



 COUNTRY BRIEF

SOUTH AFRICA

AFRICAN
WILDLIFE
INITIATIVE



The designation of geographical entities in this work, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The views expressed in this work do not necessarily reflect those of IUCN.

IUCN is pleased to acknowledge the support of its Framework Partners who provide core funding: Ministry of Foreign Affairs, Denmark; Ministry for Foreign Affairs, Finland; Government of France and the French Development Agency (AFD); Ministry of Environment, Republic of Korea; Ministry of the Environment, Climate and Sustainable Development, Grand Duchy of Luxembourg; the Norwegian Agency for Development Cooperation (Norad); the Swedish International Development Cooperation Agency (Sida); the Swiss Agency for Development and Cooperation (SDC) and the United States Department of State.

This publication has been made possible in part by co-funding from the European Union.

Published by: IUCN, Gland, Switzerland

Produced by: Species Conservation Action Team

Copyright: © 2025 IUCN, International Union for Conservation of Nature and Natural Resources

Reproduction of this work for educational or other non-commercial purposes is authorised without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this work for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Recommended citation: IUCN (2025). *Country brief: South Africa*, African Wildlife Initiative. IUCN.

Cover photo: Lawrence OP/CC BY-NC-ND 2.0

Layout by: Lucy Peers

CONTENTS

EXECUTIVE SUMMARY	5
1 THE IUCN SOS AFRICAN WILDLIFE INITIATIVE: SCALING CONSERVATION ACTION FOR THREATENED SPECIES	7
2 SOUTH AFRICA IN FOCUS	9
3 SOS AFRICAN WILDLIFE INITIATIVE ON THE GROUND ACTIONS IN SOUTH AFRICA	13
3.1 Rapid relief for Somkhanda Game Reserve	13
3.2 Hluhluwe–iMfolozi Park threatened species and community conservation project	15
3.3 Blue swallow habitat conservation, management and monitoring	17
3.4 Fire for frogs: Urgent controlled fire management to improve habitat for the Critically Endangered rough moss frog	19
3.5 Enabling ongoing and informed metapopulation management of the South–Western Black Rhino population in South African National Parks	20
3.6 Supporting conservation canine units to detect and interdict illegal wildlife products and firearms on nature reserves to prevent wildlife trafficking	22
3.7 Saving our thunderbirds: Implementation of ongoing conservation actions and urgent conservation priorities beyond the borders of protected areas	23
3.8 Improving the conservation of highly threatened and endemic South African wildlife through habitat protection, improved knowledge and stakeholder participation	25
3.9 Saving South Africa’s most threatened migratory freshwater fish, the Clanwilliam sandfish	27
3.10 Active restoration of the fragmented habitat of the Endangered western leopard toad in Tokai Park, Cape Town	29
3.11 Tembe Elephant Park threatened species and community conservation project	30
3.12 Monitoring and protection of biodiversity on Selati Game Reserve	32

3.13 Buffering South Africa’s unique succulent species from the impacts of the illegal wildlife trade	33
3.14 Enabling continuation of monitoring and appropriate management of threatened seabirds	35
3.15 Protection of the Critically Endangered Lillie cycad	36
4 LESSONS LEARNED FROM CONSERVATION ACTIONS IN SOUTH AFRICA	39
5 RECOMMENDATIONS FOR FUTURE SPECIES CONSERVATION EFFORTS	40
6 CONCLUSION	41

EXECUTIVE SUMMARY

South Africa is renowned for its extraordinary ecological diversity and is home to iconic megafauna including elephants, rhinos, lions, cheetahs, and leopards. As one of the world's 17 megadiverse countries, it harbours around 10% of global plant species and boasts high levels of endemism, especially within the Cape Floristic Region, a UNESCO World Heritage Site. South Africa's robust conservation infrastructure includes 19 national parks, over 100 nature reserves, and numerous private and community-managed conservancies, covering more than 9% of its land.

Despite this strong foundation, South Africa faces persistent conservation challenges, including habitat loss and fragmentation from development, persistent poaching (especially of rhinos), human-wildlife conflict, illegal wildlife trade, and the impacts of climate change. The COVID-19 pandemic further compounded these pressures by reducing tourism revenue, constraining conservation budgets and increasing community vulnerability, which in turn led to heightened pressure on natural resources and protected areas.

Through the IUCN SOS African Wildlife Initiative, a portfolio of 15 conservation projects was implemented across critical South African landscapes to address these complex threats:

- In **Somkhanda Game Reserve**, anti-poaching operations were supported during the pandemic, enabling ranger teams to protect black and white rhinos, wild dogs, lions, and elephants. These efforts resulted in zero rhino poaching incidents and fostered population growth in both rhinos and wild dogs through enhanced surveillance and targeted interventions.
- In **Hluhluwe-iMfolozi Park**, real-time tracking technologies were deployed and community engagement strengthened, resulting in population increases for African wild dogs, cheetahs, and lions, and effective mitigation of vulture poisoning. The project also improved community livelihoods through business training and conflict mitigation workshops.
- In the **Mistbelt Grasslands**, blue swallow habitat was secured and restored through biodiversity stewardship agreements, promoting avitourism and thereby supporting both species conservation and local economic opportunities.
- In the **Klein Swartberg Mountains**, a range of innovative, landscape-level efforts included controlled burns to recover rough moss frog populations, the creation of vulture safe zones, and the use of technology such as environmental DNA (eDNA) and acoustic sensors to improve monitoring of elusive species like golden moles and riverine rabbits.



- In the **Addo, Karoo, and Mountain Zebra National Parks**, an initiative helped strengthen black rhino metapopulation management through enhanced monitoring, specialised ranger training, and the use of camera traps, leading to a significant increase in calf survival and to zero poaching during the project period.
- In the **Biedouw River catchment**, a successful rescue and reintroduced Clanwilliam sandfish, establishing sanctuary dams and removing invasive fish to support the recovery of this endangered species.
- Other projects addressed urgent threats to species such as southern ground hornbills, African penguins, and endemic succulents through national management plans, anti-poaching strategies, and targeted habitat restoration.

Key factors contributing to these outcomes included strong multi-sectoral partnerships among NGOs, government agencies, communities, and the private sector; strategic adoption of technological tools for real-time monitoring and threat response; and capacity building with a focus on local employment. Integrated conservation approaches that combined species recovery, habitat protection, and community livelihoods proved especially effective in building long-term resilience.

To sustain and enhance these conservation gains, several strategic actions are recommended:

- **Move from short-term to long-term support:** While Rapid Action Grants addressed urgent needs, many conservation gains can only be sustained through multi-year support, which allows for strategic follow-up, capacity-building, and adaptation to evolving challenges.
- **Scale up access to innovative tools and local capacity:** Expanding the use of technologies such as eDNA, GPS tracking, drones and data platforms, while building local capacity to use them, will improve monitoring, threat detection and adaptive management.
- **Increase support for underrepresented species and ecosystems:** Targeted investment is needed for amphibians, freshwater fish, cycads and other underrepresented species and ecosystems, especially in freshwater and dryland areas. Protecting a broader range of species as this is essential for maintaining ecosystem health and biodiversity resilience.
- **Strengthen cross-border collaboration and knowledge-sharing:** Many species and ecosystems span multiple countries, especially migratory and wide-ranging ones. Collaborative approaches help amplify impact and ensure coordinated protection of shared biodiversity resources.

Integrated conservation approaches that combined species recovery, habitat protection, and community livelihoods proved especially effective in building long-term resilience.!



THE IUCN SOS AFRICAN WILDLIFE INITIATIVE: SCALING CONSERVATION ACTION FOR THREATENED SPECIES

The International Union for Conservation of Nature (IUCN) envisions “a just world that values and conserves nature.” Its mission is to “influence, encourage, and assist societies worldwide to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.” As a global authority on biodiversity conservation, IUCN operates through an extensive network of over 10,000 species conservation experts who guide the development and implementation of its strategy. Through initiatives like Save Our Species (SOS), IUCN supports evidence-based conservation action, strengthens civil society organisations (CSOs), and helps implement biodiversity policies that benefit species, ecosystems, and people.

Africa is home to some of the world’s most iconic yet increasingly threatened species, particularly large carnivores such as lions, cheetahs, leopards, African wild dogs, and Ethiopian wolves. These species face escalating threats due to habitat loss, poaching, human-wildlife conflict, and illegal wildlife trade. To address these challenges, the IUCN SOS African Wildlife Initiative was launched as a partnership between the European Union and IUCN. The initiative focuses on two primary objectives: strengthening CSOs working to protect biodiversity, species, and habitats and demonstrating the impact of conservation actions on threatened species and ecosystems, with a special focus on large carnivores.

