

AFRICA'S GIRAFFE Species

Thank you to Cindy Armstrong, Billy Dodson, Luke Hausler (Zoos Victoria) and Christopher Wade for providing the images and map.

Historically, giraffe were considered one species, *Giraffa camelopardalis*, with nine subspecies. This classification is currently still recognised by the IUCN Red List of Threatened Species™. However, the Giraffe Conservation Foundation (GCF), together with its partner Senckenberg Biodiversity and Climate Research Centre (BiK-F), 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.

These studies have resulted in an updated understanding of the traditional taxonomy. The data shows that there are four distinct species of giraffe and seven subspecies. These ground-breaking findings have already contributed significantly to giraffe research, conservation and management.

All four giraffe species and their subspecies live in geographically distinct areas throughout Africa. While some of these species have been reported to hybridise in zoos, there is little evidence that this occurs naturally in the wild.

Taxonomy & Populations

Class: Mammalia (Mammals)

Order: Artiodactyla

Family: Giraffidae

Genus, Species and Subspecies:

Giraffa camelopardalis

G. c. antiquorum
G. c. camelopardalis
G. c. peralta

Giraffa giraffa

G. g. angolensis
G. g. giraffa

Giraffa reticulata

Giraffa tippelskirchi
G. t. thornicrofti
G. t. tippelskirchi

Northern giraffe *Giraffa camelopardalis*

Northern giraffe are estimated at a population of just below 6,000 individuals in the wild, with numbers slowly rebounding in key areas. Three subspecies of the Northern giraffe occur across Eastern, Central, and West Africa.



West African giraffe *G. c. peralta*

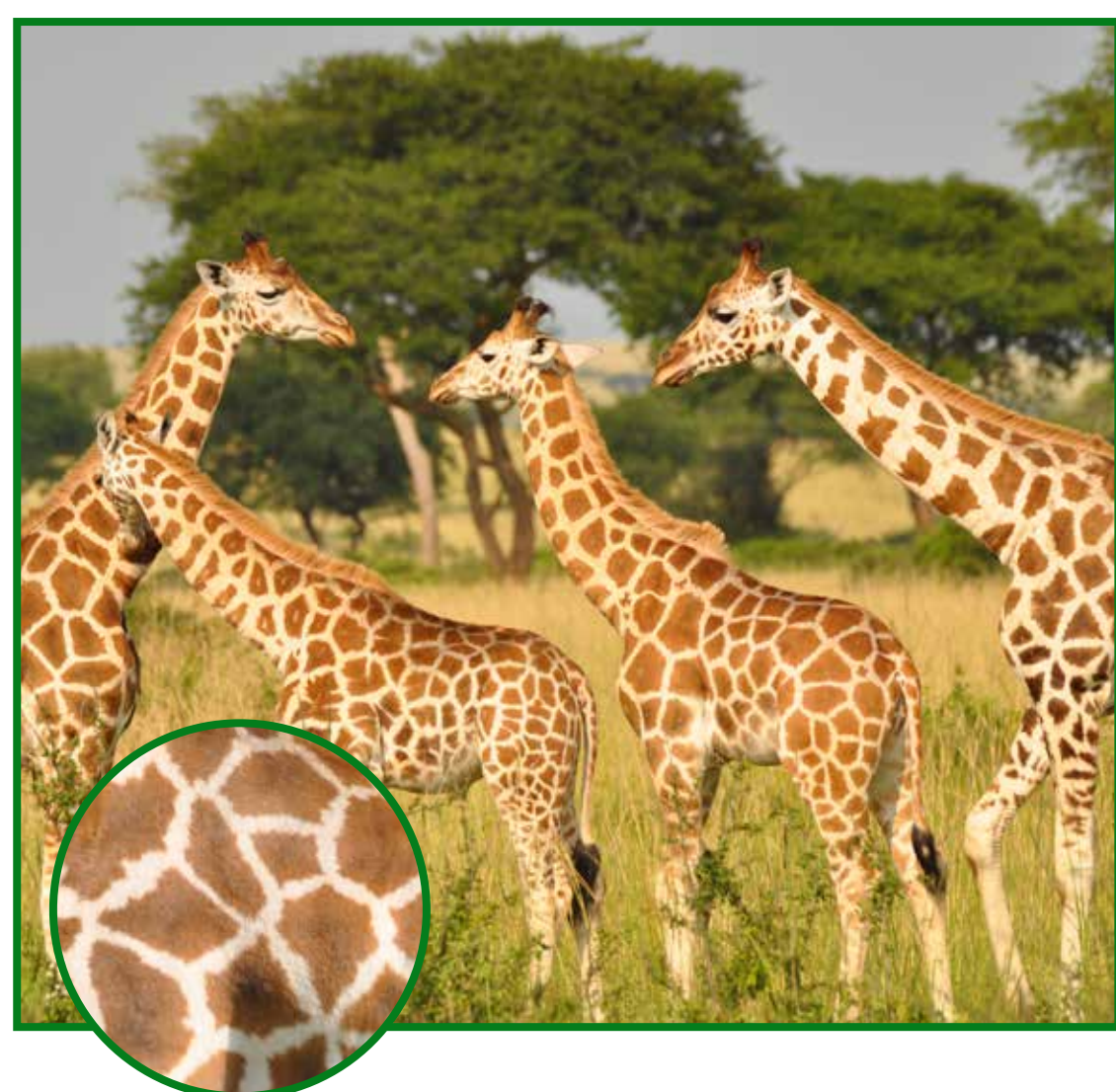
At the beginning of the 20th century the West African giraffe were widely distributed, from Nigeria to Senegal, but by the mid-1990s only 49 individuals remained in the whole of West Africa. These few survivors are now formally protected by the Niger government and their numbers have risen to more than 600 individuals. However, their future is still of great concern as they predominantly live in an isolated pocket (the Giraffe Zone) east of the capital Niamey and share their living space with local villagers. No other large wild mammals occur in this area, and habitat loss and destruction are increasing. In 2018, GCF together with the Government of Niger translocated eight West African giraffe to the Gadabedji Biosphere Reserve to establish a new satellite giraffe population in order to assist the population's growth in number and range. In 2008, the West African giraffe was listed as *Endangered* on the IUCN Red List; however, in 2018 it was downlisted to *Vulnerable* based on increasing numbers and their conservation success story.

