LANDMARK FOUNDATION

ANNUAL REPORT



February 2025

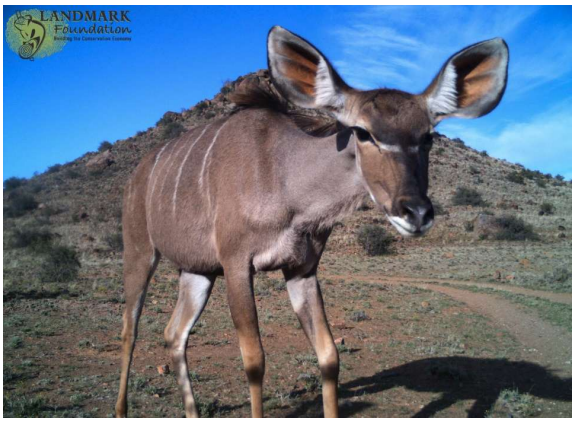
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This is a report on the activities by Landmark Foundation between March 2024 and February 2025. The Trustees and Staff are grateful for the donor support to do this work.

Table of Contents

Table of Contents 2
Objective, Purposes and Outputs 3
Leopard Project 6
Wetland, Riparian and Landscape Restoration and Rewilding 31
Environmental Education Programme 36
Biodiversity and Law Project 46
Reflecting on 2024 51
Organisational Information 53
Looking Forward 54



Objective, Purposes and Outputs

Core organisational objective	
Conservation custodianship is promoted so that Southern Africa's natural landscapes and biodiversity can be effectively conserved.	
Core organisational purposes	
1. Restorative and regenerative conservation actions promoted to maintain naturally occurring patterns and processes of biodiversity. **2. Conservation efforts focused on top trophic-level species, the impacts of production agriculture, and landscape biodiversity, with a particular focus on leopards as the last free-roaming top carnivore.** **3. Intrinsic value of natural systems and life forms promoted and supported.** **4. Recognise the interconnectedness of life, and the fact that humans are members of the ecological whole, promoted and supported in conservation actions.** **5. Sentience of life, and our obligation to respect it, promoted.** **6. Governance and accountability supported for the conservation of biodiversity patterns and processes.**	
Core outputs executed through the following programmes: • **Leopard and Predator Project** • **Wetland, Riparian and Landscape Restoration and Rewilding** • **Environmental Education Programme** • **Biodiversity and Law Project**	
1. Advocacy for leopard, top trophic species, and conservation land uses on agricultural production landscapes	- Damage-causing animal (DCA) conservation - Leopard conservation on agricultural production landscapes; - Promoting tolerance and coexistence between people and wildlife to reduce conflict and support long-term conservation; - Opposing commoditisation of biodiversity assets; - Social media campaigns and raising awareness for conservation action; - Shepherding Back Biodiversity project rescue; - Pursuing litigation on public policy matters, administrative accountability, and public accountability when necessary, in alignment with core objectives.
2. Education	- Youth Environmental Education through Early Childhood development interventions, Green Clubs, Green Schools Recycling Program, teacher training, collaborations and public interventions - Community gardens; - Youth in Conservation; - Public information and mobilisation;

3. Research	- Identifying leopard habitat distribution and corridors; - Understanding leopard metapopulation dynamics and connectivity; - Quantify livestock losses caused by leopard and identify high conflict areas; - Test the efficacy of non-lethal conflict mitigation tools including financial compensation, translocation efficacy; - Genetic vitality and structure of remaining leopard populations; - Carnivores as a surrogate for broader ecosystem conservation; - Meso-predator conservation - Caracal conservation; - How various land use zones impact species, and broader ecosystem conservation; - Restoration ecology on production landscapes e.g. rewilding; - Identify pathways to co-existence across land uses.
4. Direct action	- Extension work with government conservation structures; - Human-wildlife conflict (HWC) mitigation; - Leopard and other carnivore rescues; - Wetland & landscape restoration;
5. Market mechanisms	- Fair Game Wildlife-Friendly Products;
6. Habitat expansion	- Vette-Korente Wetland Project; - Leopard habitat and connectivity; - Wildlife-friendly farming and rewilding. - Hermanus Wetland Project.



Organisational Mandate

Established in 2004, Landmark Foundation is a conservation Non-Governmental Organisation based in South Africa that implements practical, economical, and ecologically viable land use management approaches that ensure sustainable conservation goals at a large scale. We promote evidence-led, ethics-driven management tools that create effective conservation custodianship so that Southern African landscapes can effectively be conserved.

Our implementation focus is on top-trophic species conservation efforts (with a special interest in leopard conservation), landscape conservation and rewilding, ecological restoration, and human-wildlife coexistence, particularly in production landscapes.

The **organisational philosophy** is guided by a set of ethical principles that embrace the primacy of respecting life, the interrelatedness of life, the sentience of all living things and maintaining a healthy environment for a sustainable future for all forms of life.

Landmark Foundation believes that the environment has intrinsic value. Humans are part of the ecological whole, and we have a duty of care towards all other members of that community. By dominating the extraction of resources from the entire ecosystem and the commoditisation of life and resources, humans have become a destructive species.

Aldo Leopold argued that we ought to regard the environment and its communities as morally considerable in our actions. *'A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise*.'



Leopard and Predator Project

Background

Carnivores play a crucial role in maintaining healthy ecosystems. As apex predators, they regulate prey populations, control the spread of pathogens, and limit meso-predator numbers, such as jackal and caracal, through competition, contributing to functional and healthy ecosystems.

Our top predator conservation efforts follow a strategic approach that promotes coexistence by integrating biodiversity patterns and processes across all trophic levels in production landscapes. The leopard is the last remaining free-ranging top predator throughout most of its range in South Africa and plays a critical role on biodiversity health. Our focus on apex predators is driven by the ecological collapse that occurs when top carnivores are removed, disrupting ecological balance and biodiversity.

Historically, leopards were regarded as “vermin” and subjected to extensive and systematic hunting from the mid-1600s in the Cape Colony. However, significant provincial and national actions since the 1960s have contributed to the species' gradual recovery in some areas. These actions include the termination of state-funded vermin bounties on leopard culling in 1968, the phasing out of subsidized vermin hunting clubs by the mid-1990s, and repeated amendments to "problem animal" laws and regulations. These government interventions have been critical to reversing leopard population declines, supported by the advocacy and agitation of non-governmental organizations (NGOs). As a result, there have been notable conservation gains for leopards in parts of the Western Cape. These gains are however not ubiquitous and even around the country.

To date, predator conservation efforts have largely been confined to protected areas, but this approach has significant limitations. Widespread habitat transformations and historical persecution in livestock production landscapes have left most top predators extirpated from their former ranges. While predators such as wild dog, cheetah and spotted hyena are sporadically seen along the Botswana and Zimbabwe border regions they are isolated cases and do not exist in viable numbers and permanent distribution. Leopards are now perilously hanging on as the last free-ranging top predator in most of South Africa, persisting in reduced numbers and distribution.



Only around 10% of South Africa is formally protected area. However, most leopard habitat exists outside of protected areas with merely ~12% of leopard habitat occurring in formally protected areas. These areas are often small and isolated, rendering them insufficient to sustain viable wildlife

populations, least of all for wide-ranging species such as leopards. Additionally, protected areas are frequently surrounded by highly modified landscapes, where hostility toward predators prevails. This isolation has led to genetic fragmentation and inbreeding, as observed in genetic analyses of leopard populations in the Cape Provinces. These challenges highlight the importance of expanding wildlife-friendly practices on production landscapes.

The effective conservation of highly mobile species hinges on their protection over vast areas, and across various land use zones, and the management of conservation-compatible and carnivore-human conflict mitigation strategies on human-dominated land outside the existing protected area network will be crucial.

Landmark Foundation's leopard conservation work focuses on six core objectives to address these challenges:

1. **Rescue and Rehabilitation** – Providing care and release opportunities for injured or displaced leopards.
2. **Expanding Wildlife-Friendly Habitat** – Promoting predator-friendly farming practices to create corridors of available habitat and connect fragmented populations.
3. **Research** – Conducting evidence-based studies to inform conservation strategies.
4. **Education** – Raising awareness about the ecological value ecosystems and biodiversity and promoting coexistence and responsible practices.
5. **Advocacy** – Engaging stakeholders to influence policy and public opinion in support of predator conservation.
6. **Market Mechanisms** – Incentivizing wildlife-friendly practices through mechanisms such as eco-labelling and conservation-linked financial rewards.

By reducing livestock losses and conflicts caused by leopards and other carnivores, and encouraging non-lethal predator management and coexistence tools and methods, production landscapes can become essential conservation areas. Our strategy results in landscapes which serve as wildlife-friendly corridors, linking protected areas and facilitating gene flow, dispersal, and the long-term survival of previously fragmented large carnivore populations and that of other wildlife.

Our integrated approach combines research and conservation action across diverse and widespread areas. This ensures that conservation solutions are grounded in scientific evidence and scalable to other regions. By fostering coexistence and expanding predator-friendly habitats, we aim to secure a future where leopards and biodiversity exist in a tolerant landscape with human activities. Landmark Foundation has over the years contributed significantly to the body of peer-reviewed scientific knowledge related to leopard ecology and management imperatives, and other land management actions. Our research work is detailed in this table:

Research Questions	**Peer-reviewed Scientific Publications**
What are the Leopard Population Dynamics in various research sites in Western, Eastern and Northern Capes?	McManus, J.S. 2009. The spatial ecology and activity patterns of leopard (Panthera pardus) in the Eastern Cape, South Africa. Rhodes University, Grahamstown, South Africa. Masters of Science Dissertation. Population dynamics in various areas: Research underway
What are the Resource Requirements and Use of Leopards, specifically investigating Land Use, Connectivity and Gene Flow?	McManus, J.S. 2018. The conservation of leopards (Panthera pardus) in the Eastern and Western Cape, South Africa: Investigating the effect of Land Use, Gene Flow and

	Connectivity. Witwatersrand University, Johannesburg. PhD dissertation. McManus, J., Marshal, J.P., Keith, M., Tshabalala, T., Smuts, B. and Treves, A., 2021. Factors predicting habitat use by leopards in human-altered landscapes. Journal of Mammalogy, 102(6), pp.1473-1483. Jandova, K., 2019. Does resource dispersion drive leopard habitat selection? Czech University of Life Sciences, Prague. Faculty of Tropical AgriSciences. Masters of Science Dissertation.
What is the Profit and Loss Accounting of Carnivore Impacts in lethal and non-lethal controls?	McManus J.S., Dickman, A., Gaynor, D., Smuts, B. and Macdonald. D.W. 2014. Dead or alive? Comparing costs and benefits of lethal and non-lethal human-wildlife conflict mitigation on livestock farms. Oryx. doi:10.1017/S0030605313001610.
What are the priorities in human-wildlife conflicts in the field of the Science of Carnivore Ecology?	van Eeden. L., Eklund, A., Miller, J., López-Bao, J., Chapron, G., Cejtin, M., Crowther, M., Dickman, C., Frank, J., Krofel, M., Macdonald, D., McManus, J., Meyer, T., Middleton, D., Newsome, T., Ripple, W., Ritchie, E., Schmitz, O., Stoner, K., Tourani, M and Treves, A. 2018. Carnivore conservation needs evidence-based livestock protection. PLoS biology, 16(9), p.e 2005577. Treves, A., Krofel, M. and McManus, J., 2016. Predator control should not be a shot in the dark. Frontiers in Ecology and the Environment 14, 380-388.
What are the Impacts on Veldt Condition using High Density Short Duration Grazing Kraaling? (A tool in managing human-wildlife conflicts.)	McManus, J., Goets, S, Milton, S, Bond, W., Henschel, J and Smuts, B. 2018. Trampling recovery of plants on temporary Karoo kraal sites. African Journal of Range and Forage Science. https://doi.org/10.2989/10220119.2018.1529706
Is Leopard a Presence in a Landscape a Biodiversity Indicator?	Tshabalala, T., McManus, J., Treves, A., Masocha, V., Faulconbridge, S., Schurch, M., Goets, S. and Smuts, B., 2021. Leopards and mesopredators as indicators of mammalian species richness across diverse landscapes of South Africa. Ecological Indicators, 121, p.107201.
What are the Leopard Densities in Western and Eastern Cape?	Devens, C., Tshabalala, T., McManus, J. and Smuts, B. 2018. Counting the spots: The use of a spatially explicit capture–recapture technique and GPS data to estimate leopard (Panthera pardus) density in the Eastern and Western Cape, South Africa. African Journal of Ecology. https://doi.org/10.1111/aje.12512. Devens, C.H., Hayward, M.W., Tshabalala, T., Dickman, A., McManus, J.S., Smuts, B. and Somers, M.J., 2019. Estimating leopard density across the highly modified human-dominated landscape of the Western Cape, South Africa. Oryx, pp.1-12.
What is the Leopard Population Genetic Viability Presently and What Does it Tell Us About the Conservation Status of the Species?	McManus. J.S., Dalton, D., Kotze, A., Smuts, B., Marshal, J. and Keith, M. 2015. Genetic structure of a solitary carnivore in a human dominated landscape. Ecology and evolution 5(2): 335–344. McManus, J., Smuts, B. 2016 Low microsatellites used to investigate leopard genetic structure severely restricts the

