



# The Meerkatter

The Friends of the Kalahari Meerkat Project Report - [www.kalahari-meerkats.com](http://www.kalahari-meerkats.com) - April 2024

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## The roving days are over

April has come to an end, the days are getting shorter and shorter and temperatures are slowly plummeting. The landscape at the Kuruman River Reserve (KRR) is gradually turning to yellow and brown tones with the grass drying out and the bushes losing their leaves. With the start of autumn, the roving season for the meerkats has officially ended. Meerkats' roving season starts in September and ends in March. During this time, males usually leave their natal groups for short periods of time, alone or in small coalitions, in search of females from other groups to mate with, otherwise they disperse to immigrate into an existing neighboring group to try to gain a dominance position (1). On the other hand, it is less common for females to voluntarily emigrate, as they are usually evicted by the dominant female. Female rovers will then try to form a new group with roving males (1). During these months groups are therefore busy with individuals recurrently leaving and returning, encounters and exciting inter-group interactions. Here at the Kalahari Meerkat Project (KMP) we try to keep track of all these group movements as they may reveal dominance shifts, formation of new groups as well as disintegration of old ones.

Since the beginning of September to the end of March, we witnessed a total of 382 encounters and 35 inter-group interactions within the entire KMP meerkat population. Some groups have been busier than others. Considering only full data collection groups, groups had on average 35 encounters, with the busiest group, Lazuli, dealing with 80 encounters and the quietest, Brussels Sprout, having a paltry 10 encounters. Gold Diggers with 58 encounters, Zulus with 55 and Ubuntu with 54 experienced quite an eventful roving season. However, Lazuli, with 80 encounters, provided the most exciting stories for observers coming back from field. Indeed, since July 2023 the group was regularly visited by the well renowned roving coalition formed by former Gold Diggers adult subordinate males Beatrice (VGDM014) and then subordinate male Rogelio de la Vega (VGDM015), together with Gold Diggers yearling subordinate male Vegeta (VGDM038) and former Ubuntu yearling subordinate male Subigubi (VUBM050), until they finally immigrated into the group late October, with Rogelio de la Vega taking the place of dominant male.

Lazuli also holds the record for the highest amount of inter-group interactions (IGI) with a total number of

nine IGIs, which is one more than Zulus with eight IGIs, followed by Brussels Sprout with seven IGIs. The neighboring groups Zulus and Brussels Sprout shared five inter-group interactions, where the small-numbered Brussels Sprouts always wisely retreated away from Zulus' threatening wardance.



Encounters can be difficult for the individuals not welcome to the group. Here at Gold Diggers previously evicted adult subordinate females Ricky Baker (VGDF031) and Maya II (VGDF039) were repeatedly attacked by the entire group. Photo credit: Pam Hurkens, Meerkat Manager

With females being evicted and male rovers trying to immigrate into new groups, groups' individual compositions changed during the season. In total there have been 30 immigrations within the entire population including Whiskers' wild individuals. We consider officially immigrated individuals acting as part of the group and who are accepted by the group's members. We define males officially emigrated after one month that they have left their group, while females do not get emigrated unless they are seen a month later and as not part of the group. Groups lost a total of 103 individuals, with 89 officially emigrated out of the group and 14 evicted meerkats. The number of emigrations and immigrations significantly increased with the disintegration of Make-e-Plan and the formation of a new group Nightwatch. Otherwise, the group which lost the highest number of individuals is Jaxx with ten emigrating individuals. For most of the emigrated individuals we do not know their status as we are unable to track them once they leave a group and do not immigrate into a known one. So, we cannot know whether emigrated meerkats survived their roving days and managed to immigrate into a new group or

even form their own. What we do hope, is that they have found a new home for the upcoming challenging dry season, when resources will start to be scarcer.