The West African giraffe is noticeably light in appearance. Their patches are rectangular and tan coloured and broadly surrounded by a creamy colour. There are no markings on their lower legs.



Nubian giraffe *G. c. camelopardalis*

The Nubian giraffe is the nominate subspecies, which means that because it was the first specimen recorded, its Latin sub-specific name is the same as the original species described. The estimated number of Nubian giraffe is approximately 3,000 individuals, which includes the genetically identical formerly recognised Rothschild's giraffe. At present, fewer than 175 occur in western Ethiopia, less than 450 in eastern South Sudan, approximately 700 in Kenya, and more than 1,800 in Uganda.



The majority of Nubian giraffe in Kenya live extraliminally (outside their natural range) as a result of efforts to establish viable populations throughout Kenya for conservation purposes.

Exact information about the precariously small and fragmented populations in Ethiopia and South Sudan is extremely difficult to ascertain, and their numbers are most likely lower due to increased poaching in the region. Based on the rate of decline, estimated at 95% in the last three and a half decades, Nubian giraffe were, for the first time, added to the IUCN Red List and listed as *Critically Endangered*. In 2010, the formerly known Rothschild's subspecies was classified as *Endangered*, but based on strong conservation efforts of governments and partners, including GCF, it was downlisted to *Near Threatened* as populations and numbers have increased. Once the IUCN recognises the two subspecies as one, the conservation status on the IUCN Red List for Nubian giraffe will most likely remain *Critically Endangered*, indicating an urgent need for further conservation measures.

