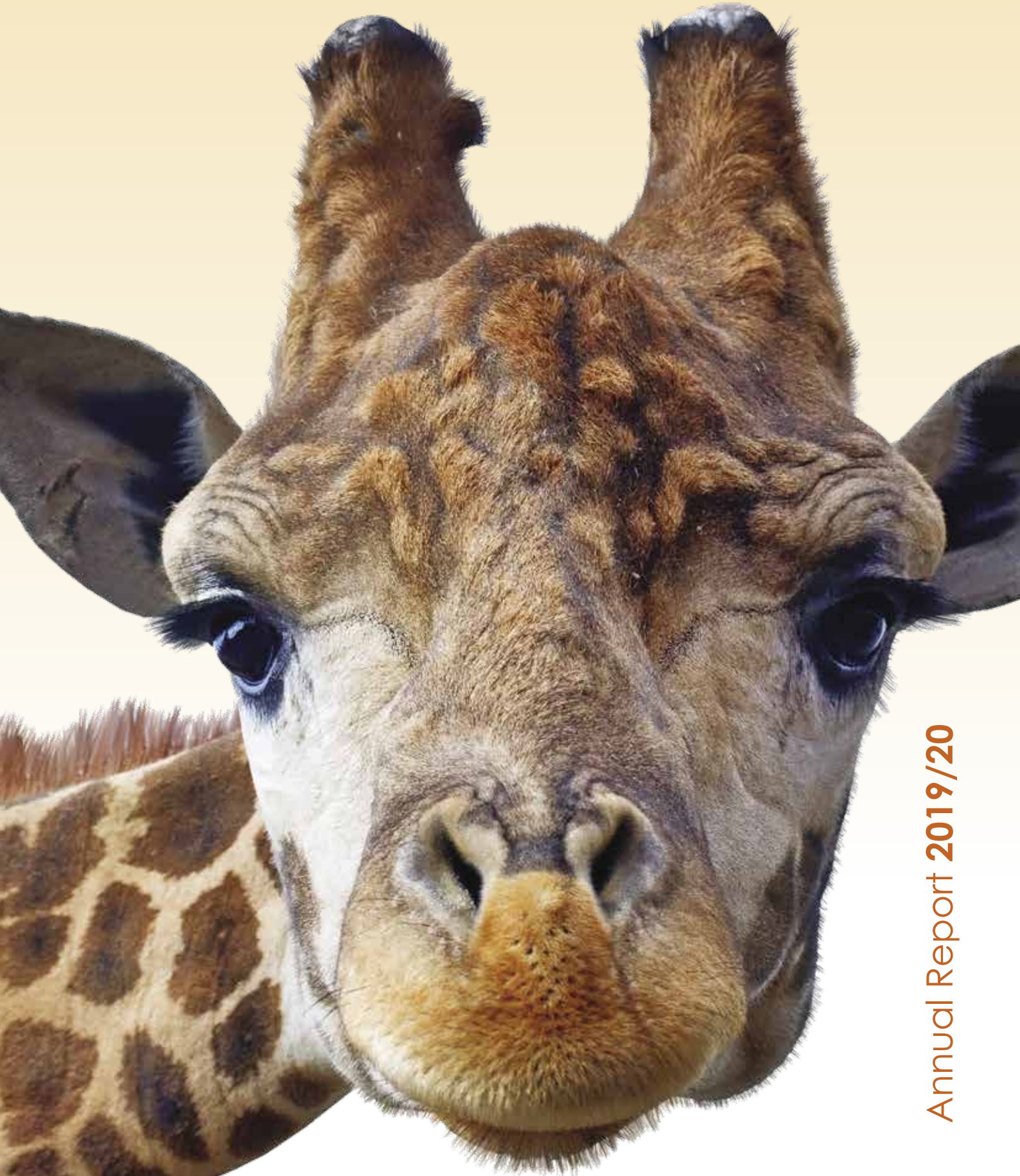
GCF

GIRAFFE CONSERVATION FOUNDATION



Annual Report 2019/20

Cover: *Credit: © AVD - stock.adobe.com*

Note from the GCF Directors:

2019 marks the tenth anniversary of the Giraffe Conservation Foundation (GCF) since it was officially registered as the first-ever giraffe conservation charity in the world.

This is an appropriate occasion for us to reflect on what has been achieved with regard to giraffe conservation and on how much GCF has grown during its first decade. Our team now comprises 19 people, who are based in six countries. GCF works on, manages and supports giraffe conservation initiatives that concern all four species of giraffe in 15 African countries. Giraffe conservation is now being guided by National Giraffe Conservation Strategies and Action Plans in four African countries, which were all developed with the support of GCF. Our work has an impact on over 171,000 km^2 (42 million acres) of giraffe habitat and we have supported the successful translocation of over 100 giraffe, which has effectively increased giraffe habitat in Africa by over 21,000 km^2 (5.1 million acres).

These are impressive numbers and the achievement of them is certainly something to be proud of. There is no doubt that GCF is having a positive impact on giraffe and their habitat in Africa. But this is not the time to rest on our laurels as there is so much more to do. The more we learn about giraffe, even if it is the most basic information concerning their numbers and distribution, the more we realise that so much more is needed. Giraffe and other wildlife continue to face immense pressures throughout the entire African continent. We certainly have our work cut out for us. Giraffe need our support now and our work needs to continue, particularly in the less glamorous and more hostile locations in Central, East and West Africa where the northern, reticulated and Masai giraffe are under real threat.

GCF remains the only organisation in the world that concentrates solely on the conservation and management of giraffe in the wild throughout Africa. As giraffe conservation gains more airtime internationally, new players enter the conservation stage, which can only be beneficial for giraffe and their future in Africa. Even so, no other organisation covers the same geographical and technical breadth of giraffe conservation as GCF does throughout the African continent.

And so, we will continue with what we do best: working with a wide range of partners towards a sustainable future for all giraffe populations in Africa. We take this opportunity to thank all of you for your continued support, partnership and friendship. Thank you for sticking your necks out for giraffe conservation in Africa during this last year.

Together we #StandTallForGiraffe – because if we don't, no one else will!

Steph & Julian Fennessy

Message from the GCF Board Chair

2019 marks a decade of the Giraffe Conservation Foundation (GCF) making a difference in saving some of the most majestic mammals on the planet. When I first visited Julian and Steph Fennessy in Windhoek, Namibia, GCF was mostly a concept – an idea – that had been developed by a few very passionate people who had recognised the plight of giraffe and set out to do something about it.

Not only has GCF now brought the plight of giraffe to the world's attention, this small team and its partners have made a phenomenal conservation difference over the last decade in expanding our knowledge of giraffe species and their distribution throughout Africa. In addition to education and awareness programmes, the team is now active in giraffe conservation in 15 countries, where they provide technical, financial as well as hands-on conservation support.

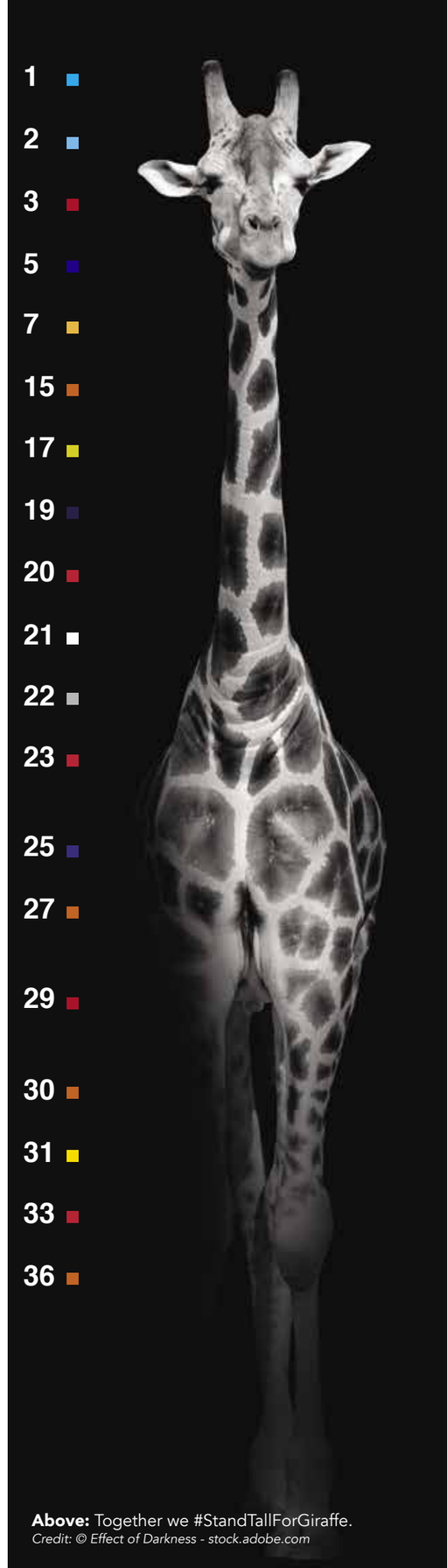
Yours Sincerely,

Till Hollmann

Chair of the GCF Board

The Giraffe Conservation Foundation (GCF) is the only organisation in the world that concentrates solely on the conservation and management of giraffe in the wild throughout Africa.

United under a common goal, GCF is a family of organisations consisting of GCF Trust (Namibia), GCF-USA (Florida, USA), GCF-East Africa (Kenya and Uganda) and Freunde von GCF (Germany). All 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.



Above: Together we #StandTallForGiraffe.
Credit: © Effect of Darkness - stock.adobe.com

ABOUT GCF

Who is GCF

- An international science-based conservation organisation that provides innovative approach to save giraffe in the wild.
- The go-to organisation for giraffe conservation that is proactive and reactive, with a strong collaborative and dynamic team working within a network of partners on all levels.
- The leader in supporting a sustainable future for giraffe in/and their natural habitats.
- An organisation that will continue to organically grow and increase awareness to save giraffe in the wild.

What drives GCF?

- To be a bold, independent organisation
- To not be regimented
- To be disciplined and ‘always on’
- To be an open book
- To not over-promise
- To be passionate
- To not be afraid of pushing boundaries
- To be open-minded and flexible
- To be adaptable
- To build trustworthy partnerships and relationships

GCF Objectives & Principle Activities

GCF is dedicated to a sustainable future for all giraffe populations in the wild.

- GCF’s objective is to raise awareness and support towards securing a future for giraffe and the conservation of their habitat in Africa, and more specifically to:
- support the conservation of viable and existing habitat for giraffe;
- identify key threats to giraffe in Africa and develop innovative ways to mitigate these;
- raise awareness of and promote the value of giraffe conservation in African Range States as well as internationally;
- plan, develop, implement and administer projects and programmes – including the appointment of project staff – in support of its primary aim, in co-operation with local communities and partner institutions, as appropriate;
- collaborate with local, national and international partners on giraffe conservation efforts in the interests of giraffe conservation in African Range States; and
- raise funds for giraffe conservation and management throughout Africa.

Board of Directors

Our organisational structure has recently undergone several exciting changes, including the expansion of our Board of Directors in the USA in order to introduce new skills and to explore new opportunities. We take this opportunity to express our sincere appreciation and gratitude to Kathy and Tom Leiden, who were both instrumental in establishing GCF in the USA. Without their support, dedication and passion, we would not be where we are today. Although Kathy has recently ‘retired’ from the board, we are pleased that Tom will stay on and continue to provide advice despite having stepped down as the chair and president. We excitedly welcome the new members to the GCF-USA Board of Directors, and we look forward to working closely with them to continue our important conservation work in Africa. GCF’s multi-national board includes professionals who represent seven countries and four continents, as well as diverse business profiles.

