

East Africa Programme

Quarterly Report (May – August 2017)



Background

In mid-2016, the Giraffe Conservation Foundation (GCF) opened an East Africa office, based in Nairobi, to better support giraffe conservation initiatives in the region by establishing a regional base. These efforts focus on collaborations with government institutions, private stakeholders, along with local and international NGOs. The East African region is critical for the long-term survival of wild populations of giraffe as it is home to three distinct species of giraffe: Masai giraffe (*Giraffa tippelskirchi*), reticulated giraffe (*Giraffa reticulata*) and Nubian giraffe (*Giraffa camelopardalis camelopardalis*). This is the second Quarterly Report for 2017 and it highlights the programmes that GCF has initiated towards conserving the three giraffe species in the region.

Broad-ranging programmes

A recent genetic study by GCF and partners on giraffe taxonomy revealed that there are four distinct giraffe species with five subspecies. In order to further our understanding of the taxonomic findings of this initial study, GCF has partnered with the Kenya Wildlife Service (KWS) and the Senckenberg Biodiversity and Climate Research Centre. Kenya is home to three of the four extant species of giraffe, however, it is unknown whether different species have interbred (hybridised) in their current and historical overlapping ranges. With our support KWS is currently collecting tissue biopsy samples from giraffe populations across the country. After analysis, these results will provide crucial information on the genetic diversity of giraffe populations in Kenya.

Findings from this study will help inform conservation management practices since all three species are faced with varying threats. Thus far, KWS have collected 112 samples (59 male and 53 female) from across Nairobi National Park, Ngong Nature Reserve, Kigio Wildlife Conservancy, Soysambu Wildlife Conservancy, Hell's Gate NP and surrounding farms, and Lake Nakuru National Park (Fig. 1). While these areas fall within the range of Masai and Nubian giraffe, the project will continue to expand to other parts of the country representative of giraffe distribution in Kenya (Table 1).

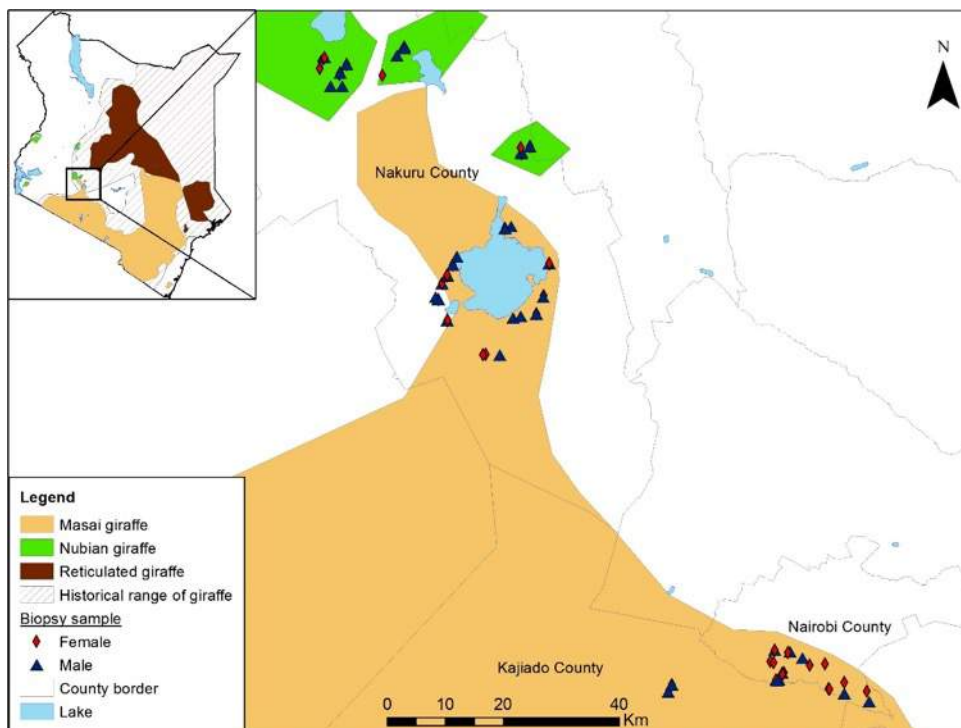


Fig 1. Areas where giraffe tissue samples have been collected by KWS so far.

