

# Country Profile

## The Republic of Guinea

### *Giraffe Conservation Status Report*



#### General statistics

Size of country: 245,860 km<sup>2</sup>

Size of protected areas / percentage protected area coverage: 6%

#### 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 and 2019 – 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one species (*Giraffa camelopardalis*) and nine subspecies of giraffe (Muller *et al.* 2018) historically based on outdated assessments of their morphological features and geographic ranges.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, 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 were known to occur in Guinea:

**Species:** Northern giraffe (*Giraffa camelopardalis*)

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

## Conservation Status

### IUCN Red List (IUCN 2012):

*Giraffa camelopardalis* (as a species) – Least concern

*Giraffa camelopardalis antiquorum* – Endangered

### In the Republic of Guinea:

Extinct

## Issues/threats

The Republic of Guinea (referred to as Guinea in this report) is one of the poorest countries in the world (Wikipedia 2014). Located in West Africa, Guinea forms a crescent as it curves from its western border on the Atlantic Ocean toward the east and the south, sharing its northern border with Guinea-Bissau, Senegal and Mali, and its southern border with Sierra Leone, Liberia and Ivory Coast. Historically, West African giraffe (*Giraffa camelopardalis peralta*)<sup>1</sup> occurred in the savannas of northern Guinea, but is now extinct in the country (Fennessy & Brown 2010; East 1999).

Once widely distributed across the Sudano-Sahelian Zone, from Senegal to Lake Chad, West African giraffe have been extirpated from most of its former range by illegal hunting and habitat alteration, destruction and fragmentation (Hassanin *et al.* 2007; Ciofolo 1995; Dagg & Foster 1976; Happold 1969). The extension of agriculture, deforestation and infrastructure development caused severe loss of habitat, while the introduction of firearms resulted in extensive hunting of giraffe for meat and hides (East 1999; Le Pendu & Ciofolo 1999; Ciofolo & Le Pendu 1998; Ciofolo 1995, Mauny 1957). Increasing aridity and a series of intense droughts have also contributed to the dramatic decline of West African giraffe in the region (Le Pendu & Ciofolo 1999; Dagg & Foster 1976).

In Guinea, high human population density, exacerbated by refugee influx from conflict ridden neighbouring countries, has increased the demands on the environment, resulting in over-exploitation and consequent degradation of natural resources (FFI 2014; UNEP 2000). Rapid deforestation, coupled with the clearing of land for cultivation and the intensification of hunting to meet food demands, have resulted in a general loss of biodiversity, has exerted severe pressure on wildlife populations, and has threatened the survival of many species in the country (UNEP 2000). Although little is known about the mammals of Guinea (Stuart *et al.* 1990; Barnett *et al.* 1996), these factors may have contributed to the extirpation of giraffe from the country. Today, the only surviving population of West African giraffe occurs in the south-western parts of Niger, where they persist in a densely populated, unprotected region that is under severe anthropogenic pressure (Hassanin *et al.* 2007; Le Pendu & Ciofolo 1999).

## Estimate population abundance and trends

### Historic

The historically reported range of West African giraffe varies from being almost non-existent to widely spread across the continent's north-west (Fennessy 2008). During the Palaeolithic period, giraffe reportedly ranged across the major part of North and West Africa, now covered by the Sahara Desert (Mauny 1957; Dekeyser 1955). Although Dagg & Foster (1976) reported the former distribution of West African giraffe to cover most countries of West and Central Africa (including Benin, Burkina Faso, Ghana, Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, Togo, Cameroon, Central African Republic and Chad), a genetic study by Hassanin *et al.* (2007) concluded that the giraffe of West and Central Africa belong to two different (sub)species, *G. c. peralta* and *G. c. antiquorum* respectively – the latter encompassing the historical and current populations of

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<sup>1</sup> Although East (1999) referred to *G. c. peralta* and *G. c. antiquorum* collectively as western giraffe, *G. c. peralta* is now assumed to be West African giraffe as referred to throughout this document.



Cameroon, Chad and Central African Republic. Hassanin *et al.* (2007) suggested that the ancestor of the West African giraffe dispersed from East to North Africa and thereafter migrated to its current Sahelian distribution in West Africa some 6,000 years ago, in response to the evolution of the Sahara desert.

Historically, West African giraffe inhabited the savannas of northern Guinea (East 1999). Compared to other countries in West Africa, little is known about the mammals of Guinea and more studies are required (Stuart *et al.* 1990; Barnett *et al.* 1996). Uncertainty therefore remains to the time period during which giraffe were extirpated from the country.

According to Dagg & Foster (1976) giraffe were still present in West Africa in Gambia, Niger, Nigeria, Mali, Mauritania and Senegal by the end of the nineteenth century, but no mention was made of Guinea.

### Recent

Neither Dagg (1962) nor Happold (1969) made any reference to the presence of giraffe in Guinea. By the mid-1960s, West African giraffe were reportedly only found in large numbers in the Mtnaka district and around Aderbissinat in central Niger (ZSL 1965).

### Current

Historically, West African giraffe occurred in the savannas of northern Guinea, but the (sub)species have gone locally extinct in the country (Fennessy & Brown 2010; East 1999).

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### Map

*In preparation.*