	results by Ropiquet et al. (2015) to infer population structure for managers. Comptes Rendus Biologies 339: 378–379 Lachger, E., Lensing, K., Boss, M., Fischer, K., Camacho, G., McManus, J., Tensen, L., 2024. Red, gold and green: Comparative genomics of polymorphic leopards from South Africa. Evolution, https://doi.org/10.1093/evolut/qpae178 Leopard genome analysis – Research underway
What are the Predicted and Functionality of Habitat Corridors for Leopard?	McManus, J., Schurch, M.P., Goets, S., Faraut, L., Couldridge, V. and Smuts, B., 2022. Delineating Functional Corridors Linking Leopard Habitat in the Eastern and Western Cape, South Africa. Conservation, 2(1), pp.99-121.
How Effective are Human-Wildlife Conflict Mitigations?	Dickman, A., Potgieter, G., Horgan, J., Stoner, K., Klein, R., McManus., J.S. and Marker, L. 2018. Use of Livestock Guarding Dogs to reduce human-cheetah conflict. In: Cheetahs: Biology and Conservation (Eds Marker, L, Boast, L and Schmidt-Kuntzel, A). AP, Namibia.
Are Compensation Mechanisms Effective conservation tool?	Research underway
What Evidence is there of Leopard Rewilding and Natural Recolonizations?	McManus, J., Smits, AJ., Faraut, L., Couldridge, V., Van Deventer, J., Samuels, I., Devens, C., and Smuts, B., 2024. The Recolonization of the Piketberg Leopard Population: A Model for Human-Wildlife Coexistence in a Changing Landscape. Conservation, 4, pp. 275-287.
What is the Effectiveness of Translocations as a Management Tool in Human Wildlife Conflicts?	McManus, J., Faraut, L., Couldridge, V., Van Deventer, J., Samuels, I., Cilliers, D., Devens, C., Vorster, P. and Smuts, B., 2022. Assessment of leopard translocations in South Africa. Frontiers in Conservation Science, p.63. https://doi.org/10.3389/fcosc.2022.943078
What is the Leopard Presence and likelihood of survival among Isolated Habitat Patches?	Research underway
Are there Specific Conflict Hotspots of Conflicts in Leopard Habitats, and are there Determinants of Such?	Research underway
What would an Ideal Regional Leopard Management Plan look like?	Research underway
What are the Pathways to Coexistence with Carnivores?	Boronyak, L., Jacobs, B., Wallach, A., McManus, J., Stone, S., Stevenson, S., Smuts, B. and Zaranek, H., 2021. Pathways towards coexistence with large carnivores in production systems. Agriculture and Human Values, pp.1-18. Boronyak, L., Jacobs, B., McManus, J., Stone, S., Smuts, B., Submitted. Barriers to Preventive Innovations in the US and South Africa
What are the Ecological Impacts of Wildlife Friendly Farming and Rewilding?	Hasselerharm, C.D., Yanco, E., McManus, J.S., Smuts, B.H. and Ramp, D., 2021. Wildlife-friendly farming recouples grazing regimes to stimulate recovery in semi-arid rangelands. Science of The Total Environment, 788, p.147602. Hasselerharm, C.D., Wooster, E.I.F., Zawada, K.J.A., Yanco, E., Julliard L., McEvoy, T., McManus, J.S., Smuts, B.H., Lungren, E.J, Middleton, O.S, and Ramp, D. Submitted. Wildlife-friendly Farming Promotes Functional Richness and Trophic Complexity.

	Schurch, M.P., McManus, J., Goets, S., Pardo, L.E., Gaynor, D., Samuels, I., Cupido, C., Couldridge, V. and Smuts, B., 2021. Wildlife-friendly livestock management promotes mammalian biodiversity recovery on a semi-arid Karoo farm in South Africa. Frontiers in Conservation Science, 2, p.6. Yanco, E. 2021 Shifts in human well-being and attitudes towards nature following livestock herder training and implementation. University of Technology, Sydney, Australia, Dissertation towards a Doctorate in Philosophy.
How do Caracal Respond to Wildlife Friendly Farming?	Jooste, E., McManus, J.S., and Couldridge, V. Submitted. Diet of caracal on lethal and non-lethal carnivore treatment farms in the Karoo, South Africa. Jooste, E., McManus, J.S., and Couldridge, V. Submitted. Caracal habitat selection and activity patterns on a predator-friendly farm in the Karoo, South Africa Jooste, E. 2020 The spatial and dietary requirements of Caracal (Caracal caracal) in lethal and non-lethal predator control landscapes. University of the Western Cape. Masters of Science Dissertation passed with Distinction 2020.

In 2024, our continued conservation efforts spread further throughout the Eastern, Western and Northern Cape.

Current Project Areas in 2024/2025:

- Augrabies & Springbok, Northern Cape
- Klein Swartberg, Western Cape
- Langeberg – Riviersonderend - Montague, Western Cape
- Outeniqua, Western Cape
- Overberg, Western Cape
- Piketberg, Western Cape
- Riebeek, Western Cape
- Voor Paardeberg, Western Cape
- West Coast, Western Cape
- Tsitsikamma/Wittedrift/De Vlugt, Western Cape

Major outputs from the project over the last 12 months:

1 Human-leopard conflict mitigation in high leopard persecution areas,
2 Six leopard incidences
3 Predict suitable leopard habitat, delineate corridors and connectivity, evaluate newly recolonised areas,
4 Assess the functionality of predicted corridors through extensive camera trapping monitoring,
5 Analyze leopard genome analysis to assess population genetic vitality and connectedness,
6 Reduce human-caused mortality by employing a financial compensation scheme for verifiable livestock losses caused by leopards for farmers participating in non-lethal predator management,
7 Submitted 3 scientific publications to peer-reviewed journals.

8 Drafted Standard Operating Procedure for government agencies as part of our plan for leopards in the Cape Provinces.

Leopard Conflict Mitigation

Since human-wildlife conflict and resultant human-caused mortalities is the largest contributor to leopard mortality in our focal areas, a major component of the leopard project work is mitigating these conflicts. Conflict results due to real or perceived livestock losses that occur as a result of carnivores. These can become conflict hotspots when continued and sustained losses occur over many months to years, and where producers feel unsupported in facing the challenges of farming with predators. Our conflict mitigation efforts for 2024 were focussed in the Piketberg mountain, Voor-Paardeberg, Riebeek's Kasteelberg, Riversdale, Uniondale, Mossel Bay, Clanwilliam, McGregor, Blombos, Ashton, Montague, Augrabies, Hermanus/Arniston, and Wittedrift where livestock were reportedly killed by carnivores across several properties.

In conjunction with camera-trapping, we deployed cages aimed to capture, collar and release leopards implicated in livestock loss areas, to mitigate losses though our compensation scheme. During these operational periods, by-catch animals were caught on two occasions (scrub hare and Cape grysbok). All by-catch captures resulted in releases on site with animals being unharmed.



Cage deployed in response to livestock depredation.

"I wish to thank the Landmark Foundation for helping me, when I had severe calf losses. The introduction and support, to better understand and respect the leopard was a wonderful learning experience for me, sincere appreciation for your support."
Daniel Truter (Piketberg farmer).

Leopard Interactions

We report on six direct leopard interactions over the past 12 months in the provinces where we work (Table 1). Of these, one female and two male leopards were captured, fitted with collars, and released on-site. They were subsequently monitored post-release as part of a broader species conservation project focusing on population dynamics, conflict mitigations, financial compensation, and wildlife coexistence efforts across the Eastern, Western, and Northern Cape. We were also notified of two leopard captures in a later stage (several days following the captures). Furthermore, two leopard deaths were recorded in the Western Cape (Table 1), including the female we rescued in February

2024 who was shot and killed 7 months later, and another female killed in a road collision. Genetic samples were obtained from each instance of interacting with leopards.

Table 1. Leopard incidences between over the last 12 months

Date	Sex	Age	Location	Province	Collared	Status	Notes
2024/02/14	F	Adult	Riebeek Kasteel	WC	Y	Alive and Died 8 months later.	Cage was set by farmer without permit. Collared and released with CapeNature. Animal was later shot near capture site on ~16 October. Forensic investigation initiated.
2024/02/24	M	Adult	Retreat Farm, McGregor	WC	Y	Alive	Cage set by farm workers without permit. Leopard was collared and released on site with willing farmer with CapeNature.
2024/03/14	M	Adult	Welgemeen Boerdery, Prince Alfred Hamlet	WC	N	Alive	Cage set by land owner without permit. Situation handled by CapeNature.
2024/08/27	M	Adult	Baardskeedersbos	WC	N	Alive	Cage set by landowner without permit, and released on sight by Cape Nature.
2024/10/05	F	Adult	Du Toitskloof pass, Western Cape	WC	Y	Died	Road collision death.
2024/10/18	M	Adult	Augrabies, Northern Cape	NC	Y	Alive	Cage set by government authorities. Relocated to a game reserve by Northern Cape

2024/02/14 Riebeek Female

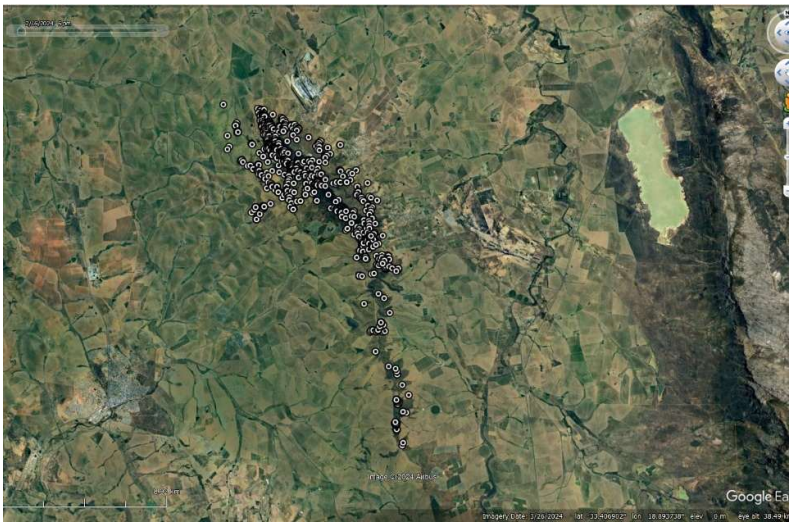
We assisted in the rescue of a leopard near Riebeek West on 14th February 2024, 2024. The female was trapped in an illegally set cage set up by a farmer without the required permits, reportedly in response to livestock losses. CapeNature contacted us to facilitate conservation efforts.

The farmer was not willing to engage in a discussion on mitigation efforts and discussing how to protect his livestock and appeared hostile, nor participating in compensation and mitigation efforts.

