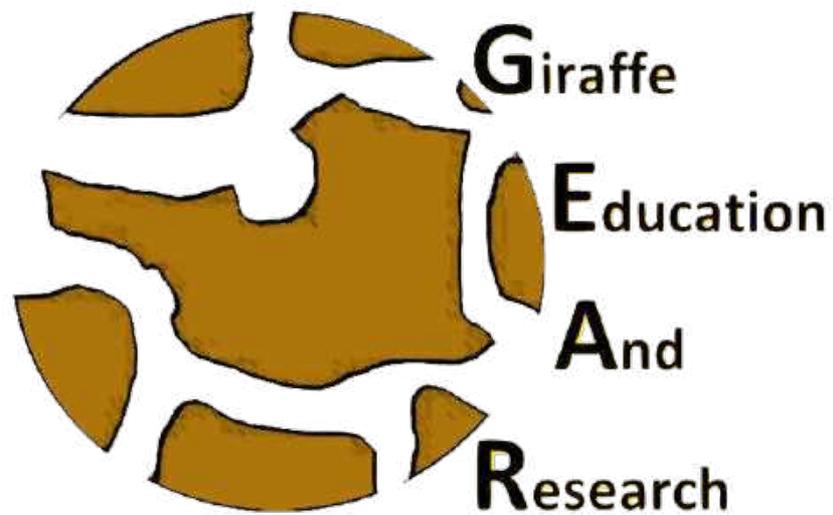


Giraffe Education And Research (GEAR) Lake Mburo National Park



Final Report

December 2019

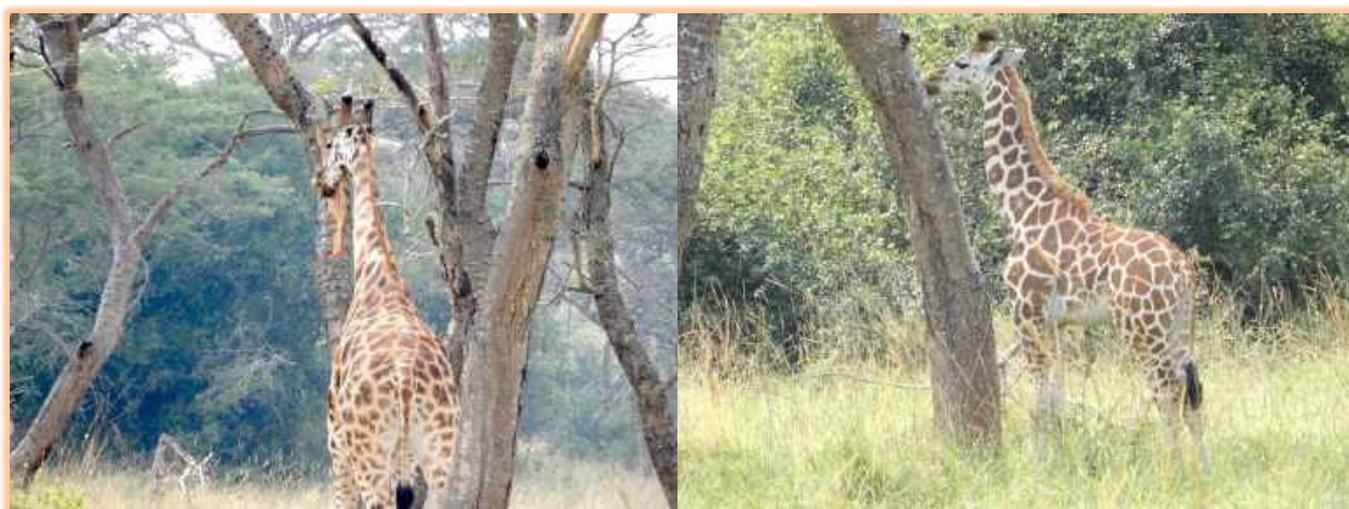
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Research & Monitoring

This year has seen some interesting observations made on the population of giraffe as well as the arrival of the second round of calves.