The Board of Directors includes the following members:

Julian Fennessy
Till Hollmann
Tom Leiden
Chris Kelsch
David O’Connor
Melle Orford
Lindy van den Bosch

Above: Did you know that 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.
Credit: © davidezanon - Adobe Stock

Staff Complement

Saving giraffe is a team effort and working with local and international partners is key. GCF's multi-national team includes people from 16 countries and four continents. Our team supports giraffe conservation initiatives in 15 culturally diverse African countries.

The following map presents GCF's international team.

Front Royal (USA):

Dr Michael Butler Brown,
Conservation Science Fellow

Murchison Falls NP (Uganda):

Dr Sara Ferguson,
Uganda Conservation Coordinator

Dr Patrick Okello,
Wildlife Veterinarian

Windhoek (Namibia):

Front: Maria Pimenta Shaetonhodi,
Finance & Operations Manager;
Claire Gall, *Administrator*

Middle: Naemi Antonius,
Senior Environmental Educator;
Petrus 'Audi' Ekandjo,
Environmental Educator;
Martha Haukongo,
Environmental Educator;
Steph Fennessy,
Co-Founder & Director
Back: Dr Julian Fennessy,
Co-Founder & Director; Mate,
Chief Happiness Officer;
Kudawashe Mbaiwa,
Finance Assistant

Niamey (Niger):

Souley Kouato Larwanou (Left),
Administrator

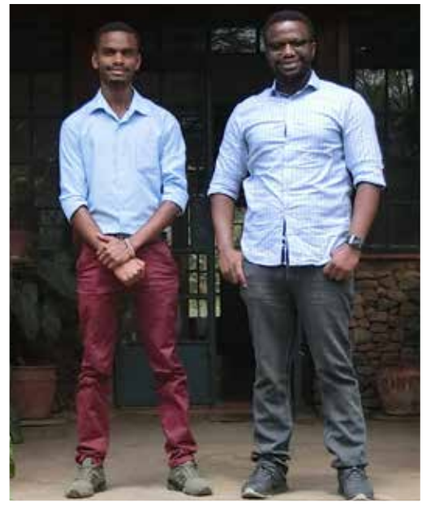
Cloe Pourchier (Centre),
Technical Coordinator

Abdoul Razack Moussa Zabeirou (Right),
Programme Officer

Nairobi (Kenya):

Arthur Muneza (Right),
East Africa Coordinator

Matthew Muruana Wachira (Left),
Programme Officer



Northwest (Namibia):

Katie Ahl, (Left)
Conservation Researcher

Emma Wells, (Right)
Conservation Researcher

Bulawayo (Zimbabwe):

Livingstone 'Livi' Hoda,
Conservation Researcher

KEY CONSERVATION PARTNERS

Working with partners is the core of GCF's values and conservation approach. Over the past years we have forged numerous key conservation partnerships around the world, particularly throughout Africa. We are proud to work closely with our partners towards saving giraffe in the wild.

For this year, as there are too many, there is only enough space to highlight the following key conservation partners – although all of you are just as important:

Above: GCF is a small organisation with a big impact. Together with our partners, we can save this gentle giants across their range. *Credit: Riz Mo - Pixabay*

SAN DIEGO ZOO GLOBAL

Smithsonian Conservation Biology Institute

AFRICAN PARKS

CHEYENNE MOUNTAIN ZOO
Way Beyond Watching

Giraffe Education And Research

CLEVELAND METROPARKS ZOO
SECURING A FUTURE FOR WILDLIFE

SAVE GIRAFFES NOW

CHESTER ZOO
ACT FOR WILDLIFE

IVAN CARTER
WILDLIFE CONSERVATION ALLIANCE

NAPLES ZOO
at CARIBBEAN GARDENS

BiK-F Biodiversität und Klima Forschungszentrum
Biodiversity and Climate Research Centre

NATURAL SELECTION
SAFARIS OF CHARACTER

shop for giraffe

UGANDA WILDLIFE AUTHORITY
UWA
Conserving for Generations

SAHARA CONSERVATION FUND

TAWIRI
Tanzania Wildlife Research Institute

KENYA WILDLIFE SERVICE

IUCN SOS
SAVE OUR SPECIES

AFRICAN FUND for ENDANGERED WILDLIFE (KENYA) LTD. BY GUARANTEE

PROGRAMMES & PROJECTS *in* Africa

Over the past decade, GCF, together with our partner Senckenberg Biodiversity and Climate Research Centre (BiK-F), performed the first-ever comprehensive DNA sampling and analysis study 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: Masai giraffe (*Giraffa tippelskirchi*), northern giraffe (*G. camelopardalis*), reticulated giraffe (*G. reticulata*), and southern giraffe (*G. giraffa*). 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, 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, the Luangwa giraffe is genetically similar to the Masai giraffe, but possibly a separate subspecies (*G. t. thornicrofti*). Based on this research, GCF refers to the updated giraffe taxonomy of four species in all conservation and management efforts.

The following presents a brief overview of the conservation work that focused on these four species during this financial year:

MASAI GIRAFFE

Masai giraffe, which were once the most numerous in the wild, were listed as Endangered on the IUCN Red List in 2019 after suffering a significant decline. Masai giraffe are a priority species for GCF in East Africa. We continue to support the Kenya Wildlife Service (KWS) with the implementation of the National Recovery and Action Plan for Giraffe in Kenya (2018-2022), which includes facilitating their annual Masai Giraffe Range Committee Meeting (which includes a range of stakeholders from the country) in order to review actions and highlight priority actions for Masai giraffe conservation. One of the key threats identified and discussed in detail was the impact of habitat loss and land fragmentation, which restricts and fragments giraffe movement throughout much of their range.

Even though the Masai Mara Ecosystem is a hotspot for Masai giraffe, certain threats do exist. This year, together with our partners, we conducted the first-ever photographic mark-recapture surveys of Masai giraffe. So far we have surveyed more than half of the Masai Mara Ecosystem, where 2,674 individual giraffe were identified. This partial count is already higher than previous estimates for the entire ecosystem. It is anticipated that this number will increase as our work continues in additional parts of the Masai Mara. Throughout the surveys, limited signs of predation attempts, snare injuries or giraffe skin disease (GSD) were observed. This is surprising as the ecosystem is contiguous with the Serengeti Ecosystem in Tanzania, where we have observed a high prevalence rate of such impacts.

Building on our relationship with Wildlife Works in southern Kenya, we conducted an expansive human dimensions study on the perceptions of and attitudes toward giraffe and other wildlife in communities that are situated adjacent to the Tsavo East and Tsavo West National Parks. We are planning to link this study with demographic and available land-use data in order to assess the socio-economic and cultural values of wildlife in the region. In Kenya, the majority of wildlife lives outside protected areas, and giraffe occur across community lands. These realities highlight the need for a better understanding of the human dimensions of wildlife conservation in order to create the baselines for policies that promote the coexistence of wildlife and communities that share the landscape.

In collaboration with the Tanzania Wildlife Research Institute (TAWIRI) and Tanzania National Parks Authority (TANAPA), we deployed the first-ever GPS satellite tags (ossi-units) on Masai giraffe in Tanzania in early 2020. In total, we deployed 11 ossi-units: four in the Tarangire National Park and seven in the Serengeti National Park. This multifaceted programme is part of a broader collaboration to implement the recently launched Tanzania Giraffe Conservation Action Plan 2020-2024, whereby the ossi-units will be used to monitor the movement of both healthy giraffe and individuals that manifest external symptoms of GSD.

The long-term aim of this collaborative conservation programme is to determine the etiological agent of GSD so as to better understand the pathophysiology of the disease, and to determine whether there is any relationship between GSD in Tanzania and Uganda, where we collected samples and analysing data in collaboration with the Uganda Wildlife Authority (UWA) and other conservation partners. This programme will eventually provide crucial management recommendations for conservation authorities in East Africa, especially in relation to the potential risk of GSD crossing over to livestock and other wildlife.

In Zambia, we continue to provide long-term support to the three-pronged conservation and research approach for the Luangwa (Masai) giraffe, which is being carried out by the Zambian Carnivore Programme. This long-term support includes the continued analysis of a 10-year database, ongoing field data collection and giraffe monitoring, and de-snaring to mitigate the snaring 'bycatch' on giraffe. This long-term partnership has been instrumental in supporting urgent conservation actions on the ground for this geographically isolated population in Zambia's Luangwa Valley.

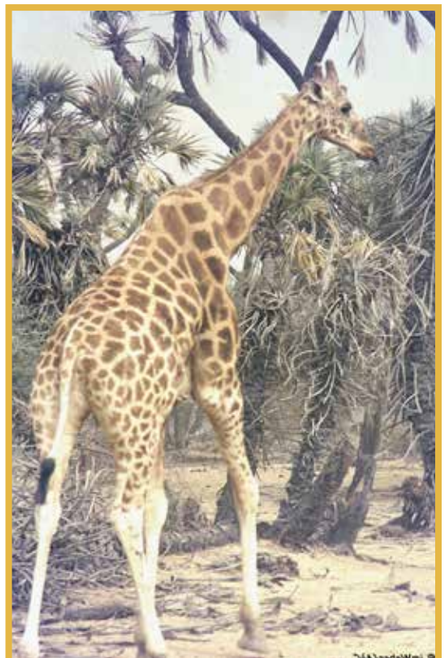
Right: 'Necking' is a ritualised flighting behaviour of giraffe, observed mainly in male giraffe to establish dominance.
Credit: Akshay Vishwanath / GCF

NORTHERN GIRAFFE

Northern giraffe consist of three subspecies which occur across East and Central Africa and in a small pocket of West Africa. These giraffe are in the greatest peril: their numbers are low, and they are located in a geo-political hotspot where serious threats to the surrounding natural resources are ongoing. Our supporting work, together with our partners, is slowly starting to make inroads into improved conservation efforts of the northern giraffe. We continue to increase our support for all three subspecies of the northern giraffe in a concerted effort to help save these giraffe that need it most.

West African giraffe live only in Niger. Their population continues to expand in both number (now an estimated 664) and range. Our targeted field and strategic conservation efforts are conducted in close collaboration with the Government of Niger, the Sahara Conservation Fund, Wild Africa Conservation, and the local NGO community. During the past year, we have continued to use our science-based approach to support the monitoring of the population and to learn more about giraffe-human relationships in the communities that share their living space with giraffe.

We have recently adapted and trialled new survey methods which will, before long, allow us to monitor the population more accurately. These improved giraffe estimates will feed into adaptive management measures, which will focus particularly on their range expansion in the country. Our ongoing bi-annual surveys continue. These surveys are conducted in collaboration with many local partners, including the Association for the Valorisation of the Ecotourism in Niger (AVEN), who also raise awareness with local communities to help reduce human-giraffe conflict.