The initiative operates through three core pillars.

- **Species conservation**, which involves monitoring and protecting wildlife populations while creating conditions for species to recover and recolonise their native habitats.



Photo credit: © Ryan Mitchell

- **Habitat protection** that enhances protected area management, restores degraded ecosystems and tackles threats such as overgrazing and invasive species.
- **Community engagement** which ensures the participation of local communities in conservation action. Supporting communities to adopt alternative livelihoods like beekeeping, agroforestry and ecotourism reduces communities' reliance on natural resources, while the promotion of coexistence measures supports the needs of those living near wildlife.

To achieve these goals, the initiative funds conservation actions that address human-wildlife conflict through community-based interventions, awareness campaigns and compensation schemes. It also combats poaching and illegal wildlife trade via anti-poaching patrols, snare removal, and K9 detection units. Additionally, the initiative supports habitat restoration through afforestation, wildfire management and sustainable pasture planning, while strengthening law enforcement and policy advocacy to enhance species protection. Recognising the importance of local participation, it actively involves communities through capacity-building programmes, conservation employment opportunities and education initiatives.

Since its launch, the initiative has provided funding through three calls for proposals (2017, 2019, and 2021), offering two types of grants. Threatened Species Grants support long-term projects implementing a programmatic approach to addressing critical conservation threats, with funding ranging from €25,000 to €450,000 per grant and Rapid Action Grants offering short-term emergency response funding between €25,000 and €100,000 per grant. These grants have been instrumental in driving conservation action across Sub-Saharan Africa.

The IUCN SOS African Wildlife Initiative awarded 91 grants totalling €10.8 million to 91 civil society organisations, with 70% of grantees being national organisations. As a result:

- Approximately **40 million hectares** of key wildlife habitats have been placed under improved management.
- **37 action plans** have been developed or improved for better species protection.
- Additionally, **30 projects** have mitigated human-wildlife conflict, fostering coexistence between wildlife and communities.
- Capacity-building efforts have trained **44,510 people** through workshops and policy events with **665,665 individuals** benefiting from direct employment and livelihood activities.
- **85% of grantees** reported improved organisational capacity, thereby strengthening conservation efforts across Africa.

The initiative has also helped amplify conservation awareness among the general public, with over **1,200 conservation stories** published across various platforms.

✓ The IUCN SOS African Wildlife Initiative strengthens civil society, protects threatened species and habitats, and empowers communities—placing 40 million hectares under improved management and reaching over 665,000 people through conservation-based livelihoods.✓

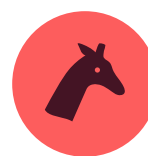


SOUTH AFRICA IN FOCUS

South Africa is one of the world's 17 megadiverse countries, renowned for its exceptional biodiversity across terrestrial, freshwater, and marine ecosystems. Despite covering only 2% of the world's land surface, it hosts about 10% of the planet's plant species and a significant share of reptiles, birds, mammals, and marine species. The country contains three global biodiversity hotspots—the Cape Floristic Region, Succulent Karoo, and Maputaland-Pondoland-Albany—featuring high levels of endemism, where many species are found nowhere else on Earth. With around 67,000 animal species and more than 20,000 plant species, South Africa's rich natural heritage underpins livelihoods, cultural identity, and ecosystem health. The country's extensive protected area network includes 19 national parks, over 100 nature reserves, and multiple privately and community-managed conservancies, together covering more than 9% of the national land area. Key conservation areas include Kruger National Park, Addo Elephant National Park, iSimangaliso Wetland Park, and Table Mountain National Park.

Nature-based tourism is a major contributor to the economy, accounting for roughly 6.4% of GDP and supporting over 1.5 million jobs, many of which are in rural areas adjacent to conservation landscapes.¹ The wildlife economy encompassing ecotourism, game farming, sustainable wildlife utilisation, and biodiversity trade has been actively promoted to align conservation with economic development.²

Wildlife conservation in South Africa experienced multiple, overlapping setbacks during the COVID-19 pandemic. Significant budget reductions within conservation agencies curtailed patrols, anti-poaching initiatives, and responses to human-wildlife conflict. The near-total collapse of tourism dropping by as much as 90% during lockdowns further disrupted park operations, community development projects, ranger patrols, and education programs. In addition, restrictions on movement and the redirection of government resources hampered research, monitoring, law enforcement, and day-to-day conservation activities carried out by both NGOs and state agencies.³



Around
67,000
animal species

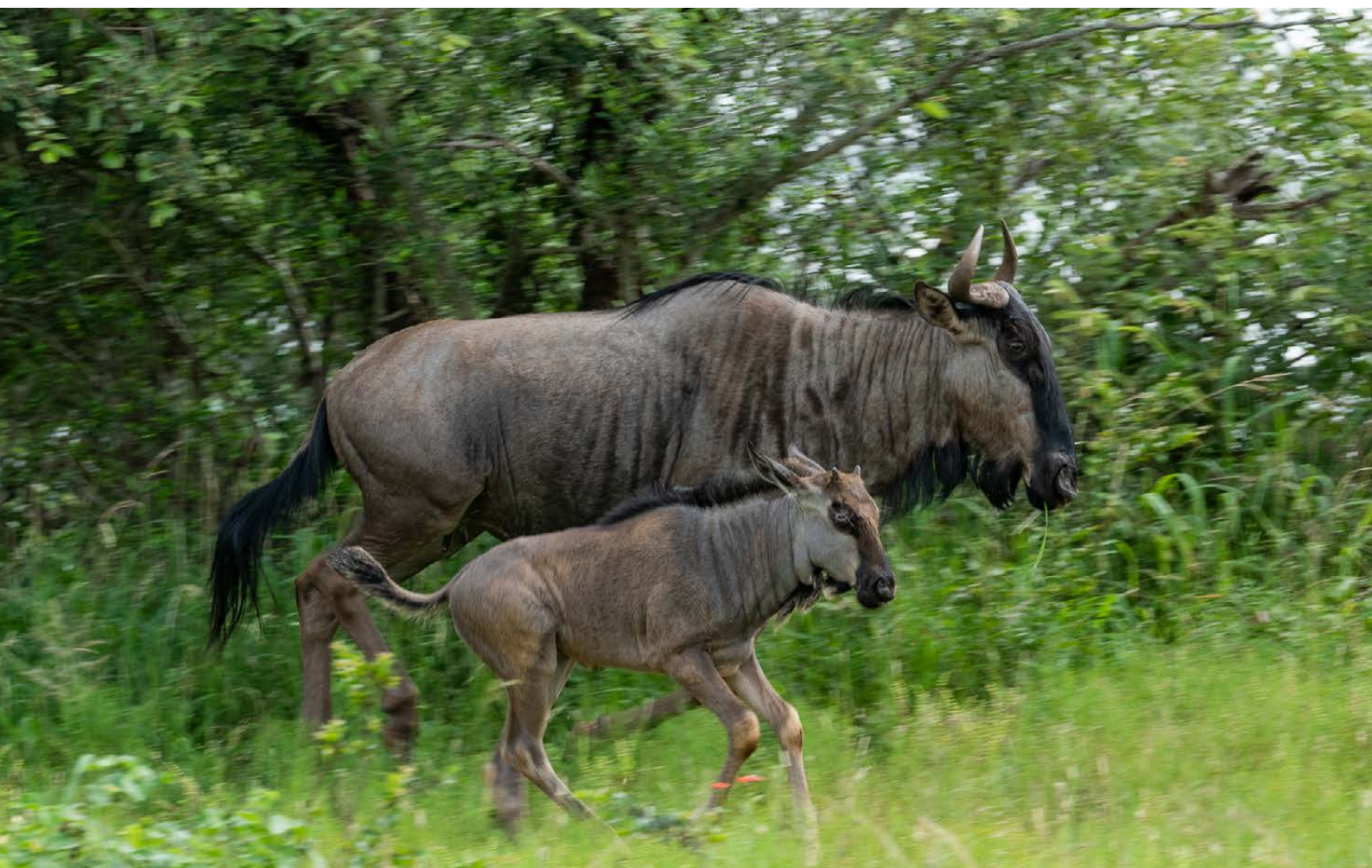


More than
20,000
plant species



19
national parks

- 1 Department of Environment, Forestry and Fisheries (DEFF). (2020). National Biodiversity Economy Strategy. <https://www.dffe.gov.za>
- 2 World Travel and Tourism Council (WTTTC). (2022). Travel & Tourism Economic Impact – South Africa. <https://wtcc.org>
- 3 Lessons from COVID-19 for wildlife ranching in a changing world: <https://www.nature.com>



The IUCN Save Our Species (SOS) African Wildlife Initiative has made a significant impact on South Africa's conservation landscape. Between 2020 and 2024, the initiative invested €1,323,005 in a series of targeted grants, supporting a range of partners and projects across the country. These efforts generated measurable conservation outcomes:

Photo credit: © Kirsten Oliver/Somkhanda

- **Improved protection and habitat management** of over 5.5 million hectares of vital habitats through anti-poaching patrols, restoration activities and innovative stewardship agreements, benefiting diverse species from black rhinos and African wild dogs to blue swallows and the Clanwilliam sandfish.
- **Reduced poaching incidents and enhanced security**, with several reserves including Somkhanda and Addo Elephant National Park reporting zero rhino poaching during project periods, supported by the introduction of real-time monitoring tools such as EarthRanger, camera traps, and canine detection units.
- **Positive species recovery trends**, including the birth of new black rhino calves, growth in wild dog packs, improved breeding success for blue swallows, the discovery of new populations of Critically Endangered frogs, and a 17% increase in African penguin breeding pairs at Bird Island.