Table 1. Conservation areas, proposed for sample collection for genetic study of giraffe populations in Kenya

Masai giraffe	Reticulated giraffe	Nubian giraffe
Amboseli NP	Loisaba area (Including private ranches)	Soysambu Wildlife Conservancy
Chyulu Hills NP	Solio Ranch	Lake Nakuru NP
Hell's Gate NP/Naivasha	OI Pejeta Wildlife Conservancy	Ruma NP
Masai Mara GR	Northern Rangeland Trust areas	Giraffe Center
Narok Conservancies	Garissa area	Kigio Wildlife Conservancy
South Kitui NR	Meru National Park	Kruger Farm/Soi Farm
Tsavo East NP	Tana area	Rimoi NR
Tsavo West NP		Mwea NR

The first-ever Nubian Giraffe Working Group meeting was held in May. The meeting was organised by KWS with the support of GCF and hosted at Soysambu Wildlife Conservancy. This was a ground-breaking step for giraffe conservation in Kenya to directly support the implementation of the draft Kenya National Giraffe Conservation Strategy. The successful meeting involved stakeholders from KWS (Lake Nakuru NP, Ruma NP, Mwea NR, Rimoi NR) and the private sector (Giraffe Center, Kigio Wildlife Conservancy, Soysambu Wildlife Conservancy), and led to ongoing communication between stakeholders to exchange information and discuss common threats that Nubian giraffe face in the country. Stakeholders proposed a number of action points that would ensure a sustainable growth of the Nubian giraffe population in

Kenya and increase support for the implementation of the draft National Giraffe Conservation Strategy of Kenya. The Nubian giraffe Working Group meeting also provided a framework for the formation of the Masai giraffe Working Group. A concept note for the same has been forwarded to KWS for review to facilitate a meeting later in the year. It is envisioned that Working Group meetings are held bi-annually to assess progress, discuss next steps and actions.

With the aim of promoting citizen science and increased giraffe conservation, GCF partnered with San Diego Zoo Global and Wild Me to develop an online platform called '*GiraffeSpotter – WildBook for Giraffe*'. This software is currently in its beta-version and can be trialled online at <https://giraffespotter.org>. The online platform can be used for free by interested researchers, managers, conservationists and the general public to simply get involved and/or better understand target giraffe populations in the wild. GiraffeSpotter uses giraffe pattern recognition to assist with long-term monitoring through individual photographic mark-recapture sightings. Valuable donor support has made possible this first step in the development of a standardised giraffe conservation tool, which will be crucial to their long-term conservation and monitoring.

Specific programmes

Masai giraffe

World Giraffe Day 2017 was dedicated to raising awareness and funds for the plight of Masai giraffe, which have declined by over 50% over the last 30 years. GCF is working with partners in the region to raise awareness on the causes of the decline and conservation action required to mitigate the threats to their survival. Specifically, GCF is working with Wildlife Works, the Masai Wilderness Conservation Trust (MWCT) and the African Conservation Center (ACC) to assess the cultural and socio-economic drivers of giraffe poaching in southern Kenya. According to conservationists in southern Kenya, giraffe poaching for bushmeat and traditional use is on the rise, and the sale of one whole giraffe is enough to purchase can fetch a *boda boda* (local term for motorbike commonly used to transport people and goods over short distances). Additionally, the continuing dry conditions in the region make it easy for poachers to spot giraffe from a distance. Our partners employ a number of community scouts who work closely with the indigenous people in the region and our efforts mirror those in northern Kenya (see section on reticulated giraffe for more information), with implementation planned for later in the year.

