



East Africa Programme

UPDATE REPORT
August – December 2019



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Background

The Giraffe Conservation Foundation (GCF) East Africa office, based in Nairobi, was established to increase collaborative 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 support related to our efforts across 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 highlights the steps and programmes that GCF has initiated towards conserving the three species in the region from August to December 2019.

Broad-ranging programmes

In August 2019, giraffe were added to Appendix II of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES). This listing comes at a time when the East (and Central) African region has seen steep declines in giraffe populations (in contrast to Southern Africa where numbers continue to increase) with both the Masai and reticulated giraffe added as 'Endangered' to the IUCN Red List of Threatened Species in the last year. While this listing does not ban the trade in giraffe parts entirely, it increases the need to track, monitor and regulate this trade internationally.

Unfortunately, CITES does not monitor illegal domestic trade of giraffe parts, and evidence of illegal activities across East (and Central) Africa suggests that there are markets and local demand for giraffe products within the region. GCF will continue to work with governments and non-governmental stakeholders to ensure that reliable data are acquired to enhance monitoring and protection of giraffe populations in the region. Importantly, GCF will continue to advise any further actions linked to national strategies and plans.

Specific programmes

Masai giraffe in Kenya

Our conservation partners, Drs Petra and Felix Campbell, completed another round of photographic mark-recapture surveys in the Masai Mara ecosystem. Specifically, surveys were conducted in the Mara North Conservancy, an area of 350 km². Mara North, which is unfenced, is bordered by the Mara Triangle (part of the Masai Mara National Reserve) to the south, Olare Motorogi Conservancy to the East, and Lemek, Olchorro and Enonkishu conservancies to the northwest. The western border is defined by the Mara River and Oloisukut Conservancy, while many Masai communities inhabit the north-eastern section of the conservancy (Pardamat Community Conservation Area). For the surveys, the conservancy was divided into three transects with an average length of 64km. Along each transect, every encountered giraffe was photographed, resulting in a total of 1,158 sightings. On average, 72 giraffe were sighted per day and herd sizes varied between 1 and 53 individual (average of 9). After WildID analysis, 472 unique individuals were identified in the Mara North Conservancy (42% male (n=198), 58% female (n=274)). Fifty-four of these giraffe had previously been recorded in surveys in other conservancies in the Masai Mara Ecosystem. Specifically, 45 (16 male and 29 female) giraffe had been recorded in Olare Motorogi Conservancy, five (3 male and 2 female) in Naboisho Conservancy, two males in Ol Kinyei Conservancy and two further males on the Siria Plateau. These observations highlight the importance of the conservancies as wildlife refuges where giraffe (and other species) share the habitat. We intend to conduct surveys in the Masai Mara National Reserve to assess the population status within the protected area and the entire ecosystem. Giraffe skin disease (GSD), which has



been recorded in the adjacent Serengeti Ecosystem, was observed in six males, mostly as bare patches or body lesions (Fig. 1). It is unknown whether these lesions are similar to GSD observed in the Serengeti, which usually manifests on the limbs of the giraffe.

