



East Africa Programme

UPDATE REPORT
August – October 2020



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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 second of the year 2020 and highlights the steps and programmes that GCF has initiated and supports towards conserving the three species of giraffe in the region between August and October 2020.

Broad-ranging programmes

Little is known about the extent of bushmeat trade in Kenya. Last year, the Kenya Wildlife Service (KWS) conducted covert sampling of butcheries in Naivasha and found that giraffe meat is among the most common meat sold illegally in the area. This implies that there are markets in Naivasha where the public purchases giraffe and other game meat either purposely or unknowingly. Building on these findings, we have partnered with the KWS Wildlife Forensic and Genetics Laboratory to expand the sampling to all major ecosystems across Kenya where giraffe are found. The main aim of this study is to determine the extent of illegal giraffe meat trade across Kenya, given that poaching has been identified as a key threat to giraffe populations in the country. Currently, there is very limited data showing the extent of poaching to better understand the impact of the illicit activity on giraffe populations.

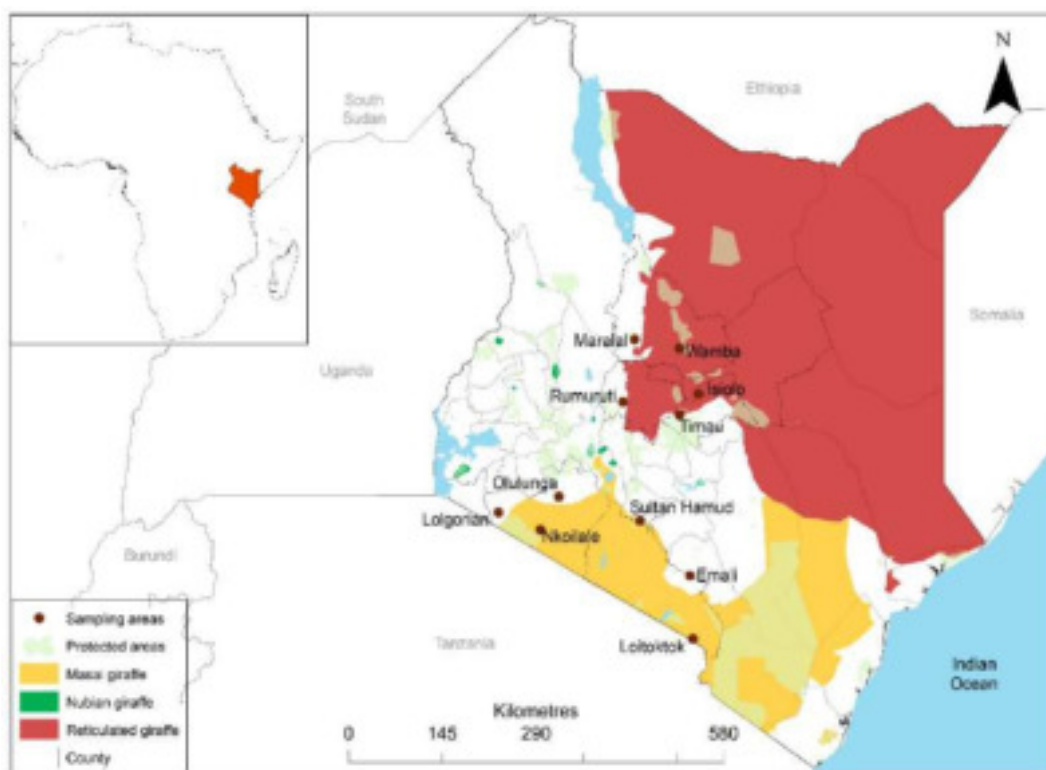


Fig. 1: Distribution of giraffe species and major towns with butcheries where KWS have collected meat samples.

During recent months KWS covertly collected 159 samples from butcheries across the Samburu, Isiolo, Greater Mara and Amboseli areas (Fig.1). Moving forward, the samples will undergo PCR analysis to determine the



nature of the meat and quantify the portion of the samples that is illegal bushmeat across the country. The findings from this study will guide future conservation management in the country around illegal offtake and use.