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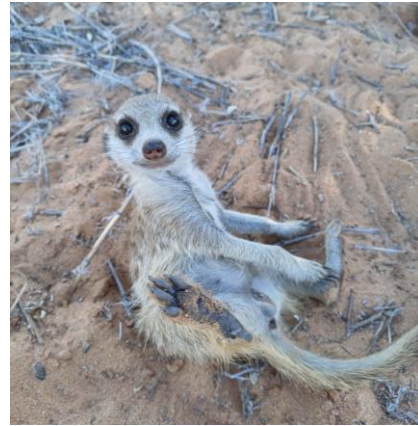
### New snouts at the KMP

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Roving season also means breeding season for meerkats. The rainy season is indeed the perfect time for them to reproduce. With abundant resources and all group members in relatively good shape, dominant pairs will raise their pups with the help of the rest of the group, while subordinate females will try to mate with opportunistic roving males (2). Since the beginning of September, volunteers experienced the unique moments of the first emergence of pups, marking them for the first time and following their incessant begging calls during foraging time. A total of 103 pups emerged this breeding season, but only 62 survived their first three months, corresponding to a pup survival rate of 60%. The pup survival rate, however, hugely varies between groups. Some groups have shown great skills in raising their pups. Other groups struggled a bit more, and some others had even difficulties to carry pregnancies to full term.

The most unsuccessful group this year has been Whiskers: out of ten pregnancies eight litters were lost before emergence and one pregnancy ended in an abortion. The only litter which emerged dates back to September, from previous dominant female Luna's (VWF235) litter, however out of the three marked pups none survived. Vetkoeks as well did not manage to properly raise their pups, as none of the eleven pups from two separate litters who emerged survived past three months, five of which were killed during an inter-group interaction with Ubuntu.

At Jaxx, females had difficulties in carrying the pregnancy to full term but showed remarkably good skills in raising their newborns. Indeed, dominant female Jub Jub (VJXF160), adult subordinate female Baloo (VJXF080) and yearling subordinate females Miss Tick (VJXF173) and Qhawekazi (VJXF180) were pregnant for a combined total of 7 pregnancies: three ended in an abortion, two litters were lost before emergence, and three litters successfully emerged. Once the pups were out, the group managed to successfully raise 6 out of 8 pups, corresponding to a respectful pup survival rate of 75% by the end of March. Gold Diggers' dominant female Goldeneye (VGDF007), on the other hand, was better in carrying pregnancies to full term, as all her three litters emerged, however the group was not particularly good in feeding the pups, as only 6 out of 14 survived by the end of March. The small group Brussels Sprout, out of three pregnancies only one litter of one pup, Hercules (VBSM011), emerged and survived.



The very playful juvenile male Hercules (VBSM011) is the only new snout at Brussels Sprouts. Photo Credit: Santana Schneider, Zurich Master student

The three most successful groups this breeding season, at the other end, have been Lazuli, Alba and Side Quest. In third place there is Lazuli with all three litters emerging and 10 out of 13 pups surviving, despite two litters emerging at the same time, one belonging to dominant female Dumpling (VWF272) and the other to previously evicted adult subordinate female Tuna Fish IV (VWF283). Despite the change of dominance in January after the death of former dominant female Tolkien (VECF019), Alba procured second place. Before disappearing, Tolkien carried to full term two pregnancies. At her first experience, Cleopatra (VALF008) lost her first litter before emergence, but the second litter successfully emerged. The pup survival rate for this group is 80% with 8 out of 10 pups surviving their first three months.

Finally, in first place, as the most successful group, there is Side Quest with three successful pregnancies and 10 out of 12 pups surviving, corresponding to 83% pup survival rate. While in the previous year dominant female Pumba (VZUF048) did not show great nurturing skills, this year she managed to nearly double the size of the group, thanks to the help of her subordinates.



One month old Side Quest's subadult subordinate males Jip (VSIM027) and Pluk (VSIM030) and females Otje (VSIF028) and Floddertjie (VSIF029) in November 2023. Pluk was last seen in March 2024, while Floddertjie disappeared beginning of January 2024. Photo credit: Matilde Montagna, Life History Coordinator.

With the end of March, the breeding season is officially over, however that does not mean that we won't expect new pups emerging in the following months. Already in April three litters emerged at Alba, Side Quest and Ubuntu respectively. Trackie Daks is busy babysitting a new litter, which might emerge in May, while sadly at Jaxx pup Sahara (VJXF195) went missing at the end of April. In wintertime the number of pregnancies will be lower, but we are still looking forward to witnessing the first emergence of new pups and observe them learning about the world for their first time.