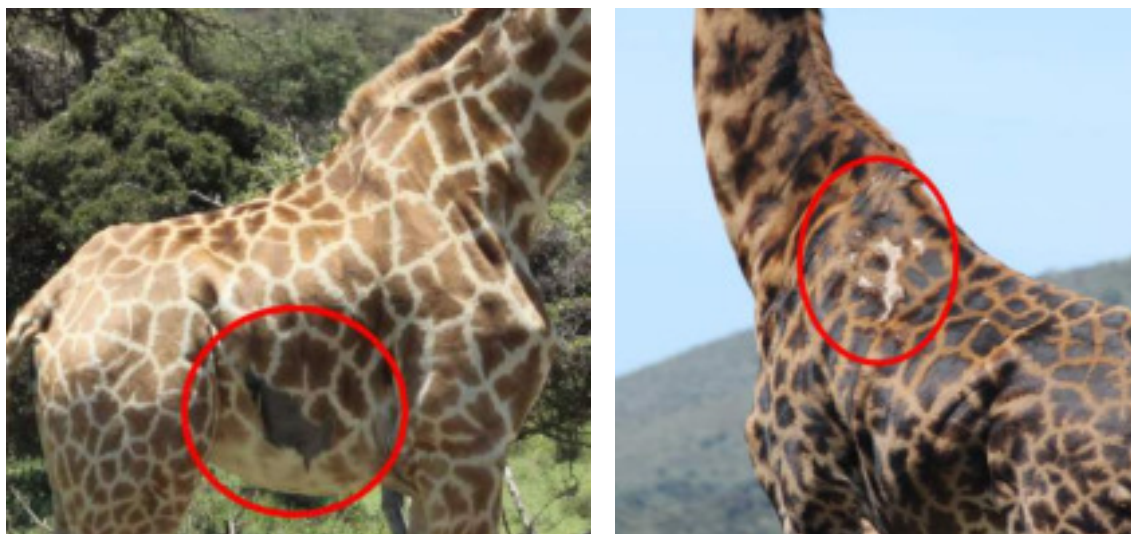


Fig. 1: Manifestation of GSD as observed in the Mara North Conservancy.

In addition to the data from Mara North, we also reviewed the long-term database from Life Net Nature. Their team have collected photographic data of giraffe moving between the Siria Plateau and other conservancies within the Mara Ecosystem since 2014. After WildID analysis, 161 individual giraffe were identified, with female giraffe representing 56% of the giraffe population and male giraffe accounting for 40%. The plateau appears to have a higher than average number of calves (18-25% of the population) compared to other conservancies surveyed. Interestingly, there were no replicates of the 161 giraffe recorded in the other surveyed conservancies. With addition to the 161 giraffe from Life Net Nature, we have so far identified a total of 2,382 giraffe have already been identified in the Mara Conservancies, far above the previous estimate of 1,682 that were recorded via aerial surveys previously. Ongoing surveys in the Mara Ecosystem will provide a more accurate and comprehensive assessment of the giraffe population throughout the conservation area and will support better understanding of giraffe numbers and their conservation status.



Fig. 2: Giraffe crossing the Mara River from Mara North. The river was thought to be a natural barrier, giraffe can cross it at low level and access the other conservancies and the Masai Mara National Reserve.



Masai giraffe in Tanzania

During the 12th Tanzania Wildlife Research Institute (TAWIRI) Scientific Conference held in Arusha in December 2019, the Tanzanian government launched the *Tanzania Giraffe Conservation Action Plan 2020 – 2024*, which was developed with technical and financial support from GCF and other conservation partners. With approx. 23,000 giraffe remaining in the country, Tanzania has the largest Masai giraffe population, however, the population has shown a steep decline of approx. 52% in the last 30 years. As such, the launch and future implementation of the action plan is key to saving the stronghold of Masai giraffe in East Africa. While giraffe are commonly found in protected areas in northern and central Tanzania, and are officially recognised as the country's national animal, the populations face a number of threats that stakeholders seek to address through the action plan. Stakeholders set two primary goals to address giraffe conservation issues in the country: 1) to broaden understanding and awareness of giraffe conservation in Tanzania; and 2) to reduce threats to giraffe populations and their habitats in Tanzania while at the same time increase benefits to people. To efficaciously realise these goals, stakeholders identified six strategic objectives to guide giraffe conservation priorities for Tanzania for 2020-24:

- a. Institutional capacity for giraffe conservation is strengthened;
- b. Research capacity to assess giraffe population status is enhanced;
- c. Public education and awareness of giraffe are increased;
- d. Giraffe habitats and connectivity between giraffe populations are maintained and restored;
- e. Illegal hunting of giraffe is controlled;
- f. Action Plan is effectively implemented.

