



محمية دبي الصحراوية
DUBAI DESERT CONSERVATION RESERVE

Annual Report 2025-26





Chairman's message

The Dubai Desert Conservation Reserve (DDCR) continued to make strong progress during 2025–2026, reinforcing its important role in protecting Dubai's natural desert heritage and demonstrating what can be achieved through long-term commitment to conservation.

Covering approximately 225 km² of protected desert ecosystem, the DDCR is home to a rich diversity of native flora and fauna. During the year, populations of key species including the Arabian oryx, Arabian gazelle and Sand gazelle remained stable, while encouraging developments in avian biodiversity included newly observed nesting activity across the reserve. These are important indicators of the health and resilience of the ecosystem we are committed to protecting.

Science continues to underpin this work. The expanded use of GIS mapping, long-term vegetation surveys and ecological data collection is strengthening our understanding of the desert environment and enabling informed, evidence-based conservation decisions. This combination of careful stewardship, scientific research and long-term monitoring has helped establish the DDCR as an important regional model for desert conservation.

Another significant sustainability milestone this year was the installation of a solar park at the visitor centre, enabling the facility to operate on renewable solar energy and substantially reducing its carbon footprint. At the same time, the DDCR maintained its carefully managed approach to eco-tourism, demonstrating that responsible visitor experiences can support

conservation while protecting the environment that makes those experiences possible.

Our ambitions extend beyond the boundaries of the reserve. The DDCR management team's participation in the IUCN World Conservation Congress provided an important opportunity to exchange knowledge, strengthen international relationships and contribute to the wider global conservation community.

As environmental pressures continue to evolve, from climate variability to the need to carefully manage growing interest in nature-based tourism, our responsibility is to ensure that the DDCR remains resilient for generations to come. We will continue to invest in science, responsible tourism and conservation practices that protect this unique landscape while contributing to the UAE's broader commitment to environmental stewardship.

The progress reflected in this Annual Report is the result of the dedication of the DDCR team and the support of our partners and stakeholders. I thank them for their continued commitment to safeguarding one of Dubai's most important natural environments and ensuring that its desert heritage continues to thrive for future generations.

HH Sheikh Ahmed bin Saeed Al-Maktoum
Chairman, Dubai Desert Conservation Reserve

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2. Introduction

Over the 2025–2026 period, the Dubai Desert Conservation Reserve (DDCR) has remained steadfast in its mission to preserve the UAE's last inland desert ecosystem. Despite a challenging regional context, including geopolitical tensions that impacted tourism numbers toward the latter part of the year, the reserve demonstrated remarkable resilience. Through the dedication of the DDCR team, all core objectives continued to be met, ensuring the ongoing protection and enhancement of the reserve's unique landscapes and biodiversity.

Guided by the conservation management team, the reserve achieved several important milestones. These included the documentation of new bird species and the strategic relocation of Arabian Oryx to carefully selected private collections and conservation sanctuaries, both locally and internationally. This proactive population management has played a key role in reducing grazing pressure on native vegetation, contributing to a measurable increase in biodiversity across the reserve.

Community engagement remained a strong focus throughout the year. Conservation officers expanded volunteer initiatives, offering members of the public valuable, hands-on insight into the reserve's conservation work. Participation continued to grow steadily, reflecting increasing public awareness and commitment to environmental stewardship within Dubai.

Research continues to underpin the reserve's conservation strategy. The Research Committee, comprising 14 specialists from diverse disciplines, approved new projects led by UAE University and the reserve's Conservation Ranger. These studies address critical topics such as reptile diversity, gazelle genetics, and plant community dynamics. In parallel, ongoing research into vultures, Ghaf tree nesting behaviour, and the biodiversity of Jebel Nazwa has yielded significant findings, further strengthening the scientific foundation for conservation management decisions.

The DDCR also continues to play a key role in national infrastructure planning. It remains the designated site for the Aquifer Storage and Recovery (ASR) project, led by DEWA. Once completed in 2026/2027, this project will form the world's largest facility of its kind, capable of storing up to 6,000 million imperial gallons of potable water for emergency use. While progress continues, careful monitoring is underway to assess and mitigate any potential ecological impacts, particularly on wildlife movement and nocturnal species behaviour.

In line with its sustainability goals, the reserve successfully implemented new green infrastructure during the year, including the installation of a solar-powered parking facility at the DDCR Visitor Centre. This initiative represents a meaningful step toward reducing the reserve's carbon footprint while enhancing visitor amenities.

Despite external challenges, including a slowdown in visitor numbers due to regional instability, the DDCR has remained focused on its long-term vision. The reserve continues to balance conservation priorities with responsible tourism, ensuring that this extraordinary desert environment is protected for future generations while remaining accessible to visitors.

The 2025–2026 report captures the full scope of the reserve's operations, achievements, and ongoing initiatives, highlighting the dedication and expertise of its conservation team in safeguarding one of Dubai's most important natural assets.





3. Vision:

‘A desert haven for nature A living heritage for people’

DDCR’s overall purpose

To conserve a representation of Dubai’s Inland Desert original landscapes and indigenous fauna and flora, through careful and effective management that promotes natural processes for optimum conservation outcomes, leading to rewilding of the desert habitat.

Provide an authentic desert experience for people which showcases the beauty and marvel of the natural environment and educates on the intricacies of nature and the living heritage of Dubai.

Strategic management goals

Our strategic management goals for the 2025 – 2030 planning period are:

1. Reduce and then regulate ungulate populations to the reserve’s natural carrying capacity by end of 2026 by introducing an Apex predator, ultimately resulting in the restoration of ecological balance that aligns with the natural regenerative properties of the available vegetation.
2. Achieve IUCN Green List recognition by the end of 2025, showcasing effective management, good governance and planning that highlights optimum conservation outcomes.
3. Increase regional and global attendance of conservation congresses, forums, seminars and webinars. Resulting in the DDCR being recognized as a leader in biodiversity conservation through building resilience to climate change in arid land ecosystems.
4. Increase public awareness through publishing scientific research papers in reputable journals, increasing DDCR’s visibility and impact within the scientific community.
5. Increase the usage of sustainable energy throughout the DDCR’s energy requirements by installing solar car park energy systems, ultimately reducing the carbon footprint of the reserve.
6. Conduct quarterly training sessions for all safari drivers of approved tour operators within the DDCR, that will result in the DDCR being promoted and recognized as the premier destination for authentic nature-based experiences in the UAE.
7. Maintain continuous engagement with Universities and other scientific bodies to further explore and expand research regarding urban-encroachment, natural habitat rehabilitation and inland desert ecosystem biodiversity.

4. DDCR Governance and Management

The DDCR's governance is in accordance with the Decree 11-2003 on the establishment of Protected Areas in the Emirate of Dubai. A Memorandum of Understanding has been signed between the Government Authority (Dubai Municipality) and Emirates Airline, as the designated Management authority.

Underscoring its commitment to supporting conservation efforts, Emirates spent AED 8 million for DDCR over the last six years. Cumulative sponsorship support of Emirates now exceeds AED 28 million since the establishment of the reserve.

The Dubai Conservation Board (DCB) is chaired by **His Highness Sheikh Ahmed bin Rashid Al Maktoum**

Emirates Airline Executive Management is represented by.

Mr. Ali Mubarak Al Soori

General Secretary DCB, Chief Procurement & Facilities Officer

Mr. Devarajan Srinivasan

SVP Facilities & Asset Management

Mr. Rahul Sawhney

VP Strategy, Planning & Asset Management

Key responsibilities of the Dubai Conservation Board

- Work with operational management to formulate, approve and implement the strategic direction for DDCR. This includes DDCR Management Plan 2019-2024, and DDCR Management Plan 2025-2030.
- Due diligence on the induction of new Tour operators.
- Revenue management strategies.
- Approval of annual operational budgets and monitoring of expenses.
- Funds management.



5. Operational Management Team

Gerhard Erasmus – Conservation Manager

After completing training at the renowned Kruger National Park and studying Nature Conservation at the University of South Africa, Gerhard began his career as a Game Ranger in both private and national parks across South Africa. In 2011, he moved to the UAE, joining Al Maha Desert Resort and Spa as a Field Guide, leading desert safaris and educating guests on the DDCR's wildlife and ecology.

By 2013, Gerhard was promoted to Senior Field Guide, overseeing the resort's Leisure department, which included vehicles, camels, Arabian horses, birds of prey, and a team of guides. He also served as the resort's Sustainability Champion, driving key initiatives such as recycling, energy and water conservation, and helping Al Maha maintain Green Key certification from 2013 to 2017. During this time, he completed diplomas in Operations Management, Project Management, and Business Administration.

In 2020, Gerhard became Director of Operations, supporting the General Manager and leading a team of over 10 department heads. In 2023, he was appointed Conservation Manager of the DDCR, where he now oversees the reserve's overall management, conservation programs, and sustainable tourism efforts. He plays a key role in species reintroduction projects and aims to elevate the DDCR's public profile through the newly established Visitor Centre.

Key responsibilities of the operational management team

- Work with executive management to formulate a strategic direction for DDCR (DDCR Management Plan 2025–2030)
- Implement all conservation programmes
- Implement all research and monitoring activities
- Manage and promote educational awareness through the DDCR Visitor Centre
- Manage sustainable tourism within the DDCR





Basil Roy – Conservation Officer

Basil has spent the majority of his life in the Arabian Peninsula, fostering a deep connection with both its people and natural environment. Between 2017 and 2019, while pursuing a master’s degree in environmental studies at Sorbonne University Abu Dhabi, he actively contributed to conservation efforts within the DDCR, including monitoring the spiny-tailed lizard population and surveying the reintroduction of the Asian houbara.

Before officially joining the DDCR team in 2022, Basil worked as an Environmental Consultant at Nautica Environmental Associates LLC, a consultancy based in Abu Dhabi.

In his current role at the DDCR, Basil is responsible for planning, overseeing, and enhancing conservation practices and environmental programs within the reserve. His work includes leading research initiatives and implementing long-term monitoring programs, such as those focused on the Arabian Oryx.



Aline Witte De La Torre – Conservation Officer

Aline holds a Bachelor of Science in Biology from the Universidad Autónoma de Nuevo León in Mexico. Her career in conservation began at ARCAS Wildlife Rescue and Rehabilitation Centre in Guatemala, where she was involved in the rehabilitation and release of various bird, mammal, and reptile species.

Upon returning to Mexico, she joined Chipinque Ecological Park, where she implemented conservation initiatives, managed GIS data, and monitored key species to evaluate ecosystem health.