Right: Once widely distributed from Nigeria to Senegal, today West African giraffe only occur in Niger. *Credit: GCF*

As part of our larger Twiga Tracker Initiative and our ongoing commitment to securing a future for West African giraffe in Niger, GCF and partners fitted 16 West African giraffe with solar-powered GPS satellite ossi-units in 2019. These ossi-units will track their movements and assess their habitat use over time. This programme was supported by a grant from the IUCN Save Our Species, co-funded by the European Union and other conservation partners. With the help of this new technology, we are learning a lot of fascinating details about giraffe spatial dynamics. We are seeing rather large home ranges compared with giraffe populations in many other parts of Africa. As the West African giraffe live in the human-dominated agricultural landscape of the Sahelian zone, their movements and habitat use are most likely driven by aridity and habitat fragmentation. We also see that some giraffe walk more than others, which is probably just personal preference. In 2019, one giraffe walked all the way to the west, close to the Nigerian border, only to return the very next day – a 160 km round-trip in less than a week! This giraffe was most likely a curious individual looking for greener pastures.

Since establishing a satellite population in the Gadabedji Biosphere Reserve in late 2018, we have continued to monitor the population on a weekly basis, and we have supported ongoing outreach throughout the community to ensure that the eight re-introduced giraffe are safe. An additional objective of this programme is to gain a better understanding of their value from a tourism perspective, as well as their social and cultural context in an area where giraffe occurred historically but became locally extinct some 50 years ago. We are excited to report that all the giraffe are doing well. They are regularly monitored by our local Tuareg community giraffe eco-guards, who observe them continuously exploring their habitat. With the long-term aim to secure a future for West African giraffe in Niger where they can live safe and sound for generations to come, we hope to follow-up with a second translocation soon.

Above: There are only about 2,000 Kordofan giraffe remaining in the wild. This subspecies is considered 'Critically Endangered' on the IUCN Red List. *Credit: GCF*

There are an estimated 2,000 Critically Endangered **Kordofan giraffe** remaining in the wild and they occur in many of Central Africa's geo-political hotspots, making it challenging to operate in these areas. However, we continued to increase our support to Kordofan giraffe during this past year.

We provide ongoing support to giraffe conservation and management in the Garamba National Park (NP) in the Democratic Republic of Congo. This is one of the many conservation areas where GCF provides targeted giraffe conservation support to the African Parks Network, an NGO that manages protected areas in close collaboration with the government and local communities. The Garamba NP has seen a further (albeit slow) increase in the population, which is currently estimated at 62 individuals – an almost 300% increase from a low of 22 individuals in 2012. This population was on the verge of local extinction, but ongoing monitoring and anti-poaching support, guided by the Garamba National Park Giraffe Conservation Strategy and Action Plan, is showing success. GCF is excited about having valuably contributed to this conservation effort over the years. In February 2020, we supported African Parks with the fitting of three giraffe GPS satellite tags (ossi-units) to female giraffe to help better understand their spatial movements, and to directly monitor them with regard to anti-poaching efforts. These tagged giraffe will provide invaluable information for further giraffe conservation in the country.

The Zakouma NP in Chad is home to approximately two thirds of the world's wild Kordofan giraffe population. As part of the first-ever conservation research efforts on Kordofan giraffe in the country, our collaborative field programme with the Kordofan Giraffe Project and African Parks has provided us with some of the most interesting results during the first year of GPS satellite tracking. According to anecdotal evidence of giraffe (and other wildlife) habitat use in the area, they did not leave the park boundaries, despite the absence of fences. However, the tagged giraffe clearly showed that several of them regularly exited the park's boundaries to the north, east and west, providing valuable information on where to focus future targeted conservation efforts. Distinct differences in movements between wet and dry seasons were observed. While some giraffe utilised the same area year-round, others travelled further during the wet season. It is most likely that flooding in the park made it necessary for them to move further afield, despite abundant forage opportunities throughout the area. It is possible that giraffe in the Zakouma NP do not exhibit extreme seasonal movements or distinct habitat use shifts, but we will need more data to determine this over time.

Across northern Cameroon, Kordofan giraffe have persisted in a small number of distinct populations. Our initial efforts this year consisted of targeted support to Sekakoh, a local Cameroonian NGO, in order to better assess numbers, distribution and habitat use, as well as to develop better relationships with the local people living with giraffe in and around the Benoue NP. We facilitated opportunities for the team on the ground to meet with local chiefs and administration, as well as community managers and concession holders in areas where giraffe still persist. This was not an easy task in these troubled times. The team reported that the

giraffe in the Benoue NP appear very wary, which is most likely a developed behaviour through having to avoid local people due to conflict. Preliminary findings show that they prefer African mahogany, which is an ever-green tree that cattle herders often prune to feed to their livestock. The conflict with herders appears prominent as the giraffe avoid these pruned trees, making co-existence in the same area difficult. We hope that our continued work with local and government partners in Cameroon will help with their long-term conservation.

Above: The Nubian giraffe is the nominate subspecies, which means that because it was the first specimen recorded, its Latin subspecies name is the same as the original species described: *Giraffa camelopardalis camelopardalis*. *Credit: GCF*

The Critically Endangered **Nubian giraffe** population continues to grow in numbers, especially in Kenya and Uganda, through targeted conservation efforts that are guided by the National Giraffe Conservation Strategies/Recovery Plans. The development and implementation of these plans continues to be supported directly by GCF. While we currently do not have any active giraffe conservation programmes in Ethiopia and South Sudan, we continue to hold discussions with partners in these countries to ensure that giraffe remain on their conservation agendas. It appears that giraffe populations in both countries remain stable.

As a critical programme for GCF and Nubian giraffe, our conservation efforts in Uganda continued to expand in support of local capacity building, population monitoring, anti-poaching, and environmental education. Importantly, all conservation efforts in the country are undertaken in line with the National Giraffe Conservation Strategy and Action Plan for Uganda. Our team in Uganda now boasts two full-time wildlife veterinarians, including a local Ugandan, who together support a range of field initiatives throughout the country.

Over the past five years we have supported the Uganda Wildlife Authority (UWA) with the expansion of the Nubian giraffe's range in the country by over 1.52 million acres (6,150 km2), and the successful translocation of 81 giraffe, who have, collectively, given birth to 30 new calves – a 37% growth!

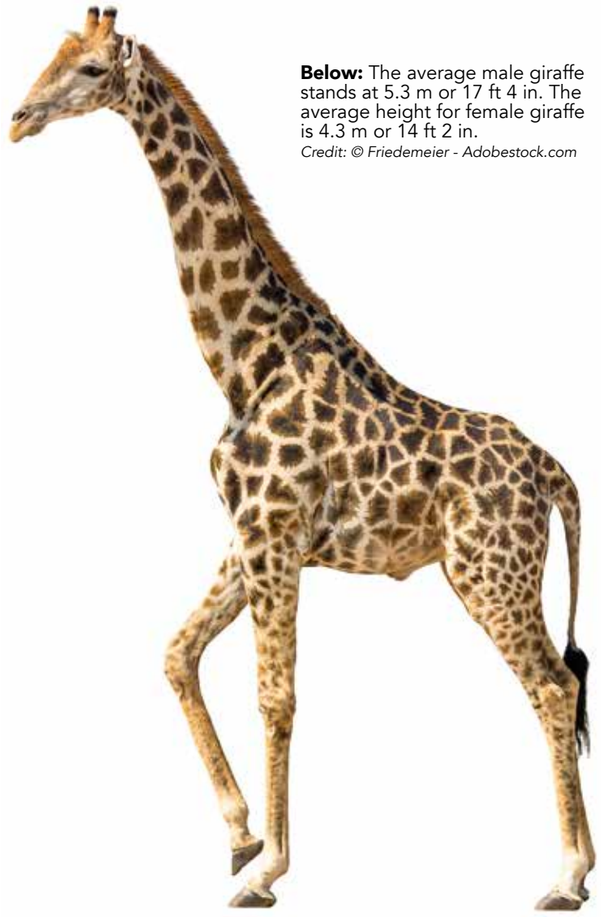
In the Murchison Falls NP, we are directly involved with and support one of the largest anti-poaching and de-snaring programmes in the country. This is an enormous effort towards curbing the tide of illegal activities. Regular patrols for snared giraffe (and other wildlife) and technical and physical support for quick veterinary interventions are our core actions towards reducing the impact of wire snares. These actions facilitate the early identification and removal of snares, ideally before any damage occurs, and they provide appropriate treatment and supportive care. See De-snaring Monitoring at a Glance for more details.

Giraffe continue to thrive across their range in Uganda, including in the Pian Upe Wildlife Reserve where the first individuals were re-introduced in late 2019 after an absence of over 25 years. Read more about this exciting and rewarding conservation success story in Operation Twiga IV: Giraffe return to the Pian Upe Wildlife Reserve. Six months on, we are happy to report that all of the giraffe are doing well. They are exploring their new home and they are showing an interest in one another. Stay tuned for an upcoming update on giraffe numbers in the Pian Upe Wildlife Reserve.

In partnership with the UWA and Kacheera Camp, our ongoing support to the local Giraffe Education and Research (GEAR) programme in and around the Lake Mburo NP is expanding – just like the giraffe population. The bi-weekly monitoring of the Nubian giraffe population that was re-introduced to the park in 2015 most likely constitutes the most detailed monitoring of a translocated giraffe population in the wild. GEAR has increased its profile and education reach throughout the year by promoting their work on local radio talk shows, which have become very popular. The team continues to take school children from surrounding communities and schools on educational visits into the park. This initiative carries amazing value as it increases conservation awareness, and it instils the feeling of ownership of Uganda's giraffe in the next generation. We are proud to say that our collaborative efforts in the Lake Mburo NP have been successful, as the increase in numbers from 15 to 26 in the last four years speaks volumes.

Our Nubian giraffe programme in Kenya continues to support the National Giraffe Recovery and Action Plan. GCF continues to work with the Kenya Wildlife Service (KWS) in driving a targeted Nubian giraffe Action Plan and assisting with its review and implementation. In the field, coordinated in close collaboration with our partners the African Fund for Endangered Wildlife (AFEW) and KWS, our team continued to survey and monitor the various populations in the country. As part of this work, the team trained the local wildlife partners and authorities in field conservation science, particularly regarding the use of the pattern recognition software as a valuable management tool for giraffe. By individually identifying giraffe, the KWS rangers in the Mwea National Reserve can now routinely monitor their welfare, social dynamics, and foraging behaviour. As some giraffe have recently been translocated into this reserve, our team helped KWS to figure out the 'new' and 'old' giraffe by using older images to identify the animals that had been previously recorded. Together the team developed survey methods and protocols, which have already helped with the identification of nine new-born giraffe – what a nice, quick success!

In the Lake Nakuru NP, our detailed photographic mark-recapture surveys of Nubian giraffe throughout the year identified 113 individuals (predominantly females), which shows a population increase of ~20% from recent years. The Lake Nakuru NP has the third largest Nubian giraffe population in Kenya after the Ruma NP (~275) and Soysambu Wildlife Conservancy (~134). Slowly but surely, the KWS teams are becoming better equipped and skilled for monitoring the Nubian giraffe in the country, which will ultimately lead towards better protection.



