PROJECT UPDATE May 2020

by Martina Küsters & Ndele Shipala (Field Technician)

Black-footed cat Research Project Namibia

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The Black-footed cat Research Project Namibia was initiated in 2012 by Martina Küsters, a Namibian who was the field technician for the Black-footed Cat Working Group (BFCWG) from 2014-2018. Large parts of the species' distribution range falls within private farmland, therefore landowner efforts and co-operation are important to conserve the species regionally. This species is of conservation concern because of limited knowledge of health and ecology of populations outside the study areas of the BFCWG (Sliwa 2004 and 2006), its restricted and patchy distribution and possibly decreasing population (Sliwa et al. 2016). The project has since collected valuable data on distribution, potential study areas and conservation threats.

This project is a collaborative effort between the BFCWG, the Namibia University of Science and Technology (NUST) and the Ministry of Environment & Tourism.

The project aims to 1) collect more fine-scale distribution on farmland and protected areas in Namibia; 2) educate & raise awareness for this little known wild cat species; 3) investigate & identify threats and to establish its conservation status; 4) find strongholds for its conservation and 5) study the distribution, biology and ecology of this species in Namibia. This rare species of wild cat should be seen as a flagship species of our unique arid southern Namibia.

After many years collaborating and working with the BFCWG, a site that was identified through fieldwork in 2013 and three cats were seen there during a scouting trip by Sliwa, Küsters and Hauptfleisch in January 2019 (DOI: 10.13140/RG.2.2.16276.55680).

Then, finally it was time: In February 2020, the members of the BFCWG (Dr Alex Sliwa, Beryl Wilson, Dr Nadine Lamberski, Dr Jason Herrick, Dr Morgan Hauptfleisch and Martina Küsters), together with Dr Axel Hartmann (Namibian veterinarian) and Ndele Shipala (technician and student), met up on the farm to capture and radio-collar bfcs. The team successfully captured and fitted four female cats with radio-collars. Shipala has since done a great job of monitoring and collecting data on movement, behaviour, diet, den use and camera trap images (February to April 2020) on the collared cats. The farmers are passionate about the conservation of this unique species and have offered their full support for the research.

Alex and Martina then trained Shipala on tracking and monitoring the cats during capture and located the dens during the day. One of the cats, Prima already ventured into the neighbouring farm in the days after capture. Martina then returned after the capture of the South African cats on Benfontein Nature Reserve in March 2020 and trained Shipala on behavioural observation and monitoring.

THANK YOU **Naples Zoo, Florida** for the generous funding of telemetry equipment to enable the monitoring work by the field technician.

This project will provide invaluable information about the biology, health, reproduction, causes of mortality and ecology of bfcs in an arid landscape, outside a formally protected area.

Please see https://www.youtube.com/watch?v=qzgfSxyeC_U for an exciting camera trap video of Auas, one our radio-collared females in Namibia.

Please see below updates from the field written by Shipala on his work, experiences and the life of the Namibian black-footed cats.

Quaratine with the black-footed cats of Namibia

by Ndele Shipala

Figure 1 Ndele Shipala listening for signals from a mountain in the study area.

Prima

Prima is the first black-footed cat I have seen, (touched, during the immobilisation) and it's one of those greatest moments of experience in my life. Just a couple of days after she was collared, she moved about two kilometres and that's when my first tracking experience started. She was captured on 24 February 2020, the first cat captured and collared in Namibia. Before the good rain (rainfall of 55mm on 1 March), Prima used to be in the central part of the farm but did cross the tar road in search for the food to the east (see map for orientation). The Gamkab River (ephemeral) then flooded and Prima couldn't wait for the river to dry so she crossed to the fresh grasslands towards the north. After a week of tracking her, she was calm and carried on her natural behaviours such as grooming, resting and stalking hunting. It is unfortunate that I have not been able to pick up any signal of Prima since 27th of March up until now, even after climbing several high mountains in the area.

The plan is to get a fixed-wing aircraft after the lock-down in May to try and find her with aerial telemetry tracking. It is important to find her or to determine her fate.

