

SEPTENNIAL IMPACT REPORT



FOREWORD

Ashia is blessed with a wonderful team and a multitude of diverse and dedicated conservation partners. It is therefore a pleasure to be writing an introduction to our Septennial Impact report while taking a look back on our story and achievements since we founded Ashia at the end of 2016, and the start of our cheetah endeavours in 2017. It feels like yesterday and yet like a lifetime ago as these years were packed with challenges, ideas, opportunities, successes and losses, golden and sad moments, positive surprises, and hard disappointments.

Along our path, we have born witness to great turns and changes. Partner and people entered our life, others left but Ashia grew stronger and stronger and survived every twist and turn. Ashia's story has a beginning and a steep development, but we are confident that there is no end in sight. So far, every closing door always marked the beginning of yet greater challenges and new opportunities.

Commenting on one of our very first releases of a wilded cheetah female on a reserve I quoted Dr George B Schaller who said: "Conservation is based on emotion. It comes from the heart". Our love for nature and animals was certainly the driving force – or emotion – that triggered our engagement in conservation but years of traveling throughout Africa opened our eyes for the ever-increasing problems facing wildlife today.

Writing this foreword got me thinking... and questioning the secret of our success so far? Can it be explained by an emotional point of view? Looking back, I rather think that a significant predictor of success is a grit mindset! Grit is passion, perseverance, resilience, courage, and conscientiousness. From the beginning, we were setting goals and passionately followed through. We were in it for the cause and not for a reward. We persisted steadfastly despite setbacks, quickly recovering from any difficulties, bouncing back from all sorts of roadblocks. We never lost the courage to face strong headwinds and go against the mainstream. The emotional resilience of our team provided the ability to respond to stressful or unexpected situations. Their intellectual courage continuously enabled us to challenge old assumptions and understandings in order to act on new learnings and experiences. Dealing with sentient beings requires planning ahead, being responsible, organized and goal directed. Therefore, I have to repeat myself – our wonderful team and its mindset is the foundation of our success! I hope that their dedication will inspire many people to help in saving an endangered species and ensuring that our incredible biodiversity and ecosystems are protected for generations to come!

My husband and I are very proud of Ashia's achievements of the last seven years, and we want to express our deepest gratitude to everyone who helped and supported us to get where we are in such a short time. As things don't always go smooth our first and foremost thank you goes to our passionate veterinarians for immediately tending to all small and big health issues and injuries. Every cheetah counts and you saved many of them! The biggest threat to wildlife today is loss of habitat so an equally heartfelt thank you goes to public and nongovernmental organisations, to private game reserves and National Parks for securing, restoring, and protecting ecosystems for the benefit of wildlife and people. A special thank you goes to our heroes on the ground – at Ashia and in the field... volunteers and interns from all over the world, passionate reserve managers, devoted wildlife monitoring teams, courageous anti-poaching units... Last but not least, none of our "moves" would have been possible without the support of the various local and international conservation authorities and scientific bodies.

Finally, my thanks go to my loving husband as a driving force behind Ashia. The last seven years have been an eventful (and sometimes frightening) journey that we walked side by side, your focus and strength keeping us on the right path.

We love working with all of you! And we are all in for the right purpose, as "In nature there are neither rewards nor punishments – there are consequences." – Robert Green Ingersoll

Chantal Rischard Co-Founder Ashia Cheetah Conservation

www.ashia.co.za





PHASED relea WILDING ch orp

Ashia recognised the conservation value in releasing unrelated motherreared captive origin cheetah, rehabilitating orphaned and injured wild cheetah, through a phased wilding approach.

RANGE WIDE SUPPORT Ashia has been working towards mitigating threats facing wild cheetah populations by restoring predatory ecosystem integrity through responsible reintroduction and population management.

APPLIED RESEARCH

The key to long-term conservation of the species is exploring all promising research avenues. Through multiple ongoing studies, Ashia continuously develops relevant programs for cheetah conservation.

Ashia Cheetah Center

Purposeful impact

As such the name reflects perfectly the two sides of the project giving hope for the future of the cheetah species through Ashia's Reintroduction and Research Programs, and offering the best life to the animals in need of temporary or permanent care.

Ashia's Cheetah Center, close to Cape Town in South Africa's Western Cape, is the hub for the organisation's substantial conservation and research initiatives.