- **Community engagement and livelihood improvement** of over 3,000 individuals through training, employment and business support, while empowering landowners as conservation stewards.
- **Wider adoption of technological and data-driven approaches**, including GPS collaring, acoustic monitoring, and eDNA, enabling more precise and rapid threat detection and wildlife management, and capacity building efforts providing rangers with essential technical skills.
- **Policy and national planning contributions**, including the implementation of the National Biodiversity Management Plan for the southern ground hornbill, formal protection of new nature reserves, and contributions to Red List assessments and conservation bond development.

Between 2020 and 2024, projects funded addressed critical biodiversity threats in various regions:

- In KwaZulu-Natal's Somkhanda Game Reserve, Wildlands Conservation Trust supported anti-poaching operations during COVID-19, protecting black and white rhinos, wild dogs, lions, and elephants.
- In Hluhluwe-iMfolozi Park, Wildlife ACT Fund Trust focused on species monitoring, vulture poisoning mitigation and human-wildlife conflict, benefiting wild dogs, cheetahs, lions, and vultures.
- BirdLife South Africa led habitat protection efforts for the endangered blue swallow in KwaZulu-Natal and Mpumalanga's Mistbelt Grasslands.
- The Endangered Wildlife Trust (EWT) conducted ecological burns in the Klein Swartberg Mountain (Western Cape) to restore habitat for the rough moss frog and discover new populations.
- SANParks enhanced black rhino metapopulation monitoring and management in Addo, Karoo and Mountain Zebra National Parks.
- EWT deployed canine units in six reserves Addo, Karongwe, Makalali, Mabula, Sabi Sand and Great Fish River to detect illegal wildlife products and firearms, protecting rhinos, elephants, lions and pangolins.
- The Mabula Ground Hornbill Project implemented the National Biodiversity Management Plan for southern ground hornbills across Limpopo, Mpumalanga, KwaZulu-Natal, Eastern Cape and Northwest, addressing threats like electrocution and belief-based use.
- A multi-species, landscape-level initiative by EWT protected over 836,000 hectares in Eastern Cape, KwaZulu-Natal, Mpumalanga, Northern Cape, Free State and Western Cape, benefiting species such as riverine rabbits, golden moles, cranes, frogs and vultures.
- In the Biedouw River catchment (Western Cape), the Freshwater Research Centre rescued and boosted populations of the Critically Endangered Clanwilliam sandfish by establishing sanctuary dams and removing invasive fish.

- In Tokai Park, Cape Town, Friends of Tokai Park restored degraded fynbos habitat to support the Endangered western leopard toad.
- At Tembe Elephant Park (KwaZulu-Natal), Wildlife ACT Fund Trust conducted species monitoring and governance training to reduce human-wildlife conflict involving lions, wild dogs, elephants and black rhinos.
- The Selati Wilderness Foundation implemented two projects: one enhancing surveillance and monitoring for rhinos, cheetahs and pangolins at Selati Game Reserve, and another focusing on the protection of the Critically Endangered Lillie cycad at the Lillie Cycad Reserve, using camera traps and real-time tracking.
- Wilderness Foundation Africa led two projects: one targeting the illegal trade in *Conophytum* succulents through ex situ conservation and law enforcement training in Karoo, Kirstenbosch and Pretoria botanical gardens, and another supporting seabird monitoring and nest management in Addo Elephant National Park Marine Protected Area, benefiting African penguins, Cape gannets and Cape cormorants.

Despite its robust conservation infrastructure, South Africa still faces complex environmental challenges. Rhino poaching, although declining in recent years, remains a critical threat. Habitat fragmentation, urban development and climate change also continue to place pressure on species and ecosystems. Overall, South Africa's extraordinary biodiversity requires continued commitment and support.

Initiatives like the IUCN Save Our Species African Wildlife Initiative are crucial in preserving the country's natural heritage and ensuring sustainable conservation outcomes for future generations.

❗ Rhino poaching, although declining in recent years, remains a critical threat. Habitat fragmentation, urban development and climate change also continue to place pressure on species and ecosystems.!



SOS AFRICAN WILDLIFE INITIATIVE ON THE GROUND ACTIONS IN SOUTH AFRICA

3.1 Rapid relief for Somkhanda Game Reserve

Implementation partner	Wildlands Conservation Trust
Target species	<ul style="list-style-type: none">▪ Black rhino (<i>Diceros bicornis</i>) Critically Endangered▪ Wild dog (<i>Lycaon pictus</i>) Endangered▪ White rhino (<i>Ceratotherium simum</i>) Near Threatened▪ Lion (<i>Panthera leo</i>) Vulnerable▪ African elephant (<i>Loxodonta africana</i>) Endangered
Project location	Somkhanda Game Reserve

PROBLEM

Somkhanda Game Reserve in KwaZulu-Natal is a vital stronghold for Critically Endangered black rhinos and other threatened species such as wild dogs, lions, elephants and white rhinos. However, during the COVID-19 pandemic, the reserve's Anti-Poaching Unit (APU) which is essential for maintaining security and protecting wildlife, faced imminent collapse due to funding shortfalls. Without urgent support, the livelihoods of local rangers would have been lost, and the breakdown of critical conservation infrastructure would have left vulnerable species at heightened risk of poaching, potentially undermining decades of conservation progress in the region.

APPROACH

To strengthen anti-poaching efforts during COVID-19, ten rangers were retained on 12-month contracts. These rangers received equipment and training in the use of EarthRanger, a real-time GPS tracking and data management system, enabling effective patrol coordination and situational awareness.

The APU carried out both day and night patrols, particularly during high-risk periods, with all patrol activities and wildlife sightings digitally recorded. Staff were further trained in data analysis, legal procedures and crime scene management to enhance their operational capacity. In addition, rhino dehorning and the deployment of telemetry collars were implemented to strengthen monitoring efforts and deter poachers. Beyond conservation gains, the continued employment of rangers provided a stable income helping to alleviate economic vulnerability during the COVID-19 pandemic.

KEY OUTCOMES

Through strengthened anti-poaching patrols, real-time monitoring, and enhanced law enforcement capacity, the project achieved zero incidents of black or white rhino poaching during a period of heightened risk. The protected environment saw the birth of two black rhino calves and the growth of the wild dog pack from eight to 15 individuals, signalling improved species recovery and a thriving ecosystem.

The continued employment and upskilling of ten local rangers not only safeguarded critical wildlife but also provided stable income and economic security for community members during the COVID-19 pandemic. While specialised training in data analysis, legal procedures, and crime scene management, along with the creation of an internal investigative unit, strengthened the reserve's capacity to prevent and respond to wildlife crime.

Adoption of the EarthRanger real-time GPS tracking system improved patrol coordination, situational awareness and decision-making, leading to more effective and proactive conservation management.



KEY SUCCESS FACTORS

- Timely financial support enabled uninterrupted operations, ensuring continuity in field activities and conservation outcomes.
- Incorporation of technology enhanced real-time monitoring, data analysis and security coordination, significantly improving decision-making and the ability to anticipate and prevent poaching incidents.
- Sustained employment of local rangers not only supported livelihoods but also contributed to the long-term sustainability of Somkhanda Game Reserve through capacity building, resource mobilisation and strengthened conservation credibility.