Masai giraffe in Kenya

In September 2020, our associate field researchers Drs Petra Campbell and Felix Paton resumed surveys in the Masai Mara Ecosystem and surveyed for giraffe in Isaaten, Olderkesi and Siana Conservancies. Isaaten (18km²) and Siana (48km²) are conservancies located on the north-eastern boundary of the Masai Mara National Reserve (Fig. 2). They are surrounded by a number of community settlements. Olderkesi Conservancy, covering an area of ~36 km², borders the reserve to the south-east and shares a border with the Serengeti National Park in Tanzania. To date, 13 conservancies across the Masai Mara Ecosystem have been surveyed. This data helps us to gain an accurate understanding of giraffe numbers and their movements (Fig. 2).

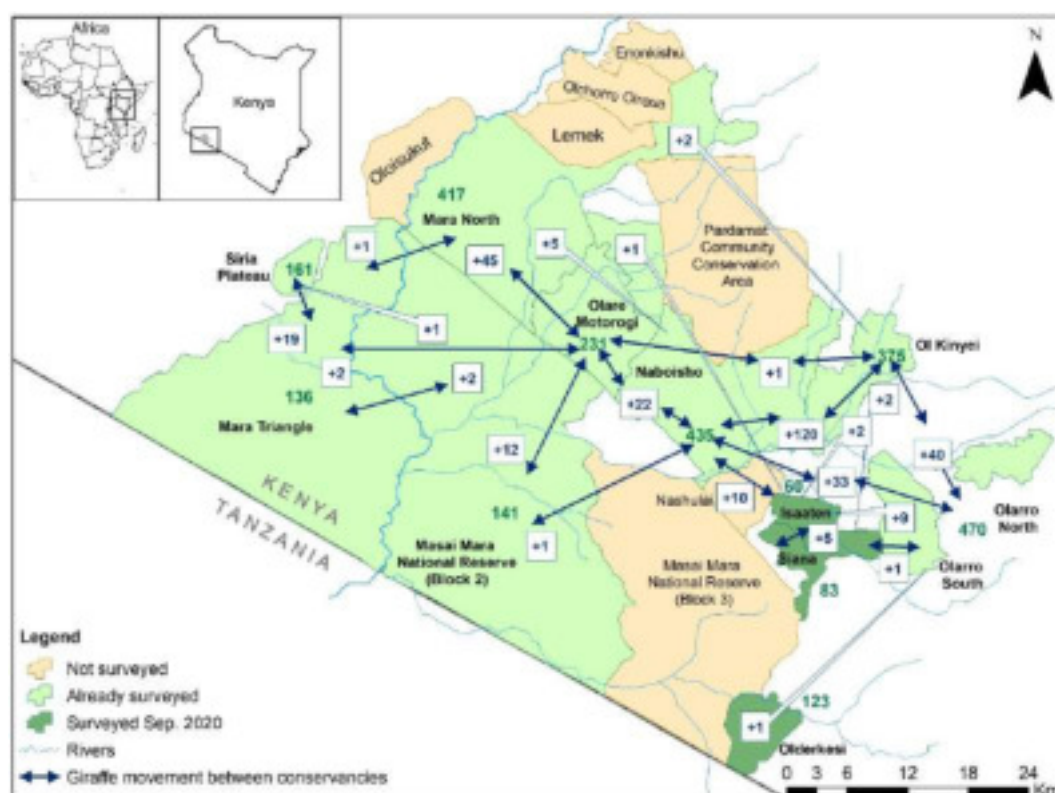


Fig. 2: Movement of giraffe between the surveyed areas within the Masai Mara Ecosystem. Only a few conservancies remain for surveying to better understand numbers and the extent of movement of giraffe across the area.

