

Update from the field: Black-footed Cat Working Group, South Africa



September 2023, Michelle Swanepoel, field technician

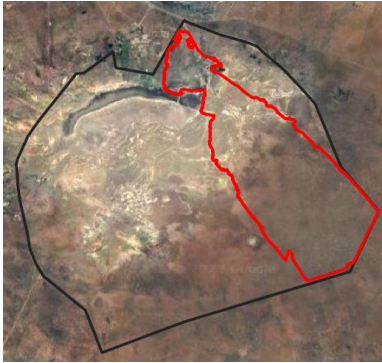
These are notes from the field by the Black-footed Cat Working Group (BFCWG) technician at the Benfontein Nature Reserve study site near Kimberley, South Africa. Black-footed cats (*Felis nigripes*) are fitted with radio collars and monitored as part of a long-term study on the ecology and demography of this elusive little felid. This update will focus on the wildfire that occurred on Benfontein in September.

Special thanks to Hannes Mans and DeBeers Consolidated Mines for study site access and long-term support of the BFCWG at Benfontein Nature Reserve.



Figure 1: The view from the top of the Eastern koppie on Benfontein Nature Reserve after the wildfire.

Wildfire: 09 September 2023



In 2021, a wildfire spread through Benfontein Nature Reserve and approximately 62% of the landscape was reduced to ashes. Little did we know, just two years later another wildfire would sweep through the landscape. This time around, approximately 25% of the landscape fell victim to wildfire's fiery embrace, before Benfontein's team, in collaboration with several neighboring farmers were able to get it under control.

Figure 2: The red polygon represents the burnt area. The black Polygon represents the border of Benfontein.

I eagerly waited until morning to track down our feline companions. I located Shongo within a ground squirrel system, encircled by the charred remnants of the vegetation. However, the dens appeared untouched, providing us with a glimmer of hope that he found sanctuary within. I located Ember taking refuge in a burrow approximately 700 meters beyond the scorched boundary, presumably safe and resting. Kazi remained untouched from the fire and was resting safely in a burrow.



Figure 3: A visual representation of a portion of Shongo's home range after the fire.

As the sun set, I relocated them for a visual confirmation. To our immense relief, all of them emerged from their hideaways, alive and seemingly unscathed. It was a moment of triumph in the face of adversity, a testament to their resilience.

Even though most people would describe this event as a devastating tale of destruction or a vivid portrait of devastation, they play a vital role in natural ecosystems. Wildfires, while unrelenting in their fiery grasp, is nature's phoenix, rising from the ashes to rejuvenate ecosystems, breathing new life into the environment.

Shongo:

In the aftermath of the wildfires destructive dance, Shongo found himself in a transformed landscape, with roughly 85% of his territory consumed by flames. Even though his home had been altered and he had become extremely vulnerable, with no vegetation left in his wake, that didn't stop him. This impressive young male quickly adapted and persevered, a testament to his resilience in the face of adversity.



Figure 4: Shongo mid-yawn after emerging from his den.

I anticipated that he would leave the burned area within the first couple of days, but to my astonishment, he held his ground within the territory, skillfully adapting his hunting techniques to the transformed landscape, and taking delight in savoring the flavor of rodents.

He began utilizing the den systems as a strategic advantage for capturing rodents. These den systems comprise of several burrows, so he would strategically crouch down low at the entrance of one den, patiently awaiting a rodent to exit from another den. Then, with lightning speed, he would dart forwards and pounce on the unsuspecting rodent. On other occasions he would simply crouch down low a meter or two in front of a den, patiently waiting for the rodents to emerge before pouncing forward.

Ember:

Ember has once again captivated us, like a true wildlife saga sequel. In my previous report we documented her seeking refuge within the same burrow as an aardwolf (*Proteles cristatus*). This time around she appeared to seek refuge within the same burrow as two cape porcupines (*Hystrix africaeaustralis*). We documented her emerging from the burrow at 13:36. Later that evening, the first porcupine made its appearance at 18:12, followed by another porcupine exiting the den at 19:22.



Figure 5: On the left, Ember documented emerging from the den at 13:36: on the right, the second porcupine emerging from the den at 19:22.

After the wildfire, she appeared to distance herself from the scorched area. The morning following the fire, I located her roughly 700 meters beyond the burnt area's boundary. She continued to move farther away, and on the 15th of September, she approached the burned area, briefly crossing over into it for approximately four minutes before re-entering the vegetation outside the burnt boundary. Subsequently, she once again moved away from the burned area and has not been observed in that vicinity ever since.

