

Website link: <a href="https://www.blackfootedcat.com/">https://www.blackfootedcat.com/</a>

Research / Narvorsing



**Working Group** (Miershooptier Werkgroep)

Cover image: Black-footed cat 'Ember' on Benfontein.

Photo: Alex Sliwa

### **Ultro – "The Ultimate Cat"**



Figure 1: Ultro resting outside his chosen den in front of the camera trap, alert and waiting for sunset to begin hunting

Ultro was successfully fitted with a radio collar on the 4th of June 2024. On our final night in the field, as we were heading home, we were delighted to finally spot a black-footed cat — the first one in nine evenings of searching on Benfontein. This long-awaited encounter earned him his name, "Ultro," symbolizing "the ultimate cat."

It was an unforgettable moment as I had the privilege of capturing my very first cat. Ultro weighed in at 1.87 kg — a large male for the species. Despite his impressive size, he bore old bite wounds on his tail and slightly worn footpads, visible reminders of his rugged life in the wild.



Figure 2: (left) Ultro resting outside his den, basking in the sun.; (right): Ultro emerging from his den, just before sunset.

Yet, Ultro was resilient. He adapted quickly to camera traps, gifting us with high-quality photographs, and displayed a cautious but steady curiosity during habituation. In winter, rather

than retreating into dens during the day, he chose to rest in dense vegetation where he remained well hidden but still exposed to the warmth of the sun. Camera traps could only be installed for photographs when he made use of dens.

Over the year we monitored him, Ultro never strayed beyond the boundaries of Benfontein. He maintained a large home range within the reserve consisting of 38km², shifting between areas and remaining in each for several weeks before moving on. What made this even more remarkable was his ability to persist in an environment with a high density of black-backed jackals (*Lupulella mesomelas*), known predators and competitors of these small wild cats. His survival was a testament to both adaptability and intelligence.

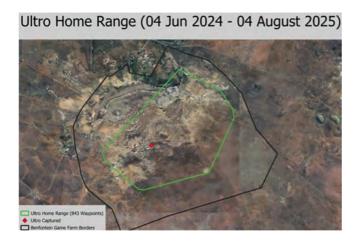


Figure 3: Ultro's home range (38km²) from the 4th of June until 4 August 2025 (843 waypoints). The red diamond shows his capture location

Sadly, Ultro's journey came to an end in early August 2025. On the 4th, I located his signal inside a den. At first, I waited, assuming he might be feeding on prey as he had done before. But after no signs of movement, I went closer and discovered that he had passed away. An autopsy revealed no wounds or external injuries, suggesting that disease was the most likely cause of death. Samples will be sent in for testing to help us confirm the cause.



Figure 4: Ultro was found dead inside the den on 04.08.2025.

Though we hoped for more time with him, Ultro gave us an extraordinary window into one individual's life of Africa's smallest wild cat. His story underscores why this research is so important — every individual monitored deepens our understanding, strengthens our conservation

strategy planning, and helps ensure a future for the species. Ultro was, in every sense, *the ultimate cat*.



Figure 5: Ultro emerges from his den and surveys his surroundings on 06.12.2024.

### Magnum - Ongoing search efforts

After last detecting Magnum's signal approximately 10 km north of Marrick Safari on 10 May, with the help of Andrew Conroy, we conducted another aerial search on 17 May, and again on 7 June but did not pick up a signal on either flight.





Figure 6: 2<sup>nd</sup> Aerial search for Magnum on the 17<sup>th</sup> of May.

Figure 7: 3<sup>rd</sup> Aerial search for Magnum on the 7<sup>th</sup> of June.

Since then, I have continued efforts on foot and by vehicle, climbing koppies at night to improve signal range, in the hope, with the cats being outside their dens, a signal might be obtained. I have driven the Langberg Road and Schmidtsdrift Road at night and climbed koppies on Rust en Vrede during the day, as well as koppies on Benfontein at night — all without success so far.

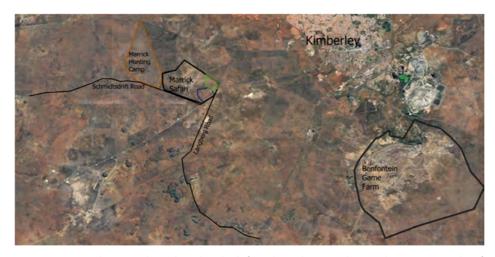


Figure 8: Map indicating where the Schmidtsdrift and Langberg roads are relative to Marrick Safari and Benfontein.

