



The Meerkatter

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

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Making Progress with Habituation

An important aspect of our work at the KMP is our habituation of newly found groups and individuals to enable our study population size to increase and benefit the research carried out. There are currently four groups where habituation is carried out at the current time, and with recent positive advances in their habituation levels, it is an ideal time to discuss this progress and our hopes for what will come next.

Tswana is our most recently started habituation group being first captured in April 2019 – just 1 year ago! In such a short time, they have made some massive improvements with the hard work of our volunteers, and we are very excited to announce that all individuals at the group are now dyed. This is excellent news as this means we can now fully identify each individual and record data for the entire group.



Members of Tswana, including three of the young pups, showing interest in the camera. Photo Credit: Meerkat volunteer Maggie Campbell-Jones.

Habituation has made great improvements since November 2019, with the two most recent litters having a positive impact. Before November, observers would often have to sit 50m away, slowly reduced to 10-20m for dyed individuals, with the juveniles at the time being the only regular individuals to approach the observers for egg or water and be happy to be weighed. By January, when Sushi (VTSM006) and Jiminy Cricket (VTSM007) had emerged and were doing well with their own habituation, some of the other wild individuals were beginning to be approachable to 1-5m, yet some still needed space of up to 15m. This progress allowed Britney (VTSM009) and Jude St Francis (VTSM008) to be successfully dyed at the end of January, with Britney being determined as the dominant female of the group.

The breakthrough after this came in March when 6 pups emerged and became very well habituated very early on. Whilst two of these have since been assumed predated, the remaining four, Adam (VTSM010), Petit Lu (VTSM011), Lady Penelope (VTSM016), and Jumper (VTSM017), are continuing to progress well and aid with our habituation of the remaining older individuals. In March, two adult males were successfully dyed (VTSM014 and VTSM015), and then this month we have finished up with a yearling male (VTSM018) and a sub-adult male (VTSM019). Now that the entire group is dyeable and are regularly comfortable with movements and approach within 10m, we hope that it won't be long until further data will be able to be collected on them.

Lazuli has also once again become a fully dyed group. Whilst Lazuli is our oldest group here at the KMP at almost 25 years old, events in December 2019 resulted in us needing to treat them as a habituation group once more. After Polon (VJXM095) was found to have been predated, three wild males were found to have immigrated into the group at the end of December. This had made the group almost impossible to be followed for our Ad Lib data collection, and so habituation work was started. The males would often bark at observers anywhere between 1-20m with great variance between the individuals themselves, and this meant the group would often not be happy to leave their sleeping burrow until observers would be sat at 30m. By February, one male improved to leave at 5m, another



at 10m, but the remaining male still required a much larger distance of 15-20m. Our volunteers persisted and by March all three were much better within just 3m and were showing interest in egg and water! Wallace (VLM264) was successfully dyed at the end of March, with Captain Barbosa (VLM265) and Odin (VLM266) dyed in mid-April. Observers are now trying to push them a little further with trying to follow them for a short period of time after they leave the sleeping burrow, with current progress ranging from 10-30m. With the rest of the group maintaining their great habituation levels, it is hoped that progress will continue to be made in short time so that Ad Lib data collection can be resumed soon. We will continue to be keeping an eye on which of the males may be the new dominant of the group.



Little Creatures sunning at their sleeping burrow. L-R: Dazai (VCRM011), Hange (VCRF012), Mildred (VCRF009), Trash (VCRM008), and The Worm's Heart (VCRM010) at the back. Photo Credit: Meerkat volunteer Shaz Alderton.

Whilst for Gold Diggers and Little Creatures there is still much more progress to be made, we cannot leave out their own progress that they have made in recent months. Gold Diggers have been a habituation group since August 2017 and progress has often been slow due to them being a much larger group of up to 20 individuals. Currently, they have reduced in size to 10 individuals following what was assumed to be an adult male and two yearling males to have left the group recently along with the radio-collared male (VGDM008). This has allowed observers to focus on individuals much more readily and reduce their comfort distance down. In June last year when we last reported on them, they would usually be ok with an observer sat at 1-5m, with movements from 5-10m on good days. Now, they are much more comfortable at just 0-5m on a regular basis. While we have recently had the collared male presumably leave to go roving and therefore finding the group has been much more difficult and visits more sporadic, they have maintained this level of habituation. We hope that the group will remain more stable in their composition over the coming months - some of the wild individuals appear to be dyeable very soon - and that the group may have a successful litter soon that could also boost their habituation levels.