Bark stripping of the *Senegalia polyacantha* trees has been an observed behaviour. While this behaviour began during the dry months of June/July it continued to be observed in the heavy rainy season of November/December. Why giraffes prefer the bark of these trees and the extent of their impact is an area GEAR hopes to investigate further in 2020.



Bark stripping by both adults and calves has been observed.

Earlier this year Caroline was identified as being different to the other females in the herd. With a pronounced centre ossicone she looks more male than female. She still has yet to show signs of pregnancy despite numerous sightings of her mating with the males of the population. We hope to undertake some faecal hormone testing in 2020. This will largely depend on identifying an accessible laboratory capable of undertaking the necessary tests.

A total of three calves were born in 2019 bringing the total population of Nubian giraffe in LMNP to 25 individuals. Morse was the first giraffe to give birth at Lake Mburo National Park in 2018. In November 2019 we spotted her again with a young calf in tow. Her second calf is a healthy female. We are expecting another spate of births in 2020 as most adult females in the herd appear to be pregnant.



Caroline subject to much interest.



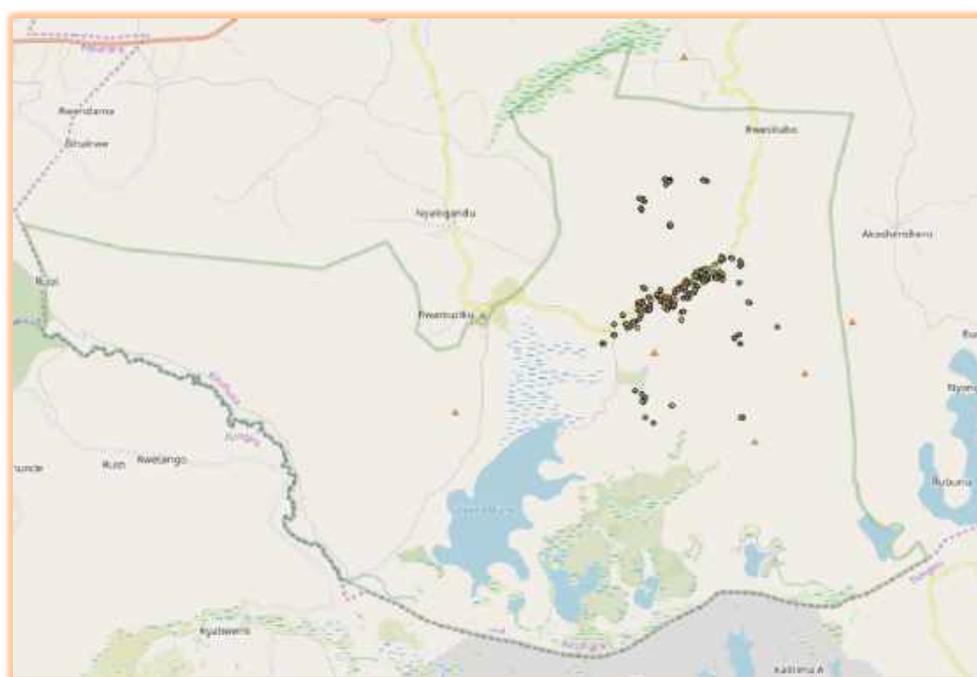
Left: The latest addition to the population seen here in December 2019; Right: Morse with her two calves.

In December GEAR received equipment from the Idea Wild grant which will improve efficiency and quality of future data collection. The equipment included a camera, binoculars, Samsung tablets for data collection and portable power banks to reduce battery failure in the field.

Data Collection

GPS data compiled from all ODK forms (activity budgets, feeding observations, *ad hoc* observations, general locations) show a strong preference of the giraffe to spend time in the acacia/zebra track valley. There are only a few records of giraffe along Eland, Research and Warukiri tracks.

