



The Meerkatter

The Friends of the Kalahari Meerkat Project Report - www.kalahari-meerkats.com - February 2021

Abortions and Infanticide	1-2	Weather at the KMP.....	3
Mystery Month	2-3	Life History Details.....	3-6
Pregnancies in February	3		

Abortions and Infanticide

After the high number of pregnancies seen last month, the observers at the KMP thought surely there were not enough females in the population to beat that number. Boy, were they wrong! This month the project had an amazing 24 pregnant females, higher than the 21 pregnant females observed last month. However, this does not necessarily mean that all these litters will survive.

On the 24th subordinate sub-adult female Millewa (VMPP048) of Make-e-plan woke up looking rather round. She had just been noted to be officially pregnant that morning. However, this pregnancy status was short lived as one lucky observer witnessed her aborting soon after waking up. She aborted one foetus, though it is possible she may have aborted more in the sleeping burrow before emerging. Millewa began consuming the foetus, but before she was able to finish a hungry pup (VMPP055) came by. Seeing this adult seeming to be enjoying a tasty meal, the pup did as pups do and begged for a bite. The hungry pup stole the foetus and ate the remainder of it. It is uncertain why Millewa aborted her litter. However, with Make-e-plan currently having seven hungry pups to feed the strain of adding more mouths to that number means that it would have been unlikely that this new litter would have been tolerated by the dominant female Bridget (VQLF011) and survived.



Four-week-old Make-e-plan pup (VMPP055) and subordinate sub-adult Millewa (VMPP048) were witness eating a foetus that Millewa had recently aborted. Photo Credit: PhD Student Isabel Driscoll.

A case of infanticide was also witnessed this month, this time at the habituation group, Gold Diggers. Yearling subordinate female Meghan (VGDF018) presumably gave birth in the evening of the 27th as she was still pregnant that morning. On the 28th an observer saw another subordinate yearling female, Goldeneye (VGDF007), bring a newborn pup to the surface and predate it. This pup was notably more developed than the one from Make-e-plan and it is most likely that Meghan gave birth rather than aborted. In this case it was not the subordinate female that the pup was born to that ate it, but rather another subordinate female within the group, Goldeneye. At the time Goldeneye was pregnant herself, and this infanticide may have been her way of increasing the survival of her own litter.



Subordinate yearling female Goldeneye (VGDF007) eating subordinate yearling female Meghan's (VGDF018) newborn pup. Infanticide is often used by other pregnant females within a group to try and increase the chance of survival of their own litter. Photo Credit: Meerkat volunteer Rebecca Schober.

Meerkats are considered a high-skew vertebrate society as the dominant female is responsible for the over 80% of reproduction within the group. However, subordinate females are known to get pregnant and give birth to litters. One way for the dominant female to control the number of litters born to subordinates



is through eviction and infanticide. Subordinate females are also known to use infanticide to increase the survival of their own litters when other subordinate females are also pregnant. In fact, a study published in 2006 showed that the chance of survival of a litter born to any female within a group is halved within the first four days if there are other pregnant females within that group of any rank.

Of the 24 pregnancies this month, 18 females were subordinates and 5 were known dominants (one litter was born to Trackie-Daks where the dominant female is still unknown). Of these subordinate pregnancies, six females are still pregnant, four litters were lost before emergence, two litters have not yet emerged, three litters have emerged but their parentage is unknown, and three litters were aborted. We will have to wait and see the outcome of the unborn litters next month. For now, it is not difficult to say, that life as a pregnant female meerkat in the Kalahari is anything but certain.

Mystery Month

The morning of the 11th started out like any other normal day. One observer sat near the burrow of Namaqua waiting for the meerkats to emerge. The group got up as normal carrying out morning behaviours such as burrow renovation and sunning. Soon another meerkat emerged from the burrow, one who was definitely not from Namaqua. Sub-adult subordinate female Calypso (VECF027) from Elrond's Council had unexpectedly emerged from the same burrow system as Namaqua. The group, not happy with this unwelcomed sleep-over, war danced toward Calypso who quickly retreated. Calypso returned to her own group and was observed acting as part of Elrond's Council when the group was next seen on the 14th.



Namaqua getting ready to chase off any unwelcomed visitors. Photo credit: Life History Coordinator Shaz Alderton.

