

# Giraffe Education And Research (GEAR) Lake Mbuoro National Park



Update Report

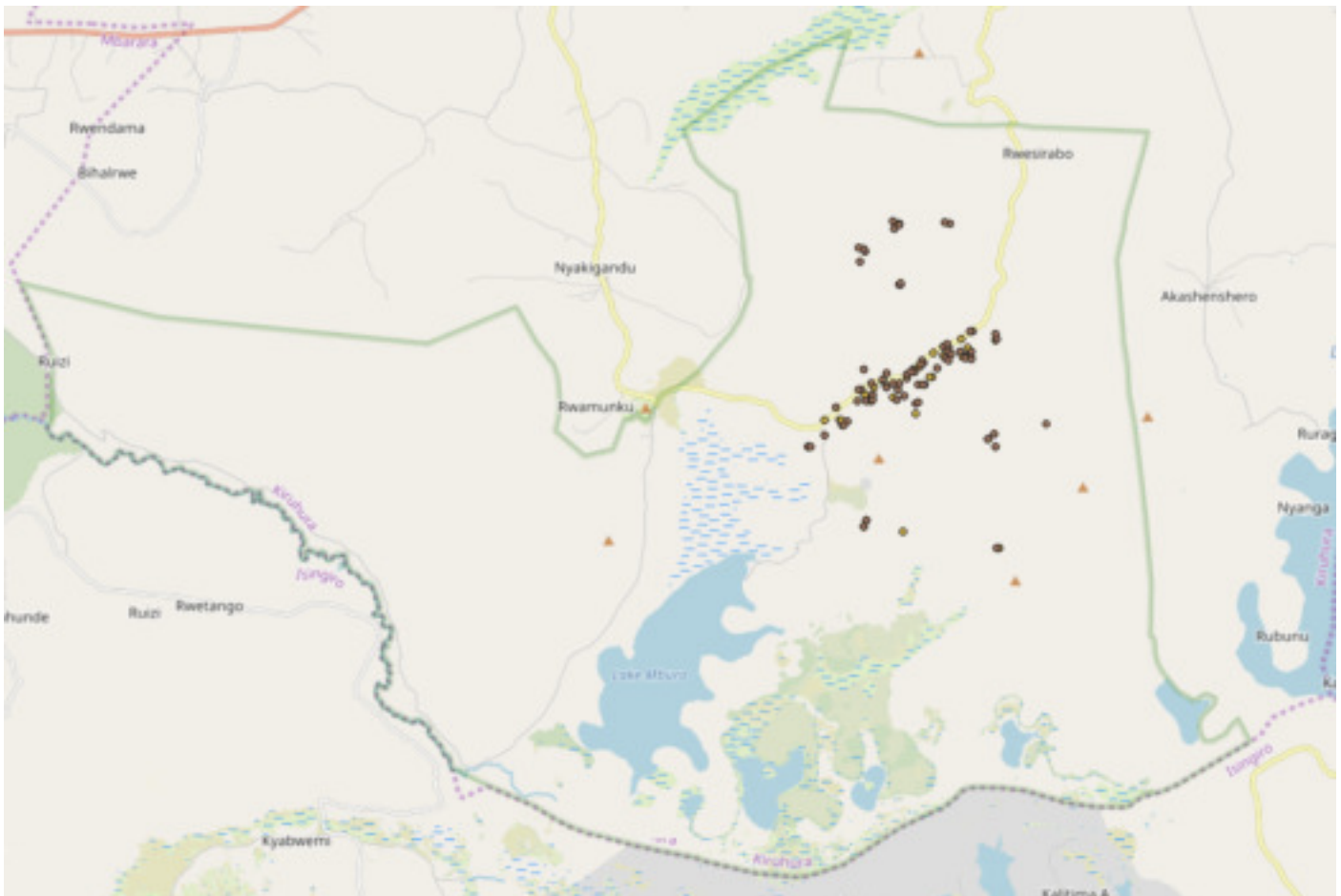
September 2019

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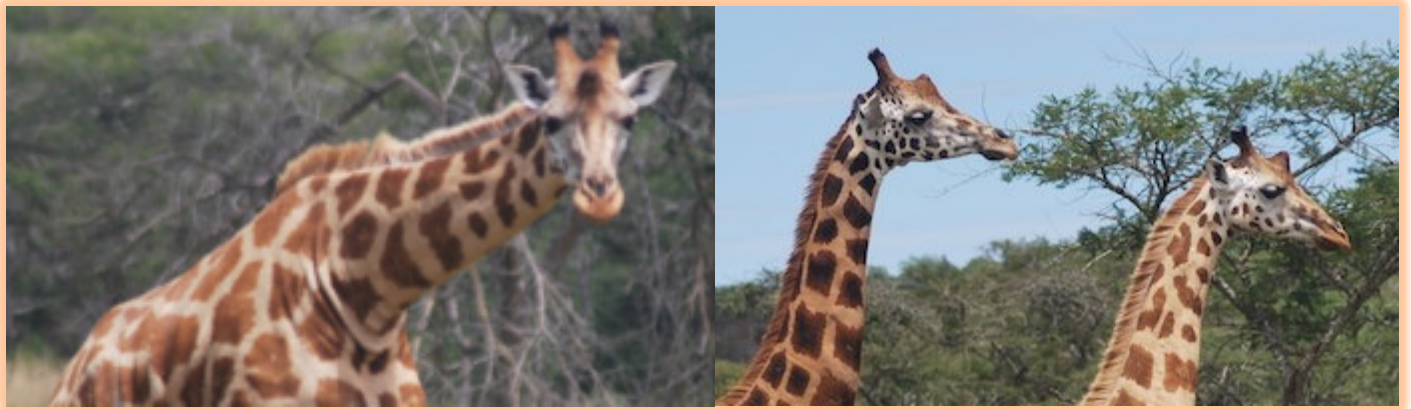


## Research & Monitoring

Our team continues to monitor the Nubian giraffe population in Lake Mbuo National Park on a regular basis. For detailed observations, refer to the data tables at the end of this report. The map below shows GPS data points where giraffe were observed, highlighting that giraffe are frequently observed along Zebra/Acacia Track Valley.



The female Nubian giraffe Caroline, has been a hot topic of conversation these past few months. She is the only adult female in the giraffe population at Lake Mbuo National park that has not conceived yet. She is not notably smaller than any of the other females and she has been observed mating with the males over the past year or more. The only pronounced difference to other female giraffe in the population are her ossicones. Her third, central ossicone is especially pronounced rendering her more like a male rather than a female. These observations were shared with the Giraffe Conservation Foundation (GCF) and the Uganda Wildlife Authority (UWA) and we are now looking into plans to assess her hormone levels. We are interested to see the outcome of this study.

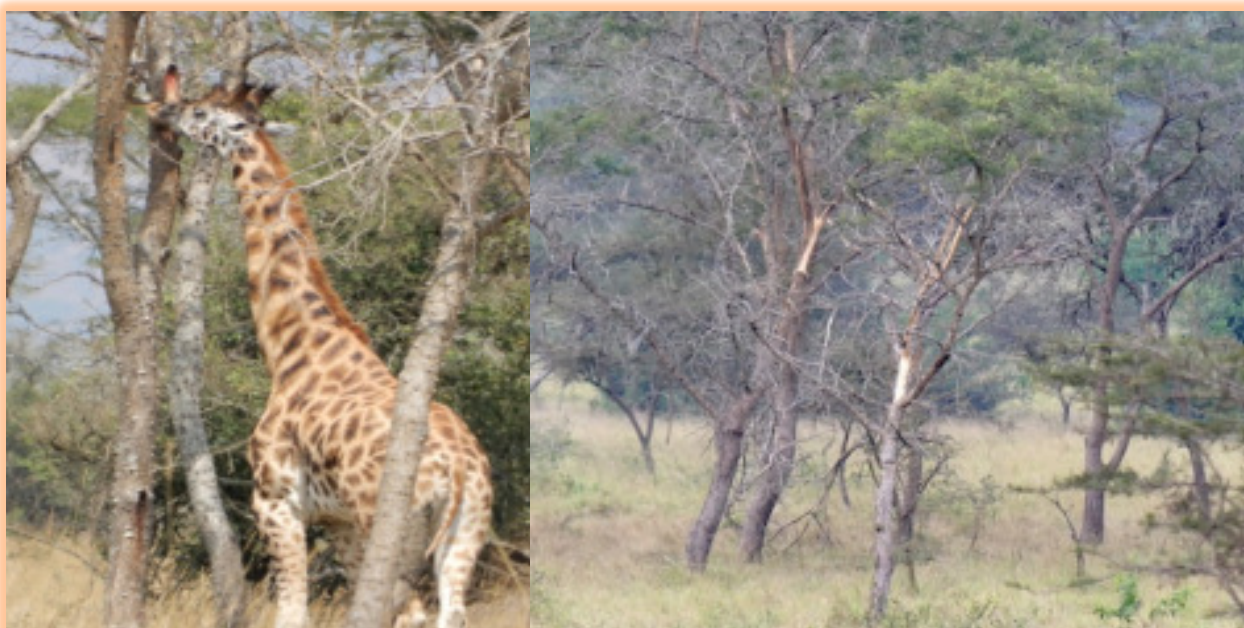


Left: Caroline; Right: Comparison of ossicones of the male Rocket on the left and Caroline on the right.

The dry season has seen some large fires once again in the Park which has caused the giraffe to disperse more widely. The same pattern was observed last year over the long dry season from June to September.

Recent studies have shown that darker males tend to be dominant and adopt the strategy of roaming between groups, identifying females in season. Lighter males who are often less dominant tend to remain with female groups in the hope of finding an opportunity to mate when no more dominant males are around. With these new findings in mind, we will monitor male giraffe movements closely to try determine the more dominant males in this small population. We have already realised that we often see Rocket by himself.

Bark stripping is a behaviour we regularly observe during the dry season. The giraffe are observed inflicting a lot of damage to stands of *Senegalia polyacantha* through this practice. Plans are underway to conduct vegetation surveys of the main valley used by the giraffe population. The aim is to conduct this survey annually to monitor the impact of giraffe on the vegetation.



Left: Kule stripping bark. Right: Stands of *Senegalia polyacantha* with visible bark stripping damage.

We have recently broadened the scope of our data collection. There is a keen interest in the diet of the giraffe with a special focus on the possible impacts the Park's tree cutting programme on giraffe. To accommodate this additional data collection, we will focus our data collection on different subject matters during alternating months over the calendar year. In addition to activity budgets and location data, the following areas of data needs have been included:

- Additional location data based on evidence of giraffe activity such as tracks and dung.
- Diet. Two-minute scans for one hour to record how many giraffe in a group are feeding, what species they are feeding on and at what height level (above or below 1.6m).
- Impact of tourism. Researchers are also recording tourism encounters during their giraffe observations. This data includes mode of transport (car, bike or on foot); did they leave their vehicle to get closer to the giraffe; did their presence cause a change in the giraffe behaviour.

## Education

With the school year coming to an end, the final school trips are about to start with eight further trips planned. Schools located along the northern and eastern boundary of the Park will benefit from this term's outings.

Our activity books, which are provided to each student during a school trip, were recently revised by our intern, Svenja Braig. Svenja worked with Lake Mburo Communities and the GEAR project for three months. Together with our local researcher Natamba Jotham she worked on further developing our activity books. Based on feedback received from teachers they tweaked activity pages to be more suitable for local primary school students. In addition, they developed an activity book aimed at secondary schools who we are planning to include in our conservation education programme from next year.

In addition to the planned school trips, we are also organising an exposure trip to the Lake Mburo National Park for community leaders, elders and councillors. While school trips represent a bottom-up education approach, this familiarisation trip will approach conservation education from a top-down perspective. Both strategies together will hopefully help to spread the giraffe conservation message throughout the community.

## Summary of Data Collected

Date	Observers	Herd Size	ID's	GPS-lat	GPS-long	Behaviour/Notes
06-Jul-19	Michael, Jotham	24	Juliana, Marion, Ru, Mystery, Valentine, Kule, Irish, Morse, Suni, Bernard, Leiden, Caroline, Rocket, Nicky, Batgirl and 9calves.	-0.604446667	30.97581667	
06-Jul-19	Michael, Jotham	24	Juliana, Marion, Ru, Mystery, Valentine, Kule, Irish, Morse, Suni, Bernard, Leiden, Caroline, Rocket, Nicky, Batgirl and 9calves.	-0.604446667	30.97581667	
09-Jul-19	Catherine, andrew, Jotham	24	Rocket, Leiden, Irish, Juliana, Nicky, Ru, Batgirl, Valentine, Suni, Caroline, Bernard, Kule, Mystery, Morse, Marion and 9 calves.	-0.588226667	30.99991167	
09-Jul-19	Catherine, andrew, Jotham	24	Rocket, Leiden, Irish, Juliana, Nicky, Ru, Batgirl, Valentine, Suni, Caroline, Bernard, Kule, Mystery, Morse, Marion and 9 calves.	-0.588226667	30.99991167	
16-Jul-19	Catherine, jotham	21	Kule, Irish, Morse, Marion, Juliana, Mystery, Caroline, Valentine, Suni, Batgirl, Nicky, Ru and 9calves	-0.627058333	30.98116833	
16-Jul-19	Catherine, jotham	21	Kule, Irish, Morse, Marion, Juliana, Mystery, Caroline, Valentine, Suni, Batgirl, Nicky, Ru and 9calves	-0.627058333	30.98116833	
22-Jul-19	Catherine, Jotham	21	Marion, Valentine, Suni, Morse, Nicky, Caroline, Irish, Batgirl, Juliana, Ru, Mystery, Kule, and 9 calves.	-0.594595	30.99352	
22-Jul-19	Catherine, Jotham	21	Marion, Valentine, Suni, Morse, Nicky, Caroline, Irish, Batgirl, Juliana, Ru, Mystery, Kule, and 9 calves.	-0.594595	30.99352	
23-Jul-19	Bless, Jotham	15	Juliana, Suni, Bernard, Valentine, Caroline, Ru, Batgirl, Nicky, Rocket, Leiden, Irish and 5 calves.	-0.59913	30.99289833	



23-Jul-19	Bless, Jotham	15	Juliana, Suni, Bernard, Valentine, Caroline, Ru, Batgirl, Nicky, Rocket, Leiden, Irish and 5 calves.	-0.59913	30.99289833	
27-Jul-19	Fred, jotham	11	Nicky, Ru, Marion, Suni, Valentine, Juliana and 5 calves	-0.588081667	31.005185	
27-Jul-19	Fred, jotham	22	Kule, Bernard, Morse, Mystery, Irish, Leiden, Rocket, Caroline, Marion, Valentine, Juliana, Suni, Nicky, Ru, and 8 calves.	-0.588306667	31.00605833	
27-Jul-19	Fred, jotham	11	Nicky, Ru, Marion, Suni, Valentine, Juliana and 5calves	-0.588081667	31.005185	
27-Jul-19	Fred, jotham	22	Kule, Bernard, Morse, Mystery, Irish, Leiden, Rocket, Caroline, Marion, Valentine, Juliana, Suni, Nicky, Ru, and 8 calves.	-0.588306667	31.00605833	
07-Aug-19	Juliet, Jotham	15	Nicky, Kule, Mystery, Irish, Juliana, Batgirl, Ru Suni and 7 calves.	-0.58835	31.00492333	
07-Aug-19	Juliet, Jotham	9	Leiden, Bernard, Marion, Morse, Valentine, Rocket, Caroline and 2 calves.	-0.633855	31.01243167	
07-Aug-19	Juliet, Jotham	15	Nicky, Kule, Mystery, Irish, Juliana, Batgirl, Ru Suni and 7 calves.	-0.58835	31.00492333	
07-Aug-19	Juliet, Jotham	9	Leiden, Bernard, Marion, Morse, Valentine, Rocket, Caroline and 2 calves.	-0.633855	31.01243167	
08-Aug-19	Michael, Jotham	5	Kule, Mystery, Irish and 2 calves	-0.581923333	31.00612	
08-Aug-19	Michael, Jotham	7	Marion, Suni, Nicky, Juliana and 3calves.	-0.609508333	30.96719167	
08-Aug-19	Michael, Jotham	5	Kule, Mystery, Irish and 2 calves	-0.581923333	31.00612	
08-Aug-19	Michael, Jotham	7	Marion, Suni, Nicky, Juliana and 3calves.	-0.609508333	30.96719167	

12-Aug-19	Jotham, Catherine	8	Kule, Mystery, Irish, Juliana,	-0.583781667	31.01225667
12-Aug-19	Catherine, Jotham	12	Marion, Caroline, Valentine, Morse, Leiden, Rocket, Batgirl, Nicky, Ru and 3 calves.	-0.595361667	30.98605333
12-Aug-19	Catherine, Jotham	12	Marion, Caroline, Valentine, Morse, Leiden, Rocket, Batgirl, Nicky, Ru and 3 calves.	-0.595361667	30.98605333
12-Aug-19	Jotham, Catherine	8	Kule, Mystery, Irish, Juliana	-0.583781667	31.01225667
22-Aug-19	Catherine, Jotham	11	Kule, Bernard, Caroline, Suni, Mystery, Valentine, Irish and 4 calves	-0.598496667	30.981095
22-Aug-19	Catherine, Jotham	11	Kule, Bernard, Caroline, Suni, Mystery, Valentine, Irish and 4 calves	-0.598496667	30.981095
26-Aug-19	Catherine, jotham		Kule, Juliana, Valentine Mystery, Irish and 5 calves	-0.592093333	30.98601667
26-Aug-19	Catherine, Jotham	13	Kule, Irish, Suni, Bernard, Mystery Juliana, Valentine	-0.593625	30.985135
26-Aug-19	Catherine, jotham		Kule, Juliana, Valentine Mystery, Irish and 5 calves	-0.592093333	30.98601667
26-Aug-19	Catherine, Jotham	13	Kule, Irish, Suni, Bernard, Mystery Juliana, Valentine	-0.593625	30.985135
29-Aug-19	Catherine, Jotham	13	Bernard, Kule, Caroline Morse, Irish, Batgirl Juliana, Suni and 5 calves.	-0.598486667	30.98839167
29-Aug-19	Catherine Jotham	4	Rocket, Batgirl and 2 calves	-0.607656667	31.01030833
29-Aug-19	Catherine Jotham	4	Rocket, Batgirl and 2 calves	-0.607656667	31.01030833
29-Aug-19	Catherine, Jotham	13	Bernard, Kule, Caroline Morse, Irish, Batgirl Juliana, Suni and 5 calves.	-0.598486667	30.98839167
02-Sep-19	Catherine, Jotham	7	Irish, Bernard, Caroline, Kule, Morse and 2 calves	-0.586868333	31.006375

02-Sep-19	Catherine, Jotham	11	Leiden, Rocket, Valentine, Ru, Nicky, Marion Batgirl and 4 calves	-0.628596667	30.98070167	
02-Sep-19	Catherine, Jotham	7	Irish, Bernard, Caroline, Kule, Morse and 2 calves	-0.586868333	31.006375	
02-Sep-19	Catherine, Jotham	11	Leiden, Rocket, Valentine, Ru, Nicky, Marion Batgirl and 4 calves	-0.628596667	30.98070167	Leiden & Rocket showing sexual interest in Valentine
05-Sep-19	Arthur, Jotham	3	Rocket, Marion and calf.	-0.600178333	30.97400167	
05-Sep-19	Jotham, Arthur	7	Morse Caroline, Bernard, Kule, Irish and two calves.	-0.606366667	31.01169	
05-Sep-19	Arthur, Jotham	3	Rocket, Marion and calf.	-0.600178333	30.97400167	
05-Sep-19	Jotham, Arthur	7	Morse Caroline, Bernard, Kule, Irish and two calves	-0.606366667	31.01169	
09-Sep-19	Juliet, Jotham	8	Caroline, Morse Leiden, Kule Irish, Bernard Rocket and 2 calves.	-0.609413333	31.01215	
09-Sep-19	Juliet, Jotham	8	Caroline, Morse Leiden, Kule Irish, Bernard Rocket and 2 calves.	-0.609413333	31.01215	
12-Sep-19	Alex ,Jotham	3	Irish, Caroline and 1calf.	-0.588606667	31.00620167	
17-Sep-19	Patrick, Jotham	21	Juliana, Morse, Bernard, Suni, Irish, Rocket, Ru Marion, Kule, Leiden Batgirl, Valentine, Caroline, Mystery and 8 calves.	-0.604018333	31.02424667	
19-Sep-19	Patrick, Jotham	19	Batgirl, Caroline, Suni, Bernard, Mystery, Irish, Rocket, Morse, Kule, Ru, and 9 calves	-0.582063333	31.00675167	



## Activity Budgets for July, August &amp; half September

**Month: July**
**Observer: Michael, Jotham, Catherine, Andrew, Bless, Fred**
**Hour: 7-8am 8-9am 9-10am 10-11am 11-12pm 12-1pm 1-2pm 2-3pm 3-4pm 4-5pm 5-6pm 6-7pm**
**Activity**

Feeding					152	724	608	186	50			
Resting					130	304	522	82				
Ruminating					180	370	488	182	24			
Walking					94	468	418	160	38			
Grooming					30	120	144	50	18			
Sexual Behaviour					8	562	16	8	0			
Excretion					32	122	94	42	20			
Vigilance					36	246	942	94	20			
Interaction					14	48	4	8	8			
Drinking					4	32	70	18	6			
Other					0	0	0	0	0			
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>680</b>	<b>2996</b>	<b>3306</b>	<b>830</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Month:** August

**Observer:** Juliet, Jotham, Michael, Catherine,

**Hour:** 7-8am 8-9am 9-10am 10-11am 11-12pm 12-1pm 1-2pm 2-3pm 3-4pm 4-5pm 5-6pm 6-7pm

**Activity**

Feeding			94	142	484	332	116	18			20	146
Resting			0	4	68	134	16	0			6	10
Ruminating			6	24	188	164	42	0			12	22
Walking			34	50	258	164	68	8			18	60
Grooming			14	24	122	96	34	14			4	30
Sexual Behaviour			0	0	4	0	0	0			4	12
Excretion			6	16	118	70	46	2			6	28
Vigilance			8	28	152	144	46	14			8	34
Interaction			0	0	12	20	0	0			0	0
Drinking			0	0	12	0	42	0			0	0
Other			0	0	0	0	0	0			0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>162</b>	<b>288</b>	<b>1418</b>	<b>1124</b>	<b>410</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>342</b>

**Month:** September  
**Observer:** Catherine, Jotham  
**Hour:** 7-8am 8-9am 9-10am 10-11am 11-12pm 12-1pm 1-2pm 2-3pm 3-4pm 4-5pm 5-6pm 6-7pm

**Activity**

Feeding					88	40	72					
Resting					0	0	0					
Ruminating					30	18	34					
Walking					14	4	14					
Grooming					8	6	12					
Sexual Behaviour					0	6	12					
Excretion					12	4	8					
Vigilance					16	10	22					
Interaction					0	0	0					
Drinking					0	0	2					
Other					0	0	0					
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>168</b>	<b>88</b>	<b>176</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

*This report was compiled in partnership with and supported by:*