In terms of assessing Masai giraffe distribution, movement and population trends in southern Kenya, GCF is working closely with Tsavo Trust and Big Life Foundation, who have a large network of rangers to monitor wildlife populations in the region. The goal of this collaboration is to collate current and future giraffe data using photographic mark-recapture surveys and analysis using GiraffeSpotter. The valuable funds from World Giraffe Day 2017 will be used to equip community rangers with digital cameras and GPS units to photograph individual giraffe and record their locations – all crucial information when recording giraffe movements as well as poaching incidences. GCF will coordinate training sessions with the community rangers who will be involved in the study and provide additional support as appropriate.

In Tanzania, GCF recently established a partnership with relevant government institutions to advance giraffe conservation and management in the country. This is of particular importance as Masai giraffe are



the national animal of Tanzania. As a first step, GCF has been developing the first-ever Tanzania Country Profile with input from the Tanzanian Wildlife Research Institute (TAWIRI). Building partnerships is an important part of all our giraffe conservation work and GCF continues to work with TAWIRI to provide the most current giraffe population data, which in time will provide a valuable baseline for the proposed development of the first-ever Tanzanian National Giraffe Conservation Strategy and Action Plan. In addition to this, GCF is developing a partnership with Tanzania National Parks (TANAPA) to better understand the aetiology and pathology of giraffe skin disease in the country, which has an almost ubiquitous distribution in giraffe populations in Tanzania. TANAPA will be trialling a potential treatment of the disease later in the year, and our support will hopefully be valuable.

Nubian giraffe

In early 2017, GCF has furthered its partnership with the African Fund for Endangered Wildlife (AFEW) by initiating a road-based photographic mark-recapture surveys to estimate the abundance of giraffe in Mwea National Reserve (45 km²) and Ruma National Park (120km²). Between June and July 2017, surveys were conducted in both areas resulting in more than 3,000 images collected from both areas. Preliminary results show that giraffe focus their core activities in the northern parts of both areas (Fig. 2). In Mwea, giraffe distribution is possibly a result of water trough placement in the reserve, while in Ruma it may be related to preferred forage distribution. Interestingly, during the July surveys the water troughs in Mwea were empty and more giraffe were spotted in the southern section of the park edging closer to the river and dam, and close to human settlements. Poaching remains a threat to the population since a large portion of Mwea is not fenced and during the dry season, when water levels of the dam recede, wildlife becomes an easier target for poachers who can enter via the dam. So far, only one giraffe has been observed with a snare wound on the hind leg. Initial findings estimate approximately 48 giraffe in Mwea and 147 giraffe in Ruma. These figures indicate that the population in Mwea NR is slowly recovering after an anthrax outbreak in 2011, as only 33 giraffe remained after 11 had died from anthrax. Of the 33 giraffe, 20 were vaccinated for the disease.

Using individual giraffe pattern recognition software, we have identified one male giraffe 'Ibrahim', who was translocated from the AFEW Giraffe Center in Nairobi to Mwea in 2011 (Fig. 3). Results from this study will hopefully provide future recommendations for post-translocation monitoring of giraffe populations in the country.