Lace

Lace is the second black-footed cat collared on the farm and her name comes from all the lacewings attracted to our lights during our night work. She is the most timid of all the monitored cats. It took time for her to get used to the tracking vehicle and she has a tendency of moving in circles and when she gets a chance, she flees before she trusts me and starts with her normal behaviour (grooming, stalking, and hunting). With patience and time, the trust between us gets stronger now she even rests and was recently feeding on a gecko at close range. Lace has a restricted (smaller) home ranges compared to the other females which makes us suspect that she is having kittens or will give birth soon.

Kara

Kara was named after the 'Karas region' of southern Namibia, in which the study site is located. Social distancing during this Covid19 pandemic isn't a thing to Kara and Lace, to them sharing is caring. This goes for foraging and hunting and also sharing dens in their overlapping home ranges. After the good rains, the grass cover provides a good shelter for the bfcs. Who doesn't like to be outdoors stargazing under a warm, still night? Well, Kara doesn't mind stargazing or sun-bathing, she loves it. I have observed her resting during the day under thick grass tufts, so you can easily walk past her without noticing. I thought to myself why doesn't she go into the den when there are so many around? Bfcs do rest outside dens, especially during winter, basking in the warmth of the sun.

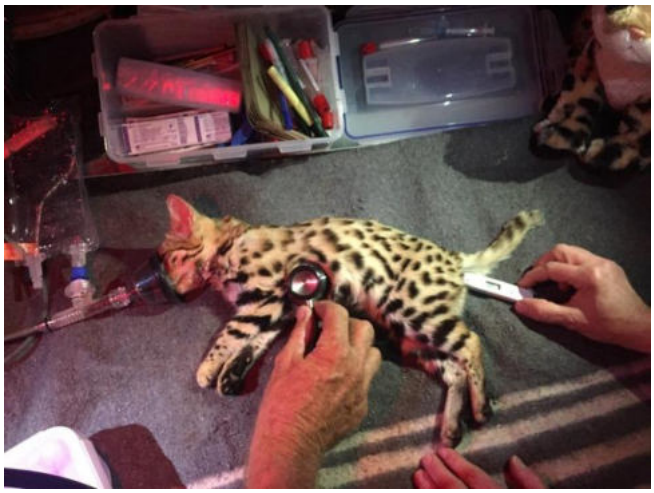
Auas

It is impossible for a day to go by without seeing Auas. She is the most chilled of the collard BFCs on Grunau and she is the cat I am always looking forward to tracking. Just within the first week, I observed her resting and grooming, and hunting (pouncing on prey). After the good rain, Auas crossed the tar road and later crossed the riverbed towards the north-east, to join Kara and Lace. The home range analysis from 1 March to 19 April 2020 (see map) shows that Auas overlaps with the three other bfcs.

In general, I am very happy with the work and the bfcs are just the most beautiful cats to work with. I have not encountered many challenges yet, except that during windy days even with headsets, it feels like under a landing chopper (not clearly picking up the signals), and tall grass hinders the observations. The biggest challenge is that I cannot find Prima since the end of March.

Figure 2 The capture team with Prima.

Figure 3 Alex measuring the foot pad of the tiny bfcs.



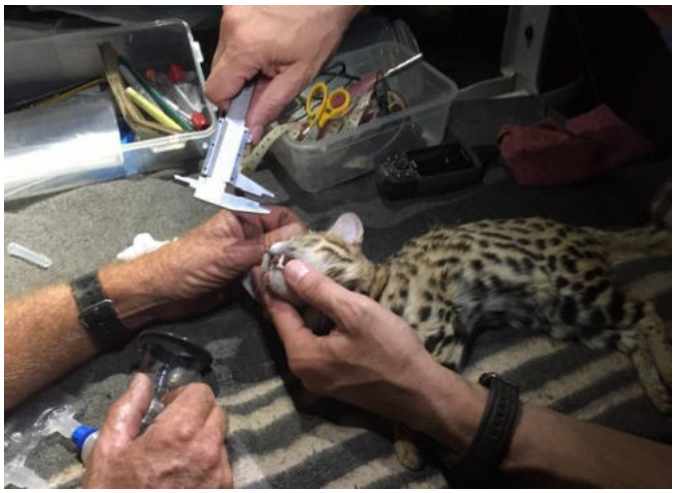


Figure 4 Careful monitoring is done under anaesthesia by Dr Lamberski and Dr Hartmann. Measurements are recorded and samples are taken.

Figure 5 The study area on the farmland. The Gamkab River is visible in mid-ground.

Figure 6 Shipala measuring the den circumference and locating den sites as part of this potential Master's thesis with NUST.