We will continue to build our collaboration and partnership with TAWIRI and the Tanzania National Parks Authority (TANAPA) through the Tanzania Giraffe Conservation Action Plan as well as the existing MoU with GCF and TAWIRI. These two crucial frameworks will ensure that there is increased collaboration in the implementation of priority actions for the protection and monitoring of giraffe population in Tanzania. As direct result of this, we intend to initiate the collection of DNA samples throughout the country once all permits have been approved by the Tanzanian authorities.

Nubian giraffe in Kenya

In May and June 2019, GCF Kenya Programme Coordinator Matthew Wachira coordinated a detailed photographic mark-recapture surveys of Nubian giraffe in Lake Nakuru National Park (NP) in collaboration with the African Fund for Endangered Wildlife (AFEW) and Kenya Wildlife Service (KWS). The goal of this study was to assess the conservation status of Nubian giraffe in the park as part of a broader country- and species-wide assessment. Following WildID analysis, we identified 113 Nubian giraffe in the park. This is an increase from the recent KWS estimates of approx. 92 individuals. Our results indicate that Lake Nakuru NP has the third largest Nubian giraffe population in Kenya after Ruma NP (approx. 275) and Soysambu Wildlife Conservancy (approx. 134). Both these populations were previously surveyed by GCF or surveys were supported by GCF. We identified more females (74) than males (35) and very few calves (4). It is suspected that the low number of calves is due to predation by lion, however, the higher number of females and abundance of other suitable prey species reduces the overall effect of predation on the giraffe population. We encountered one adult female with claw marks on the body and one adult male giraffe with a partially amputated tail, indicating failed lion predation attempts. However, we were unable to determine if his happened at a younger age as the wounds were well healed.



No snare injuries were observed and we hypothesise that the increased surveillance in the park due to the presence of black rhino, which are species of conservation concern for KWS and electric fence throughout the park, act as deterrents for potential poachers. Our conservation research laid the baseline for understanding the basic population dynamics of the Nubian giraffe population in Lake Nakuru NP. Importantly, we expect that consistent and routine long-term surveys will provide more accurate and detailed information of the conservation status of the giraffe population in the park.