In the recent surveys, results show that giraffe move from as far as Ole Motorogi Conservancy and the northern section of Ol Kinyei Conservancy to Isaaten Conservancy. In Isaaten Conservancy, from a total of 124 separate sightings, 60 giraffe were identified, and 27 had previously been recorded in other conservancies (one in Olare Motorogi, 10 in Naibosho, two in Ol Kinyei, nine in Olarro South and five in Siana conservancies). In Siana Conservancy, 83 giraffe were identified from 236 separate sightings whereby 14 were previously sighted in other conservancies (two in Ol Kinyei Conservancy, four in Isaaten, one in Olarro South and eight in Nabosho Conservancy). Among the newly surveyed areas, Olderkesi Conservancy had the highest number of giraffe with 125 different individuals identified from 198 sightings. However, movement between the other conservancies was lower compared to previously surveyed areas given that only one giraffe had been recorded



in Olarro South already. This could be due to the fact that the eastern portion of the Masai Mara National Reserve (Block 2 in KWS literature) is yet to be surveyed. Additionally, the area between Olderkesi and the conservancies to the north host a number of human settlements that have fragmented the landscape with increased use of fences to demarcate individual parcels of land, further limiting movement to the other sites to the north. The sex structure in Isaaten and Siana was highly male dominated: 80% male and 20% female, with very few calves. In fact, no calves were recorded in Isaaten Conservancy and only six in Siana. In contrast, Olderkesi had a relatively even sex structure of 57% male and 43% female, with 22 calves observed. Here, one female giraffe was recorded with a spear wound, suggesting that poaching likely occurs in the area. Prevalence of Giraffe Skin Disease (GSD) was relatively low with only four individuals in Isaaten, eight in Siana, and six in Olderkesi observed.

With these recent surveys, the number of giraffe identified to date throughout the Masai Mara Ecosystem totals a minimum of 3,073 individuals. This shows that there are more giraffe in the area than previously assumed based on available aerial survey data. Photos from the surveys continue to be uploaded to GiraffeSpotter.org online and it is hoped that they can be used for future scientific and citizen science monitoring by the management authorities.

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, TEST will document the distribution of giraffe and the threats they face in village lands between Serengeti National Park and Ngorongoro Conservation Area (Fig. 3).

