

The Republic of Mali

Giraffe Conservation Status Report

July 2020

General statistics

Size of country: 1,240,000 km²

Size of protected areas / percentage protected area coverage: 3.7%

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one species (*Giraffa camelopardalis*) and nine subspecies of giraffe (Muller *et al.* 2018) historically based on outdated assessments of their morphological features and geographic ranges.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, 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 are found in Mali:

Species: Northern giraffe (*Giraffa camelopardalis*)

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

Conservation Status

IUCN Red List (IUCN 2018):

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

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

In the Republic of Mali:

Extinct.

Issues/threats

The Republic of Mali (referred to as Mali in this report) is a landlocked country in West Africa. Historically, West African giraffe (*Giraffa camelopardalis peralta*)¹ occurred widely in the central parts of Mali (East 1999). The distribution and range of West African giraffe have drastically decreased as a result of anthropogenic pressure (Hasannin *et al.* 2007; Le Pendu 1999; Ciofolio 1995; Dagg & Foster 1976). The main drivers of the decline include human population growth, civil unrest, illegal hunting (poaching) and habitat alteration, destruction and fragmentation (Hasannin *et al.* 2007; Niandou *et al.* 2000; Ciofolio & Le Pendu 1998; Ciofolio 1995; Happold 1969). The introduction of firearms resulted in extensive illegal hunting of giraffe for meat and hides, while the extension of agriculture, deforestation and infrastructure development caused severe loss of habitat (East 1999; Le Pendu 1999; Ciofolio & Le Pendu 1998; Ciofolio 1995, Mauny 1957). Increasing aridity and a series of intense droughts have also contributed to the dramatic decline of West African giraffe (Le Pendu 1999; Dagg & Foster 1976).

Although the mammalian fauna of Mali is poorly understood (Meinig 2000), giraffe is extinct in the country (Fennessy *et al.* 2018; Fennessy & Brown 2010). The last surviving populations of West African giraffe occur in the neighbouring Niger, where they mainly persist in a densely populated, unprotected region that is under severe anthropogenic pressure (Hasannin *et al.* 2007; Le Pendu 1999). With increasing giraffe migrations (and forays), a progressive saturation of the giraffe core range in Niger is suspected to result (Fennessy & Tutchings 2014). As giraffe seek new areas, they are likely to venture into Mali where, despite being part of their historical range, they would be more vulnerable to illegal hunting (Le Pendu 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 *et al.* 2018; Fennessy 2008). According to Mauny (1957) giraffe ranged across the major part of North and West Africa, now covered by the Sahara Desert, during the Palaeolithic period. According to Dagg & Foster (1976), the former distribution of West African giraffe covered most countries of West and Central Africa, including Benin, Burkina Faso, Ghana, Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, Togo, Cameroon, the Central African Republic and Chad. However, a genetic study by Hassanin *et al.* (2007) concluded that 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 Cameroon, Chad, Central African Republic and Democratic Republic of

¹ 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.



Congo. 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 Sahara desert evolving.

Historically, West African giraffe occurred widely in the central parts of Mali: in the Sahel Zone and northern savannah woodlands (East 1999). Although giraffe were still present throughout West Africa in Mali, as well as Gambia, Niger, Nigeria, Mauritania and Senegal by the end of the nineteenth century (Dagg & Foster 1976), a substantial reduction in their distribution was reported by the beginning of the twentieth century (Leroy *et al.* 2009; Ciofolo 1995; Sidney 1965; Mauny 1957).

According to Ciofolo & Le Pendu (1998), large scale disappearance of West African giraffe was evident by the 1950s. Happold (1978) reported that giraffe still roamed from Gaya in Nigeria to Mali in the 1960s, with the highest population density occurring near Ayorou in Niger, close to the Malian border. By the mid-1960s, West African giraffe were reportedly only found in large numbers in the Mtnaka district in Mali and around Aderbissinat in central Niger (ZSL 1965).

In 1969, a few giraffe still survived in Mali's Ansongo-Menaka Partial Faunal Reserve on the Niger border in the east and in Boucle du Baoule National Park in the west (Ciofolo 1995; Happold 1969). However, by the late 1980s they had disappeared completely from Boucle du Baoule National Park and other areas in the west (East 1999).

There are mixed reports on the more recent presence of giraffe in the Ansongo-Menaka Partial Faunal Reserve. One report suggests the last giraffe was killed in 1987 (World Bank 1993) while East (1999) reports Mali's last remaining giraffe population comprised less than ten animals as of 1996. At that time, giraffe in the reserve were severely threatened by incursions of large numbers of livestock and encroachment of settlements (East 1999). Although the Malian authorities took active steps in the early 1990s to protect the reserve's giraffe population, including posting a ranger to accompany the giraffe to discourage poachers (East 1999), habitat degradation and destruction prevailed.

Le Pendu (1999) made reference to two sub-adult male giraffe crossing into Niger from Mali in 1997, and suggested that they probably came from a relic group of five individuals in the Natural Reserve of Monzonga. Five giraffe travelled from Sansanne Houssa to Fandou (Niger) in the same year and Le Pendu (1999) suggested that this group could have consisted of giraffe from Mali and/or Niger (Le Pendu 1999).

Current

The small population of West African giraffe in the Ansongo-Menaka Partial Faunal Reserve is now extinct and by extension no giraffe currently exist in Mali (Fennessy *et al.* 2018; Fennessy & Brown 2010).

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Map