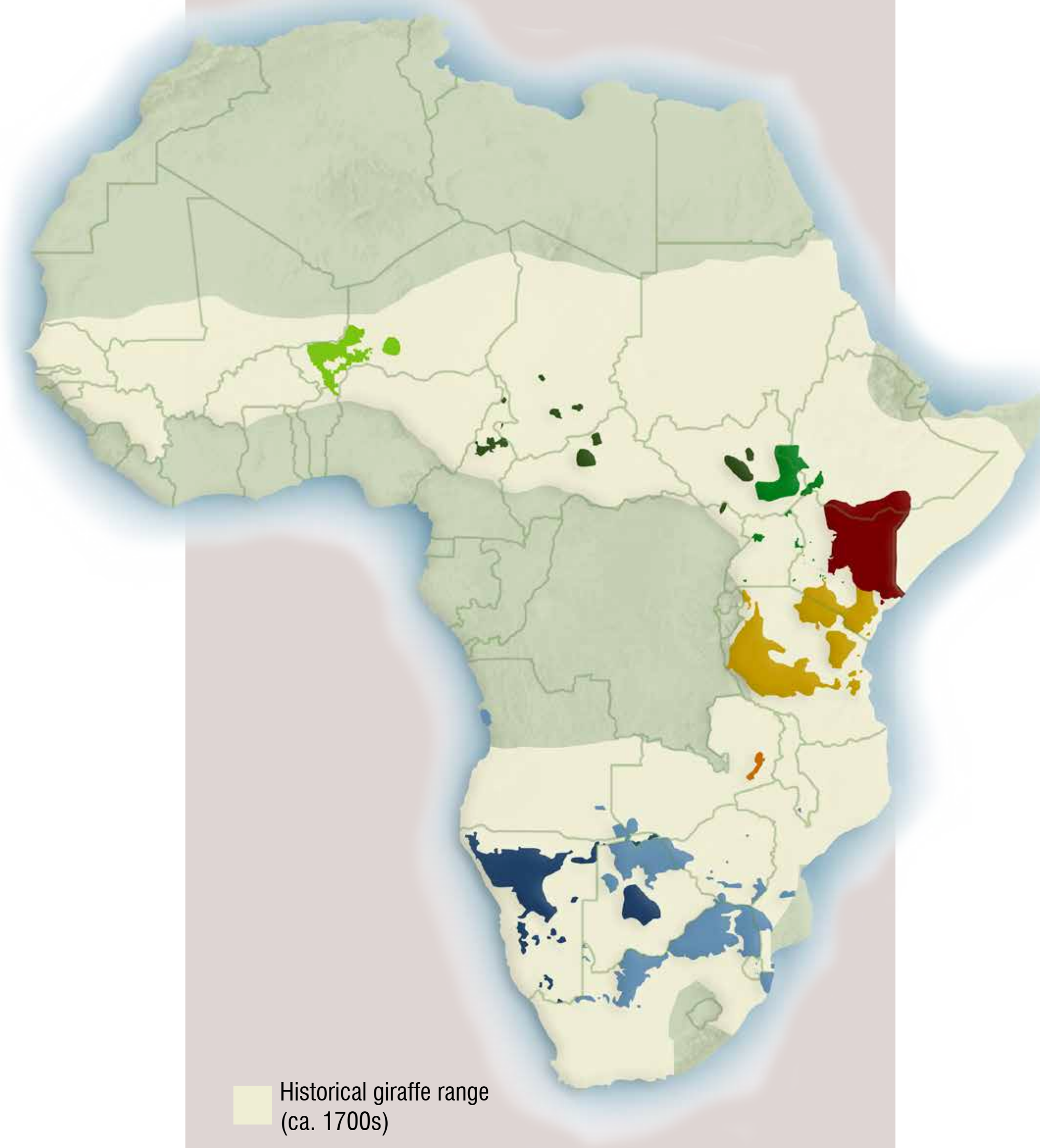
The Nubian giraffe's patches are large, rectangular and chestnut-brown. The patches are surrounded by an off-white, creamy colour. There are no markings on their lower legs, a distinct feature of all Northern giraffe.



Kordofan giraffe *G. c. antiquorum*

The Kordofan giraffe ranges in areas that experience high incidents of conflict and political instability: southern Chad, Central African Republic, northern Cameroon, northern Democratic Republic of Congo, and western South Sudan. It is estimated that approximately 2,300 individuals survive in these conflict-ridden countries. A decline of more than 80% in the last three and a half decades has resulted in their recent listing as *Critically Endangered* on the IUCN Red List.

The Kordofan giraffe's patches are pale and irregular. Like all Northern giraffe subspecies, they have no markings on their lower legs.

