



The Meerkatter

The Friends of the Kalahari Meerkat Project Report - www.kalahari-meerkats.com - June 2024

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Habituation: a long-term project

Habituation is an important process that the Kalahari Meerkat Project (KMP) relies on to collect the data we need and, without a doubt, pup habituation is the most exciting for our observers. Aside from getting to spend more quality time with the pups, it is also important as this helps future generations of meerkats. We know that groups who experience habituation from a young age are more comfortable with observers' close distance and movement when collecting ad-lib data. But what happens when an older meerkat joins the group and is weary of observers from the start?

Habituation of adult meerkats is slightly different as observers need to make sure not to spook the wild individuals and thereby affect the habituation of the whole group. One thing we have noticed is the group ratio of habituated to non-habituated meerkats affects the length of time the habituation process takes. It certainly is difficult to gain the trust of an adult wild meerkat, let alone many adult wild meerkats, but it is not impossible as recently seen at Whiskers. Since January 2024, three wild males have been seen with the group making one of our oldest long-term ad-lib groups a habituation group. Following three months of habituation work, such as egg frenzying at the sleeping burrow, slow movements and gradually reducing the distance between the meerkats and the observers, one of the wild males has finally been marked consistently since March. This adult male has been named Gojo Satoru (VWM274) and now displays curiosity to water and was recently seen eating some egg. The two other wild males have also made some progress this month, one has even been marked for the first time, and although still weary, is comfortable enough to come as close as one metre to the observers. The third wild male still barks upon emerging from the sleeping burrow, but calms down eventually after 10 minutes of sunning. This particular wild meerkat still needs space in order to join the group to forage. This is an example of how habituation progress between individuals varies and we can only speculate, likely depends on an individual's comfort and curiosity towards observers.

A quick update on the dominance situation at Whiskers from December 2023: we have been monitoring dominance since former dominant female Luna (VWF235) was last seen in December 2023 and former dominant male, and current Vetkoeks

subordinate male Zuma (VZUM059) was chased away by four wild male meerkats in November 2023.

Female dominance remains unclear, though competition amongst females is in full swing. Yearling subordinate females Gnoll (VWF262) and Medusa (VWF263) battle it out as the main initiators. It seems; however, most eligible females are interested as observers have also noted dominance behaviours from yearling subordinate females Archangel (VWMF259), Kylie (VWMF265), Bruce (VWF266) and Sheila (VWF267). What concerns male dominance – since the group is still in the process of habituation, it is harder to notice dominance unless displayed directly at the sleeping burrow. However, with all three wild males marked and recognisable, this will make it easier to observe and note male dominance amongst the eligible males.



Floki on the 11th of June 2024, the day Mandalore was found the first time. Photo Credit: Maahir Jusabani, Zurich Manager

Other news at the start of the month, a group of meerkats was sighted for the first time in an area occupied by Whiskers. An observer had two opportunistic sightings of the group before spotting them on the 11th, at a burrow known to be used by Whiskers. Getting close enough to one of the males, the transponder reader identified Whiskers' adult subordinate male Floki (VWM241) who was last seen in November 2022. Floki was collared the same day and the group has been named 'Mandalore'. Since then, observers have visited the group three times and have reported the group being made up of 8-10 meerkats, two of which seemed to be used to observers and the rest very much wild (they were however, curious about egg). We plan to visit the group in the coming months to determine the exact group composition, as well as Floki's social rank