Below: The average male giraffe stands at 5.3 m or 17 ft 4 in. The average height for female giraffe is 4.3 m or 14 ft 2 in.
Credit: © Friedemeier - Adobestock.com

RETICULATED GIRAFFE

In northern Kenya, the reticulated giraffe population are rebounding from an estimated decline of approximately 50% over the last 30 years. To better understand their numbers and range, we have partnered closely with the Kenya Wildlife Service (KWS), San Diego Zoo Global (SDZG), and other local and international partners (Northern Rangeland Trust, The Nature Conservancy, Loisaba Conservancy, and Smithsonian Conservation Institute of Biology, Senckenberg BiK-F). Through this initiative, GCF plays a valuable role in encouraging community-based conservation efforts within the reticulated giraffe range. As part of this initiative, Twiga Walinzi (Swahili for Giraffe Guards) work across a large landscape in northern Kenya to monitor the reticulated giraffe population, and to provide valuable education and awareness support to the local communities. Increased support for reticulated giraffe conservation is important, and this is provided through a multi-faceted approach to reduce poaching, better understand local perceptions, and assess spatial ecology, numbers and range. As most of the world's wild reticulated giraffe occur in Kenya, it is therefore an important landscape to protect collaboratively with its people. During the last six-months no reticulated giraffe mortalities or poaching incidences were recorded. This is positive news, and hopefully a direct by-product of all the hard work over many years.

Together with SDZG, our team visited the Mugie Wildlife Conservancy to provide dedicated support and to train the local rangers and researchers on how to use the pattern recognition software for giraffe monitoring. The Mugie Wildlife Conservancy is an important habitat for wildlife in the Laikipia landscape; however, it is under real threat as it is unfenced and bisected by a main road that is set to be upgraded. These are two of the many threats that giraffe (and other wildlife) face in the region, and through our extensive networks and partnerships we are working towards better conservation of this population.

In late 2019, GCF, in collaboration with the SDZG, SCBI, KWS, Northern Rangeland Trust, Loisaba Conservancy, Mpala and a host of other community conservancies, fitted 28 reticulated giraffe with GPS satellite tags. These giraffe have already travelled over 16,000 km, a distance that included considerable overlaps with areas inhabited by people and livestock. Home ranges for males appear significantly greater than for females. This data shows potentially critical crossing points, which is invaluable information with regard to the advice and recommendations that can be imparted to the Lamu Port, South Sudan, Ethiopia Transport Corridor (LAPSSET) project concerning the expansion of roads.

Overall, it appears that reticulated giraffe numbers are stabilising in some areas and increasing in others. While there is no doubt that threats continue to exist, particularly in the north-east with reports of poaching, community-based, private and government conservation efforts are hopefully turning the tide towards a rosier future for this giraffe species.

Left: 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. *Credit: GCF*

SOUTHERN GIRAFFE

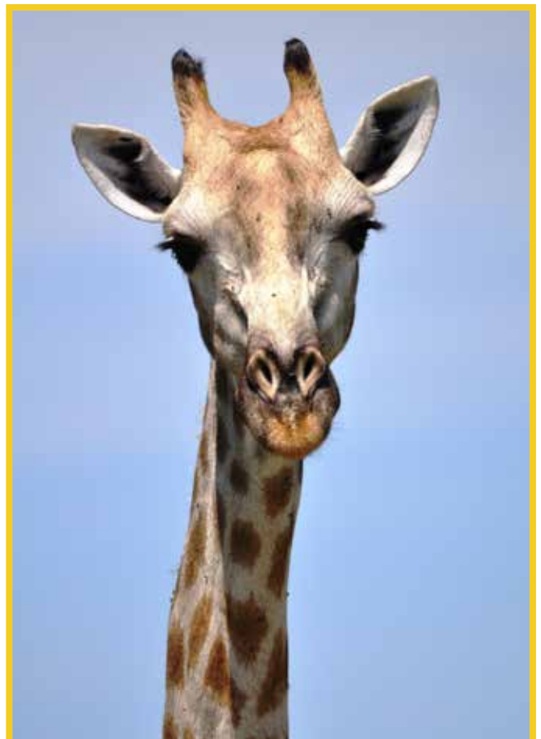
The southern giraffe, which includes both the Angolan and South African subspecies, make up more than half of Africa's giraffe population today. While not threatened, these giraffe are critical for the long-term conservation and survival of giraffe in Africa. With our head office in Namibia, GCF has a very active giraffe conservation programme in the country. Our programme in northwest Namibia is the longest-running giraffe conservation monitoring and research programme in the world, and its location in communal conservation areas makes it even more special. Our team conducts regular field surveys and remotely follows a number of GPS satellite-tagged giraffe in order to better understand their ecology and movements. Information that has been gathered during this long-term programme helps us to inform giraffe conservation efforts all over Africa as we continue to learn more about these amazing animals.

As with the majority of our programmes, working with partners is key. In Namibia, we collaborate closely with the Namibia University of Science and Technology and students with regard to new opportunities. One of these opportunities includes our ongoing support with the assessment of the potential to translocate giraffe back into their former range in the Iona NP in Angola. A feasibility assessment compiled by a local MSc student appears promising, and targeted community interviews also showed great local interest. We hope that this project builds up to the opportunity of bringing Angolan giraffe back to former areas and/or augmenting current populations in both Angola and Namibia.

Environmental education and building the capacity of the country's future leaders remains an important part of our Namibia programme. Read more in Khomas Environmental Education Programme (KEEP).

This year we started getting more active in Zimbabwe. Our conservation support was formalised by signing a Memorandum of Understanding (MoU) with ZimParks to provide better giraffe conservation and management support throughout the country. We initiated a number of activities in the country, including a broad DNA sampling programme to assess which subspecies of the Southern giraffe occurs in all the major parks, reserves and conservancies. This information is important for informing future giraffe conservation programmes in the country. Similar to Mozambique, Namibia and South Africa, the documented history of giraffe translocations within Zimbabwe and between Zimbabwe and the aforementioned countries is limited. This information will most likely also have an impact on the long term conservation status (and subsequent management) of the Angolan and South African giraffe.

Working closely with the Save Valley Conservancy, the first GPS satellite tags (ossi-units) were fitted to 13 giraffe in Zimbabwe. Regular updates on the movement of these individuals, especially within the Sango area, are showing interesting results. A new PhD collaboration with the Stellenbosch University in South Africa, which involves a comparative study with other areas in Zimbabwe, will help to better understand giraffe ecology and movements in the conservancy.



Left: Southern giraffe are widely distributed throughout Southern Africa and their numbers continue to increase. *Credit: GCF*

GIRAFFE ACTION FUND

GCF is a science-based organisation and we are committed to giraffe conservation action. We often say, “There is always more we can learn about giraffe, but by the time we know everything about them, there might just not be any left in Africa to save.” As such, GCF is committed to implementing giraffe conservation actions based on the best science available at the time. The Giraffe Action Fund (GAF) was established with exactly this in mind, as well as to increase giraffe field conservation and management actions for giraffe throughout Africa.

Giraffe numbers have declined by almost 30% in just over three decades to approximately 111,000 in the wild. It is likely that giraffe numbered ten times as many only a century ago. The GAF’s goal is to secure and increase current giraffe numbers and their distribution throughout their range in Africa. This goal is achievable, especially if carried out in cooperation with other key conservation initiatives whose focus species occupy the same landscapes as giraffe.

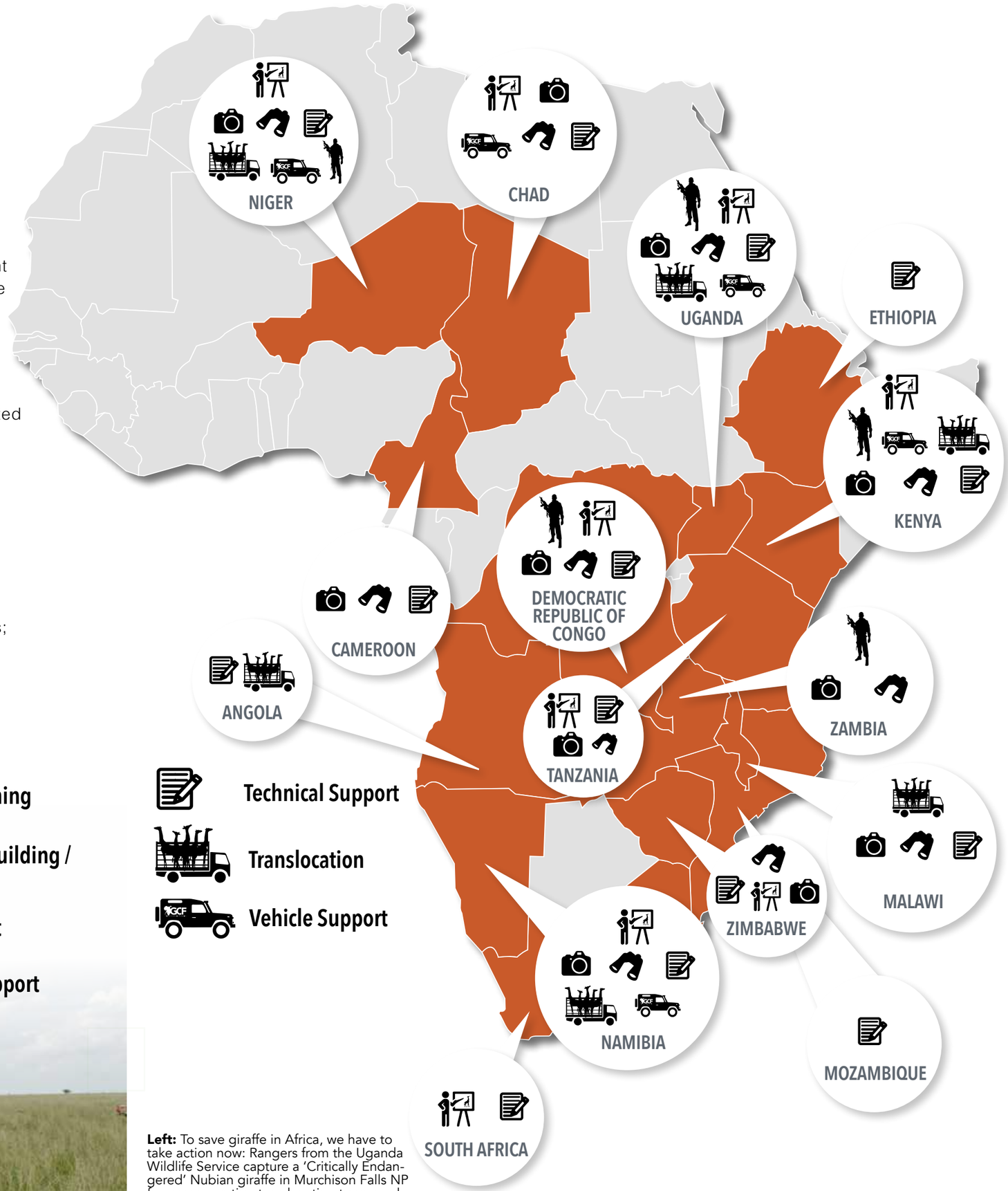
The GAF identifies and supports the most innovative field conservation actions and campaigns that directly protect and promote the conservation of these iconic species. These actions include the following:

- **Action** efforts to increase giraffe numbers, distribution and habitat
- **Action** anti-poaching of giraffe throughout the continent
- **Action** conservation education and awareness to save giraffe and to minimise their biggest threats

Each of these actions encourages new levels of collaboration, partnerships and networking among and between governments, local and international organisations, conservationists, and donors. They can extend across different land management types that are suitable for giraffe conservation. These different land management types include protected areas, forestry lands, community lands and private lands.