3.2 Hluhluwe–iMfolozi Park threatened species and community conservation project

Implementation partner	Wildlife ACT Fund Trust
Target species	<ul style="list-style-type: none"> ■ Black rhino (<i>Diceros bicornis</i>) Critically Endangered ■ African wild dog (<i>Lycaon pictus</i>) Endangered ■ White rhino (<i>Ceratotherium simum</i>) Near Threatened ■ Lion (<i>Panthera leo</i>) Vulnerable ■ African elephant (<i>Loxodonta africana</i>) Endangered
Project location	Hluhluwe–iMfolozi Park

PROBLEM

In KwaZulu-Natal, the COVID-19 pandemic triggered significant conservation budget cuts, reducing capacity for wildlife protection and response to human-wildlife conflict. As resources dwindled, carnivores began venturing beyond park boundaries, leading to increased livestock predation and retaliatory killings by affected communities. Meanwhile, vultures were increasingly targeted by poisoning incidents. The lack of sufficient monitoring technology, rapid response capacity, and community engagement further hindered effective management of wildlife and conflict incidents. Additionally, rural businesses and households were hit economically by the pandemic and lacked the tools and support needed to build resilient livelihoods. Together, these challenges threatened both species survival and local well-being, necessitating an integrated intervention by Wildlife ACT, Ezemvelo KZN Wildlife, and People Nature Connect to protect wildlife and support communities.

APPROACH

The project enhanced wildlife monitoring, tracking and data collection by fitting 10 tracking units on cheetahs and wild dogs, deploying five satellite tags on vultures, and installing 10 camera traps along with a

telemetry receiver. Seven wildlife relocations were undertaken, and Human-Wildlife Conflict Officers were trained with digital tools to improve conflict response.

To address community-level challenges such as persistent human wildlife conflict and limited livelihood diversification opportunities, 12 workshops and meetings were conducted with livestock owners from 23 villages, promoting practical conflict mitigation techniques. Thirty informal businesses also received training on basic business skills and personal development to help diversify their income generating activities. These efforts were complemented by environmental awareness activities, including park visits for 25 entrepreneurs, helping to integrate conservation values into local economic development.



Photo credit: © Wildlife ACT

KEY OUTCOMES

The project resulted in notable gains in carnivore conservation, with the African painted dog population increasing from 16 to 29 individuals and cheetahs from 12 to 21, driven by successful births and strategic relocations. Lion numbers also rose from 61 to 72 within a year, reflecting the impact of enhanced monitoring, GPS collaring and rapid response systems. These interventions were made possible through the deployment of tracking technologies which improved wildlife movement data and enabled seven successful relocations of conflict prone carnivores to habitats that were not close to human settlements.

Community engagement was integral to the project's success. Twelve workshops held with livestock owners across 23 villages strengthened understanding of carnivore behaviour and conflict mitigation strategies, leading to faster and more coordinated responses. The Emergency Response Team effectively addressed 100% of wildlife-related incidents, including rescuing an African wild dog from a snare and preventing broader harm during vulture poisoning events. On the economic front,

25 of the communities trained in informal businesses had adopted basic financial management practices, therefore supporting long-term community resilience.

KEY SUCCESS FACTORS

- Targeted species monitoring and proactive management directly contributed to population increases in key carnivores.
- The use of real-time tracking technologies and rapid response mechanisms enabled swift interventions, preventing wildlife fatalities and reducing retaliatory actions from communities.
- Equipping small businesses with practical skills, financial tools and mentorship allowed them to better navigate economic challenges brought on by the pandemic while reinforcing the conservation-livelihoods link.

3.3 Blue swallow habitat conservation, management and monitoring

Implementation partner	BirdLife South Africa
Target species	Blue swallow (<i>Hirundo atrocaerulea</i>) Endangered
Project location	Mistbelt Grassland biome (KwaWula Nature Reserve, Nirodha Nature Reserve, Trewirgie Nature Reserve, Minerva area, Roselands Nature Reserve)

PROBLEM

The Mistbelt Grassland, vital nesting grounds for blue swallows, are vanishing at an alarming rate. Year after year, these habitats have been lost and fragmented due to agricultural expansion, invasive plant species and poor land management. Conservation of this species hinges not only on saving what's left, but also on actively managing and restoring its habitat to ensure the species' long-term survival.

APPROACH

BirdLife South Africa, in collaboration with Conservation Outcomes and Ezemvelo KZN Wildlife, launched an effort focused on securing and managing critical habitat, expanding monitoring efforts, and empowering landowners to become stewards of these threatened landscapes. The project adopted a landscape-level strategy to secure and restore blue swallow habitat in KwaZulu-Natal and Mpumalanga. This involved formalising biodiversity stewardship agreements and initiating the process for declaration of an additional 1,500 hectares. Fire planning and invasive species removal was adopted as a management strategy, including livestock management practices over 3,800 hectares. To enhance monitoring, nine habitat monitors were deployed to regularly observe 36 nest sites during the breeding season. Collaborative

management and operational plans were developed with landowners, while targeted awareness campaigns and field-based education activities strengthened local engagement. The project also introduced ecotourism, promoting birdwatching as an alternative livelihood to further integrate conservation with community development.

KEY OUTCOMES

The project achieved significant conservation outcomes for the blue swallow and its habitat. During the 2020/21 breeding season, fledgling numbers rose, indicating improved breeding success linked to better habitat conditions and expanded monitoring efforts. In total, 340 hectares of habitat were newly protected, and a process was initiated to designate an additional 1,500 hectares. Furthermore, critical Mistbelt Grassland were brought under improved management, with 790 hectares cleared of invasive alien plants to restore ecological integrity.

The project generated socio-economic impact by creating employment opportunities for habitat monitors. Some landowners also capitalised on the conservation success by offering guided birdwatching experiences, generating ecotourism income. Public awareness and support were strengthened through targeted outreach, including webinars and local field-based education activities.



Photo credit: © Steve McKean

KEY SUCCESS FACTORS

- Trusted relationships and strategic partnerships enabled voluntary landowner participation and formalised stewardship agreements with strong technical and legal backing.
- Timely grant support allowed for rapid conservation interventions while laying the groundwork for long-term habitat protection.
- Integration of livelihoods and science, through birdwatching tourism and adaptive nest monitoring, highlighted the mutual benefits of conservation for both people and biodiversity.

3.4 Fire for frogs: Urgent controlled fire management to improve habitat for the Critically Endangered rough moss frog

Implementation partner	Endangered Wildlife Trust
Target species	Rough moss frog (<i>Arthroleptella rugosa</i>) Critically Endangered
Project location	Klein Swartberg Mountain

PROBLEM

High in the Klein Swartberg Mountains of the Western Cape, the rough moss frog, known only from this single mountain, was being suffocated by an aggressive invasion of non-native pine trees (*Pinus Pinaster*). These trees drained water from wetlands, altered fire regimes, and choked off the native fynbos ecosystem that the frog depended on to breed and survive.



Photo credit:
© Endangered
Wildlife Trust

APPROACH

The Endangered Wildlife Trust, in collaboration with CapeNature, Enviro Wildfire, Fynbos Trust and Klein Swartberg Conservancy, launched a targeted conservation intervention using ecological controlled burns to restore the frog's habitat.

To enhance habitat restoration, the project established five kilometres of firebreaks across four properties, enabling the safe execution of controlled burns. Following the intervention, post-burn monitoring and ecological surveys were conducted at all known sites of the rough moss frog.

The project also engaged landowners to enter into a biodiversity stewardship programme a conservation approach that secures land for biodiversity protection through voluntary agreements between landowners and conservation authorities. Additionally, acoustic surveys, occupancy models and Geographic Information System (GIS) tools were used for monitoring and management and 23 community members were employed to support firebreak clearing and fire management activities.

KEY OUTCOMES

The project achieved significant conservation milestones for the rough moss frog by discovering six new subpopulations and confirming breeding at all known sites, demonstrating both species resilience and restoration success. Over 4,000 hectares of invasive pines were cleared far surpassing targets resulting in improved habitat conditions and ecosystem recovery.

Long-term impact was supported through the development of a 10-year strategic management plan for invasive control, and the formal designation of 2,654 hectares as nature reserves through a biodiversity stewardship programme with five landowners.

KEY SUCCESS FACTORS

- Strategic use of controlled fire as a restoration tool helped manage the fire-adapted ecosystem and shifted local perceptions of fire from a threat to a beneficial intervention.
- Flexible and adaptive management turned an unplanned fire spread into an opportunity to clear more invasive pine species, accelerating habitat recovery.
- Active engagement of landowners through the biodiversity stewardship process ensured legal protection of habitats and long-term conservation commitment.
- Scientific, data-driven planning using acoustic surveys, occupancy models and GIS tools improved the precision and impact of conservation actions.

