



# East Africa Programme

UPDATE REPORT  
November 2020 – March 2021



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## Background

The Giraffe Conservation Foundation (GCF) East African office, based in Nairobi, was established to increase collaborative giraffe conservation efforts with government institutions, private stakeholders, along with local and international NGOs with respect to giraffe conservation and management. In 2019, the office expanded and now has a regional base in Uganda to help increase our support in the country. The East African region is critical for the long-term survival of wild populations of giraffe as it is home to three distinct species: Masai giraffe (*Giraffa tippelskirchi*), reticulated giraffe (*G. reticulata*) and Nubian giraffe (*G. camelopardalis camelopardalis*) – all of them threatened with extinction in the wild. This report is the first of 2021 and highlights the steps and programmes that GCF has initiated towards conserving the three species in the region between November 2020 to March 2021.

## Broad-ranging programmes

Throughout 2017-18, the Kenya Wildlife Service (KWS) collected biopsy tissue samples in all major giraffe populations throughout the country. The samples are currently analysed by GCF's genetics partner BiK-F Senckenberg to determine the genetic diversity of giraffe in Kenya. Preliminary findings show interesting results and will help to gain a clearer picture of genetic diversity across East Africa. The final findings from this work will inform management and conservation translocation efforts in Kenya.

### Masai giraffe in Kenya

In January 2021, GCF associate field researchers finalised surveys in Block 3 of the Masai Mara National Reserve (MMNR). These surveys followed the delineations used by KWS and as such, earlier surveys in the reserve covered the Mara Triangle (Block 1) and Block 2. Block 3 is the eastern section of the MMNR Ecosystem and covers approximately 365 km<sup>2</sup>. The section is bordered by Naboisho and Siana Conservancies to the north, Olderkesi Conservancy to the south-east and the Serengeti Ecosystem in Tanzania to the south – and an important area for giraffe movements (Fig. 1). During the 10-day survey, 467 giraffe sightings were recorded, yielding 301 unique individuals following Wild-ID image analysis. In Block 3, two hotspot areas were identified, one in the Talek area near Simba Lodge and another in the Sand River area. The overall sex structure during the survey was 39% male (n = 94 of 242) and 61% female (n = 148 of 242), and adults comprised 55% (n = 166 of 301) of the population, compared to 25% (n = 76 of 301) sub-adults and 20% (n = 59 of 301) calves. Considering the results from the surveys conducted in Block 2, MMNR has a minimum of 446 unique giraffe. Importantly, giraffe move between conservancies within the Masai Mara Ecosystem. To date, a total of 3,290 unique giraffe have been identified in the Ecosystem. This number represents a 26% increase from the 2,607 giraffe counted via aerial surveys in 2017. More than 25% (n = 81) of the 301 giraffe identified in Block 3 were resights from earlier surveys; 21 giraffe had been recorded in Naboisho Conservancy, 21 in Siana Conservancy, 17 in Block 2 of the MMNR, 16 from Olderkesi, three from Olare Motorogi, two from Olarro and one from Isaaten (Fig. 1). These findings further highlight the importance of maintaining the interconnectedness of conservancies in the Masai Mara Ecosystem. Photos from the surveys have and will continue to be uploaded on GiraffeSpotter online and it is hoped that they can be used for future monitoring and citizen science monitoring by the management authorities.