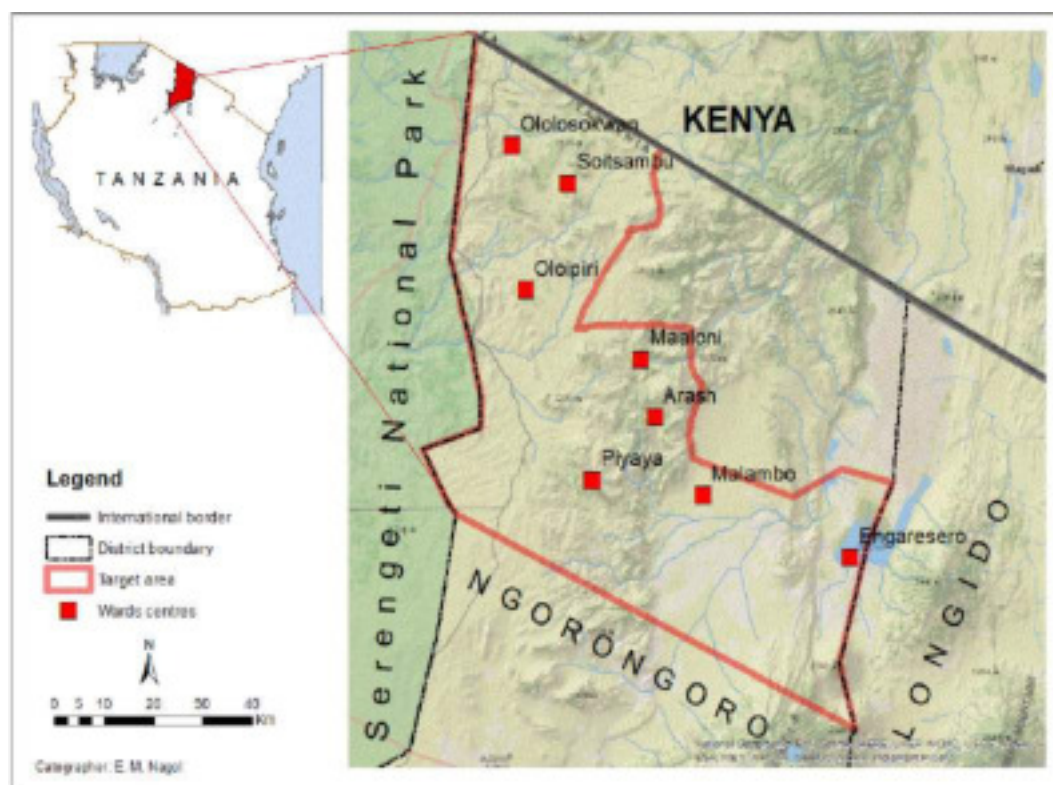


Fig. 3: Map of the study area where the proposed TEST surveys will be conducted, and giraffe populations monitored by local communities.



Tanzania has large conservation areas and wildlife roam freely. The target area is of particular interest as it is a corridor for many wildlife species, including giraffe, that potentially move north into Kenya. Understanding the distribution of giraffe in human-dominated landscapes will contribute greatly to conservation efforts given that human activities are a major threat to giraffe populations. Importantly, TEST will record giraffe mortality and initiate a community wildlife conservation and outreach programme under GCF’s Twiga Wetu (Kiswahili for ‘Our giraffe’) Initiative. To secure a future for giraffe in East Africa, there needs to be community participation, and our partnership with TEST provides an opportunity to expand these efforts.

In early 2020, we deployed 11 ossi-units in northern Tanzania in partnership with Tanzania Wildlife Research Institute (TAWIRI) and Tanzania National Parks Authority (TANAPA). Since our last report, units 3451 and 3453, both in Serengeti National Park, have unfortunately depowered. However, our preliminary findings show that the average home range size and daily travel distance increased compared to distances covered between April and July. This increase coincides with the rainy season for most parts of East Africa, followed by a dry season that typically lasts from July to October. As such, animals have to travel further to access resources. As an example, the core home range of individual 3447 more than doubled, covering 254.6km² during the dry season as compared to 95.8km² in the last quarter. Interestingly, in Tarangire National Park, there was also an increase in the movement patterns for giraffe 3456, with a near two-fold increase in the daily distance covered and core home range. Early research by TANAPA has suggested that there is variation in the severity of GSD symptoms between different seasons, with the disease being more prevalent and severe during the wet season. However, the extent to which GSD affects movement of afflicted individuals remains unknown, and whether there may be variation between seasons. As such, our continued monitoring efforts aim to provide more insight into correlations between GSD symptoms, movement patterns and seasonal changes.

Table 1. Average distanced travelled (sum of hourly step lengths over 24-hour period) and average size of home range used by the tagged giraffe between May and July in Serengeti and Tarangire National Parks.

Tag ID	Location (National Park)	GSD severity	Average daily distance (km)	Total distance (km)	KDE 50 (km ²)	KDE 95 (km ²)
3443	Serengeti	FR: mild	5.0	244.9	16.7	73.7
3444	Serengeti	None	8.0	743.2	103.7	393.5
3447	Serengeti	None	7.7	720.0	254.6	1,151.0
3450	Serengeti	None	6.1	569.7	45.5	184.6
3452	Serengeti	None	5.9	552.0	28.5	135.5
3446	Tarangire	FR: mild	5.4	504.0	8.1	55.4
3456	Tarangire	FR: mild + FL mild	5.1	475.0	7.6	31.9

Note: KDE utilisation distribution estimate with 50% isopleth is analogous to the core home range, whereas KDE 95 represents the area within the 95% contour of the park.

