



The Meerkatter

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

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Shrew Strikes Gold

There was great excitement at one of our habituation groups, Gold Diggers, on the 18th of this month. The group emerged that morning with a new member; Shrew (VUBM018) from Ubuntu! His immigration came as a surprise to us all as roving activities, let alone immigrations, are uncommon during the winter months.

At the time of Shrew's immigration into Gold Diggers there were four males remaining in the group, this included the yearling male George (VGDM006), the sub-adults Jack (VGDM010) and James Sawyer (VGDM011), and an undyed yearling male. On the morning that Shrew emerged with Gold Diggers he was seen anal-marking the group's sleeping burrow and other individuals, advertising his presence. Observers have not yet witnessed any submissions or dominance competitions from the other males, the boys have mostly been ignoring each other, therefore the position of dominant male remains unclear.



Newly immigrated male Shrew (VUBM018) being vigilant at Gold Diggers. Photo Credit: Zurich Manager Zoe Turner.

Previous research undertaken at the Kalahari Meerkat Project has shown that typically the oldest and heaviest meerkats are most likely to become dominant in a group. The day after Shrew immigrated into Gold Diggers the undyed yearling male did not emerge with the group. He has not been seen since, it is assumed he voluntarily left the group or was predated. This means the only remaining competition Shrew has for the position of becoming the dominant male is George, Jack and James Sawyer, who are all younger, smaller and possibly closely related to the females. Shrew is the only adult male in Gold Diggers and is potentially the heaviest male present. Furthermore he is likely unrelated to any of the females.



Members of Gold Diggers sunning one morning, taken back in the wet season long before Shrew's (VUBM018) immigration. Photo Credit: Meerkat Manager Chloe Farrington.

Shrew's immigration into Gold Diggers has had an immensely positive impact on their habituation. Previously the group would tolerate observers at 0-5m but bark and retreat below ground with most movements the observers made. Since habituated-male Shrew joined, the group have been more tolerant of observers sitting, moving and standing at 0-3m. Most individuals are now approaching observers and the weighing scales for egg and water with much more confidence. Interest in egg frenzies (encouraging individuals to eat egg by scattering the food around egg-loving group members) has also improved. This has been especially important to get the pups (individuals less than 3 months old) habituated, as they are at the age where it is easiest to encourage them into eating egg.

Of the five pups that emerged at the end of last month four had been marked, the fifth pup was lost before it was marked. Unfortunately, a further pup (VGDU017) also disappeared. The remaining three pups have been approaching observers, approaching scales and trying egg and water. One unnamed pup (VGDP015) is particularly keen on egg, they have been eating straight from observers' hands and even sometimes climb into the scales on their own.

Hopefully this progress will continue so that we may someday add Gold Diggers to our list of fully habituated groups. Since the departure of the undyed yearling male, all the members remaining are marked. Because of this and the rapid improvements caused by Shrew's arrival, the habituation level of Gold Diggers is now considered to be in Advanced Progress. We are all eagerly waiting to see what's in store for Shrew and the rest of the group.

Adapting to the Dry Season

Aside from the excitement with Shrew, June has been a rather quiet month for the meerkats. This is typical in winter due to a lack of breeding-related movements. Observers have seen a change in group movements in their daily search for food. Elrond's Council, with their impressive entourage of nine pups, have spent much of this month occupying the flats and shrublands in their territory and have rarely ventured into the dunes north and east of their normal home range. Jaxx with their three pups Enya (VJXF141), The Dude (VJXM142) and Amanda Leigh Rose James (VJXF143), born to dominant female Baloo (VJXF080), have also mostly foraged in shrublands and flats, occupying less territory than in previous months. Namaqua, whose territory mostly consists of dunes, ventured far east of their normal range for a short period to forage in the flats that are occasionally occupied by Elrond's Council. At the same time Make-e-plan headed far east of their own territory, the furthest in that direction they have been all year, to forage among the riverbed and flats.