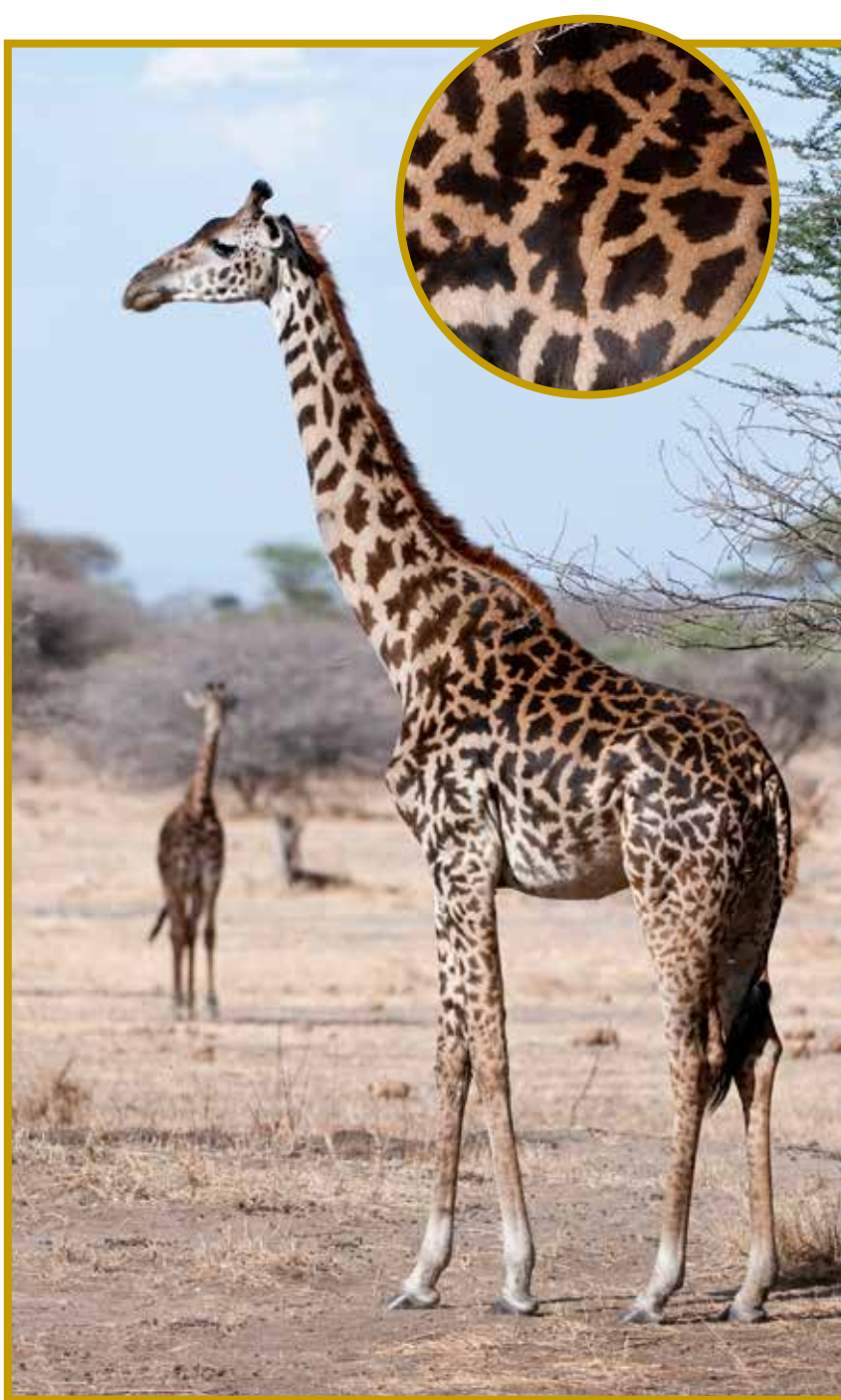


Historical giraffe range (ca. 1700s)

Masai giraffe	<i>Giraffa tippelskirchi</i>	45,400
Luangwa giraffe	<i>G. t. thornicrofti</i>	650
Masai giraffe	<i>G. t. tippelskirchi</i>	44,750
Northern giraffe	<i>Giraffa camelopardalis</i>	5,900
Kordofan giraffe	<i>G. c. antiquorum</i>	2,300
Nubian giraffe	<i>G. c. camelopardalis</i>	3,000
West African giraffe	<i>G. c. peralta</i>	600
Reticulated giraffe	<i>Giraffa reticulata</i>	15,950
Southern giraffe	<i>Giraffa giraffa</i>	49,850
Angolan giraffe	<i>G. g. angolensis</i>	20,200
South African giraffe	<i>G. g. giraffa</i>	29,650

Masai giraffe *Giraffa tippelskirchi*

Recent studies have shown that there are two subspecies of Masai giraffe: Masai giraffe and Luangwa giraffe. There are just over 45,400 Masai giraffe remaining in the wild.