> 4800 visitors

How can I put into words what I have experienced here at Ashia, or better yet: lived? I am touched ! Filled with all the many things done here on site for these great animals. Every little task is an important contribution to the big goal: to give the cheetahs a future !

Over 50 cheetah have moved through Ashia's Cheetah Center as either part of their wilding process or due to rehabilitation and temporary holding.



ASHIA IS AN AFRICAN NAME MEANING 'HOPE AND LIFE'.

With more than 4800 visitors over 6 years, the Ashia Cheetah Center has become a must-see stop for tourists visiting Cape Town and the surrounds.

Exposure to conservation efforts within South Africa and beyond to the African continent is vital, as even just one person could be a positive catalyst for change.

Manuela Lenz, April 2023

> 340 volunteers & interns

from all over the world have callled Ashia their home

> > 50 cheetah





A steady start 2016 - 2023

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cheetah transports throughout Southern Africa



travelled by plane





cheetah supported through a range of activities



2016 - Ashia Cheetah Center established in Paarl, South Africa.

				Benin & Chad cheetah research commences		Further reintro
Ashia founded by Chantal Rischard & Stephan Illenberger end of	Ashia Center under construction and the arrival of the first cheetah	Start of Genetic Relatedness study Start of Release & Reintroduction Program	First two wilded cheetah released into SA Metapopulation Veterinary flight to Somaliland to assist with trafficked cheetah	Start of Ashia reintroductions to Zambia and Malawi	Further reintroductions to Zambia Genetic paper published after extensive peer-reviewed process	Free-roaming commences
				First Genetic Study results		Visit to Zimbo for reintroduc
2016	2017	2018	2019	2020	2021	2022



2023 – On-site reintroduction assessment for Akagera National Park, Rwanda.

·····>	2020 -	Start of reintroduction program in Bangweulu Wetlands, Zambia.
»	2020 -	Continuation of the introduction work in Majete, Malawi started in 2017 by African Parks and EWT.
»	2022 -	On-site reintroduction assessment for Matusadona National Park, Zimbabwe.

2023 - On-site reintroduction assessment for Iona National Park, Angola.

2018 - present - Ongoing cheetah wilding, translocation, rescue and rehabilitation with the South African cheetah metapopulation.

oductions to Zambia	Visit to Rwanda/Akagera NP for reintroduction assessment
Cheetah Census	Visit to Angola/Iona NP for reintroduction assessment
abwe/Matusadona NP tion assessment	2nd Generation cubs: Several litters born to the wild-born offspring of released cheetah

2023

Genetic integrity

Among large carnivores, cheetah have the smallest global population with approximately 6,500 mature individuals remaining across their African and Asian range. An estimated 23% (approximately 1,500 individuals) of which occur in South Africa as 1) unmanaged free-roamers, 2) an actively managed metapopulation, and 3) individuals in captive breeding facilities. The cheetah metapopulation was established in 2011 to ensure the genetic and demographic integrity of fragmented populations in southern Africa by coordinating translocations between participating reserves, supporting established but threatened populations through targeted supplementation, and increasing resident range through reintroductions into historical distribution.

While metapopulation management of cheetah in southern Africa has prevented further regional declines and continues to promote population support and growth, by 2017, the number of unrelated wild cheetah being moved into the metapopulation fell below the threshold of four individuals per year and relocating some slightly related individuals (i.e., 2nd cousins) into the same reserves became unavoidable (<u>Magliolo et al., 2023</u>), causing concern for metapopulation management about the long-term effects of using partially is related individuals.

Recognising this knowledge gap, Ashia set out to establish a project to evaluate the current genetic status of the metapopulation and understand what the long-term potential effects of this continued approach would be, as well as explore the genetic value of supplementing with alternative sources such as unrelated free-roamers and wilded individuals from captive origin.

As one of the first outputs from Ashia's collaborations with EWT, the South African National Biodiversity Institute (SANBI) and a team of international felid geneticists, Magliolo et al. showed that by using simulations of our current understanding of cheetah reproductive behaviour and management, the current strategy would result in a loss of genetic diversity and inbreeding within the next 5 to 10 generations. They also showed that interaction with the free-roaming population did not prevent this scenario, while captive origin sources were genetically different enough to prevent this trend if used to supplement the wild metapopulation.