Nubian giraffe in Kenya

In October, GCF supported the Soysambu Wildlife Conservancy biannual game count. The survey coincides with the dry season and our specific aim was to support a better understanding of the distribution and population size of the giraffe in Soysambu. The conservancy was divided into 19 different survey blocks, which were assigned separate teams to count every mammal that was encountered in the respective zone and take right-side photos of every giraffe observed. Prior to the survey, it was estimated that there were 100 giraffe in the conservancy. Results from the census recorded 141 individuals observed; 35 males, 34 females, 17 calves,



and 55 unknown. However, as Soysambu conducts routine giraffe monitoring, the existing database will be updated with the new survey information. The northern section of the conservancy had the lowest giraffe density, likely a result of the terrain, whereas a large portion of the population was observed in the central areas. Interestingly, Moses – a giraffe known for the “whitening” of his patches, was observed in the northernmost survey block. There were no lion recorded during the survey, however, the observers encountered 100 spotted hyena (*Crocuta crocuta*). Such data are crucial for management as spotted hyena can prey on giraffe calves, however, this has not yet been recorded in the Soysambu Wildlife Conservancy.

At the same time as the counts, the KWS team captured two adult giraffe in Soysambu; a male and female, that were selected for translocation to the nearby Solai (Tindress) Farm (Fig. 4). The giraffe were kept in an enclosure (boma) for 14 days for monitoring and habituation before they were translocated to supplement the Solai Farm population. The Solai population now consists of seven individuals.



Fig. 4: KWS rangers monitoring the two adult giraffe in Soysambu Wildlife Conservancy prior to their translocation to Solai Farm.

In collaboration with the San Diego Zoo Global *Twiga Walinzi* team, GCF assisted in the training of ten Ruko community rangers on the eastern shore of Lake Baringo in northern Kenya. The conservancy was formed in 2008 by two communities coming together to set aside land for conservation: the Njemps, predominantly a fishing community from Rugus location, and the Pokots, a pastoral community from the Komolion location. Ruko Community Conservancy now has a total of 18 rangers and this training exercise was the first of a long-term collaborative effort to enhance the capacity in the region. The training focused on capturing photo data for routine monitoring, as well as vegetation data for assessing changes in the habitat. Furthermore, a meeting was held with the community rangers to assess the feasibility of setting up a community outreach programme in preparation of the translocation of eight giraffe that are currently restricted to a small island on Lake Baringo. During the training exercise, the rangers took photos of the giraffe and were trained in use of the survey equipment for giraffe monitoring. The photos will be used to build a database of the giraffe to help with monitoring after the move.



In the past seven years, the water levels of the Rift Valley lakes have risen considerably, including those of Lake Baringo. Since 2013, Lake Baringo, a freshwater lake, has expanded by 60% and now covers 270km², whereas the neighbouring Lake Bogoria, an alkaline World Heritage Site listed lake, has enlarged by 25% and currently covers an area of 43km². As neither lake has an outlet to allow excess water to flow out, researchers fear that the two lakes could eventually merge, causing cross-contamination and leading to an ecological disaster. Currently, Lake Baringo and Lake Bogoria are only 13km apart.



Fig. 5: GCF East Africa Coordinator, Arthur Muneza (right, standing) and Twiga Walinzi Country Coordinator, Symon Masiaine (right, seated) leading a training exercise on the use of mark-recapture techniques for giraffe monitoring at the Ruko Community Conservancy headquarters.

Nubian giraffe in Uganda

Poaching, specifically illegal wire snare traps, have been identified as a major threat to Nubian giraffe, as well as other wildlife in Uganda, especially within Murchison Falls National Park. While giraffe are not usually the targets for wire snare traps, the indiscriminate nature of the wire snares ensures 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 – resulting in severe wounds, infection, distal limb swelling, and more often than not, permanent limb deformities, but sometimes amputation or death. Poaching is a very real concern within the national parks across Uganda and it may increase as a result of impacts related to the global pandemic, especially with the loss of income from tourism activities and shutdown of private businesses. The joined Uganda Wildlife Authority (UWA) and GCF mobile veterinary response unit is dedicated to continuing de-snaring and anti-poaching efforts in Murchison Falls National Park. They continue to closely monitor the situation and work together to react swiftly to any increase in poaching



that may be seen as the country continues to deal with the new reality of coping with COVID-19.