Little Creatures were first found in September 2017, and their habituation has had its highs and lows over the last 2 and a half years due to many changes in group composition and varying size of the group.

Currently, they are our smallest group with just 6 dyed individuals and only one other wild individual seen regularly with them. In similar regards to Tswana, a recent litter of Dazai (VCRM011) and Hange (VCRF012) has aided with improving habituation of the adults to increase their comfort levels. Whilst The Worm's Heart (VCRM010), Trash (VCRM008) and Mildred (VCRF009) have been consistently good for the past year since they were added to the population, there has been less progress for the wild individuals present with them with great variance in their comfort from 10-40m. Success was found this month with both the adult female and male being more comfortable at 1-5m on a regular basis resulting in the adult female (VCRF013), assumed to be dominant, successfully being dyed. If progress continues in a similar way and remains stable, it shouldn't be long until we have another fully dyed group in our study population.

Zulus Have Doubled!

Following on from our article on subordinate pregnancies last month, it is with great pleasure that we can report on the success at Zulus of their recent litters. An addition of initially 9 pups in total from potentially 3 different litters, that is now down to 7 pups after the loss of two (VZUP055 and VZUP058), is resulting in the group size being almost double of what it was prior to these births. At 15 individuals this is the largest the group has been since the beginning of 2016.

Zulus was first formed in April 2010, making them now 10 years old! When the group was formed, it was of a large size with 19 individuals present. This size of around 20 individuals was maintained until towards the end of 2013 when group size reduced to around 7-10 individuals. Group composition improved once more in 2014 reaching the 20 individual mark again and this was maintained through to the end of 2015. At this point, the group went through many changes with group splits, emigrations of individuals and immigrations of wild individuals. Since then, the group has remained under 10 individuals for much of this time, with very few successful births to boost their numbers.



Lentil (VZUF032) with Godric (VZUM053) and Helga (VZUF52) suckling from her, with Rowena (VZUF054) stood beside. Photo Credit: Meerkat volunteer Zoe Turner.

Before Spruddel (VZUF028) gained dominance in 2019, her mother who was the previous dominant before her, Poma (VZUF007), had 6 successful pregnancies and only 2 abortions. This makes her one of the most successful Zulus females in terms of pregnancy success. However, this had still not been enough to boost numbers. While her first few litters were successful with the likes of Sauce (VZUM026), Spruddel, Lil' G (VZUF029), Lentil (VZUF032), Langa (VZUM033), and Umfana (VZUM034) - who are still currently within our study population - her later two litters were lost shortly after emergence and assumed predated.

In fact, since Poma's second litter of 2018 which consisted of Langa and Umfana, and prior to our current new litters, only subordinate female Lentil has had success with her 2019 litter of Pumba (VZUF048) and Timon (VZUF049). For subordinate females to have such success and for this to continue, is an interesting situation and is very unlike what has been vigorously studied in most other groups. Even for Zulus, in the past the only successful pregnancies were those of the dominant female.

For the current litters that we have been observing closely this month, it is difficult to determine whether the first 4 that emerged together are either Lil' G or Lentil's offspring due to the closeness in date of birth, and this will not be confirmed until genetic tests are complete. There is even the potential that they could be split between the two. As for the remaining pups that emerged, it is assumed that they are Timon's offspring. This means that potentially two or three subordinate females were able to successfully give birth without being evicted. Alongside this, the dominant female, Spruddel, was reported as being pregnant for a short period of time before assuming to have aborted due to the earliness in the pregnancy mid-April. For Spruddel to not show any attempt at reducing the competition for her own offspring survival, and in-fact contributing to the feeding of subordinate's offspring, it is an uncommon observation to have been made.

High numbers of pregnancies recorded at the minute reflects the good, regular rainfall that was experienced over Summer and has continued through to the beginning of this new Winter season. All females of the group, excluding Pumba, have been lactating for the pups and shows that it is likely that food availability is remaining high and allowing for a greater trade-off between foraging for themselves and providing for a large number of young pups.

