



The Meerkatter

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

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It's Raining Meerkats

2021 has begun with great abundance and challenges of all forms, thanks to the January rains. The Kuruman River Reserve has experienced a total of 229.4 mm of rain since the start of the breeding season in September 2020. This is substantially larger than the 52.7 mm of rain recorded for the same period of the previous year. An increase in rain has resulted in an increase in food. The meerkats have been eating well, with a large range of appetizing insects, reptiles and even small gerbils making up the menu. January has also been the month of pups, with 21 pregnancies having been declared - over double the amount recorded during the same month of last year. A study from 1999 showed that the number of emerging litters is closely linked to rainfall, potentially explaining the large increase in pregnancies observed this breeding season so far. Six females gave birth this month adding a known number of fifteen new pups to the population. Dominant Jaxx female Baloo's (VJXF080) first litter of the year is suspected to be the largest so far, with six pups having been sighted although only two have been marked. Things are not slowing down with more pups expected to be born in the coming months as the breeding season extends on until April.



A sour grass covered dune next to the Zulus birthing burrow. Photo Credit: Trainee Life History Coordinator Sian Seymour.

The meerkat population is not the only thing that has been growing in January. With all of the rain, the reserve has been overtaken by sour grass, turning the usually dry Kalahari Desert into a scene more

resemblant of a grassland. These fields of over one-meter-high grass have brought with them new challenges, both to the meerkats and the observers. There has been a notable increase in the number of injuries recorded amongst the groups, potentially caused by the acidity of this sour grass. These injuries have ranged from open wounds on the tips of ears, raw and swollen eyes, snout wounds and large wounds on the cheeks. The worst hit groups have been Elrond's Council and Zulus. Both the dominant male and female of Zulus, Scuzi (VWM213) and Spruddel (VZUF028), have been looking worst for wear having had various degrees of most of the injuries over the past month. This thick tall grass has also made data collection more challenging. Alarm calls can have meerkats disappearing within seconds, while still only being a few meters away. Observers are being kept busy having to cover more of a group's foraging area to ensure they keep track of all the meerkats. Luckily for them, the boom in pups means there is a symphony of begging calls helping them to locate the group.



Zulus dominant male Scuzi (VWM213) has had some of the worst injuries caused by the sour grass. Photo Credit: Trainee Life History Coordinator Sian Seymour.

Usually, it is only the dominant male and female who mate successfully within the group; however, this month we have seen a notable rise in the number of pregnant subordinate females. This could be a result of the increase in food availability brought on by the rain. The current optimal conditions could mean there is less competition between litters resulting in fewer evictions and abortions. An increase in roving males

is often witnessed during the breeding season, and this has been true for January. The most frequent rovers of the month were yearling subordinate Lazuli males, Slop (VLM253) and Captain Barbosa (VLM265), who both left and returned to their home group four times. Captain Barbosa was seen lurking around Ubuntu; however, luckily for him he was not spotted by the group as he most likely would have been chased off.

While the aftermath of these roving males' antics is often seen at the KMP, witnessing the act of mating itself is a rare occurrence. This month, an extremely fortunate observer did just that. Evicted subordinate Phoenix female, Pinky (VPHF001), and roving yearling subordinate Gold Diggers male, James (Sawyer) (VGDM011) were caught in the act. After a short courtship, Pinky and James (Sawyer) were observed mating and were even witnessed grooming each other afterwards. Mating events between meerkats in general are quite rare to witness, and the fact that this one was between individuals from habituation groups makes the sighting just that much more special.



Evicted subordinate female Pinky (VPHF001), and roving yearling subordinate Gold Diggers male, James (Sawyer) (VGDM011) caught in the rarely witnessed act of mating. Photo Credit: Life History Coordinator Shaz Alderton.