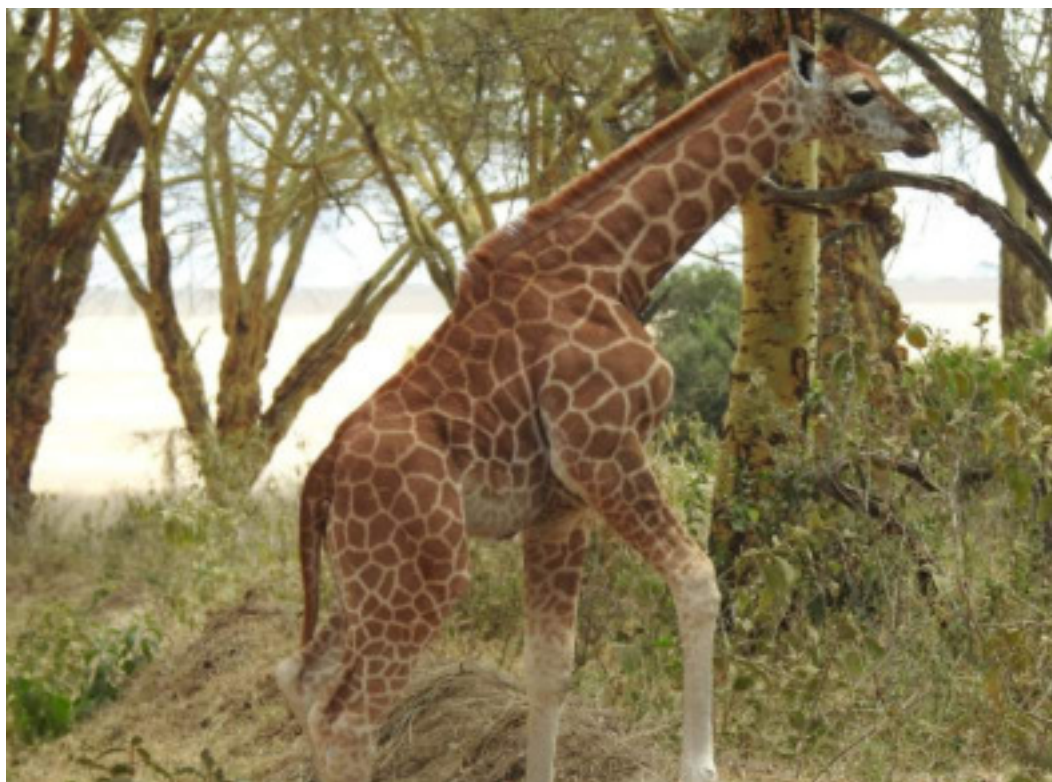


Fig. 3: One of the four calves that were identified in Lake Nakuru NP. Park rangers reported that lion regularly hunt giraffe calves.

Nubian giraffe in Uganda

GCF's increased support to UWA's mobile veterinary response unit by Dr Sara Ferguson as well as other anti-poaching operations has been the focus in Murchison Falls NP. Illegal wire snare traps set mainly to catch animals for bushmeat were identified locally as a conservation threat to Nubian giraffe. While giraffe are not the intended targets they become incidentally ensnared and often are left with severe and/or debilitating wounds. By supporting increased patrols to identify snared individuals we can directly reduce the impact of wire snares on giraffe (and other wildlife) by allowing for early detection and removal ideally before any significant damage is caused as well as by providing appropriate treatment and supportive care. Since August the team has documented over 70 snared animals and over 40 individuals were desnared and treated. An alarming 37 of these animals were critically endangered Nubian giraffe. Other species treated included Cape buffalo, Uganda kob, Jackson's hartebeest, chimpanzee and African elephant. Overall the joined UWA-GCF team have treated over 100 animals this year alone. While out in the field, the team also opportunistically comes across snares set in the bush and removes these. This activity has become increasingly challenging due to extremely tall grass (in some areas higher than the roof of the vehicle!) which makes it almost impossible to spot the thin wires. However, the team has still managed to remove over 500 snares from the ground before ensnaring animals and are looking to increase this part of the programme next year.



Fig 4: Nubian giraffe in Murchison Falls NP, Uganda.

We are regularly joined by national and international students in the field, who gain first-hand experience of giraffe conservation efforts in Uganda. This year, over 20 Ugandan students have joined us in the field with their backgrounds ranging from veterinary medicine to conservation biology and tourism. It was a pleasure to take the students out in the field and share our passion for conservation and we hope to continue involving students in the varied aspects of conservation while they stay at Murchison Fall NP as part of their internship. Building the capacity of local African students is at the core of our conservation work throughout the continent and we are always excited to see students grow in confidence and skills.

As part of our training and capacity building support, Dr Sara Ferguson had the opportunity to directly guide young local veterinarians in practicing wildlife medicine. As a result of the team increasing patrols within Murchison Falls NP and treating a record number of animals, the veterinarians who joined us in the field were given an incredible opportunity early in their careers. They have gained experience in immobilising giraffe (one of the most difficult species to immobilise) elephant, lion and many antelope species. Key part of capacity building was in wildlife capture with a focus on giraffe. This was not limited to students but also included UWA rangers who are not generally involved with daily conservation research and monitoring. In 2019 so far, we have helped train 15 rangers from various ranger posts throughout the park as well as with the law enforcement branch of UWA on giraffe capture. Involving rangers from outposts and law-enforcement in desnaring operations, shows them directly the damage inflicted by wire snares and gives them hands-on animal experience. To see the reaction of rangers and students when a giraffe is released after a rescue is amazing and a testament to their passion for helping to save Uganda's wildlife.



Fig. 5: Nubian giraffe in Murchison Falls NP is released after it is desnared. Image: Tim Tetzlaff.

We are always excited to have our conservation partners and other visitors with us in the field. In October Tim Tetzlaff, Director of Conservation at Naples Zoo and Caribbean Gardens, spent a week with our team in the field at Murchison Falls NP. It was great to show him the dedicated UWA-GCF team in action and see him get some hands-on experience desnaring giraffe and patrolling the park. Other visitors included members from Explorers against Extinction who learned more about our giraffe conservation efforts and support to UWA. Many individuals from around the world joined us in Uganda this year to get a first-hand look at desnaring operations, the presence of wire snares, and what it takes to save giraffe in Uganda.