To resolve the immediate conflict, the leopard was relocated 8 kilometres from the capture site, as the farmer refused to release her on-site. The leopard was fitted with a GPS tracking collar, allowing us to monitor her movements for seven months. Several attempts to coopt the landowner to participate in non-lethal mitigations failed. In mid-October 2024, unusual GPS activity prompted an investigation, and her body was found. A necropsy revealed she had lead bullet head fragment in the chest. This is a significant loss, as she was the only known leopard in the Riebeek mountain range (Kasteelberg) and likely the first to recolonize this habitat patch in more than a century. With her death, no other leopards are known to occupy the area. She utilized the 3000ha mountain as her home range.

The Kasteelberg mountains, like other isolated habitat patches such as Voor Paardeberg and Piketberg, are vital for leopard conservation, supporting metapopulation dynamics by providing essential habitat for dispersal and breeding. Killing this leopard was unacceptable, particularly as there are accessible and proven methods to mitigate livestock losses without resorting to lethal measures. Simply, the farmer was not interested in working in ways to mitigate conflict despite our efforts to assist in such.

This case requires thorough investigation and accountability for the perpetrator. It highlights the urgent need for stronger conservation measures to protect leopards and promote coexistence between wildlife and human activities.



Riebeek female leopard GPS data indicating she utilized the entire ~3000ha Kasteelberg mountain.



Riebeek female found dead after being shot. She was found adjacent to the farm she was caught on 7 months prior.

2024/02/24 McGregor Male

We were notified by a community member near McGregor and we informed Cape Nature's Vrolikheid office to assist with a leopard that was reported to be caught in a cage. The cage was set by laboruers on the farm targetting at poaching porcupine for food when they captured a leopard. Fortunately, they did the right thing and called us and we could work together to collar and release the leoaprd on the farm where it was caught. The farmers were very happy to have the lepard on their property and no conflict was present as they focus on farming vines and other crops. The leopard is still currently being monirotred. He ranges a vast region and appears to have shifted his range more easterly than the first 4 months of monitoring, perhaps and likely due to neighboring leopards. This is a young male and we are likely to have witnessed a leopard in early dispersal to find his new home range.



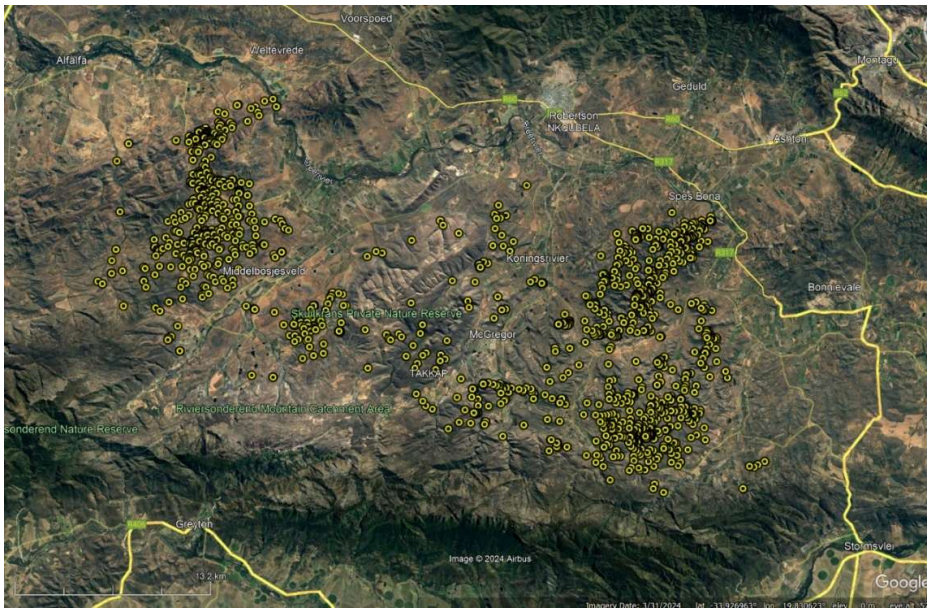
McGregor Male

2024/03/14 Prince Alfred Hamlet Male

Cape Nature let us know post facto that a leopard was captured in a cage set by the landowner, and that the animal was released on site. We obtained a genetic sample.

2024/08/27 Baarskeedersbos

A cage was set without a permit by a farmer near Elim, Western Cape. Cape Nature responded and released the leopard and only informed us post facto. This was a key missed opportunity to collar and release the animal however Landmark was not included in the effort. To ensure that these opportunities are maximised we had a constructive meeting with Cape Nature and on 30 December we were asked to assist a farmer in the same area who had suffered livestock damage that appeared to be caused by leopard. We activated a cage at the site to target collaring and releasing the animal on site. No leopard was captured at this event.



McGregor male GPS data (Yellow points) shows that he utilizes a very large range in total making up 41000ha. He appeared to shift more permanently to the eastern section of his range over the last 4 months of monitoring which makes up approximately 22000ha.

2024/10/05 Paarl Female

Late on the 5th October, a young adult female was hit by a car on Du Toitskloof pass. Unfortunately, accidents like this are not rare as we have recorded 8 leopard is killed in road accidents in the Western Cape since 2019. A major problem is with the speed that people drive, particularly on roads adjacent to mountainous and natural areas. This is yet another factor increasingly threatening the survival of leopards and other wildlife.



Leopard killed in a road collision on the Du Toitskloof pass.

2024/10/18 Augrabies Male (Northern Cape)

Around 11am on the 17th October, we were contacted by a farmer near Augrabies in the Northern Cape to assist with a leopard in a cage. We assisted the Northern Cape Agriculture, Land Reform and Rural Development (DALRD) department, and our team embarked on an urgent 2100 km roundtrip journey to rescue a male leopard trapped on a grape and cattle farm along the Orange River. The farmer allegedly suffered calf losses and the Northern Cape Conservation Department and set a cage trap.

While relocating or translocating wildlife is not our ideal solution, the decision was made by the authorities to move the leopard to a safer environment in a local private game reserve. This was done principally because of the perceived and alleged threat to nearby communities and livestock, and the very real threat to the leopard by intolerant members of the community. Environmental education is key to encourage tolerance of wildlife, coexistence and mitigating conflict and fear. There are poor extension services in the Northern Cape and much education is needed as many people in this region are intolerant to wildlife. In efforts to gain valuable insights on this leopard we were able to collar the animal to monitor how he interacts with the landscape. Subsequent compensation arrangements were set up with a collaborating farmer but hostile responses were received from uninvolved parties and even the Department.

The leopard was darted and relocated to a similar habitat 60 km away, to a leopard friendly game reserve. This area has been extensively monitored by the Landmark Foundation (2013-2020) and is known to have the capacity to support more leopards with low levels of conflict. The healthy male was fitted with the collar and we waited to see his movements. This event marked the 74th leopard rescue and 55th collared leopard forming part of our ongoing broader leopard conservation efforts.



Male leopard capture near Augrabies



Augrabies Male leopard occupies the park as well as areas adjacent to the park.

The male uses both the formally protected National Park as well as private land, which places him at the interface of human interests and high-risk area due to conflict. Unfortunately, aside from Kruger National Park and the Kgalagadi Transfrontier park, protected areas are not large enough to host viable leopard populations, and to survive, these wide-ranging animals need to traverse areas outside of parks. This leopard is an ongoing effort as different parties wish to celebrate his presence, while others don't.

Leopard Density and Biodiversity Surveys

A big part of our research is to assess ecosystem health both within and beyond protected areas. We use camera traps in a scientifically rigorous manner to collect baseline data essential for these efforts. This approach provides accurate data of the status quo, helping us identify threats to biodiversity and develop effective solutions to reverse these threats providing useful baseline data for managers and policy makers. These areas were assessed over the last 12 month:

Stormsriver-Bloukrans

The Tsitsikamma (straddling the Eastern and Western Cape) area contains important leopard habitat, but this is fragmented and subject to various intense land uses, including formally protected National Parks (Garden Route National Park), forestry, dairy farming, and expanding townships. Despite its ecological significance, this leopard population has not been intensively monitored, and both density estimates and prey abundance indices remain poorly understood.

The population faces several threats, including habitat fragmentation, transformation, dense human habitation, and poaching, particularly through snaring. Snares are typically set to capture bushmeat, such as bushpigs or small to medium ungulates (e.g., duiker, bushbuck), but this indiscriminate hunting method poses a risk to many species. In 2020, a leopard was snared near the Langbos area and tragically died. The region suffers from high levels of snaring, trespassing over protected areas and increasing human populations. Efforts to remove snares have been ongoing and have been reported.

Our goal for this project was to enhance our understanding of leopard and mammalian biodiversity within this mosaic of land uses, in collaboration with SANParks and private landowners. Unfortunately, the project faced a significant setback when a total of nine cameras, SD cards, and batteries were

stolen (Table 2). This theft disrupted our camera trap survey, leading us to suspend further work in order to prevent additional losses. Theft remains the most significant challenge to this research and perhaps is also an indicator of the threat and theft of biodiversity in the region.

Between the 24th January and the 23rd April 2024, we run a second phase of camera trap survey extending from Nature's Valley to Coldstream. Unfortunately, we again experienced a stolen camera station (Table 2). The remaining cameras operated relatively well, and we were able to obtain good quality data for a 3-month period.

Table 2. Summary of data collected during the Stormsriver (April 2023-January 2024) and Bloukrans (January-April 2024).

	Phase 1: Stormsriver	**Phase 2: Bloukrans**
Paired stations	18	**7**
Camera trap stolen	7	2
Number of images (excluding false triggers and unidentifiable species)	6213	1838
Mammalian species	15	10
Avian species	2	1
Leopard individuals	Two males & one/two females*	One male
Average wild species per station	9	4
% of human-related photos	71%	87%

**On two separate occasions, we captured different flanks so we cannot exclude the possibility that it could be the same female on both photos.*

There is a very high presence of human activity in both surveys, contributing to the low wildlife activity observed (Table 2). With human activity comes noise and threats that limit wildlife, including the use of snares in the area. Management may wish to consider expanding some 'no go' areas in strategic places to reduce the negative impact in places. This was communicated with SANParks.

Our surveys confirm that the Tsitsikamma National Park and surrounding areas hosts a resident leopard population. Leopard activity was detected at 9 of the 13 stations during Phase 1 (32 independent events), and 2 of the 6 stations during Phase 2 (3 independent events). One male leopard was consistently observed across both phases of the Tsitsikamma survey. Based on the outermost points he was observed, his range makes up at least 148 km2 (14800ha). This is somewhat larger than male leopard home ranges in the forests around Knysna males use approximately 12000ha, while females in forests around Wilderness, reportedly require about half of that size. The results of this project were presented to the SANPark team in September 2024.



One of the leopards frequently captured on the Stormsriver survey (left) and on the Western side of the Bloukrans river (right).

Outeniqua Mountains

We initiated a rigorous leopard and biodiversity monitoring program in the Outeniqua mountains near George upon request of CapeNature. In collaboration with CapeNature, this survey will help determine prey abundance and general wildlife species richness present on the mountains, as well as improve conservation policies for the leopards within protected-, unprotected- privately-owned lands.



Field work in the Outeniqua mountains

Between April and October 2024, we ran a camera trap survey using 15 camera trap stations setup in a grid-fashion inside and around Witfontein Nature Reserve. Unfortunately, the two western camera traps were also stolen. During this 6-month survey, we photographed 20 mammalian (including European wild boar, an invasive species) and 7 avian species. On average, 9 wild species (min-max: 5-15) were photographed at each station. Despite the intense human activity present that made up 75% of all images, the area hosts a resident leopard population.

The results of this research were presented at the CapeNature Landscape East Ecology meeting at the beginning of October 2024. This project is being undertaken in three phases to ensure we survey a feasible area for more useful results to managers.

We deployed our cameras in and around the Doringsrivier Nature Reserve and observed interesting preliminary results…



Some of the wildlife species captured in and around Witfontein Nature Reserve (top) and Doringsrivier Nature Reserve (bottom).