Masai giraffe *G. t. tippelskirchi*

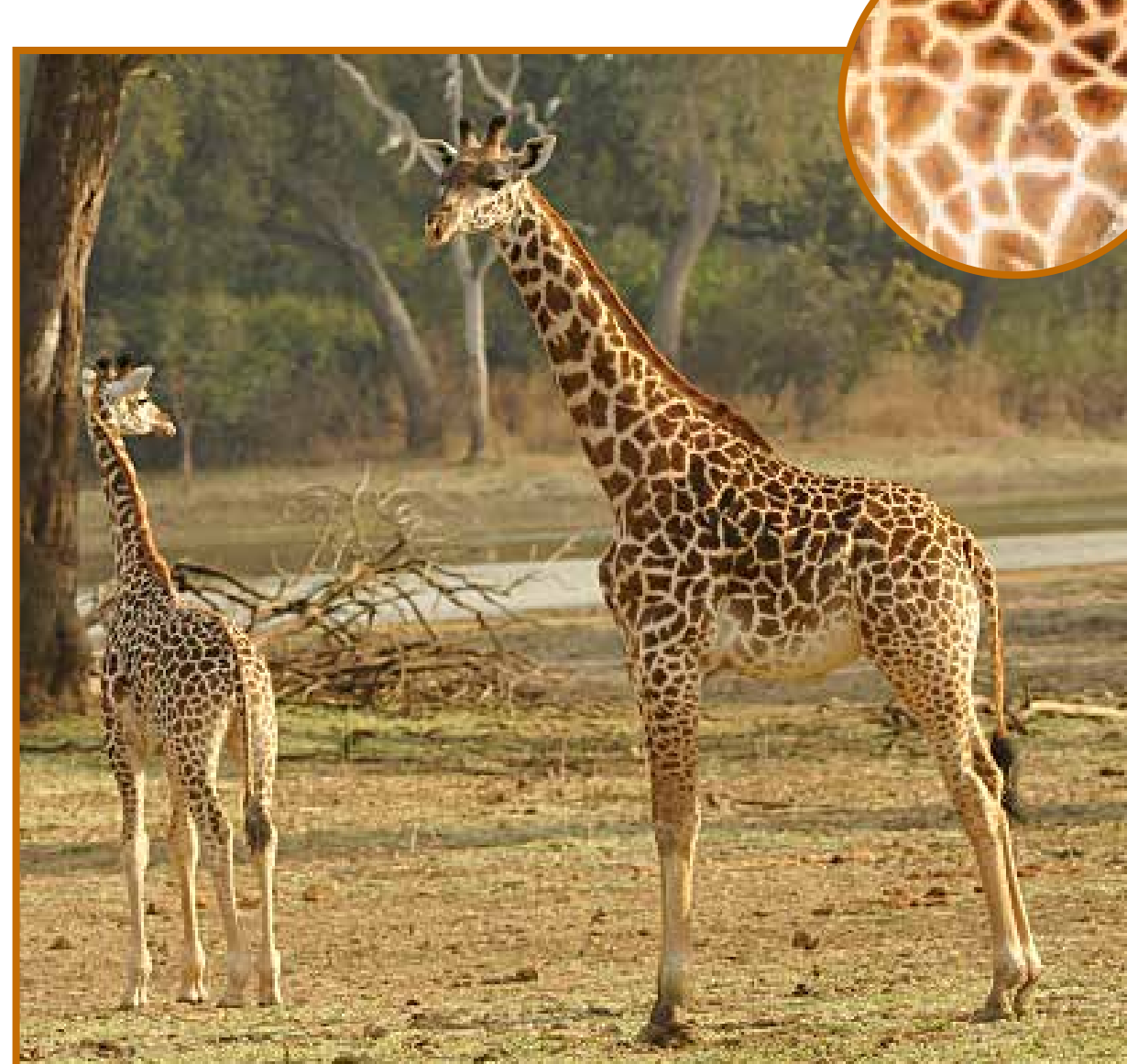
Masai giraffe range across central and southern Kenya and throughout Tanzania. Although it remains unclear whether Masai giraffe occurred naturally in Rwanda in the past, extralimital populations (those outside their natural range) have been translocated to the Akagera National Park in the country. Formerly the most populous giraffe with an estimated 71,000 individuals three and a half decades ago, just over 44,750 remain in the wild today. Ongoing reports of poaching and habitat fragmentation suggest that their population is still under threat; however, recent estimates suggest that they are also slowly rebounding. The IUCN Red List assessment of Masai giraffe highlighted an overall decline of approximately 50%, resulting in their listing as *Endangered*; however, GCF's recent assessment shows a positive trend over the last five years.

The Masai giraffe is often noticeably darker than other species. Its patches are large, dark brown and distinctively vine leaf-shaped with jagged edges. The patches are surrounded by a creamy-brown colour, which continues down their lower legs.

Luangwa giraffe *G. t. thornicrofti*

Luangwa giraffe (formerly known as Thornicroft's giraffe) exist as an isolated population in the South Luangwa Valley, eastern Zambia. They are listed as *Vulnerable* on the IUCN Red List because even though the population has remained stable at approximately 650 individuals in recent decades, they occur in low numbers in only one geographical area of eastern Zambia. Recent trends show that their range and numbers are slowly increasing.

