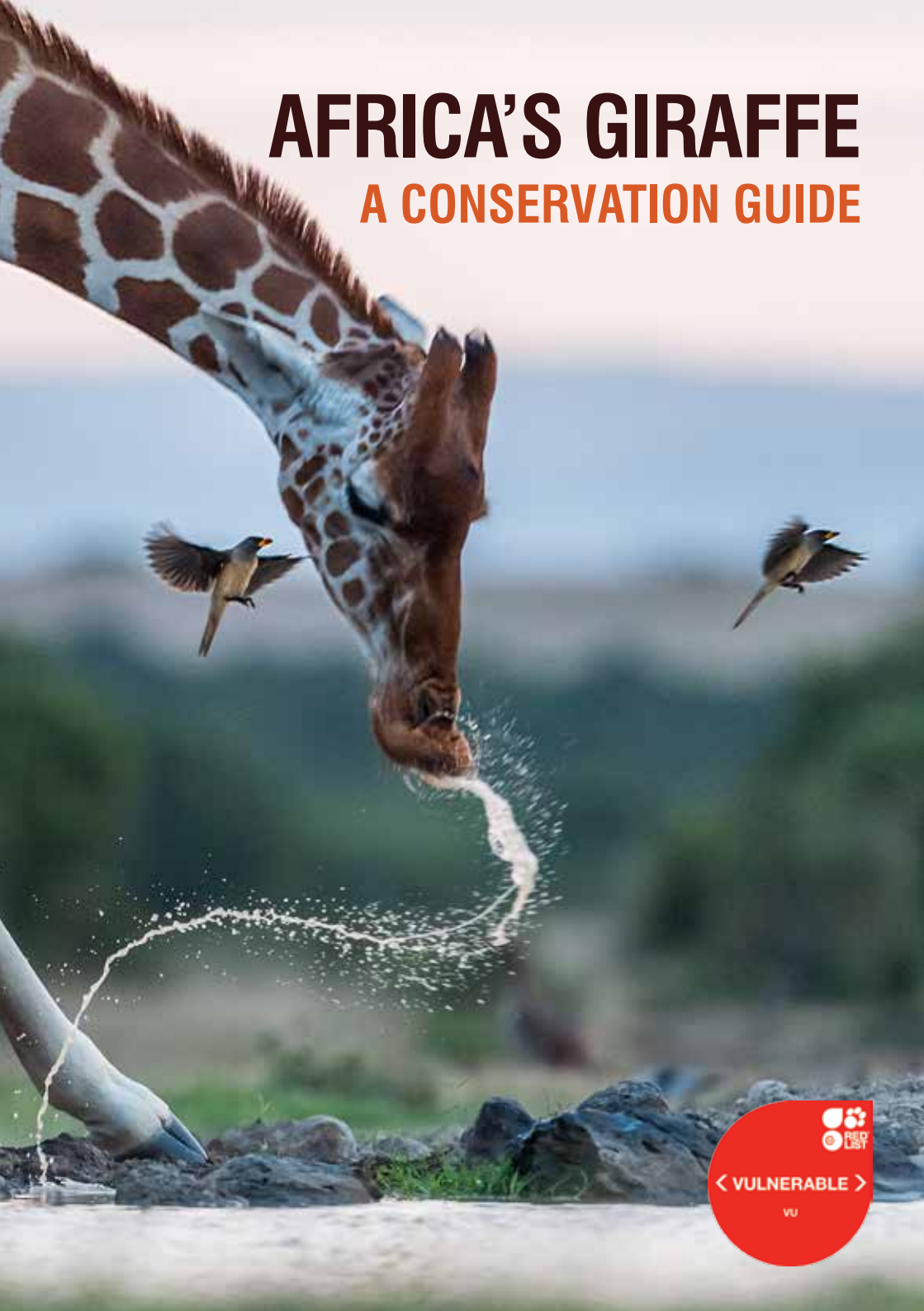


# AFRICA'S GIRAFFE

## A CONSERVATION GUIDE



< VULNERABLE >

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These giraffe images, which are carved life-size and with incredible detail into rock, are believed to date back 9,000 years to a time when the Sahara was wet and green.

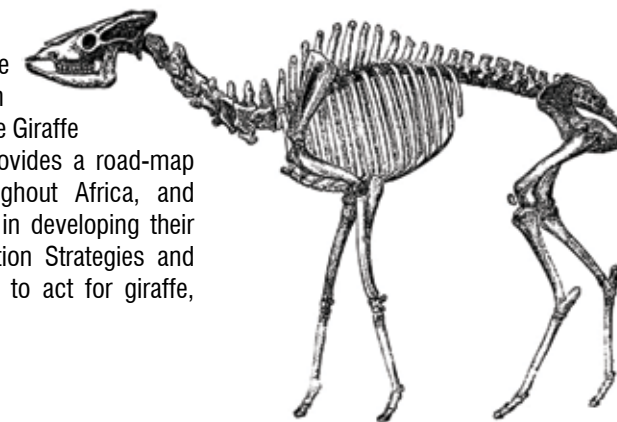
MIKE HETTER

# Introduction

Africa's Giraffe – A Conservation Guide provides essential, up-to-date background information on one of the world's most iconic animals: the giraffe. It highlights conservation and management challenges faced by all stakeholders across the continent, from local communities to governments and their agencies, and from the non-governmental conservation community to the private sector. This guide comes at a significant time for giraffe in Africa, with the present knowledge that their numbers have suffered a decrease by almost 30% in just over three decades, and the recent discovery that there are in fact four species of giraffe and not only one, as previously assumed. Giraffe are still considered to be one species by the International Union for the Conservation of Nature (IUCN), and since 2016 their formal conservation status on the IUCN Red List of Threatened Species™ has been listed as *Vulnerable*. Additionally, seven subspecies were assessed for the IUCN Red List in 2018, where two were classified as *Critically Endangered*, one as *Endangered*, two as *Vulnerable*, one as *Near Threatened*, and one as *Least Concern*. The assessments for the final two subspecies are still outstanding.

Surprisingly, giraffe in the wild have been largely ignored and under-researched. This situation is slowly being addressed. With a few exceptions, giraffe are in decline throughout the continent and the need for a concerted conservation effort has never been more urgent.