Being Bigwig

The Make-e-plan subgroup Fake-e-plan, formed in October 2020, are now recognised as a fully established group. As a result, they have earned themselves their own official name: Runaways. The eldest female Bigwig (VMPF022) has been confirmed dominant after receiving submissions from the other females and repeatedly displaying dominant behaviour towards all other individuals.

It seems Bigwig's establishment as the dominant female came too little too late as all four females in Runaways, which includes Bigwig, Scylla (VMPF025), Cirilla (VMPF026) and Hope (VMPF029), were pregnant by the end of the month. Typically, the dominant female will try to prevent subordinate females from breeding through direct aggression. However, as there was no clear dominant female in Runaways for an extended period and with access to unrelated males, the females in the group all had opportunities to breed. Two of the pregnant subordinate females, Cirilla and Hope, were absent and unable to return to the group

from the 22nd onwards. It is assumed they were evicted by Bigwig. This left the group with four individuals at the end of the month: Bigwig, Scylla, dominant male Shiraz (VJXM122) and subordinate male Grigio (VWM126). With so few adults present in Runaways to babysit and provide food, it would be extremely unlikely for two litters to survive. Should Bigwig fail to evict Scylla, observers expect to see infanticide. Killing another individual's litter is typical for pregnant females of any status, to ensure resources go towards their own offspring. Both Bigwig and Scylla were confirmed to be pregnant around the same time so it is unclear who will give birth first.



Runaways dominant male Shiraz (VJXM122) and radio-collared dominant female Bigwig (VMPF022). Photo Credit: Life History Coordinator Shaz Alderton.

While tensions have been high between the females, there has been no aggression on the males' side. Shiraz was confirmed dominant in December after the disappearance of his litter-mate Merlot (VJXM121) and following received submissions from Grigio. The three males had competed aggressively for dominance following their immigration into Runaways in mid-November. Competition was particularly fierce between Merlot and Shiraz. Merlot failed to emerge with the group one morning, even though he had been seen going below with them the previous night. Both Shiraz and Grigio had fresh facial wounds on the morning Merlot did not emerge, leading observers to assume that the fighting had escalated overnight and potentially resulted in Merlot's death. A body was never recovered to confirm the suspicions.

The morning of Merlot's disappearance there was a change in Bigwig: she became aggressive to the two remaining males and has remained so ever since. Shiraz and Grigio never retaliate whenever Bigwig charges, chins, hip-slams or bites them. The males respond either by ignoring her, submitting, or chattering. Such repeated aggressiveness towards individuals of the opposite sex is unusual in dominant females. Female meerkats undergo hormonal changes after attaining dominant status, resulting in

increased aggression and potentially morphological modifications (including an increase in body length and skull width!). Observers theorize that Bigwig's behaviour to Shiraz and Grigio may be due to her establishing dominance around the time of Merlot's disappearance and that her dominant status was simply confirmed late.



The heavily pregnant Runaways subordinate female Scylla (VMPPF025). Photo Credit: Meerkat volunteer Tara Naeser.

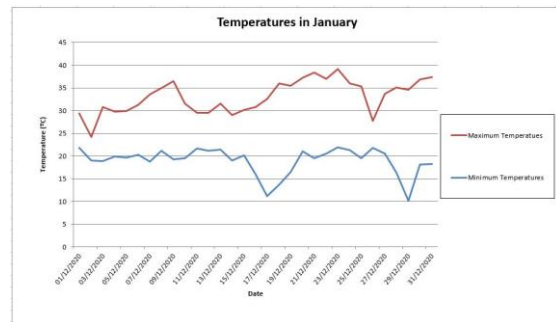
Alternatively, it is possible that Bigwig preferred Merlot as her mate and her aggression to the other males is a means of rejecting them. An analysis project in 2009 found evidence that dominant females may be selective about their mates. In the presence of more than one unrelated male in the group, dominant females were more likely to reject or delay sexual advances even from the dominant male. This suggests that females assess males before selecting who to mate with, as has been described in many other species. However, dominant female meerkats attacking unrelated males in the group over such a long period has not been previously reported. Bigwig's attitude to Shiraz and Grigio is being termed by the research assistants as simply "being Bigwig".