Aline became part of the DDCR team in September 2022. In her current role, she is responsible for managing and updating GIS data, conducting scientific research, and implementing long-term wildlife monitoring programs.





Maria Jose Martin – Conservation Officer

Maria holds a Master’s degree in Biology and Biodiversity Conservation from the University of Salamanca, Spain. She has contributed to various conservation projects across Latin America, with experience in sea turtle research and animal husbandry at a wildlife rescue center. Driven by a passion for travel and expanding her expertise, she relocated to the UAE three years ago.

Before joining the DDCR, Maria was involved in conservation initiatives focused on mangrove ecosystems along both the east and west coasts of the UAE, with a particular emphasis on environmental education.

In her current role at the DDCR, Maria is responsible for planning, implementing, and conducting research programs aimed at preserving the reserve’s biodiversity. Her work includes regular monthly and annual surveys to monitor a range of plant and animal species, such as the Ghaf tree and the spiny-tailed lizard, supporting the reserve’s long-standing conservation efforts.

Pubudu Madurapperuma – Conservation Ranger

Pubudu is a dedicated conservationist and environmentalist originally from Sri Lanka, with over two decades of experience in wildlife conservation and management. He holds a Diploma in Biodiversity Conservation and Management from the University of Colombo and began his conservation career with the Young Zoologists Association of Sri Lanka, based at the National Zoological Gardens in Colombo—one of the country’s leading institutions for biodiversity education and conservation.

Early in his career, Pubudu developed a deep passion for reptiles, particularly snakes, and has conducted numerous research projects on new, endemic, and endangered reptile species. In 2005, he expanded his expertise in reptile husbandry, management, research, and captive breeding through specialized training at the Madras Crocodile Bank in Tamil Nadu, India.

Throughout his career, Pubudu has also made significant contributions to conservation education. He has served as a school and community lecturer for various government and non-governmental organizations, educating children and rural communities—particularly those affected by human-elephant conflict. In 2004–2005, he was appointed Project Coordinator for a UNDP-funded biodiversity conservation project under the UNDP/GEF Small Grants Programme.

Currently, Pubudu serves as a Conservation Ranger at the Dubai Desert Conservation Reserve (DDCR), one of the Arabian Peninsula’s most prominent protected areas. In this role, he focuses on law enforcement, ecological monitoring, and community engagement. His work supports the long-term conservation objectives of the reserve. Outside of his professional duties, Pubudu enjoys exploring nature, hiking, and experiencing diverse cultures and cuisines, all while remaining committed to protecting wild places for future generations.





Meena Arun – Administrator

Meena is a highly detail-oriented and quality-driven professional, bringing over 22 years of experience in managing office operations within the UAE’s fast-paced, deadline-oriented environments. Having spent the majority of her life in the UAE, she has a strong understanding of local customs, Arabian traditions, and the region’s rich cultural diversity.

Before joining the Dubai Desert Conservation Reserve (DDCR), Meena served as an Administrator and HR Coordinator at an advertising firm, where she developed her expertise in administrative and human resource functions.

In her current role at the DDCR, Meena provides essential administrative support to ensure the efficient and seamless operation of daily activities. She is proficient in handling both internal and external requests, processing transactions, and addressing queries with a high level of professionalism and responsiveness.

Her key responsibilities include consolidating daily visitor data from tour operators with the visitor management system, preparing invoices and financial statements, overseeing attendance records, capturing transactional data, and generating operational reports. Meena’s commitment to excellence and operational efficiency plays a critical role in supporting the DDCR’s ongoing success.

The Reserve Team

Front row (left to right):

Muhammad Naseer, Muhammad Alkumandi, Mohammad Gopal, Muhammad Dawood, Suhaib Vayakkarth.

Back row (left to right):

Muhammad Lokman, Khaseem Ali, Muhammed Rafiq Rashid, Lucian Felix Wanniarachchige, Mohamed Rafiq, Muhammad Shafique.



6. Highlights from the Conservation Team

Basil Roy – Conservation Officer

One of my highlights this year was looking for an Arabian Red Fox inside the DDCR. In December 2025, a red fox was strapped with a GPS collar in order to gather information on fox movement and distribution throughout the reserve. The GPS collar has a transmitter which gives signal to a handheld VHF receiver, letting DDCR staff to regularly locate the collar and fox. The collar is set to automatically release this summer, and I am highly looking forward to retrieving the collar which has 8 months of collected field data.

Another highlight this year was attending the International Union of Conservation of Nature (IUCN) Forum in Abu Dhabi. The DDCR had a booth during the forum which was held by DDCR staff for several days. During the forum there were many opportunities to discuss and make connections with other organizations working in nature conservation in the region and internationally. As well as meeting people in the same sector, the booth allowed us to also showcase the DDCR to the general public and spread awareness on the biodiversity the reserve contains.

Another highlight for me this year was spending more time night patrolling and conducting nocturnal surveys. This year, it was important to show people more of our presence in the reserve and our dedication to applying DDCR's rules and regulations, even during special occasions such as New Years Eve. When conducting night surveys, it was very interesting and informative finding nocturnal species such as vipers and geckos, but it was also fascinating to see the contrasts of the reserve between daytime and nighttime.

Aline Witte De La Torre – Conservation Officer

During 2025–2026, my work at the Dubai Desert Conservation Reserve focused on leading and contributing to several field-based research initiatives. I started an independent project on mapping gravel plain habitats and assessing the presence of Spiny-tailed lizard burrows, led the long-term vegetation monitoring survey (conducted every five years) examining changes in plant communities, and collaborated on a rodent study measuring cholesterol levels. These projects provided valuable hands-on experience and deepened my understanding of desert ecosystems. Beyond fieldwork, I participated in the Noah's Diary educational series and attended the Sharjah International Forum for Arabian Biodiversity, supporting both outreach and professional development. A major highlight of the year is the ongoing development of the cheetah reintroduction initiative, marking an important step for conservation efforts in the DDCR and the UAE.





Maria Jose Martin – Conservation Officer

This past year at DDCR has been very rewarding, both in terms of my research and personal growth through attending and participating in various events. I represented DDCR at the Regional Workshop on Conservation, Translocation and Reintroduction of the Arabian Oryx, where I connected with conservation entities and private stakeholders while learning about different strategies and programs. I also attended the IUCN World Conservation Congress in Abu Dhabi, which was a valuable opportunity to engage with global conservation projects and professionals.

I continue to manage the volunteer program, which has grown significantly, with increased participation in activities such as desert clean-ups and wildlife surveys like the gazelle count. Additionally, I have been organizing monthly online webinars featuring UAE-based speakers, covering diverse topics such as falconry history, light pollution, fungi, and bird migration. It has been very encouraging to see growing interest and participation.

From a research perspective, I have completed my data collection and am currently analysing the results. This year, I also recorded the same nesting pairs in DDCR – one pair of Pharaoh Eagle Owls and two pairs of Long-legged Buzzards. Although I had planned to tag chicks from each species, delays in receiving the trackers have postponed this effort. I remain optimistic about completing this work next year if not possible this year.

Pubudu Madurapperuma – Conservation Ranger

The baseline assessment of the nocturnal reptile survey began at the start of 2025 and was conducted throughout the entire year, covering all four seasons. This was one of the most rewarding experiences for me during the year. Working at night inside the reserve was truly fascinating, as it provided the opportunity to observe various nocturnal reptile species and their unique behaviours. I was fortunate to record several rare reptile sightings while walking across the desert during the night hours and experiencing the incredible nocturnal life of the ecosystem.

As a Conservation Ranger, 2025–2026 has also been a very rewarding period. I particularly enjoyed my role in monitoring and ensuring compliance with reserve rules and regulations, which contributed to a noticeable decrease in violations by both tourists and drivers. Conducting awareness programmes and workshops was another highlight, as it allowed me to engage with the public and promote conservation efforts.



7. Reviewing the past year (2024-25)

April 2025



Conservation Officer Basil Roy welcomed Grade 5 learners from Dubai International Academy, Al Barsha for an engaging and educational visit focused on conservation. During the session, students were introduced to the importance of protecting natural habitats, preserving biodiversity, and understanding the role they can play in safeguarding the environment. Through interactive discussions and hands-on activities, the learners explored real-world conservation challenges and solutions, gaining valuable insights into sustainable practices. The visit not only enriched their knowledge but also inspired a sense of responsibility and curiosity about the natural world.



A rare sighting of the Hen Harrier was recently recorded, an exciting moment for bird watchers and conservationists. This elegant bird of prey is known for its low, gliding flight over open landscapes as it hunts small mammals and birds. Males are pale grey with black wing tips, while females are brown with a distinctive white rump. The species is currently classified as Least Concern on the IUCN Red List,

although it faces localized threats in parts of its range. Adding to the significance, a Steppe Eagle was also observed—a migratory species whose presence this late in the season is relatively uncommon, making the sighting even more noteworthy.



Pharaoh Eagle Owl owlets tagged in February have been spotted again in the reserve, suggesting they are surviving well and are now old enough to explore beyond the nest while still staying within their parents' territory. Their continued presence indicates

a healthy habitat with sufficient prey such as small mammals, reptiles, and insects. These sightings also highlight the value of tagging in helping conservationists track their movement, territory development, and long-term survival.



Conservation Ranger Pubudu Madurapperuma and Conservation Manager Gerhard Erasmus welcomed a delegation from the Imam Abdulaziz bin Mohammed Royal Reserve Development Authority in the Kingdom of Saudi Arabia, where they shared local knowledge and regional best practices in conservation management and related practices.

Sorbonne University Abu Dhabi and the University of Sharjah collaborated with DDCR to excavate a 2-meter-deep trial pit to investigate a potential site linked to ancient metalworking activity. Such research provides valuable insight into past cultures and how they adapted and survived in this harsh desert climate.