In order to address this, the Giraffe Conservation Foundation (GCF) has drafted an Africa-wide Giraffe Strategic Framework, which provides a road-map for giraffe conservation throughout Africa, and supports several governments in developing their first National Giraffe Conservation Strategies and Action Plans. Now is the time to act for giraffe, before time runs out.



WIKIMEDIA COMMONS

## Evolution

*Helladotherium*, a three-metre-tall antelope-like animal, which once roamed the plains and forests of Asia and Europe between the Eocene and Oligocene epochs 30-50 million years ago, is the forefather of the two remaining members of the Giraffidae family: the giraffe we know today, and the okapi. To date, more than ten fossil genera have been discovered, revealing that by the Miocene epoch, 6-20 million years ago, early deer-like giraffids were yet to develop the characteristic long neck of today's giraffe.

## Giraffe and humans

This exotic, long-necked creature has captured the human imagination through the ages, as demonstrated in art throughout the African continent, be it by the Egyptians, the Nubians or, in the south, the San. Rock carvings in the Sahara Desert in northern Niger, estimated to be 9,000 years old, represent the earliest, and arguably the most impressive, recorded human association with giraffe. Beyond the African continent, the giraffe delighted Caesar's Rome as long ago as 46 BC and it also features in artwork from the Chinese Ming dynasty.

The giraffe continues to be iconic today. It is the national animal of Tanzania, and in Botswana it is considered to be royal and, therefore, may not be hunted. Its distinctive, iconic image is used in advertising around the world to sell anything from children's apparel to wine, or for the promotion of social media fads and the FIFA World Cup.

Why then, having captivated humans so infinitely through the ages, has the giraffe been allowed to slip beneath the conservation radar? Why have they experienced such significant population declines in much of their remaining range? Where should we prioritise conservation efforts for giraffe? These are only a few of the many questions that urgently require answers to help save giraffe, before it is too late.

**DID YOU KNOW?**  
In 1612, a giraffe star-constellation was identified in northern hemisphere skies.

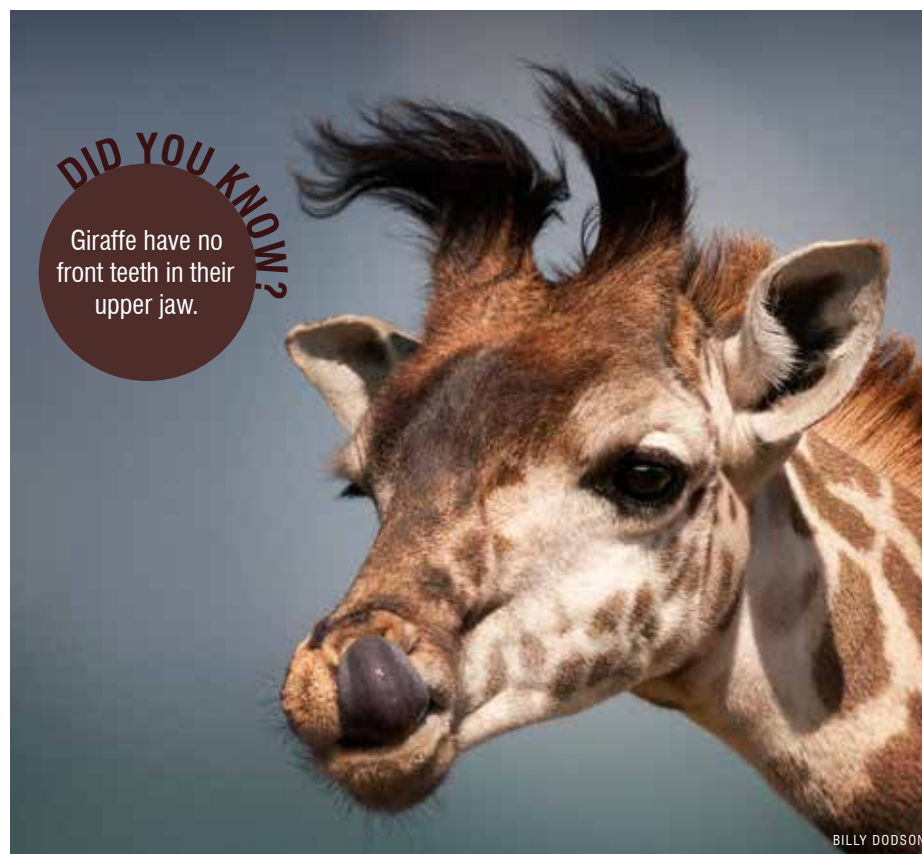
# GIRAFFE FACTS



Height (average adult)	♂ 5.3m / 17ft 4in ♀ 4.3m / 14ft 2in
Weight (average adult)	♂ 1,200kg / 2,600lb ♀ 830kg / 1,800lb
Largest	♂ recorded at 6m / 19ft+
Heaviest	♂ recorded at 1,900kg / 4,200lb
Foot size	30cm / 12in diameter Hoof: ♂ 20cm / 8in; ♀ 18cm / 7in (average)
Defence	Forelegs and hind legs can deliver a lethal kick. They can kick in all directions.
Speed	50km/h / 30mph for sustained periods; calves less than 3m / 9ft 10in high can outrun adults.
Means of feeding	Browsing, using a prehensile tongue (50cm / 20in) long and upper lip.
Diet	Tree leaves, fruits, pods and shoots; rarely grass.
Senses	Colour vision, acute sense of smell, good hearing.
Sleep	4.5 hours, mainly at night, both standing and lying down. Only 20-60 minutes REM sleep.
Longevity	+/- 25 years (average)
Social behaviour	Ranges from solitary (often older males) to large, loose, mixed herds. Herds adjust their social systems, known as fission-fusion, by individuals or smaller groups readily merging with or splitting from the herd. This differs from one population to another.
Sex ratio	Very close to 1:1 (average)
Age at sexual maturity	♂ restricted by competition from larger males. ♀ 3-4 years; in oestrus 1 day every 2 weeks.



Breeding lifetime	Throughout life. ♀ recorded mating within weeks of giving birth.
Gestation	+/- 15 months (453-464 days)
Offspring	Single calf, rarely twins; known to stay with mother until 22 months old, but often independent much sooner, depending on the gender.
Conservation Status	Giraffe, as a species, are listed as <i>Vulnerable</i> on the IUCN Red List.