In early October GCF's Dr Ferguson met with the team of African Parks Network who together with ICCN (Democratic Republic of Congo (DRC) National Wildlife Authority) manage Garamba NP, DRC. They reviewed and updated the DRC Kordofan Giraffe Conservation Strategy and Action Plan. In this productive three-day meeting, the team reviewed ongoing giraffe conservation work and brain stormed future ideas. GCF has been involved in the development of this Strategy and Action Plan from the beginning and we are excited to see it being finalised. DRC is the fifth country in Africa to develop such a Strategy and Action Plan. We are planning to continue assisting giraffe conservation in Garamba NP, including deploying GPS units to monitor how giraffe utilise their habitat within the park as well as providing emergency veterinary assistance if necessary.

Since 2013 GCF has supported UWA's giraffe conservation efforts throughout the country, including development of the first-ever Draft National Giraffe Conservation Strategy and Action Plan. As part of the



Draft National Giraffe Conservation Strategy and Action Plan, UWA highlighted the importance of conservation translocations for Nubian giraffe. In 2015, only two populations of Nubian giraffe had survived the intense decimation of wildlife during the Idi Amin and Lord's Resistance Army civil unrest periods in Uganda, namely in Murchison Falls NP and a small population in Kidepo Valley NP. In order to help protect Nubian giraffe populations throughout the country it was identified to re-introduce giraffe to historic ranges in Uganda to disperse giraffe and circumvent any potential catastrophic impact on the Murchison Falls NP population as well as to augment the small population in Kidepo Valley NP and create new populations.

The first successful giraffe translocation in Uganda was undertaken by UWA in 2015 based on a pre-translocation assessment by GCF. A total of 15 giraffe were re-introduced to Lake Mburo NP. 2016 marked the beginning of the *Operation Twiga* collaborations (*twiga* is the Swahili word for giraffe) between UWA, the Uganda Wildlife Education Centre (UWEC), GCF and other partners. Operation Twiga I (2016) and II (2017) saw 18 and 19 giraffe respectively, introduced to the southern side of Murchison Falls NP. Operation Twiga III in 2018 successfully augmented the small giraffe population (estimated at 34 giraffe) in Kidepo Valley NP with 14 additional individuals. Excitedly, all of these populations have grown with several calves being born since these translocations.



Fig. 6: Operation Twiga IV: Nubian giraffe translocation from Murchison Falls NP to Pian Upe Wildlife Reserve in Uganda.

This year, Operation Twiga IV's goal was to return giraffe to Pian Upe Wildlife Reserve, an area where giraffe had gone locally extinct in the mid-1990s. Over a three-week period in October/November, 15 Nubian giraffe were successfully re-introduced. This operation was significant in re-expanding the range of giraffe in Uganda



by over 500,000 acres, making for a total range expansion of over 1.6 million acres over the past 5 years! The UWA translocation team was joined by GCF and its partners including members from Cheyenne Mountain Zoo, Colorado State University, the Ivan Carter Wildlife Conservation Alliance, and individuals from Namibia and the United States. During the move, two giraffe were fitted with GPS satellite units (ossi-units) to allow for both on the ground and remote monitoring after released. With this technology we were able to see the two giraffe, transported in different groups, come together within only a few days – a great indication that the translocated giraffe have found each other and joined into a herd. This information was later confirmed on the ground by the local UWA team. The giraffe appear to be settling in well and they will be closely monitored over the next year to ensure they continue to thrive. An additional translocation is planned for 2020. To read more about Operation Twiga IV and for additional photographs, visit our website at <https://giraffeconservation.org/2019/10/29/operation-twiga-iv/>.