Swartland & West Coast region

The Swartland and greater West Coast region is a largely transformed landscape, but remnant mountainous habitat patches, such as Piketberg, Voor Paardeberg, Paarl, and Kasteelberg Mountain, and coastal habitat patches provide crucial refuges for leopards and other wildlife. These isolated natural areas serve as vital strongholds of biodiversity in an otherwise transformed region of the south-western Cape and opportunities for rewilding. Conserving these habitats and addressing human-wildlife conflict are essential to ensuring the ecological integrity of these patches and enabling rewilding efforts. CapeNature's sustained conservation efforts over many years have been instrumental in protecting these critical areas.

Landmark Foundations' introduction to the **Voor Paardeberg** started in 2022, in response to livestock losses that were reported, possibly due to leopard or caracal. As part of our conflict mitigation efforts, we collared and released on site a female leopard in May 2023, obtaining valuable information on her movements, and helping us understand how many leopards may occupy the mountain. On the same token, we were introduced to the **Kasteelberg** mountain following a female leopard rescue caught in an illegal cage in February 2024 (see *Leopard Interactions* section).



Captured females in Voor Paardeberg (May 2023; left) and Riebeek (February 2024; right). We tracked their movements for 6 and 7 months respectively.

Following our human-leopard conflict mitigation interventions, we set up camera traps throughout the Voor Paardeberg (August 2023-June 2024) and the Riebeek (Kasteelberg) mountains (February-July 2024). The aims of those camera trap survey were to: 1) estimate the leopard density, 2) determine the prey abundance and general wildlife species richness present on the two mountains, 3) understand the drivers of recolonisation and connectivity to extant leopard populations.

In addition, between the 27th December 2023 and 2nd January 2024, a massive uncontrolled fire burned approximately 90% of the Voor Paardeberg. Therefore, we also had an incredibly rare opportunity to investigate the effect of fire on mammalian species dynamics.



Kasteelberg mountains

Table 3. Summary of data collected during the Swartland survey: Voor Paardeberg (August 2023-June 2024) and Riebeek (February-July 2024).

	Voor Paardeberg	**Riebeek (Kasteelberg)**
Paired stations	14	9
Camera traps stolen or burned	6	2
Number of images (excluding false triggers & unidentifiable species)	7810	3945
Mammalian species	22	21
Avian species	7	4
Leopard individuals	Five females & four cubs	One female
Average wild species per station	11	11.7
% of human-related photos	31%	87%



Examples of mammals photographed during the Swartland surveys.

In the **Voor Paardeberg**, we identified five adult females, and excitingly… three cubs from different females (Table 3). Despite the presence of those two litters, we did not photograph male since August 2023, where two different males were identified outside the camera trap survey period. All adult leopards survived the fire. Despite the stress caused by this event, one of the females produced a two-cub litter following the burn (we estimate gave birth in February 2024).



Cub with the previously captured female in the Voor Paardeberg (left) and collared female in the Riebeek mountains (right).

In the **Kasteelberg mountains**, the female captured and collared the 14th of February 2024 was unfortunately the only leopard observed during our survey (Table 3), meaning that leopards from the neighbouring mountain such as the Cape Mountain Fold are not reaching the Riebeek mountains. Her recent death is tragic as the Riebeek mountains is now depleted of any leopard. Therefore, it is critical to facilitate connectivity between isolated populations, for instance to the Voor Paardeberg and the Cape Fold Mountains, notwithstanding the extensive transformation of habitats in the region.

De Vlugt-Wittedrift

In September 2024, we started a new corridor survey between De Vlugt and Wittedrift, identified as an important habitat in the highly human-populated and impacted Garden Route region. As part of the first phase of this survey, we placed 10 camera trap stations. Preliminary results showed that this area host a resident leopard population, as well as a diverse mammalian abundance from the eland to the yellow mongoose.



Some of mammals photographed during the De Vlugt-Wittedrift survey.

Connectivity

Maintaining habitat connectivity is considered one of the most effective means to conserve species, particularly where species have low densities (McManus et al., 2021). Devens *et al*. (2018) estimated the population of leopards to be between 467-533 individuals in the Western Cape and between 365-430 in the Eastern Cape. However, these free-roaming leopards are facing major threats as the anthropogenic landscape expands. Such a landscape can result in movement constraints and increased mortality events resulting in a declining population (Woodroffe *et al*., 2005). Leopard densities alone don't necessarily affect conservation of the species, because if populations are isolated, inbreeding and associated threats increase, but if they can connect genetically, that is the key part of such conservation actions.



Map of the distribution of intact 'islands' of habitat patches in the Swartland and West Coast region of the Western Cape.



Map of the Voor Paardeberg leopard GPS movements (yellow dots) and the Riebeek Female (white dots). This indicates how leopards are limited to these isolated patches of habitat.

Not far North from these islands lies the Piketberg mountain. We studied this area thoroughly to determine the leopard density and potential drivers associated with this. Remarkably, we found the Piketberg has the highest leopard density compared to any other area surveyed to date in the Cape provinces. It also had high mammalian biodiversity and abundance. Remarkably, this site was devoid of leopards of over a century until the re-emergence of the species into the area in 1995. But attitudes and land uses changed from conflict to co-existence and this has brought about a revival and a natural recolonisation of leopards to this area! This was a fascinating find and our paper publishes in 2024 examining the factors driving re-wilding in this area, and how we could use this elsewhere to promote re-wilding efforts.

The recolonization of leopards in the Piketberg region can be attributed to several key drivers, based on findings from studies and conservation efforts in the area. Here are some of the main factors:

1. **Cessation of Government-Sponsored Carnivore Control**: Historically, government-subsidized hunting programs (bounties and stated-employed vermin hunters) actively targeted carnivores, leading to local extinctions. The cessation of these programs allowed for a more stable environment for carnivores, enabling leopards to return to areas from which they had previously been extirpated.

2. **Improved Land-Use Practices**: Enhanced land management practices, coexistence practices, less regular fires, transition from livestock farming to cultivation of fruits and crops, inclusive of more sustainable agricultural techniques, and the establishment of conservation areas, have contributed to the restoration of habitat quality. An important aspect was the extant presence of large tracts of intact habitats and indigenous species presence which enabled reconstitution of trophic levels. This makes the environment more hospitable for leopards and other wildlife. Significantly, there was a reduction of livestock agriculture and since the 1960s, a move to fruit, vegetable and wine production and cultivation.
3. **Habitat Connectivity**: The presence of narrow land bridges and corridors connecting Piketberg to larger areas of natural habitat and extent leopard populations in the Cederberg that facilitated the movement and repopulation of wildlife. This connectivity is essential for gene flow and enables animals to recolonize areas that had been previously abandoned.
4. **Community Attitudes and Conservation Efforts**: Positive changes in community attitudes towards wildlife, driven by awareness and conservation initiatives, have reduced human-wildlife conflict and fostered coexistence. Local conservation organizations have played a role in educating the public and promoting tolerance for predators. Cape Nature Conservation, and later CapeNature, and highly motivated conservation staffs were instrumental in providing this extension efforts.
5. **Ecosystem Health**: The overall health of the ecosystem, including the availability of prey species and suitable habitat, has a significant impact on the ability of leopards to thrive again. When ecosystems are healthy and well-managed, they can support larger populations of top predators.
6. **Monitoring and Research**: Ongoing monitoring efforts, such as camera trapping and population studies, have provided valuable data that inform conservation strategies. This research helps identify critical habitats and informs management decisions that support recolonization efforts.

These factors combined have created a more favourable environment for leopards enabling the recolonization of leopards in Piketberg, demonstrating the importance of comprehensive conservation strategies that address both ecological and social dimensions. CapeNature had a pivotal role in this and this should be recognized and celebrated. This case study demonstrated the key role the state agencies play in rewilding efforts. It is critical that at least some biodiversity conservation competence is retained and a demonstrative presence to enforce conservation-friendly policies be implemented.

Leopard DNA Project

Major threats to biodiversity and leopards in Southern Africa include habitat loss, population fragmentation, and human-caused mortality. DNA analyses of leopards in the Eastern and Western Cape provinces reveal alarming trends: the coastal Overberg leopard population shows reduced gene flow and high levels of inbreeding compared to the “Central” population (occupying the Eastern Cape Baviaanskloof, Outeniqua to Riviersonderend Mountains) and the “North” population (occupying the Boland to Cederberg Mountains) (McManus et al., 2015). Habitat destruction since the 1600s, ongoing human-caused mortalities, and the resulting isolation have exacerbated genetic fragmentation, while

low population density estimates (Devens et al., 2018, 2019) amplify concerns about the species' survival in this region.

For the first time in South Africa, whole genome sequencing is being used to study leopard populations, making this a landmark study in conservation genetics. A project proudly led by Landmark Foundation, by employing next-generation sequencing technologies, this landmark project investigates population structure and connectivity of African leopards at a large scale across Southern Africa, with a particular focus on leopard populations in the Eastern, Northern, and Western Cape provinces. The research aims to identify genetic "pinch points"—critical areas where fragmentation is most severe—enabling management to prioritize interventions that address these key vulnerabilities.

The sequencing has been completed, and data analysis is currently underway. This project is led by Landmark as we have developed collaborations with South African, British, and Danish universities, involves institutions such as SANBI, the University of Pretoria, Teesside University, Cardiff University, the University of the Western Cape (UWC) to catapult leopard conservation into an era of rigorous science and information. The findings will provide critical insights into genetic rigor, population structure, and connectivity at both regional and pan-African scales, particularly across sub-Saharan Africa.

The outputs of this groundbreaking research will directly inform the leopard management plan in South Africa, offering rigorous, data-driven recommendations to guide conservation policy. With results expected in 2025, this pioneering study has the potential to reshape leopard conservation efforts and safeguard the future of this iconic species.

Policy and Standard Operating Procedure

Our research aims to contribute to an evidence-based best practice approach to species and biodiversity management. Having rigorous research is key to making informed decisions and our work is focused at contributing to laws, regulations, policy and standard operating procedures that is appropriate and effective. During 2023, the National Department continued efforts to develop standards and policies relative to leopard management with new drafts: 1) Policy on the Conservation and Sustainable Use of Lion, Elephant, Leopard and Rhinos, 2) National Threatened or Protected Species Regulations – TOPS regulations, 3) Western Cape Biodiversity Act and related regulations, 4) Development Permit applications (Mouton's Hoek, Cederberg Hospitality Efforts & Garden Route Dam), and in 2024 5) the development of a leopard conservation strategy and biodiversity management plan. Landmark has given detailed inputs to these processes which remain rather deficient in effective leopard management.

There are currently no national or cohesive provincial policies on leopard translocations or management plans. The various provinces operate on changing approaches to translocations, damage-causing animals, trophy hunting and some of their management practices that are based on whim and not often rationally or scientifically developed or justified.

We have presented to the various departments and offered all of our support and research to assist in contributing to our shared vision and goal and we are currently drafting a draft species management plan to promote leopard conservation at a local and national scale.

Knowledge Exchange

In February and March 2024, we had a one-month knowledge exchange with a team of leopard researchers from Sri Lankan Sabaragamuwa University, led by Professor Enoka Kudavidanage. We focused our exchange on field methods, data capture and analysis and developing a partnership with these researchers, University of the Western Cape and Landmark Foundation. The Sri Lankan leopard population face similar threats and we seek to learn from each other about methods that could bolster our local efforts.



Our host, Professor Enoka Kudavidanage

Landmark Foundation had the honour of being invited to Sri Lanka by the Wildlife and Nature Protection Society (WNPS) as part of their National Leopard Day on August 1st. Each year, the WNPS selects a conservation expert to help raise awareness about the importance of leopards as conservation ambassadors. This year, Landmark had the privilege of being selected as the invitee. This was an enormous honour and with decades of hands-on work in carnivore conservation and ecological restoration efforts coupled with an academic background dedicated to solving conservation challenges through evidence-based approaches, we were delighted to be seen in the conservation community.