This unusual situation will be one that we follow closely, as to whether these events may have an impact on any dominance changes and movements within the group as well as how the success of the females may continue or change. We hope that the pups will continue to succeed and allow Zulus to maintain their larger group size.

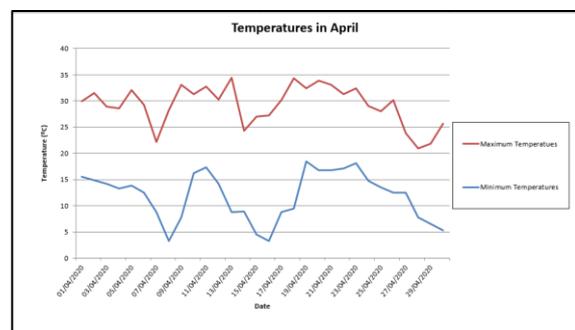


Spruddel (VZUF028) suckling pups from litters VZU2002/2003 and VZU2004. Photo Credit: Meerkat volunteer Zoe Turner.

Pregnancies in April 2020

Females pregnant in April	9
Females who aborted	4
Females who gave birth, litters lost	0
Females who gave birth, litter emerged	0
Females who gave birth, unknown outcome	3
Females still pregnant at the end of the month	2

Weather at the KMP



Temperatures fluctuated greatly through the month of April. As we are now entering Winter in full force, there were a couple of low spikes in both the minimum and maximum temperatures, and a more gradual decline towards the end of the month. The highest temperature for April was 34.4°C, while our coolest temperature was 3.3°C. On average, daily temperatures are ranging from a low of 11.9°C to a high of 29.3°C. There was 13.4mm of rain this month at the KMP, which is significantly lower than the 49mm recorded in April 2019. Total rainfall for 2020 so far has reached 109.8mm.



April 2020 Life History Details

Elrond's Council:

- At the end of April, the group consists of 12 present individuals. Pippin (VECF003), one of the subordinate females, was evicted, and one of the young pups (VECF020) was also missing from the group at the end of the month.
- Pippin (VECF003) left and returned once during the month prior to her eviction and has encountered the group twice since being evicted.
- Galadriel, the undyed yearling female, has encountered the group a total of 6 times during April but has not been accepted back into the group.
- Smeagol (VECM006), Gimli (VECM010), and Aragorn (VECM011), had no further sightings since they were seen roving in March, and so were given their last seen this month.
- Tayl Baez (VBBF117), the dominant female of the group, gave birth at the end of the month and the outcome of the pups is unknown as lactations were unable to be checked but babysitters were left.
- All group members appear to be in good health.

Gold Diggers:

- The group was found again at the beginning of April, however the radio-collared male (VGDM008) was confirmed to be not present with the group. He was occasionally tracked to regions North-East in the reserve near to Zulus and Elrond's Council territories, however, has not been sighted. The other 6 dyed individuals were still present. There are currently 4 other wild individuals seen regularly with the group.
- During the month, an observer witnessed an undyed adult female evict another adult female from the group. Since then, it appears that the evicted female has returned but cannot be confirmed due to their lack of clear identification at the current time.
- The group are still being successfully found even without a radio-collared individual currently, and we hope that this continues so that they can be collared again soon and for their habituation to be maintained.
- All individuals are in good health.

Jaxx:

- Due to the Covid-19 Lockdown restrictions in South Africa at the current time, there have been limits on our abilities to visit Jaxx due to their territory location outside of our reserve. For this reason, at the beginning of the month the group were unable to be visited. Since mid-April, conditions were put in place for their visits to be resumed.
- There are currently 15 individuals present at the end of April.
- One of the subordinate females, Didah (VJXF112), is absent having left twice during the month. She returned once but has not been with the group again since her second leave, it is possible she may have been evicted but this is

not confirmed. During her leaves she has encountered the group twice.

- One of the young males, Denzel (VJXM133), was also absent at the end of the month. He may have left before we were able to resume our visits, however this is unclear due to dye marks being faded and requiring their transponders to be read to clarify who was present. Once this was completed, he was confirmed to not be present with the group but may have been sighted in the session before this was done.
- Slightly (VJXM140) was given his last seen this month.
- The dominant female, Baloo (VJXF080), and a subordinate female, Nävis (VJXF128), are both officially pregnant at the end of April.
- All individuals look to be in good health.