Observations are biased towards valleys as locating the giraffe in the bushy ridges is a difficult task. Without observations from the air, finding them in the thick woodland, which is typical for the hills of the Park, is not possible with the time

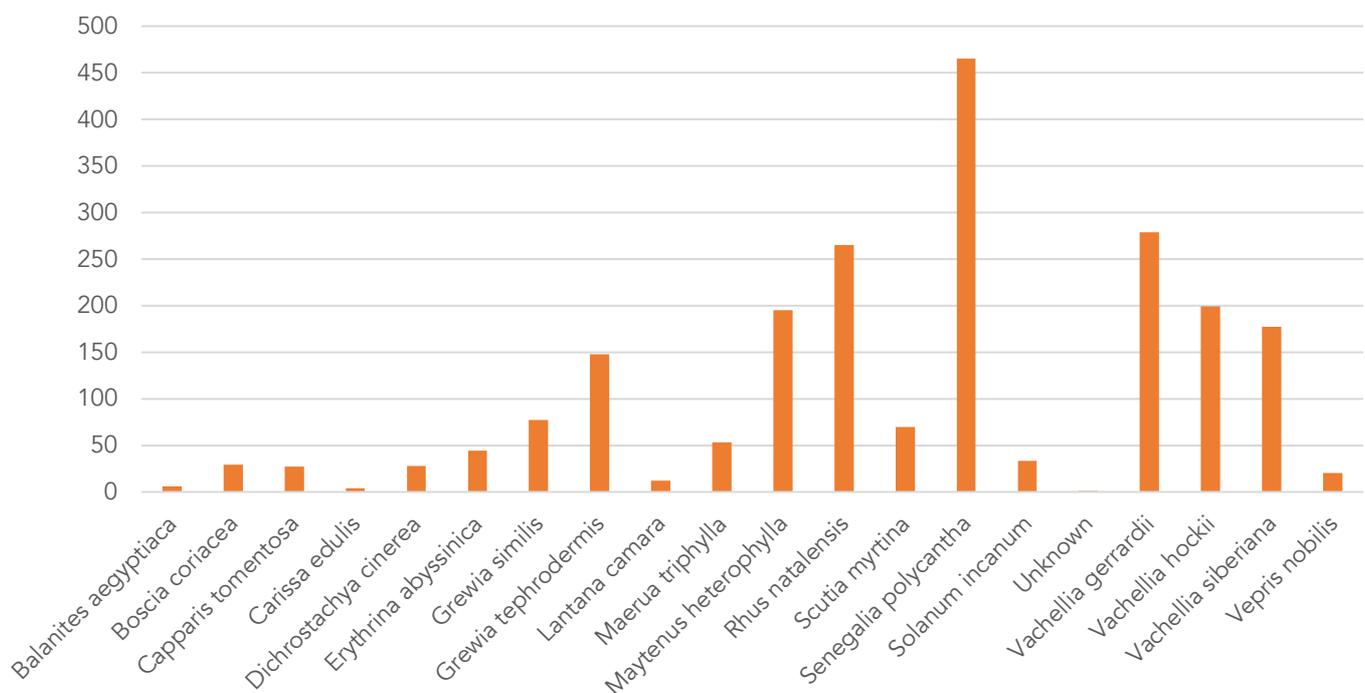


Above: Compilation of GPS data collected over 2019.

and equipment available to the team. Future studies on vegetation use and changes will need to focus on this main valley with comparisons to a lesser frequented valley.

Towards the end of 2019 we started looking into the diet of the giraffe in more detail. We regularly observe the giraffe stripping the bark of acacia trees. This in combination with the current park management plans of bush clearing, highlighted a need to better understand both the giraffe’s diet and their possible impact on the Park’s vegetation. Data was collected during the weekly monitoring trips. Over a period of one hour, we recorded every two minutes the species of vegetation that was fed on, how many giraffe were feeding on the particular species and at which height (above or below 1.6m. If more than one giraffe was feeding on a particular species at heights both above and below 1.6m it was recorded as “all”).