3.5 Enabling ongoing and informed metapopulation management of the South-Western Black Rhino population in South African National Parks

Implementation partner	South Africa National Parks (SANParks)
Target species	South-Western black rhino (<i>Diceros bicornis bicornis</i>) Near Threatened
Project location	Addo Elephant National Park, Mountain Zebra National Park, Karoo National Park

PROBLEM

In 2021, amid a tourism-revenue collapse due to COVID-19, SANParks faced funding shortfalls that threatened its capacity to monitor and protect the south-western black rhino across three key national parks: Addo Elephant, Mountain Zebra, and Karoo. This risked leaving the populations vulnerable to poachers.

APPROACH

To strengthen black rhino monitoring and identification, the project implemented a proactive strategy by conducting dedicated operations to notch calves before independence, this is a standard practice where small, uniquely shaped notches are made in a rhino's ears under veterinary supervision.

These notches serve as a permanent identification system, similar to a fingerprint, and allow rangers to monitor individuals in the wild without the need for constant immobilisation. This was complemented by the deployment of camera traps across the three parks, enhancing passive surveillance capabilities.

Field rangers in all three parks received specialised training in individual rhino identification and the use of digital data collection applications, building technical capacity and promoting standardised data gathering.

KEY OUTCOMES

The project had a substantial impact on black rhino conservation across the three national parks. New black rhino births were recorded during the year, with all calves notched and documented. Individual identification reached 97% in Addo Elephant National Park and 100% in both Karoo and Mountain Zebra National Parks. Notably, no poaching incidents occurred throughout the project period, a result linked to strengthened monitoring and surveillance efforts.

In addition to conservation gains, the project helped sustain critical operations during a period of post-COVID funding constraints. The data collected played a key role in supporting both site-level strategies and the national black rhino management plans.

KEY SUCCESS FACTORS

- Robust monitoring systems combining technology and trained personnel enabled effective tracking and protection of rhinos across varied landscapes.
- Emergency funding and proactive surveillance ensured uninterrupted operations and achieved zero poaching incidents during the project period.
- Strategic data use and innovation supported long-term management and contributed to development of management plans.

3.6 Supporting conservation canine units to detect and interdict illegal wildlife products and firearms on nature reserves to prevent wildlife trafficking

Implementation partner	Endangered Wildlife Trust (EWT)
Target species	<ul style="list-style-type: none"> ▪ White rhino (<i>Ceratotherium simum</i>) Near Threatened ▪ Black rhino (<i>Diceros bicornis</i>) Critically Endangered ▪ African elephant (<i>Loxodonta africana</i>) Endangered ▪ African lion (<i>Panthera leo</i>) Vulnerable ▪ Temminck's Pangolin (<i>Smutsia temminckii</i>) Vulnerable
Project location	Addo Elephant National Park, Great Fish River Nature Reserve, Karongwe Game Reserve, Makalali Game Reserve, Sabi Sand Nature Reserve, Mabula Game Reserve

PROBLEM

With law enforcement overstretched due to rising Poaching Sophistication, reserves housing threatened species became increasingly vulnerable as threats of poaching intensified. EWT recognised an urgent need to ramp up security using conservation canines. These highly trained dogs could detect contraband at reserve gates or track intruders through rugged terrain, becoming frontline defenders against illegal wildlife trafficking.

APPROACH

EWT's strategy centred on establishing operational canine units in high-risk reserves by integrating both detection and tracking dogs. To support these operations, handlers were trained and field visits conducted to deliver on-site refresher training and assess handler performance. The project supported the construction of kennels at Makalali and Karongwe reserves, ensuring safe and comfortable housing for the dogs. Each canine unit was monitored through regular tracking exercises, monthly performance reports and welfare assessments to maintain operational efficiency and effectiveness.

KEY OUTCOMES

The project enhanced security by tracking suspected poachers and detecting illegal firearms and wildlife products at key entry points through five fully operational canine units deployed across five reserves. Their active presence contributed to the absence of reported poaching incidents involving rhinos, elephants, lions or pangolins during the project period, highlighting the effectiveness of integrating canine teams in surveillance to deter illegal activities and reinforce conservation protection efforts.

KEY SUCCESS FACTORS

- Flexible deployment strategies allowed the project to adapt dog numbers and locations based on changing reserve needs and management dynamics.

- Collaborative partnerships with reserves fostered shared responsibility, while investments in handlers and infrastructure ensured long-term operational sustainability.
- Ongoing training and integration through regular field visits as well as collaboration with anti-poaching teams enhanced canine performance, increased detection capabilities and strengthened deterrence.

3.7 Saving our thunderbirds: Implementation of ongoing conservation actions and urgent conservation priorities beyond the borders of protected areas

Implementation partner	Mabula Ground Hornbill Project
Target species	Southern ground hornbill (<i>Bucorvus leadbeateri</i>) Vulnerable
Project location	Limpopo, Mpumalanga, KwaZulu-Natal, Eastern Cape, and Northwest Venda, Nongoma, Mkhuze,

PROBLEM

The southern ground hornbill (SGH), known for their deep, thunderous calls and complex family lives, are vanishing from landscapes outside protected areas. Threats included window strikes, electrocutions, belief-based use, habitat loss and lead toxicosis.

To reverse this trajectory, the Mabula Ground Hornbill Project stepped in with a plan to roll out first year actions of South Africa's National Biodiversity Management Plan (BMP) for the southern ground hornbill.

APPROACH

The project adopted a multi-stakeholder, science-based approach to advance the conservation of the SGH. It established a 45-member SGH Working Group, developed guiding terms of reference, and initiated collaborative meetings to inform the implementation of the national BMP. Central to the strategy was the development of national databases to monitor threats such as poisoning, lead exposure, energy infrastructure risks and spatial trends in SGH mortality. The project also emphasised capacity building by training 40 landowners in SGH-friendly practices with plans to expand the network of custodians. Effective health protocols, including vaccination against Newcastle disease and avian influenza, was conducted for both captive and wild populations.

The projects also conducted extensive outreach across 42 villages to promote coexistence, blending scientific knowledge with culturally responsive education. Collaboration with Eskom and other partners further supported mitigation efforts to reduce SGH mortality from energy infrastructure.

KEY OUTCOMES

The project identified 286 new SGH groups, raising the estimated national population known to approximately 1,700 adults across 487 groups. Through enhanced national databases and monitoring there was an improved understanding of threats to SGH including poisoning, electrocution and window strikes, enabling more targeted and effective mitigation strategies.

The project produced and disseminated land management guidelines and standard operating procedures for mortality response, veterinary care and disease prevention, supporting best practices at a larger scale.

Forty landowners were trained as custodians, and outreach activities in 42 villages increased local awareness and promoted coexistence with SGHs. Extensive community awareness and education efforts addressed belief-based threats, promoting positive behavioural change and long-term coexistence.

Over 43,900 km² of suitable habitat was mapped and integrated into national monitoring systems, supporting more strategic conservation planning. Conservation planning tools and experiences were shared with neighbouring countries (Namibia, Zimbabwe, and Botswana), contributing to transboundary recovery efforts. In addition, effective veterinary protocols, including a 100% vaccination success rate against Newcastle disease and avian influenza, helped protect both captive and wild SGH populations.

KEY SUCCESS FACTORS

- Cross-sectoral coordination was achieved through the SGH working group and BMP governance framework, aligning efforts of government, NGOs, researchers, and communities.
- Robust national databases on mortality, spatial data, population trends and disease enabled evidence-based decision-making and adaptive management.
- Cultural integration and outreach promoted behaviour change by addressing belief-based use of SGHs through community awareness and traditional knowledge studies.
- Effective health protocols, including a 100% vaccination success rate against Newcastle disease and avian influenza, safeguarded both captive and wild populations.