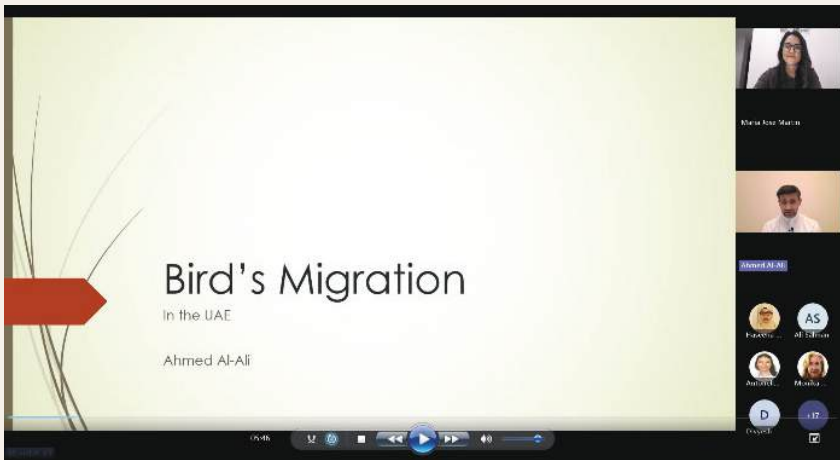
Journalist Donald MacPhail from The National visited the DDCR to research and write an article on the Lappet-faced Vulture, during which he interviewed

Conservation Officer Basil Roy. The article highlights the ecological importance of vultures both in the region and globally, emphasizing their vital role in maintaining healthy ecosystems by efficiently scavenging carcasses and preventing the spread of disease.



May 2025

A webinar titled “Migratory Birds in UAE” was hosted by Ahmed Al Ali to raise awareness and share knowledge about the diversity, behaviour, and conservation of migratory bird species in the region.



DDCR signed a new concession agreement with Dream Journey Tourism, providing visitors with greater choice and accessibility for those wishing to visit the reserve and experience a unique connection with nature.



A10 - Nadjou

The names of the owllets ringed in February 2025 were released through a social media campaign, where followers of the DDCR Instagram account were invited to suggest names. The final names were then selected through a random draw by the conservation team,

creating an engaging opportunity for public participation in the reserve’s wildlife conservation efforts.



A12 - Uluka

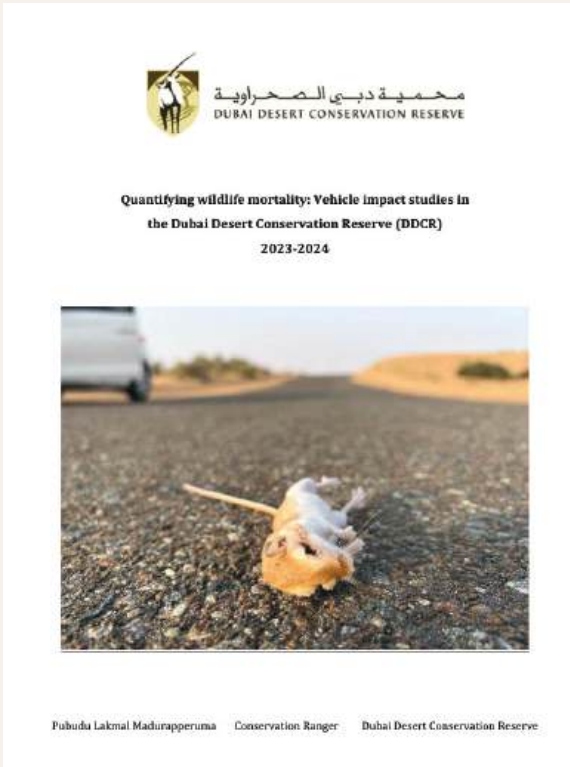
A Little Grebe was observed nesting at the small northern lake, highlighting the importance of the DDCR as a vital habitat providing safe breeding and nesting grounds for waterbirds in the region.



June 2025



Dr Sunil Sundra from UAE University visited the DDCR to collect samples for the research project “Investigating the microbiome associated with native desert plant species.” This study will support ongoing research at the reserve by improving understanding of soil-plant-microbe interactions, which are essential for ecosystem resilience and restoration efforts. Studying native plants is vital for effective ecosystem management, as it helps inform habitat conservation, supports biodiversity, and enhances the ability to maintain healthy desert environments under changing climatic conditions.

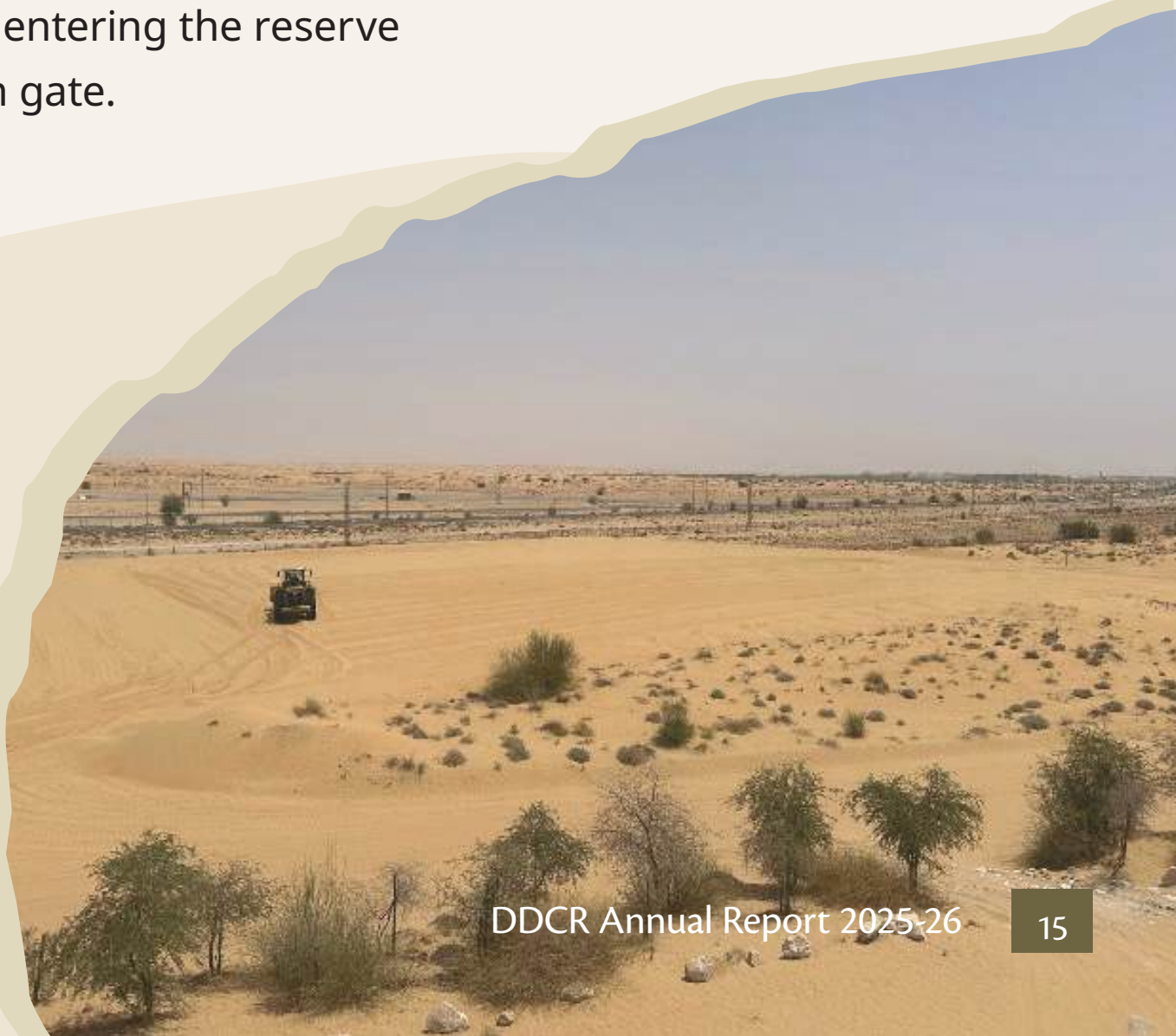


The first-ever roadkill report was completed and submitted by Conservation Ranger Pubudu Madurapperuma, highlighting the impact of vehicles within the DDCR. This important work provides valuable data to help understand and mitigate wildlife mortality caused by road traffic, supporting improved management strategies to enhance road safety and protect biodiversity within the reserve.



Conservation Manager Gerhard and Conservation Ranger Pubudu attended the launch of the first-ever Fungi Species Survival Centre at Terra, Expo City. This initiative is vital for global fungi research, as it supports the conservation, study, and documentation of fungal biodiversity, which plays a crucial but often overlooked role in ecosystem health, nutrient cycling, and climate resilience worldwide.

Construction of the extended Margham parking area has commenced, improving visitor infrastructure and enhancing capacity to better accommodate guests entering the reserve through the Margham gate.



July 2025

Conservation Officers Aline and Maria, along with Conservation Manager Gerhard, attended the World Environment Day event at Emirates Headquarters. They showcased the reserve's biodiversity and highlighted how it is managed and utilized in a sustainable way.



Hosted a pollinators webinar on 9 July featuring local bee expert Oumaima Khouli, focusing on the often-overlooked importance of bees and other pollinators in maintaining ecosystem health. The session explored their critical role in supporting biodiversity, enhancing plant reproduction, and sustaining food systems, while also addressing the growing threats they face and practical steps individuals and communities can take to support their conservation.

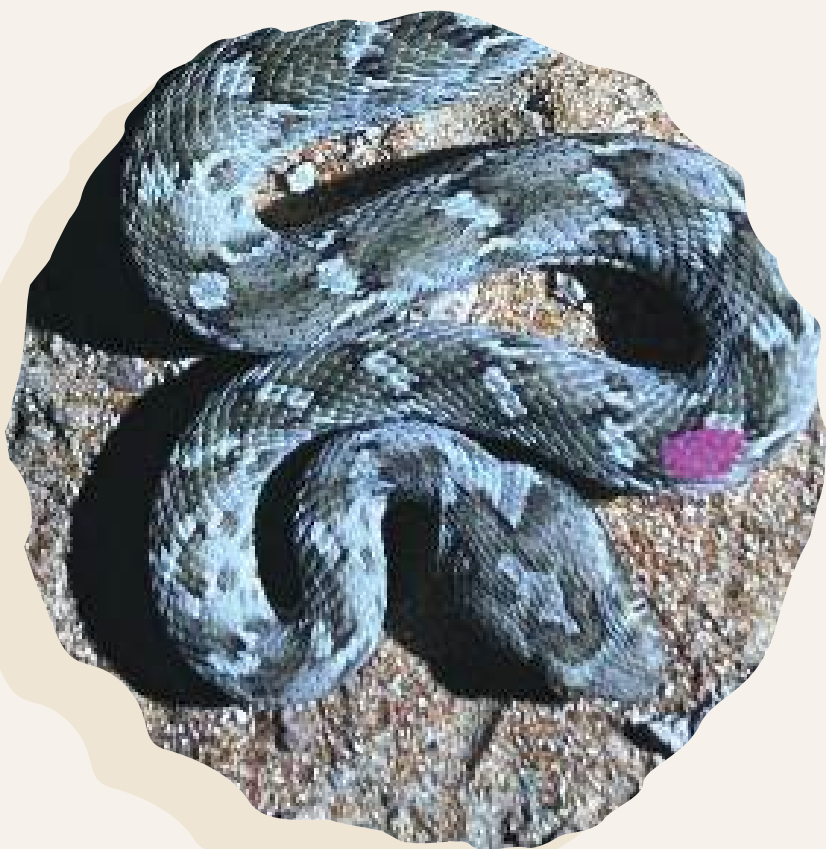
A Squacco Heron was recorded at Tawi Manana Lake, marking a noteworthy and special sighting for the reserve. This species is not commonly observed within the reserve's desert ecosystem, making its presence particularly significant. The sighting highlights the importance of the lake as a valuable freshwater habitat and stopover point for migratory birds, reflecting the success of ongoing conservation and habitat management efforts in supporting a diverse range of wildlife.