Figure 7 Marking den sites and setting camera traps in March 2020. A camera trap video of Prima (right) (BFCWG 2020).

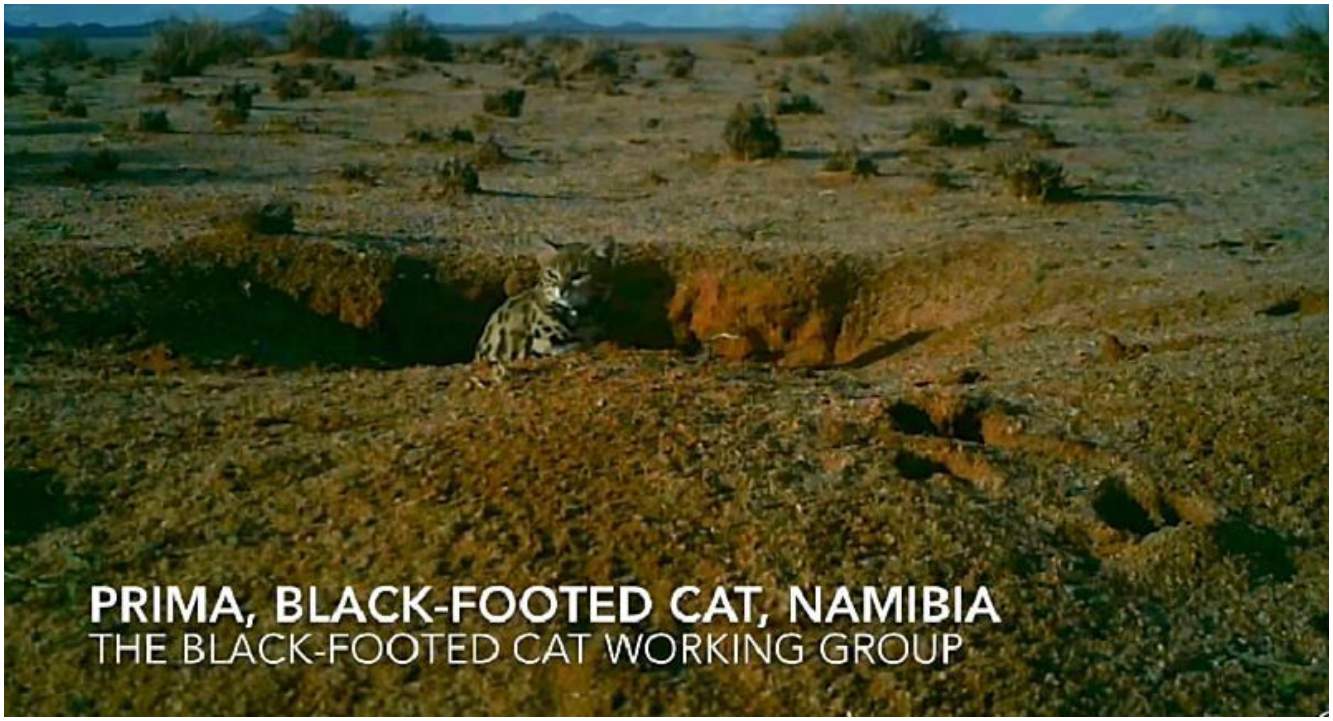


Figure 8 A screenshot of a camera trap video of Prima (https://www.facebook.com/berylwa/videos/10221447086749303/).

Figure 9 The sponsored field vehicle with platform for tracking.

Figure 10 One of the cats seen in January 2019 (A. Sliwa)

Figure 11 The grass cover before (left) and after good rains in March (right).