Between August and October 2020, the UWA-GCF team was able to find and rescue a total of 48 animals; 30 of these (62.5%) were Nubian giraffe. The other species rescued included Defassa's waterbuck (*Kobus ellipsiprymnus*), Jackson's hartebeest (*Alcelaphus buselaphus lelwel*), Cape buffalo (*Syncerus caffer*), and African elephant (*Loxodonta africana*). In most cases, the wire snares were removed prior to any significant damage being inflicted. Those animals with more severe wounds received supportive care to help them heal and recover quicker than without treatment. During this quarter, the UWA-GCF team also removed 18 snares from the landscape before they could cause any harm to animals. The number of removed snares represents a decrease from earlier in the year. This positive trend could be due to the increased number of snare removal patrols that are conducted as a result of collaborative conservation efforts in Murchison Falls National Park. In addition to the mobile veterinary work, UWA and GCF have collaboratively planned the next giraffe translocation – Operation Twiga V. Operation Twiga V will move additional giraffe to supplement the small population founded last year (in Operation Twiga VI) in Pian Upe Wildlife Reserve. While originally slated to start in October, the operation was postponed due to heavy rains washing out a particularly important bridge on the main road into the reserve. However, work is underway to make repairs to the bridge, and everything else is in place for the translocation to comment – most likely later in November). The UWA Research and Monitoring team in Pian Upe Wildlife Reserve has regularly monitored the new giraffe population and all have adjusted well to their new home.



Fig. 6: The UWA/GCF mobile veterinary team in action treating and removing snares from a Jackson's hartebeest (A) and a cape buffalo (B). A newly treated and released female Nubian giraffe (C) in Murchison Falls National Park, Uganda.

Reticulated giraffe in Kenya

The *Twiga Walinzi* team led by San Diego Zoo Global have fully resumed activities in northern Kenya, working with communities to enhance conservation efforts. During this reporting period, two giraffe mortalities were recorded in Namunyak: one poached in Kibartare and one due to lion predation in Lpusi. The human-related mortality was followed-up with a community meeting to determine the nature and motivation for the poaching



incidence. The *Twiga Walinzi* team informed the Kalepo Conservancy, where Kibartare is located, to aid in their decision-making regarding the best way forward. This approach ensures that the *Twiga Walinzi* team maintains a positive relationship with the community and the long-term success of the project, as it was a local community member that alerted the team to the incident. Maintaining a good relationship is key, given that more than 90% of reticulated giraffe are found outside government protected areas. Giraffe share landscapes with many pastoral communities who also require resources for their livestock. With the onset of the dry season (July to October), some pastoralists have already started grazing their cattle in parts of Loisaba Wildlife Conservancy and these incursions have shown to affect giraffe distribution. The *Twiga Walinzi* team will continue to monitor the situation and assist as needed. To date, this has not affected their ongoing photomonitoring work in Loisaba Wildlife Conservancy and Namunyak Community Conservancy.