A recent roadkill report revealed that the road between Al Maha Desert Resort & Spa and the main entrance recorded the highest number of vehicle-related fatalities involving small animals. In response, new high-visibility signage has been installed along this stretch to raise awareness among all road users and encourage more cautious driving, helping to reduce wildlife mortality and improve overall conservation outcomes.

August 2025

A rare and fascinating observation recorded a Schokari Racer feeding on a Sand Skink. This unusual sighting provides valuable insight into predator-prey interactions within the reserve and highlights the complexity and health of the desert ecosystem, where such encounters are seldom witnessed.



A Saw-scaled Viper was safely marked as part of an ongoing study to better understand its home range and movement patterns. This research will contribute valuable data to support species monitoring and inform conservation management within the reserve.

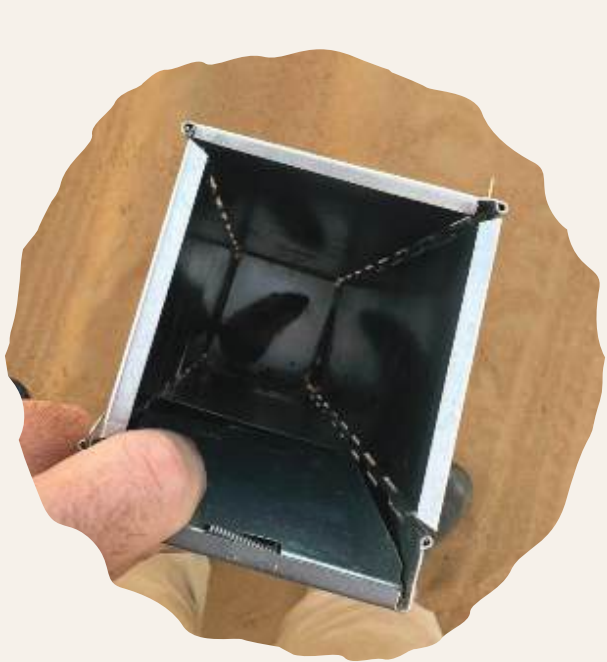
Following multiple confirmed observations, Heyden's Gecko (*Hemidactylus robustus*) has been recorded within the reserve, marking a new addition to the reptile checklist. This finding enhances the documented biodiversity of the area and underscores the importance of continued monitoring and research efforts.



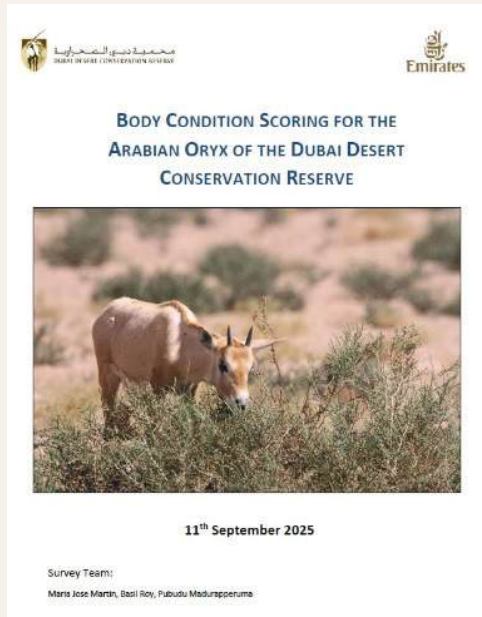
A rare and remarkable sighting captured a Sand Boa preying on a Gecko. Such observations are seldom recorded and offer valuable insight into predator-prey dynamics, highlighting the richness and ecological complexity of the desert environment.

September 2025

A desert clean-up initiative was arranged and planned by the DDCR, bringing together volunteers and Platinum Heritage conservation guides to help restore the natural desert environment. The team worked collaboratively to remove litter from the dunes and promote awareness of responsible eco-tourism and environmental protection.



Capture of a Cheesman’s gerbil in collaboration with Miguel Cordeiro from CIIMAR, conducted as part of a research effort to study the species’ biological and physiological adaptations to desert survival conditions.



Summer body condition scoring (BCS) was conducted on the Arabian oryx to assess their health and physical condition during the hotter months, providing important data to monitor wellbeing and support ongoing conservation and management efforts for the species.

Summer body condition scoring (BCS) was conducted on the Arabian oryx to assess their health and physical condition



Conservation officer, Maria attended an event organized by Terra, alongside representatives from other organizations, to support the establishment of the Urban Biodiversity Coalition in Dubai. The initiative brings together multiple entities to strengthen collaboration on protecting and enhancing urban biodiversity across the city.



A webinar titled “Exploring Fungi in the UAE and Other Arid Ecosystems”, presented by Georgina Pereira, was organized and hosted by the Dubai Desert Conservation Reserve (DDCR). The session highlighted the ecological importance of fungi in arid environments, showcasing their role in ecosystem health, nutrient cycling, and desert biodiversity.

The DDCR hosted a visiting team from Mleiha National Park, welcoming them for a guided tour of the DDCR Visitor Centre. The visit provided an opportunity to exchange knowledge and share insights on conservation practices, visitor engagement, and the management of protected natural areas.

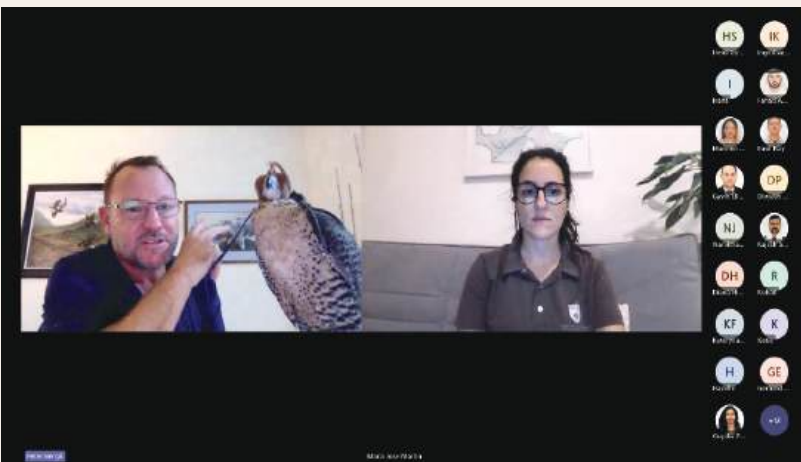


October 2025

The DDCR Team participated in the IUCN World Conservation Congress held in Abu Dhabi, a premier international platform that convenes governments, experts, and conservation leaders. The event provided an opportunity for the team to engage in high-level dialogue, share best practices, and strengthen partnerships aimed at advancing biodiversity conservation and sustainable environmental management.



Manager Gerhard delivered an educational presentation at Jumeirah English Speaking School, raising awareness about the reserve and the impacts of unsustainable camping practices in the Al Qudra area. The session highlighted the importance of protecting the desert ecosystem, emphasizing responsible outdoor behaviour and the role individuals can play in preserving the region's unique biodiversity for future generations.



DDCR hosted a webinar featuring Peter Bergh, focusing on the origins, history, and cultural traditions of falconry. The session explored the enduring significance of falconry across the GCC, highlighting its role in heritage preservation and its connection to conservation practices in the region.

A new solar-powered trail camera was installed as part of ongoing efforts to enhance wildlife monitoring and research capabilities within the reserve. This initiative supports continuous, low-impact data collection while reducing reliance on conventional power sources, aligning with broader sustainability and conservation objectives.



October 2025

A notable sighting of an Osprey was recorded hunting in Tawi Manana. This observation highlights the ecological value of the area as a foraging habitat for migratory and resident bird species, and reflects the effectiveness of ongoing conservation efforts in supporting avian biodiversity within the reserve.



On 3rd October, Conservation Officer Maria delivered an educational presentation at South View School (SVS), highlighting the role of the DDCR in conservation. The session introduced students to the reserve’s mission, key initiatives, and the importance of protecting local ecosystems, fostering greater awareness and engagement in environmental stewardship.

Duda Menegassi visited the DDCR to develop a feature for the Brazilian environmental journal eco. The visit provided an opportunity to showcase the reserve’s conservation efforts, share insights into desert ecosystem management, and highlight the DDCR’s role in protecting biodiversity to an international audience.



November 2025

The annual gazelle population count was conducted to monitor wildlife trends and support ongoing conservation planning. The survey was carried out with the valuable assistance of volunteers from Sand Sherpa and Al Maha, whose contributions were instrumental in ensuring comprehensive field coverage and accurate data collection.

Conservation Manager Gerhard, together with Conservation Officers Maria and Aline, supported students at Jumeirah English Speaking School (JESS) by guiding the development of student-led campaigns focused on sustainable camping practices in the UAE. The initiative encouraged environmental responsibility, equipping students with the knowledge and tools to promote conservation awareness and reduce the ecological impact of outdoor activities.

A total of 60 Ghaf tree were planted in collaboration with Goumbook. The initiative contributes to habitat restoration and supports the expansion of native vegetation, reinforcing efforts to enhance biodiversity and strengthen ecosystem resilience within the region.

Conservation Manager Gerhard participated in an interview with the Museum of the Future, highlighting the relationship between the Dubai Desert Conservation Reserve and Emirates. The discussion showcased collaborative efforts in conservation, sustainable tourism, and environmental stewardship, underscoring the role of partnerships in supporting long-term ecological preservation in the UAE.

Bat expert Nils Bouillard deployed three bat recorders within the reserve to enhance acoustic monitoring and improve understanding of local bat activity and diversity. This initiative supports ongoing biodiversity assessments by providing valuable data on species presence, distribution, and habitat use, contributing to more informed conservation management decisions.