within the new group. We have also been working on habituating our newly named group Hogwarts. Adult female littermates Salazar (VZUF51) and Helga (VZUF052) had a tumultuous time at their home group Zulus. Multiple evictions by Zulus dominant female Spruddel (VZUF028), followed by re-unions with the group, were finally settled when both, Helga and Salazar were effectively evicted in December 2023. They were not seen again until Mid-February when an observer came across Salazar and an unknown female at a Zulus sleeping burrow waiting for the group to emerge. The females were chased away by the group, but Salazar was reportedly lactating at the time. At the end of May, Salazar and Helga were both spotted in a new group with two unknown juvenile males and an unknown adult male. Since then, Salazar has been collared and the group has been visited many times throughout the month. Salazar and Helga, both beloved meerkats amongst the observers, are relaxed around observers and very keen on egg, their re-habitation has been quick and easy as both had grown up around observers. One of the juvenile males has been given his first marks and has even expressed interest in egg as well as the scale. Habituation work remains to be done with the second juvenile and the wild male as both are still jumpy. We definitely have our eyes set on Hogwarts and are excited to continue visiting the new group in hopes to gain their trust.

Farewell Sushi

Sometimes observers have difficulties in tracking the radio collared individual when looking for meerkat groups. It might be because of the difficult terrain, e.g., dunes reflecting the signal, a defect in the equipment or because the group of meerkats is further away, resulting in observers scanning the groups' territory hoping to get a beep from their radio receiver. It less often happens that observers do get a very strong beep in the immediate surroundings but do not see any meerkat around. This happened at Nightwatch on the 6th of June, when an observer tracked down the group but did not find any meerkat. Instead, only the radio collar of adult male Sushi (VTSM006) was found, still attached to the head of the meerkat buried in the sand, most probably what was left of the dinner of a terrestrial predator, such as a cape fox.

The unexpected death of Sushi made us think about his very interesting life. Before becoming the eldest subordinate at Nightwatch, Sushi had been a member of several different groups. He was born in November 2019 into Tswana, a wild group found for the first time on the 14th of April 2019. While the habituation of the group was steadily improving, dominant female Britney (VTSF009) together with the only mature females of the group, eldest subordinate Ocytocine (VTSF003) and yearling subordinate Endorphine (VTSF005), went missing on the 14th of November 2020 and were never found again. The disappearance of all mature females meant the disintegration of Tswana; the remaining

four juveniles and six mature males, including Sushi, formed the group currently known as Trackie-Daks. Of the six males, only one is still alive today, Trackie-Daks' dominant male Coquilette. While at Trackie-Daks, Sushi started his roving days, first visiting Ubuntu in August 2021, then Make-e-Plan in November 2021, until he finally immigrated into Make-e-Plan end of November together with adult subordinate male Sketchy Bongo (VTSM019). Since then, a fierce competition for the vacant dominant position started between the two meerkats, which only ended in June 2022, when Sketchy Bongo finally submitted to Sushi.

Sushi spent nearly two years as dominant male at Make-e-Plan, until the disintegration of Make-e-Plan in February 2024. Following an inter-group interaction with Nightwatch, previously known as the sub-group Gold Diggers 4 composed of formerly evicted Gold Diggers adult subordinate female Ricky Baker (VGDF031), Nightwatch's dominant female Yorki (VGDF033), yearling subordinate females Maya II (VGDF039) and Mikasa (VGDF042), together with Make-e-Plan's yearling subordinate male Jude (VMPM071) and Snapdragon (VMPM074), the group disintegrated. The majority of former Make-e-Plan individuals immigrated into Nightwatch, including Sushi who lost, however, his dominant position. On the same day that Make-e-Plan disintegrated, Yorki gained dominance at Nightwatch, as all other eligible females, Ricky Baker, Maya II and Mikasa emigrated out of the group and in May 2024 they were accepted back into their natal group, Gold Diggers.



