



Country Profile

Republic of Mozambique

Giraffe Conservation Status

October 2025

General statistics

Size of country: 801,590 km²

Size of protected areas/percentage protected area coverage: 29.5%

Species and conservation status

Over the past one and half decades the Giraffe Conservation Foundation (GCF), together with their key partners at the Senckenberg Biodiversity and Climate Research Centre and others, 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 (Bertola *et al.* 2024; Coimbra *et al.* 2021, 2023; Winter *et al.* 2018; Fennessy *et al.* 2016). Additionally, detailed skull morphology studies conducted by GCF with partners from the University of Cape Town, South Africa, and the University of Madrid, Spain (Kargopoulos *et al.* 2024), collectively resulted in an update of the historically outdated taxonomy of *Giraffa* spp. that was previously predominantly based on limited morphological features and geographic ranges. Collectively, these studies led to the 2025 IUCN Species Survival Commission Giraffe & Okapi Specialist Group review of the available data, which concluded that there are indeed four distinct giraffe species and seven subspecies (Bertola *et al.* 2024; Coimbra *et al.* 2021, 2023; Kargopoulos *et al.* 2024; Winter *et al.* 2018; Fennessy *et al.* 2016), namely Masai (*Giraffa tippelskirchi*), northern (*Giraffa camelopardalis*), reticulated (*Giraffa reticulata*) and southern giraffe (*Giraffe giraffa*).

Northern giraffe comprises three subspecies, namely Nubian (*G. c. camelopardalis*), Kordofan (*G. c. antiquorum*), and West African giraffe (*G. c. peralta*), while Angolan (*G. g. angolensis*) and South African giraffe (*G. g. giraffa*) fall under the southern giraffe. Masai giraffe consist of two subspecies: Masai (*G. t. tippelskirchi*) and Luangwa giraffe (*G. t. thornicrofti*).

Over the last five years, various conservation status updates of giraffe numbers and distribution were undertaken (O'Connor *et al.* 2019; Brown *et al.* 2021), with the most recent published in the *GCF State of Giraffe 2025* (Marneweck *et al.* 2025). It is a positive development that the numbers of each of the four species of giraffe have increased, with current estimates of 43,926 Masai giraffe, 7,037 northern giraffe, 20,901 reticulated giraffe, and 68,837 southern giraffe (Marneweck *et al.* 2025).

A recent genomic study conducted by GCF confirmed that all giraffe in Mozambique are South African giraffe with no indication of hybridisation with Angolan giraffe (Prochotta *et al.* 2024).

The taxonomy of the giraffe in Mozambique is therefore confirmed as:

Species: Southern giraffe (*Giraffa giraffa*)

Subspecies: South African giraffe (*Giraffa giraffa giraffa*)



Conservation Status

IUCN Red List (IUCN 2018):

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

Giraffa giraffa – Not assessed

Giraffa giraffa giraffa – Not assessed

In the Republic of Mozambique:

Giraffe in the Republic of Mozambique (referred to as Mozambique in this report) are protected under the Forestry and Wildlife Law (Law No. 10/99) and Regulations of the Forestry and Wildlife Law (Decree No. 12/2002). Giraffe, now confirmed as South African giraffe (*Giraffa giraffa giraffa*), are listed in Annexure 2 of the Regulations as a protected species that may not be hunted. They are listed as one of the eight mammals on Mozambique's National Red List that are either extinct or in danger of extinction (MICOA 2009).

Issues/threats

Giraffe (*Giraffa* spp.) are one of the most threatened large mammal species in Mozambique (Beyers *et al.* 2013). Mozambique's biodiversity faces major threats from habitat conversion, degradation, and fragmentation, as well as overexploitation of wildlife through poaching, the spread of invasive species, pollution, and climate change (Beyers *et al.* 2013; Weyerhaeuser 2013; WWF 2013; Wingqvist 2011; MICOA 2009). Human-driven pressures such as agricultural expansion, conversion of land to industrial plantations, logging, firewood collection, charcoal production, uncontrolled wildfires, and poaching have significantly altered natural ecosystems and continue to endanger the survival of many species (Beyers *et al.* 2013, Wingqvist 2011; MICOA 2009).