Conservation Officer Maria attended the Regional Workshop on Conservation Translocation and Reintroduction of the Arabian oryx in Range States, hosted in Abu Dhabi. The workshop brought together regional experts and conservation practitioners to exchange knowledge and strengthen collaborative efforts aimed at supporting the recovery and long-term sustainability of the species across its natural range.

November 2025



Five Arabian gazelle were darted as part of a genetic diversity study conducted in collaboration with the United Arab Emirates University (UAEU). The activity supports ongoing conservation research aimed at improving understanding of population genetics, strengthening long-term species management, and informing future conservation strategies within the reserve.

Conservation Officer Basil delivered an educational presentation at Lycée Libanais Francophone Privé Meydan, introducing students to the reserve’s conservation work and the importance of protecting local ecosystems. The session helped raise awareness about biodiversity in the UAE and encouraged students to engage with environmental stewardship and sustainable practices.



A sighting of a Greater spotted eagle was recorded within the reserve. This observation adds to the documented presence of migratory raptor species in the area and further underscores the ecological importance of the reserve as a habitat and stopover site for wildlife during seasonal movements. Photo taken by Marios Mantzourogianis.

A Houbara bustard was recorded in the southern section of the reserve. This sighting highlights the continued presence of this sensitive species within the protected area and reinforces the importance of ongoing habitat management and conservation measures to support its long-term survival in the region.



December 2025



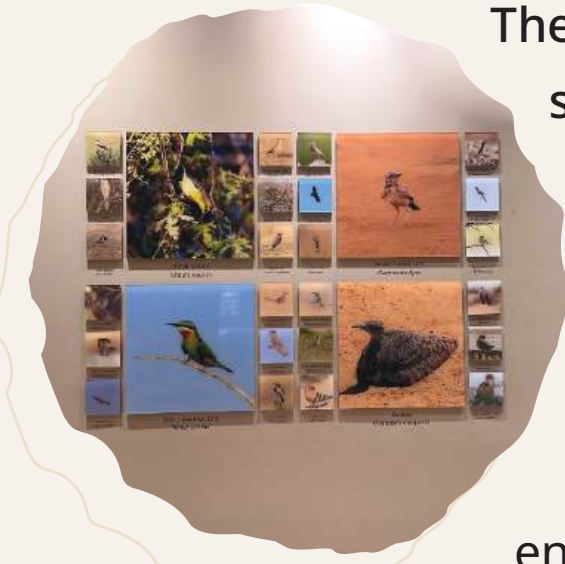
Three Great white pelican were recorded at Tawi Manana. The sighting further highlights the importance of the area as a wetland habitat supporting a diversity of waterbird species, particularly during seasonal movements and migration periods.

Conservation Ranger Pubudu published a scientific paper on ophiophagy, contributing new insights into predator-prey interactions involving snake-eating behaviour. The publication supports a broader understanding of ecological dynamics within arid ecosystems and reflects the

reserve team’s ongoing commitment to research, knowledge sharing, and evidence-based conservation management.



Fifty Ghaf tree were planted in collaboration with Goumbook and Elite Group Holding. The initiative supports habitat restoration efforts and contributes to increasing native vegetation cover, reinforcing long-term biodiversity conservation and ecosystem resilience within the region.



The Visitor Centre’s birds section was updated to reflect the greater diversity of bird species recorded within the reserve. The enhancement provides visitors with improved educational content and a more comprehensive overview of local avian biodiversity, supporting awareness and engagement in the reserve’s conservation efforts.



The DDCR 2025–2030 Management Plan was finalized and published, setting out the strategic framework for the reserve’s conservation priorities over the coming years. The plan outlines key objectives for biodiversity protection, habitat management, research, and sustainable visitor engagement, ensuring a structured and science-based approach to long-term ecosystem conservation.

A second Arabian red fox was fitted with a UHF tracking collar as part of ongoing wildlife monitoring efforts. This initiative supports the collection of movement and habitat-use data, contributing to a better understanding of species ecology and informing evidence-based conservation management within the reserve.



The reserve welcomed a visit from the DECCA Awareness Section, during which Conservation Manager Gerhard delivered a presentation at the Visitor Centre. The session provided an overview of the DDCR’s conservation objectives, ongoing management activities, and the importance of protecting the desert ecosystem, fostering greater awareness of environmental stewardship and collaborative conservation efforts.



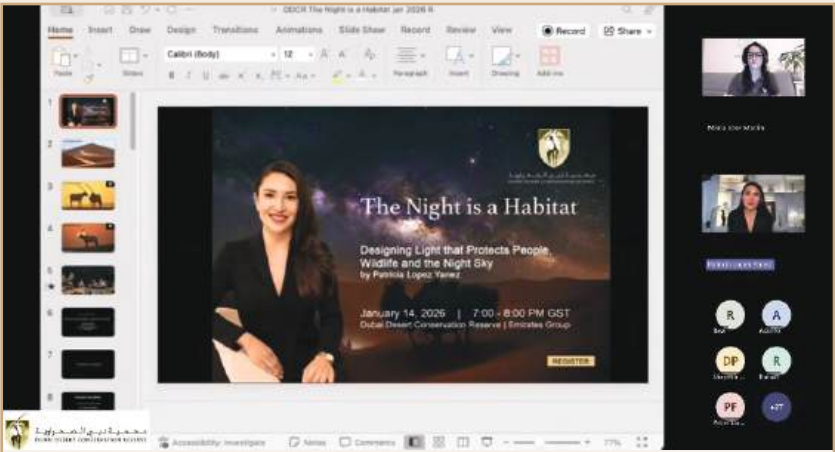
January 2025

Another field visit was carried out by the UAEU research group, led by Dr. Sunil, at the Dubai Desert Conservation Reserve (DDCR). The visit formed part of their ongoing survey titled “Investigating the microbiome associated with native desert plant species,” which aims to better understand the microbial communities living in association with desert-adapted vegetation.



The solar car park at the Dubai Desert Conservation Reserve (DDCR) Visitor Centre has officially started operation, marking a significant step toward full renewable energy use at the site. With this installation, the entire visitor centre is now powered by solar energy. The system has a total capacity of 250 kWp, generated through 467 solar panels, and can produce approximately 423,225 kWh of clean electricity. This development not only reduces reliance on conventional energy sources but also reinforces DDCR’s commitment to sustainability and environmental conservation within the protected desert ecosystem.

A preliminary meeting was held with Dubai Safari Park to discuss the potential reintroduction of the critically endangered Arabian Wonder Gecko. The discussion focused on exploring collaborative conservation efforts, including captive breeding readiness, habitat suitability assessments, and the long-term feasibility of re-establishing stable wild populations. Emphasis was placed on ensuring that any future reintroduction program is scientifically sound, supported by ecological monitoring, and aligned with best practices for the recovery of threatened desert species in the UAE.



A webinar was held with Myriam Patricia Lopez Yanez titled “Night Sky as a Habitat.” The session explored the ecological significance of the night sky beyond its visual and astronomical value, highlighting how natural darkness supports nocturnal wildlife, influences behavioral patterns, and maintains balanced desert ecosystems. Discussions also addressed the impacts of light pollution on biodiversity, particularly in arid environments, and emphasized the importance of preserving dark-sky conditions to protect species adapted to night-time habitats.

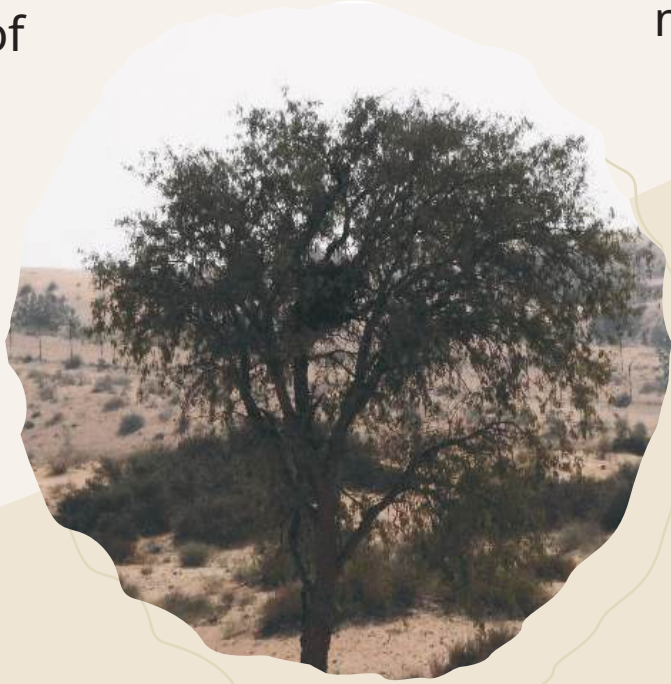
January 2025

Conservation Manager Gerhard and Conservation Officer Maria attended the second meeting of the Urban Coalition, which focused on biodiversity in urban landscapes. The meeting emphasized collaborative approaches between participating organizations to enhance and protect biodiversity within the city of Dubai. Discussions covered practical strategies for integrating nature into urban planning, improving habitat connectivity, and strengthening joint conservation initiatives to support urban wildlife and ecosystem resilience.



Ten Ghaf trees were planted in collaboration with Tokio Marine and Goumbook as part of a joint environmental initiative. The activity focused on supporting local afforestation efforts and promoting the conservation of the native Ghaf tree, a key species in the UAE’s desert ecosystem known for its resilience and ecological importance. The planting also contributed to broader sustainability and climate action goals by enhancing green cover, supporting biodiversity, and encouraging community involvement in environmental stewardship.

Confirmed nesting sites of a Long-legged Buzzard and Pharaoh Eagle Owl were recorded within the reserve. These observations highlight the ecological value of the area as a breeding habitat for native and regionally important raptor species. The presence of the Long-legged Buzzard and Pharaoh Eagle Owl indicates suitable prey availability, intact nesting substrates, and relatively undisturbed conditions that support successful reproduction. Ongoing monitoring will help track breeding success and inform continued conservation management of these sensitive species within the reserve.



The 2026 annual vegetation survey has started. The survey will assess plant diversity, distribution, and overall vegetation health across the reserve. It involves field sampling to monitor native plant communities and track ecological changes over time, supporting ongoing biodiversity monitoring and conservation management.

February 2025



Hosted a webinar titled “A Steppe Eagle’s Migration Across Ecosystems, Cities, and Hidden Risks” featuring Sonya Benjamin, exploring the species’ migratory patterns and the challenges it faces across diverse landscapes. The session highlighted key conservation insights relevant to raptor protection and the importance of safeguarding migratory corridors across the region.