These group movements reflect what previous studies have speculated. During the dry season groups typically prefer to occupy flat habitats. These areas may offer more bolt holes (small burrows used as refuges from predators) than surrounding habitats such as dunes, potentially presenting a lower risk of predation. The cost to this is may be less productive foraging. In the wet season meerkats are more willing to take risks by foraging in the highly productive dunes where the abundance of prey, at that time of the year, may outweigh the risk of potentially increased predation.



Lazuli huddling together at their burrow on the flats, facing the camera is the newly confirmed dominant male Odin (VLM266). Photo Credit: Meerkat volunteer Maggie Campbell-Jones

Gold Diggers seem to have occupied much less of their territory than usual, based on the burrows they have emerged at this month during visits from the observers. However, their apparent lack of movement is likely due to the presence of pups who only started foraging with the group at the beginning of this month. Lazuli, whose territory largely consists of flats and a riverbed, have shown very little

change to their group movements. Like with Gold Diggers this is possibly because of the presence of pups, who were being babysat up until the very end of June. This has restricted the group to areas surrounding the only two sleeping burrows (which are approximately 230m from each other) they have occupied this month.

Zulus, with 15 individuals compared to nine this time last year, show less of an obvious pattern of their foraging grounds selection than the other groups. They foraged across more territory and habitats than seen in previous months, bringing them close to their rivals Elrond's Council and Ubuntu. At times the group pushed eastwards to the boundaries of Gold Digger's territory, further than Zulus have ever been this year. They spent a brief period foraging in Gold Diggers' dunes before returning to the dry grass-covered flats at the centre of their own territory.

Observers have also noticed that prey items being consumed by the meerkats differ from previous months. We are seeing less fat juicy larva and large scorpions being found and eaten. Instead more millipedes, small larva and similar smaller prey items are being consumed. During summer the millipedes were often ignored as their noxious secretions appear to be distasteful to meerkats. Now observers are seeing meerkats competing over the millipedes and regularly feeding them to pups. Prior to being eaten, the millipedes are dragged through the sand by the meerkat's front claws, helping to rid off some of the millipede's nasty-tasting secretion. However, this is not always very efficient, some unlucky millipedes are left half-eaten and end up scuttling away without their rear ends. Other times meerkats bite the exoskeleton off a millipede and pull out the insides, leaving only the black shell behind.



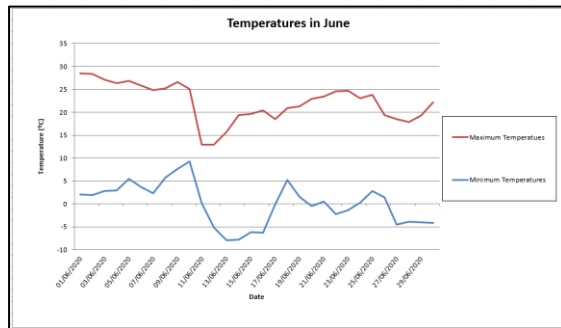
Barney (VNQM0018), a pup at Namaqua, eating a small millipede. Photo Credit: Meerkat Manager Jess Granweiler

With the change of diet, we are also seeing a change in the meerkats' body conditions, with most individuals getting lighter. These are all signs that winter is now truly upon us. This is the toughest time of the year for all groups. As the dry season progresses, we'll keep you updated on how the meerkats continue to adjust and survive.

Pregnancies in June 2020

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|--|----------|
| Females pregnant in June | 1 |
| 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 | 1 |

Weather at the KMP



We have seen some fluctuation this month with our highest temperature hitting 28.5°C on the 1st of June, and our coldest day dropping to -8°C around sunrise on June 13th. Our average maximum temperature for June was 22.2°C and our average minimum temperature was 0°C. We had no rainfall this month.