The Mozambican civil war (1977–1992) was among one of the deadliest conflicts in the world in the last half century and has severely impacted biodiversity conservation in the country (Moving Giants 2018; Lindsey & Bento 2012). This impact was amplified by the fact that most protected areas in Mozambique were established only just prior to the civil war in the 1960s and 1970s (Beyers *et al.* 2013). During the war, these areas were mostly abandoned, and, without adequate management, infrastructure lapsed into a state of degradation (Beyers *et al.* 2013). Protected areas were invaded and occupied by local people from the surrounding areas as well as military troops (Beyers *et al.* 2013; Lindsey & Bento 2012; MICOA 2009). During this time, uncontrolled poaching was rampant and wildlife populations, particularly large mammals, were severely overexploited to the point of depletion (Beyers *et al.* 2013; Lindsey & Bento 2012; Miller *et al.* 2012; Le Bel *et al.* 2011; Wingqvist 2011; MICOA 2009; DEAT 2002). Unfortunately, due to the combination of corruption in law enforcement and ineffective regulations, the poaching crisis continued unhampered (Lindsey *et al.* 2015).

Since the end of the war in 1992, the national government has directed efforts on the establishment and rehabilitation of their protected areas network, recovering of lost wildlife populations, and bringing back tourism to Mozambique (Moving Giants 2018; Lindsey & Bento 2012; MICOA 1997). These efforts were challenged by various constraints such as weak operational capacity, poor infrastructure, and a lack of funding for the protection of wildlife and human resources (Funk & Kruger 2018; MICOA 1997). Poaching reportedly continues in many areas and human population growth, combined with people's dependency on natural resources, has contributed to increased human-wildlife conflict (WWF 2013; Lindsey & Bento 2012; Miller *et al.* 2012; Le Bel *et al.* 2011; MICOA 2009). In addition, criminal gangs were reported to engage in poaching of wildlife and illegal logging of forest resources (WCS 2015).

On a broader scale, climate change represents the latest in a series of environmental drivers of human conflict identified in recent decades, characterised by drought, desertification, land degradation, failing water supplies, wildfires, and deforestation (Brown *et al.* 2007). Climate is an important factor directly affecting wildlife



populations throughout Africa, yet research in Mozambique has largely focused on economic sectors such as agriculture, energy, mining, and tourism (Wingqvist 2013; Osbahr et al. 2008). While conservation contributes significantly to tourism, it remains highly vulnerable to climate impacts, particularly in relation to altered fire regimes resulting from population growth, conflict, and weakened traditional management practices (Wingqvist 2013; Arndt et al. 2011; Hoffmann et al. 2009). Climate change may intensify these dynamics by altering the frequency, intensity, severity, and seasonality of wildfires, alongside compounding Mozambique's high variability in rainfall and extreme weather events such as droughts and floods (Hoffmann et al. 2009; Arndt et al. 2011). As Mozambique lies at the end of numerous transnational rivers, flooding and changes in water regimes, timing, quantity, and quality pose perennial threats to wildlife survival and productivity of rangelands, given the uneven distribution of rivers, floodplains, and wetlands. Climate models predict reduced rainfall alongside higher temperatures, with UNEP's Emissions Gap Report projecting a 1.5°C increase globally by 2030 (UNEP 2021), while Africa may experience a rise of 1.2°C within two decades (Almazroui et al. 2020), leading to significant declines in natural productivity and resource availability in Southern Africa (Stige et al. 2006). These changes may affect wildlife by altering life-history timing and phenology, demographic rates, population sizes, and species distributions (Chidumayo et al. 2011). While existing challenges of climate variability are compounded by climate change, little is known about how Mozambique will be specifically affected or how policies may adapt to offset potential damages (Arndt et al. 2011).