Intergroup aggression is common in meerkats who are highly territorial. These interactions can influence territory size which can in turn affect the success of a group. Namaqua was particularly vulnerable at this time as the dominant female Skirmish (VBBF009) had recently given birth at the end of last month. Three pups just had their first emerge two days earlier on the 9th. After this encounter with Calypso, the litter was left alone the following day as the rest

of the group went to forage. This continued to happen for six consecutive sessions and the females within the group stopped showing signs of lactation. Due to this, the litter had to be considered lost. We may not know how Calypso ended up in Namaqua's burrow or what happened to Namaqua's pups. Elrond's Council and Namaqua had been sleeping in burrow systems that were 700m apart and Elrond's was foraging only 500m from and moving in the direction of Namaqua's burrow on the 10th, the day before the encounter. Perhaps an unknown inter-group encounter had occurred, or perhaps Calypso was just separated from her group and coincidentally went down the same burrow as Namaqua. Unfortunately, there are some things we may never know.

This was not the only mysterious event involving Elrond's Council that happened this month. On the 18th during the morning burrow renovation, an unknown newly born dead pup was excavated. The observers believed it to be recently deceased as rigor mortis had not yet set in. None of the females were pregnant at Elrond's Council and the observers were unsure where this pup had come from. Two subordinate females, adult Pippin (VECF003) and yearling Galadriel (VECF032) had been absent from the group from the beginning of the month. On this day they were both seen at Elrond's. Pippin had woken up with the group and was considered to have returned as she left to forage with the group. However, she was often attacked as some individuals did not seem to be pleased with her return. Galadriel, on the other hand, was lingering around the edge of the group. In the evening she tried to join the group but was attacked by dominant female Tayl Baez (VECF117) and her attempt was unsuccessful. It was speculated that perhaps one of these females had returned and given birth, but this could not be confirmed.

Unlike the situation at Namaqua, this mystery may yet be solved. The body of the pup was collected and stored. DNA samples are taken from the majority of the meerkats within the population as well as from body samples of unknown meerkats when found. Genetic analysis is performed to determine the parentage of these individuals and can indicate whether they were born to individuals within or outside of our current population. Perhaps in time we may find out who gave birth to this pup and solve at least one of these mysteries.

Another exciting event occurred at the KMP this month, this time not having anything to do with the meerkats and their antics. The Kuruman River began to flow. The river last flowed in 1995. However, the last time the river was this high and flowed this significantly was in 1975. The KMP was split in half as the river flowed right through the reserve. Despite this new obstacle, all at the KMP know the show must go on and data must still be collected! So, before the water had reached the reserve, the observers all worked together to move half of the researchers and equipment to the Gannavlake farmhouse on one side of the riverbed while the rest remained at Rus en Vrede. This allowed the observers to carry on the research at groups on both sides of the river for the



two and a half weeks the river continued to flow. Now the river has dried up with only a few puddles remaining, all the researchers have been reunited at Rus en Vrede once again. It just shows how quickly things can change, and go back to normal, out here in the Kalahari.

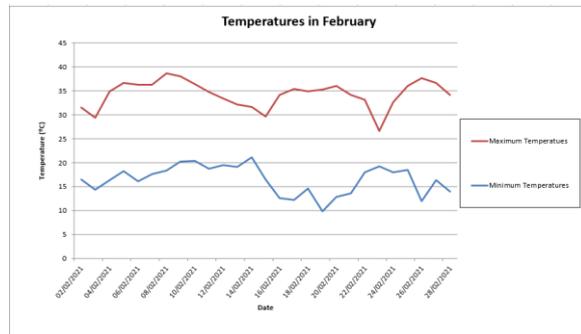


The Kuruman River flowing. The last time it was this high and flowed this significantly was in 1975. Photo Credit: Life History Coordinator Trainee Sian Seymour.

Pregnancies in February 2021

Females pregnant in February	24
Females who aborted	4
Females who gave birth, litters lost	4
Females who gave birth, litter emerged	5
Females who gave birth, unknown outcome	4
Females still pregnant at the end of the month	7

Weather at the KMP



Weather conditions have fluctuated this month with a maximum temperature of 38.7°C on the 8th and a minimum temperature of 9.9°C recorded on the 19th. The total rainfall was approximately 26.8mls.

February 2021 Life History Details

Elrond's Council:

- There were 21 out of 22 individuals present at the end of the month with adult female Pippin (VECF003) absent.
- Yearling subordinate male Legolas (VECM009) who emigrated last month is now considered last seen.
- Sub-adult subordinate female Calypso (VECF027) had left Elrond's Council and was seen encountering Namaqua on the 11th. She had returned to the group on the 14th. Sub-adult subordinate male Pucky (VECM023) did not wake up with the group on the 15th but was seen returning later that day. Pippin emerged with the group on the morning of the 18th. She left the group the 20th.
- There was an individual encounter with an unknown female on the morning of the 18th. The group had an encounter with yearling subordinate female Galadriel (VECF0032) that evening. A daily group split occurred on the morning of the 22nd.
- Habituation is now considered fully complete as the wild female Galadriel has left the group. All the remaining individuals are fully habituated.
- All individuals appear to be healthy.