June 2020 Life History Details

Elrond's Council:

- Elrond's Council was the biggest group by the end of the month with all 23 members present.
- The undyed yearling female Galadriel (VECF032) was marked this month. This means the entire group is now marked.
- One of the pups VECP029 was assumed predated, leaving nine pups remaining from the mixed litter born last month to dominant female Tayl Baez (VBBF117) and subordinate female Galadriel.
- Galadriel left the group twice and appeared one time. On one of those occasions three of the pups, Pucky (VECM023), Untitled (VEC025) and Calypso (VECF027) left the group with Galadriel. By the next day Galadriel and the three pups had returned to Elrond's Council as they were seen waking up with the group
- All group members appear to be healthy.

Gold Diggers:

- At the end of the month there were 12 dyed individuals present and no undyed or wild meerkats.
- There was no clear dominant male or dominant female of the group.
- Shrew (VUBM018) from Ubuntu immigrated into Gold Diggers, he was first seen acting as part of the group on the 18th June.
- No inter-group interactions or encounters were observed this month.
- As the undyed wild individuals have not been present since Shrew's immigration, their habituation level has been changed to Advanced Progress.
- The group look to be in good health.

Jaxx:

- Jaxx has increased their numbers to 18 this month following the emergence of three pups born to dominant female Baloo (VJXF080). Everyone was present at the end of June.
- Shepard (VJXF127) was found dead in a cactus this month with no signs of predation or obvious illness. It is assumed her death was caused by injuries she acquired from the cactus.
- Salamander (VJXF135) left Jaxx on the 17th June but had returned to the group by the following day.
- All individuals look to be in good health.

Lazuli:

- All members were present at the end of the month
- Odin (VLM266) is now Lazuli's dominant male after receiving submissions from all other males in the group.
- Five pups emerged on the 26th June and started foraging with the group 3 days later.
- There have been no encounters, inter-group interactions or group splits this month.
- Lazuli's habituation is still in Advanced Progress with the group being regularly followed for up to an hour each session.
- All group members are of good health.

(Little) Creatures:

- All 5 members were present at the end of the month along with 1 wild individual.
- Juvenile Hange (VCRF012) has been given her Last Seen
- The Worm's Heart (VCRM010) left the group on the 15th June. He was sighted by an observer at Jaxx although did not interact with the group. By the 20th June he woke up with Little Creatures again.
- All individuals look to be in good health.

Make-e-Plan:

- Make-e-Plan decreased from 19 to 18 members this month after one of the pups, Mr Percival (VMPM049), was assumed predated. All remaining 18 individuals were present at the end of the month.
- No other major events occurred at in June.
- Everyone in the group appears to be in good health.

Namaqua:

- All 16 members of Namaqua were still present at the end of the month.
- Manzaï (VNQF013) left the group on the 21st June as she did not emerge with the rest of Namaqua. However, she woke up with the group the following morning.
- There were no encounters, inter-group interactions or group splits at Namaqua this month.
- All individuals look to be in good health.

Tswana:

- By the end of the month all 12 members of the group were present.
- Jude St Francis (VTSM008), Adam (VTSM010) and Lady Penelope (VTSF016) have not been seen this month and have been given their Last Seen.
- No major events have occurred this month.
- The group appear to be in good health.

