida, Benoue and Faro National Parks, and the adjoining hunting zones of the North Region (East 1999).

Giraffe in Waza National Park showed a declining trend since the 1991 census. A wildlife survey of the park conducted in 1994 estimated the giraffe population at approximately 340 individuals (East 1999). However, as this census concentrated mostly on areas around the park's waterholes (East 1999), this could have been an undercount.

During ground surveys in 1999, only four giraffe were observed in Benoue National Park and no giraffe in adjacent hunting zones 1 and 4 (Gomse & Mahop 2000). Following a ground survey of the same area in 2004, Donfack & Tsakem (2004) reported insufficient observations of giraffe. In 2007, eight giraffe were observed

[1] Although East (1999) referred to *G. c. peralta and G. c. antiquorum* collectively as western giraffe, *G. c. antiquorum* is now assumed to be Kordofan giraffe as referred to throughout this document.

during ground surveys of Benoue National Park, while no giraffe were recorded in the two hunting zones (Tsakem *et al.* 2007).

Current

The last total aerial count of wildlife in Waza National Park was conducted in 2007 and counted 604 giraffe (Foguekem *et al.* 2010; Omondi *et al.* 2007). The survey showed giraffe to occur in high densities in the central part of the park although they were also seen widespread in low numbers, except in the eastern section of the park (Foguekem *et al.* 2010; Omondi *et al.* 2007). Unfortunately, due to the increasing conflict with the Boko Haram and security restraints, no recent surveys were undertaken (Elkan *et al*. 2015). However, based on local reports it is likely that giraffe numbers have halved in recent years. It is critical to undertake an updated survey to get an up-to-date assessment of giraffe numbers and assess their conservation status.

Total aerial counts of Benoue, Faro and Bouba Ndjida National Parks, as well as adjacent hunting zones, were initially conducted in 2008 and recently redone in 2015 (Elkan *et* al. 2015; Omondi *et al.* 2008). In 2015 four giraffe were recorded in Benoue National Park, 17 in Bouba Ndjida, and three giraffe were seen in safari hunting zone 18 outside Faro National Park (Elkan *et al.* 2015). Based on the direct observations and evidence of giraffe during transects, in combination with recent reports from the Bristol Zoological Society field staff and from the hunting blocks, the total estimated population of giraffe in these three national parks and surrounding hunting zones is estimated at approximately 260 individuals (Elkan *et al.* 2015).

In summary, current giraffe numbers for Cameroon are essentially unknown but best estimates assume that there are between 560-860 Kordofan giraffe remaining in the country. Most giraffe are assumed to occur in Waza National Park, with lower numbers in Bouba Ndjida National Park, Benoue National Park, Faro National Park and the hunting zones outside of these protected areas. A detailed updated assessment is critical to fully understand their current conservation status.

Future Conservation Management

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

- Greater understanding of giraffe population numbers, range and conservation status across the country, including (sub)speciation;
- Development of National Giraffe Conservation Strategy and Action Plan for Cameroon;
- Support to dedicated giraffe conservation, habitat protection, anti-poaching, education and awareness initiatives (government, NGO and academic).

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Map


Kordofan giraffe (Giraffa camelopardalis antiquorum)
Protected areas
Nigeria
Waza National Park
Maroua
Chad
Cameroon
Garoua
Bouba Ndjida National Park
Faro National Park
GCF
Giraffe Conservation Foundation
Bénoué National Park
Cameroon
Mbam et Djerem National Park
Central African Republic
Korup National Park
Bertoua
Douala
Yaounde
Dja Faunal Reserve
Atlantic Ocean
Campo Ma'an National Park
Boumba-Bek &Nki National Parks
Sangha Tri National Park
Equatorial Guinea
Gabon
Kilometers
0
100
200
400
Republic of The Congo