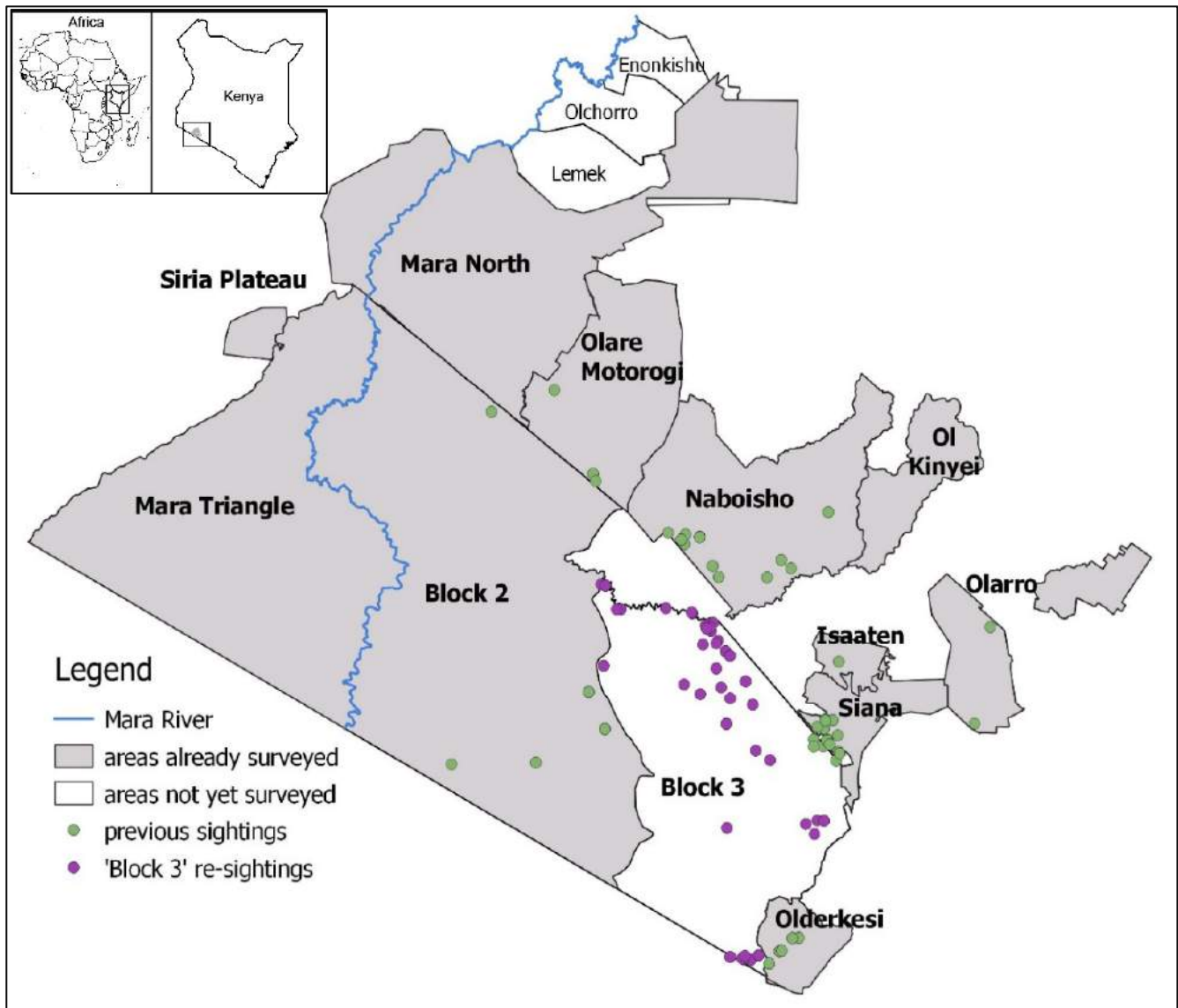


Fig. 1: Areas where giraffe were previously marked and recaptured during the January 2021 surveys.

### Masai giraffe in Tanzania

With a view to expand our network within Tanzania, we recently partnered with Traditional Ecosystems Survival Tanzania (TEST), a local research NGO focused on documenting the role of indigenous knowledge in wildlife conservation. Through this partnership under the Twiga Wetu (our giraffe in Swahili) Initiative, TEST is documenting the distribution of giraffe and the threats they face in village lands between Serengeti National Park (NP) and Ngorongoro Conservation Area. To date TEST has conducted field work in four Masai villages within the Ngorongoro District: Ololosokwan, Kirtalo, Oloipiri and Loosoito. Surveys in areas surrounding these villages observed 214 giraffe: 110 in Ololosokwan, 43 in Oloipiri, 26 in Kirtalo and 35 in Loosoito. Additionally, meetings with village representatives revealed that there are instances where giraffe bones, tails and fat are used for medicinal purposes. No giraffe parts are used for any traditional rituals and but no recent giraffe poaching incidences were found or members from the Masai community eating giraffe meat. During the surveys, no giraffe carcass or parts were observed in the study area. However, unregulated fencing, especially around watering points that are frequented by community members and their livestock, as well as private farms, were identified as serious threats to giraffe. Uncontrolled fires were also identified as a threat because some individuals burn bushes near village lands to reduce ticks and other insects that might transmit diseases



to livestock. Initial feedback shows a willingness of some villages to change these customs if alternative methods of tick control is identified. In Oloipiri specifically, several young Masai who have already been trained by the Wildlife Department of the Ngorongoro Conservation Area volunteered to continue monitoring giraffe areas, further highlighting a willingness to promote coexistence.