In 2019, the Giraffe Action Fund supported various activities throughout 15 African countries to:

- increase giraffe range;
- reduce human-giraffe conflict;
- enhance law enforcement;
- develop national/regional strategies and actions;
- increase education or raise awareness; and
- develop and implement strategies to secure the habitats that giraffe need to roam freely.



Left: To save giraffe in Africa, we have to take action now: Rangers from the Uganda Wildlife Service capture a ‘Critically Endangered’ Nubian giraffe in Murchison Falls NP for a conservation translocation to expand their range. *Credit: GCF*

TWIGA TRACKER

The Twiga Tracker Initiative is the largest GPS tracking study that has ever been conducted for giraffe. In order to conserve giraffe and the diverse ecosystems they inhabit, we need a better understanding of where these animals move, how much space they need, and how they utilise their habitats within a range of different environments.

From the hyperarid deserts of northwestern Namibia to the mesic savannahs of western Uganda, and from the semi-arid scrub of northern Kenya to the Sahelian savannahs of Niger, this ambitious continental-scale initiative joins partners from across the globe to better understand giraffe movements throughout their range. By understanding giraffe spatial ecology throughout Africa, GCF can develop innovative conservation strategies for the protection of giraffe and their habitats

Through merging cutting edge technology with the best available scientific analyses, GCF is spearheading this ground-breaking study of giraffe movement ecology. To date, GCF has tracked nearly 200 giraffe – representing all four species – in 10 different countries. The ambitious scope of this study and the innovative approaches required to conduct research at this scale necessitate collaborative approaches with leading conservation researchers and practitioners.

GCF has worked with a Kenya-based manufacturer of GPS tracking technology to design a unit that is optimised for tracking all species of giraffe. The current version of this tracking device is smaller than a deck of cards and features a solar panel for recharging. This so-called ossi-unit is linked to the Iridium satellite network, which allows a two-way transfer of data, so that it can be remotely reprogrammed as well as relay the recorded locations of the tracked giraffe to any Internet-linked device.

As using the data collected from the ossi-units requires sophisticated analytical techniques, GCF has partnered with leading research institutions such as the Smithsonian Conservation Biology Institute, Senckenberg Biodiversity and Climate Research Centre, Goethe University, and other partners to develop rigorous scientific tools to learn more about how giraffe interact with their habitats. Through using cutting edge geospatial analyses in association with satellite imagery, GCF and affiliated researchers are investigating how giraffe interact with their environments across space and time. Looking at giraffe habitat use on a landscape scale provides key insights into valuable resources for giraffe, and it will help to guide conservation initiatives throughout Africa.

The real-time visualisation of giraffe movement data provides a valuable tool for conservation managers and rangers on the ground. GCF and partners have developed specialised computer applications to access and visualise the latest locations of giraffe from laptops or smart phones in the field. These tools have already proven valuable in Uganda and Namibia, as they allow field teams to easily track giraffe as part of post-translocation monitoring programmes. This data is critical for monitoring efforts on the ground, and it is shared freely with wildlife authorities in the range states.

Throughout the entire giraffe tracking process, animal welfare is paramount. To ensure that all procedures are carried out in accordance with best practice guidelines, GCF works with the foremost wildlife veterinarians in Africa. GCF is also instrumental in developing capacity with host country wildlife veterinarians by facilitating workshops and training wildlife veterinarians in immobilisation and animal-handling protocols.

During this year, we tracked 146 different giraffe from all four species in eight different countries, namely, Chad, DRC, Kenya, Namibia, Niger, Tanzania, Uganda and Zimbabwe. These giraffe recorded a total of 631,490 data points, representing over 26,312 days of tracking. The tracked giraffe travelled a combined distance of 188,022 km. One of the Critically Endangered Kordofan giraffe in Chad travelled an amazing 5,280 km in one year! In some locations, such as Namibia, Uganda and northern Kenya, we noted substantial giraffe movement outside formally protected areas, which highlights the need for integrative landscape-level conservation initiatives that incorporate local communities in planning.

Above: The solar powered GPS satellite tracking unit is smaller than a deck of cards and hard to spot from a distance. *Credit: GCF*

CAPACITY BUILDING

GCF is committed to building a future for giraffe conservation in Africa and internationally. As such, GCF continues to work with partners locally, nationally and internationally to further giraffe conservation. Ultimately, giraffe can only be saved in Africa; therefore, it is of paramount importance that we work with local partners who are as passionate about giraffe as we are. Enhancing their capacity is an important aspect of such a collaboration.

Our Khomas Environmental Education Programme (KEEP) is a prime example of GCF's commitment to Africa's people and wildlife.

As part of our commitment to assist with building the capacity of conservation leaders throughout Africa and internationally, GCF provided financial and/or technical support and advice to several students this year:

Ali Abagana (Niger), PhD
Maridi University, Niger

Michael Brown (Uganda), PhD (completed)
Dartmouth College, USA

Anna Lena Burger (Namibia), PhD (completed)
Goethe University Frankfurt, Germany

Kateřina Gašparova (Niger), PhD
Czech University of Life Sciences, Czech Republic

Jackson Hamutenya (Namibia), MSc
Namibia University of Science and Technology, Namibia.

Emma Hart (Namibia), PhD
University College Dublin, Ireland / Namibia
University of Science and Technology, Namibia

Arthur Muneza (Kenya), PhD
Michigan State University, USA

David O'Connor (Kenya), PhD
Goethe University Frankfurt, Germany

Eric Thiel (Namibia), PhD
Goethe University Frankfurt, Germany

Matthew Wachira (Kenya), MSc
Nairobi University, Kenya

Wildlife Capture Exchange

In June 2019, six members of the Uganda Wildlife Authority (UWA) travelled to Namibia at the invitation of GCF, in collaboration with the Namibian Ministry of Environment and Tourism (MET), to learn more about wildlife capture and translocations.

Since 2013, GCF and the UWA have worked together to enhance giraffe (and other wildlife) capture services in Uganda through direct hands-on training of the frontline UWA staff. This training has yielded notable results in numerous successful wildlife translocations and over 200 wildlife rescues. To further enhance the UWA capture team's capacity, GCF invited them for hands-on training and the opportunity to work with experienced capture teams in Namibia.

During a two-week visit, the Ugandan team had the opportunity to work with both government and private game capture teams in Namibia. During this time, they gained experience in the mass capture of giraffe and oryx, loading of ostrich and eland for transport, individual capture and collaring of zebra and wildebeest in the Etosha National Park, and they experienced field surgery together with a group of veterinarians and students from Namibian and South African universities.

In addition, the UWA team visited the Africat Foundation and Cheetah Conservation Fund, where they learned more about animal rehabilitation, particularly cheetah, leopard and pangolin. Lastly, the Ugandan visitors participated in a field day with GCF's Khomas Environmental Education Programme (KEEP), where they learned more about the Namibian environment and the importance of environmental education.

Overall, the team felt that their visit was an amazing experience. The team expressed that they gained professional experience as well as a sense of enlightenment, as meeting wildlife experts in a different country opened their eyes to various conservation issues and provided a new perspective of their African continent. This experience was a trip of a lifetime for all the participants and it will enhance game capture in Uganda to new heights. We were proud to host the team as building capacity and engaging current and future conservation leaders is at the core of our mission. ■

Below: During their time in Namibia, the UWA team had the unique opportunity to visit Etosha National Park and work alongside the MET game capture unit. *Credit: GCF*

Education Materials

In order to get our giraffe conservation message out there to a wider audience, GCF continues to develop education materials and to render their electronic versions available for free on the GCF website. This year, again, various new posters were added to our catalogue of materials.

One of the key outputs of working with local partners is the production of a dedicated Giraffe Conservation Poster for Niger and Tanzania. Each poster summarises the status of giraffe, identifies threats, and provides a comprehensive summary of giraffe conservation in the respective country. For effective information dissemination, it is important to translate some of our education materials into local or commonly used languages. For example, the Niger poster is also available in French, Zarma and Hausa (although Hausa is the most commonly spoken local language in Niger, Zarma is widely used in the 'Giraffe Zone').

As the conservation translocation of giraffe has become an important tool for securing a future for giraffe in Africa, we have decided that it is important and timely to provide practical guidelines to help wildlife and game capture teams, veterinarians, and conservation managers. "A Journey of Giraffe – A practical guide to wild giraffe translocations" is the first-ever comprehensive giraffe translocation manual. It was developed together with a group of experts in the field, and it can be downloaded for free from the GCF website.

In addition to GCF's materials, the Giraffe Resource Centre continues to be an important source of information regarding giraffe publications for the wider public. So far, we have uploaded over 700 articles and scientific papers that can be downloaded by anyone who is looking for information. These publications also include scientific papers that have been published by GCF staff and partners during the year. ■

Left: Niger's Giraffe - Conservation Guide is the most recent poster developed by our team. The poster is also available in French, Zarma and Hausa for maximum impact in Niger. *Credit: GCF*

Scientific Publications

Brown, M., Bolger, D. & Fennessy, J. 2019. All the eggs in one basket: A countrywide assessment of current and historical giraffe population distribution in Uganda. Global Ecology and Conservation. 19. https://doi.org/10.1016/j.gecco.2019.e00612.

Burger, A.L., Fennessy, J., Fennessy, S. & Dierkes. 2020. Nightly selection of resting sites and group behavior reveal antipredator strategies in giraffe. Ecology and Evolution 10(6): 2917-2927.

D'haen, M., Fennessy, J., Stabach, J.A. & Brandlová, K. 2019. Population structure and spatial ecology of Kordofan giraffe in Garamba National Park, Democratic Republic of Congo. Ecology and Evolution https://doi.org/10.1002/ece3.5640.

Hart, E.E., Fennessy, J., Chari, S. and Ciuti, S. 2019. Habitat heterogeneity and social factors drive behavioral plasticity in giraffe herd-size dynamics. Journal of Mammalogy. 101(1): 248-258.

Muneza, A. B., Ortiz, W. C. Packer, C., Cusack, J., Jones, T., Palmer, M. S. Swanson, A., Kosmala, M., Dickman, A. J., Macdonald, D. W. and R. A. Montgomery. 2019. Quantifying the severity of Giraffe Skin Disease via photogrammetry analysis of camera trap data. Journal of Wildlife Diseases, 55 (4):770 – 781.

Noonan, Michael J., Fleming, Christen H., Tucker, Marlee A., Kays, Roland, Harrison, Autumn-Lynn, Crofoot, Margaret C., Abrahms, Briana, Alberts, Susan C., Ali, Abdullahi H., Altmann, Jeanne, Antunes, Pamela Castro, Attias, Nina, Belant, Jerrold L., Beyer, Dean E., Jr., Bidner, Laura R., Blaum, Niels, Boone, Randall B., Caillaud, Damien, de Paula, Rogerio Cunha, de la Torre, J. Antonio, Dekker, Jasja, DePerno, Christopher S., Farhadinia, Mohammad, Fennessy, Julian, Fichtel, Claudia, et al. 2020. Effects of body size on estimation of mammalian area requirements. Conservation Biology 1017-1028. https://doi.org/10.1111/cobi.13495

O'Connor, D., Stacy-Dawes, J., Muneza, A., Fennessy, J., Gobush, K., Chase, M.J., Brown, M.B., Bracis, C., Elkan, P., Zaberirou, A.R.M., Rabeil, T., Rubenstein, D., Becker , M.S., Phillips, S. Stabach, J.A., Leimgruber, P., Glikman, J.A., Ruppert, K., Masiaine, S. & Mueller, T. 2019. Updated geographic range maps for giraffe, Giraffa spp., throughout sub-Saharan Africa, and implications of changing distributions for conservation. Mammal Review 49: 285-299.