3.8 Improving the conservation of highly threatened and endemic South African wildlife through habitat protection, improved knowledge and stakeholder participation

Implementation partner	Endangered Wildlife Trust (EWT)
Target species	<ul style="list-style-type: none"> ▪ Amathole toad (<i>Vandijkophrynus amatolicus</i>) Critically Endangered ▪ Kloof frog (<i>Natalobatrachus bonebergi</i>) Endangered ▪ Pickersgill's reed frog (<i>Hyperolius pickersgilli</i>) Critically Endangered ▪ Riverine rabbit (<i>Bunolagus monticularis</i>) Critically Endangered ▪ De Winton's golden mole (<i>Cryptochloris wintoni</i>) Critically Endangered ▪ Van Zyl's golden mole (<i>Cryptochloris zylii</i>) Endangered ▪ Sungazer Lizard (<i>Smaug giganteus</i>) Vulnerable ▪ Blue crane (<i>Anthropoides paradiseus</i>) Vulnerable ▪ Grey crowned crane (<i>Balearica regulorum</i>) Endangered ▪ Wattled crane (<i>Bugeranus carunculatus</i>) Vulnerable ▪ Botha's lark (<i>Spizocorys fringillaris</i>) Critically Endangered ▪ Cape vulture (<i>Gyps coprotheres</i>) Endangered ▪ Black harrier (<i>Circus maurus</i>) Endangered
Project location	Eastern Cape (Amathole, Karoo, Winterberg), KwaZulu-Natal (Widenham, Gingindlovu, Sobonakhona), Mpumalanga (Dullstroom, Lakenvlei), Northern Cape (Port Nolloth, Namaqualand, Anysberg), Free State (Eeram, Warden, Harrismith), Western Cape (Loxton, Richtersveld)

PROBLEM

Conservation efforts are often fragmented across landscapes, with limited resources and stakeholder engagement. In the wake of COVID-19, budget cuts further weakened capacity across government and non-governmental sectors. To respond, EWT launched a nationwide, multi-species cross-programme initiative to conserve critical habitats, increase knowledge of elusive species, and engage communities and authorities in long-term stewardship.

APPROACH

This project adopted a landscape-level conservation strategy by integrating the efforts of four Endangered Wildlife Trust programmes: Threatened Amphibians, African Cranes, Birds of Prey, and Drylands Conservation. Through this collaborative model, the project worked to secure biodiversity stewardship agreements and protected area declarations.

To enhance species monitoring, the project employed innovative technologies such as eDNA, acoustic sensors, camera traps and scent detection dogs, enabling more effective tracking of elusive and threatened species. To protect vultures, the project established vulture

safe zones (VSZs) to help address key threats like poisoning, collisions and drowning. Additionally, research methods were piloted to improve understanding of cryptic species such as golden moles, riverine rabbits and black harriers.

A strong emphasis was placed on community capacity building, with training provided in sustainable rangeland and wetland management, permaculture and financial literacy.

KEY OUTCOMES

The project secured over 836,000 hectares of critical habitat through biodiversity stewardship agreements and protected area declarations, benefitting key species such as vultures, amphibians, cranes, sungazers and riverine rabbits.

Species monitoring was enhanced through advanced technologies leading to new discoveries, such as detecting riverine rabbits in three new areas and providing stronger data for amphibian Red List assessments. Established VSZs across more than 768,000 hectares directly addressed threats such as poisoning, collisions and drowning, and supported recovery of vulture populations.

Over 2,700 people were engaged in sustainable rangeland and wetland management, permaculture and financial literacy. The project also supported the creation of community permaculture gardens including a cooperative business enhancing food security, local livelihoods, and conservation awareness.

KEY SUCCESS FACTORS

- Strong collaboration with over 16 partners including universities, traditional leaders, conservation authorities and NGOs was instrumental in driving shared goals and broad expertise.
- The project's integrated approach combined species research, habitat management, policy advocacy and community engagement into a unified, strategic conservation framework.
- Advanced monitoring technologies such as acoustic sensors and scent detection dogs significantly improved data collection and tracking of elusive species.
- Co-designing stewardship agreements and VSZs with landowners fostered trust, local ownership and context-specific conservation action.
- Embedding multi-species action plans within protected environments strengthened institutional commitment to long-term biodiversity protection.

3.9 Saving South Africa's most threatened migratory freshwater fish, the Clanwilliam sandfish

Implementation partner	Freshwater Research Centre
Target species	Clanwilliam sandfish (<i>Labeo Seeberi</i>) Endangered
Project location	Biedouw River catchment, Doring River system

PROBLEM

The Endangered Clanwilliam sandfish has a global population estimated at under 2,000 individuals, this unique migratory fish faces an onslaught of pressures of predation by invasive fish species, dewatering of rivers and loss of breeding habitat.

The Biedouw River remains one of the species' last spawning tributaries, but even here, sandfish juveniles are regularly wiped out by the invasive spotted bass and bluegill sunfish before reaching adulthood. Without urgent action to protect and boost their numbers, this species could vanish from South Africa's river systems.



Photo credit:
© Freshwater
Research Centre

APPROACH

The project adopted an integrated conservation strategy focused on the rescue, rearing and release of juvenile fish from the Biedouw River into secure, off-stream sanctuary dams. These sanctuaries were established and expanded through collaborative partnerships with private landowners and supported by the removal of invasive fish species to restore native aquatic ecosystems.

To ensure scientific accuracy, released fish were tagged and tracked using Passive Integrated Transponder (PIT tags) and antennae systems, enabling detailed monitoring of survival and movement. Extensive population surveys across the Doring River catchment provided insights into broader ecosystem health. The project also invested in strategic science communication, producing virtual reality tools, a documentary web series and peer-reviewed publications to share knowledge with both local communities and the global scientific audience.

KEY OUTCOMES

The project achieved significant conservation outcomes for the Critically Endangered Clanwilliam sandfish by rescuing over 25,000 juveniles and relocating them to six predator-free sanctuary dams. A major success was the return of 77 tagged individuals to the Biedouw River during the spawning season of late August through September of 2022, leading to an estimated 55% increase in the spawning population at that site. Four new sanctuary dams were established, including one in the previously unprotected Oorlogskloof catchment. These efforts were reinforced by the removal of more than 30,000 invasive bluegill fish, creating approximately 10 hectares of safe habitat for juvenile sandfish. In total, 1,634 fish were released, and extensive population surveys across 30 sites generated the most comprehensive dataset on sandfish populations in over a decade, which directly informed the IUCN Red List of Threatened Species™ assessment for the species.

KEY SUCCESS FACTORS

- The project proved that conservation translocation through head-starting is an effective method to quickly enhance endangered fish populations, achieving the largest freshwater fish translocation in Africa.
- Project-generated data directly supported national Red List assessments, South Africa's Environmental Impact Assessment Screening Tool, and broader freshwater biodiversity planning efforts.
- Collaboration with landowners was crucial, with their support enabling the establishment of sanctuary dams by providing access, accommodation and voluntary conservation levies.
- The use of storytelling, digital outreach and immersive tools, such as virtual reality, helped elevate awareness and support for sandfish conservation both nationally and internationally.

3.10 Active restoration of the fragmented habitat of the Endangered western leopard toad in Tokai Park, Cape Town

Implementation partner	Friends of Tokai Park (FOTP)
Target species	Western leopard toad, (<i>Sclerophrys pantherine</i>) Endangered
Project location	Tokai Park

PROBLEM

The western leopard toad, an Endangered species found only in the Cape lowlands depends on Peninsula granite fynbos and Cape Flats sand fynbos which has been heavily invaded by alien tree species such as Acacia and Eucalyptus. These invasives have overrun wetlands, degraded soil quality, consumed critical water resources and displaced indigenous flora, reducing suitable habitat for the Western Leopard Toad to dangerously fragmented patches.

APPROACH

In partnership with SANParks, the project focused on the removal of invasive alien tree species across 6.3 hectares to rehabilitate native habitat. To restore ecological structure and promote biodiversity, indigenous seedlings were planted over 29.9 hectares. The project employed 12 ecology graduate interns to support project implementation.

KEY OUTCOMES

The project made a substantial impact on habitat restoration and species conservation by effectively reducing invasive alien tree cover from 30% to just 2%. It also planted 4,900 indigenous seedlings, focusing on species that meet the ecological needs of the western leopard toad and other native wildlife. This directly supported the Tokai Park population of the western leopard toad, which represents about 9.1% of the species' global range, and benefitted an estimated 500 individuals. The project also trained 12 interns in invasive species management and habitat restoration techniques, including plant propagation and field monitoring, therefore strengthening their conservation capacity. A significant discovery during the project was a previously unknown population of the Endangered largestipuled fountainbush (*Psoralea fascicularis*), expanding the known range of the species and highlighting the broader ecological value of the restoration efforts.

KEY SUCCESS FACTORS

- Strong collaboration with SANParks provided logistical support, alignment with broader park management strategies, and ensured sustainability through continued post-project maintenance.