**Fig. 2:** Two Masai giraffe sighted near Ololosokwa Village in Ngorongoro District, Tanzania.

### Nubian giraffe in Uganda

Towards the end of 2020 the Uganda Wildlife Authority (UWA) successfully completed *Operation Twiga V* (*twiga* is Swahili for giraffe), with support from GCF. *Operation Twiga* is the sixth consecutive giraffe conservation translocation in Uganda. Previous years have seen giraffe re-introduced to Lake Mburo NP and the southern bank of Murchison Falls NP, as well as supplementing the small population in Kidepo Valley NP. Last year *Operation Twiga IV*, the first of a two-phase plan, saw the epic reintroduction of giraffe to Pian Upe Wildlife Reserve (WR), a region that has not seen giraffe since the late 1990s. Special considerations had to be given to the CoVID-19 pandemic, however the slightly smaller but well-sanitised and masked team took to the field on 19 November to capture giraffe and begin the operation. Over a period of three weeks, a total of 15 subadult Nubian giraffe (11 females, 4 males) were captured on the north bank of Murchison Falls NP, and then placed in a temporary boma for monitoring. During the capture process, three female giraffe were tagged for post-translocation monitoring and studying the spatial ecology of giraffe in Pian Upe WR. No health issues were recorded, and the translocation was completed successfully after a combined 3,000 km return journey over three trips. The UWA, Uganda Wildlife and Education Centre (UWEC) and GCF teams worked seamlessly to make this one of the most successful translocations in Uganda's history. After this translocation, there are now 29 critically endangered Nubian giraffe in Pian Upe WR. For more information on *Operation Twiga V* read the full story on the GCF website.



**Fig. 3:** Uganda Wildlife Authority rangers guiding a Nubian giraffe into a transportation cart before transfer into a boma, in Murchison Falls NP, Uganda, during *Operation Twiga V*.

Poaching, specifically illegal wire snare traps, continue to be a major threat to Nubian giraffe, as well as other wildlife, especially in Murchison Falls NP. The UWA/GCF mobile veterinary response unit has continued to monitor wildlife and act on emergencies in the park. While giraffe are not the targets for wire snares, the indiscriminate nature of these traps ensures that all species are at risk of injury or death. Giraffe caught up in wire snares are often strong enough to break the wire free from its anchor point and can end up dragging the wires around for days to weeks or longer. Snare wounds that are left untreated can lead to infection, distal limb swelling, and often permanent limb deformities. In extreme cases the wire snares have been observed to result in limb amputation and death. It is of great concern that poaching activity within the national parks across Uganda have or will increase during the COVID-19 pandemic due to the economic impacts caused by the loss of tourism and shutdown of private businesses. The UWA and GCF team is dedicated to continuing close monitoring of the situation and working together to react to any increase in poaching that may be seen as the country continues to deal with the new reality of coping with COVID-19. Since November 2020, the response team desnares a total of 22 animals, including 10 Nubian giraffe. This brings the total number of animal rescues to over 300 in the last two years, including 195 Nubian giraffe.



**Fig. 4:** A male Nubian giraffe that was observed with a wire snare on the front left limb then treated by the GCF/UWA Veterinary Response Team in Murchison Falls NP, Uganda.

To further address the scourge of indiscriminate wire snaring, GCF is excited to partner with the local CBO Snares to Wares Initiative to address the root cause of subsistence poaching. This partnership will not only expand the initiative's current work that employs local community members to transform wire snares removed from Murchison Falls NP into art for sale but will also develop a new collaborative community outreach programme as part of GCF's 'Twiga Wetu' initiative. The partnership aims to create a holistic approach to reduce the impact of poaching through continued support of UWA rangers while supporting local livelihoods, and further community engagement and education around the conservation area.