Right: There is still so much more to learn about. As a science-based organisation, we use this new knowledge to develop effective actions to secure a future for all giraffe populations in the wild. *Credit: © Friedemeier - Adobestock*

Khomas Environmental Education Programme (KEEP)

Above: Giraffe can only be saved in Africa - by African people. *Credit: GCF*

If you see a group of primary school students quietly walking in single file through a dry riverbed or gathered in a group closely inspecting something on the ground in the Daan Viljoen Game Reserve, then you have probably encountered a Khomas Environmental Education Programme (KEEP) excursion.

KEEP was established after the GCF team realised some years ago that many primary school students in Namibia's Khomas Region around Windhoek, where we are based, had never visited a national park or even seen a wild animal. This sparked our determination to make a difference by designing and implementing an environmental education programme in 2016. Based on participation numbers, KEEP is the largest interactive field-based environmental education programme in Namibia. So far, the GCF KEEP team has hosted over 9,000 Grade 3 and 4 Primary School students – 75% of these students are from under-resourced government schools.

We developed KEEP as a means of reconnecting young Namibians with nature and inspiring them to care for their environment. Our programme complements the national school curriculum by taking relevant topics from the classroom out into nature. When they are out in the bush with our KEEP team, the children can have fun while learning about the ways of the wild and the role they can play in caring for the environment. An increased awareness and greater understanding of the environment will open the minds of these young Namibians and encourage their curiosity about environmental issues in their own communities. It may also change their behaviour in relation to the environment around their own homes, which, in the long term, will improve their living conditions.

KEEP operates in the Daan Viljoen Game Reserve, which is close to Namibia's capital city, Windhoek. The students spend a whole school day on a three-kilometre educational hike, where they are guided and taught by three young Namibian Nature Conservation graduates. Along the way, they learn about important plant species, how to track and identify animals by their tracks and/or droppings. The activities also include a number of fun interactive games that keep the children engaged throughout the experience. During open discussions, often held under a shady tree, they explore relevant and important environmental topics such as the natural balance in ecosystems, climate change, water saving and waste management. All these topics are directly linked to their home environments, which show the students how their actions and lifestyles affect our fragile environment.

The most popular activity throughout the hike is looking for animal tracks and droppings – shit happens! Often times, the students are rewarded with seeing the animals whose tracks they are following: giraffe, wildebeest, oryx, jackal, baboon, ostrich, and occasionally even brown hyena. For many of the students, this is the first time that they see these wild animals in their natural habitat. ■

Below: Did you know that most African children have never seen a giraffe in the wild? *Credit: GCF*

While our **KEEP team** has a large store of knowledge to impart to their young charges, they are trained to ask questions rather than give lectures. By asking pertinent and relevant questions, they encourage the students to explore the process of figuring things out by themselves. In the same way, the KEEP team encourages the students to ask their own questions. This process could fundamentally change the way leaners think and care about nature, their environments, and one other. After a busy morning in the bush learning and questioning, we hope that these children will return home curious and eager to learn more about their environment, and to share what they have learned with their family and friends.

Beyond introducing around 2,500 young Namibian students to nature each year, KEEP provides a future in conservation work for Namibian tertiary students. The KEEP team loves sharing their passion for both giraffe and nature with their young visitors during each field excursion and inspiring future NUST graduates to pursue opportunities in environmental education. According to the KEEP Team Leader, Naemi Antonius, "Not many of our fellow graduates enjoy their jobs as much as we do! It is exhausting at times, especially on hot summer days, but still, we love what we are doing."

KEEP in Numbers (2019)

4	Non-school groups
5	Private schools
15	Government schools
17	Schools which have participated in KEEP for the second/third time
12	International visitors who joined KEEP
75	Primary school classes that joined KEEP
249	Kilometres walked by KEEP team
284	Hours spent in the bush
1,163	Boys who participated in KEEP
1,289	Girls who participated in KEEP
2,452	Primary school students, in total, who participated in KEEP
2,547	KEEP workbooks provided to students and their teachers
5,094	Feet that walked the KEEP hike
0	Litter left behind

Operation Twiga IV:

Giraffe return to Pian Upe Wildlife Reserve

After an absence of almost 25 years, the Critically Endangered Nubian giraffe has returned to the Pian Upe Wildlife Reserve (WR) in Uganda!

Operation Twiga IV is the fifth conservation translocation of giraffe that has been supported by GCF in Uganda. Previous years have seen giraffe re-introduced to the Lake Mburo National Park (NP) and the southern bank of the Murchison Falls NP, as well as supplemented to the small population in the Kidepo Valley NP in northern Uganda. All translocated populations of Nubian giraffe are thriving in their new environments and numerous calves have been born since their respective translocations. These translocations are identified as a key conservation tool in the National Giraffe Conservation Strategy and Action Plan of Uganda, which is aimed at securing the future of Nubian giraffe in the country.

The largest wild population of Nubian giraffe occurs in the Murchison Falls NP; however, the country's premier savannah park is threatened by impending oil and infrastructure development, as well as illegal hunting (poaching) for bushmeat. It is therefore crucial to establish giraffe in their historical range throughout Uganda (and elsewhere) in order to conserve the integrity of this iconic species.

The Pian Upe WR is the second-largest protected area and the largest wildlife reserve in Uganda. Established in 1965, it was home to the largest population of Nubian giraffe in the country, until years of civil unrest and armed conflict resulted in their disappearance (together with other wildlife) from this area. By the mid-1990s, giraffe were considered locally extinct in the reserve. Since the cessation of civil unrest in the country, wildlife populations have slowly recovered and a translocation assessment by the UWA, together with GCF and other partners, has confirmed that the habitat was suitable for giraffe. Importantly, local communities living around the reserve also showed great interest in returning giraffe to the Pian Upe WR.

Operation Twiga IV included the capture and transport of 15 Critically Endangered Nubian giraffe from the Murchison Falls NP to their new home in the Pian Upe WR. It took three arduous journeys of 16 hours and 480km each, which were made more difficult by unseasonal heavy rains that turned the dirt roads into veritable mud slides. However, all is well that ends well, and the giraffe were joyfully welcomed home by the local Karamojong people with lots of singing, laughter, and dances that impersonated the newest residents of the Pian Upe WR.

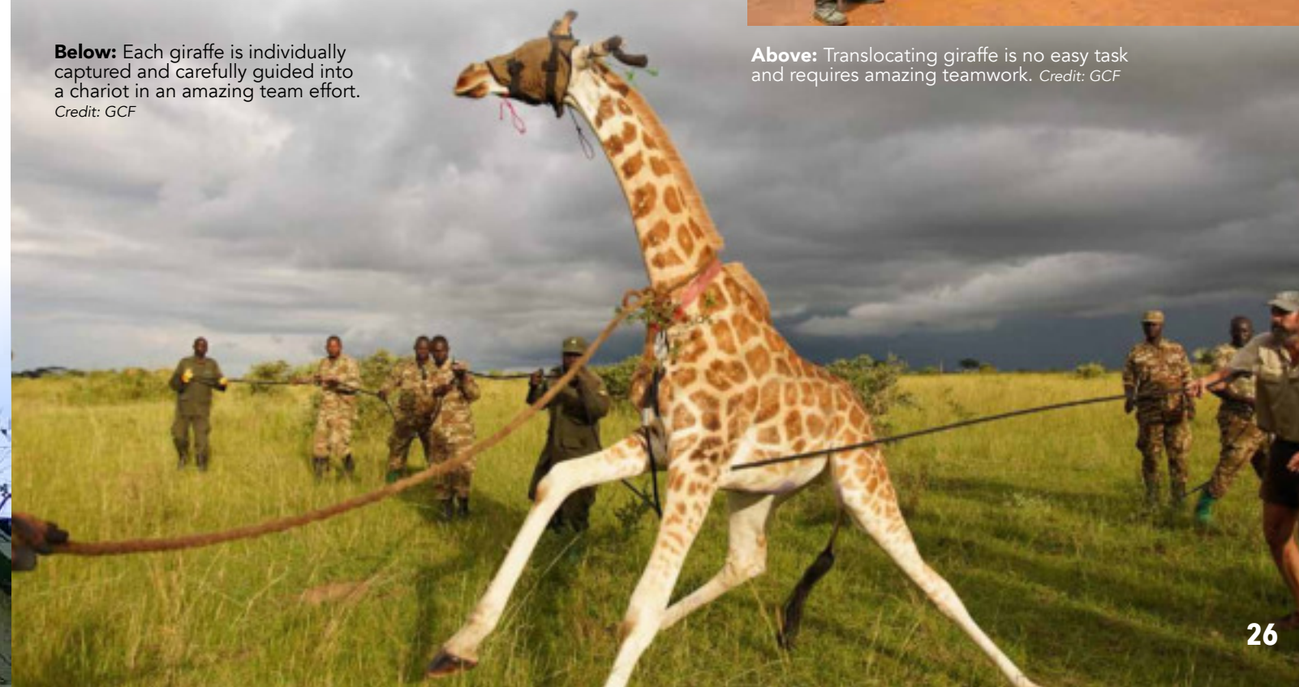
Operation Twiga IV stands as a testament to what can be achieved when passionate people come together. This does not only include the team on the ground but also the supporters of giraffe conservation from around the world. Without the funding support from international partners and individuals, this amazing conservation success story could not have been realised. This translocation is a resounding success because it has re-introduced giraffe to an area where they were locally extinct and it has further increased the giraffe's range in Uganda by over 560,000 acres!