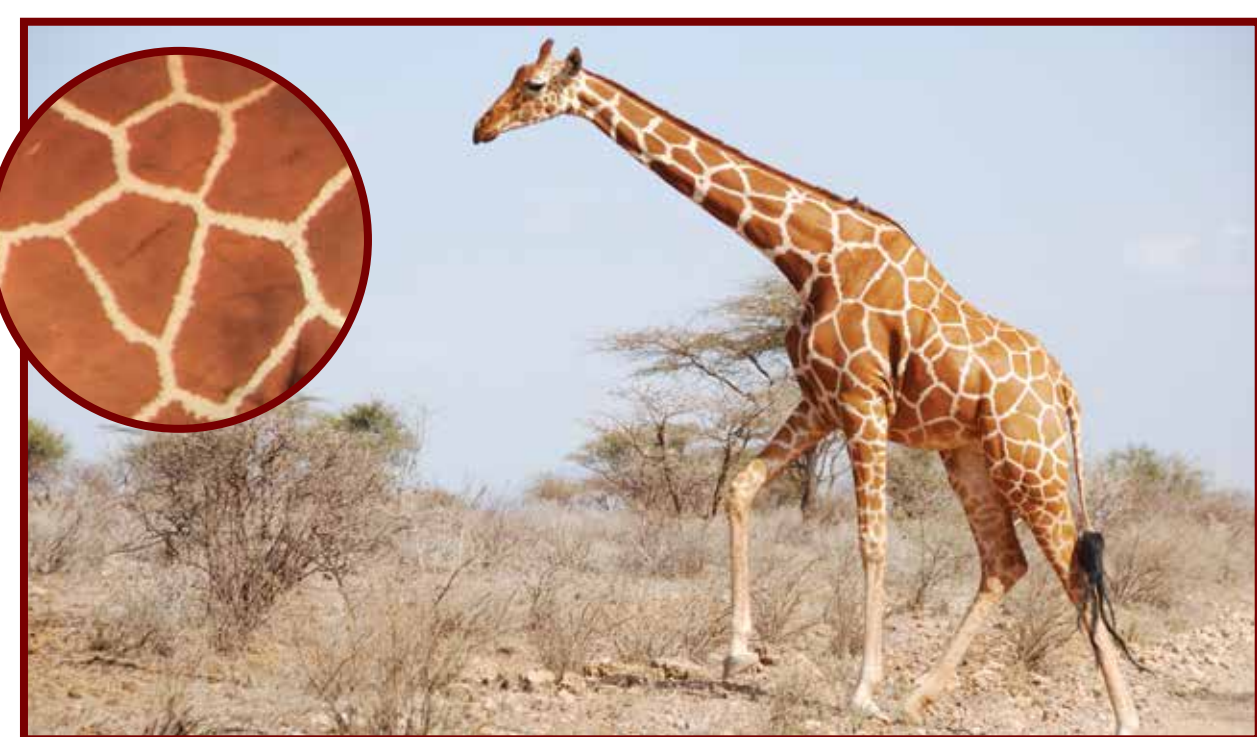
The Luangwa giraffe's colouring and patterns are similar to the Masai giraffe. They also have distinctive vine leaf-shaped patches with jagged edges, which are surrounded by a creamy-brown colour that continues down their lower legs.



Reticulated giraffe *Giraffa reticulata*

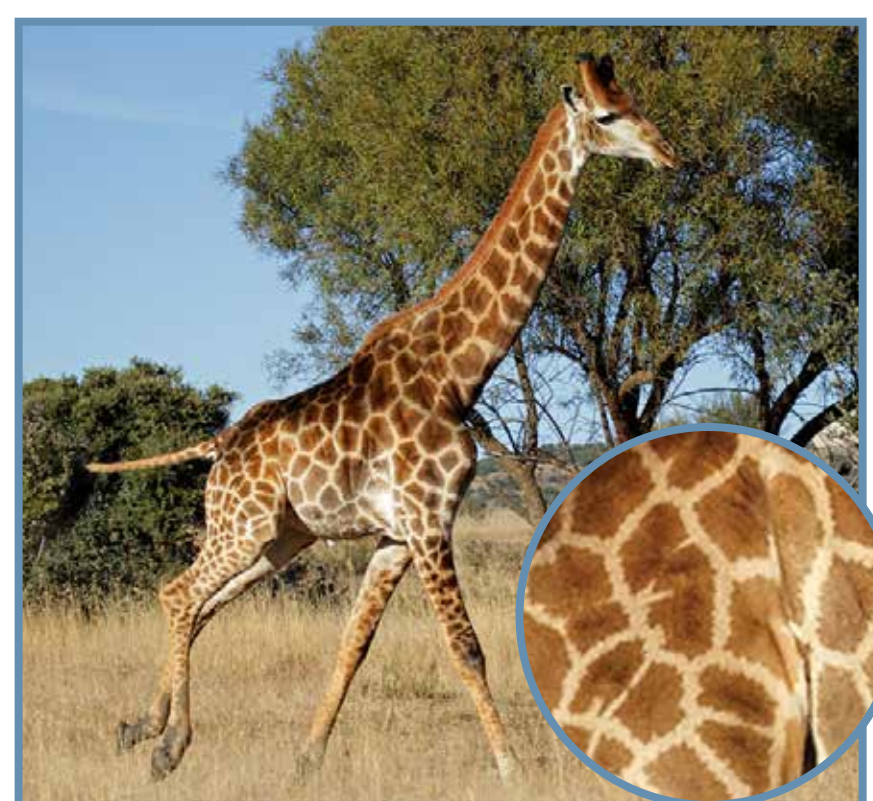
The Reticulated giraffe has a relatively limited distribution across northern and north-eastern Kenya, and small restricted populations most likely persist in southern Somalia and southern Ethiopia. An estimate of almost 16,000 individuals remain in the wild – a decline of over 50% from the approximate 36,000 three and a half decades ago. As a result of this decline, Reticulated giraffe were added to the IUCN Red List and listed as *Endangered* in 2018. In recent years, however, numbers across northern Kenya appear to be increasing with improved conservation measures. More than 95% of Reticulated giraffe occur outside of government-managed protected areas, emphasising the need for community and private stakeholder engagement in giraffe conservation.