Gold Diggers:

- 16 out of 17 marked individuals were present at the end of the month with yearling subordinate female Melania (VGDF012) absent.
- Yearling subordinate females Goldeneye (VGDF007) and Fleabag (VGDF005) were confirmed pregnant this month. Dominant female Cleo (VGDF013) was assumed to have aborted due to weight loss and no lactation. Yearling subordinate female Meghan (VGDF018) gave birth on the 27th. The litter has been considered lost after Goldeneye was witnessed predated one pup (VGDU024) that same morning.
- Melania left the group on the 13th and has not returned. Dominant female Cleo was unable to be identified for over six sessions due to faded marks and was given a leave line on the 18th. She was identified by a senior observer and considered returned on the 20th.
- There were no individual encounters, group splits or inter-group-interactions observed this month.
- Gold Diggers' habituation level is in Advanced Progress as the group are all marked. Follows have been more successful than last month with observers able to follow the groups for up to 3 hours.
- All individuals appear to be healthy.

Hakuna Matata:

- There were 19 out of 20 individuals present by the end of the month with yearling subordinate male Akida (VHMM041) absent.
- There were 5 pups present at the end of February. All had their first move and first forage on the 8th.



- Subordinate adult female Munchkin (VHMF019) gave birth on the 2nd but the litter was abandoned on the 8th.
- Subordinate adult male Luther (VLM245) left the group by the 18th and was seen returning the morning of the 19th. Akida left the group twice this month but only returned once and is still absent from the group. Subordinate juvenile female Lord Havelock (VHMF049) was not seen during the beginning of the afternoon session on the 27th but was seen acting as part of the group later that same session.
- There were no group splits, individual encounters or inter-group-interactions observed this month.
- All individuals appear healthy.

Jaxx:

- The group's total number increased to 21 with the addition of four more pups confirmed and marked. This brings the litter to six pups born last month to dominant female Baloo (VJXF080). All members were present by the end of the month.
- Six pups had their first forage and move on the 3rd.
- Juvenile female Tuna Fish (VJXF145) was not seen at the start of the afternoon session on the 17th but had returned later that evening. Subordinate yearling male Rincewind (VJXM131) had left the group by the 25th but woke up with the group on the morning of the 28th.
- A daily group split occurred on the 6th. No individual encounters or inter-group-interactions were observed this month.
- All individuals seem to be in good health.

Lazuli:

- There were 10 out of 11 individuals present at the end of the month with subordinate yearling male Caramel Iced Latte (VLM257) absent at the end of the month.
- Dominant female Sigma (VLF230) was last seen pregnant on the 16th and had given birth by the 18th. Subordinate adult female Haopia (VLF244) was last seen pregnant last month and had been absent from the group. She was witnessed encountering the group on the 23rd looking slimmer and not lactating and was assumed to have aborted. She was not accepted and was chased off. Subordinate adult female Lennon (VLF246) was last seen pregnant last month and was absent from the group until the 23rd when she had returned looking slimmer and not lactating. She was assumed to have aborted.
- Haopia returned to the group on the 25th. Her return was considered an immigration as she was absent from the group for a month. Subordinate yearling male Captain Barbosa (VLM265) had left the group by the 2nd and woke up with the group on the 4th. Subordinate yearling male Slop (VLM253) left the group on the evening of the 16th and was witnessed returning that same evening. Caramel Iced Latte was given a leave line on the 22nd after not being seen for six sessions during ongoing babysitting. He had not returned by the end of the month

- There were no other individual encounters, inter-group-interactions or group splits this month.
- Lazuli's habituation level is Incomplete as habituation of Captain Barbosa and the dominant male Odin (VLM266) is ongoing. The males can be followed and weighed but are still uncomfortable with observers approaching within 1-5m when they are foraging.
- All individuals in Lazuli seem to be healthy.

Make-e-Plan:

- The group's total number increased to 23 this month with the addition of seven confirmed and marked pups born to dominant female Bridget (VQLF011) last month. All members were present by the end of the month.
- Seven pups had their first emerge from the 13th. All seven pups had their first forage on the 22nd and their first move on the 23rd.
- Subordinate sub-adult female Millewa (VMPP048) was confirmed pregnant on the morning of the 24th but was witnessed aborting the litter later that morning. One foetus was witnessed being eaten by Millewa and a pup (VMPP055).
- There were no group movements, individual encounters, inter-group-interactions or group splits observed at Make-e-plan this month.
- All individuals appear to be in good health.