**DID YOU KNOW?**  
Giraffe have no front teeth in their upper jaw.

BILLY DODSON



# Taxonomy and Species

Like okapi, hippo, oryx, buffalo and cattle, the giraffe is an even-toed ungulate. Rhino, zebra and horses are odd-toed ungulates. As the world's tallest animal and largest ruminant (*an animal that partly digests its food, then regurgitates it to chew as 'cud'*), it belongs to:

**Class:** Mammalia (mammals)

**Order:** Artiodactyla (even-toed ungulates)

**Family:** Giraffidae

**Genus:** *Giraffa*

In 2016 the 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, which is 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*),



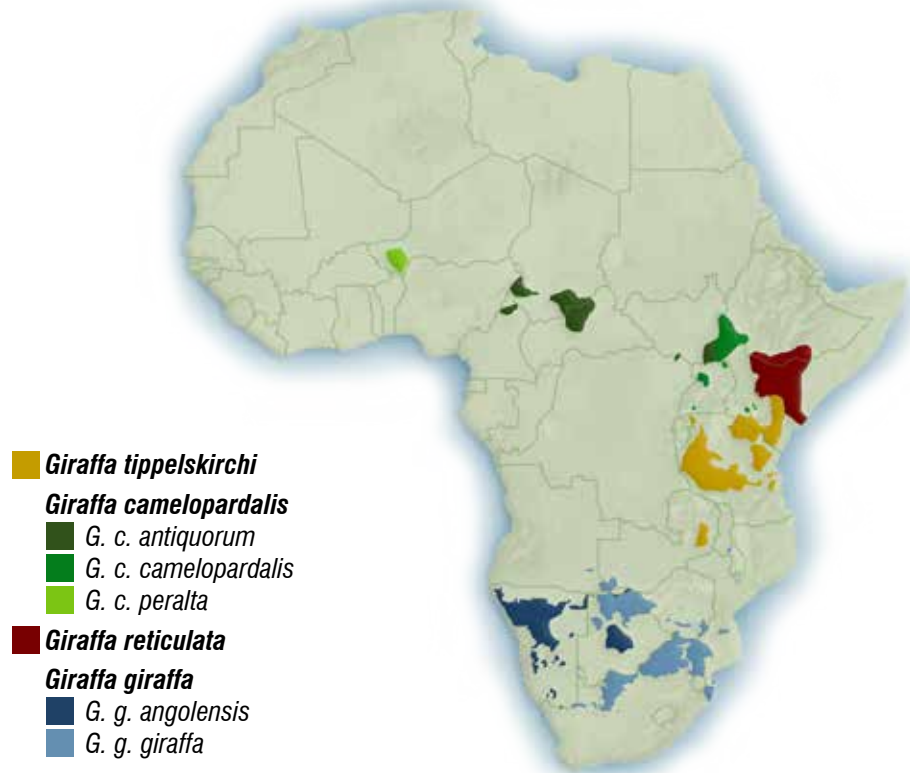
South African giraffe (*G. c. giraffa*), Thornicroft's giraffe (*G. c. thornicrofti*), and West African giraffe (*G. c. peralta*).

In order to answer the question on how many species and subspecies of giraffe there are, the Giraffe Conservation Foundation (GCF), together with its partner Senckenberg Biodiversity and Climate Research Centre (BiK-F), has 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. As a result, an update of the traditional taxonomy now exists. This study revealed that there are four distinct species of giraffe, and five subspecies. The four distinct species are Masai giraffe (*G. tippelskirchi*), Northern giraffe (*G. camelopardalis*), Reticulated giraffe (*G. reticulata*) and Southern giraffe (*G. giraffa*). The Angolan giraffe (*G. g. angolensis*) and South African giraffe (*G. g. giraffa*) are the two subspecies of the Southern giraffe. Nubian giraffe (*G. c. camelopardalis*), Kordofan giraffe (*G. c. antiquorum*) and West African giraffe (*G. c. peralta*) are the three subspecies of the Northern giraffe. Rothschild's giraffe is genetically identical to the Nubian giraffe. As the nominate species, Nubian giraffe takes precedence and Rothschild's giraffe is thus subsumed into it.

Preliminary data suggests that the Thornicroft's giraffe is genetically similar to the Masai giraffe. However, additional research is necessary to determine whether Thornicroft's giraffe are genetically identical to Masai giraffe, or should be considered a separate subspecies of Masai giraffe. In all of GCF's conservation work and publications, based on this research, we use the updated giraffe taxonomy of the four species, while the IUCN still refers to the traditional concept of one species and nine subspecies.