The problem with sourcing from captive origin is that there are "learned" behaviors that can only be taught by the cheetah mother. For example, cheetah from a captive origin might instinctively know how to hunt but need to practice their hunting skills, to hunt the right species without getting hurt, and to effectively open carcasses. Although cheetah have been released from captive origins in the past, this complicated process has been met with varying success and failure. The predominant issue was the lack of a proper phased wilding process, followed by thorough monitoring and support from experienced organisations like Ashia.

Born from this need to support the healthy genetic growth of the South African metapopulation, Ashia's Release and Reintroduction program has demonstrated that with good management, high ethical standards and hard-won perseverance, there is high value in combining in-situ and ex-situ conservation strategies. The continually assessed phased wilding program, consisting of multiple steps of behavioural and physical adaptations, have proven invaluable for securing unrelated lineages within the metapopulation.





Hanna Rippon, Buffalokloof Conservancy



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•Not accounting for litters sired by wilded male cheetah on large reserves such as Phinda, Khamab and Kwandwe

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Range-wide support

Akagera National Park

Feasibility conducted with some concerns of predator conflict, ongoing deliberations of appropriate subspecies.

Bangweulu Wetlands GMA

supplementation Continued support and of reintroduction, concerns over movement outside of protected area, and predator pressure are being assessed. Actively monitoring and management remains a significant challenge.

Liwonde National Park &

Majete Wilderness

Ongoing support of genetic integrity and monitoring of these secure & source population if required.

Iona National Park

Evaluation of existing population with continued monitoring support and identification of threats. Feasibility to be based on these findings.

Matusadona National Park

Evaluation of existing population with continued monitoring support and identification of threats underway. Community engagement about predator management in and around the park being formulated in partnership between African Parks and statutory authorities. Concern of availability of suitable habitat considering pressure of known predators in the landscape.

The cheetah metapopulation was created to not only secure and grow existing populations but to support other regional populations against threats, or reintroduce into the suitable and historical range.

One of Ashia's key roles in the cheetah conservation landscape is identifying and supporting the link between established reputable organisations and their combined endeavours. For instance, in SA, the metapopulation is coordinated through the EWT and the Department of Forestry, Fisheries and the Environment (DFFE), and through the range-expansion project, supports reintroductions (e.g. Liwonde and Majete) where African Parks is tasked with securing current populations and historical cheetah landscapes. Recognising that neither of these organisations are primarily focused on the translocation and monitoring of introduced cheetah, Ashia has identified an important gap that requires our expertise, resources and longterm commitment.

Ashia fulfils this niche by harnessing the appropriate expertise and resources to conduct robust feasibility assessments, and thereafter identify the necessary infrastructural and other capacity requirements for such translocations. Working in partnership with the relevant statutory authority and conservation staff on the ground, Ashia manages and finances cheetah translocations into these landscapes in a strategic and long-term approach that ensures individual welfare while upskilling monitoring and veterinary capacity of local staff.

The long-term goal of this strategy, supported by all cheetah metapopulation conservation partners, is to secure and grow secured cheetah populations in southern Africa. The process of translocating cheetah in unknown landscapes and effectively monitoring these cats post-release is still a relatively novel exercise with many challenges and unforeseen difficulties not just for practitioners but also statutory authorities.

Maputo Special Reserve

Reintroduction attempted after external feasibility but withdrawn in hindsight given concerns over site security and anthropogenic pressure. While habitat remains suitable and within historical range, a reintroduction should not be considered without internal re-evaluation of feasibility and thorough assessment of threat mitigation.





As such, an informed and well coordinated approach will ensure steady progress and secure long-term success. We are continually improving our procedures and partnerships to ensure that the conservation value of each individual cheetah is optimised for the preservation of the species as a whole.



A 5-strong sibling coalition on Buffalokloof Private Game Reserve.





Conservation partnerships can be complex, but are extremely rewarding as in the case of the wilded cheetah, Khatu. From Ashia's Center in Paarl, to wilding camps in the Eastern Cape, to the release site of Buffalo Kloof Conservancy in 2020 and rearing two large litters to adulthood by the end of 2023, she has affirmed our belief in the value of wilding.