Runaways appears to have finally established their own territory more than 8km from their ancestor group's range. The territory is on a neighbouring farm and consists entirely of dunes, making for an extensive trek for observers. The group has occupied the same burrow for more than half of the month. It seems likely that the females will give birth there. We are all waiting to see which female's litter - if any - will survive.

Pregnancies in January 2021

Females pregnant in January	21
Females who aborted	0
Females who gave birth, litters lost	0
Females who gave birth, litter emerged	3
Females who gave birth, unknown outcome	3
Females still pregnant at the end of the month	15

Weather at the KMP



Weather conditions have fluctuated this month with the highest temperature of 39.1°C recorded on the 23rd. The coldest temperature was 10.2°C on 29th. The total rainfall was approximately 70.4mls.

January 2021 Life History Details

Elrond's Council:

- There were 21 out of 23 individuals present at the end of the month with adult female Pippin (VECF003) and yearling female Galadriel (VECF032) absent.
- Yearling subordinate male Legolas (VECM009) was still absent from the group this month and has therefore been considered emigrated.
- Pippin, Galadriel, and sub-adult female Tolkien (VECF019) did not emerge with the group on the 8th. Tolkien woke up with the group the following morning. Pippin and Galadriel did not return. Pippin appeared on the 12th but has not been seen since. Subordinate adult male Umfana (VZUM034) left and returned to Elrond's Council on two occasions. Subordinate adult male Langa (VZUM033) was seen leaving on the 21st. He had returned by the 23rd.
- There were no inter-group-interactions, group splits or individual encounters in January.
- Habituation Level is still considered Incomplete as the yearling subordinate female Galadriel needs further progress. She was absent for the majority of this month therefore no further progress has been made.
- All individuals appear to be healthy.

Gold Diggers:

- All 17 marked individuals were present at the end of the month.
- Adult female Cleo (VGDF013) has been confirmed to be dominant after receiving submissions from most other females in the group. By the end of the month Cleo was pregnant.
- Sub-adult subordinate yearling male James (Sawyer) (VGDM011) left Gold Diggers sometime early in the month. He was seen mating with Phoenix evicted female Pinky (VPHF001) on the 8th. They were still together the following morning. By the 11th James (Sawyer) was back with Gold Diggers.
- Subordinate adult female Melania (VGDF012) was thought to have left the group in mid-



January after she was not seen for over six sessions. She emerged and was acting as part of the group on the 23rd. However, observers noted that the sour-grass has greatly impeded group compositions and that Melania may have been present the entire time, just unnoticed.

- 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 not been as successful as previous months due to the sour-grass, with most sessions lasting up to 1 hour.
- All individuals appear to be healthy.

Hakuna Matata:

- The group's total number of individuals increased from 15 to 20 this month with the addition of five pups born to dominant female Flint (VHMF001). All 20 individuals were present at the end of the month.
- Flint gave birth sometime between the 6th and 8th. Five pups emerged for the first time on the 27th.
- Subordinate adult female Munchkin (VHMF019), who was evicted and absent last month, was pregnant at the end of January. On the 5th she appeared at the group's burrow was attacked and chased off. On the 14th she was accepted back into the group.
- Subordinate yearling female Sencha (VHMF030), who was evicted last month, appeared on the edge of the group twice. On one occasion she was attacked and chased off. By the 9th she was accepted back into Hakuna Matata.
- There were no group splits or inter-group-interactions observed this month.
- All individuals appear healthy.