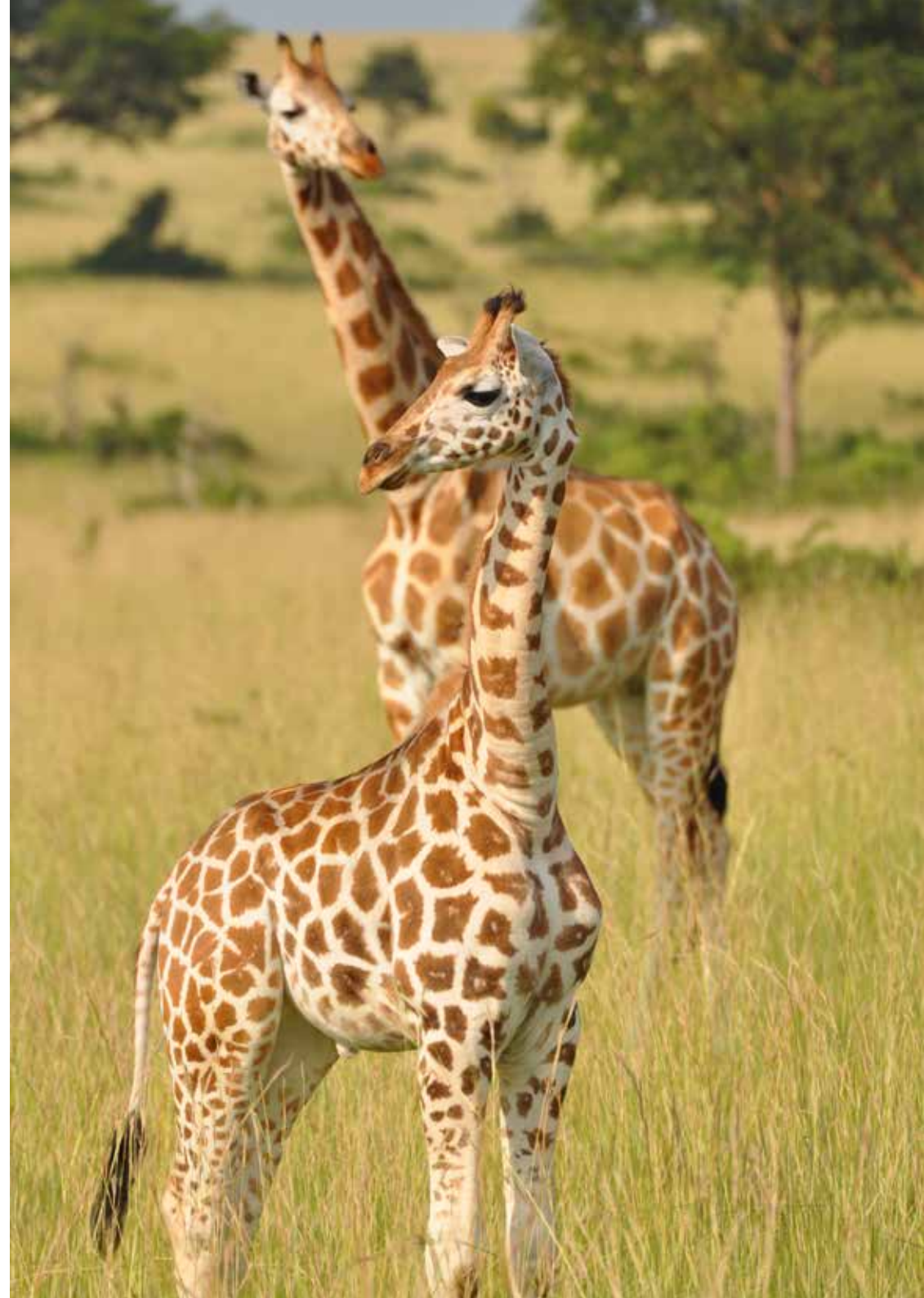
All four giraffe species and their subspecies live in geographically distinct areas throughout Africa. While some of these species have been reported to hybridise in zoos, there is very little evidence that this occurs naturally in the wild.

# Distribution and Habitat



The four species of giraffe currently occur in 21 countries, forming a wide arc throughout sub-Saharan Africa from Niger to Central and East Africa, down to southern Africa. Giraffe are predominantly browsers and their long custom-built legs and neck ensure the utilisation of a food source beyond the reach, except for elephant, of any other animals. Surprisingly, despite this highly specialised adaptation, giraffe are extremely versatile and also flourish in habitats with relatively few tall trees where, instead, they trim the tops of bushes and smaller trees. Nevertheless, the quintessential image of a giraffe shows it reaching up to browse on one of Africa's large *Vachellia* or *Senegalia* (formerly *Acacia*) trees.

To drink, giraffe first have to splay their forelegs and/or bend their knees, and only then can they lower their necks to reach the surface of the water. However, despite their body mass, water is not a necessity as they can absorb sufficient moisture from their food plants. Even when water is readily available, evidence shows that many giraffe do not drink regularly – sometimes not at all.





## Masai giraffe

### *Giraffa tippelskirchi*

Masai giraffe range across central and southern Kenya; throughout Tanzania; and an isolated population exists in the South Luangwa Valley, northeastern Zambia (formerly known as Thornicroft's giraffe). Extralimital populations (*those outside their natural range*) have been translocated to the Akagera National Park, Rwanda. Formerly the most populous giraffe with an estimated 71,000 individuals three decades ago, less than half (35,000) of them remain in the wild today. Ongoing reports of poaching suggest that their population continues to decrease. The IUCN Red List assessment of Masai giraffe is under final review, and considering their overall decline of approximately 50%, it will most likely result in a threatened category listing. Thornicroft's giraffe were recently added to the IUCN Red List and listed as *Vulnerable* because even though the population has remained stable for the last three decades, they only occur in low numbers in one geographical area. Further research is required to establish whether Thornicroft's giraffe are genetically identical to Masai giraffe, or should be considered a subspecies of Masai giraffe.



BILLY DODSON

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.



## Northern giraffe

### *Giraffa camelopardalis*

Three subspecies of the Northern giraffe occur across Eastern and Central Africa.

### Subspecies:

Kordofan giraffe *G. c. antiquorum*

The Kordofan giraffe's range includes some of Africa's more hostile areas: southern Chad, Central African Republic, northern Cameroon, northern Democratic Republic of Congo, and western South Sudan. It is estimated that approximately 2,000 individuals survive in these war-ravaged countries. A decline of more than 80% in the last three decades has resulted in their recent listing as *Critically Endangered* on the IUCN Red List.



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



## Subspecies:

### 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 200 occur in western Ethiopia, 450 in eastern South Sudan, 800 in Kenya, and more than 1,550 in Uganda.

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. Interestingly, the majority of Nubian giraffe in Kenya live extralimally (*outside their natural range*), which is the result of an effort to establish viable populations for conservation.

Based on the rate of decline, estimated at 95% in the last three 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* and of high conservation importance on the IUCN Red List, but based on good conservation efforts of governments and partners, including GCF, the Rothschild's giraffe 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 as a whole will most likely remain *Critically Endangered*, indicating an urgent need for increased 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.



## Subspecies:

### West African giraffe *G. c. peralta*

At the beginning of the 20<sup>th</sup> 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. Through formal protection by the Niger government, the population has 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 is increasing. In 2018, eight West African giraffe were moved to the Gadabedji Biosphere Reserve to establish a new satellite giraffe population and thus assist the population's growth in number and range. This translocation was undertaken by GCF in collaboration with the Sahara Conservation Fund for the Government of Niger. In 2008, the West African giraffe was listed as *Endangered* and of high conservation importance on the IUCN Red List; however, in 2018 it was downlisted to *Vulnerable* based on increased numbers and their conservation success story.