Rodeo:

Rodeo didn't earn his name by chance; this male has been living up to every bit of its spirited reputation. This adventurous male chose to embark on a journey beyond Benfontein, not once, but twice. He made his first excursion on the 25th of June, we finally picked up his frequency on the 28th of June, on a neighbouring farm East of Benfontein called Susanna. By the 30th of June, he had ventured even further to Rooifontein. We extend our gratitude to Rooifontein and their team for their generosity in permitting us access onto the property, to pinpoint his exact location. He remained on Rooifontein for a couple of days, the last visual we had of him at Rooifontein was on the 5th of July. On the 7th of July, he returned to Benfontein, initially lingering along the border of Benfontein, and ultimately settling back into his usual territory on the 10th.

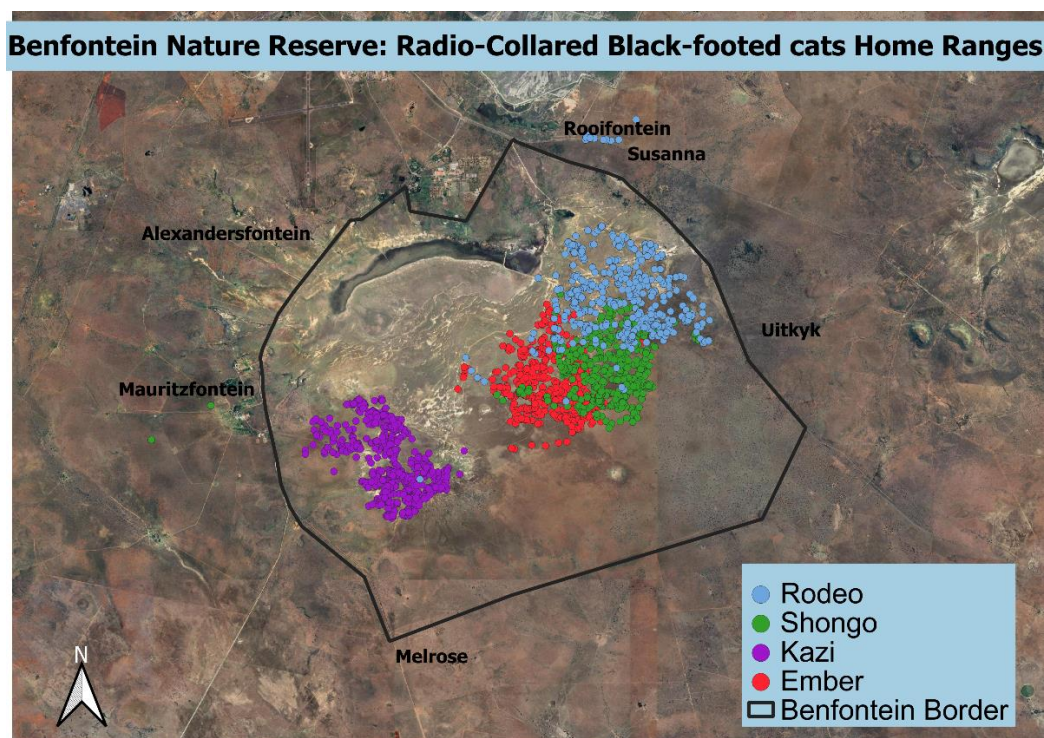


Figure 6: BNR Study site: A visual representation of Rodeo's excursion, beyond the boundaries of Benfontein Nature Reserve.

However, come August, this elusive male embarked on yet another vanishing act, our last documented visual of him was on the 9th of August close to the Eastern Border of Benfontein. Despite our dedicated efforts, we have unfortunately been unable to pick up his frequency since.



Figure 7: On the left, a baby porcupine wandering around outside den, with adult porcupine making her way out of the den. On the right, Rodeo patiently stalking the baby porcupine, unaware of the adult porcupine inside the den.

Right before his disappearance the first time, on one particular evening, he sat down, fixating his gaze in a particular direction and it dawned upon me that he had set his sights on a baby porcupine. However, a couple of minutes later, an adult porcupine emerged from the den, and he quickly realised that he might have misjudged the situation, he got up and made a hasty retreat.

Kazi:



Figure 8: Kazi emerging from her burrow, as the sun started dipping below the horizon, ready to venture out in search of food.

Kazi is undoubtedly a skilled huntress, on one remarkable evening, she left us utterly spellbound. We located her within a den system, and with a mesmerizing blend of stealth and determination, she stalked her unsuspecting prey, a sub-adult Cape hare (*Lepus capensis*). She crouched low to the ground then in a breathtaking burst of speed, she pounced upon her prey, securing it with a masterful grip around its head. She held on with unwavering resolve, even in the face of the young hare's relentless kicks.

Sailing on waves of gratitude:

As we embark on our quest for new discoveries, your support and sponsorship have been the wind in our sails. We're thankful for your continued support, helping us make significant breakthroughs.



Figure 9: on the left: B. Mannie, M. Swanepoel, A. Sliwa.

Best regards from the veld,

Michelle Swanepoel