Buffalo Kloof's conservation values of protection and shared responsibility for endangered species, echo Ashia's own principles. As one of the original partner reserves, the conservancy has become a cheetah stronghold in the Eastern Cape.

Khatu's first litters' disappearance, born 4 months after release in March 2020, taught her the practicality of choosing safer denning sites, away from possible danger. The monitoring team put the disappearance down to predation, as three leopards were observed via camera trap during this time.

The second litter, born November 2020, was the result of these lessons learnt, as all 6 cubs survived the precarious first months of their lives. With their own hard-won education and residual scars, they reached adulthood and were placed on Big-Five reserves Kwandwe, Lalibela, Kariega and Lapalala Wilderness, who took on the responsibility for these genetically valuable cheetah and where 2nd generation litters have already been produced.

ASHL

As plans were made for these translocations, Khatu gave birth to yet another litter of 6 after spending time with the resident male. As per usual, survival has never been guaranteed, and she lost one cub early on. With yet another lesson learnt, this persevering mother took great care and all 5 young cubs have become 5 young adults. With the translocations at the end of December 2023 and beginning of 2024 to Abelana, Ka'ingo and Madikwe Conservancy, the genetic reach that one wilded female has achieved, is astounding: 11 first and 9 second generation cubs!

The vulnerable nature of the cheetah, a predator that at times turn victim, leads to relatively high mortality rates which is compounded by the necessary interference of translocations between reserves to prevent inbreeding. Any newly introduced cheetah is at risk, regardless if from captive origin or wild born, and although Khatu's offspring is many, a realistic viewpoint must remain.

As part of the over-arching reason for wilding captiveorigin cheetah, Khatu has started a rolling effect of new genetics being spread in South Africa. Some of them might meet untimely deaths, yet her genetics have been cemented within the population and has the potential to be one of its saving graces.









An unrelated captive-born wilded female like Catja, After a fully funded 6-week stay at Old Chapel Vet already a proven mother, adds immense and a permanent plate with screws to hold the conservation value to the cheetah population in bones in place while healing, the future of this South Africa. Which made the decision to interfere paticular cheetah had to be determined. The after she sustained a suspected hunting injury to the decision to intervene necessitates commitment. Long-term rehabilitation and care would be knee, an uncomplicated one. required to ensure that both Catja and Hobbes Treatment in the field failed with the injury worsening could be returned to the protected wild.

to such an extent that mid COVID-lockdown, Ashia organised that she was driven through the night to The rehabilitation of these two cheetah at Ashia's Old Chapel Veterinary Clinic and treated by Dr Peter Cheetah Center in Paarl took patience and time, Caldwell. Five different surgeries involving pulling the but after a combined total of 2 years at the center, patella back into place with specially designed multiple veterinary visits and the steady re-building copper-wire tension bands was done over the course of wasted muscle, the next step of release was of 8 months. upon us.

Hobbes, a wild male cheetah originating from a Botlierskop Private Game Reserve is the base of reserve in the Eastern Cape, had to undergo long-time partner vet, Dr Willem Burger. With an different considerations for intervention. His already strong attachment to these cheetah as he challenging history started as a young cub when he had been vital in their initial stabilisation, he fractured his calcaneus, the large bone forming the supported the continuation of their recovery on the heel, of his right back foot. The reserve made the reserve early 2022, where he can offer immediate decision to have the fracture repaired, and after care when and if required. some time at Old Chapel Veterinary Clinic, he returned to his mother. Eventually translocated to the Adaptation to their new environment was quick, Northern Cape as part of the genetically-motivated with both surprising us with their ability to adjust relocations between reserves for the Cheetah their hunting technique accordingly. Their release metapopulation, his already vulnerable right foot cumulated to a litter of 3 being born in July 2022, suffered another fracture and once again, the validating our perseverance in ensuring both these cheetah in our care get the benefit of the doubt. reserve decided to intervene by contacting Ashia.

Top left: Catja with her first litter of 4 males, all now released on Khamab Private Game Reserve, on which they are the dominant coalition and thus the most likely sires of multiple litters.

Bottom left: Hobbes on Botlierskop

One of the most difficult decisions to have to make working with wild animals is at what stage do you stop interfering and let nature take its inevitable course. You consider the risk and reward, the welfare of the individual and perhaps the relative value the individual would have to the species. Especially if that species is under threat.