The re-introduced Nubian giraffe population in Lake Mbuo NP continues to thrive too. Originally, comprising of 15 animals, the total numbers has increased to 25 so far and counting. Together with the local UWA team and our partners Giraffe Education and Research (GEAR), these giraffe are monitored regularly. In addition to weekly monitoring trips, the GEAR team undertakes vegetation and browse surveys to determine giraffe feeding preferences in the park. Giraffe monitoring is also supported by tour guides and tourists as these are encouraged to upload any giraffe images from the park to Instagram using the hashtag #giraffesofmburo.

Additional activities in the Lake Mbuo area include various community outreach activities to create awareness for giraffe conservation and generate a sense of pride in their giraffe. As part of these activities, the GEAR team regularly participates in local radio shows to talk about giraffe conservation and facilitates the visits of local school groups to the park. Their annual soccer tournament for World Giraffe Day is a popular local highlight event.



Fig. 7: Nubian giraffe in Lake Mbuo NP. This images was provided @habari_gani through Instagram using hashtag #giraffesofmburo.



Reticulated giraffe in Kenya

In partnership with San Diego Zoo Global, the Smithsonian Conservation Biology Institute and KWS, Drs Julian Fennessy and Sara Ferguson conducted the largest ever single tagging effort for giraffe throughout their range. In August and September 2019, 28 ossi-units were fitted onto 21 adult female and seven sub-adult male giraffe across Loisaba and Mpala Conservancies, Shaba and Samburu National Reserves, and Sera, West Gate, Biliqo-Bulesa, and Melako Conservancies (Fig. 4). The GPS satellite units record the spatial location of each individual giraffe at hourly intervals, thereby establishing a systematic and uniform data collection format for fine-scale giraffe tracking. All giraffe were anesthetised by remote delivery darts from either a vehicle or helicopter by KWS veterinarians using a combination of etorphine and azaperone. Once secured on the ground, a reversal drug was used immediately to ensure the health of the animal. At all times, the vital signs of the giraffe were monitored by a team of wildlife veterinarians. The important vital signs monitored included respiration rate and depth, temperature, blood gases and lactic acid levels, blood pressure, and exhaled CO₂ levels and were recorded at various times and under varying conditions. These conservation efforts will provide valuable data and crucial insight into home range and habitat utilisation of reticulated giraffe which directly address some of the objectives identified in the National Recovery and Action Plan for Giraffe in Kenya (2018-2022).