Jaxx:

- The group's total number increased to 17 this month with the addition of at least two pups born to dominant female Baloo (VJXF080).
- Baloo gave birth sometime between 7-8th. She emerged on the 8th slightly slimmer and lactating. After a short period of foraging, she returned to the burrow for over 40 minutes and re-emerged noticeably slimmer. Observers noted that Baloo may have experienced a partial birth overnight.
- Five pups emerged for the first time on the 24th. Only two have been marked.
- The female pup Radish (VJXF147) from Baloo's previous litter was assumed predated.
- Eldest subordinate female Eléa (VJXF129) had returned to Jaxx by the 12th after being evicted and absent last month.
- Juvenile females Tuna Fish (VJXF145) and Footprints (VJXF148) were absent from Jaxx on the 5th. They both appeared the next morning emerging at a different burrow and were accepted back into the group.
- Sub-adult females Enya (VJXF141) and Amanda Leigh Rose James (VJXF143) did not emerge with the group on separate occasions.

Amanda Leigh Rose James was observed being accepted back into Jaxx on the 9th. Enya was found acting as part of the group again on the 12th. Salamander (VJXF135), who was absent last month, appeared on the 12th and was accepted back into the group by the 13th.

- On the 7th Jaxx encountered one unknown individual. An hour later three unknown individuals were seen and chased off.
- All individuals seem to be in good health.

Lazuli:

- There were 9 out of 11 individuals present at the end of the month with subordinate adult females Haopia (VLF244) and Lennon (VLF246) absent.
- Haopia, Lennon and dominant female Sigma (VLF230) were all pregnant at the end of January.
- Yearling male Squeal (VLM251) has not returned to Lazuli since leaving last month. He is therefore considered emigrated.
- Haopia was evicted on the 24th. Four days later she emerged with the group but left during the morning. Lennon left Lazuli that same morning and returned in the afternoon. On the 29th she was absent from the group and was not seen for the rest of the month. Subordinate yearling male Slop (VLM253) and subordinate adult male Captain Barbosa (VLM265) left and returned to Lazuli four times each.
- 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.

(Little) Creatures:

- The group could not be found this month and have been considered lost for the time being. At least two unmarked individuals were seen on camera trap at a burrow frequently used by Little Creatures around the 15th (camera trap dates not confirmed). It is not confirmed if they were individuals from the group. Efforts to re-locate Creatures are ongoing.

Make-e-Plan:

- All 16 individuals were present at the end of the month.
- Dominant female Bridget (VQLF011) was pregnant and gave birth on the 28th. No pups had been seen or marked by the end of January.
- Subordinate yearling females Arabella (VMPF035) left and returned to the group on two occasions. During her absence she appeared twice, on one of those occasions the group chased her away. Subordinate yearling female Vivienne (VMPF038) left on the 16th and appeared the following day. She was accepted back into the group on the 29th.
- There were no individual encounters, inter-group-interactions or group splits observed at Make-e-plan this month.
- All individuals appear to be in good health.



Namaqua:

- There were 8 out of 10 individuals present at the end of the month with yearling females Manzaï (VNQF013) and Mononoke Hime (VNQF014) absent.
- Dominant female Skirmish (VNQF009) gave birth to an unknown number of pups on the 25th.
- Manzaï woke up with the group on the 2nd after being absent from Namaqua last month. She was seen leaving the group shortly after that same morning. Mononoke Hime was evicted the morning of the 2nd. Manzaï appeared three times and Mononoke Hime appeared once during their absence.
- There were no other individual encounters, inter-group-interactions, or group splits in January.
- No individuals have shown any symptoms of tuberculosis this month. All individuals seem to be healthy.

Phoenix

- The only identified individual, the radio collared yearling female Pinky (VPHF001), had returned to the group by the 23rd after being evicted last month. Pinky was present by the end of the January along with 11 unmarked individuals.
- Prior to her return to the group, Pinky was seen mating with Gold Digger's subordinate male James (Sawyer) (VGDM011).
- An unmarked female appeared to have given birth by the 29th after 2 unmarked females showed signs of lactation.
- No other events were witnessed.
- All individuals in Phoenix appear to be healthy.