A close picture of Sushi, when he still did not develop any tuberculosis symptoms. Photo credit: Maahir Jusabani, Zurich Manager

Just after a few months at Nightwatch, Sushi once again became a focus of interest and apprehension in the group, as in March observers noted a submandibular lump developing on him. With the appearance of a second submandibular lump a month later, the suspicion of the lumps being symptoms of tuberculosis became stronger. Tuberculosis is a highly infectious chronic disease caused by *Mycobacterium* sp. with infection frequently lasting for many weeks and the disease lasting for several months to years. Animals appear clinically normal for the majority of the course of infection, but once first signs of disease appear there

is no recovery: individuals experience a severe weight loss and die within several months. In meerkats from the Kalahari Desert, tuberculosis was reported from the beginning of the project, but only clinically confirmed in 2002 (1). Meerkats typically develop large submandibular lumps which often rupture and refill, leaving open infected wounds that barely heal. Because of the highly social structure of meerkat societies, tuberculosis infection is likely to spread rapidly through groups (2). Its destructive effect on meerkat groups have been recently experienced at the group Namaqua: within one year and a half, between September 2021 and February 2023, eleven individuals showed severe tuberculosis symptoms and, after their disappearance, were presumed dead resulting in the disintegration of the group.

The appearance of tuberculosis symptoms at Nightwatch has increased fear of a new wave of the disease in the population. Now, even after the unexpected death of Sushi, we will continue closely monitoring Nightwatch to eventually detect the appearance of any signs of tuberculosis on other members of the group as soon as possible.

References

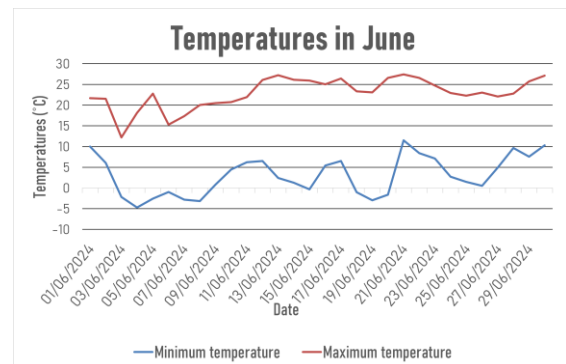
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² Drewe, J. A., Foote, A. K., Sutcliffe, R. L. & Pearce, G. P. (2009b) Pathology of Mycobacterium bovis infection in wild meerkats (*Suricata suricatta*). *J. Comp. Pathol.* 140, 12–24. (doi:10.1016/j.jcpa.2008.09.004)

Pregnancies in June 2024

Females pregnant in June	0
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	0

Weather at the KMP



This month the temperature stayed at a chilly 15°C. The average minimum temperature was 3.1°C and the average maximum temperature was 22.9°C. The hottest day was on the 21st of June, at 27.4°C. The coldest day was on the 4th with -4.7°C. Over the entire month it rained only on the 3rd with a total of 0.2mm of rain.

June 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):

- 11 out of 12 individuals were present at the end of June.
- Juvenile female Daenerys (VALF017) has been given her Last Seen. Male pup Painter (VALM012) did not wake up with the group on the 5th and was given his Last Seen.
- Adult subordinate male Ozzie (VECM033) left on the 29th and is yet to return.
- There were no group 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 June.
- *Male dominance* remained *unconfirmed* at Elrond's Council.
- Elrond's Council had a total of 35 encounters throughout June. On the 23rd, the group encountered three unknown adults who were repeatedly chased away. On the 24th, Elrond's Council chased away twice two unknown meerkats. On the five 25th the group encountered nine times two unknown males. They repeatedly returned foraging close to the group after being chased away. On the 26th the group chased away four times two unknown adults.
- The group had a daily group split on the 6th.
- The group did not have any inter-group interactions this month.
- All members of the group appeared to be in good health.

Gold Diggers (FDC):

- All 14 members of the group were present at the end of June.
- Sub-adult subordinate male Rosy Posy (VGDM053) was given his Last Seen.
- Gold Diggers had one inter-group interaction with Lazuli on 5th. Both group war danced towards each other and then retreated without physical contact.
- Gold Diggers had no encounters or group splits this month.
- The group's habituation is considered in *Advanced Progress* as adult subordinate female Ricky Baker (VGDF031) can be now followed at less than 1m distance. She also started to show interest in egg and has been weighed a few times.
- All members of the group appeared to be in good health.