Estimate population abundance and trends

Historic

Due to historical political instability and the selective focus on protected areas, mammal distributions in Mozambique remain poorly documented (Neves et al. 2019). South African giraffe were traditionally assumed to occur only in southern Mozambique, south of the Save and Limpopo Rivers in the Guija, Uanetze, Saute, and Funhalouro regions (Agrego 2008; East 1999; Dagg 1962). However, reviews of early explorer accounts reveal a broader historical range, including areas further north, also supported by giraffe depictions in rock engravings near Manica Town, north of the Save River on Mozambique's western border (Muianga 2013; Oliveira 1971). Additional evidence from African hunter-traveller records further confirms giraffe presence north of the Save River (Dalquest 1965; Maugham 1918). Thus, historical distributions were not limited by the Save and Limpopo Rivers, consistent with broader ranges across Tanzania and neighbouring countries. Disease outbreaks, notably Rinderpest in the late 1800s and early 1900s, alongside other pressures, likely drove large-scale range restrictions of giraffe in Mozambique and beyond (Sunseri 2018; Phoofolo 1993). By the early 1970s South African giraffe were extirpated across most of their range in Mozambique and the few surviving individuals were restricted to the area between the Limpopo River and the border with South Africa's Kruger National Park (NP) (East 1999). Furthermore, Mozambique's civil conflict took its toll on the remaining wildlife in the following decades and by the late 1990s, South African giraffe were thought to have gone extinct in the country (East 1999). However, this was not completely accurate with small numbers likely remaining, especially along the southwestern border with South Africa, and in Zinave NP.

Subsequently, South African giraffe were re-introduced into Limpopo, Maputo and Zinave NPs in southern Mozambique (Beyers *et al.* 2013; MICOA 2009). Between 2002 and 2007, 82 South African giraffe were translocated from Kruger NP to Limpopo NP as part of developing the Greater Limpopo Transfrontier Conservation Area (I. Engelbrecht pers. comm). In 2002, sections of the boundary fence between Kruger and Limpopo NPs were removed to allow for cross-border movement of wildlife (Peace Parks Foundation 2012). In 2008, another 33 South African giraffe were introduced into Limpopo NP (A. Alexander pers. comm.). A country-wide aerial wildlife census conducted in 2008 reported 125 South African giraffe in the Limpopo NP (MICOA 2009; Agreco 2008).



Current

The Greater Limpopo Transfrontier Conservation Area (GLTFCA) is a vast cross-border conservation initiative linking national parks and reserves in Mozambique, South Africa, and Zimbabwe. The largest section of the GLTFCA in Mozambique is made up by Limpopo NP with an estimated cover of 1,000,000ha. In 2010, an aerial census of Limpopo NP estimated the South African giraffe population at 116 individuals (Stephenson 2010), and in 2014 the population declined further to 71 individuals (Grossman *et al.* 2014). These numbers may have been an undercount as anecdotal observations from patrols suggested higher numbers with range expansions into the eastern sandveld area (A. Alexander pers. comm.) but could also be attributed to increased anthropogenic factors from both livestock and human presence allowed within the park as well as bushmeat poaching (J. Almeida pers. comm.; Everatt *et al.* 2014). Recent interventions and anti-poaching efforts through the provision of paramilitary and helicopter access appear to be effective in yielding this trend (J. Almeida pers. comm.). The latest surveys in 2024 indicate that the population has increased markedly to an estimated 324 (J. Almeida pers. comm.).

Karingani Game Reserve (GR) is situated on the western border of Mozambique and shares a boundary fence with South Africa's Kruger NP. South African giraffe have moved naturally between the two properties through gaps in the fence, with some settling permanently. Most South African giraffe reside in the northern and western woodlands where adequate water is freely available. The central section is comprised largely of dwarf sand forest and acts as a form of natural internal barrier that is rarely utilised and limiting regular access to the southern and south-eastern areas (E. Worth pers. comm.). In 2023, 12 giraffe were translocated from southern KwaZulu-Natal (KZN) in South Africa, to Karingani GR. Each giraffe was fitted with a Ceres GPS tracking unit (ear tag) to monitor post-release movements. Data from these units indicated that the South African giraffe settled well and dispersed relatively evenly throughout the reserve. This translocation bolstered the existing small population which was estimated at 189 individuals in 2024 (J. Almeida pers. comm.).

Sabi Game Park (GP), situated south of Karingani GR, is a 30,000ha property bordering the Lower Sabie section of Kruger NP and operates as a hunting concession. Currently, the South African giraffe population on Sabi GP is estimated at 30 individuals (J. Almeida pers. comm.). Located just north of Sabi GP, also bordering Kruger NP, are the smaller conservation areas Incomati, Masintonto GR and Mbatse GR, with population sizes of 25, 14 and 5 South African giraffe, respectively, based on 2024 estimates (J. Almeida pers. comm.).