During the two-week visit in Sri Lanka, we undertook a series of lectures for key stakeholders—government conservation officials, academics, NGOs, conservationists, industry leaders, and the public. The objective was to discuss the future of conservation and the urgent need to curb biodiversity loss, protect habitats, and promote coexistence with nature and wildlife.





Our hosts and lectures Landmark gave in Sri Lanka

Our introduction to Sri Lankan conservation efforts was nothing short of enlightening. While our initial mission was to share the South African conservation story, we quickly realized that the Sri Lankan conservation narrative was equally, if not more, important to bring back home.

We had the privilege of meeting with several influential figures who are at the forefront of integrating conservation into their business and social practices. One of the most notable meetings was with Dilan

Dilmah, the CEO of Dilmah Tea. Their innovative conservation strategies are seamlessly integrated into their business journey. Dilmah's active contributions to conservation not only create a value-added product but also underscore their forward-thinking vision. They understand that the long-term success of their business hinges on the success of conservation efforts and the fight against global crises such as climate change and biodiversity loss. Dilmah is a beacon for other industry leaders to follow.

This integration of conservation into business was also evident in other sectors, such as tourism and corporate responsibility. The hotel chain Jetwing is undertaking remarkable sustainability programs, setting a high standard for eco-friendly tourism. Similarly, LOCL, one of Sri Lanka's largest corporates, is adding value to their products by incorporating effective conservation strategies. Their approach offsets the environmental impact of production and brings conservation into their bottom line, demonstrating a commitment to responsible business practices. Furthermore, it is notable that this was part of the function of the companies and not just a box-ticking exercise which often result in 'green-wash branding' with little effect on the ground. These strategies were considered, adaptive, and had 'teeth' in real-world conservation outputs.

The conservation strategies observed in Sri Lanka are notably progressive rather than merely responsive. This forward-thinking approach is seen in conservation NGOs like WNPS and among landowners, such as livestock farmers, who actively protect their animals from predators like crocodiles and leopards while still fostering a culture of coexistence.

Both South Africa and Sri Lanka share a history of colonization by the Portuguese, Dutch, and British, but there are notable differences in how each country approaches conservation today. Sri Lanka, with its high literacy rate (97%) and widespread education, fosters a culture of tolerance and coexistence with wildlife. The culture of tolerance of animals and wildlife is also a cornerstone of the major religions and worldviews practiced in the country. Unlike South Africa, where protected areas are typically fenced, Sri Lanka's wildlife roams freely across the landscape, both within and outside of protected areas. This open approach is common globally, as even our SADC neighbours do not fence wildlife as we do.

The experience was humbling, revealing both shared and divergent conservation challenges. While both countries face threats such as habitat loss due to development and wildlife isolation, Sri Lanka benefits from a stable population growth rate and clean water sources, supported by a dignified and clean culture. Perhaps the most striking difference is their deep-seated cultural tolerance for both human and wildlife coexistence—a stark contrast to South Africa's more Westernized approach of ownership, commodification, exclusion and often practiced lethal approach to wildlife, and where wildlife is often only tolerated within fortified, protected areas.

This humane and inclusive culture is a crucial asset in Sri Lanka's conservation toolbox and a significant contrast to the more exclusionary and gun-ready practices in South Africa, which have led to major challenges in preserving our biodiversity.

Plans for Future and Ongoing Work in Leopard Conservation by the Landmark Foundation

1. **Leopard Whole Genome DNA Analysis**
   Objective Alignment:
   - **Research:** Using cutting-edge whole genome sequencing, this project provides critical insights into leopard population genetics, enabling evidence-based management strategies to ensure their survival.
   - **Advocacy:** Results will contribute to policy discussions and influence conservation management frameworks at national and provincial levels.

2. **Identifying High-Conflict Areas**
   Objective Alignment:
   - **Rescue and Rehabilitation:** Identifying high-conflict zones enables intervention in areas where leopards face threats, helping mitigate mortality risks.
   - **Education:** By pinpointing conflict zones, efforts can focus on educating local communities about non-lethal and coexistence methods for managing predator interactions.
   - **Advocacy:** Mapping these areas supports lobbying efforts for more robust predator management and conservation policies.

3. **Expanding Camera Trap Surveys**
   Objective Alignment:
   - **Research:** Camera trap surveys provide critical data on leopard population dynamics, density, and distribution, forming the foundation for science-based conservation actions.
   - **Wildlife-Friendly Habitat Expansion:** Insights from surveys guide habitat connectivity projects by identifying corridors and critical areas for leopard movement.

4. **Conflict Mitigation and Coexistence Efforts**
   Objective Alignment:
   - **Rescue and Rehabilitation:** Non-lethal predator deterrents and compensation schemes reduce the need for retaliatory killings, indirectly saving leopards from harm.
   - **Wildlife-Friendly Habitat Expansion:** Encouraging coexistence strategies promotes sustainable land use that accommodates predators while minimizing conflict.
   - **Advocacy:** Working with landowners and conservation departments strengthens policy support for coexistence programs.
   - **Market Mechanisms:** Compensation schemes, like wildlife-friendly certification, leverage market-based tools to incentivize coexistence.

5. **Drafting and Discussing a Management Plan**
   Objective Alignment:
   - **Advocacy:** The management plan consolidates scientific findings into actionable strategies, providing a roadmap for policy and legislative improvements.
   - **Research:** The process integrates data from ongoing studies to ensure robust, evidence-based recommendations.
   - **Education:** Stakeholder workshops offer an opportunity to disseminate knowledge and align efforts across diverse groups, fostering broader buy-in.
   - **Advocacy:** Providing inputs to policy, legislation and operating procedures.

6. **Publishing Key Findings**
   Objective Alignment:
   - **Research:** Sharing findings on coexistence, carnivore ecology, and recolonization amplifies the impact of the foundation's work and contributes to global conservation literature.
   - **Education:** Published work reaches academics, conservationists, and the public, raising awareness of the challenges and successes in leopard conservation.
   - **Advocacy:** Rigorous data strengthens the case for policy interventions.

Scientific literature relevant to leopard and biodiversity conservation by Landmark Foundation and collaborators

Articles:

- McManus, J., Smits, AJ., Faraut, L., Couldridge, V., Van Deventer, J., Samuels, I., Devens, C., and Smuts, B., 2024. The Recolonization of the Piketberg Leopard Population: A Model for Human-Wildlife Coexistence in a Changing Landscape. Conservation, 4, pp. 275-287. https://doi.org/10.3390/conservation4020018.
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Book Chapters:

- Dickman, A., Potgieter, G., Horgan, J., Stoner, K., Klein, R., McManus., J.S. & Marker, L. (2018). Use of Livestock Guarding Dogs to reduce human-cheetah conflict. In: Cheetahs: Biology and Conservation (Eds Marker, L, Boast, L and Schmidt-Kuntzel, A). AP, Namibia.

Supervision:

- Ms. Erin Jooste (Student number 3341069) at the University of the Western Cape (UWC), South Africa, for a MSc. The MSc. is titled: "The spatial and dietary requirements of Caracal (*Caracal caracal*) in lethal and non-lethal predator control landscapes". Passed with Distinction 2020.
- Ms. Etsy Yanco (Student number 12730343) at the University of Technology, Sydney, Australia, for the degree of PhD. The PhD. is titled: "Shifts in human well-being and attitudes towards nature following livestock herder training and implementation". Passed 2021.
- Ms. Kamila Jandova at the Czech University of Life Sciences, Prague. Faculty of Tropical AgriSciences. The thesis is titled: "Does resource dispersion drive Leopard habitat selection?" Passed 2019.

Current Publications Accepted or in Preparation for Peer- Review Submission

- Wildlife-friendly Farming Promotes Functional Richness and Trophic Complexity by Hasselerharm et al.

- Caracal habitat selection and activity patterns on a predator-friendly farm in the Karoo, South Africa by Adams et al.
- Barriers to Preventive Innovations in the US and South Africa by Boronyak et al.



Wetland, Riparian and Landscape Restoration and Rewilding

The work done on wetlands in previous years led to new sites seeking out our support and expertise. This year our team assisted in the Hermanus area on wetland.



Hermanus Golf Course

Hermanus Golf Course Wetland Management - Western Cape

Our work on wetlands led to our team assisting with the important conservation of wetland areas in Hermanus. The Landmark team provided expertise to the Hermanus Golf Course assessment and management intervention this past year.

The 2024 wetlands monitoring program at the Hermanus Golf Course marked the fifth assessment since 2006, providing valuable insights into the ecological health of the three conserved wetlands on the course. This evaluation focused on plant community composition, water quality, and invasive species management; all being critical to the long-term sustainability of these spaces as detailed in the Operational Environmental Management Programme developed for the area.

The wetlands at the Hermanus Golf Course serve as vital ecological assets, offering biodiversity support, water filtration, flood control, and contributing to the course's reputation as an eco-conscious destination. However, challenges such as the declining species diversity, nutrient enrichment of the waterbodies, and invasive alien plant encroachment underscore the need for targeted and sustained conservation efforts.



Key findings include a noticeable decline in plant species diversity, which are likely driven by nutrient enrichment from fertilizer runoff and stormwater drainage, leading to the dominance of species like Typha. Water quality analyses also revealed elevated levels of ammonia, nitrates, phosphates, and aluminium at specific sites, emphasizing the importance of regular monitoring and improved nutrient management.



Hermanus Golf Course layout and wetland sites (Wetlands 1, 2 and 3 were focused on)

Alien invasive plant removal efforts have been effective and establishing consistent and regular removal programs is crucial. The planned post-burn clearing in Wetland 1 after the planned prescribed burn in 2025, will be instrumental in restoring native wetland vegetation. Additionally, the potential restoration of historically significant but severely degraded wetland areas, such as those impacted by eucalyptus plantations offers an opportunity to further enhance ecological integrity and biodiversity of the whole golf course.

The wetlands at the Hermanus Golf Course are invaluable ecological and economic assets for the whole town, delivering critical ecosystem services, including water purification, flood control, and biodiversity conservation. However, the observed decline in species diversity and persistent threats from nutrient loading and alien plant encroachment highlight the urgent need for consistent and regular monitoring to guide effective management.

The maintenance and restoration of wetland areas present a promising opportunity to bolster biodiversity while solidifying the golf course's reputation as a leader in sustainable and eco-conscious recreation.

Vette-Korente River Restoration Project – Western Cape

This is a rewilding project that is into its fifteenth year of rehabilitation. This year was focused on alien plant invasive management.



View of the rehabilitated wetlands

Since 2012, the project focussed on eradicating the dense alien forests to promote indigenous species of palmiet (*Prionium serratum*) to return and establish the historical wetland that had since been drained due to the alien trees. By 2016, the majority of wattles were completely removed. Follow-up clearing of regrowth is undertaken on a 3-month basis to keep the area cleared of alien plant regrowth. The Palmiet wetlands were remnant in a few places but were deprived of water and sunlight by the wattle canopy, canalization and lowered water-table. Habitats were severely degraded by agricultural activity, but a few remnants semi-natural areas remained. The restoration efforts tried to work with these remnants and annual alien plant clearing follow-ups were repeated (this continues to date), and steadily the indigenous species re-established. We also follow-up rehabilitation and monitoring of the faunal species throughout the wetland restoration. Since 2020, the donga erosion was addressed using cattle to shape the erosion galleys and had been able to raise, cumulatively, the water table by 8 m along the badly eroded riverbanks.

Two years ago, the neighbouring landowner, being the state, illegally canalised a wetland and this after making illegal pastures in the floodplain. We tried to engage the neighbour to no effect and then reported the action to the authorities. Seventeen months later, nothing has been done about it despite reporting the matter to the authorities. Instead, the restored wetlands have been damaged by the reestablishment of canalised channels.



2023: Canalised river with the new illegally established lands.

Overall, the Landmark Foundation effort focuses on restoring the natural ecosystem patterns and processes by rewilding the landscape on along the river course and adjacent land, and the rejuvenation of the built heritage on the property has been undertaken privately. We continue with this work and our long-term vision is to establish this site as a learning site for rewilding.