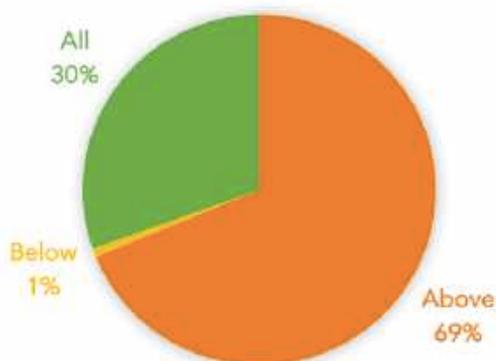
Number of Browsing Incidences



Senegalia polycantha and 11 *Vachellia* sp., all formally categorized as *Acacia* species, were prominent in the giraffe’s diet with *Rhus natalensis* and *Maytenus heterophylla* also key components. A total of nineteen species were recorded in the giraffe’s diet.

The vegetation on the hills and ridges of Lake Mburo National Park tends to be woodland while the valleys are more open with scatterings of mature trees and a patchwork of bushy thickets usually based on and around termite mounds. It is worth to note that *R. natalensis* and *M. heterophylla* are species dominantly found in these bushy thickets. In the practice of bush clearing, these thickets are often cleared with only larger trees remaining within the valleys. While giraffe are noted for their long necks and feeding at greater heights, they do not do so exclusively, often feeding at lower heights, especially in the case of calves.

PERCENTAGE OF BROWSE AT DIFFERENT HEIGHTS



While most browsing occurs at a height of over 1.6m, 30% of our feeding observations included feeding both above and below 1.6m. This observation emphasises that giraffe also feed at lower heights and indicates that lower trees and bushes should be taken into account for the giraffe's diet. In particular, *V. hockii* is a focus for bush clearing with only the largest of trees left in the valleys. For this species, almost 15% of all browsing incidents were recorded at "below" or "all" heights.

The giraffe largely favour the acacia/zebra track valley which is an area that has not undergone extensive bush clearing so far. We hope that the above data will be useful in informing future park management plans.



Clockwise from top: Cleared valley/hillside; typical clearance of termite mounds; a giraffe calf feeding on the typical bushy clumps found around termite mounds; un-cleared zebra/acacia track valley.

GEAR launched a social media campaign to get park visitors engaged in giraffe conservation by setting up a Facebook page and advertising the hashtag #giraffesofmburo. Both these forums are gaining in popularity and have helped highlight one area GEAR is keen to explore more in 2020. The giraffe are a highlight for visitors of Lake Mburo National Park with most visitors aiming to find them. Conveniently for visitors they tend to remain in the most popular valley for game

drives. This does mean that there is a lot of human activity around these giraffe. Many Instagram tags are photos of visitors out of vehicles posing with the giraffe in the background. GEAR would like to explore more what impact this may have on the population and if relevant, explore options to minimise this impact.



Left: @courtneyyes enjoying a moment with one of the calves; Right: @augustine_sandy pointing out our long legged friends.



Left: @habari_gani captured a stunning image showing the large centre ossicone of a male (Bernard furthest back), female (Irish at the forefront) and our odd one out Caroline (appropriately in the middle).

Conservation Education



Above: Location of schools taken on day trips to the Park.

Over the course of the year a total of 16 schools, 600 students, have visited the Park in a GEAR-organised trip. During these fieldtrips students learn about Lake Mburo National Park, its importance for wildlife and the human population surrounding the park. Some schools who joined our trips in 2018 visited again while additional schools from further north and west of the Park were also included in these visits.

In addition to the school field trips one sensitization trip was conducted for an adult group. Together with Lake Mburo National Park Community Conservation department a group was identified in Rakai District. This area has a high prevalence of poachers and it was determined a sensitization trip would have a big impact in combating this practice. While the giraffe in Lake Mburo National Park are not targeted by poachers, GCF and UWA are aware that giraffe can become collateral damage as experienced in Murchison Falls National Park. The group responded very positively to the trip, appreciating the sensitization, understanding the positive benefits of the national park not only on the immediate communities but on the country as a whole. Many participants declared that they would stop poaching after this sensitization trip.



Above: Community members on their sensitization trip with GEAR and UWA staff.