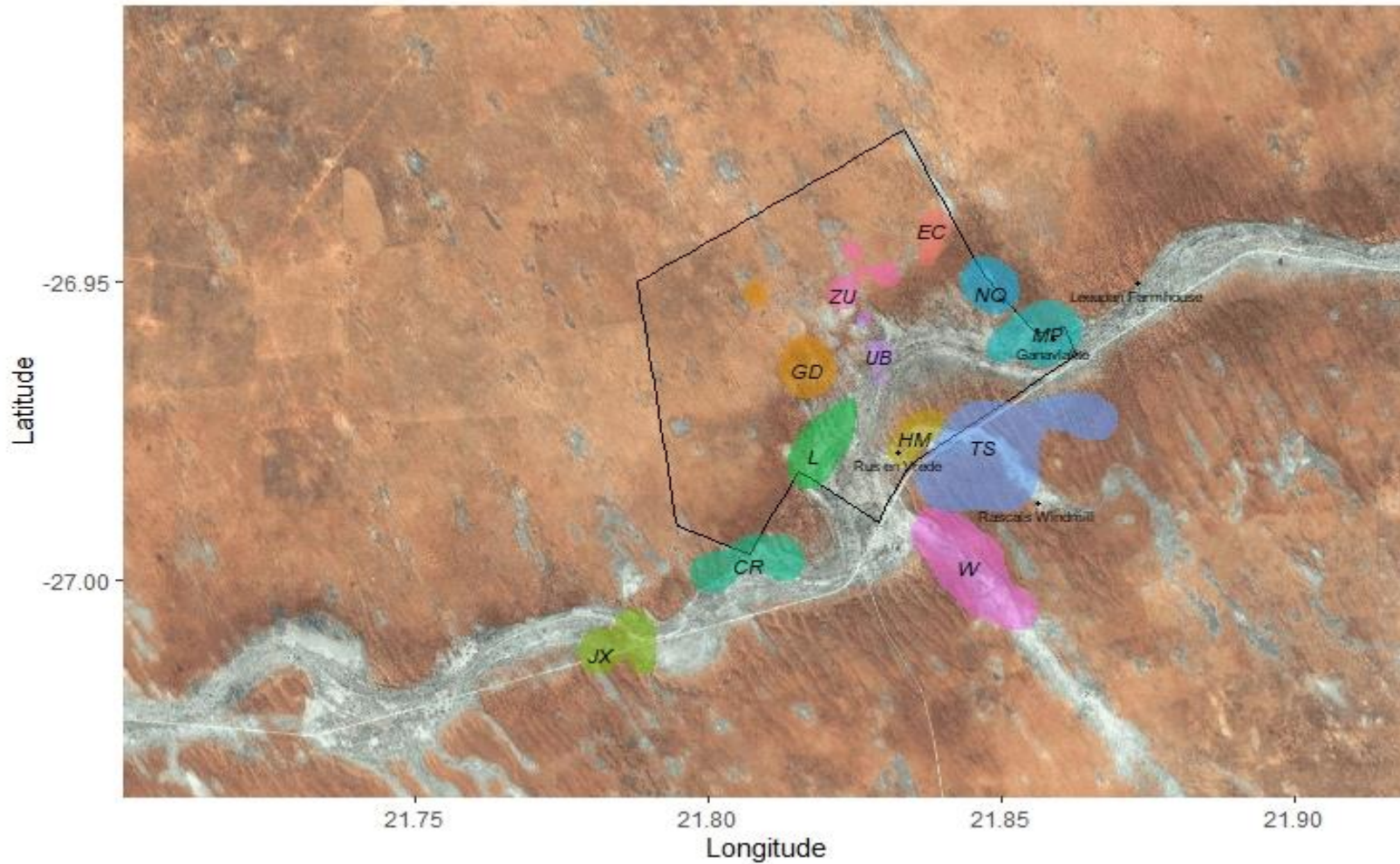
Zulus:

- There were 14 out of 15 members present, with subordinate male Pixie (VWM210) absent at the end of June.
- Dominant female Spruddel (VZUF028) was officially pregnant by the end of the month.
- Jay-A-Rod (VWM216) returned at the beginning of June after his absence last month. He left the group again on 23rd June and appeared once during that time. He returned to Zulus by the following day.
- Pixie returned to the group after his absence at the end of May. He was then evicted on the 19th June and appeared eight times. He had not re-joined Zulus by the end of the month.
- All group members are healthy.

The following authors contributed to this report:

Shaz Alderton, Life History

Group Territories June 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.