Jaxx (FDC):

- All 14 members of the group were present at the end of June.
- *Male dominance* remained *unconfirmed* at Jaxx.
- Adult subordinate male Howard Moon (VJXM165) was given his Last Seen.
- Adult subordinate male Sneaky (VJXM170) left during an encounter on the 13th and returned later on the same day.
- Jaxx had an encounter with three unknown adults on the 13th. The group alarmed towards them and Sneaky followed them, they retreated and went below a bolthole.
- Jaxx had an overnight split on the 8th.
- The group had no inter-group interactions this month.
- Adult subordinate female Baloo (VJXF080) recovered from the limping and fatigue she showed the previous month. Juvenile female Pulpi (VJXF189) was limping by the end of the month. All other individuals appeared to be in good health.

Lazuli (FDC):

- All 22 members of the group were present at the end of May.
- Lazuli had an inter-group interaction with Gold Diggers on the 5th. Both groups war danced towards each other and retreated without physical contact.
- Lazuli had a group split of uncertain duration on the 15th, and a daily group split on the 28th.
- Lazuli had no encounters this month.
- All individuals seemed to be in good health.

Side Quest (FDC):

- All 16 members of the group were present at the end of this month.
- Yearling subordinate male Great A'Tuin (VSIM021) was given his Last Seen.
- Female pup Mbali (VSIF036) also received her Last Seen, as she was not seen with the group from the 5th of this month.
- Sub-adult subordinate female Sybil (VSIF025) did not wake up with the group on the 12th but returned on the same day.
- Side Quest had two encounters with an unknown adult meerkat on the 16th in the morning. The group first ignored the meerkat, then chased him away.
- Side Quest had no inter-group interactions or group splits this month.
- All members of the group seemed to be in good health.

Trackie-Daks (FDC):

- All 12 individuals were present at the end of the month.
- Male pup Omolemo (VTDM040) did not wake up with the group on the 17th, and was given his Last Seen.
- Trackie-Daks had three encounters this month. On the 14th, during an inter-group interaction, an unknown male approached the group's sleeping burrow and was chased away. On the 15th during another inter-group interaction the group war danced twice towards an unknown male who retreated.
- Trackie-Daks had two inter-group interactions with an unknown group this month. On both the 14th and the 15th, Trackie-Daks war danced and chased a group of at least 5 unknown meerkats away.
- The habituation level is currently *Advanced Progress*. The habituation individual, dominant male Coquillette (VTSM014), remains jumpy when followed closer than 2m. All three pups are now good with hands and interested in egg.
- Yearling subordinate female Chinchilla (VTDF029) and sub-adult subordinate male Johto (VTDM039) both sustained a serious injury to the head. Pup Omolemo also sustained an injury on the rib shortly before going missing.

Ubuntu (FDC):

- All 19 individuals were present at the end of the month.
- Sub-adult subordinate female Hotfoot (VUBF071) left the group on the 3rd and woke up again with the group on the 4th.
- Ubuntu had no encounters, group splits or inter-group interactions this month.
- Yearling subordinate female Bruindtjie's (VUBF063) injury - a large open cut, on her inner lower thigh - has now fully healed. All other members of the group appeared in good health at the end of the month.

Zulus (FDC):

- All 6 individuals were present at the end of June.
- Zulus had no encounters, inter-group interactions or group splits this month.
- All members of the group appeared in good health at the end of the month.

Life History Monitoring Groups:

Dik-Diks (LHM):

- All 10 individuals were present at the end of June.
- Yearling subordinate male Jaskier (VDDM001) was given his Last Seen.
- The group had no encounters, inter-group interactions or group splits this month.
- Habituation at this group is considered *Advanced Progress*. Both habituation individuals, dominant female Juliet (VGDF009) and adult subordinate female Shelby (VGDF022), are comfortable during follows at 1-

2m. Shelby lost interest for water or egg, while Juliet occasionally comes for water to the scale.