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

- There were 4 out of 6 individuals present at the end of the month with subordinate yearling females Cirilla (VMPF026) and Hope (VMPF029) absent.
- Adult female Bigwig (VMPF022) was confirmed dominant at the start of the month after receiving submissions from all other females.
- Bigwig, yearling subordinate female Scylla (VMPF025), Cirilla and Hope were all pregnant at the end of the month.
- The adult male Merlot (VJXM121) and the emigrated yearling males Kratos (VMPM024) and Mushu (VMPM028) have been absent for more than two months. They are therefore considered Last Seen.
- Cirilla and Hope did not emerge with the group on the 22nd. Hope was seen alone by an observer on the 28th.
- Runaways had encounters with unknown individuals on the 16th, 23rd and 26th. On one of those occasions two unknown individuals were seen together. The unidentified meerkats were chased off on each occasion.
- All individuals appear to be in good health.

Tswana / Tswana2:

- There were 9 individuals present at Tswana2 by the end of the month along with 2 unmarked females. The original Tswana group, which consisted of dominant female Britney

(VTSF009) and subordinate females Ocytocine (VTSF003) and Endorphine (VTSF005), has been declared lost.

- The position of dominant male and dominant female in Tswana2 is still unknown.
- Tswana2's habituation level changed from Advanced Progress to In Progress due to the presence of still 2 unmarked individuals. The group cannot yet be followed.
- No other events have been observed at Tswana2 this month.
- All individuals appear to be healthy.

Ubuntu:

- There were 14 individuals present by the end of January
- Dominant female Daisy (VBBF111) and yearling subordinate females Magali (VUBF023) and Mameuf (VUBF026) were all pregnant by the end of the month.
- Yearling subordinate males Rupert Holmes (VUBM024) and Michel (VUBM025) have been considered emigrated as they have both been absent for over a month.
- Sub-adult male Rowdy (VUBM032) left the group during the day of the 6th and returned to the group that evening.
- There were no individual encounters, inter-group encounters or group splits at Ubuntu in January.
- All individuals seem to be healthy.

Whiskers:

- There were 14 out of 15 individuals present at the end of the month with yearling male Meicko (VWM233) absent.
- Subordinate yearling females Laika (VWF236) and Luna (VWF235), and eldest subordinate yearling female Bel-Hurricane (VWF231) were officially pregnant by the end of the month.
- The emigrated subordinate adult males, Lilac (VWM214) and Matewis (VWM221), still had not returned to Whiskers by the end of the month and are considered Last Seen. Yearling subordinate female Mercy (VWF230) has been Last Seen. An unnamed pup (VWP242) was last seen on the 30th of December and has been assumed predated.
- Eldest subordinate yearling male Beowulf (VWM225) and subordinate yearling male A Molerat (VWM232) have not been seen for over one month and are therefore considered emigrated. Meicko who was absent by the end of last month had returned to the group by the 3rd and left again on the 4th.
- There were no inter-group-interactions, individual encounters or group splits in January.
- All individuals in Whiskers appear to be healthy.

Zulus:

- All 13 individuals were present at the end of the month.
- Dominant female Spruddel (VZUF028) was suspected to have given partial birth on the 7th after being found partially slimmer. Full birth was confirmed on the morning of the 8th after she was seen to be lactating and was noticeably slimmer.



- Three pups have been marked. The pups emerged for the first time on the 22nd and had their first burrow move on the 30th.
- Adult subordinate male Pixie (VWM210) had still not returned this month and has therefore been considered Last Seen. Yearling subordinate females Pumba (VZUF048) and Timon (VZUF049) have not been seen for over a month and have therefore also been considered Last Seen.
- There were no other group movements in January.
- There were no inter-group-interactions, individual encounters or group splits this month.
- All individuals in Zulus seem healthy.

The following authors contributed to this report:

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