### References

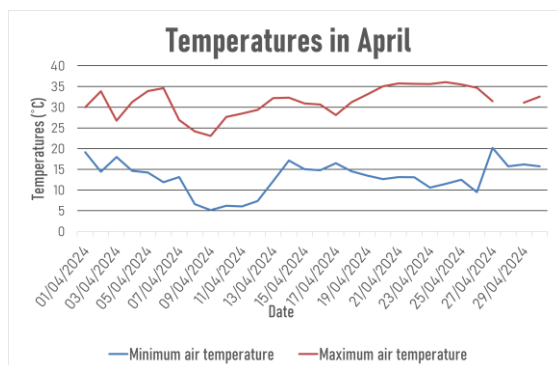
<sup>1</sup> Griffin, A. S., J. M. Pemberton, P. N. M. Brotherton, G. McIlrath, D. Gaynor, R. Kansky, J. O'Riain, et al. 2003. A genetic analysis of breeding success in the cooperative meerkat (*Suricata suricatta*). Behavioral Ecology 14:472–480

<sup>2</sup> Stephens et al, 2005. Dispersal, Eviction, and Conflict in Meerkats (*Suricata suricatta*): An Evolutionarily Stable Strategy Model. The American Naturalist 165(1):120-135

## Pregnancies in April 2024

Females pregnant in April	4
Females who aborted	0
Females who gave birth, litters lost	0
Females who gave birth, litter emerged	3
Females who gave birth, unknown outcome	1
Females still pregnant at the end of the month	0

## Weather at the KMP



The temperature has stayed in the twenties this month. The average minimum temperature was 13°C and the average maximum temperature was 31.4°C. The hottest day was on the 24<sup>th</sup> of April, at 36°C. The coldest day was on the 9<sup>th</sup> and was a mild 5.1°C. The maximum temperature collected on the 28<sup>th</sup> showed an inconsistent, unrealistically high value, reason why we did not include it in the graph. It rained on 2 days this month with a total of 16.4mm of rain this month.

## April 2024 Life History Details

Due to the large number of groups we are covering, we have made some changes to the way we are collecting data at the KMP. There are four different levels of data collection, that we will briefly introduce here.

### Full data collection group (FDC)

We collect LH data at the group and regularly visit the group for full adlib and weights sessions.

### Life History monitoring group (LHM)

Observers tend to visit these groups for shorter amounts of time. We collect LH data and increase our visits when new pups need to be habituated. We do not collect adlib data at these groups but collect morning and evening weights a few times per week.

### Habituation group (HAB)

Habituating meerkats to our presence is the main goal at these groups. As the group's habituation progresses, we start collecting LH and weights data as well. In a later stage, we try to follow the group after morning weights, introduce lunch weights and start approaching the group in the afternoon.

### Sub-group (SUB)

The amount of data we can collect at these groups depends mainly on whether a radio-collared individual is present. If that is the case, we try to collect LH, weights and adlib data, as it is very interesting to witness group dynamics within these newly formed groups. However, we do not always have a radio collar at these groups. In these cases, we focus on collecting LH data during opportunistic sightings.

## Full Data Collection Groups:

### Alba (FDC):

- 14 out of 15 individuals were present at the end of April.
- Dominant female Cleopatra (VALF008) gave birth on the 5<sup>th</sup> to three pups. They have all emerged and started foraging with the group.
- Adult subordinate male Charlie (VECM031) left on the 21<sup>st</sup> and is yet to return.
- There were no groups splits, encounters or inter-group interactions observed this month.
- All individuals appeared healthy at the end of the month.

### Brussels Sprouts (FDC):

- All 5 members of the group were present at the end of the month.
- There were no encounters, group splits or inter-group interactions this month.
- All members of the group appeared to be in good health.

**Elrond's Council (FDC):**

- All 13 members of the group were present at the end of April.
- *Male dominance* remained *unconfirmed* at Elrond's Council.
- There were no encounters, group splits or inter-group interactions this month.
- Adult subordinate female Mojo Jojo (VECF038) officially healed from an injury at the top of her head following a snake bite in January. The rest of the group appears healthy as well.