Restored wetland damaged by recanalization



We observed the first leopard in the valley floor about 4 km from Zeekoegat, which follows the Serval spotted in late 2022.

A self-sustaining, resilient natural landscape where trophic relationships are restored, is the project's objective, even though megafauna and top carnivores may be out of reach, at least for now. Although we had hoped for wider uptake across the landscape, it appears there is little appetite among landowners and authorities focused on maximizing agricultural production. For initiatives like ours to succeed on a wider scale, collaboration across a myriad landholdings is needed to connect habitats that support species. This collaboration and connectivity, inclusive of state support are critical in restoring ecological patterns and processes. Our efforts should be seen as establishment of a core area this rewilding project can broaden in the future. Additionally, more than 1000 trees have also been planted at the property.



Environmental Education Programme




The importance of environmental education is undeniably growing as environmental crises continue to escalate. Landmark Foundation has been steadfast in its efforts to address these challenges, reaching 1,139 scholars and 402 educators in 2024 alone.

Our approach to environmental education is structured around four core objectives: fostering values, attitudes, knowledge, and skills necessary to confront environmental challenges and enhance ecological wellbeing. To promote sustainable communities, it is crucial to equip individuals with ecology-sustaining skills, deliver pertinent knowledge, shift attitudes, and instil values that contribute to a more compassionate and responsible world. These objectives aim to nurture a human consciousness that is less entitled and more in tune with the environment.

Our environmental education program is designed for specific developmental stages. At the early childhood we developed the Creches Project focusing on recycling and the 3 R's through forming of new habits. For the intermediate phase, we focus on sparking an interest in nature, creating platform for leadership and bringing environmental awareness to the school through the Green Schools Recycling Project. This recycling project can also be done in high schools targeting grade 8's and 11's to be the implementers and managers of the Green School Recycling Project.

We have a Green Club Program for schools who want to work with a small group of learners running it as an extra mural activity. The green Clubs promote leadership, environmental awareness through campaigns. .

In addition to our work with younger learners, we are increasingly committed to mentoring youth and expanding our involvement in adult education. A significant portion of our youth conservation efforts has been centred around training young people in education-related skills, preparing them to engage with and inspire future generations.

We have launched and integrated specific projects that align with conservation goals, forming partnerships with various conservation organizations, NGOs, government bodies, and parastatal entities. These collaborations allow us to share resources, ensuring more impactful and efficient outcomes. However, environmental education efforts are often challenging to fund, and despite our limited resources, we have made significant progress thanks to these valuable partnerships.

We have nurtured and strengthened these partnerships, particularly with Henque Waste who are key to the recycling programs. Our ongoing educational collaborations with key organizations and entities include SANBI, the Department of Forestry, Fisheries and Environment (DFFE), Breede-Gouritz Catchment Management Agency, CapeNature, SANParks, Garden Route Botanical Garden, Nelson Mandela University-Saasveld, George Herald, WESSA (Eden Branch), George Municipality, Garden

Route District Municipality as well as local conservation/environmental agencies such as: Kaelvoet Consulting, Into the Wilderness, The Lady of the Herbs, Garden Roots, etc.

These partnerships have been vital in sustaining and expanding our environmental education programs, allowing us to reach more communities and have a lasting environmental impact in the absence of donor support.

Schools Programmes:

Green Clubs

The key components of the Green Club programs are designed to develop environmental leaders, ignite a passion for activism, raise awareness of global issues, promote science-based knowledge, spread environmental awareness to the parent community, transfer campaign management skills, and inspire a deeper love for nature.

The success of the Green Club programme is largely dependent on internal champions, particularly teacher champions, to sustain its momentum. One challenge we have encountered is the lack of sustained enthusiasm within teacher groups, which has led to difficulties in maintaining consistent leadership.

Despite several attempts to establish Green Clubs across a range of schools, we have faced setbacks due to frequent teacher turnover and a general apathy toward environmental issues. However, Glenwood House has been a dedicated and enthusiastic partner for almost 15 years, demonstrating the potential for long-term success when strong leadership is in place.

There is a pressing need for committed teachers or head teachers to continue registering new schools and following through with the Green Club program to ensure its sustainability and growth.



We have two very active Green Clubs presently through Glenwood House school:

- Glenwood Greens – 26 learners at Glenwood House Preparatory (Grade 5, 6 and 7's) – influence 380 scholars.
- Glenwood Environment Society (GWES) – 23 learners at Glenwood House College (Grade 8 to 12) – Influence 460 scholars.

Landmark Foundation is also developing a Green Clubs manual to assist schools with establishing and implementing these.

Green Schools – A recycling program

In collaboration with George Municipality, Henque Waste, and the Garden Route District Municipality, this project introduces a practical waste management and recycling program to schools, emphasizing

environmental education and promoting a green circular economy. The system is simple for both learners and educators to use and offers financial rewards for schools through Henque Waste's compensation for collected paper and tins.

Designed for both primary and high schools, the program is student driven. In primary schools, Grade 6 and 7 learners manage the recycling efforts, while Grade 8 and 11 students lead in high schools. This structure fosters ownership and responsibility among students, relieving staff of the burden.

The initiative has successfully reduced landfill waste and inspired recycling at home, creating a broader community impact. Participating schools receive annual certificates recognizing their environmental contributions.

In 2024, four new schools joined the Green School Program, which serves as a starting point for broader environmental initiatives. Current registered schools include Glenwood House, Gracehill College, Pacaltsdorp Primary, Hoogekraal Primary, Up with DOWNS, and Carpe Diem.

Creches Project – Early Childhood Development Centres

The **Crèches Project** integrates environmental education into Early Childhood Development (ECD), introducing young learners to "Reduce, Reuse, Recycle" principles. It promotes sustainable living and environmental awareness through hands-on activities.

In **Phase 1**, learners set up waste separation systems and use organic waste for composting, learning recycling's value. In **Phase 2**, the compost supports food gardens, where learners plant seeds and grow produce that can supplement meals. Recycling plastic and paper generates income, fostering community involvement.

The project collaborates with the Department of Social Development, George Municipality, Eden District Municipality, and Henque Waste. We continue to support our three active registered crèches: George Voorbereiding/Preparatory School, Glenwood Preparatory, and Klouter Kabouter. Among them, George Voorbereiding has set a remarkable standard, demonstrating the transformative benefits of integrating this project into the school system.

At George Voorbereiding, trained ground staff have been instrumental in maintaining smooth recycling operations, while Grade 3 students, known as "recycling warriors," actively monitor stations and educate their peers. Their efforts led to the collection of 120,000 plastic bottles and the diversion of over 7,500kg of waste from landfills.

The school celebrated these achievements with a Recycling Assembly, where participants received Green Awards, and the winning class for the year's collections was rewarded. The event was filled with joy and excitement, reflecting the enthusiasm that both learners and staff have developed for environmental stewardship.

Project Potential: With additional human resources, we can build stronger relationships with schools and inspire more to embrace environmental awareness. A dedicated school champion, supported by fully committed staff, is crucial for the program's success. Landmark Foundation is currently developing a project manual to guide and support new schools eager to participate, helping them integrate environmental initiatives effectively into their systems.

Food Garden Community Project

"KOS en FYNBOS," community-driven food garden initiated in 2015, continues to have a strong following mostly through a WhatsApp group where members share gardening advice, environmental

and climate change topics. The group is guided by permaculture principles and promotes the “No Dig Food Garden” method, which is water-retentive and promotes soil regeneration through mulching. This sustainable, cost-effective method requires minimal resources and readily available.

Rodwell’s garden in Delville Park continues to thrive, providing food for his family and the local community. We were also approached to assist with a food garden in Blanco, run by a Rastafarian group. Although the garden has been operational for some time, it will benefit from additional support. We presented a "No Dig Bed" workshop to compare and improve the water retention and garden's sustainability. We also presented the “no-dig” food garden bed at the Sedgefield Gardeners Market.




Other Landmark Youth in Conservation and Environmental Education Efforts

George Junior City Council: The George Junior City Council invited us to help raise awareness and educate about waste and recycling as key contributors to climate change. This engagement is particularly important to us, as these learners represent their schools and communities and are already taking on leadership roles. We organized a tour of Henque Waste for the group and gave a visual presentation on the environmental crisis.

NMU 3rd Year Nature Conservation Interns: This year, through our continued collaboration with the Garden Route Botanical Garden, we had the opportunity to engage with five 3rd-year Nature Conservation interns from Nelson Mandela University (NMU). The internship aims to provide practical, hands-on experience in their final year of studies. We support the interns with the environmental education component, contributing to their academic growth and furthering their involvement in environmental conservation efforts.




Henque Waste and D-Lab interns: We had the honour of engaging with interns from d-lab, under the mentorship of Henque Waste. As Henque Waste and Landmark Foundation share common goals, we often collaborate on various projects. We invited the interns to spend a day with us in nature, helping to expand their awareness and deepen their ecological approach to the environment and their learning experience.

Garden Route Environmental Education Centre (GREEC): The GREEC, located in the Garden Route Botanical Garden (GRBG), offers ecological education programs for grades 1 to 12, developed by Landmark Foundation. A highlight is the Green Passports initiative, which promotes observation and

critical thinking about natural environments. This year, all visiting schools successfully completed the program, highlighting its effectiveness. Despite the absence of an Environmental Officer at GREEC, Landmark Foundation ensures the continuation of these impactful programs, fostering a strong connection to nature and enhancing environmental awareness among learners.

Public (adult focused) Education and Awareness Projects: About a year ago Landmark Foundation developed a recycling poster to facilitate the recycling codes for recyclable materials for George Area. This poster continues to be in circulation and used by George Municipality.



Recycling Poster

Champion Tree Community Project: Together with WESSA Eden, George Herald, George Heritage Trust, Precious Tree Project, The Dendrological Society of George, George Municipality and Garden Route Botanical Garden we initiated a conservation effort to protect, record, map, and plot trees of significant age, size, or cultural and historical importance within the George Municipal area. These remarkable "special" or "champion" trees can be found in gardens, private properties, public spaces, or protected areas. We asked residents to participate in identifying these trees using the i-naturalist app to record.



Arbor Week/Month: For Arbor Week/Month this year, we applied for and received 60 trees from the Department of Forestry (DFFE). We incorporated tree planting events into our projects, providing an opportunity to give back to those making a positive impact on the environment and in the community. In partnership with Glenwood's Green Club, we engaged the entire Preparatory School in tree planting. Additionally, all the schools involved in our various projects received trees as part of our initiative.

City Nature Challenge 2024: We ensure that in all our projects, especially those involving interns and youth, are integrated with the iNaturalist app. We actively encourage participants to register, as it serves as an excellent teaching and learning tool. During both the Great Southern Bio Blitz and the City Nature Challenge, our focus was on the Garden Route Botanical Garden, contributing to the monitoring and documentation of local biodiversity. These two events get shared widely on social platforms.

Kids in the Park – A SANParks organized education program: The Kids in the Park programme, run annually by SANParks, offers an exceptional opportunity for Grade 6 and 7 learners to engage deeply with nature and provides an immersive experience for learners over 2 nights and 3 days. During this time, learners participate in various workshops and courses led by organizations like Cape Nature, NSRI, Working on Fire, SANParks, and the Landmark Foundation. Landmark helps ignite learners' natural ecological knowledge by guiding them through the forest, encouraging observation and a deeper connection to nature. A key lesson is the 3Rs principle—Reduce, Reuse, Recycle—as a practical tool to combat climate change. The program runs for five consecutive weeks and involves 500 learners and 20 educators, creating a lasting impact on both the participants and their communities by equipping them with valuable environmental knowledge and skills.





b

Malgas Revival Project – Capacity building and skills development education program: The Malgas River Restoration Project is an multi stakeholder education-focused and capacity-building initiative

that highlights the power of collaboration among stakeholders. Launched in November 2023, this marks its second consecutive year in George, with a focus on engaging Kretzenshoop Primary School, located in the Blanco Community. This site and school were specifically chosen to build on the progress of the Respect the River Project, ensuring continuity in the rehabilitation of the Malgas River while delivering sustained educational value. The project initiated by SANBI is supported by DFFE in collaboration with Garden Roots, Into the Wilderness, WESSA and Landmark Foundation.