Zinave NP is managed by Peace Parks Foundation in partnership with ANAC and also forms part of the GLTFCA. In 2011, an initial seven South African giraffe were translocated from South Africa's Kruger NP to Zinave NP into a fenced sanctuary, followed by another 11 animals in 2019, all as part of its rehabilitation post-civil war (Mashala 2012; Miller *et al.* 2012; J. Almeida pers. comm.). In 2021 an aerial game count reported 31 individuals in the sanctuary with a further 3-4 individuals in the larger park (Sunrise Aviation CC 2021). This population has slowly increased to an estimated 42 South African giraffe inside the sanctuary (GCF 2021). As highlighted above, the individuals roaming the park outside the fenced sanctuary are likely naturally occurring, as there are no anecdotal accounts of translocated giraffe escaping the sanctuary (M. Stalmans, pers. comm.). Interestingly, a small remnant population exists independently of the reintroductions. Recent estimates indicate a current population of 44 South African giraffe in 2024 (J. Almeida pers. comm.).

In Mozambique's southwest, as part of a collaborative wildlife restocking initiative by the Mozambican and South African governments, eight South African giraffe were introduced to Maputo NP in 2012 from Hluhluwe GR (six individuals) and Tembe Elephant Park (two individuals), both in South Africa's KZN Province (Peace Parks 2013; A. Guenha pers. comm.). An additional 12 South African giraffe, six from Ndumo GR and six from Pongola Nature Reserve in KZN, were introduced in 2013 (Peace Parks 2013; A. Guenha pers. comm.), followed by a further 12 South African giraffe from KZN in 2017 (Peace Parks 2017; J. Almeida pers. comm.). A 2021 estimate



of 67 South African giraffe indicated a steady growth in the population (B. Neubert pers. comm.), with the latest census estimating a population of 245 giraffe in 2024 (C. Hanekom pers. comm.). In 2023, six giraffe were fitted with Ceres GPS satellite units (ear tags) to better understand their spatial ecology and movement patterns within Maputo NP, revealing that most movements occurred in the southern section of the park, with some individuals frequently crossing or moving along the EN201 roadway. Additionally, some individuals were recorded moving within the Futi Corridor, near the border with South Africa.

In summary, many of the South African giraffe in Mozambique were re-introduced and are currently estimated at ~1,108: This includes ~324 in Limpopo NP, ~232 in the Masvingo area, 245 in Maputo NP, 189 in Karingani GR, 44 in Zinave NP, 30 in Sabi GP, 25 in Incomati, 14 in Masintonto GR and 5 in Mbhatse GR (Figure 1; Table 1).

Table 1: Current numbers and distribution of South African giraffe across Mozambique (Marneweck et al. 2025).

Region	Site	Species	Subspecies	Year	Estimate
GLTFCA	Communal land adjacent to Gonarezhou National Park	<i>G. giraffa</i>	<i>giraffa</i>	2022	232
GLTFCA	Coutada 4	<i>G. giraffa</i>	<i>giraffa</i>	2009	0
GLTFCA	Incomati	<i>G. giraffa</i>	<i>giraffa</i>	2024	25
GLTFCA	Karingani Game Reserve	<i>G. giraffa</i>	<i>giraffa</i>	2024	189
GLTFCA	Limpopo National Park	<i>G. giraffa</i>	<i>giraffa</i>	2024	324
GLTFCA	Mansintonto	<i>G. giraffa</i>	<i>giraffa</i>	2024	14
GLTFCA	Mbhatse (formerly JGK Ferreira Game Reserve)	<i>G. giraffa</i>	<i>giraffa</i>	2024	5
GLTFCA	Sabi Game Park	<i>G. giraffa</i>	<i>giraffa</i>	2023	30
GLTFCA	Zinave National Park	<i>G. giraffa</i>	<i>giraffa</i>	2024	44
Lubombo TFCA	Maputo National Park	<i>G. giraffa</i>	<i>giraffa</i>	2024	245
Total				2024	1,108

Future Conservation Management

The following are proposed conservation management options for South African giraffe in Mozambique:

- Finalising and endorsement of the first-ever National Giraffe Strategy and Action Plan for Mozambique;
- Ongoing review of historical explorer literature and ancient rock art to better understand historical distribution of giraffe in the country;
- Conservation translocations of South African giraffe only to Mozambique to help bolster the existing populations and establish new founder populations.
- Recommendations of translocation best practices developed and implemented by ANAC;
- Anti-poaching efforts to conserve the key South African giraffe populations in current and future South African giraffe expansion areas;
- GPS satellite tagging of key Mozambique giraffe populations to better understand habitat use and provide monitoring support;
- Targeted surveys of all key giraffe populations to gain a better understanding of their numbers; and
- Support dedicated South African giraffe conservation, habitat protection, education, and awareness initiatives (government, NGO and academic).