Catja with her second litter of 3 males on Botlierskop, to be relocated mid-2024.

Applied Research

Despite their iconic value, very little is known about cheetah outside of research conducted in large protected landscapes. The reality is that most cheetah in the South African metapopulation exist in relatively small fenced reserves or as freeroaming individuals living mostly on farmland. Exceptions are the large free-ranging populations in Kruger National Park and Kgalagadi Transfrontier Park. In these smaller and very different fenced reserves, active predator management based on the interpretation of monitoring information is required. Understanding cheetah movement, how they use the landscape, how they respond to predators and one another in various social groups, the effect they have on co-existing species and their reproductive biology are among the key questions that still needs more in-depth answering. Research fullfills this role in practical management by interpreting monitoring information in the larger theoretical context. Where projects have got clear applications for the benefit of cheetah metapopulation management, Ashia supports smaller scale research and technical development projects such as solar collars and newly designed light-weight transport crates.



Early mornig sedations at the Cheetah Center to avoid the heat

Newly designed aluminium crates strong enough to hold cheetah and light enough for aircraft transports.

Some of the research projects Ashia has supported:

A Rijksuniversiteit Groningen (RUG) MSc study into the 'successful predatory avoidance behaviour to lion auditory cues during soft release from captive cheetah' was published in 2022 as part of Ashia's understanding of predator naivety and avoidance behaviour in captive-origin cheetah. This study supported the expectation that some captive origin cats will show predator naivety by not responding to predatory cues. This understanding has been incorporated in the subsequent Ashia phased rewilding protocols whereby low-predator release sites are actively selected to allow exposure with minimal risk to captive origin cats, primarily females, that may be predator naive to build a sense of awareness and avoidance. This understanding contributes to optimising phased wilding decisions and thereby the management of the metapopulation with individuals of distinct genetic value.

A Stellenbosch University (SU) MSc study into the "phased released wilding success for metapopulation supplementation from captive origin cheetah" was completed in 2022 as part of quantifying the success of Ashia's phased wilding program. The study showed that not only did 12 cats successfully establish on 7 reserves, but they produced 16 wild-born first generation cubs, from which 13 second generation cubs have already been born. This evidence suggests that this particular phased wilding methodology developed by Ashia, opens up the potential to wild orphaned and captive origin cheetah that would otherwise either die in the wild or have little value for cheetah conservation.

Solar SAT tracking collars that is lightweight with a potential 5 – 7 year lifespan.



During the phased wilding MSc and all ongoing translocations, Ashia has identified welfare related concerns around the weight and design of existing cheetah collar devices. While this is an ongoing technical development process in the remote monitoring field, Ashia has come to understand that this is an opportunity for our support. Developing this technology is not just a theoretical exercise, it requires a supporting institution that has access to well-monitored individuals in various environments to continually test collar design and efficacy from a practical point of view for this essential monitoring tool.

Ashia has realised that adequate frameworks for policy development is vital throughout the cheetah conservation range and thereby regional and national strategies require contribution in both development and support. Ashia has particularly identified feasibility and translocation guidelines in the context of regional strategies as a deeply theoretical policy gap that needs to be filled. The reality is that national policy, permit processes and landscape management are dictated by international and national guidelines, which we aim to bolster with wellresearched and peer-reviewed results.



Placing trail cameras at cheetah marking sites to determine number of cheetah as well as individuals.

Ongoing studies ... 2022 - 2025 Free-roaming Cheetah Census

Free-roaming cheetah are generally understudied, even though a very large proportion of these cats are found in southern Africa and likely represents one of the largest remaining contiguous populations of cheetah outside of protected areas. In South Africa, these cheetah represent up to 10% (estimated 800 individuals) of the remaining global cheetah population.

The free-roaming cheetah are truly wild and wide-ranging cats that transverse community and private farmland. Owing to this vast landscape, they are not actively managed as a single conservation unit. Historically the Endangered Wildlife Trust (EWT) and currently the Cheetah Outreach Trust (COT) have actively engaged around conflict mitigation and management of these cheetah on farmlands through the use of aversive measures such as Anatolian livestock guardian dogs, and translocations and removal of damage causing animals in collaboration with state nature conservation agencies.