Sorbonne University visited DDCR with students to conduct a survey related to the study of meteorites. The visit supported hands-on academic research, offering students field exposure to desert environments relevant to planetary science and meteoritic studies.



New bird photographs were added to the Habitat Hall section, showcasing a greater diversity of bird species found within the DDCR. This update enhances visitor engagement by providing a more comprehensive visual representation of the reserve’s avian biodiversity.

The University of Sharjah conducted Electrical Resistivity Tomography (ERT) profiling to complement and expand the existing geophysical dataset. This work contributes to a deeper understanding of subsurface conditions within the DDCR, supporting ongoing environmental and geological research efforts.



March 2025



As part of the ungulate monitoring and wildlife management initiatives, a bi-annual gazelle survey was conducted with the participation of volunteers to assess population distribution and habitat conditions across the DDCR.

As part of the infrastructure enhancement initiatives undertaken during the year, all security gate accommodations were upgraded and replaced with new porta-cabin facilities to improve functionality and staff welfare. A total of 4 new cabins were installed to house security personnel.



As part of the ongoing stakeholder engagement and environmental awareness initiatives, a site visit by the Dubai Natural History Group (DNHG) was successfully hosted to provide participants with insights into the DDCR’s conservation efforts, biodiversity, and environmental management practices.

Confirmation of the Long-legged Buzzard nest was successfully recorded as part of the ongoing biodiversity monitoring within the Ghaf trees found in the DDCR.



During the bi-annual gazelle survey, a Common Cuckoo was recorded within the Dubai Desert Conservation Reserve (DDCR), marking the first known photographic record of the species in the reserve. *Photo taken by Caleb Rowberry.*



8. Conservation, research and environmental work

Research Policy, DDCR Management Plan

Research conducted within the DDCR should assist in applying sound scientific ecological principles to the decision-making process and add new knowledge about the species and habitats of the DDCR. The DDCR will be promoted as a destination for applied research in arid land ecosystems by national and international academic institutions. The DDCR Research Committee will evaluate all research proposals based on relevance to the reserve, ethical, and practical implications. Research is vital for the effective management of the DDCR, to make informed management decisions and in the mitigation of climate change and desertification.

Desert Research Centre

The vision of the research centre is to promote and facilitate scientific studies that help solve environmental challenges. This will be achieved through undertaking collaborative research on the impact of natural, human, social and ecological aspects on developmental progress. The DDCR aims to become a source of authority and a centre of excellence in biodiversity research by building a

robust scientific community connected with local, regional, and international stakeholders. We aim to prioritise the integrity of the ecological and social systems, values, and resources, by facilitating research and providing study opportunities, logistical and field support within a research-friendly environment. This will allow students, researchers, and volunteers to address essential questions and gain experience and networking skills.

The objectives of the Desert Research Centre are:

- Encourage and undertake high-quality research
- Conduct research addressing environmental policy objectives
- Develop research projects that provide practical evidence to inform policy
- Promote and facilitate collaborative and multidisciplinary research
- Establish links with both international and national research bodies for cooperation and sharing of research information
- Organise meetings, seminars, and forums

The DDCR aims to utilise research collaboration for the following purposes:

- Grow functional capacity for effective management and governance of protected areas in the UAE and West Asian Region
- Draw on local and international universities' strengths, expertise, and technical capabilities to offer the highest quality research products
- Build on regional opportunities and enhance the chances to demonstrate, guide, and support quality research in protected areas
- Adapt, facilitate, and coordinate protected area research and spread research results
- Recognise, adapt, develop, and promote excellence and model practice in protected areas research
- Encourage and assist researchers willing to improve their knowledge and skills in research on protected areas, find research ideas and opportunities relevant to their needs, and facilitate ongoing learning and sharing through professional networks and communities of practice

DDCR Research Committee

Following the establishment of the DDCR Research Centre, the reserve initiated a Research Committee to evaluate all research proposals based on relevance to the reserve, ethical and practical implications with a defined Terms of Reference (ToR) and regular (biannual) meetings to propose, evaluate and guide research activities within the DDCR. The Research Committee members are from diverse backgrounds and well regarded in their respective fields.

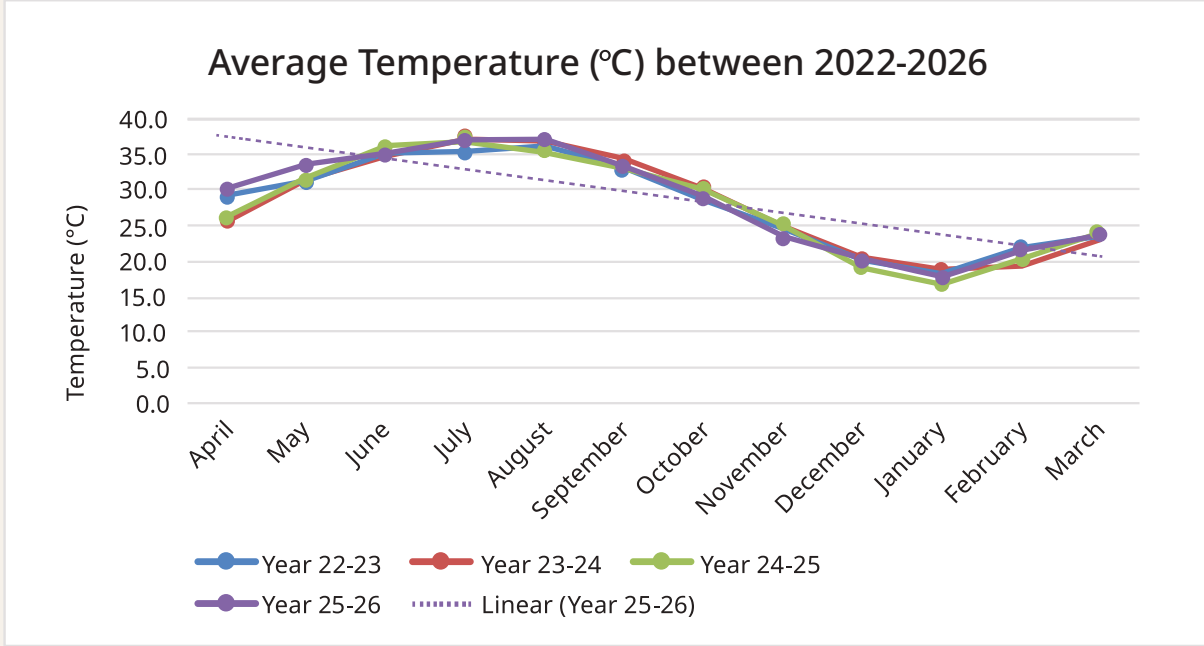
NAME	AFFILIATION	INSTITUTE
Gerhard Erasmus	Conservation Manager	DDCR-UAE
Basil Roy	Conservation Officer	DDCR-UAE
Aline Witte De La Torre	Conservation Officer	DDCR-UAE
Maria Jose Martin	Conservation Officer	DDCR-UAE
Pubudu Madurapperuma	Conservation Ranger	DDCR-UAE
Teresa Navarro	Botanist	Malaga University - Spain
Gary Brown	Ecologist	Freelance - Germany
Brigitte Howarth	Entomologist	Abu Dhabi Natural History Museum
Kosmas Pavlopoulos	Geologist	Sorbonne University - Abu Dhabi
Andrew Leonce	Computer Science	Zayed University
Stephane Boissinot	Herpetologist	New York University - Abu Dhabi
Theo Busschau	Evolutionary Biologist	New York University - Abu Dhabi
Panagiotis Azmanis	IUCN Vulture Specialist	IUCN/DFH
Jacky Judas	Ornithologist	Emirates Nature
Caroline Autret	Archaeologist	Sorbonne University - Abu Dhabi
Alan Stephenson	Ornithologist / Zoologist	Sheikh Butti Wildlife Manager

During the 2025–2026 period, no formal committee meetings were held. However, several committee members visited the reserve throughout the year, during which operational updates and progress briefings were provided. In addition, an update email was circulated to all committee members to ensure they remained informed of the various activities and initiatives currently being undertaken within the reserve.

In addition to the routine annual surveys conducted each year, the following research initiatives are currently underway.

1. Investigating microbiome associated with native desert plant species.
2. Genomic insights into the genetic diversity, adaptation and evolutionary history of Sand Gazelle (*Gazella marica*) and the Arabian Gazelle (*Gazella arabica*).
3. Baseline assessment of Nocturnal reptiles inside the Dubai Desert Conservation Reserve.
4. Biodiversity in Ghaf Trees (*Prosopis cineraria* (L.) Druce) with focus on bird nesting.
5. Vultures in the Dubai Desert Conservation Reserve - a summary on 4 Old World Vultures species in the DDCR.
6. Geospatial Mapping of Gravel Plains and Spiny-Tailed Lizard (*Uromastyx aegyptia leptieni*) Occurrence in the Dubai Desert Conservation Reserve
7. Movement Ecology and Site Fidelity of *Echis carinatus* in the Dubai Desert Conservation Reserve.

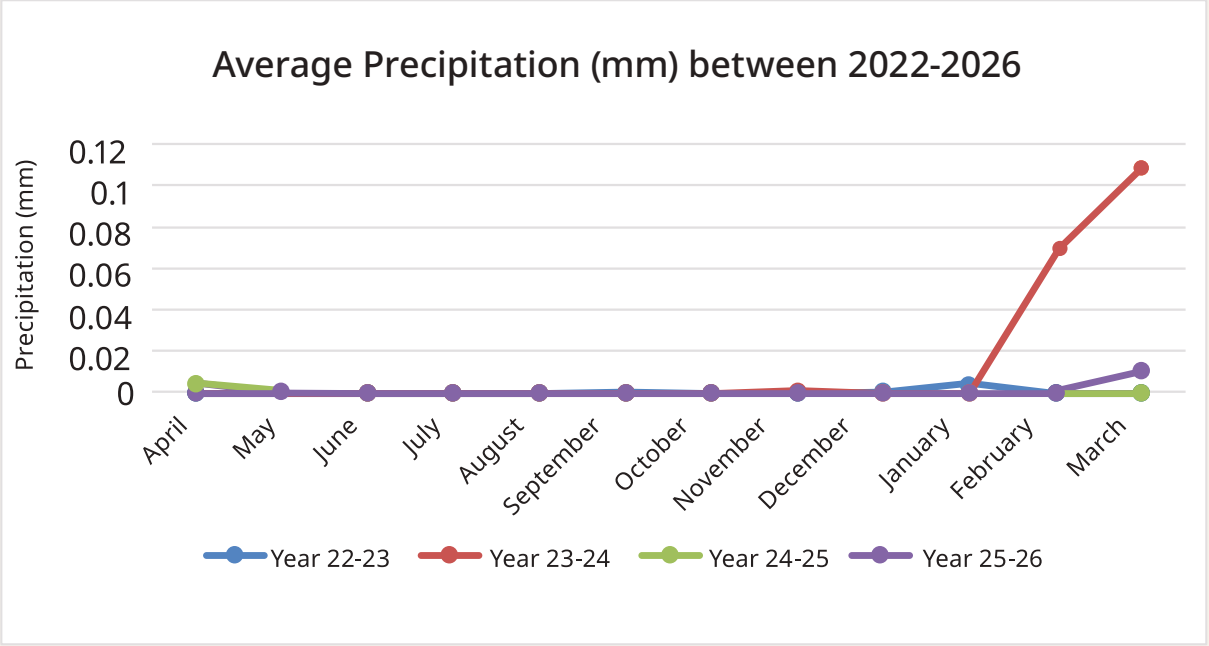
Weather comparison for the last four years (2022–2026)



Temperature

The data show that temperatures over the past four years have remained broadly consistent, with only moderate fluctuations between years. However, the most recent year (2025–26) records slightly higher temperatures overall, particularly during the warmer months.