It is easy to see why this species is called the Reticulated giraffe, as its rich orange-brown patches are clearly defined by a network of striking white lines, which continue the entire length of their legs.



Southern giraffe *Giraffa giraffa*

Two subspecies of the Southern giraffe occur across Southern Africa and, together, they make up over 40% of the continent's total giraffe numbers, estimated at almost 50,000 individuals.



South African giraffe *G. g. giraffa*

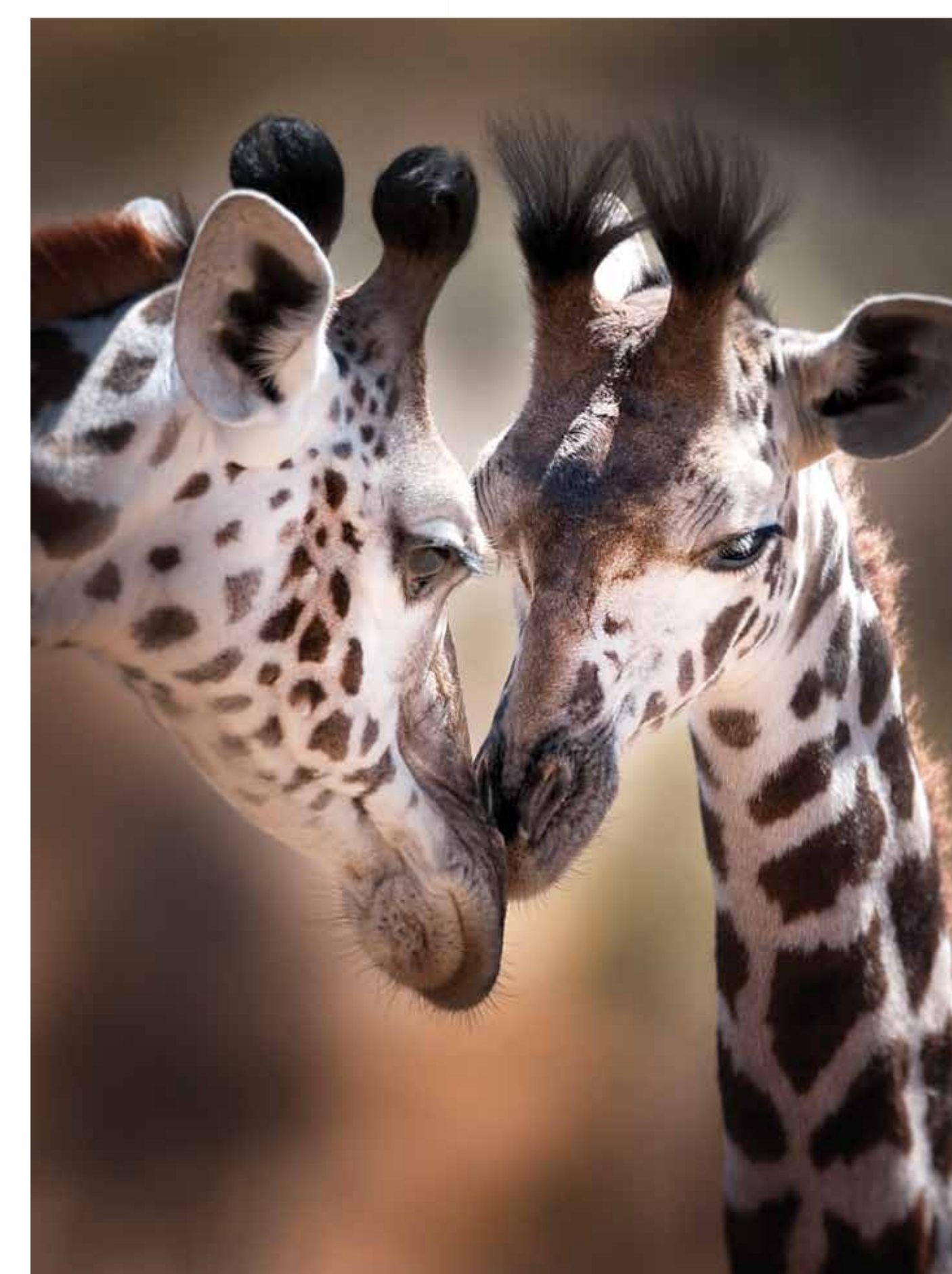
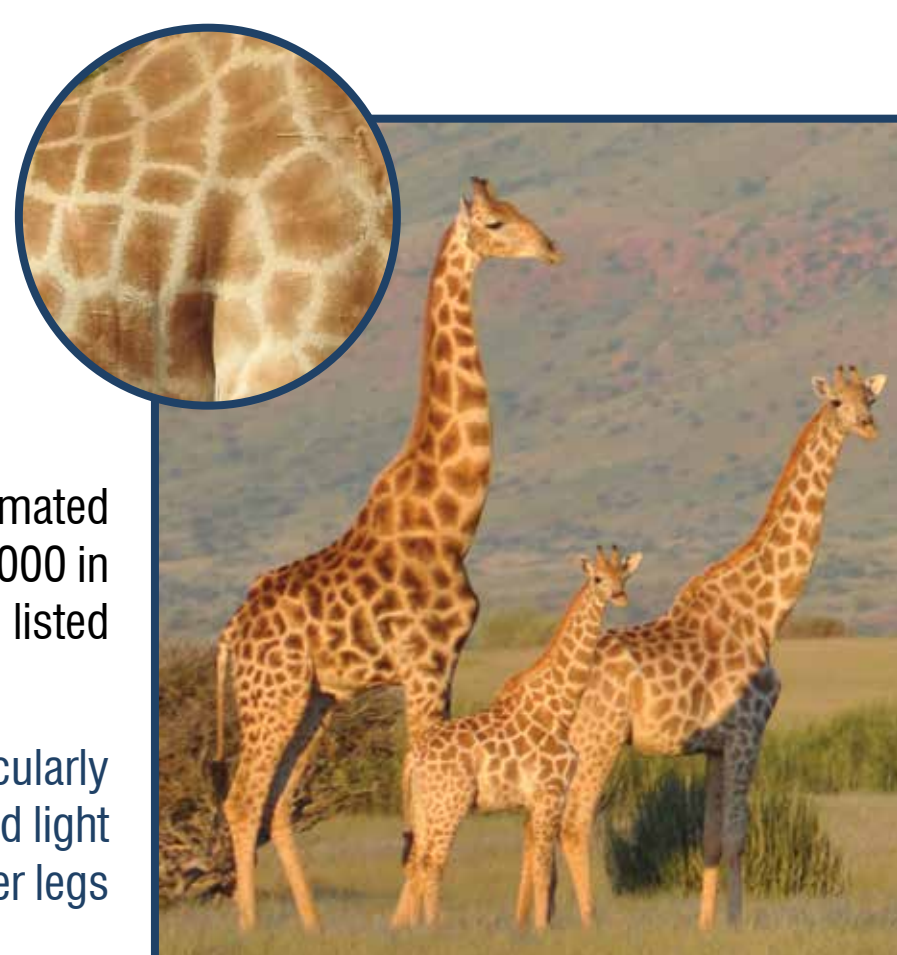
The South African (or Cape) giraffe ranges from west to east across southern eastern Angola; northern Botswana; southern Mozambique; northern South Africa; south-western Zambia; and eastern and southern Zimbabwe. Previous re-introductions of the South African and Angolan giraffe to overlapping areas have likely resulted in hybrid populations. There have also been extralimital (outside their natural range) introductions of South African giraffe across Angola, Senegal, South Africa, Zambia and Zimbabwe. At present, the South African giraffe population is estimated at 39,000 individuals, showing a marked increase over the past three decades.

The South African giraffe has star-shaped patches in various shades of brown, surrounded by a light tan colour. Their lower legs are randomly speckled with uneven spots.

Angolan giraffe *G. g. angolensis*

Despite their name, Angolan giraffe were extirpated (locally extinct) in Angola until recent translocations from Namibia. The Angolan giraffe's range includes central Botswana, most parts of Namibia, and various populations scattered throughout Zimbabwe. Extralimital populations (those outside their natural range) have been translocated to South Africa and to private land in Botswana and Zimbabwe. The estimated 5,000 individuals three decades ago have, today, more than quadrupled to over 20,000 in the wild. Considering this recent increase in numbers, the Angolan giraffe has been listed as *Least Concern* on the IUCN Red List.

The Angolan giraffe is relatively light in colour. In northwest Namibia, where it is particularly arid, they can be almost colourless. They have large, uneven and irregularly notched light brown patches. Their patches are surrounded by a pale cream colour, and their lower legs are randomly speckled with uneven spots.



The Giraffe Conservation Foundation (GCF) is dedicated to a sustainable future for all giraffe populations in the wild. GCF is the only NGO in the world that concentrates solely on the conservation and management of giraffe in the wild throughout Africa.

giraffeconservation.org