Talks and Presentations: Part of our education program includes direct interaction with public on live platforms. During this year we were invited to present talks on our Leopard Conservation work at these events:

- Wilderness Hotel – Hosted by Save Wild
- Conversations in Conservation – Hosted by Touws River Conservancy
- Sedgefield Conservancy
- Redford Road Conservancy
- Garden Route National Park Honorary Rangers
- Piketberg, Voorpaardeberg and Riebeek communities

Umkhondo Big 5 Wildlife Education & Wildlife Forensics Academy Programme for Young Professional: We have participated in an educational programme for aspirant wildlife professionals and veterinarians in training. At least 70 participants have been exposed to this training that involved human-wildlife management aspects, ecological research and rewilding efforts.



Umkhondo Big 5 Wildlife Education Students from Denmark

Wildlife Welfare and Wellbeing Manual: In collaboration with Karen Trendler of Working Wild we are facilitating the compilation of welfare manual and guide related to wildlife management. This manual has been completed into a draft format for open source in 2024, but is yet to be completed. We worked with The Felix Schneier Foundation on this initiative.

Planned Education Projects in 2025

Over the past three years, our resources have been stretched, limiting the scope of our education efforts. Despite these challenges, we've made significant progress. With more resources and support, we can drive major change in our community.

Our goals for 2025 include:

- **Initiating talks with WCED** to develop an Early Childhood Development program in schools that integrates Environmental Education, expanding the Creches Project provincially and gaining greater educator involvement.
- **Increasing the number of Green Clubs** by targeting at least 4 schools per year, reducing waste and creating more environmental ambassadors.

- **Publishing manuals** for Farmers, Creches, and Green Clubs to guide educators and participating facilities in their environmental efforts.
- **Growing our educational capacity** with personnel and equipment.

Collaborations and Partnerships in Education

Landmark Foundation has built strong relationship with other NGO's and organizations in the environmental education field. These partnerships facilitate achieving more impactful results.

Collaborating Organisations:

- CapeNature Conservation - Various Projects and collaborations
- SANParks – Environmental
- Garden Route Botanical Garden – Environmental Education
- Nelson Mandela University, Saasveld – Interns
- George Herald – Environmental awareness – Tree Committee
- WESSA EDEN – Support with various projects and collaborations
- George Municipality – Support with Green schools, Tree Committee,
- Garden Route District Municipality – Support with recycling and waste
- Henque Waste – George Waste Recycling Agents support with recycling and various projects with schools. Major role players in minimizing waste to landfill and generating green economy opportunities.
- Local conservation entities: Kaelvoet Consulting, Garden Roots, Into the Wilderness, The Herb Lady, Tree Whisperer
- i-naturalist Garden Route
- Touws River Conservancy
- George Hospital
- SANBI
- DFFE

Focus on social media

During 2021 and 2022, Landmark Foundation developed a hands-on environmental app. This app was launched in April 2023 and can be download for free. Following the global drive to engage with communities on the major contributors to biodiversity loss and the effects on climate change, this app is based on mitigating climate change. The aim of the app is to engage families to reduce their footprint and become more sustainable in their way of life. This app can be done from the comfort of their homes by anchoring the key notes of change: Reduce – Reuse – Recycle (3Rs).

Due to the lack of resources the app has not been promoted or marketed, for which funding is still being sought.

The App can be downloaded and viewed at: https://app.letschange.earth/pledge

The App Icon

Landmark Foundation maintains a strong presence on the social media platform, and our different actions are showcased through short videos, stories, reels and visual posts on Instagram and Facebook.

Instagram.com/landmarkfoundationsa/

https://web.facebook.com/LandmarkFoundation/

Illustrations for Education

We are excited to announce the development of a series of illustrations to enrich our social and educational platforms. Cathy Fourie, a talented South African watercolour painter based in George, has graciously offered her artistic skills to create these illustrations. These artworks will serve as valuable assets for our Landmark Outreach Projects and Programs. We are deeply grateful to Cathy for her generosity and enthusiasm.



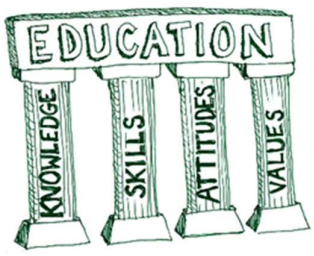




Table 5. Summary of the environmental educational actions in 2024.

School/Organisation	Program	Period	Total learners	Total educators	Target grades/ages
Glenwood House	Green club	Ongoing (weekly)	23	1	Grades 8 to 12
Glenwood Primary	Green club	Ongoing (weekly)	26	1	Grades 5 to 7
Gracehill College	Green school recycling program	Ongoing	112	7	Grades 1 to 8
George Voorbereiding	Creches project	Ongoing	500	23	Grade R to 3
Klouter Kabouter	Creches project	Ongoing	50	6	Grade 000 to R

Glenwood Pre-Primary	Creches project	Ongoing	60	8	Grade 000 to R
Arbor Week	Arbor Week	Annual	600	20	All grades and ages
Kos en Fynbos	Food gardens x2	Ongoing		10	Adults and youth
Oakdale Agri School	Conservation Education	Annual (three days)	31	3	Grade 10
Green Passports EE Talks	GREEC	Ongoing	700	20	All Grades
Interns	Youth conservation	Ongoing	8		All age from 20
Malgas Revival	Capacity building	Annual	25	15	Grade 5 to 6
Youth Environmental awareness	Conservation Education	ongoing		30	Youth
Talks and Presentations	Conservation Education	One off		300	Adults
Kids in the Park	Environmental Education	Annual	500	15	Grade 5 to 7
City Nature Challenge	Conservation Education	Annual	500	500	Open reach to George and its surrounding
Green Schools x 6	Environmental Education	Ongoing	2000	200	All grades and ages.
Special Trees Project	Conservation Education	Ongoing		+= 30 000	George Community

"True change is the change that comes from within. Our role is to change people and children's attitude toward the environment. In some cases, we assist with furthering conservation efforts and in others with initiating understanding for the natural world. There are many ways to create change; passion and strong leadership are key elements. We strive to be resourceful, streamlined and not wasteful in any of the projects we initiate. Process is an important factor to achieve long term change. This requires time. Our coined phrase being: "ONE BITE AT A TIME" and "YES WE CAN".
Monica Vaccaro, Education Coordinator – Landmark Foundation

Biodiversity and Law Project

Our biodiversity governance advocacy work remains a central focus of our work. We continue to address the public governance of the biodiversity assets and the cavalier approach by authorities, landowners, farming sector and the hunting industry where perceived entitlements lead to the transference of public goods to private interests.

Central to our efforts in this field has its roots in section 7.2 and 24 of the South African Constitution, the subsidiary biodiversity legislation and indeed the provincial legislation. The Constitution states:

> *"7. 2. The state must respect, protect, promote and fulfil the rights in the Bill of Rights.*
> *24. Everyone has the right -*
> *a. to an environment that is not harmful to their health or well-being; and*
> *b. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that -*
> *i. prevent pollution and ecological degradation;*
> *ii. promote conservation; and*
> *iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."*

Constitutional Court Victory in 2024

Our work has focused on a redress in the ongoing transference of public biodiversity goods to private interests, and the seemingly complicit state management and poor legislative governance hereof. This work has centred in recent years in exerting constitutional bill of rights in respect to human rights with concurrent human obligations in terms of:

1. Right to a healthy environment (section 24)
2. Right to Free Expression (section 16)
3. Right to Fair and Just Administration (section 33)
4. Right to Access to Information (section 32)



Constitutional Court Hearing 9 Nov 2023

We achieved a long-fought victory this year in this endeavour in respect of Freedom of Expression matter in the Constitutional Court. Our Access to Information case (Makhanda High Court Case 1199/2021) was concluded in 2022 wherein we obtained information of disastrous administration of leopard conservation actions in the Eastern Cape Province.

This Freedom of Expression case was an important victory for wildlife and animal welfare. A Constitutional Court judgement vindicated our practice of "Naming and Shaming" ecologically ruinous

and cruel conduct towards wildlife that has been hidden behind private "ownership of property". The Baboon and Porcupine Trapping Case, involving Herman Botha (of Port Elizabeth's Herman Botha Insurance Brokers), Case Number 40/2022 at the Constitutional Court.

This case represented a conflict between freedom of expression and privacy rights.

This was a substantive victory for freedom of expression as a human right for wildlife and animal advocates, like ourselves, to speak out against the abuse of animals and wildlife. Our approach of publicising the relevant facts, 'Name and Shame' as it has been referred to in some quarters, has been vindicated. The judgment comprised 122 pages and makes for good reading dealing with complex and substantive legal and constitutional issues. (Full judgment can be found at: https://www.saflii.org/za/cases/ZACC/2024/22.html)

There were four judgments issued. "The effect of the four judgments is that seven members of the Court grant leave to appeal. Seven members of the Court find that Mr Botha's information regarding his ownership and control of his farm (including the trapping activities) and his insurance brokerage address are not private and therefore the appeal is dismissed in this respect. Five members of the Court find that Mr Botha's information regarding his home address is private and therefore the appeal is upheld only in this respect."

The Court further ruled: "It would be artificial to engage in open and transparent public debate on a specific incident and form of trapping captured by photographs and a descriptive post without describing the location of the activity or person responsible for it. The essence of public debate is full disclosure which provides an opportunity to persuade others and a forum for different views to be aired. Conducting such a debate under conditions of anonymity undermines the transparency and newsworthiness of the dialogue. On the reasoning of Mr Botha, are we required to debate the benefit or otherwise of dune mining, or other activities which may be lawful but are seen as constituting a threat to the environment, anonymously or using pseudonyms without identifying those responsible? Society would not support an expectation of privacy under those circumstances. Our courts have said that there is little room for secrecy in matters affecting the environment."

As a prominent Advocate in the Johannesburg Bar remarked:

"Landmark Foundation is one of the few organisations challenging practices around biodiversity management such as gin traps, poisoning & culling - especially with Damage Causing Animals, which may include endangered animals. This new decision, from the Constitutional Court will have far reaching consequences for how environmental activists deal with environmental/ animal rights concerns online. Especially through social media. A key takeaway for me is the remark of the under-utilisation of the Section 24 Environmental Right & animal welfare from a biodiversity perspective: "Activists' "long history of guarding the interests of animals reflects constitutional values" which are those embodied in section 24 of the Constitution. But it has been said that section 24 suffers from "ongoing silence" and "under-utilisation" in that, while it provides what some call the world's most expansive and sophisticated rights-based approach to environmental protection, the right is often ignored. These findings are now the LAW."

It took Landmark 5 years to confirm that landowners cannot invoke privacy to conceal unethical treatment of wildlife from the public eye. This judgment is important for our constitutional order and

our global right to speak out for wildlife that is a public asset. To our knowledge, this is the first attempt to fight for these obligations for wildlife in this country.

We acknowledge the work of Advocates Matthew Blumberg, Mushahida Adhikari and Janice Bleazard, BDLS attorneys and Maston and Taljaard attorneys in this case.

We have been subjected to a deluge of legal assaults since this case was started from several parties, and Mr Botha had again threatened to sue us days after the judgment in an attempt to litigate us into submission. It is a very great regret that the Court failed to award costs to us as the substantive victors in this case as this plays into the hands of those that have the means to use the courts to litigate wildlife advocates like us into submission. These parties have also attempted to defame us with our funders. This matter goes to the heart of challenging perceived entitlements property ownership have perpetuated over biodiversity assets and our right to speak out for the voiceless and our common biodiversity assets. It appears that our challenge to these entitlements have elicited hunter and game farmer retribution. This has been a battle from the trenches. It is only a small step in a fight for the rights of nature and wildlife, of which it has none presently.