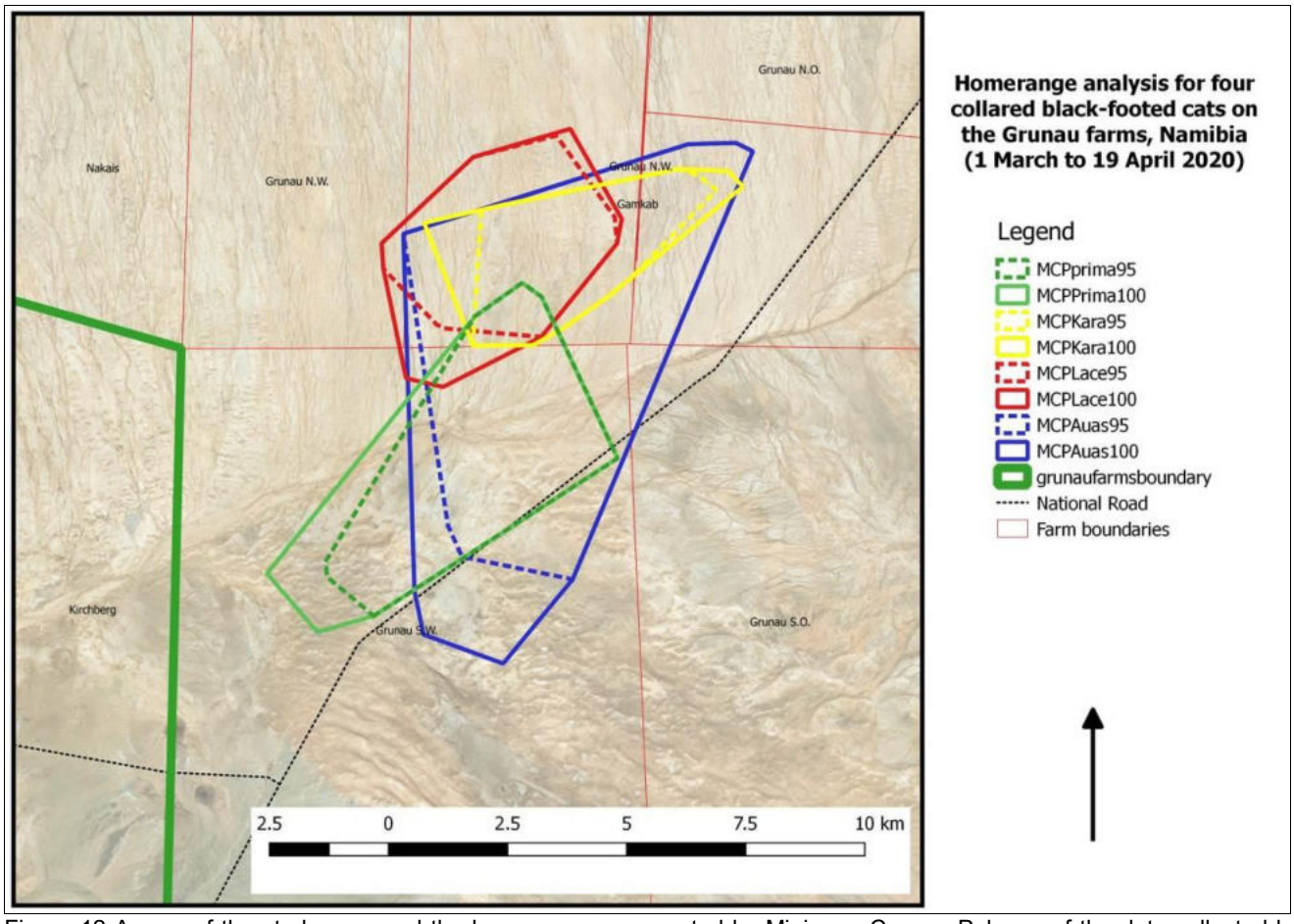


Figure 12 A map of the study area and the home ranges computed by Minimum Convex Polygon of the data collected by Shipala from 1 March – 19 April 2020. The size of the home ranges are much larger compared to the sizes of females in the dry Karoo, Northern Cape, South Africa. These data represent important new information on the species in a different habitat.

Figure 13 Members of the Black-footed Cat Working Group Dr Alex Sliwa, Beryl Wilson and Dr Morgan Hauptfleisch (not present are Martina Küsters, Dr Nadine Lamberski & Dr Jason Herrick) with family van der Merwe (Kobus, Margaret van der Merwe with Marisa, Johandre & Anri), who support black-footed cat conservation and research. Ndele Shipala (3rd from left) monitors the collared bfcs and collects movement data.

We wish to thank all our collaborators, supporters, funders and all farmers for contributing to the research and conservation on the unique black-footed cat!!

Auas Motors is thanked for the sponsorship for a field vehicle (Isuzu 4x4) and their long-term commitment to support the project.
Tren Tyre Namibia has also committed to supply new tyres for the field vehicle, whenever needed.