The West African giraffe is noticeably light in appearance. Their patches are rectangular and tan coloured, and are broadly surrounded by a creamy-colour. There are no markings on 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 15,780 individuals remain in the wild – a decline of over 50% from the approximate 36,000 three 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 community and private land 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 more than 50% of the continent's total giraffe numbers.

### Subspecies:

#### 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 in Zimbabwe. Extralimital populations (*those outside their natural range*) have been translocated to South Africa, the Democratic Republic of Congo, and to private land in Botswana and Zimbabwe. The estimated 5,000 individuals three decades ago have, today, more than tripled to an estimated 17,750 in the wild. In light of this recent increase in numbers, the Angolan giraffe has been listed as *Least Concern* on the IUCN Red List.



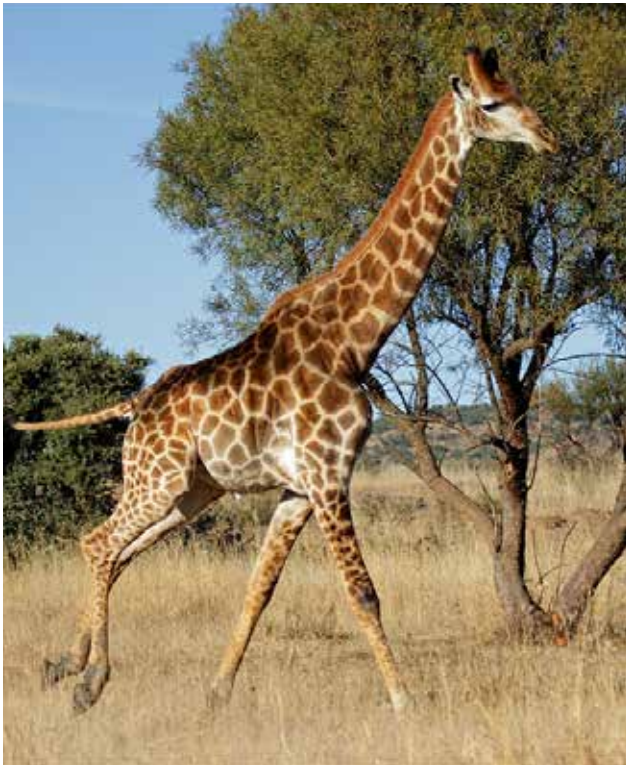
The Angolan giraffe is relatively light in colour. In northwest Namibia, where it is particularly arid, they can be almost colourless. They have large, uneven and irregularly notched light brown patches. Their patches are surrounded by a pale cream colour, and their lower legs are randomly speckled with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



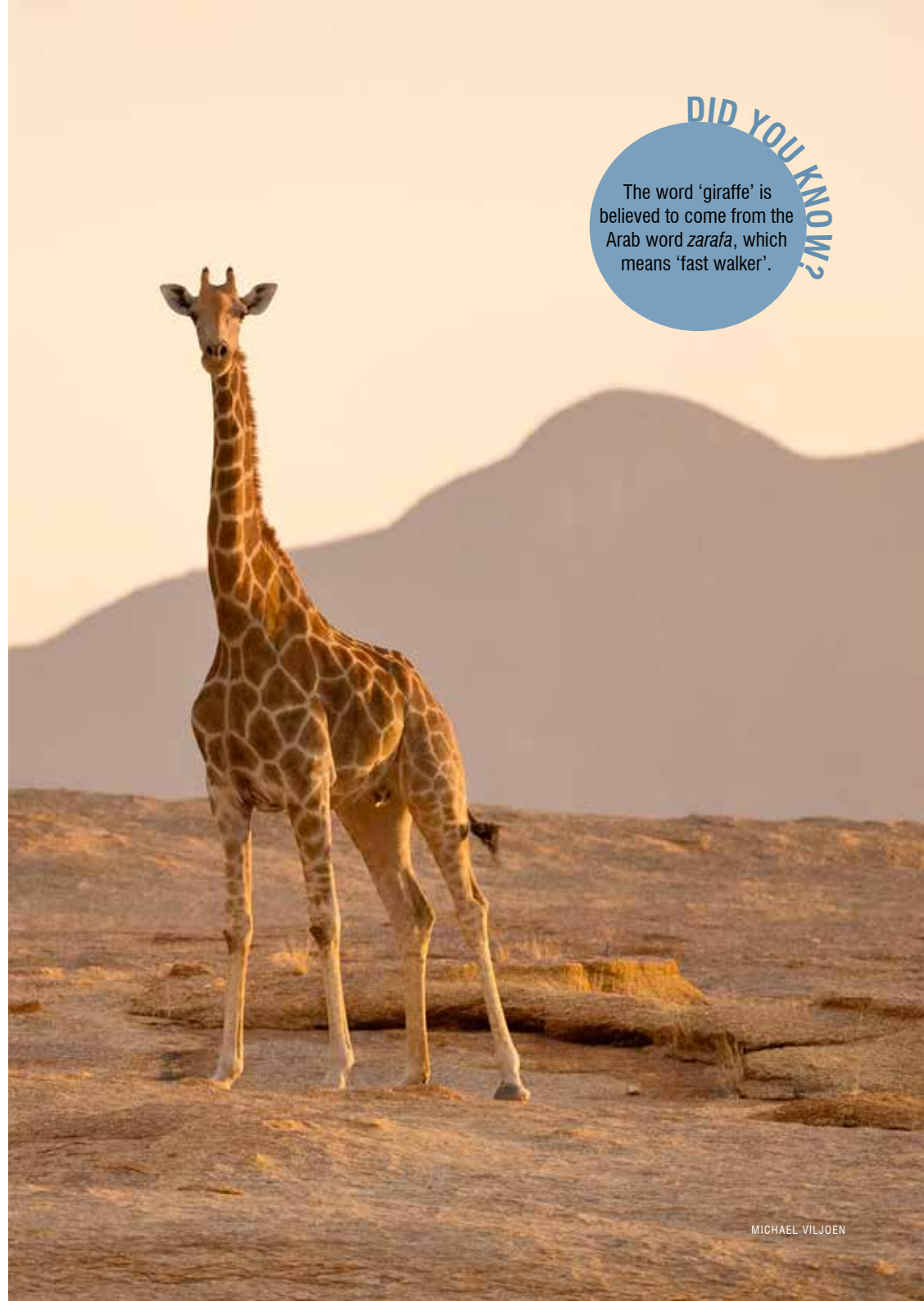
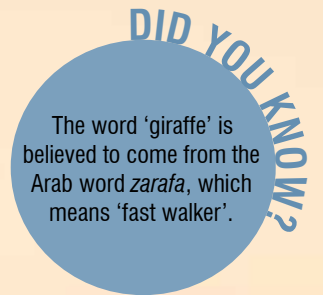
## Subspecies:

### South African giraffe *G. g. giraffa*

The South African giraffe ranges from west to east across south-eastern Angola, northern Botswana, southern Mozambique, northern South Africa, south-western Zambia, and parts of Zimbabwe. Previous re-introductions of the South African and Angolan giraffe to overlapping areas have most 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 37,000 individuals, showing a marked increase of over 150% over the past three decades. An assessment of the South African giraffe for the IUCN Red List is ongoing, but with the large increase it will most likely result in a listing of *Least Concern*.



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





# Conservation

## Status and statistics

In the 1980s, the total number of all giraffe in Africa was estimated at more than 155,000 individuals. Today, GCF estimates the current Africa-wide giraffe population at approximately 111,000 individuals. This is a drop by almost 30%, a slightly less bleak picture than previously portrayed in the 2016 IUCN Red List assessment that estimated giraffe at less than 100,000 individuals. However, this updated information is based more on improved data rather than on actual increases in numbers. Unfortunately, in some areas traditionally regarded as prime giraffe habitat, numbers have dropped by 95% in the same period.

While the IUCN Red List currently recognises one species of giraffe and nine subspecies, new findings by GCF and partners clearly show four species and five subspecies of giraffe. This updated information is currently under further review and will hopefully soon be taken into consideration by the IUCN for future conservation assessments, giving each giraffe their own taxonomical status and mandate for increased conservation.

In 2016, the giraffe as a species was uplisted to *Vulnerable* from *Least Concern* on the IUCN Red List. In 2018, seven of the nine currently recognised subspecies were assessed and are now listed on the IUCN Red List.



## IUCN Red List

### As a species:

Giraffe

Vulnerable

### The listed subspecies:

Angolan giraffe

Least Concern

Kordofan giraffe

Critically Endangered

Nubian giraffe

Critically Endangered

Reticulated giraffe

Endangered

Rothschild's giraffe

Near Threatened

Thornicroft's giraffe

Vulnerable

West African giraffe

Vulnerable

The Giraffe Conservation Foundation (GCF) continues to update information on the continent-wide giraffe status, as captured in the first-ever giraffe range-state country profiles. These profiles collate all historical and currently available census and anecdotal data on giraffe numbers and distribution, as well as their specific threats.

Below are the most up-to-date population figures, some of which formed the basis of the latest IUCN Red List assessments:

## Species and numbers

### *Giraffa camelopardalis* (Northern giraffe)

5,600

*G. c. antiquorum* (Kordofan giraffe)

2,000

*G. c. camelopardalis* (Nubian giraffe)

3,000

*G. c. peralta* (West African giraffe)

600

### *Giraffa giraffa* (Southern giraffe)

54,750

*G. g. angolensis* (Angolan giraffe)

17,750

*G. g. giraffa* (South African giraffe)

37,000

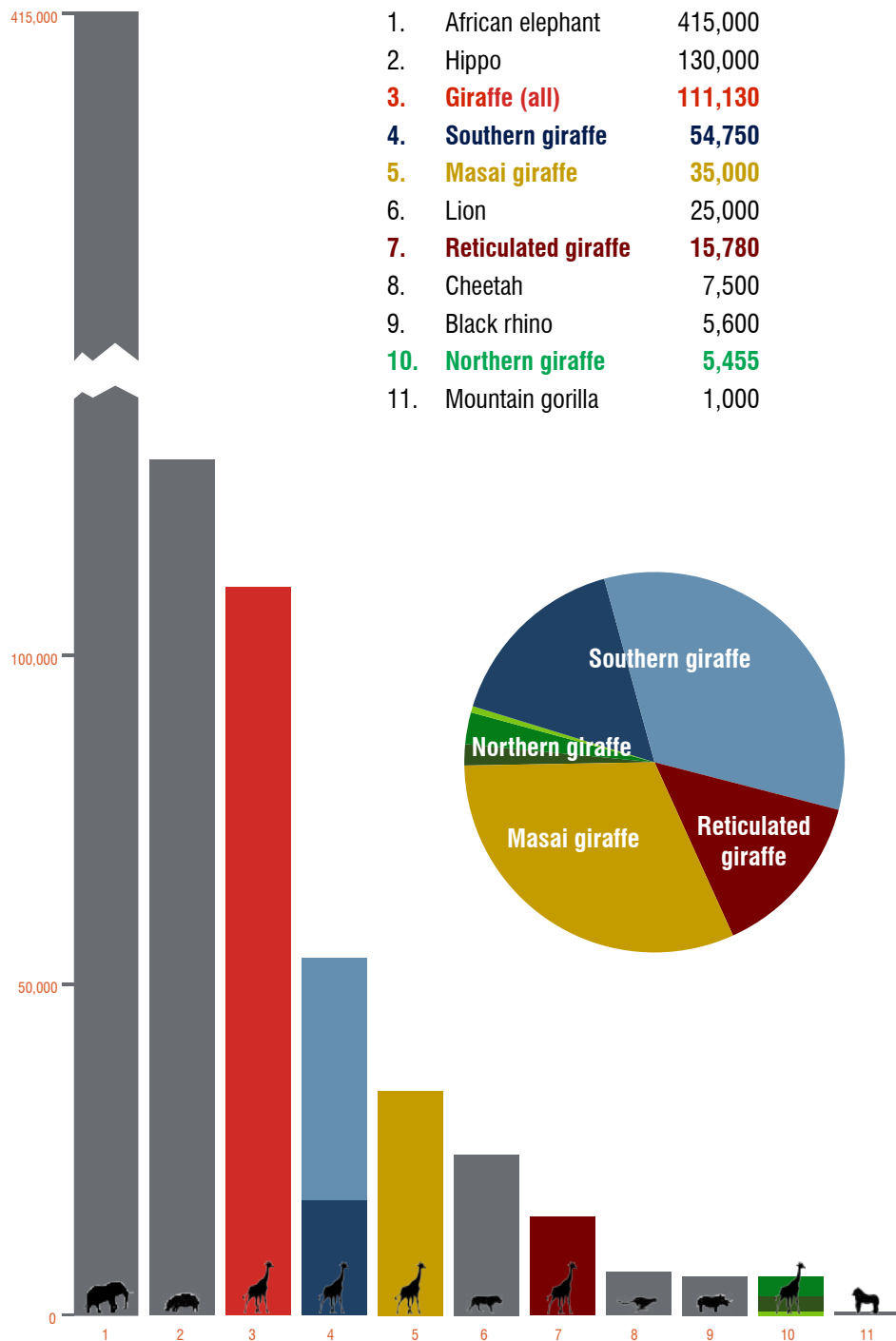
### *Giraffa reticulata* (Reticulated giraffe)