- Targeted habitat management through clearing of invasive alien plants and implementing large-scale indigenous restoration enhanced critical habitat for the Western Leopard Toad, while the discovery of a new population of an endangered plant further validated the site selection. Standardized pre/post/follow-up vegetation surveys across 11 management units, weekly site reports, and mapped results highlighted hotspots of reinvasion or low survival, guiding crews, equipment, and budget to where they'd have the greatest impact.

3.11 Tembe Elephant Park threatened species and community conservation project

Implementation partner	Wildlife ACT Fund Trust
Target species	<ul style="list-style-type: none"> ▪ African wild dog (<i>Lycaon pictus</i>) Endangered ▪ Lion (<i>Panthera leo</i>) Vulnerable ▪ Black rhino (<i>Diceros bicornis</i>) Critically Endangered ▪ African elephant (<i>Loxodonta africana</i>) Endangered
Project location	Tembe Elephant Park

PROBLEM

During the COVID-19 pandemic, Wildlife ACT and its primary partner at Tembe Elephant Park, Ezemvelo KZN Wildlife, faced drastic funding cuts and staffing shortages, threatening decades of conservation progress. Vital monitoring and management activities were scaled back just as challenges like human-wildlife conflict, poaching risks and habitat pressures began to rise.

APPROACH

The project adopted an integrated wildlife monitoring and conflict mitigation strategy, combining daily field patrols, extensive camera trapping and the deployment of 25 tracking collars on key species such as lions, elephants, wild dogs and black rhinos.

To support broader conservation goals, the team actively participated in species translocations, collaring and dehorning operations. When a pack of collared wild dogs migrated to Mozambique, the team collaborated with Mozambique's National Administration of Conservation Areas (ANAC) to facilitate cross-border monitoring of their movements.

Addressing human-wildlife conflict was a key component, with community workshops being held and the development, translation and distribution of Livestock Predation Handbook: Basic guide to Livestock Predation in KwaZulu-Natal (KZN).



Photo credit: ©
Kayleigh Webber

KEY OUTCOMES

The project achieved significant outcomes in both conservation and community engagement by integrating focused wildlife monitoring, conflict mitigation strategies and capacity building efforts. A total of 36,896 kilometres of vehicle-based patrols were conducted, enabling thorough monitoring of key species.

Key conservation interventions included the dehorning and ear-notching of black rhinos to reduce poaching risks, and the relocation of elephants and lions to help manage population dynamics and improve genetic diversity in other reserves. When collared wild dogs migrated to Mozambique, the project partnered with Mozambique's ANAC to continue monitoring and prevent human-wildlife conflict across borders.

Human-wildlife coexistence was further promoted through three workshops involving 58 participants. Improved lion tracking and timely alerts ensured no incidents of lion-human conflict during the 2022 reed harvesting season. Community support was also enhanced by developing and translating a Livestock Predation Handbook: Basic guide to Livestock Predation in KwaZulu-Natal (KZN). into local languages.

KEY SUCCESS FACTORS

- Use of collars and real-time monitoring enabled quick conflict response, data-driven management decisions and better understanding of wild dog habitat use.
- Community workshops on coexistence built local knowledge on wildlife predators.
- Strong collaboration with Mozambique's ANAC facilitated safe transboundary relocation of wild dogs, underscoring effective regional cooperation.

- Flexible project management, including timeline extensions and resource reallocation, helped overcome logistical challenges such as weather delays and equipment shortages.

3.12 Monitoring and protection of biodiversity on Selati Game Reserve

Implementation partner	Selati Wilderness Foundation
Target species	<ul style="list-style-type: none"> ▪ Black rhino (<i>Diceros bicornis</i>) Critically Endangered ▪ Southeast African cheetah (<i>Acinonyx jubatus jubatus</i>) Vulnerable ▪ Lillie cycad (<i>Encephalartos dyerianus</i>) Critically Endangered ▪ Temminck's ground pangolin (<i>Smutsia temminckii</i>) Vulnerable
Project location	Selati Game Reserve

PROBLEM

Prior to this project, Selati Game Reserve had suffered losses to poaching and lacked real-time surveillance systems to deter illegal activity or track wildlife species. In response, the Selati Wilderness Foundation undertook a comprehensive security and biodiversity monitoring intervention to better protect species, secure critical habitats and establish a replicable conservation model for other reserves across the region.

APPROACH

The project adopted a comprehensive security and monitoring strategy by expanding ranger capacity, improving infrastructure and enhancing surveillance systems. This included the recruitment of additional rangers, upgrades to ranger accommodations, and the deployment of mobile patrol bases to extend the reach of foot patrols and listening posts.

To support field operations, tracking and monitoring equipment was installed, and specialised surveillance tools were procured and tested for both wildlife and perimeter monitoring. Central to the approach was the establishment of a dedicated operations room, enabling real-time tracking and significantly improving coordination and response capabilities across the protected area.

KEY OUTCOMES

The project significantly enhanced wildlife monitoring and protection through the deployment of combined foot and vehicle patrols, covering a total of 36,896 kilometres. This extensive effort greatly improved daily monitoring capacity within the reserve. Notably, no rhino poaching incidents occurred during the project period, a success attributed in part to the installation of a real-time surveillance system for tracking collared wildlife. Sightings of black rhinos increased, indicating improved monitoring and a positive outlook for population growth. The use of GPS collars for cheetahs provided hourly location data, deepening

understanding of their habitat use, while camera traps captured hundreds of images of priority species. These gains were supported by strategic investments in technological infrastructure, which bolstered surveillance capabilities and enabled early threat detection.

KEY SUCCESS FACTORS

- Integration of a surveillance system established a unified, data-driven approach to wildlife monitoring.
- A dedicated operations room enabled 24/7 coordination, real-time incident response, and streamlined data integration.
- Deployment of mobile picket bases and improved ranger accommodations and enhanced patrol coverage in poaching-prone areas.
- Collaborative intelligence-sharing strengthened the ability to proactively detect and neutralise threats.

3.13 Buffering South Africa's unique succulent species from the impacts of the illegal wildlife trade

Implementation partner	Wilderness Foundation Africa
Target species	Buttons/knoppies (<i>Conophytum bachelorum</i>) Critically Endangered
Project location	Namaqua and Richtersveld National Parks

PROBLEM

South Africa is home to the *Conophytum* succulent species, many of which have been severely impacted by illegal poaching and international wildlife trade. Driven by surging demand in black markets, often fuelled by collectors overseas, poachers have stripped vast areas of these unique plants, placing entire species at risk of extinction. These succulents often occur in areas smaller than 10 km². Because many succulents are slow-growing and specialized, any minimal disturbances can have negative impacts on the species.

APPROACH

The project implemented a multi-faceted conservation strategy that combined ex situ protection with anti-trafficking measures for threatened succulent species.

To combat illegal plant trafficking, the project piloted surveillance systems in poaching hotspots to monitor vehicle movements, laying the groundwork for scalable monitoring solutions license

plate recognition cameras were installed in poaching hotspots, significantly boosting surveillance and law enforcement capacity. It also emphasised community collaboration, hosting workshops with over 90 local representatives to co-develop a localised anti-poaching and communications strategy. Legal enforcement was strengthened through the development of investigative tools and by training 20 state prosecutors to improve the prosecution of illegal succulent trade cases.



Photo credit:
© Wilderness
Foundation Africa

KEY OUTCOMES

The project safeguarded succulent species through ex situ conservation efforts across national botanical gardens, 35 *Conophytum* species and 22 other high-priority species were successfully curated and safeguarded across three national botanical gardens. surveillance and law enforcement capacity was enhanced through improvement of surveillance systems and the development of a national standard operating procedure for handling seized succulents which was officially adopted.

The project also reinforced both national and international efforts against succulent poaching by aligning with South Africa's National Response Strategy and contributing to the successful CITES Appendix III listing for targeted species. Additionally, legal enforcement was strengthened by training 20 state prosecutors in workshops focused on illegal trade, species identification and case building, ultimately improving prosecution outcomes in succulent trafficking cases.

KEY SUCCESS FACTORS

- Establishing conservation collections in national botanical gardens safeguarded highly threatened *Conophytum* species and created a foundation for potential future reintroductions.

- Co-developing the anti-poaching strategy with stakeholder input ensured its local relevance and promoted long-term collaboration.
- Strong partnerships among conservation NGOs, South African National Biodiversity Institute (SANBI), government agencies, and local law enforcement enabled effective knowledge exchange, rapid response, and wider impact.
- Alignment with South Africa's National Response Strategy and support for CITES Appendix III listing reinforced national and international efforts to curb succulent poaching.
- The project directly contributed to preventing the extinction of at least six *Conophytum* species that were at imminent risk due to illegal collection.