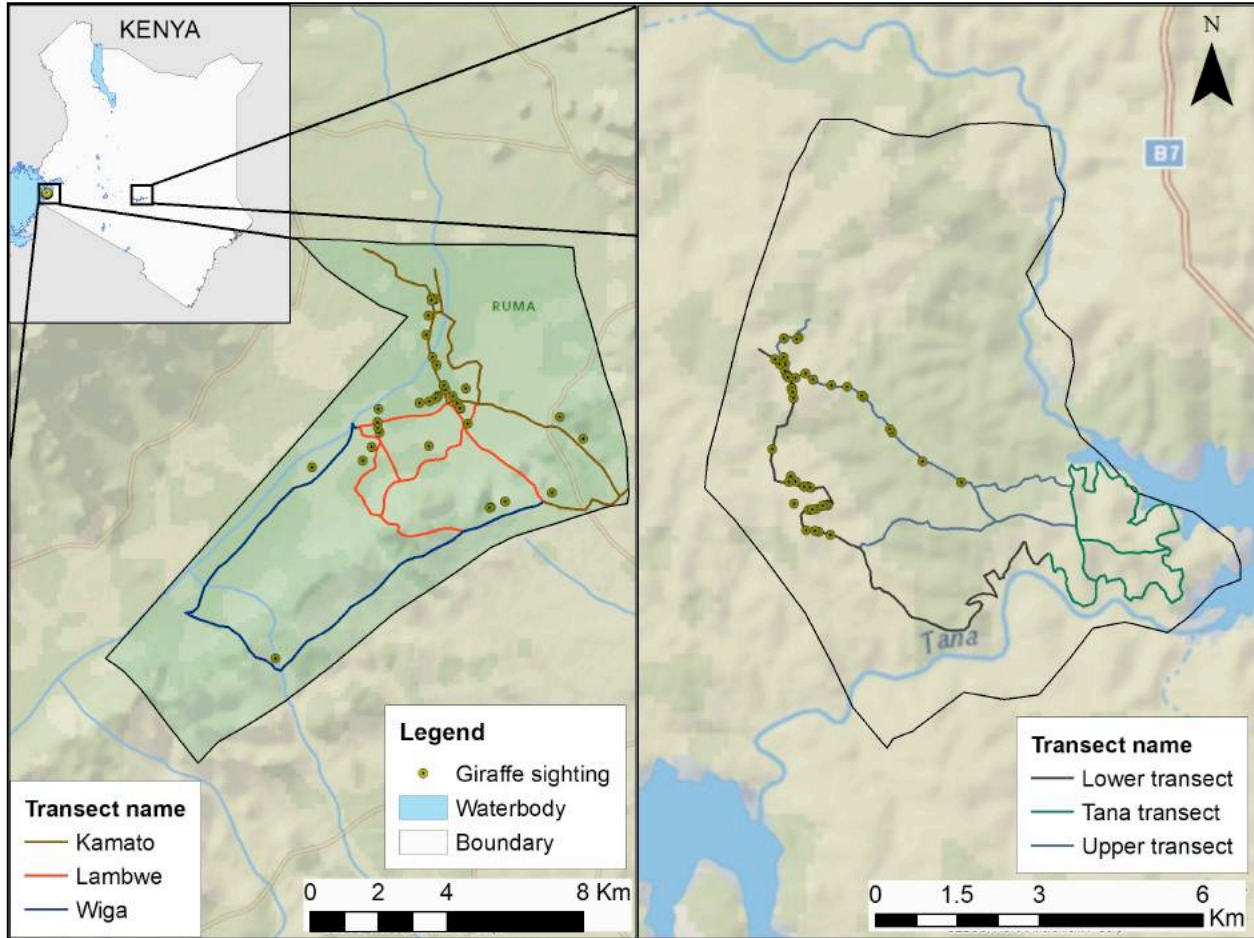


Fig. 2: The distribution of the giraffe populations in Ruma NP (left) and Mwea NR (right), Kenya.