15,780

### *Giraffa tippelskirchi* (Masai giraffe)

35,000





## CITES and CMS

As there is limited recognised international trade in giraffe, they are not listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). GCF is committed to clarifying and monitoring the giraffe trade situation and reviewing the appropriateness of a future CITES listing. In 2018, with the technical support of GCF and IUCN, giraffe were added to Appendix II of the Convention on Migratory Species (CMS) in recognition of their transboundary movements, and a need for increased conservation protection and monitoring.

## Stakeholders

Occurring in 21 African countries, giraffe live throughout all land-management regimes: from state-owned national parks and reserves to private and communal lands. Many of the organisations and individuals who live and work in these areas, often in the wildlife industry, recognise the importance of giraffe and have become directly or indirectly involved in their conservation. As giraffe are widely distributed throughout Africa, their conservation is not an easy task. It is vitally important, but also challenging, to develop and coordinate a continent-wide strategy and action plan that incorporates the priorities of each stakeholder, country, and the four species.

Although giraffe conservation should be seen as an Africa-wide initiative, GCF is helping to tackle it by starting with a country-by-country and species-by-species approach. Priorities are critical for the long-term objective of developing and implementing a consolidated continent-wide strategy.





## Threats

The combined impacts of habitat loss, habitat fragmentation, habitat degradation, human population growth, poaching, disease, war and civil unrest threaten the remaining giraffe numbers and their distribution throughout Africa. Many threats arise from direct, indirect or perceived competition for resources with humans, their livestock and agricultural land. Habitat degradation and destruction is caused by an increasing human demand for agricultural land, pastoralism, and uncontrolled timber and fuel-wood harvesting.

Human-giraffe conflict can develop due to crop loss and damage, and potential disease transmission can result from habitat sharing with domestic livestock. Sadly, giraffe outside protected areas are sometimes also struck by vehicles and trains.

The fragmentation and loss of giraffe habitat caused by human encroachment often leads to the isolation of giraffe populations which, in turn, limits the flow and exchange of genetic diversity between populations.

Although there is very little evidence of species interbreeding in the wild, the translocation of one species of giraffe to an area already occupied by a different species could create the risk of hybridisation. Should they interbreed, the genetic uniqueness of each individual species would be lost.



## Limiting factors

The giraffe has a distinct advantage in that it seldom competes with other wild animals or, more importantly, domestic livestock for food. Although conflict does sometimes occur, they do not naturally/normally pose a threat to humans. Nevertheless, there are a number of factors that restrict conservation initiatives throughout Africa.

### Scientific

The existence of long-term studies, reliable historical and current data, and targeted conservation research is limited. This lack of information remains one of the most limiting factors when it comes to understanding the conservation and management of giraffe, as well as their ecology and taxonomy. Current giraffe projects being conducted in Africa are some of the first ever.

More extensive knowledge is required, and exciting advances are being made. Our ongoing genetic research on giraffe populations across the continent has unravelled the mystery surrounding the giraffe's taxonomy, providing invaluable information for Africa-wide giraffe conservation and management.

Translocation projects can be highly beneficial for establishing or securing new giraffe populations, but they are a significant logistical undertaking. The giraffe's physiology brings its own problems. Conservationists and stakeholders go to great lengths in their efforts to secure giraffe populations, and over the past decades success can already be seen in southern Africa and more recently in Kenya, Malawi, Niger and Uganda.

GPS satellite tracking units have become an important aid for understanding giraffe habitat use, seasonal movements and home ranges, be they in and around human settlements or across international borders. The information these devices provide is invaluable for supporting long-term species and land management plans for giraffe and other wildlife. Nevertheless, tracking giraffe using GPS satellite units will require greater investment in both time and resources – and by its very nature of being such a uniquely built animal, this is something of a challenge!





## Ecological

Giraffe populations naturally fluctuate due to mortality through predation and disease, although this varies from population to population across the continent. Although lion also prey on adult giraffe, they can cause a mortality rate of 50% or more in new born giraffe during their first year in some populations. Giraffe are also vulnerable to leopard and spotted hyena, and to a lesser extent cheetah and crocodile. Additionally, humans pose a big problem by poaching giraffe throughout parts of their range. Population growth is also limited by malnutrition, resulting from poor food quality and quantity, as well as diseases such as anthrax and, historically, rinderpest.

FIONA MACKAY

## Social

When it comes to conservation, giraffe compete with more charismatic species such as elephant and lion, particularly for funding. It is estimated that the current giraffe population is a quarter of the African elephant's. This discrepancy, and little-known fact by most in the world, understandably leads many people to assume that giraffe are everywhere and do not face a conservation crisis – but the almost 30% population decline over the past three decades clearly demonstrates that it does.



AMI VITALE

The extent of poaching and its subsequent changes in giraffe population dynamics are still poorly understood. It is a subject that needs to be further addressed but, already, reports from various parts of Africa are not positive. At the same time, there are clear conservation successes where pro-active support for giraffe has been provided.