Ashia's role has evolved beyond the captive and metapopulation management space, thus we have increasingly recognised the knowledge gap and the importance of understanding the freeroaming population, having already contributed to monitoring and veterinary support through COT.

The reality is that we have very little idea of where exactly and how many cheetah occur throughout this range as current estimates rely heavily on habitat suitability modelling and expert opinion. Without this baseline knowledge it is very difficult to conserve these cheetah as we have little understanding of population trends, the threats they face and what role they may play in the conservation of their species globally.

Playing an unique role in that being privately funded and selective about its support, Ashia can tackle special projects that most organisations do not have the resources to address, but are identified as critical to understanding the practical management and development of policy. In recognition of this, Ashia has partnered with COT in spearheading the multi-year Free-Roaming Cheetah Census (FRCC). The primary purpose of which is to answer critical questions relating to the conservation status and future of free-roaming cheetah in southern Africa.







university of

Over this multi-year period, Ashia and COT have partnered with Stellenbosch and Groningen Universities to identify the current range of free-roaming cheetah and estimate their population size in South Africa. During this period, information will also be gathered on landowner tolerance towards predators and identifying key ecological corridors and other behavioural information.

The most challenging aspect is the vast study area (approx. 10x Kruger NP) which encompasses much of the areas around the northern and eastern borders of SA. Using questionnaires, camera trapping and sign surveys we hope to answer these critical questions and deliver this information to on-the-ground partners and practitioners like COT and provincial nature conservation authorities, as well as policy developers such as the scientific authority and DFFE.



Sept 2022 - Der 2023

74



Active camera sites



>160 More than 160 cameras deployed

23692 Combined number of trap nights



160 Surveyed 160 farmers and landowners



Identified 17 individual cheetah



Ongoing studies ...

North African **Cheetah Research**

Northwest African cheetah (Acinonyx jubatus hecki) are among the most rare and elusive of the species and are critically endangered as they are believed to comprise fewer than 420 mature individuals throughout their remaining range. The cheetah themselves are genetically distinct and are believed to differ morphologically from other Saharan cheetah, physically smaller with shorter pale fur and smaller less dense spots. To better understand this unique and valuable subspecies in the face of its extinction, Ashia set out to determine baseline population density estimates and identify threats into the remaining habitat strongholds across the Sudano-Sahel Zone, including the W-Arly-Pendjari (WAP) and Bahr/Salamat landscape.

This PhD study took advantage of being on the ground in Benin and Chad conducting camera trap based population estimates by oppurtunistically cage trapping and collaring individuals. Not only to track their movement and better understand their ecology but also to take blood samples for potential confirmation of subspecies - this is particularly important for the Greater Zakouma Eco-system (GZE) where it is still unknown to science as to whether this is the Northwest (A.j. hecki) or Northeast (A.j. soemmeringii) African subspecies. Should it be confirmed that the remaining cheetah in the GZE are Northeast African (A.j. soemmeringii), this would leave the Northwest African (A.j. hecki) with only one habitat stronghold in West Africa.



Density estimates, currently under peer review, show that the Northwest African cheetah population size is between 68 and 97 individuals across both landscapes. This represents an over 80% decline from previous estimates based on expert opinion with movement occupancy and genetic analysis underway.

North Africa is a particularly difficult landscape for cheetah as well as researchers and staff on the ground. While these areas are protected on paper, site security and the enforcement of conservation efforts remains challenging. For instance, while cheetah densities in WAP were relatively high, these were only measured for Pendjari and not the rest of the park. Additionally, other predator densities were far lower than expected, and much of the reserve was inaccessible due to jihadist insurgency, where evacuation over security concerns suspended ongoing monitoring in the landscape. Without the valuable cooperation of African Parks and their continuous logistical and security support, this study would have been a tough battle in this dangerous and utterly wild terrain.



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April 2021 - May 2023

297 combined number of camera stations

HH HH HH HH HTI HTI HTI HTI 15 429 Combined number of trap nights

> 80% Percentage decline of previous estimates

< 100 Amount of individuals identified

Bottom left, middle and right: Ali Shams, PhD student from UCT, spent just under 2 years working in hot, wet and harsh landscapes. By setting up trail cameras and capture cages for collaring, Ali and Ashia have amassed an invaluable ecological and genetic dataset of these endangered cheetah.



A male coalition in the last phase of wilding and on the brink of release.