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Map

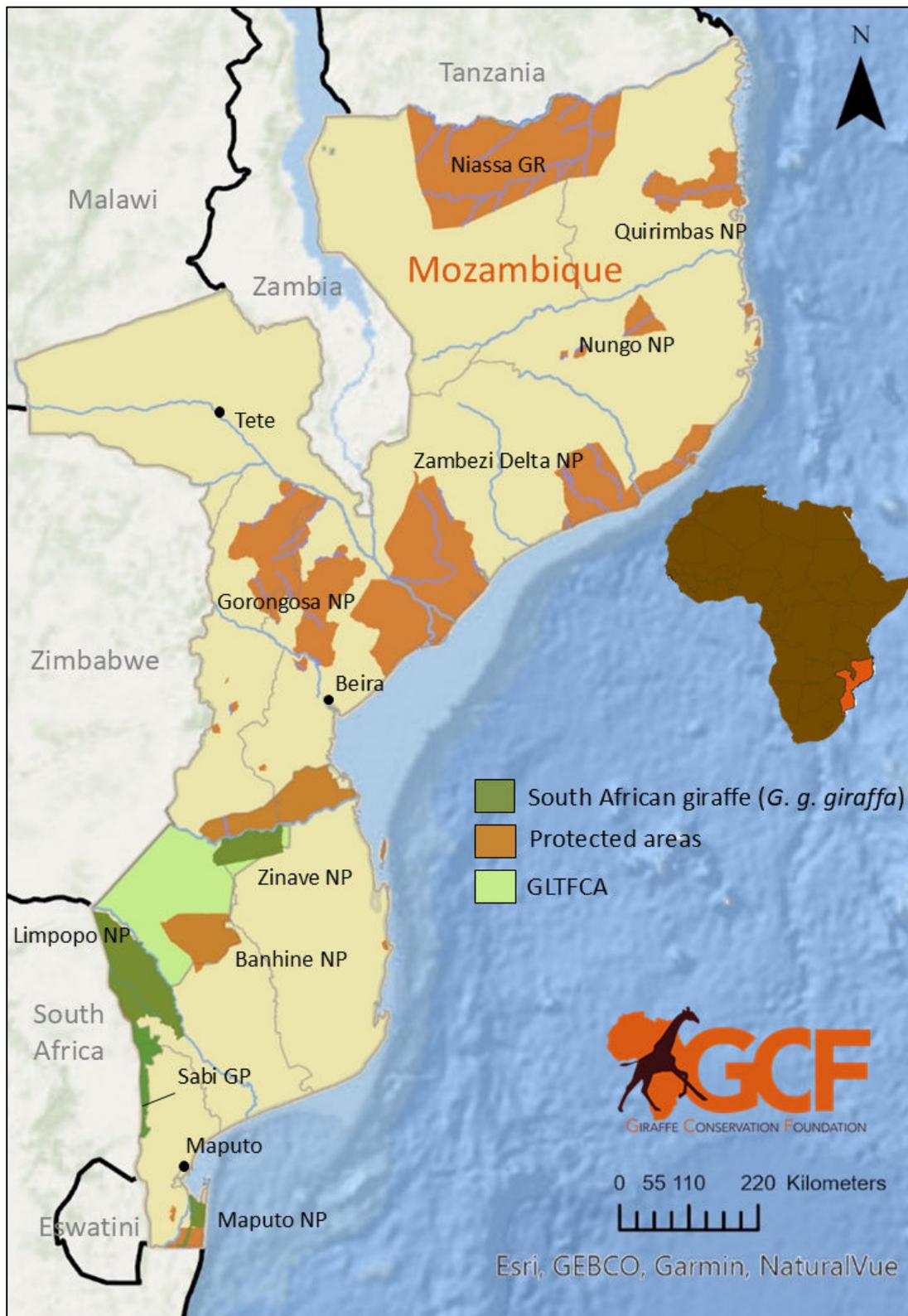


Figure 1: Current distribution of South African giraffe across Mozambique (Marneweck *et al.* 2025).