We take this opportunity to thank all our supporters for their generous funding and for helping us to get the giraffe conservation message out to a wider audience. This was a truly incredible conservation team effort, which was led by the UWA, especially their veterinarian and capture team. Giraffe can only be saved in Africa – by Africans. ■

Above: Photo: It is a long journey for these giraffe to their new home in Pian Upe Wildlife Reserve. *Credit: GCF*

Below: Each giraffe is individually captured and carefully guided into a chariot in an amazing team effort. *Credit: GCF*

Above: Translocating giraffe is no easy task and requires amazing teamwork. *Credit: GCF*



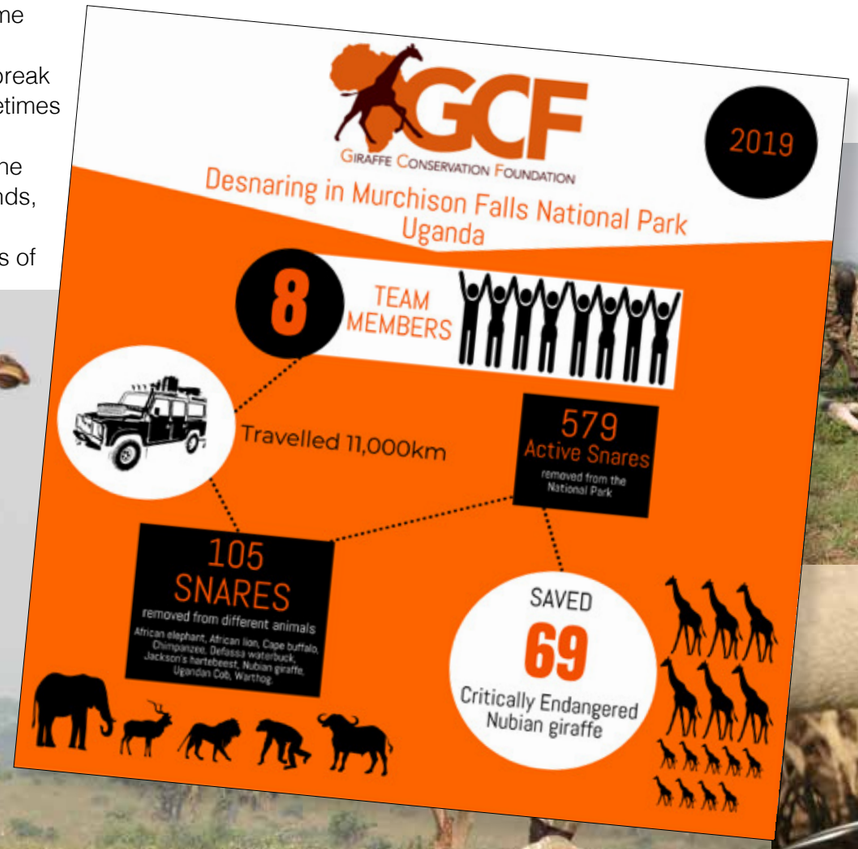
Uganda: *De-Snaring Monitoring at a Glance*

The Uganda Wildlife Authority (UWA) and Giraffe Conservation Foundation (GCF) have identified poaching, particularly the use of illegal wire snare traps, as a major conservation threat to the Critically Endangered Nubian giraffe (and other wildlife), especially in the Murchison Falls National Park (NP). Data that has been collected over the years documents that illegal wire snare traps routinely affect approximately 3% of the giraffe population. In order to determine the effects wire snare traps have on giraffe, GCF decided to take an active role in supporting veterinary response and other anti-poaching operations with the UWA, beginning in 2019. Nubian giraffe in the Murchison Falls NP are not a targeted species for poaching; instead, they become incidentally ensnared in wire snare traps. Usually, the giraffe are strong enough to break the wire snare from its anchor point. Sometimes the wire snare falls off of its own accord; however, more often it constricts around the snared extremity, resulting in severe wounds, secondary infection, permanent swelling/mass formation, and in extreme cases loss of limb or death. As part of our targeted support to the UWA's mobile vet unit, we provide both technical and physical support to survey efforts for the identification of snared giraffe (and other wildlife) and to the subsequent appropriate veterinary interventions. Through this work, we aim to reduce the impact of wire snares on giraffe (and other wildlife) by facilitating the early identification and removal of wire snares, ideally before any significant damage occurs, and by providing the appropriate treatment and supportive care.

The UWA/GCF team performs 3-4 vehicle patrols per week around the Murchison Falls NP, focusing mostly on areas that are known hot spots for snare/poaching activities. The team is able to cover 80-250 km per day and, on average, finds at least one (sometimes two to three) animal with a wire snare. The team is also on-call, which means that they are always ready to respond to any reports filed by other UWA ranger patrols or even tourist vehicles who may have sighted a snared animal.

Due to the giraffe's unique anatomy and physiology, immobilisation of them is notoriously difficult; however, it is a necessary risk in order to facilitate the removal of the wire snares. As the UWA/GCF team has extensive experience in giraffe field immobilisations in Uganda, the risk to each giraffe is reduced as much as possible.

To date, the GCF/UWA team has travelled more than 12,500 km, and has been able to treat over 170 animals in the Murchison Falls NP since the project began in early 2019. An astounding 114 of these snared animals have been Nubian giraffe. As many of the treated individuals were found before the snares began to inflict significant damage, they will recover without any issue. To round off, the team has removed more than 500 wire snares, involved 25 Ugandan students in the work, and trained 20 rangers in giraffe capture. ■



Below: When the team finds a giraffe with a wire-snare, it is darted and roped for treatment. *Credit: GCF*

Below: Once the giraffe is safely on the ground, the tranquilliser is immediately reversed and the animal is treated. *Credit: GCF*

Bottom: If the snare is detected early, it might not cause any permanent damage to the giraffe. *Credit: GCF*

Hot spot on Tanzania: Masai giraffe are listed as Endangered on the IUCN Red List

Formerly the most populous giraffe with an estimated 71,000 individuals three decades ago, less than 35,000 Masai giraffe remain in the wild today. Their range extends across central and southern Kenya and most of Tanzania. Furthermore, an isolated population of Masai giraffe exists in the Luangwa Valley in northeastern Zambia (formerly known as the Luangwa or Thornicroft's giraffe), and an extralimital population (outside their natural range) exists in the Akagera National Park in Rwanda.

The giraffe is the national animal of Tanzania and the country is home to the largest population of Masai giraffe in the wild. The rapid increase and expansion of human populations and settlements in the East African country is one of the greatest threats to Masai giraffe and other wildlife. Habitat loss and fragmentation due to increasing pressure on land for agricultural and pastoral use, illegal hunting (poaching) for bushmeat and traditional medicine, and prolonged droughts pose a severe threat to the survival of Masai giraffe in the wild

Through a Memorandum of Understanding (MoU) with the Tanzania Wildlife Research Institute (TAWIRI), GCF is helping to drive Masai giraffe conservation efforts and mitigate threats in Tanzania. In December 2019, TAWIRI launched the first-ever Tanzania National Giraffe Conservation Strategy and Action Plan 2020-2024, which was developed with technical and financial support from GCF and USAID Tanzania PROTECT. This Strategy and Action Plan provides a framework for protecting and managing giraffe populations in the country, and two primary goals for addressing giraffe conservation issues were set by stakeholders.

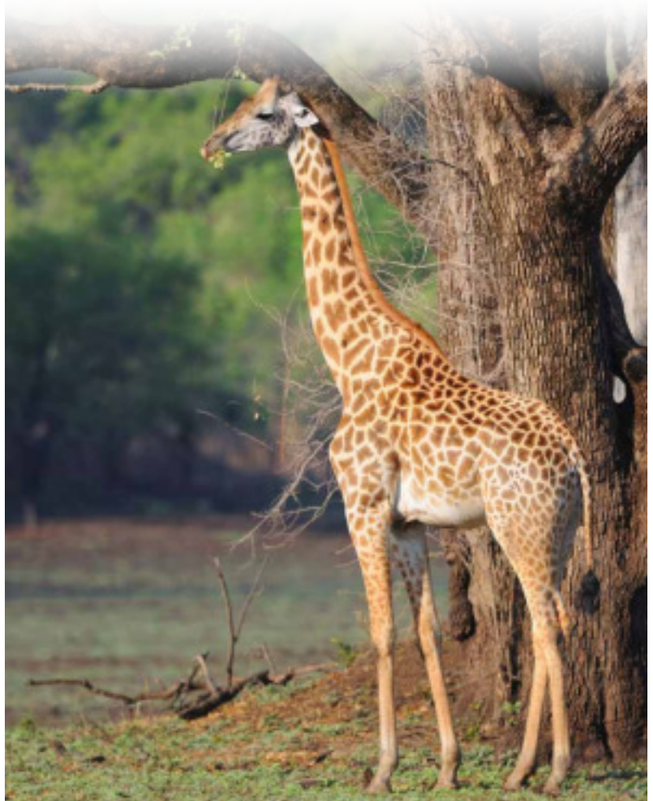
These two primary goals are set to:

1. broaden understanding and awareness of giraffe conservation in Tanzania; and

2. reduce the threats to giraffe populations and their habitats in Tanzania while increasing benefits to the people.

GCF employs a proactive approach to giraffe conservation and currently supports the implementation of Tanzania's National Giraffe Conservation Strategy. In early 2020, GCF, working in collaboration with the TAWIRI, Tanzania National Parks (TANAPA) and Wildlife Conservation Alliance, deployed 11 GPS satellite units on giraffe in Tanzania as part of a larger Twiga Tracker Initiative and to better understand Giraffe Skin Disease (GSD) in the country. This programme will provide the first-ever detailed understanding of occupancy and utilisation of giraffe habitats, the extent of movements, home ranges and seasonal dynamics of habitat use, and whether or not giraffe utilise corridors for travelling to core areas of importance (e.g. transboundary landscapes or between protected areas).

Giraffe Skin Disease was identified as a threat to giraffe in Tanzania and the country is considered a hotspot for GSD. In collaboration with local and international conservation partners, GCF will continue to collect samples in all major ecosystems in the country to increase our understanding of GSD. Our Tanzania programme will also target population surveys, and collaborative and comprehensive genetic sampling of giraffe throughout the country.



Right: Masai giraffe are listed as 'Endangered' on the IUCN RedList.
Credit: GCF

Giraffe Conservation Science Symposium & International Conventions

The causes of giraffe population declines are multi-fold, where habitat loss and fragmentation, disease, competition with livestock, and local bushmeat trade are all major factors; furthermore, all of these factors are most likely linked to human population growth. Conserving giraffe, as with any wildlife species in Africa, is complex, and it requires both scientific understanding and action from multiple stakeholders.

Having realised early on that giraffe cannot be saved in isolation, we developed the idea of bringing a group of experts together to collaboratively determine questions that still need answers and a way to find these answers.

In May 2018, 35 experts working in giraffe and wildlife conservation-based decision-making from NGOs, academia, and African governments came together to collaborate and discuss the development of a unifying Africa-wide Giraffe Conservation Science Management Framework. Under GCF's leadership, the meeting was hosted in close partnership with the Smithsonian Conservation Biology Institute (SCBI), San Diego Zoo Global (SDZG,) and Senckenberg Biodiversity and Climate Research Centre. During this first-ever Giraffe Conservation Science Symposium, the group identified key gaps for further assessment, as well as opportunities for developing partnerships and working collaboratively across Africa to help save giraffe before it is too late.

In May 2019, a smaller expert symposium was held as a follow-up in collaboration with the Columbus Zoo and linked to the International Giraffid Conference at Columbus, Ohio. In the spirit of collaboration, this symposium was again jointly hosted by GCF, SCBI and SDZG, where GCF was mandated to take the lead and oversee the initiative. Several collaborative projects and programmes have already evolved out of the forged partnerships and the consortium of organisations has pledged continued commitment to giraffe conservation. The results from the symposiums will play a valuable role in science-based decision-making for giraffe throughout Africa.

Convention of Migratory Species Expert Meeting

In 2017, giraffe were added to Appendix II of the Convention of Migratory Species (CMS) at COP12 based on a proposal that was prepared by GCF for the Government of Angola. As part of this listing, giraffe range states were urged to cooperate with conservation measures for giraffe. In June 2019, GCF hosted and facilitated a meeting of African range states on behalf of the Namibian government and by invitation of the CMS Secretariat in order to develop a 'Concerted Action for Giraffe' document. These actions highlight a priority listing of conservation measures, including the development of Africa-wide, national and regional plans. The document was submitted to CMS COP13, and was subsequently approved. It is hoped that the CMS concerted actions can be effective tools for initiating and expediting cooperation between the range states on giraffe conservation.

GCF FINANCIAL SUMMARY

Our increasing number of generous donors is a testament to GCF's success. Again, this year, we received financial support from organisations, foundations and private donors from over 40 countries. Without this support, we would not have been able to do our work and save giraffe in Africa.