Another activity GEAR engaged in was participating in radio chat shows in order to achieve further outreach and sensitization about giraffe and Lake Mbuoro National Park. GEAR researcher and community officer Natamba Jotham, LMNP Problem Animal Warden Abaho Noel and Community Conservation ranger Mwebaze George participated in an hour-long chat shows. Three shows were broadcasted on Karo FM and Radio 5. Karo FM covers seven districts and has more than 1.6 million listeners, while Radio 5 covers five districts with more than 1.1 million listeners. The chat show format allowed for call ins and messages, which increased engagement from the community. Many listeners expressed their surprise over the presence of giraffe in LMNP, unaware that they had been translocated from Murchison Falls National Park in 2015. While the shows greatly increased giraffe conservation awareness within the area, they also gave the community an opportunity to learn about the Park as a whole. Many listeners viewed the Park as the property of rangers and UWA, however, during the chat show they realized that it was in fact their Park and a place they should be proud of. Revenue sharing, sport hunting and the community conservancy were highlighted to attach a positive association to the Park and its wildlife. Overall there was strong positive feedback from the chat shows and as a result it was decided to keep this form of communication and community engagement as part of the project plan for 2020.

World Giraffe Day (WGD) was celebrated on 21st June around the world. It is another opportunity to increase community engagement and awareness on the giraffe in the park. To celebrate the day, we organised a soccer game and named one team 'Giraffe'. They wore special giraffe jerseys sponsored by GCF. The soccer match was such a success that it was decided to make this an annual event and we used the opportunity to share information on giraffe conservation in general and on Lake Mbuo National Park's giraffe more specifically.



Summary of Data Collected

Date	Observers	Herd Size	ID's	GPS-lat	GPS-long
14-Oct-19	Juliet, Jotham	19	Batgirl, Rocket, Marion, Caroline, Nicky, Valentine, Mystery, Ru, Irish, Juliana and 9 calves	- 0.602501667	30.97761833
07-Oct-19	Catherine, Jotham	4	Bernard, Kule, Rocket, Leiden	- 0.628218333	30.98043333
07-Nov-19	Catherine, Jotham	8	Nicky, Irish, Mystery and 5 calves	-0.581695	31.00924833
04-Nov-19	Catherine, Jotham	10	Irish, Juliana, Suni, Mystery, Morse and 5 calves	- 0.584993333	31.00169333
03-Oct-19	Michael, Jotham	2	Kule, Bernard	- 0.595913333	31.01481333
03-Oct-19	Jotham, Michael	16	Valentine, Morse, Nicky, Batgirl, Ru, Caroline, Rocket Marion, Mystery, Juliana and 6 calves.	- 0.635483333	30.98389
23-Sep-19	Juliet, Jotham	11	Irish, Mystery, Suni, Rocket, Bernard, Leiden, Kule Nicky and 3 calves.	-0.589445	31.011805
12-Dec-19	Michael, Jotham	25	Irish, Juliana, Morse, Marion, Batgirl, Bernard, Kule, Caroline, Ru, Suni, Valentine, Rocket, Mystery, Leiden, Nicky and 10 calves.	-0.58626	30.9995
19-Dec-19	Catherine, Jotham	13	Morse, Mystery, Irish, Bernard, Valentine, Juliana, Caroline Suni, and 5 calves	- 0.587431667	30.99761167
02-Dec-19	Michael, Jotham	12	Morse, Marion, Batgirl, Nicky, Kule, Rocket, Juliana and 5 calves.	- 0.592141667	30.99430667
02-Dec-19	Michael, Jotham	13	Caroline, Mystery, Irish, Leiden, Valentine, Suni, Bernard and 6 calves.	-0.581675	31.00588833
18-Nov-19	Catherine, Jotham	24	Rocket, Juliana, Bernard, Kule, Valentine, Irish Caroline, Batgirl, Leiden, Nicky Marion, Mystery, Ru, Suni, Morse, and 9 calves	-0.596275	30.98858833
25-Nov-19	Jotham, Michael	2	Irish and her calf	-0.58803	31.004335
21-Nov-19	Jotham, Michael	23	Caroline, Ru, Bernard, Batgirl, Rocket, Leiden, Juliana, Marion, Suni, Kule, Mystery, Valentine, Irish, Nicky and 9 calves.	-0.62506	30.97799833

This report was compiled in partnership with and supported by:

