



The Meerkatter

The Friends of the Kalahari Meerkat Project Report - www.kalahari-meerkats.com - August 2020

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A New Step for Spruddel

There is good news to report at Zulus. For the very first time the group's dominant female Spruddel (VZUF028) has had a litter survive to emergence! Producing litters is a critical task for every group's dominant female, this road has been an eventful one for Spruddel.

Her first attempt at having pups occurred following the death of Zulus' previous dominant female Poma (VZUF007), who was found dead down a hole from a suspected snake bite. In May 2019, during which there was no clear dominant female of the group, 2-year-old Spruddel gave birth to her first litter.

Unfortunately for her, two other females in the group were also pregnant. This included her littermate Lil G (VZUF029) who Spruddel was directly competing with for dominance, and another being a younger related female, Lentil (VZUF032), who was not participating in the dominance competitions. With three pregnant females present the inevitable occurred; Spruddel and Lil G gave birth within 1 day of each other and then lost their litters to infanticide by the remaining pregnant female Lentil. She was observed mauling and killing six pups. It is not known who the mother of each pup was.



Dominant female Spruddel (VZUF028) leading Zulus out to forage. Photo Credit: Life History Coordinator Shaz Alderton

By killing the offspring of others pregnant females ensure that all resources (such as food, babysitters and tutors) go towards her own offspring, therefore giving them a greater chance of survival. Infanticide

nearly always occurs within four days of the pups being born. This is what was observed with Zulus; Lentil had killed the pups two days after Spruddel had given birth. Lentil ended up having two pups, Timon (VZUF049) and Pumbaa (VZUF048), who have survived and are still present in Zulus today. Only days after the infanticide, Spruddel was confirmed to be the dominant female of Zulus, having won the dominance competitions against Lil G. Spruddel did not fall pregnant again for the rest of the year. Towards the end of 2019 three Whiskers males, Scuzi (VWM213), Pixie (VWM210) and Jay-a-Rod (VWM216), immigrated into Zulus. This finally gave the females easy access to unrelated males. In February 2020 Spruddel gave birth to her second litter, but the group did not babysit and regularly moved burrows. Both Spruddel and Lil G showed signs of lactation for a day so it is unknown if the pups were aborted, predated or simply abandoned.

Two months later Spruddel was pregnant for the third time. Typically females can come into estrus within days of giving birth, this reflects how quickly they can recover. The average gestation for a meerkat is 10-11 weeks, yet approximately 8 weeks into her pregnancy Spruddel aborted. Three other Zulus females, Lil G, Lentil and Timon, were also pregnant at the time. Spruddel had not evicted any of them. Between those three females, seven pups were born and raised to independence. Over a year of being the dominant female and unlucky Spruddel still had not successfully raised any offspring. During her reign she has also failed to evict any other female, which may contribute to her lack of success. Spruddel herself has never been evicted in her life, perhaps this has something to do with her apparent lack of aggression towards the other group members?

On the 14th of July, Spruddel's 4th litter was born. The group babysat and multiple females were lactating. By the end of the month no pups had been seen. Observers were keenly waiting to see if, for the first time ever, Spruddel would have offspring survive to emergence. On the 5th of this month we were finally treated to the sight of two pups emerging. However, that same day the group decided to take the two tiny pups foraging! Newly



From left to right: the unnamed Zulus pup (VZUP060), Tsotsi (VZUM061) and Zuma (VZUM059) lying in the sand. Photo Credit: Meerkat volunteer Richard Weil.

emerged pups will usually spend an extra week staying at the safety of the burrow in the company of babysitters. Being so young, Spruddel's litter struggled to keep up with the other individuals. But the group, particularly subordinate female Timon, were attentive to the pups and no major dramas occurred. The litter were babysat at the burrow over the next three days before once again being taken out to forage. On the 17th one of the pups, VZUP060, disappeared and was assumed predated as it was never seen again. The other pup, Tsotsi (VZUM061), has been thriving off all the attention and was a healthy 222g at the end of the month.

While 7-week-old Tsotsi has had a better start than Spruddel's previous pups, he is not out of the woods yet. Studies undertaken on the reserve and in the Kgalagadi Park found that, based on the mortality rate observed in over 100 pups, approximately 70% survive the first 8 weeks of life. Over a quarter of pups don't make it. The threat of predation is always present. Another risk comes from inter-group-interactions. Zulus had two interactions this month, one of which resulted in a brief fight that put Spruddel's pups at risk of being killed. A paper published in 2019 investigated 13 cases of clashes occurring between groups, in those interactions 22 meerkats (20 of which were pups) were killed. It will take the combined effort of every Zulus member to ensure Tsotsi is protected and survives. Whatever the future holds for the group, they are better prepared for the coming breeding season. Spruddel is more experienced and can take further steps to potentially becoming a successful breeding dominant female.

Happenings at the Hab' groups

There has been a lot happening at our habituation groups this past month. Over at Gold Diggers the position of the dominant male has finally been filled. Two months ago Ubuntu subordinate male Shrew (VUBM018) immigrated into the group. This month observers have been able to confirm that he has become dominant! Gold Diggers now have 12 members, including an unmarked yearling female. Our main habituator for the group has made incredible progress with the unmarked individual and

has gradually been acclimatizing her to being touched with a paint brush. This means it likely won't be long until the wild yearling is marked. Observers are confident that Gold Diggers will return to being at the Advanced Progress habituation level quite soon.

Progress has also been made with the reserve's oldest meerkat group, Lazuli, who have been around since 1995. Of the wild males that immigrated into the group in December 2019, it was Odin (VLM266) who became dominant two months ago. He and subordinate wild male Wallace (VLM264) have become very comfortable in the presence of observers, both regularly climb into the scales for weights and allow the research assistants to follow them within 5 meters. The third wild male, Captain Barbosa (VLM265), is a bit less tolerant but is still sufficiently habituated for behavioral data collection. This month Lazuli have returned to being followed and studied for full Ad Lib sessions, the same as the fully habituated groups. The speed at which observers have recovered Lazuli almost completely to their former habitation level is certainly remarkable. This progress also means the individual characteristics of the wild males have become more easily recognisable. Odin in particular has a tendency to sneak up on unsuspecting observers during weights and give a nip to vulnerable fingers. Hopefully he doesn't become quite as bite-y as Lazuli's previous infamous dominant male, Polon (VJXM095).



Little Creatures males Dazai (VCRM011) and The Worm's Heart (VCRM010) were very tolerant of observers during a capture. Photo Credit: Life History Coordinator Shaz Alderton.

Meanwhile at the project's smallest group, Little Creatures showed remarkable tolerance during a capture. Radio-collared individual The Worm's Heart (VCRM010) has been one of few males to go roving over winter, observers suspect he may leave permanently come the breeding season, as mature males typically do. To ensure the group would not be un-trackable, subordinate female Mildred (VCRF009) was caught and collared. The process involved having two people present – something which habituation groups can find intolerable. But Creatures cooperated very well, the capture had no negative effect on their habituation. Dominant female Debbie (VCRF013) and an unmarked, scar-faced

adult male still have some way to go in terms of habituation, but the rest of the group's members have proven to be among the most tolerant meerkats of all of the habituation groups.



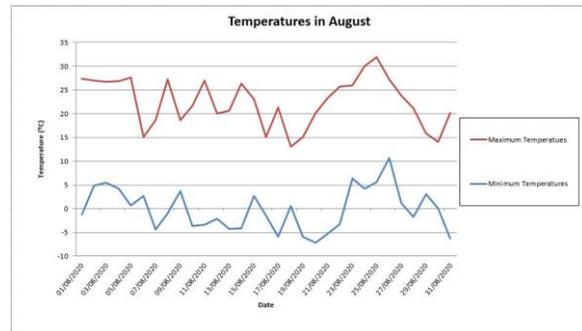
A photograph captured via camera trap of a wild group located at Pharside Dam. There has been at least 19 individuals counted in this group.

We are hoping to someday add some new groups to our habituation list. This month it is thought that at least two separate wild groups have been spotted. One group appears to be smaller with at least 5 individuals. They have been seen at the northern parts of the reserve crossing back and forth onto a neighbouring farm. The other wild group seems to have at least 19 individuals, 4-5 of which are juveniles. This larger group have been sighted living in the east and northeast part of the reserve. Camera traps have been set up at two of their known sleeping burrows. The group appear tolerant of vehicles but are not comfortable with observers on foot. Capturing an individual from a wild group for collaring will require knowing which burrow they bed down in and being present the following morning. So far observers have not had much success. But with the combined use of camera traps and tracking on foot, observers are getting a better idea of the potential territory and sleeping burrows of this wild group. With persistence, they may eventually become part of the study population.

Pregnancies in August 2020

Females pregnant in August	1
Females who aborted	0
Females who gave birth, litters lost	0
Females who gave birth, litter emerged	0
Females who gave birth, unknown outcome	0
Females still pregnant at the end of the month	1

Weather at the KMP



Temperatures fluctuated greatly across most of August, with a spike in temperature occurring later in the month. The lowest temperature for August was -7.2°C on the 20th, occurring around sunrise. The highest temperature was 31.9°C , recorded on the afternoon of the 25th. There was no rainfall this month.

August 2020 Life History Details

Elrond's Council:

- All 22 members were present at the end of the month.
- Regular roving male Sauce (VZUM026) left the group twice and returned on both occasions.
- No other events occurred.
- The group's habituation level is still considered Incomplete as the subordinate female Galadriel (VECF032) requires further habituation.
- All individuals appear to be in good health.

Gold Diggers:

- All 11 marked individuals were present at the end of the month, along with one unmarked yearling female.
- Shrew (VUBM018) was confirmed to be the dominant male of the group on the 24th. The position of dominant female is still undetermined.
- Subordinate male George (VGDM006) was Last Seen.
- No other major events were observed.
- The group's habituation level is still In Progress as the wild yearling female has not been marked.
- All individuals appear to be healthy.

Jaxx:

- All 18 members were present at the end of August.
- Dominant female Baloo (VJXF080) was pregnant by the end of the month.
- There were no group movements, dominance changes, losses, encounters, or group splits.
- All individuals look to be in good health.

Lazuli:

- There were 15 individuals present at the end of the month.
- No major events occurred.
- Lazuli's overall habituation level is still considered to be in Advanced Progress as



regular Ad Lib collection has only just begun and the three wild males, Odin (VLM266), Wallace (VLM264) and Captain Barbosa (VLM265) are still progressing with their habituation.

- All group members appear to be healthy.

(Little) Creatures:

- All 5 marked individuals were present at the end of the month along with one unmarked wild adult male.
- The Worm's Heart (VCRM010) left the group on two occasions and returned twice.
- No other events occurred.
- The group's habituation level is still In Progress as there is still an unmarked individual.
- All group members appear to be in good health.

Make-e-Plan:

- All 18 individuals were present at the end of the month.
- It has been another quiet month for Make-e-plan with no group movements, dominance changes, losses, encounters, or group splits.
- Every individual in the group seems to be healthy.

Namaqua:

- There were 14 out of 15 members present at the end of the month with yearling male Ambush (VNQM006) absent.
- Juvenile Gary (VNQM021) was Last Seen.
- Ambush had left the group by the 21st but returned and was accepted back in that same day. By the 29th he had left again and has not been seen since. He was in very poor condition at the time with signs of emaciation.
- Melee (VNQM007) left the group on the morning of the 22nd but had returned by the afternoon.
- Namaqua had an inter-group-interaction with Zulus on the 24th in which Namaqua retreated.
- Following the inter-group-interaction Jay-a-Rod (VWM216) from Zulus encountered Namaqua and was chased off by all group members.
- Namaqua's yearling individuals have continued to deteriorate in body condition. Tussle (VNQM008) was reported to be emaciated and have a cyst on his head but observers have not determined if it is tuberculosis-related.

Tswana:

- There were 12 marked individuals present at the end of the month.
- On the 14th the radio-collared individual Ocytocine (VTSF003) was thought to have left the group as she was found alone. By the following morning she was back with Tswana and acting as part of the group.
- No other major events occurred.
- Tswana's habituation state is still in Advanced Progress as all individuals are still marked.
- All group members appear to be in good health.

Zulus:

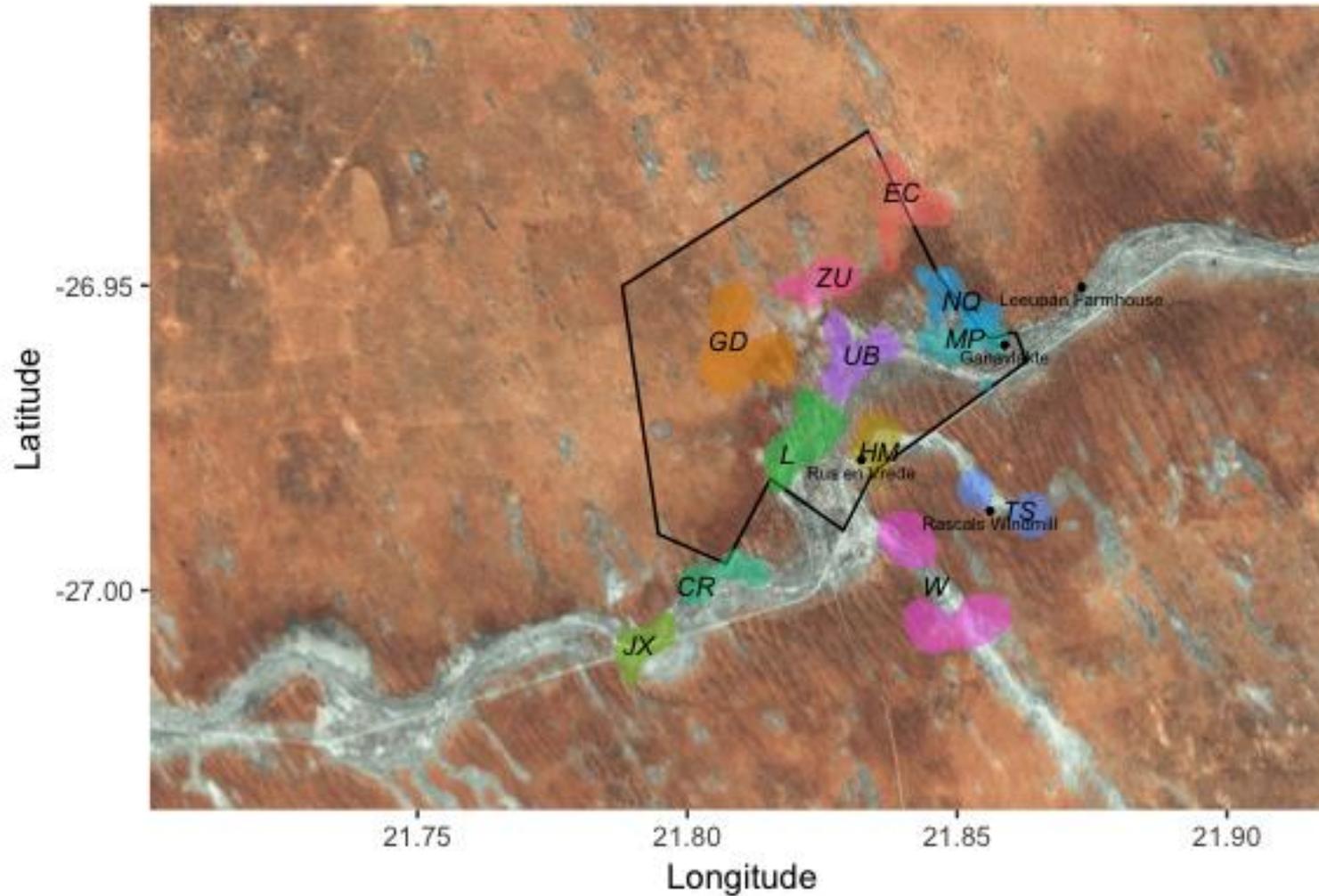
- There were 16 individuals present at the end of August including one pup, Tsotsi (VZUM061).

- Two pups born to dominant female Spruddel (VZUF028) emerged on the 5th and had their first forage that same day. The pups moved burrows for the first time on the 11th.
- One of the pups, VZUP060, was not with the group on the 17th and was assumed predated.
- Subordinate female Pumbaa (VZUF048) left the group on the 13th and returned a day later. Subordinate males Pixie (VWM210) and Jay-a-Rod (VWM216) both left the group but had returned within 2 days. Jay-a-Rod left the group a second time but was acting as part of Zulus again by the 24th.
- Zulus had two inter-group-interactions this month; one with Ubuntu in which a brief fight occurred, and another with Namaqua who retreated.
- All group members seem to be healthy.

The following authors contributed to this report:

Shaz Alderton, Life History

Group Territories August 2020



Key: CR: Little Creatures, EC: Elrond's Council, GD: Gold Diggers, HM: Hakuna Matata, JX: Jaxx, L: Lazuli, MP: Make-e-plan, NQ: Namaqua, UB: Ubuntu, TS: Tswana, W: Whiskers, ZU: Zulus.