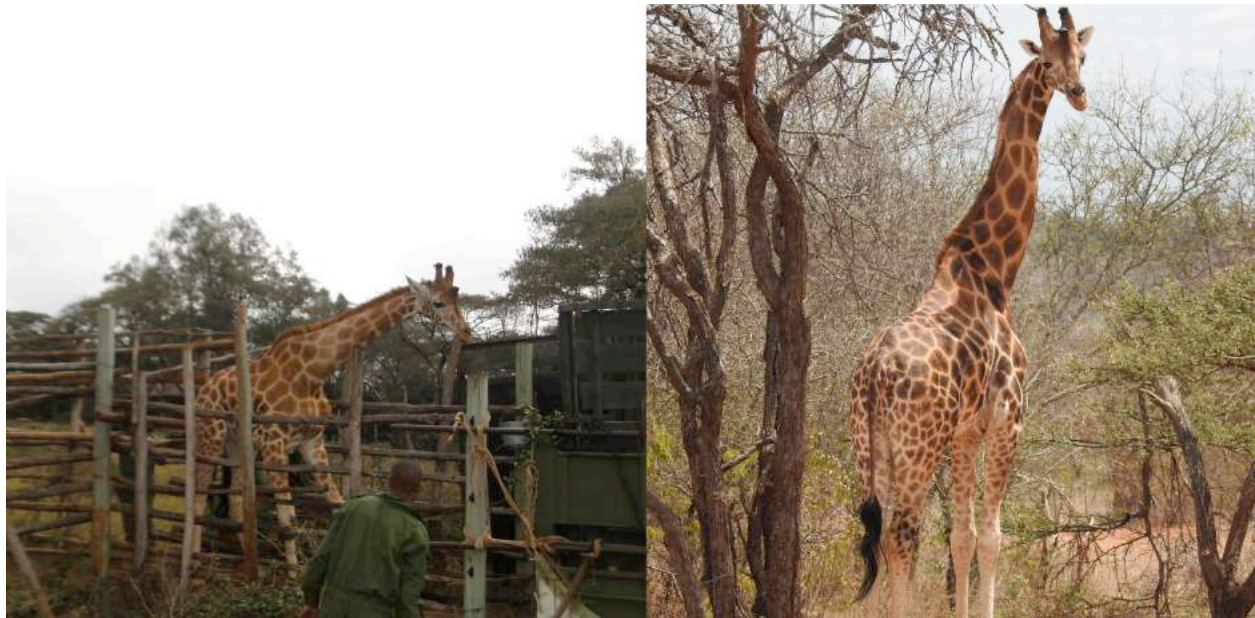


Fig. 3: Ibrahim during his translocation from AFEWs Giraffe Center, Nairobi in 2011 (left) and recently in his new home in Mwea National Reserve.

In Uganda, GCF with financial assistance from international partners supported the Ugandan Wildlife Authority (UWA) to host a national workshop in June to start the development of the first-ever Ugandan National Giraffe Conservation Strategy. The four-day workshop brought together local community, public and private stakeholders, along with international experts to discuss threats and develop local actions for giraffe conservation. The Strategy and Action Plan will hopefully ensure that Nubian giraffe are adequately protected and secured in Uganda. The draft document is currently under review before final comments and amendments are integrated and presented to the Ugandan government for approval.

GCF continues to support monitoring and management of the Nubian giraffe population across Uganda, in particular in Murchison Falls NP. In August 2017, UWA with financial support from GCF, Metzger Foundation and Ivan Carter Wildlife Conservation Alliance moved 19 giraffe from the northern bank of the park to the southern bank to supplement the founder population that was translocated in January 2016 with the support of World Giraffe Day 2015. During 'Operation Twiga II', a veterinarian from Cheyenne Mountain Zoo used a portable x-ray machine for the first time in a conservation area in Africa to assess the condition of hooves and bones of the lower limbs of wild giraffe. Findings from this study, and other zoo partner supported efforts during Operation Twiga II, will inform and improve the care and management of wild and captive giraffe alike. Five giraffe were fitted with newly designed solar GPS tracking units from Savannah Tracking that are attached to the ossicone of giraffe (Fig. 4) – so called 'ossi-units'. These specially equipped animals will help with post-translocation monitoring of the giraffe on the south side to inform conservation planning efforts and assess any potential impacts. Tissue samples were also collected with the goal of identifying the etiological agent of giraffe skin disease in Uganda and inform long-term taxonomy studies.