I will go into more details on improving on the aerial tracking technique and setup and finding a new location of Magnum later.

### Felix - Ongoing search efforts (10 June - August)

Felix was fitted with a radio collar on the 29 April 2025, during the final night of captures by the team. In the first week, he remained within the boundaries of Marrick Safari. Day locations showed him resting in long grass rather than using dens, and at night he also favoured dense vegetation.

On 7 May, I could not detect his signal neither during day or night, indicating that he had moved beyond the property. Encouragingly, during the aerial search for Magnum on 10 May, Felix's signal was once again detected on Marrick. When I returned the next day, he had indeed moved back onto the property.

Marrick Safari encompasses several distinct areas, including the pan (where Felix was originally captured), the hunting camp, breeding camp, and buffalo camp. Felix entered the buffalo camp on several occasions (13th May, 30th May, and 10th June). Tracking him there has been particularly difficult due to the combination of long grass, rocky terrain that makes driving hazardous, and the presence of buffalo that renders walking dangerous.

Felix also extended his range onto the neighbouring farm, Rust & Vrede. He spent two days there (2nd and 3rd June), during which I obtained permission from the owners to enter the property and record day locations. Felix then returned to Marrick Safari, where monitoring continued until the 10th of June, when I was able to pinpoint his approximate location inside the buffalo camp. However, by the next day, his signal had disappeared once again. Despite extensive efforts — climbing koppies, searching along the Langberg Road, and checking multiple locations — no signal could be picked up since.

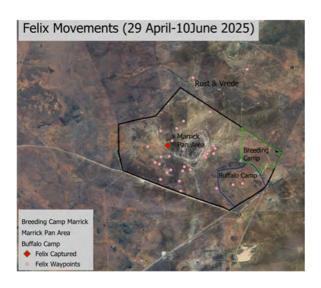


Figure 9: Felix capture location. (red diamond sign), and his waypoint locations between 29 April - 10 June 2025.

## **August 2025 – Developing Aerial Tracking Solutions**

In August, we took important steps to improve our aerial search methods. Alex Sliwa reached out to Martina Küsters of the Black-footed Cat Research Project Namibia, who has extensive experience with aerial telemetry, for advice on how best to optimize our setup. With Martina's guidance, and photographs shared by Beryl Wilson-Hartmann, we decided to use two vehicle antennas instead of the so far only one antenna, connected through a switch box.

Based on this advice, Andrew and I arranged a test flight to evaluate how far we could detect signals with the modified system. We also considered purchasing two new antennas to further extend our range during aerial searches, but at this stage, funding constraints made this option unattainable. (A supplier's quote is included below to illustrate the potential cost.)

Description	Quantity	Excl. Price	Disc %	VAT %	Exclusive Total In	clusive Total
RW-3-12 (12ft). Coaxial Cable - 2 units	1.0000	R4,365.00	0.00%	15.00%	R4,365.00	R5,019.75
TAC-2 Antenna Control Unit	1.0000	R5,285.00	0.00%	15.00%	R5,285.00	R6,077.75
RA-2A Directional Antenna for mounting to aircraft- 2 units ( SET )	1.0000	R18,850.00	0.00%	15.00%	R18,850.00	R21,677.50
Shipping US to SA	1.0000	R7,895.00	0.00%	15.00%	R7,895.00	R9,079.25

Figure 10: Quote for two new antennas to improve aerial tracking.



Figure 11: (left): aerial set up of flights done in the past.



(right): New aerial set up, after speaking to Martina Kusters.

This collaboration brought us closer to a workable aerial tracking solution but also underscored the pressing need for additional financial support to invest in better specialised equipment. With improved quality antennas, our ability to locate and monitor the collared cats from the air would be

greatly enhanced, ensuring no individual is lost from the study monitoring due to technical limitations.

### (5) Estimated Costs for Aerial Search Operations:

Item	Details	Estimated Cost
Fuel for Sky Jeep (per 3-hour flight)	± 50 liters aviation fuel @ R 35/ \$ 2 per liter	R 1750 / \$ 101

Total per aerial search (without new equipment): ±

One-time equipment upgrade: ± R 32 000/\$ 1817

Dur pilot generously donates his time, so all funding goes directly toward fuel, equipment, and operational costs.

### 10 August 2025 - Test Flight:

Together with Andrew we completed a test flight with the new aerial setup. It was a turbulent flight, we flew at 1.500 m above ground level and successfully picked up the test collar I had placed in a den from already 8 km away. We decided to maintain the 1.500 m height above ground level as flying higher would exceed the legal airspace limit.

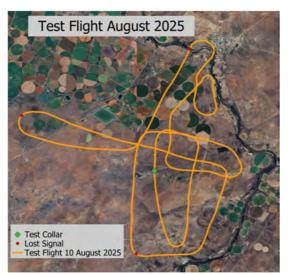


Figure 12: Test flight on 10 August 2025. The green diamond marks the location where we placed the test collar inside a den, while the red dots indicate the points at which we lost the collars signal.

#### 18 August 2025:

Andrew agreed to fly one week later on the 18th to search for the cats. I had placed a test collar on Marrick Safari, which we could still detect from 14km away. We detected Magnum's signal southwest of Marrick, approximately 27 km from the last known location on 10 May.



Figure 13: Aerial search transect on the 18 August 2025. The red diamond indicates Magnum's approximate location.

After getting an approximate location from the air in the early morning, I contacted the farmers in the area to get access to the property on 20 August. Unfortunately, they were only able to give me access the next day. So, I drove along the dirt road and managed to hear his signal from the dirt road at sunset.

#### 19 August 2025:

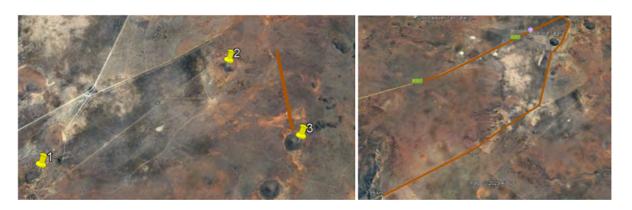


Figure 14: (left) Map illustrating our search efforts on 19.08. 2025. The yellow pins represent the hills & koppies that we climbed to listen for a signal. The brown line indicates the direction in which we could detect a clear signal from koppie marked number 3.

Figure 15: (right)Dirt road & tar road driven to continue the search on 20 August 2025.

Together with the ecologist of the property, we attempted to listen for a signal from a nearby hill (marked 1) and a small koppie (Nr.2) but detected nothing. We then climbed the largest koppie (marked 3) and successfully got a signal in the direction indicated by the brown line in the photo (figure 14). Once we were back on the ground, the signal was too weak to home in on in the short time which I was given. The ecologist gave permission to come back next evening (20.08) at sunset (19:00).

We started off by climbing the tall koppie (Nr. 3) but unfortunately, didn't pick up a signal, which meant that Magnum had moved out of range. I drove along the dirt and tar road marked in figure 15. I also climbed the koppies on Marrick Safari and Benfontein Game Farm, but unfortunately, I couldn't pick up a signal.



Figure 16: Map created by Dr. Alex Sliwa, the red stars indicate the desirable koppies to climb to listen for a signal. The blue stars are where we heard his signal.

The BFCWG core group discussed on how to use higher elevations (koppies) in the area from which best to listen for the signal of Magnum on the ground and that driving the roads at night in an area with many koppies blocking the signal, was not productive. We also decided to pause climbing koppies until another flight could be done, as Magnum's home range pattern is still unknown. We are hoping to pick up on a pattern of his home range by flying to know which koppies to climb to look for him.

In early September, we experienced another set back and could not fly for the whole of September, however, are aiming to do a flight at the start of October.

# Vehicle expenses:

Since the last update we have spent approximately R 7000 / \$400 on diesel and R10 000 / \$ 570 on vehicle repairs.

These repairs included a diagnostics test, repair clutch accumulator, replace grommets, refill brake fluid, general service, renew the window wipers, replace globes of headlights, renew turbo pipe, renew right sideshaft, renew rear speed sensor and labour.

# 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 are thankful for your continued support, helping us make significant breakthroughs.

Each aerial search costs approximately R1 750 /\$ 101, covering only the essentials such as aviation fuel and vehicle diesel. Every contribution directly powers our ability to take to the skies in search of these elusive cats. A gift of R 1750 / \$ 101 funds one full aerial mission.

Your support doesn't just cover costs — it gives us the wings to continue tracking, monitoring, and protecting one of the least researched and vulnerable wild cats on earth. Every search flight adds to our understanding of their ranging behaviour and better planning for ensuring their survival. With your help, we can ensure that this important work continues uninterrupted.

Research / Narvorsing

Glack-footed **Working Group** (Miershooptier Werkgroep)

Best regards from the veld,

Michelle Swanepoel