3.14 Enabling continuation of monitoring and appropriate management of threatened seabirds

Implementation partner	Wilderness Foundation Africa
Target species	African penguin (<i>Spheniscus demersus</i>) Critically Endangered
Project location	Addo Elephant National Park Marine Protected Area (MPA)

PROBLEM

The African penguin, Africa's only native penguin species, has lost more than 95% of its population. The Addo Marine Protected Area (MPA), and particularly Bird Island, is one of the species' last refuges, supporting approximately 17.2% of the global population. Yet, without sufficient monitoring, threats such as disease outbreaks, flooding of nests, predation and food scarcity go undetected or unmanaged.

APPROACH

The project conducted 530 daily foot patrols on Bird Island to detect and rescue sick, injured or abandoned seabirds. Rehabilitation efforts for penguins and Cape gannets were carried out in partnership with Southern African Foundation for the Conservation of Coastal Birds (SANCCOB). Artificial nests were installed and regularly maintained, including disinfection, painting and parasite control, to improve nesting conditions. Nesting success was closely monitored, particularly during sensitive periods such as moulting and storms. Ongoing predator and disease surveillance was also implemented through carcass removal, targeted burns and close observation. In addition, targeted monitoring of Cape cormorants was conducted, supported by 55 coastal patrols within the broader Addo MPA.

KEY OUTCOMES

The project rescued and rehabilitated 411 penguins and 44 gannets, with a significant number successfully released back to Bird Island. Crucially, there were no oil spills or major disease outbreaks during the project period, thanks to effective early detection and swift carcass disposal measures, including targeted burning in cases where avian flu was suspected. Nest management efforts significantly contributed to improved breeding success, with 347 artificial nests monitored and 110 refurbished during the moulting season through disinfection, structural repairs and parasite control. These interventions led to a 17% increase in breeding pairs on Bird Island, rising from 1,437 to 1,722, the first recorded growth in this critical colony in five years. Additionally, 55 patrols were conducted to monitor Cape cormorant colonies, reinforcing regional seabird conservation efforts.

KEY SUCCESS FACTORS

- Strategic deployment of seabird monitors and use of artificial nests improved breeding success and chick survival on Bird Island.
- Rapid disease response and expert rehabilitation through SANCCOB ensured high post-release survival and prevented outbreaks.
- Coordinated conservation efforts led to the first population increase in five years, stabilising key seabird colonies.

3.15 Protection of the Critically Endangered Lillie cycad

Implementation partner	Selati Wilderness Foundation
Target species	Lillie cycad (<i>Encephalartos dyerianus</i>) Critically Endangered
Project location	Lillie Cyad Reserve

PROBLEM

In 2022, cycads were poached, raising alarm over the urgent need for enhanced surveillance and protection. Faced with limited baseline data, no permanent monitoring infrastructure, and inadequate staff coverage, the site was highly vulnerable. The Selati Wilderness Foundation, in collaboration with Limpopo Department of Economic Development, Environment and Tourism (LEDET) and the IUCN/SSC Cycad Specialist Group, launched a project to transform the site into a model of proactive conservation for this irreplaceable species.



Photo credit: © Selati Wilderness Foundation

APPROACH

The project implemented a technology-driven and collaborative security strategy by hiring and training operations room personnel to work in close coordination with sub-contracted field rangers, enhancing real-time response capabilities on the ground. A network of WPS camera traps was deployed and integrated into a 24/7 monitoring hub, enabling continuous surveillance and rapid threat detection.

To support operational efficiency, the former LEDET patrol camp was refurbished, now equipped with secure infrastructure and upgraded living quarters. An inverter system was also installed to ensure uninterrupted surveillance during South Africa's frequent power outages. In parallel, the project partnered with scientists to conduct the first accurate population count and spatial mapping of cycads, generating critical data to inform long-term conservation planning.

KEY OUTCOMES

The project effectively prevented poaching throughout the implementation period, achieving its core conservation objective. This success was driven by continuous foot patrols and the use of surveillance technology to monitor the entire 43-hectare reserve. Operations personnel were trained to manage the surveillance system and support field activities, while the refurbishment of the former LEDET patrol camp enabled rangers to resume on-site operations. Beyond immediate protection, the project also set the stage for long-term cycad conservation by launching a mapping and population survey, which will produce the first spatial dataset for the species critical for informed management and future Red List reassessments.

KEY SUCCESS FACTORS

- The combination of technology, trained personnel and constant surveillance led to zero poaching incidents during the grant period.
- The integration of technology with a continuously staffed operations room enabled real-time threat detection and rapid response.
- Hiring local rangers and monitoring staff contributed to both effective conservation and improved local livelihoods, fostering community support for the project.



LESSONS LEARNED FROM CONSERVATION ACTIONS IN SOUTH AFRICA

One of the most important lessons from recent conservation efforts in South Africa is the value of rapid financial support during emergencies. Immediate funding during emergencies such as the COVID-19 pandemic and periods of heightened poaching risk was critical in ensuring that conservation activities like anti-poaching patrols, species monitoring and ranger deployment continued without interruption. This continuity safeguarded years of conservation investment and prevented setbacks in vulnerable populations.

Another significant learning was the role of technology in enhancing conservation outcomes. The use of tools such as GPS collars, acoustic sensors, drones, EarthRanger systems and surveillance systems significantly improved species detection, monitoring and threat response. These tools enhanced decision-making, particularly in remote and fragmented landscapes, and proved effective in both terrestrial and freshwater ecosystems.

The importance of strong, cross-sectoral partnerships also emerged as a defining factor in successful conservation projects. Collaborations involving NGOs, government agencies, traditional authorities, private landowners and research institutions were essential, as this facilitated legal habitat protection, aligned conservation efforts with national priorities, and promoted the integration of science into policy and management planning.

Projects that adopted a multi-species conservation model combining species protection, habitat restoration and community benefits were able to deliver wider ecosystem benefits. This approach demonstrated that conservation gains are more resilient and far-reaching when ecological, social and economic issues are addressed simultaneously.

Despite short implementation timelines, many projects successfully laid the groundwork for lasting conservation impact. Several initiatives catalysed long-term funding, enabled national-level policy inclusion, or spurred follow-up efforts such as the establishment of protected areas, community governance structures and sustainable livelihood ventures.

\\ Despite short implementation timelines, many projects successfully laid the groundwork for lasting conservation impact.!



RECOMMENDATIONS FOR FUTURE SPECIES CONSERVATION EFFORTS

While short-term grants such as the Rapid Action Grants provided critical short-term support, many projects revealed that sustaining gains requires longer-term, flexible funding models. Multi-year support would enable strategic follow-through and deeper institutional capacity-building.

There is also a clear need to expand the integration of innovative technologies and build local capacity to use and maintain them effectively. Tools such as eDNA, acoustic monitoring, GPS telemetry, EarthRanger, virtual reality and drones were instrumental in monitoring, education and threat detection. Scaling up access to these technologies and investing in local capacity to use and maintain them will greatly enhance conservation effectiveness.

A key priority going forward should be the continued support for underrepresented and lesser-known species. Many successful projects focused on neglected species such as amphibians, freshwater fish, cycads and vultures. These species, often overlooked in traditional conservation programs, are critical to ecosystem function, particularly in freshwater and dryland ecosystems. Ensuring their protection is crucial to maintaining South Africa's biodiversity.

In addition, the conservation of species and ecosystems that extend across political boundaries requires stronger regional cooperation. Strengthening transboundary conservation initiatives and sharing lessons with neighbouring countries can amplify impact, especially for migratory and wide-ranging species.

! A key priority going forward should be the continued support for underrepresented and lesser-known species.!

CONCLUSION

The conservation projects implemented across South Africa have demonstrated the power of well-targeted, timely support to deliver lasting impact. From protecting iconic species like rhinos and African penguins to safeguarding lesser-known amphibians, cycads, freshwater fish and birds, these projects have highlighted the importance of acting quickly and strategically to address urgent conservation needs.

Many projects not only addressed urgent threats but also laid the groundwork for long-term stewardship, scientific advancement and policy influence. As South Africa continues to confront growing environmental and socio-economic pressures, building on these foundations will be essential to ensure a future where people and biodiversity thrive together.

These projects have highlighted the importance of acting quickly and strategically to address urgent conservation needs.!

Photo credit: © Kirsten Oliver/Somkhanda





INTERNATIONAL UNION FOR
CONSERVATION OF NATURE
Rue Mauverney 28
1196 Gland, Switzerland
iucn.org



@IUCNSOS

KEEP
NATURE
STANDING