Reticulated giraffe

Reticulated giraffe occur in some of the most remote and unstable regions of East Africa and their spatial ecology remains understudied. To bridge this gap, GCF with funding from World Giraffe Day 2016 and in support of San Diego Zoo Global, KWS, Loisaba Wildlife Conservancy, Northern Rangelands Trust, Smithsonian Institute and other partners fitted 11 solar GPS ossi-units (Fig. 4) on reticulated giraffe in northern Kenya in June 2017. Seven giraffe (three males and four females) in Loisaba Wildlife Conservancy and four female giraffe in Leparua Community Conservancy were tagged, the first of their type in Kenya. These giraffe are monitored collaboratively by local game guards (Twiga Walinzi), who are supported through the programme. This study is crucial for understanding the home range and core habitat of reticulated giraffe in Kenya. Unfortunately, in early July 2017, one of the tagged giraffe was killed in a suspected poaching incident just outside of Loisaba Wildlife Conservancy where the giraffe regularly venture. The attached ossi-unit was not recovered as it had been removed.





Fig. 4: Female giraffe with solar GPS ossi-unit attached in Loisaba Wildlife Conservancy, northern Kenya. (Photo credit: Ken Bohn, San Diego Zoo Global).

In support of San Diego Zoo Global and local partners, GCF has supported dedicated community-based conservation efforts across northern Kenya, including hiring of and equipping local staff and game guards (Twiga Walinzi). The project is going well and continues to increase awareness and conservation efforts on the ground by evaluating and assessing any effects of ongoing development of infrastructure in eastern and north-eastern Kenya, and also implementing a trial of *GiraffeSpotter*.

To mitigate threats to reticulated giraffe in Kenya, GCF is reviewing support to additional community conservation initiatives including Ishaqbini Conservancy in north eastern Kenya, home to some of the last endangered hirola antelope in the world. Last year, a dozen or so giraffe died from the long drought and the rangers opportunistically collected tissue samples, which are used to better understand giraffe taxonomy in the region and across all of Africa.

Awareness raising and capacity enhancement

GCF has also been at the forefront of raising awareness for giraffe conservation and capacity building in the region. GCF continues to support a local Kenyan intern, who has been involved in numerous giraffe conservation activities, including assisting in coordinating and reporting the Nubian Giraffe Working Group meeting and other community meetings. A meeting was held with community members who own land near the Ngong Nature Reserve on the outskirts of Nairobi, where the standard gauge railway from

the port city of Mombasa to Kampala will pass through. The meeting focused on the potential of setting up a community conservancy with support from KWS to maintain a wildlife corridor between the area, and Mount Suswa Conservancy and Hell's Gate National Park, some of the last strongholds of Masai giraffe in the Central Rift Region. Both habitats are under intense anthropogenic pressure and may soon be inhabitable for giraffe. As such, engaging with communities to raise awareness on the importance of wildlife conservation and wildlife corridors may be key to securing the future of giraffe in the region.



Fig. 5: GCF East Africa Coordinator (far left) discussing with the Olooishobor community members about giraffe conservation and importance of wildlife corridors.

Following the success of the Khomas Environmental Education Program (KEEP) in Namibia, GCF is now working with partners to adapt the specially developed KEEP workbook for use in Kenya. KEEP targets primary school students and the programme covers many aspects linked to the wider school curriculum with a focus on natural resource conservation and sustainable living; giraffe are often used as an example. The KEEP workbook, which is based on an experiential and interactive learning format, has been used by more than 4,000 children in Namibia so far and has been identified as a valuable learning resource by their teachers. Adapting the workbook for use in Kenya will provide a valuable resource for school-age children and wildlife conservation in the country and will help support developing the next leaders of wildlife conservation and management in the region. The Kenya version of the environmental education workbook will apply concepts and experiences that are familiar to local Kenyans, which is key to raising more awareness and support for giraffe and wildlife conservation in the country.

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Animal Charity Trust