Namaqua:

- All 8 individuals were present at the end of the month.
- Subordinate yearling females Manzaï (VNQF013) and Mononoke Hime (VNQF014) did not return to Namaqua this month and have been considered Last Seen.
- Subordinate sub-adult female Chandler (VNQF017) was pregnant by the end of the month.
- Three pups born to dominant female Skirmish (VNQF009) emerged for the first time on the 8th. They were not seen again after this day and were assumed predated.
- On the 24th two unknown females emerged at Namaqua's burrow but were not accepted into the group. Both individuals were given marks but were not seen again.
- Elrond's Council's subordinate sub-adult female Calypso (VECF027) emerged at Namaqua's burrow on the 11th. She was chased off by the group.
- There were no other individual encounters, inter-group-interactions, or group splits in February.
- All individuals seem to be healthy.

Phoenix

- The only identifiable individual, the radio collared yearling female Pinky (VPHF001), was present at the end of the month along with at least 12 unmarked individuals.
- Five pups, born to an unmarked female, had emerged by the 9th, had their first move on the 12th and their first forage on the 17th. None of the pups have been marked.



- No other events were witnessed.
- The group's habituation status is still In Progress. Observers have been able to get up to 1m from certain individuals in the group. On most days' observers are tolerated at 5-10m.
- All individuals in Phoenix appear to be healthy.

Runaways (formerly known as Fake-e-plan):

- There were 12 individuals present at the end of the month following the addition of mixed litters born to all four mature females in the group.
- Dominant female Bigwig (VMPF022) was the first to give birth on the 3rd or 4th of February. Subordinate yearling females Cirilla (VMPF026) and Hope (VMPF029), who were absent at the end of January, returned to the group by the 6th. Both had given birth and were lactating. Subordinate yearling female Scylla (VMPF025) was the last to give birth on the 6th.
- Six pups emerged on the 24th and have been marked.
- There were no inter-group-interactions, encounters and group splits at Runaways this month.
- All individuals appear to be in good health.

Trackie-Daks (formerly Tswana2):

- The subgroup Tswana2 are now considered a fully established group and have been renamed Trackie-Daks.
- There were 13 marked individuals present at the end of the month and one unmarked yearling female.
- The position of dominant male and dominant female is unknown.
- An unmarked yearling female gave birth at the beginning of the month. Four pups emerged on the 22nd and have been marked.
- No other events were observed at Trackie-Daks in February.
- All individuals appear to be healthy.

Whiskers:

- All 14 individuals were present at the end of the month.
- The emigrated subordinate yearling males Beowolf (VWM225) and A Molerat (VWM232) have not returned to Whiskers. They have been considered Last Seen.
- All mature females in Whiskers were pregnant this month. Subordinate yearling female Laika (VWF236) gave birth on the 16th. One pup, VWU246, was brought to the surface and eaten by subordinate yearling female Bel-Hurricane (VWF231). Observers assumed the entire litter was lost. Bel-Hurricane gave birth two days later. Her litter was abandoned before emergence. Dominant female Swift (VWF176) and subordinate yearling females Luna (VWF235), Fly (VWF237) and Hachi (VWF238) were still pregnant at the end of the month.
- There were no inter-group-interactions, individual encounters or group splits in February.
- All individuals in Whiskers appear to be healthy.

Ubuntu:

- There were 14 individuals present by the end of February.
- Dominant female Daisy (VBBF111) and yearling subordinate females Magali (VUBF023) and Mameuf (VUBF026) all gave birth.
- There were no individual encounters, inter-group encounters or group splits at Ubuntu in January.
- All individuals seem to be healthy.

Zulus:

- All 13 individuals were present at the end of the month.
- The three pups, Spoekies (VZUF062), Willow (VZUM063) and Tazara (VZUM064), born to dominant female Spurddel (VZUF028) last month, foraged with the group for the first time.
- Sub-adult subordinate male Zuma (VZUM059) did not emerge with the group on the 2nd but was back with Zulus the following day.
- There were no events at Zulus this month.
- All individuals have recovered from the extensive sour-grass-related injuries reported last month. The group appears healthy.

The following authors contributed to this report:

Shaz Alderton, Life History Coordinator
Sian Seymour, Life History Coordinator Trainee