- All members of the group appeared healthy.

Nightwatch (LHM)

- All 8 individuals were present at the end of June.
- *Male dominance* at this group remains *unknown*.
- Adult subordinate male Shen (VMPM069) was given his Last Seen this month.
- No encounters, inter-group interactions or group splits were observed this month.
- Adult subordinate male Sushi (VTSM006) was found dead on the 6th, the remains of his body were found buried in sand. We assume he was predated by a terrestrial predator, presumably a cape fox.
- Before disappearing, Sushi still showed three submandibular lumps, that we suspect to be tuberculosis signs. All other members of the group appeared in good health at the end of the month.

Vetkoeks (LHM):

- All 4 individuals were present at the end of the month.
- 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):

- Cape Crusaders was searched for 5 times over the course of the month, but no meerkat has been found and no signs of activity at previously known sleeping burrows have been observed.

Hogwarts (HAB):

- Hogwarts, after 6 burrow sweeps, were found again on the 17th. On that occasion, adult subordinate female Salazar (VZUF051) was fitted with a radio collar.
- The group's habituation is classed as *In Progress*. Both Salazar and adult subordinate female Helga (VZUF052) are comfortable with observers sitting next to them, and rapidly showed interest for both water and egg and are easy to weigh. The habituation of one unknown adult male and of two juveniles remain the main focus. All three individual are comfortable with observers sitting at a 3m distance. One male juvenile and the unknown male have been dye marked for the first time. The male juvenile is eager for egg and it has been possible to weigh him a few times already. The second juvenile and the unknown adult male remain very skittish and jumpy, both still do not show any interest for neither egg or water.

Mandalore (HAB):

- On the 11th, a group of 8-10 meerkats was seen for the first time. It was possible to approach and transponder one individual, former Whiskers' subordinate male Floki (VWM241). On that occasion he was successfully radio collared.
- Together with Floki seven unknown adult meerkats and one juvenile have been observed, but the exact group composition remains unknown.
- Since then, the group has been visited three times. All individuals appear very skittish. It is possible to sit at a nearest distance of 15m before they run below. We will continue visiting the group to get them used to observers sitting at a closer distance and hopefully to get them interested in egg.

Phoenix (HAB):

- A group of at least four meerkats has been sighted again on the 11th at a sleeping burrow known to be regularly used by Phoenix. We therefore strongly suspect that we have found Phoenix again - a group last seen in January 2024.
- The group seems to be made up of five adult meerkats and three juveniles. The group has been found using this burrow five times this month and habituation of the group has begun. Observers can sit at 40m and crawl to 35m. By egg frenzying around the burrow two individuals started to show interest in egg.

Whiskers (HAB):

- All 10 individuals were present at Whiskers.
- *Female and male dominance remains unsettled* at Whiskers. No dominance behaviours from males have been observed so far, while competition for female dominance between yearling subordinate females Gnoll (VWF262) and Medusa (VWF263) continues. Yearling subordinate females Archangel (VWF259), Kylie (VWF265) and Bruce (VWF266) have now also started competing. Not enough submissions from eligible females have been observed so far.
- 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 adult subordinate male Gojo Satoru (VWM274) and of the 2 wild males is the main focus. The habituation of Gojo Satoru has improved again. He is comfortable sunning next to observers and has recently shown great interest in water. He remains skittish around the scale. One wild male has been repeatedly marked several times, though inconsistently. He comfortably wakes up and suns at 1m distance. It is possible to slowly walk at 4-5m distance around both the unknown marked male and Gojo Satoru without scaring them away. The last wild individual remains more skittish. He now comes out of the sleeping burrow with 3m distance, but still moves to a 10m distance away to sun. None of the males showed strong interest in egg despite the rest of

the individuals in the group happily eating next to them.

- Both Gnoll and Medusa recovered from various small wounds to their snout, cheeks, necks and ears. All members of the group appeared in good health by the end of the month.

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