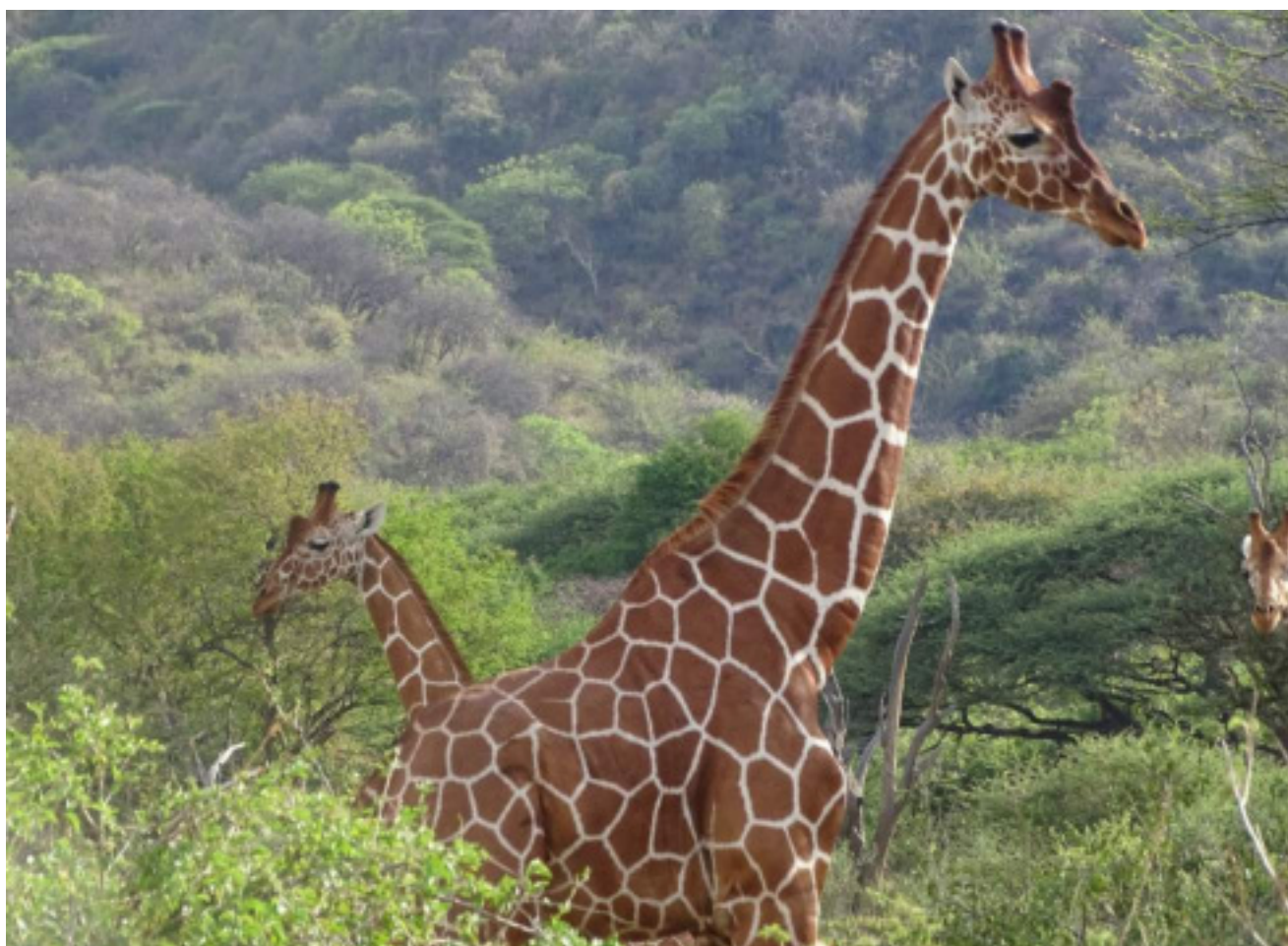


Fig. 7: Giraffe herd recorded by *Twiga Walinzi* team in Namunyak in the Nenkileku area.

As part of their monitoring efforts, *Twiga Walinzi* also work closely with the local KWS veterinary team to address any giraffe (and other wildlife) emergencies. In one such case, the *Twiga Walinzi* team noticed a bull with a large tumour on the left foreleg. The animal had difficulty moving, had grown weak and was staying in the same area. Once alerted, a KWS vet team attended to the incident swiftly by draining the swelling and treating the animal. After its release, the giraffe had no difficulty walking and subsequently moved away. The *Twiga Walinzi* team has continued to monitor the recovery progress of the giraffe and all appears well.



Fig. 8: The KWS team, led by Dr Domnic Mijele, drained discharge from the tumour of the afflicted giraffe. The treatment was successful and the animal walked away safely after treatment.