# Significance of Giraffe

## Economic

The giraffe's significance lies in its evolutionary uniqueness. Its silhouette, which is both unmistakable and evocative, is used around the world as a symbol to market a wide range of commercial and non-commercial products, events and initiatives. As much as it is a symbol for Africa, the giraffe is also used widely for other purposes because of its uniquely recognisable shape and its perceived gentle nature. Giraffe are much-loved by most.

In Africa, it is the tangible economic benefits generated by tourism that interest and motivate many stakeholders, particularly those who live and work amongst wildlife. Many travel operators and safari brochures include the giraffe when marketing Africa as an exciting travel destination, and giraffe are a must-see on every African safari-goer's wish list.

Unlike the 'Big Five' (African elephant, lion, leopard, buffalo and black rhino) and a handful of ungulates, the giraffe is not in demand as a trophy. Revenue from legal hunting and body-parts trading is therefore limited.

## Ecological

Giraffe are habitat and landscape changers. Together with other large browsers, such as elephant and rhino, they open up vegetated areas and promote the growth of new forage for themselves and other wildlife.

On a finer scale, giraffe browsing stimulates shoot production in various plant species, and often functions as a valuable pollinator. For example, in areas protected from giraffe and other mega-herbivores, a decline of some *Senegalia* and *Vachellia* (formerly *Acacia*) species can be observed. This subsequently affects available food sources for other wildlife.

Giraffe also provide an essential natural landscape service by eating plant seeds and dispersing them in new areas through their droppings. The seeds' potential to germinate is enhanced once they have passed through the giraffe's digestive tract, and they are deposited with their own little fertiliser power-packs!

However, there are not only mutually beneficial relationships between giraffe and many plants, but also with some animals, especially the oxpecker. These birds have the important job of assisting giraffe to groom hard-to-reach places by removing parasitic ticks, which often infest giraffe and their wounds, and at the same time they benefit from a valuable food source.

**DID YOU KNOW?**  
The Romans believed that the giraffe was part camel and part leopard, hence the scientific name *camelopardalis*. However, their lack of ferocity apparently disappointed the crowds in colosseum fighting-arenas!



# The Future

The Giraffe Conservation Foundation (GCF) is dedicated to securing a future for all giraffe populations in the wild. Working in collaboration with African governments, NGOs, universities, researchers, and the IUCN SSC Giraffe & Okapi Specialist Group, GCF is developing appropriate conservation strategies for each of these populations. There is no straightforward solution to giraffe conservation and management in Africa, but supporting and working together with partners is the key approach. Even though giraffe can only be saved in Africa, international support is important.

GCF has developed an Africa-wide Strategic Framework for giraffe conservation, not only to guide the organisation's conservation priorities throughout the continent, but to also serve as a road-map for future conservation by all stakeholders.

GCF's continued focus includes working closely with partners to develop National Giraffe Conservation Strategies and Action Plans, initiating conservation translocations, undertaking population assessments, and supporting and implementing targeted giraffe conservation and management efforts throughout Africa.

Giraffe 'horns' are not horns at all, but 'ossicones'. Ossicones are lumps of soft cartilage which, in later life, ossify and fuse to the skull. They are believed to aid thermoregulation.

DID YOU KNOW?



## Giraffe Conservation Foundation

The Giraffe Conservation Foundation (GCF) is the only NGO in the world that concentrates solely on the conservation and management of giraffe in the wild throughout Africa. United by a common goal, GCF is a family of organisations consisting of GCF Trust (Namibia), GCF-USA (Ohio, USA), GCF-East Africa (Kenya), and Freunde von GCF (Germany). All four organisations are legally and financially separate entities, working under the umbrella of GCF. Their shared commitment to a sustainable future for all giraffe populations in the wild is governed by a Memorandum of Understanding. GCF currently supports and works collaboratively with giraffe conservation initiatives in 15 countries throughout Africa, on all giraffe species and their subspecies.

As the key focal organisation for the conservation and management of giraffe in Africa, GCF uses its ever-expanding network to maintain a close working relationship with government bodies, conservation organisations, academic institutions, and local communities. It provides a platform and forum for giraffe conservation and related management discussions, and helps significantly to increase awareness and education about the plight of giraffe. Importantly, GCF supports dedicated and innovative conservation and research to better understand giraffe ecology, speciation, conservation and management.

[giraffeconservation.org](http://giraffeconservation.org)

## IUCN SSC Giraffe and Okapi Specialist Group



The International Union for Conservation of Nature's (IUCN) Species Survival Commission (SSC) Giraffe & Okapi Specialist Group (GOSG) is one of over 120 IUCN SSC Specialist Groups, Red List Authorities and Task Forces working towards achieving the SSC's vision of "a world that values and conserves present levels of biodiversity". Made up of experts from around the world, IUCN SSC GOSG leads efforts to study giraffe and okapi and the threats they face, as well as leading and supporting conservation actions designed to ensure the survival of the two species into the future.

[giraffidsg.org](http://giraffidsg.org)

## To support giraffe conservation in Africa:



Visit the GCF website  
<http://giraffeconservation.org/donate>



Adopt a Giraffe  
<http://giraffeconservation.org/adopt-a-giraffe>

## Bibliography

Fennessy, J., Bidon, T., Reuss, F., Kumar, V., Elkan, P., Nilsson, M.A., Vamberger, M., Fritz, U. & Janke, A. 2016. From one to four species: multi-locus analyses reveal hidden genetic diversity in giraffe. *Current Biology* 10.1016/j.cub.2016.07.036

Muller, Z., Bercovitch, F., Brand, R., Brown, D., Brown, M., Bolger, D., Carter, K., Deacon, F., Doherty, J.B., Fennessy, J., Fennessy, S., Hussein, A.A., Lee, D., Marais, A., Strauss, M., Tutchings, A. & Wube, T. 2016. *Giraffa camelopardalis*. The IUCN Red List of Threatened Species 2016: e.T9194A51140239. <http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T9194A51140239.en> (Downloaded on 25 February 2019)

Winter, S., Fennessy, J. & Janke, A. 2018. Limited introgression supports division of giraffe into four species. *Ecology and Evolution*. 8(20): 1-10.

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Giraffe Conservation Foundation  
[info@giraffeconservation.org](mailto:info@giraffeconservation.org) / [giraffeconservation.org](http://giraffeconservation.org)







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