Funds Received

- **Donations & Grants** $ 1,509,230
- ☐ **Other Income** $ 64,366
  (merchandise sale, interest received and other)

TOTAL
$ 1,573,596

96%

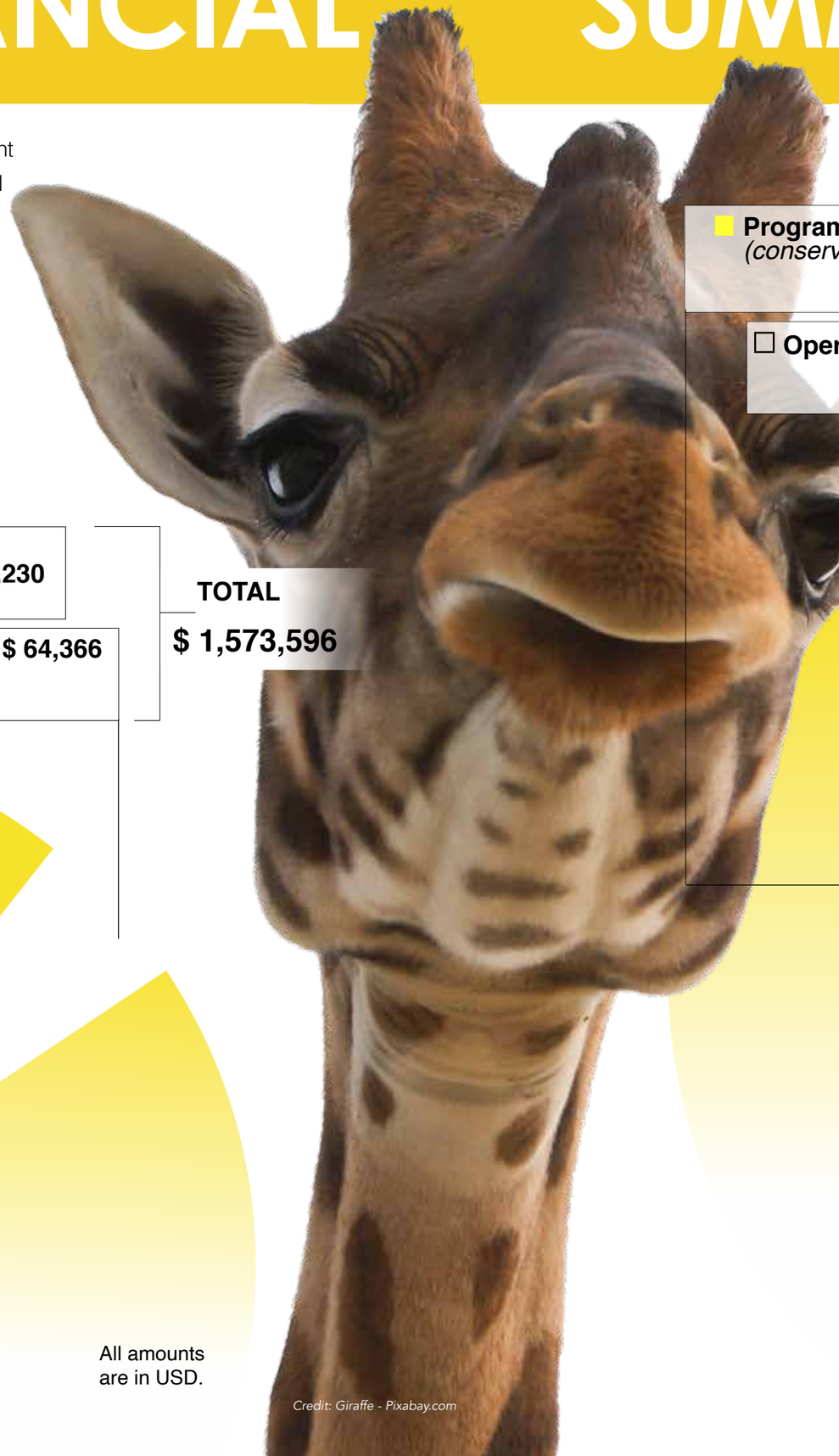
Expenditure

- **Programme & Grant Expenses**
  (conservation, education & awareness)
  $ 919,063
- ☐ **Operational & Administrative Expenses**
  $ 75,235

TOTAL
$ 994,298

92%

All amounts are in USD.



Credit: Giraffe - Pixabay.com

DONORS

As our donor list continues to get longer and longer, we have decided to include only those who donated US$500 and above in this report. However, every donation helps. We appreciate all your amazing support, and we could not continue with our important work without you – thank you!

$45,000 and above

Cheyenne Mountain Zoo
Cleveland Metroparks Zoo
IUCN Save Our Species / European Union
Ivan Carter Wildlife Conservation Alliance
Milton & Tamar Maltz Family Foundation
Lars Markgren
Naples Zoo at Caribbean Gardens
Oak Foundation

$10,000-$44,999

Africam Safari
African Safari Wildlife Park
African Wildlife Foundation
Auckland Zoo
Beauval Nature
Blank Park Zoo
Chester Zoo
Columbus Zoo & Aquarium
Dallas Zoo
Detroit Zoo
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Fort Wayne Children's Zoo
Galanthus Foundation
Dan Houk
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San Diego Zoo Global
Jimmy Sanders, Renae Moss & Francesca Douglass
Prabha Sarangi
Save Giraffes Now
Stichting Wildlife Beekse Bergen
The Born Free Foundation
The Tapeats Fund
The Waterloo Foundation
Topeka Zoo
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World Giraffe Day 2019 Supporters
Zoo New England

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La Passerelle Conservation / Parc Animalier d'Auvergne
Longneck Manor Conservation Foundation
Natural Selection Conservation Trust
Omaha's Henry Doorly Zoo & Aquarium
Plumpton Park Zoological Gardens
Riverbank Zoo & Garden
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Pamela Tate
Total E&P Uganda
Lisa Volgenau
World Giraffe Day Celebration Facebook Group

$2,500-$4,999

B Bryan Preserve
Peggy Barnthouse
Linda Batlin
Blair Drummond Safari & Adventure Park
Bright Zoo
Debbie Brown
Columbus AAZK Chapter
Ruby Davis-Rice
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Los Angeles AAZK Chapter
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National Zoo & Aquarium Canberra
Out of Africa Wildlife Park
Parco Zoo Punta Verde
Rotary Club Windhoek
Sally Seaver
Sedgwick County Zoo
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Wags & Menace Make a Difference Foundation
James Weckerle
Wilderness Travel
Woburn Safari Park
Woodland Park Zoo
Zoo Antwerp

$1,000-$2,499

Abilene Zoo
Alabama Safari Park
ARCA Foundation / Parco Natura Viva
Joseph & Velda Boenitz
Kevin Brown
Bushwhackers
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Central Florida Zoo
Dave Cortright
Colleen Crowley
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Gemeinschaft der Förderer von Tierpark Berlin
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Linda Vidosh Zempel
Virginia Safari Park
Xueling Wang
West Midland Safari & Leisure Park
in memory of Winnie Woodbury
Zoo de la Boissiere du Dore la Chataigneraie
Zoo Lyon
Zoos South Australia

$500 - $999

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Birmingham Zoo
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Gary Brueggeman
Janet Buell
Caldwell Zoo
Cosley Zoo
Demokratische Initiative 100% Tempelhofer Feld e.V.
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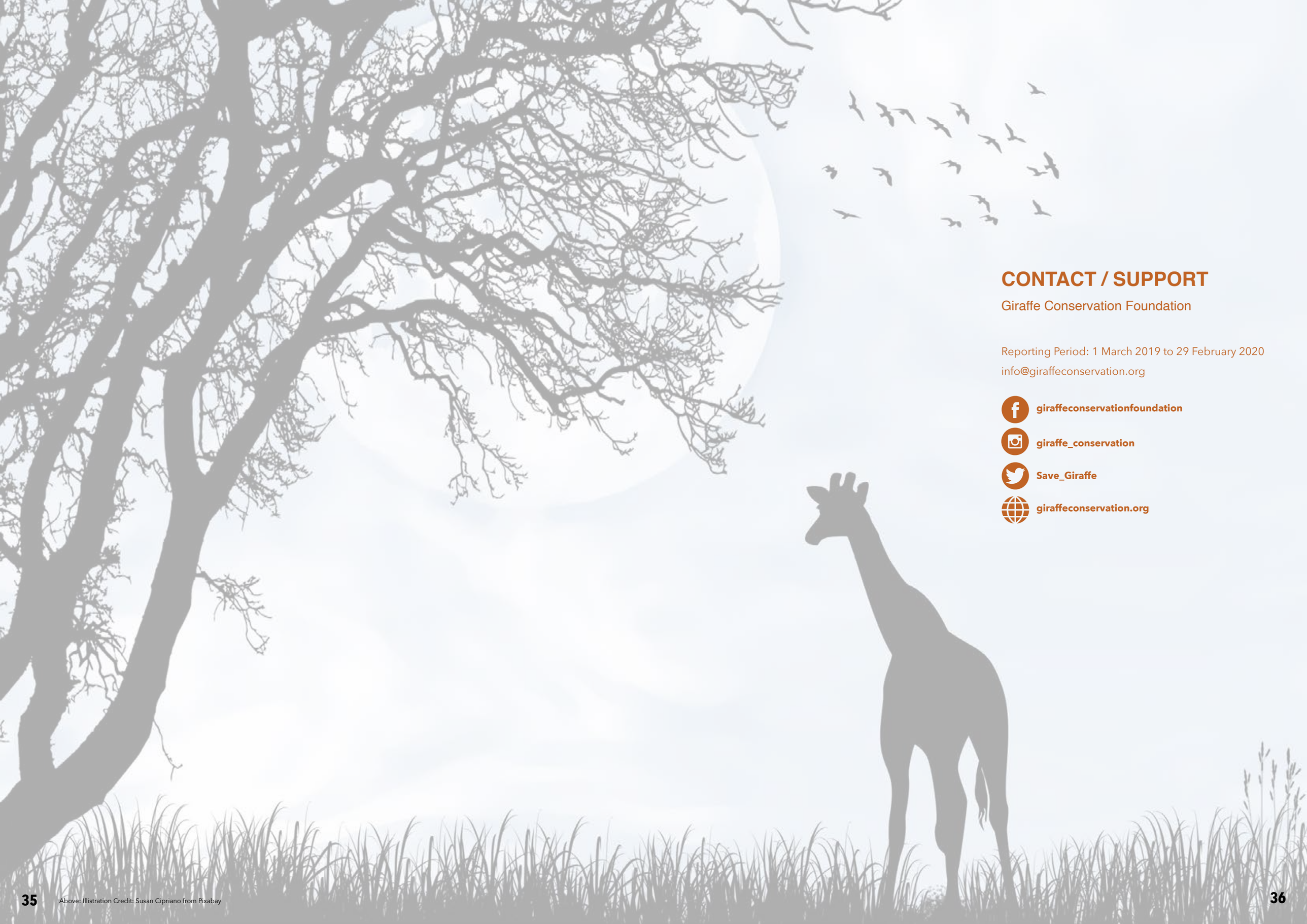

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Save_Giraffe

giraffeconservation.org

Above: Illistration Credit: Susan Cipriano from Pixabay

Credit: Giraffe - Pixabay.com

GCF
Giraffe Conservation Foundation