In October, the *Twiga Walinzi* team headed up a rapid giraffe assessment of Mugie Wildlife Conservancy, an area of 20,000 ha. The conservancy is partially fenced and bisected by the C77 Rumuruti-Maralal Road. Upgrade of the C77 road is ongoing and there are concerns that road kills might increase as a result of speeding vehicles. As such, the *Twiga Walinzi* team in collaboration with the management of Mugie and GCF conducted mark-recapture surveys to develop a database of the giraffe population in the conservation area. Every time a giraffe herd was encountered, observers recorded the herd size, GPS waypoint, age and sex of each visible individual. Based on the accessible road network and to improve repeatability of the surveys, Mugie was divided into three different separate survey blocks (Fig. 9), which were surveyed over a two-day period. In total, 66 giraffe were identified from 25 separate encounters. The herd size ranged from 1-24 and the biased sex structure was composed of 42 females, 17 males and seven unknown individuals. Block 1 had the highest density of giraffe, whereas survey block 2 had the lowest. Whilst giraffe were observed on both sides of the road, the rapid assessment will lay the foundation for future monitoring efforts to inform the placement of crossing points on the C77 road.

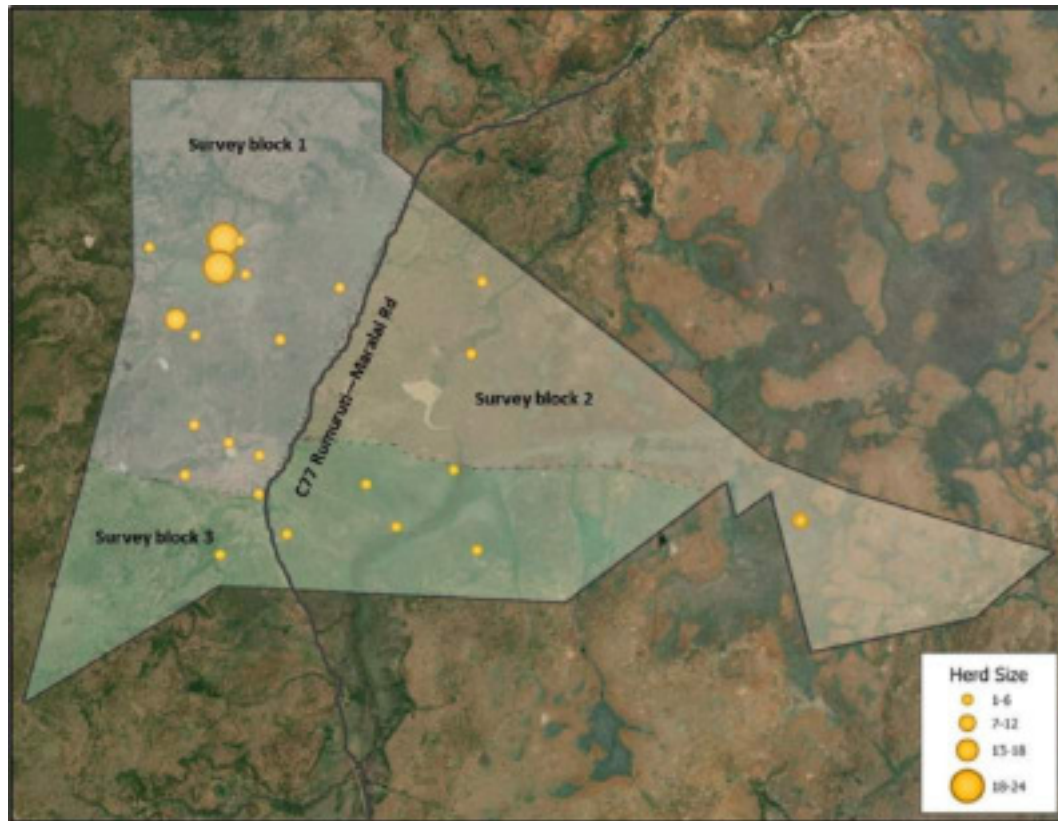


Fig. 9: Herd size and distribution of encounters of giraffe in Mugie Wildlife Conservancy during the rapid assessment.

Partners & Supporters