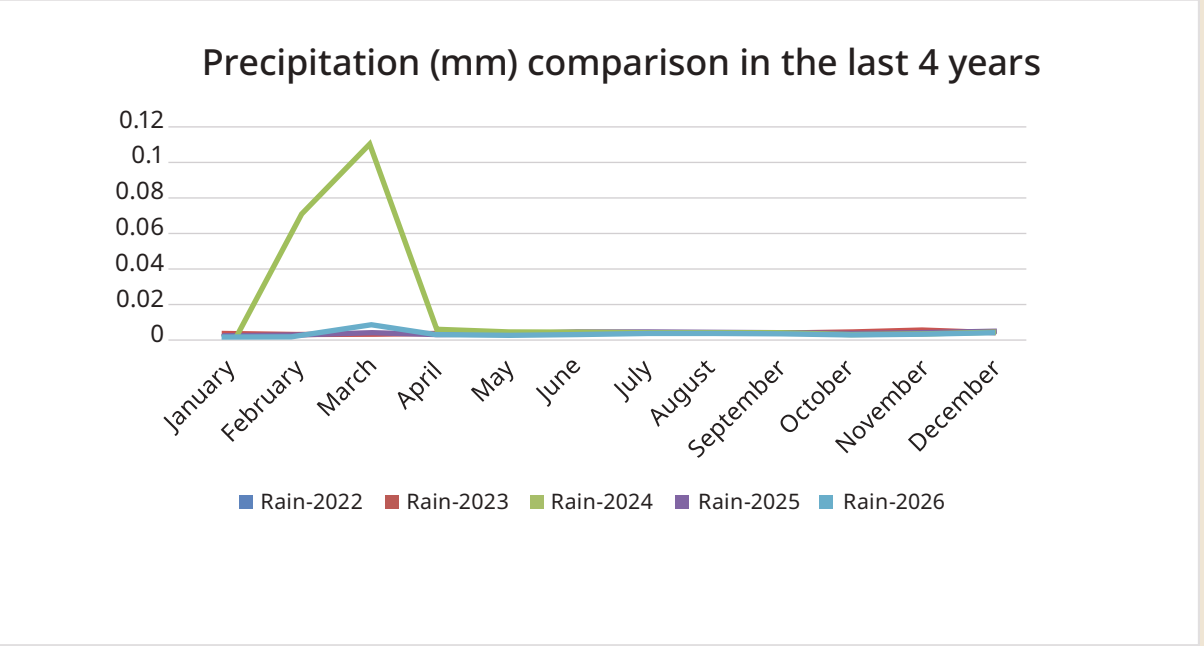
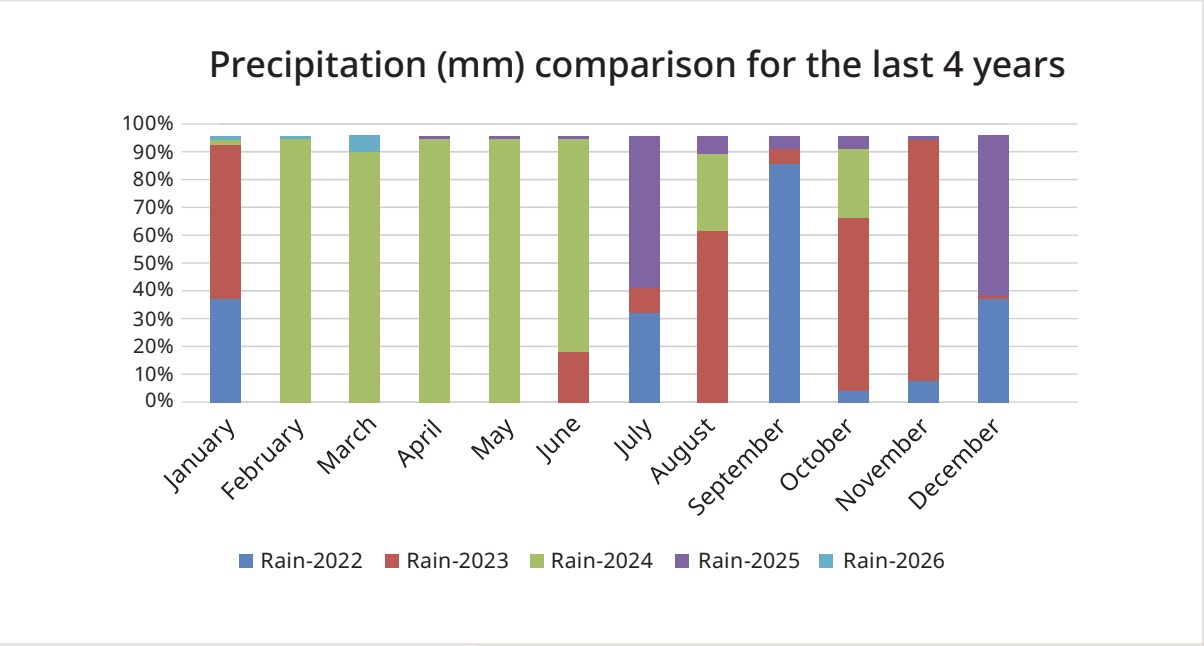
In contrast, March temperatures were lower than in most previous years (except for 2024–25), which may be linked to the higher levels of precipitation recorded in the reserve during that period.



Precipitation

The data indicate high variability in precipitation across the four years, with generally low values throughout most months. However, certain periods show notable peaks, particularly in 2023–24, when February and March recorded significantly higher precipitation compared to other years (as observed on the table - red line).

In contrast, the most recent year (2025–26) shows relatively low precipitation overall, with only a slight increase observed in March. This variability highlights the irregular and episodic nature of rainfall in the reserve rather than a consistent annual pattern. Nevertheless, it is remarkable how vegetation is adapted to these short rainfall events, as the reserve is currently more vegetated compared to last year, when very little rain was recorded during the same period.

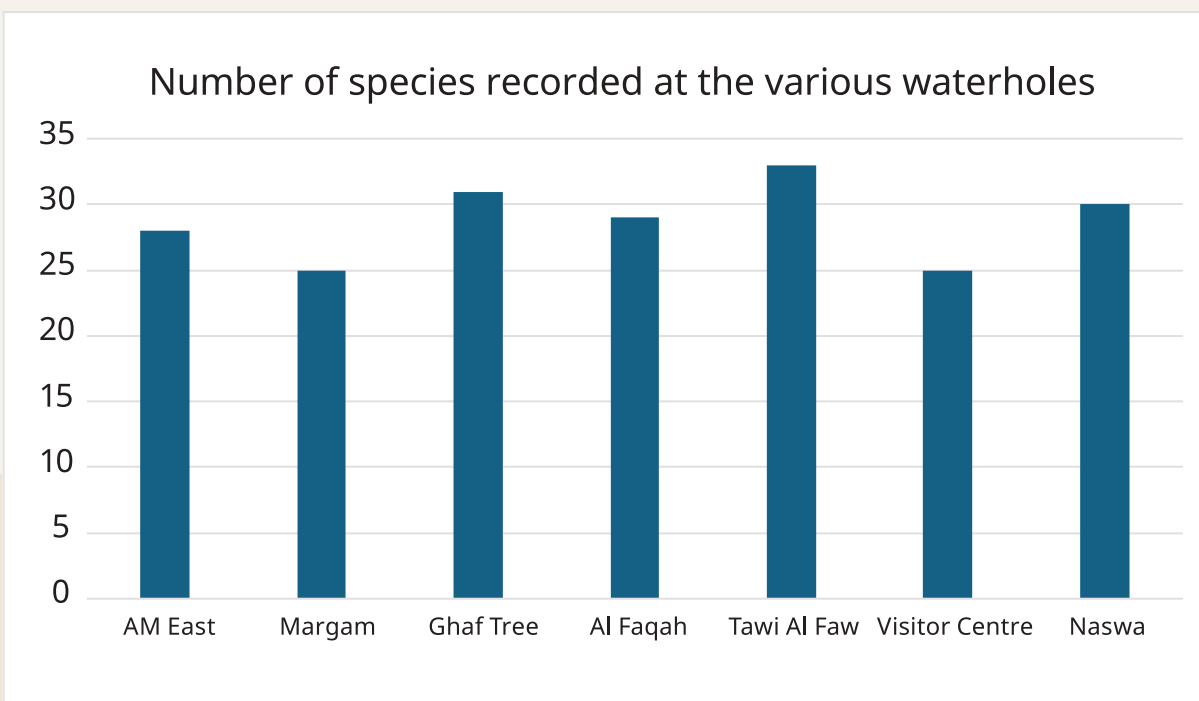


Research reports

Camera trap monitoring report 2024/2025

Camera traps (CTs) are an effective tool for monitoring wildlife activity. In DDCR, seven permanent camera traps are strategically installed at waterholes that are frequently visited by a wide range of wildlife species. During the monitoring period from 1 April 2025 to 31 March 2026, the seven camera traps collectively recorded 365 live camera days and captured 541,653 images.

From these images, a total of 58 species were identified. This included 7 mammal species (one bat species not yet confirmed), 2 reptile species (including one gecko species not yet confirmed), 47 bird species, one butterfly species identified as the Plain Tiger (*Danaus chrysippus*), and one unidentified insect. Compared to the previous reporting period, six additional bird species were recorded in camera trap images during this year.