The Court ruled that we may not again publish the home address of Mr Herman Botha in Port Elizabeth. We had published a screenshot of his brokerage address that he had published on the internet, and still publishes himself on multiple web-based sites. We had at the time of publication no idea that this was also his home address, which he divulged himself in the Court papers. We never published his home address. On all other grounds our actions have been vindicated. The contents of the post from 2019 and the images, sans his address as published by himself, have been on our site for years.

In short, we have been vindicated in our press release from Oct 9, 2019. Wildlife and animal advocates are empowered by this to speak out on these issues and state the facts, and to name those responsible for such heinous acts. This has been a Landmark victory. The narrative of the original post was unchanged by the Constitutional Court as published by Bool Smuts, our Executive Director at the time on October 9, 2019 at 8:31 AM, thus vindicating us:



Images taken on the farm in Alicedale of Herman Botha, Eastern Cape

“While we spend our efforts trying to promote ecologically acceptable practices on livestock farms to promote ecological integrity and regeneration, we are inundated by reports of contrarian practices that are unethical, barbaric and utterly ruinous to biodiversity.

These images are from a farm near Alicedale in the Eastern Cape owned by Mr Herman Botha of Port Elizabeth, who is involved in the insurance industry. The farm is Varsfontein.

This is utterly vile. It is ecologically ruinous. Mr Botha claims to have permits to do this - see the WhatsApp conversation with him attached.

The images show a trap to capture baboons (they climb through the drum to get access to the oranges - often poisoned - and then cannot get out). See the porcupine in traps too. Utterly unethical, cruel and barbaric."

This has been an important case for biodiversity conservation welfare advocates.

Landmark Foundation Public Administrative and Policy Activism

We are actively participating in forums, public comment, petitions, litigations and other public assemblies to have input into the greater elements of biodiversity in our community. This work has focused on mobilising the public to participate in securing the biodiversity commons. Specifically, we have given detailed inputs to the amendments of Biodiversity Act, Threatened Species regulations, national policy position on lion, elephant, rhino and leopard management, Leopard Biodiversity Management Plans and Strategy, Western Cape Provincial biodiversity legislation and Annual Hunting Notices. We have further assisted with developing Draft Standard Operating Procedures for leopard management in the Northern Cape.

We are also challenging the rationality and constitutionality of the annual hunting notices of the provinces.

A significant court victory flowed from a challenge in 2023 to the George Garden Route Dam development where the High Court overturned the Western Cape Department Environmental Affairs and Development Planning.

Shepherding Back Biodiversity Project

Landmark Foundation is still pursuing a damages claim of over R79 million against a landowner who terminated agreements for one of the most significant regenerative agriculture experiments globally. This project aimed to demonstrate coexistence between biodiversity and production landscapes but was prematurely ended, jeopardizing years of donor investment and groundbreaking research.

Criminal Case of Accused Andre Barnard

In August 2020, Andre Barnard of Toorwater farm near Uniondale allegedly captured and allowed a leopard to die in a cage under horrific conditions. Landmark Foundation is advocating for justice in this case to set a precedent against such barbaric practices. This case has crawled through the court

having had 15 days in court of which a mere 11 hours had been spent on the hearing, and currently is part heard and the defendant is attempting to evade the charges based on his claimed privacy in terms of his ownership of the farm. The criminal case will proceed on 1 August 2025.

The leopard was allegedly illegally captured in a cage trap without the requisite permits, then, knowing it was captured, Mr. Barnard allegedly wished it dead, but did not want to shoot it. Nor would he call CapeNature or Landmark Foundation for assistance. Instead, it was left to die of dehydration in the cage.



Leopard allegedly left in a cage to die of dehydration on Mr Andre Barnard's Farm in Toorwater, Swartberg, Western Cape

The Landmark Foundation has agitated since March 2022 to get the National Prosecuting Authority (NPA) to fully prosecute the alleged crimes. Initially, the charges included only illegal capture and killing of the leopard without due permits in terms of the 1974 Provincial Ordinance and disregarded the ethics or depravity of the method the animal was allegedly intentionally killed. With our agitation, charges were added in respect of the Animal Protection Act.

We have continued our watching brief in the criminal matter after initial unwillingness and tardiness of the National Prosecuting Authority in the matter to expedite the prosecution. The case eventually started on 29 - 31 January 2024. The next sitting was in July 2024, then again in January 2025. We attended court and although only five witnesses have testified so far, we will continue our watching brief to ensure that this crime is fully prosecuted as similar such actions are often ignored. The next court date has been postponed to August 2025.

Reflecting on 2024

Challenges in 2024

1. **Insufficient Funding**
   The lack of adequate funding remains our most significant challenge. This has resulted in restricting our staff to a minimum and reducing our field-based work. Despite delivering species and broader conservation outputs that we believe are of world-class quality, securing consistent financial support continues to be a major obstacle.

2. **Post-Recession Recovery and Project Loss**
   We are still struggling to financially recover from the economic recession of 2020, and the destruction of our Shepherding Back Biodiversity project. Revenue constraints have significantly limited our ability to fully resume and expand our conservation activities to their full potential. Our legal adversaries have repeatedly defamed us with funders.

3. **Operational Constraints**
   Due to limited funds, our efforts remain focused on the urgent scenarios required to sustain our work. This prevents us from scaling up operations and achieving even greater impact in securing biodiversity across various land-use zones. These constraints have affected equipment and vehicle replacements that would greatly facilitate our field operations.

4. **Marketing and Awareness**
   Promoting the Landmark Foundation's brand and raising awareness of our work remain challenging with the resource constraints. Effective marketing is essential to highlight the urgent needs of conservation, garnering support and to ensure that Landmark continues to play a key role in achieving its objectives.

Successes in 2024

1. **Groundbreaking Educational Programmes**
   Our educational programme continues to make a meaningful impact on learners, breaking new ground in conservation education. Despite operating on a minimal budget, we have successfully fostered extensive collaborations with numerous institutions, inspiring the next generation of conservationists.

2. **Scientific Contributions**
   Over the past year, we have published another two peer-reviewed scientific papers and produced 12 detailed research reports, advancing knowledge in biodiversity conservation and predator ecology. Several more papers are in preparation presently.

3. **Policy Integration**
   Our research has been successfully integrated into provincial and national government management frameworks and contributed to legislative developments, reinforcing the impact of evidence-based decision-making for conservation policy.

4. **Global Research Partnerships**

We have established valuable research and conservation collaborations with leading universities and conservation entities worldwide, including Teesside University in the UK, Cardiff University in Wales, Copenhagen University in Denmark, and Sabaragamuwa University in Sri Lanka. These partnerships enhance our capacity for impactful conservation science.

5. **International Recognition**
   Dr. McManus was honoured as a guest ambassador in Sri Lanka during their National Leopard Day celebrations. This invitation, extended by the Wildlife and Nature Protection Society (WNPS) of Sri Lanka, highlights Landmark Foundation's influence on global conservation efforts. Dr. McManus delivered presentations and engaged with diverse stakeholders, including academics, farmers, producers, and industry leaders, fostering international collaboration on conservation strategies.

6. **Policy Contributions**
   We have provided substantive inputs to national and provincial policies and regulations, shaping conservation frameworks and ensuring that biodiversity protection remains a priority in legislative planning.

7. **Pioneering Legal Advocacy**
   Our legal advocacy work is truly groundbreaking, redefining the way ecological commons are engaged and protected. This transformative approach strengthens conservation outcomes and sets a benchmark for future efforts.

8. **Growing Wetland Rehabilitation Efforts**
   The wetland rehabilitation project continues to gain recognition, demonstrating its success in restoring vital ecosystems and enhancing biodiversity.

9. **Leopard Conservation Leadership**
   Landmark Foundation has solidified its position as one of the most impactful organisations in leopard conservation, delivering innovative and tangible outcomes for this iconic species, and this has continued in the resource constrained period it is enduring.

Organisational Information

Key staff:

- **Anelisa Sitatu** (January 2023-present) Student volunteer
- **Asanda Mbuti** (January 2023 – present) Student volunteer
- **Bool Smuts** (2004–present) General Manager
- **Clive Brown** (June 2022 – present) Volunteer
- **Jeannine McManus (PhD)** (2006–present) Executive Director, Research Director
- **Johan van Schalkwyk** (2005–present) Treasurer and Trustee
- **Lauriane Faraut (PhD)** (2021–present) Human-Wildlife Conflict, Researcher
- **Mihle Bolo** (February – May 2024) Student volunteer
- **Monica Vaccaro** (2013 – present) Environmental Education Coordinator
- **Ndumiso Mbanjawa** (May-October 2024) Student volunteer
- **Pumlani Gagadu** (February – May 2024) Student volunteer
- **Robin Stubbs** (September 2022-present) Student volunteer
- **Siviwe Mgoqi** (May 2024) Student volunteer
- **Ybanathi Khoza** (May-October 2024) Student volunteer

Current trustees:

- **Rian du Toit** – Chairman, Attorney
- **Johan van Schalkwyk** – Trustee, Financial Manager
- **Jeannine McManus** – Trustee, Ecologist (PhD)

Legal and tax registrations and reporting

Landmark Foundation is up to date with statutory reporting to the Department of Social Development and SARS. Our AFS statements are published each year within 6 months of the financial year end (February).

Organisational impact

As an organisation, we believe we have had massive impact in policy and legislation, research, market impacts, education and extension, and public advocacy. We are the leading (and at times the only) organisation helping to rescue leopards from conflict in production landscapes and our leopard research work and legal advocacy work is of international quality. The wetland work has been impactful. Our litigation is foundational in getting a better dispensation for wildlife.

Looking Forward

In 2025, Landmark Foundation will focus on advancing its key project activities, addressing biodiversity challenges, and fostering impactful conservation initiatives.

1. **Landmark Foundation Leopard and Predator Project**
   The Foundation aims to deepen and expand its leopard conservation efforts:
   - Reallocate resources to prioritize critical outputs as outlined above.
   - Rescue, rehabilitate, and release every leopard within our capacity.
   - Advance research into leopard persistence across landscapes, with a particular focus on translocations as a management tool, habitat corridors, rewilding, and population genetics.
   - Continue our educational programmes across pre-school, school, and tertiary levels.
   - Strengthen advocacy efforts to influence policy, legislation, and administrative processes.
   - Expand conservation landscapes through land acquisitions and partnerships with landowners, promoting sustainable land management practices.
2. **Landscape Restoration**
   - Continue water table rehabilitation, riparian reforestation, and rewilding efforts along the Korente-Vette River and Hermanus.
   - Build on the successes of previous years to enhance ecosystem resilience.
3. **Litigation for Conservation**
   - Further legal advocacy initiatives aimed at securing protections for leopard populations and addressing broader conservation challenges.
4. **Environmental Education**
   - Strengthen and expand educational programmes at all levels, from early childhood to adult learning.
   - Finalize and distribute three key manuals (Early Childhood Development, Green Clubs, and Farmers' Manual) to enable wider adoption of these practices and extend our reach beyond practical boundaries.
   - Aim to secure more human and materials capacity for educational efforts.
5. **Resource Mobilization**
   - Intensify efforts to secure sustainable funding for the Foundation's work.
   - Redesign the Foundation's website and launch a dedicated funding campaign to enhance visibility and attract support.
   - Consider institutional protections for the organisation and separation of advocacy and education and field operations.
6. **Learning Site at Zeekoegat**
   - Continue establishing Zeekoegat as a rewilding learning site, offering a model for sustainable land management and conservation practices.

How to help:

- **Support Our Work – Donate to help us continue conservation efforts and legal advocacy.**
- **Stay Informed – Follow our updates and share our work to raise awareness.**
- **Report Wildlife Crimes – Help us track and address illegal activities threatening biodiversity.**
- **Promote Coexistence – Encourage ethical land-use practices and responsible wildlife management.**
- **Join the Conversation – Engage with us on social media and advocate for policy changes.**

Every action counts in protecting our shared natural heritage.