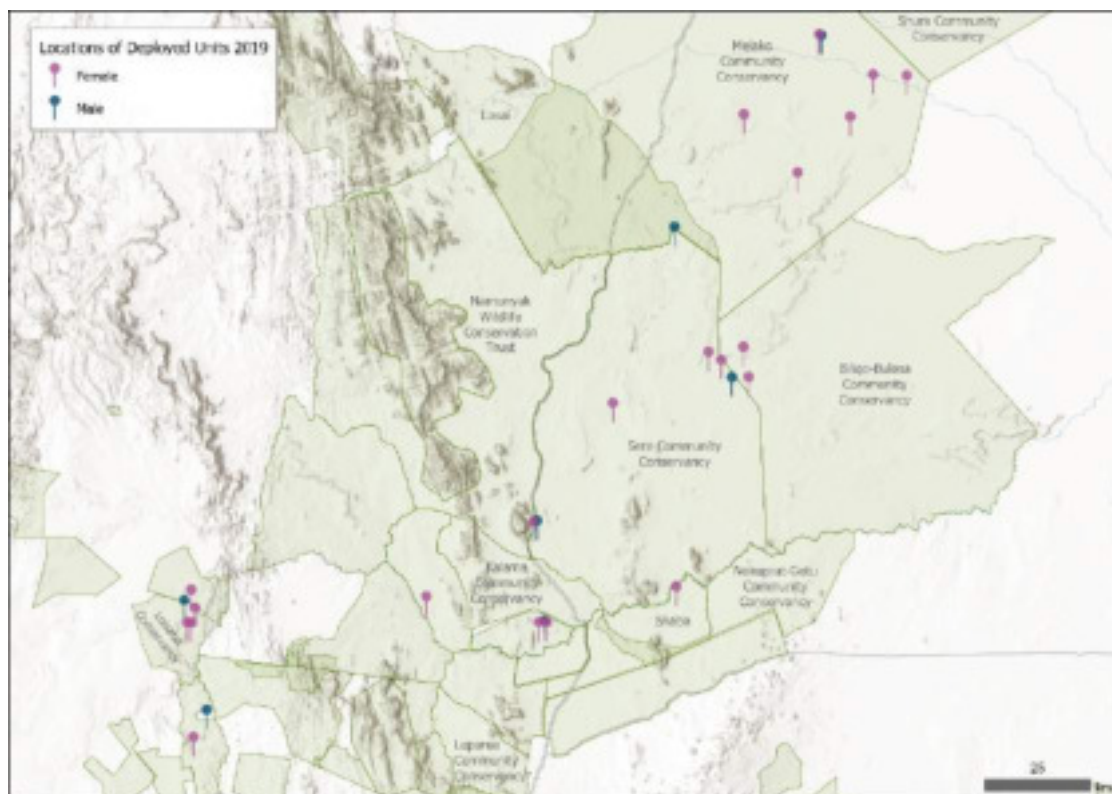


Fig. 8: Map detailing locations where *ossi-units* were deployed in northern Kenya in August/September 2019

The *Twiga Walinzi* team, our local conservation partners in northern Kenya, conducted human dimensions surveys in 115 households in Koija Group Ranch and Oldonyiro in October and November 2019. The aim of these surveys is to assess the local perceptions and attitudes towards giraffe and poaching in a bid to increase awareness on giraffe conservation issues. In addition to this, the team also conducts routine monitoring of giraffe populations in the Loisaba and Namunyak areas via road-based photographic surveys as well as camera trap surveys. Due to the prolonged rainy season in Kenya, the team was able to install only ten cameras in Namunyak and six in Loisaba. So far, no camera has been lost due to theft or damage by wildlife. These



cameras are particularly important in documenting the presence of wildlife and livestock in conservation areas and are a crucial component of the citizen science project Wildwatch Kenya by San Diego Zoo Global, which has thus far recruited over 16,200 volunteers, who have in turn classified over 1,130,000 images! Through this partnership with *Twiga Walinzi* and other conservation partners, we are gathering crucial data for protecting the last stronghold of reticulated giraffe in the world.



Fig. 9: A tower of reticulated giraffe in Namunyak Conservancy. Photo by Twiga Walinzi

Awareness raising and capacity enhancement

To enhance and raise awareness on giraffe conservation status in the region, we continue to build partnerships throughout East Africa and internationally as well as to give invited lectures. GCF's Kenya Programme Coordinator Matthew Wachira led trainings with KWS and AFEW staff on the use of WildID for giraffe monitoring in Lake Nakuru NP. In addition, Matthew gave a lecture to guests at Giraffe Manor, building our partnership with the tourism industry to raise awareness on giraffe conservation efforts in Kenya and channel support to activities on the ground. Matthew, through the support of GCF, has also completed his coursework to attain a master's degree in Biodiversity and Natural Resource Management at the University of Nairobi. At the same time, GCF provided support for East African Coordinator Arthur Muneza to complete his comprehensive exams at Michigan State University during the Fall 2019 semester. Arthur now transitions to PhD Candidate for a degree in Fisheries and Wildlife Conservation. For a consecutive third year, Arthur also led the field conservation part of the 2019 Giraffe Care Workshop at Cheyenne Mountain Zoo in Colorado, USA. This important workshop presents a unique opportunity for trainers and keepers to learn about the conservation status of giraffe throughout their range and how to get involved in supporting giraffe conservation research and management efforts in Africa.



Fig. 10: GCF East Africa Coordinator Arthur Muneza leading discussions on giraffe conservation status throughout Africa at the 2019 Giraffe Care Workshop at Cheyenne Mountain Zoo, Colorado, USA.

Partners & Supporters