Lazuli:

- Lazuli is now a fully dyed group of 14 present individuals. The two remaining males were successfully dyed this month, Captain Barbosa (VLM265) and Odin (VLM266).
- Gaimen (VLM258) was not seen at the end of the month for a few sessions, however it is unclear as to whether he has left or not due to a possibility that he may be babysitting.
- Haopia's (VLF244) pregnancy ended this month. There have been no lactations indicating that it may be an abortion, however until we can confirm whether Gaimen is babysitting or not, it is unclear as to the outcome of her pregnancy.
- At the end of March, it was believed there may have been two pups sighted from Sigma's (VLF230) litter, however it was then determined this was a dyeing error and there was only one - Tyrion (VLP262). Unfortunately, after they had begun to forage with the group they were not seen since and has been given their last seen.
- Lazuli had a brief inter-group interaction with Ubuntu this month. While there was no observer at Lazuli during the interaction, the observer with Ubuntu recorded Lazuli as retreating away from Ubuntu.
- The group is in good health.

(Little) Creatures:

- One of the wild individuals was successfully dyed this month (VCRF013). As she is the only adult female of the group seen currently, it was determined that she is the dominant female. The other 5 dyed members of the group are all present along with one other wild individual that appears to be an adult male.
- All individuals look to be in good health.

Make-e-Plan:

- Make-e-Plan currently has 13 of its 14 members present. Bigwig (VMPF022) left this month, the reason is unclear, and she was still not present with the group at the end of the month.
- Bigwig appeared at the group 3 times during April. There was also an encounter with an unknown meerkat during the month, it is believed this may have been Bigwig however the meerkat was not able to be identified by the observer.



- While one of the subordinate females, Scylla (VMPF025), aborted her pregnancy this month, the dominant female, Bridget (VQLF011) gave birth at the end of April. Babysitters were left and lactations were seen the following day, and so it is looking like it may be a successful birth.
- Vivienne (VMPF038) has fully recovered from her facial injury of last month, and the group appears to be of good health.

Namaqua:

- All 11 individuals are present at the group and have not had any movements throughout the month.
- Unfortunately for Skirmish (VNQF009), one of our subordinate pregnancies from last month, she was unsuccessful, and she aborted at the beginning of April.
- The dominant female, Heatherleigh (VQLF018), gave birth this month. Both herself and Skirmish are lactating with regular babysitters being left at their burrow.
- The group looks healthy.

Tswana:

- This month, Tswana became a fully dyed group of 15 individuals, thanks to observers successfully dyeing the remaining wild yearling male (VTSM018) and sub-adult male (VTSM019). All were present at the end of the month.
- Two of the pups from the latest litter, VTSM012 and VTSM013, were given their last seen this month, leaving the group with the remaining 4 pups.
- The group remains to look in good health.

Zulus:

- The group has increased greatly in size this month, and 14 of the 15 individuals were present with the group at the end of the month.
- Pixie (VWM210), one of the subordinate males, left the group this month and was still absent at the end of the month. During his time absent from the group, he has appeared three times, usually with dominant male Scuzi (VWM213) asserting his dominance over Pixie who would submit and retreat away from the group again in response.
- The four pups seen at the end of March that are likely to be from either Lil G (VZUF049) or Lentil's (VZUF032) subordinate pregnancies, all fully emerged and have been successfully foraging with the group during April.
- Further from this, Timon (VZUF049), a subordinate female who gave birth at the end of March, has had her pups emerge this month. There were 5 pups seen in total, however two of these (VZUP055 and VZUP058) were no longer seen after several sessions where the other three successfully foraged with the group and moved sleeping burrows several times, they have been assumed predated.
- Spruddel (VZUF028), the dominant female, was officially recorded as being pregnant towards the start of the month, however shortly afterwards was seen looking much slimmer in appearance

