

Country Profile

Republic of Malawi

Giraffe Conservation Status Report



General statistics

Size of country: 118,480 km²

Size of protected areas / percentage protected area coverage: 15%

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one species (*Giraffa camelopardalis*) and nine subspecies of giraffe (Muller *et al.* 2016) historically based on outdated assessments of their morphological features and geographic ranges.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. 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 (*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 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*). 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, Thornicroft's giraffe is genetically similar to the Masai giraffe, and as such considered a separate subspecies of the Masai giraffe (*G. t. thornicrofti*) (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 may occur in Malawi:

Species: Masai giraffe – *Giraffa tippelskirchi* (formerly *Giraffa camelopardalis tippelskirchi*)
Southern giraffe - *Giraffa giraffa*

Subspecies: Thornicroft's giraffe (*Giraffa camelopardalis thornicrofti*) a subspecies of the Masai giraffe
Giraffa tippelskirchi
South African giraffe (*Giraffa giraffa giraffa*)

Conservation Status

IUCN Red List (IUCN 2012):

Giraffa camelopardalis (as a species) – least concern

Giraffa camelopardalis thornicrofti – not assessed

Giraffa camelopardalis giraffa – not assessed

In the Republic of Malawi:

the Game Act (No. 26 of 1953) is the main act for the preservation, control and trade of game animals in the Republic of Malawi. Giraffe are not specially protected under this act.

Issues/threats

The Republic of Malawi (referred to as Malawi in this report) is one of the least urbanised and poorest countries in Africa (MFCR 2010). The greatest threats to biodiversity in Malawi include habitat degradation, fragmentation and destruction due to unsustainable land use practices (CHM 2013; Johnson *et al.* 2012; MFCR 2010). The cumulative effect of agricultural expansion, urbanisation, infrastructure development, mining and an increase in human settlements contributes to major land conversion in the country and destruction of natural habitat (CHM 2013; Johnson *et al.* 2012; MFCR 2010).

Over-harvesting and over-exploitation of natural resources by Malawi's ever increasing human population further decimates wildlife numbers (Johnson *et al.* 2012; MFCR 2010). Due to their low economic base Malawians depend on the existing natural resource endowment for energy (fuel wood), food, construction material, medicine and fodder; forcing them to trade-off long term sustainable resource use for short term consumption (MFCR 2010). This overdependence on the environment has contributed to the local extermination of some widely used natural resources (MFCR 2010). Inadequate enforcement of environmental policies further contributes to the indiscriminate exploitation of natural resources in the country (MFCR 2010).

Wildlife species in Malawi have been decimated by illegal hunted for meat, skins and horns (MFCR 2010; Munthali & Mkanda 2002). The southern part of the country especially is heavily populated and this forces communities to encroach into protected areas and exacerbates the illegal hunting of wildlife (CHM 2013; Johnson *et al.* 2012; Munthali & Mkanda 2002). While there are only very few giraffe in Malawi, so far they do not appear to be adversely affected by the abovementioned threats.

More than one giraffe (sub)species has likely been introduced into Malawi (Briggs 2013; J. Mwalukomo pers. comm.). This poses a potential threat to the genetic composition of giraffe in the country.

Infant mortality of giraffe has been very high in Malawi's Nyala Game Park, possibly due to genetic inbreeding and reduced genetic diversity (J Mwalukomo pers. comm.). Closely related individuals that have been mating since their introduction two decades ago appear to be producing weak and non-disease resistant offspring (J Mwalukomo pers. comm.). There have been more than ten infant mortalities in the park (J Mwalukomo pers. comm.).



Estimate population abundance and trends

Historic

The historical occurrence of giraffe in Malawi remains uncertain. In a summary of giraffe distribution in Africa, Dagg (1962) made no reference to the existence of giraffe in Malawi. Neither did East (1999) in his summary of the conservation status of giraffe in sub-Saharan Africa.

According to Briggs (2013), giraffe were never indigenous to Malawi. The only documented historical record of wild giraffe in the country is that of an individual that strayed over the Zambian border into Malawi's Karonga District, where it was killed by local people (Briggs 2013).

Recent

In 1993, five giraffe (assumed to be *G. c. giraffa*) were translocated from Imire Park in Zimbabwe to the privately owned Nyala Game Park in Malawi's Southern Region (J. Mwalukomo pers. comm.).

According to Briggs (2013), an unknown number of Thornicroft's giraffe (*G. c. thornicrofti*) from the Luanga Valley in Zambia were introduced into the privately owned Kuti Wildlife Reserve in Malawi's Central Region and into Nyala Park in the early 2000s. However, the apparent introduction of Thornicroft's giraffe into Nyala Park could not be confirmed by the current park staff. In 2007, one male and one female giraffe were translocated from Nyala Park and introduced into Game Haven Park in Malawi's Southern Region (G. Gange-Harris pers. comm.).

During a game count of Nyala Park in 2008, a total of 21 giraffe were counted, while 25 giraffe were recorded in 2009 (J. Mwalukomo pers. comm.). Four giraffe died during the capture operation, possibly due to intense heat and stress (J. Mwalukomo pers. comm.). A follow up game count of Nyala Park in 2010 recorded a total of 16 giraffe and in 2011, 14 giraffe (J. Mwalukomo pers. comm.). This number had decreased to 13 giraffe by 2012 (J. Mwalukomo pers. comm.).

Current

Currently, very few giraffe are present in Malawi (A. Salb pers. comm.). Kuti Wildlife Reserve is home to one adult male and one juvenile giraffe (assumed to be *G. c. thornicrofti*). A single adult female giraffe on the reserve died in 2013 from an unknown cause (G. Crisford pers. comm.). Nyala Park is home to 14 giraffe (possibly *G. c. giraffe* or a hybridised population of *G. c. giraffe* and *G. c. thornicrofti*). The only other known South African giraffe in Malawi occurs in Game Haven Park. Although the two individuals in the park have not bred in the six years since their introduction, the female is currently thought to be pregnant (G. Gange-Harris pers. comm.).

In summary, the current giraffe numbers for Malawi are estimated at two Thornicroft's giraffe (in Kuti Wildlife Reserve) and 16 South African giraffe (if the populations at Nyala Park and Game Haven are in fact South African giraffe and not a hybridisation of South African and Thornicroft's giraffe).

Future Conservation Management

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

- Greater understanding of giraffe (sub)speciation across the country;
- Any future introductions should be limited to the same (sub)species as previously re-introduced;
- Development of a National Giraffe Strategy for Malawi;
- If giraffe are still present, support to dedicated giraffe conservation, habitat protection, education and awareness initiatives (government, NGO and academic).



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Citation

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Map