We have also continued our partnership with GEAR (Giraffe Education And Research), a local group working in the communities adjacent to Lake Mburo NP. While COVID-19 proved challenging, GEAR was able to continue the post-translocation monitoring of the giraffe in Lake Mburo NP. This population, translocated in 2015, has been doing exceedingly well and has grown from the 15 original members introduced to now 33 individuals. With the closure of schools, GEAR was forced to suspend their scheduled school trips, but instead brought community members to the park. Identified and recommended UWA community conservation team in Lake Mburo NP, the communities were identified as groups from areas with high poaching activity. Given the success of previous GEAR radio shows on poaching activity in the park, these community trips in high poaching groups aid UWA in their anti-poaching initiative. GEAR was also able to maintain their quarterly radio-talk show programme, with their final show in December 2020 hosted on the larger radio station (Radio West) which has an audience broadcast from the capital Kampala west to the DRC border.

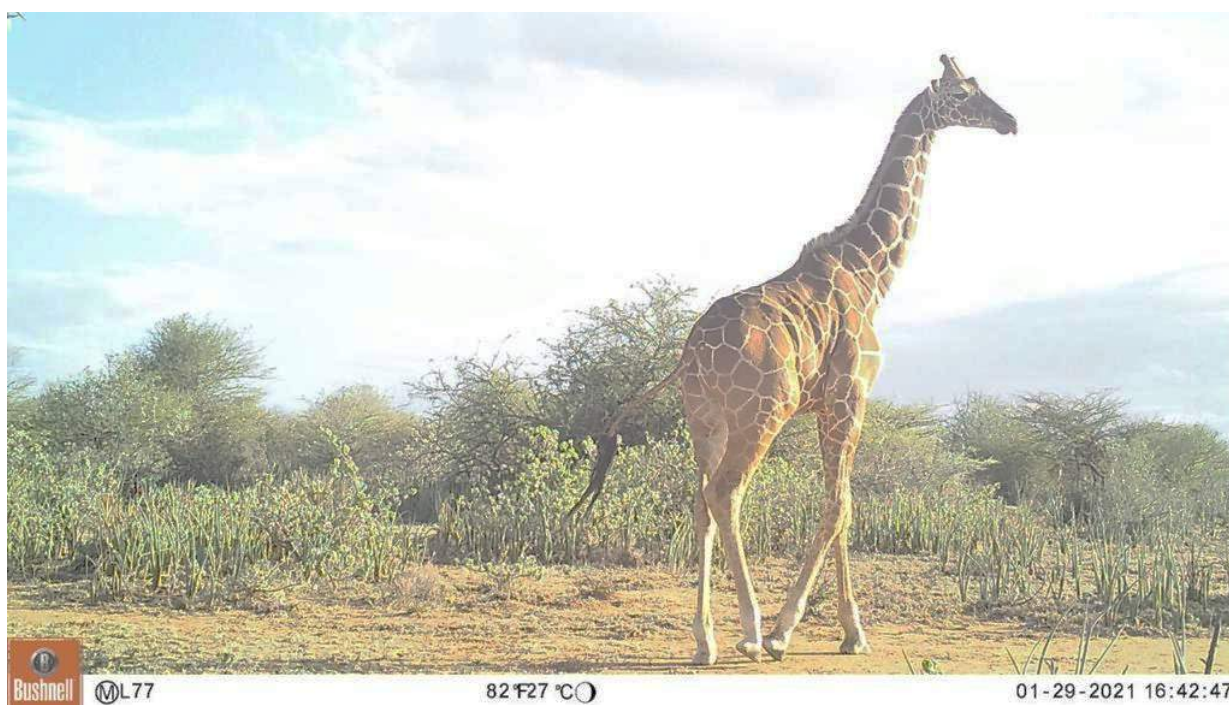
#### Reticulated giraffe in Kenya

In northern Kenya, the Twiga Walinzi team from San Diego Zoo Wildlife Alliance conducted meetings with communities in the 12 zones of Ruko Wildlife Conservancy to discuss the giraffe translocation that was initiated



in late 2020. Initially, four Nubian giraffe were moved from the island on Lake Baringo to Ruko Wildlife Conservancy after many years of becoming more and more restricted due to rising water levels. The purpose of this meeting was to raise awareness on the issues that giraffe face and enhance community participation in local conservation efforts. This approach ensures that the project will have greater long-term success. As part of these discussions, the Twiga Walinzi team also discussed with the rangers ways in which data on giraffe behaviour and feeding ecology could be reliably collected and stored for post-translocation monitoring.