**Gold Diggers (FDC):**

- All 12 members of the group were present at the end of April.
- Pup Gown (VGDF065) left on the 2<sup>nd</sup> and enough time has passed to give her Last Seen this month.
- Gold Diggers had seven encounters this month. On the 2<sup>nd</sup> the group encountered former Gold Diggers and Nightwatch females; adult subordinate female Ricky Baker (VGDF031) twice and yearling subordinate female Maya II (VGDF039) thrice. On all occasions the majority of the group chinned and fought against both females who showed submission. They were finally chased away by dominant female Goldeneye (VGDF007). The next morning, the group, led by Goldeneye, chased away again Maya II who tried to return twice. On the 12<sup>th</sup> the group encountered Maya II and Ricky Baker again, as well as former Gold Diggers and Nightwatch adult subordinate female Mikasa (VGDF042). All three females were seen sticking around the group and being repeatedly chased away. On the 28<sup>th</sup> the group woke up together with one unknown female and two unknown individuals, who seemed to be accepted by the group who we suspect to be Maya II, Ricky Baker and Mikasa.
- There were no inter-group interactions or group splits this month.
- All members of the group appeared to be in good health.

**Jaxx (FDC):**

- 15 out of 16 individuals were present at Jaxx at the end of April.
- *Male dominance* remained *unconfirmed* at Jaxx.
- Adult subordinate males Stan (VJXM161) and Pretzel (VJXM162) and adult subordinate female Old Greg (VJXM167) were given their Last Seen this month.
- Pup Sahara (VJXF195) went missing on the 23<sup>rd</sup> when she was not found with group. She is yet to return by the end of the month.
- There were no encounters, inter-group interactions or group splits this month.
- All individuals appeared to be in good health.

**Lazuli (FDC):**

- 22 out of 23 individuals were present at the end of April.
- Pup Luna (VLF313) and pup Vincent (VLM312) were given their Last Seen this month after not waking up with the group on the 1<sup>st</sup> and 6<sup>th</sup>, respectively.
- Sub-adult subordinate male Tapiwa (VLM306) did not wake up with the group on the 14<sup>th</sup>, he is yet to return by the end of the month.
- Lazuli had no encounters, group splits or inter-group interactions recorded this month.
- All individuals seemed to be in good health.

**Side Quest (FDC):**

- 18 out of 19 meerkats were present at the end of this month.
- Four pups emerged as part of dominant female Pumba's (VZUF048) litter and started foraging with the group.
- Yearling subordinate male Mackie (VSIM020) has been given his Last Seen this month as well as juvenile subordinate male Pluk (VSIM030) who had been struggling to keep up with the group following a serious injury to his left hindleg.
- Yearling subordinate female Toupie (VSIF019) left the group on the 18<sup>th</sup>. Prior to this, she had sustained a serious injury to her belly and right inner thigh and appeared lethargic. She is yet to return to the group at the end of the month.
- Side Quest had a daily group split on the 27<sup>th</sup>.
- Side Quest had no encounters or inter-group interactions this month.
- Except Toupie, all other members of the group appear in good health.

**Trackie-Daks (FDC):**

- All 9 individuals were present at the end of the month.
- Subordinate female Chinchilla (VTDF029) was made officially pregnant start of April and gave birth on the 24<sup>th</sup> of April. The group has been observed lactating and babysitting, we can therefore assume that the litter has not been lost.
- There were no encounters, inter-group interactions or group splits this month.
- The habituation level is currently *Advanced Progress*. We continue working on dominant male Coquillette (VTSM014) habituation. He can be followed at a distance of 1-2m during follows. He shows interests for water and is occasionally weighed at the burrow.
- All individuals appeared to be healthy.

#### **Ubuntu (FDC):**

- All 19 individuals were present at the end of the month.
- Yearling subordinate female Bruindtjie (VUBF063) gave birth on the 8<sup>th</sup> to three pups. They all emerged and started foraging with the group.
- Ubuntu had five encounters with former Ubuntu adult subordinate female Masekind (VUBF037). On the 9<sup>th</sup> Ubuntu wardanced and chased Masekind twice. Again, on the 12<sup>th</sup> and 23<sup>rd</sup>, Masekind approached the group and was chased away. On the 27<sup>th</sup> the group fought and injured Masekind who then retreated. On the 23<sup>rd</sup> the group had an encounter with an unknown adult.
- Ubuntu had no group splits or inter-group interactions this month.
- The group appeared to be in good health at the end of the month.