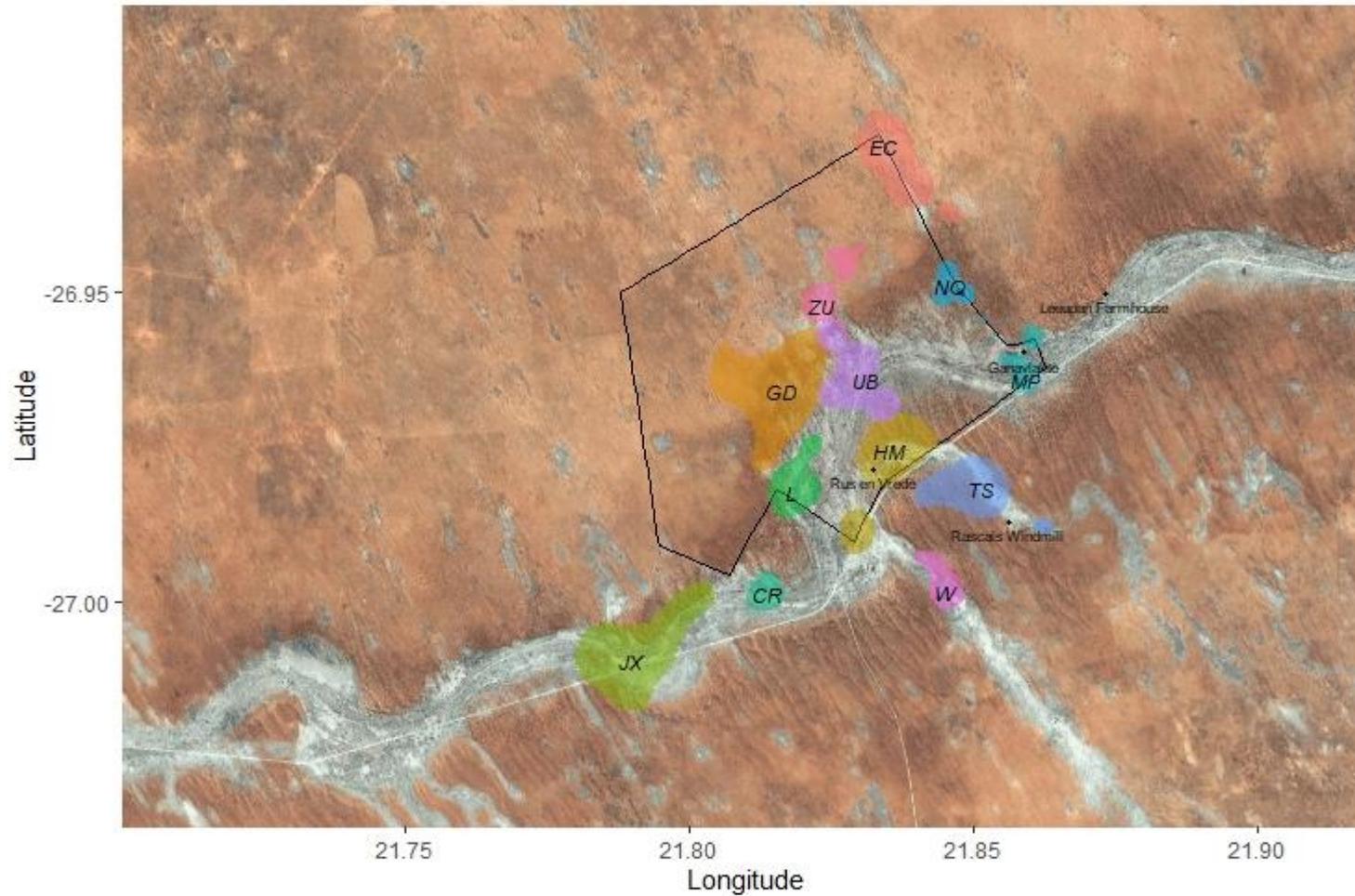
and assumed that she had aborted this pregnancy with no further babysitting recorded once Timon's litter had begun foraging with the group.

- Zulus had one inter-group interaction with Ubuntu this month. There was war-dancing and chasing seen from both groups, with Zulus eventually retreating away from Ubuntu. During this interaction, two of the Ubuntu individuals, Shrew (VUBM018) and The Native (VUBF020) also encountered Zulus on their own where they were chased away.
- The group also encountered an unknown meerkat towards the beginning of the month, but there was no further interaction other than them seeing the individual that watched them closely.
- All group members are healthy.

The following authors contributed to this report:

Zoe Turner, Life History.

Group Territories April 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.