Additionally, the Twiga Walinzi team also conducted a rapid assessment of Ol Jogi Wildlife Conservancy, with more than 500 giraffe recorded. Analysis of the data is still ongoing and this will provide insights into the distribution and movement of giraffe across the Laikipia landscape. Ongoing efforts by the Twiga Walinzi team includes monitoring the giraffe (and other wildlife) populations through camera traps. The Loisaba Wildlife Conservancy is putting up a fence to develop a rhino sanctuary, and the Twiga Walinzi team recently set up additional camera traps to monitor which species go under the fence and assess any potential impacts. With the easing of Covid-19 related restrictions, vehicle traffic has increased in northern Kenya as noted through road surveys conducted from Merille to Isiolo which have shown a notable surge of roadkills of small and medium sized mammals, as well as a various bird species.



**Fig. 5:** Female giraffe captured by one of the camera traps in Loisaba, northern Kenya.

As part of our expanding Twiga Wetu Initiative, GCF expanded our collaboration with Twiga Walinzi to incorporate the use of GCF's Nature Workbooks during school visits and trips that the team conducts in northern Kenya. The workbooks have proven to be successful in Namibia through the Khomas Environmental Education Program (KEEP) that take on average 2,500 primary school students annually in Windhoek, mostly from under-resourced schools. Based on this approach, the Twiga Walinzi team will accompany primary school students to conservation areas in northern Kenya to learn more about giraffe, the environment, and more importantly, to increase community participation in wildlife conservation.



Fig. 6: The Twiga Walinzi Team setting up camera traps in Loisaba, northern Kenya.

#### Twiga Tracker Initiative in East Africa

Throughout their range, giraffe are increasingly facing the impacts of habitat loss and fragmentation. Despite the growing challenges of understanding how giraffe navigate dynamic landscapes, little is known about comparative giraffe spatial ecology and habitat use across different ecosystems. To address these gaps in knowledge, GCF is spearheading the Twiga Tracker Initiative, an ambitious collaborative continent-wide GPS telemetry study of giraffe movement. GCF and partners have deployed over 200 GPS ossi-units on giraffe in eight different countries, including Kenya, Tanzania and Uganda. These GPS units record the spatial coordinates of giraffe at hourly intervals and transmit them via satellite and other networks to be accessed by researchers and managers across the globe in real time. These data contribute to local conservation management, regional ecology studies and continental scale analyses.

At the end of 2020, eight ossi-units were deployed in the Amboseli ecosystem with the Kenya Wildlife Service and African Conservation Centre to monitor giraffe movement in the area. This was the first-ever tagging of Masai giraffe in Kenya, and through this monitoring, transboundary movement of giraffe between Kenya and Tanzania can start to be recorded. We currently have active units deployed on different species of giraffe and in different ecosystems in Kenya, Tanzania and Uganda. In evaluating ranging patterns during this quarter, home range (as estimated by the 95% KDE) ranged from 26.1 km<sup>2</sup> in Murchison Falls NP to 393 km<sup>2</sup> in Serengeti NP, whereas distance travelled ranged from 175.5 km in Tarangire NP to 868.8 km in Pian Upe WR. Ongoing studies are evaluating the ecological processes and potential infrastructure impacts leading to these observed variations in space use and movement behaviours – all in close collaboration with Smithsonian Conservation Biology Institute.

Our Twiga Tracker Initiative is providing unique and critical insights into giraffe space use and movements across protected areas and community lands in East Africa (and the continent). Using a dedicated Twiga





Tracker App, we share the real-time locations of tracked giraffe with our range state conservation partners on the ground, which in turn helps with monitoring and informing key initiatives such as post translocation monitoring in Pian Upe WR. Additionally, GCF researchers and academic partners are using these unparalleled giraffe movement data for several scientific studies to understand how giraffe use increasingly developed landscapes – including road development and oil extraction infrastructure in Kenya and Uganda - with the aim of informing conservation strategy in these dynamic landscapes. Such a collaborative approach has never been experienced in the giraffe conservation community.

## Partners & Supporters