#### **Zulus (FDC):**

- All 6 individuals were present at the end of April.
- On the 3<sup>rd</sup> a goshawk was seen flying off with a meerkat body, presumed to be sub-adult subordinate male Soo (VZUM073) who was not seen immediately on arrival at the group.
- On the 2<sup>nd</sup> dominant female Spruddel (VZUF028) woke up alone. She returned to the group the next day.
- Zulus had no encounters, inter-group interactions or group splits this month.
- Yearling subordinate Leona (VZUF070) appeared to have sustained a snake bite, as she had a wound on her left neck and her head and left eye were still swollen by the end of the month. All other members of the group appeared in good health.

### **Life History Monitoring Groups:**

#### **Dik-Diks (LHM):**

- All 11 individuals were present at the end of this month.
- Juvenile male Benedict (VDDM006) was given his Last Seen this month.
- The group had no encounters, group splits or inter-group interactions this month.
- Habituation at this group is considered *Advanced Progress*. All three habituation individuals; dominant female Juliet (VGDF009), adult subordinate female Shelby (VGDF022) and yearling subordinate male Jaskier (VDDM001) are comfortable during follows at 1-2m. Jaskier is the easiest to weigh of the 3 meerkats, eager for egg and water, while the older females will come into the scale occasionally for water.
- All members of the group appeared healthy.

#### **Nightwatch (LHM)**

- 9 out of 10 individuals were present at the end of April.
- *Male dominance* at this group remains *unknown*.
- Juvenile female Adonalsium (VMPF092) was given her Last Seen this month.
- Adult subordinate male Shen (VMPM069) was not found with the group on the 16<sup>th</sup>. He is yet to return by the end of the month.
- No encounters, inter-group interactions or group splits were observed this month.
- Adult subordinate male Sushi (VTSM006) still shows two submandibular lumps, that we suspect to be tuberculosis signs.

#### **Vetkoeks (LHM):**

- All 4 individuals were present at the end of the month.
- Yearling subordinate male Brego (VVKM004) left at the beginning of the month and was emigrated out at the end.
- Vetkoeks had no recorded encounters, inter-group interactions or group splits this month.
- All individuals appeared healthy at the end of the month.

### **Habituation Groups:**

#### **Cape Crusaders (HAB):**

- On the 15<sup>th</sup> of this month an observer suspected having found Cape Crusaders once she observed a female and saw a group running below a known Cape Crusader's burrow. Unfortunately, in the following weeks the group was not found anymore. The group was searched for 3 times over the course of the month.

#### **Phoenix (HAB):**

- Phoenix was not searched over the course of the month, as there were not enough observers available for sweeping their known territory.

#### **Whiskers (HAB) :**

- All 9 individuals were present at Whiskers.
- *Female and male dominance* remains *unsettled* at Whiskers.
- Enough time has passed for yearling subordinate female Mya (VWF268) and adult subordinate males Rollo (VWM240), Scrabble (VWM253) Clue (VWM255) and Battleship (VWM257) to give their Last Seen.
- Whiskers had no encounters, inter-group interactions or group splits observed this month.
- The group's habituation is classed as *In Progress*. The habituation of the 3 wild males is the main focus. The habituation of one male, the friendliest, has improved significantly, as it was possible to mark him on several different occasions which allowed us to officially enter him in the database as adult subordinate male Gojo Satoru (VWM274). He is comfortable with familiar observers sitting at a distance of 1m

away. Observers are now focusing on habituating him to large arms movement and getting him comfortable with the water bottle. Another male remains more reserved: he is comfortable with observers sitting at a distance of 2m. The final male is still the most concerned in the presence of observers. He comes cautiously out of the burrow with observers sitting at 1-2m distance but remains uncomfortable at distances closer than 10m. None of the males are interested in egg despite the rest of the individuals in the group happily eating next to them.

- All members of the group appeared in good health.

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**The following authors contributed to this report:**

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