The Tawi Al Fawi camera trap recorded the highest level of biodiversity, with 33 species documented. In contrast, the Visitor Centre and Margham sites showed lower species counts compared to the other camera trap locations.

Among the recorded wildlife, the most frequently captured species were the three main ungulates of the reserve: the Arabian oryx, Arabian gazelle, and Arabian sand gazelle. These species are permanent residents within the reserve, along with the Arabian red fox. Other mammal species such as the Arabian hare and Ethiopian hedgehog, which were recorded in previous years, were not detected in the camera traps during this reporting period.

Several bird species are consistently recorded in the DDCR throughout the year. Species such as the Pharaoh Eagle-Owl and Long-legged Buzzard are permanent residents within the reserve. Others, including the Lappet-faced Vulture, Eurasian Griffon Vulture, Cinereous Vulture, Egyptian Vulture, and Bonelli's Eagle, are occasional visitors that utilise the reserve's resources.

In addition, several raptor species have been recorded on a few occasions throughout the year, including the Western Marsh Harrier, Pallid Harrier, Eurasian Sparrowhawk, Steppe Eagle, Eastern Imperial Eagle, and Shikra, along with the Western Barn Owl. These observations highlight the

importance of the reserve as a habitat and stopover site for both resident and migratory bird species.

The Common Myna has been recorded in several camera trap locations within the DDCR. This species is introduced to the UAE, and its frequent detection suggests that it may be establishing itself as a resident species within the reserve. The Common Myna is known to be an aggressive and highly competitive bird, often competing with native species for nesting sites and sometimes displacing or attacking smaller native birds.

Additionally, feral cats and dogs were recorded in many of the camera trap locations. The presence of these animals indicates a potential conservation concern, as feral predators can have negative impacts on native wildlife, particularly ground-nesting birds, reptiles, and small mammals. Continued monitoring will be important to assess the potential risks posed by these invasive or unmanaged species within the reserve.

Table 1: Species of interest at the DDCR

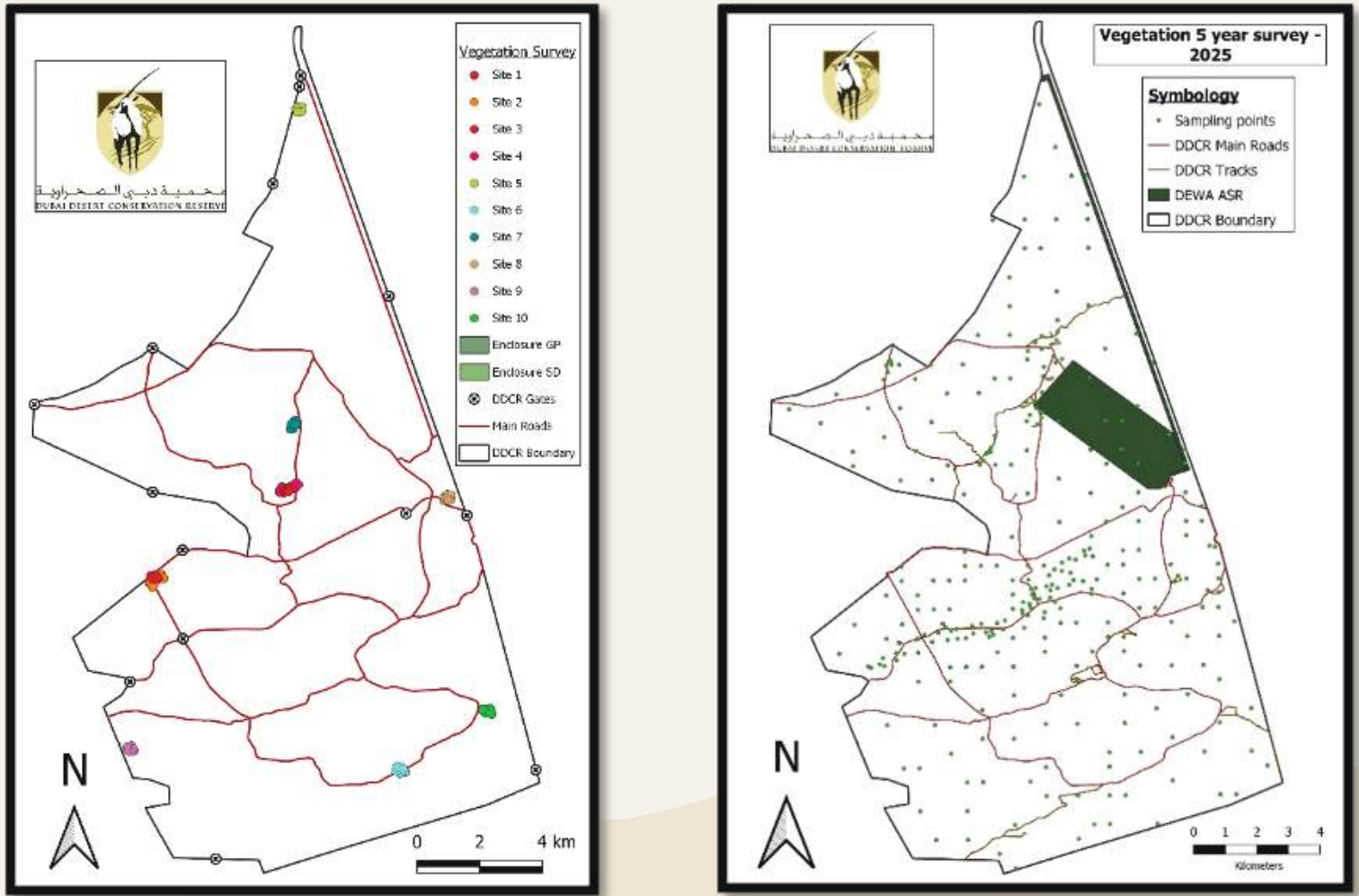
Order	Scientific name	Common name	IUCN Status	January	February	March	April	May	June	July	August	September	October	November	December
Mammalia															
Artiodactyla	<i>Gazella arabica</i>	Arabian Gazelle	VU	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lagomorpha	<i>Lepus capensis</i>	Arabian Hare	LC												
Artiodactyla	<i>Oryx leucoryx</i>	Arabian Oryx	VU	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Carnivora	<i>Vulpes vulpes arabica</i>	Arabian Red Fox	LC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Artiodactyla	<i>Gazella marica</i>	Arabian Sand Gazelle	VU	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Eulipotyphla	<i>Paraechinus aethiopicus</i>	Ethiopean Hedgehog	LC												
Aves															
Accipitriformes	<i>Aquila fasciata</i>	Bonelli's Eagle	LC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accipitriformes	<i>Aegypius monachus</i>	Cinereous Vulture	NT		✓	✓	✓		✓					✓	✓
Accipitriformes	<i>Neophron percnopterus</i>	Egyptian Vulture	EN			✓	✓	✓	✓					✓	
Accipitriformes	<i>Gyps fulvus</i>	Eurasian Griffon	LC		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accipitriformes	<i>Torgos tracheliotos negevensis</i>	Lappet-faced Vulture	EN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accipitriformes	<i>Buteo rufinus</i>	Long-legged Buzzard	LC		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Accipitriformes	<i>Circus aeruginosus</i>	Western Marsh Harrier	LC											✓	
Accipitriformes	<i>Circus macrouruss</i>	Pallid Harrier	NT	✓	✓										
Accipitriformes	<i>Accipiter nisus</i>	Eurasian Sparrow hawk	LC		✓	✓							✓	✓	✓
Accipitriformes	<i>Aquila nipalensis</i>	Steppe Eagle	EN			✓								✓	
Accipitriformes	<i>Tachyspiza badia</i>	Shikra	LC				✓		✓	✓					
Accipitriformes	<i>Aquila heliaca</i>	Eastern Imperial Eagle	VU		✓									✓	✓
Strigiformes	<i>Bubo ascalaphus</i>	Pharaoh Eagle-owl	LC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strigiformes	<i>Tyto alba</i>	Western Barn Owl	LC		✓	✓	✓		✓	✓	✓		✓	✓	✓

Table 2: Notable additional sightings from camera traps

Order	Scientific name	Common name	IUCN Status
Reptilia			
Squamata	<i>Varanus griseus griseus</i>	Desert Monitor	LC
Aves			
Columbiformes	<i>Streptopelia turtur</i>	European Turtle Dove	VU
Columbiformes	<i>Oena capensis</i>	Namaqua Dove	LC
Passeriformes	<i>Cercotrichas galactotes</i>	Rufous-tailed Scrub-robin	LC
Passeriformes	<i>Lanius excubitor aucherii</i>	Arabian Grey Shrike	LC
Passeriformes	<i>Argya squamiceps</i>	Arabian Babbler	LC
Passeriformes	<i>Corvus ruficollis</i>	Brown-necked Raven	LC
Passeriformes	<i>Alaemon alaudipes</i>	Greater Hoopoe Lark	LC
Passeriformes	<i>Motacilla alba</i>	White Wagtail	LC
Coraciiformes	<i>Coracias benghalensis</i>	Indian Roller	NT
Coraciiformes	<i>Merops apiaster</i>	European Bee-eater	LC
Coraciiformes	<i>Merops cyanophrys</i>	Green Bee-eater	LC
Pelecaniformes	<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	LC
Pelecaniformes	<i>Ardea cinerea</i>	Grey Heron	LC
Pelecaniformes	<i>Ardea alba</i>	Great Egret	LC
Charadriiformes	<i>Actitis hypoleucos</i>	Common Sandpiper	LC
Charadriiformes	<i>Vanellus indicus</i>	Red-wattled Lapwing	LC
Charadriiformes	<i>Himantopus himantopus</i>	Black-winged Stilt	LC
Pterocliiformes	<i>Pterocles exustus</i>	Chestnut-bellied Sandgrouse	LC
Anseriformes	<i>Alopochen aegyptiaca</i>	Egyptian Goose	LC
Anseriformes	<i>Anas platyrhynchos</i>	Mallard	LC
Galliformes	<i>Coturnix coturnix</i>	Common Quail	LC

2024 Vegetation Survey

Vegetation surveys are conducted annually at 10 permanent survey sites to assess the overall status of plants across the DDCR. However, every 5 years a larger, more comprehensive survey is conducted containing nearly 300 sampling sites across the whole of the reserve. This comprehensive survey aims to assess vegetation status and species composition, and to analyse species diversity, spatial distributions and plant community structure comparing results with previous survey reports to identify patterns of ecological change and their drivers.

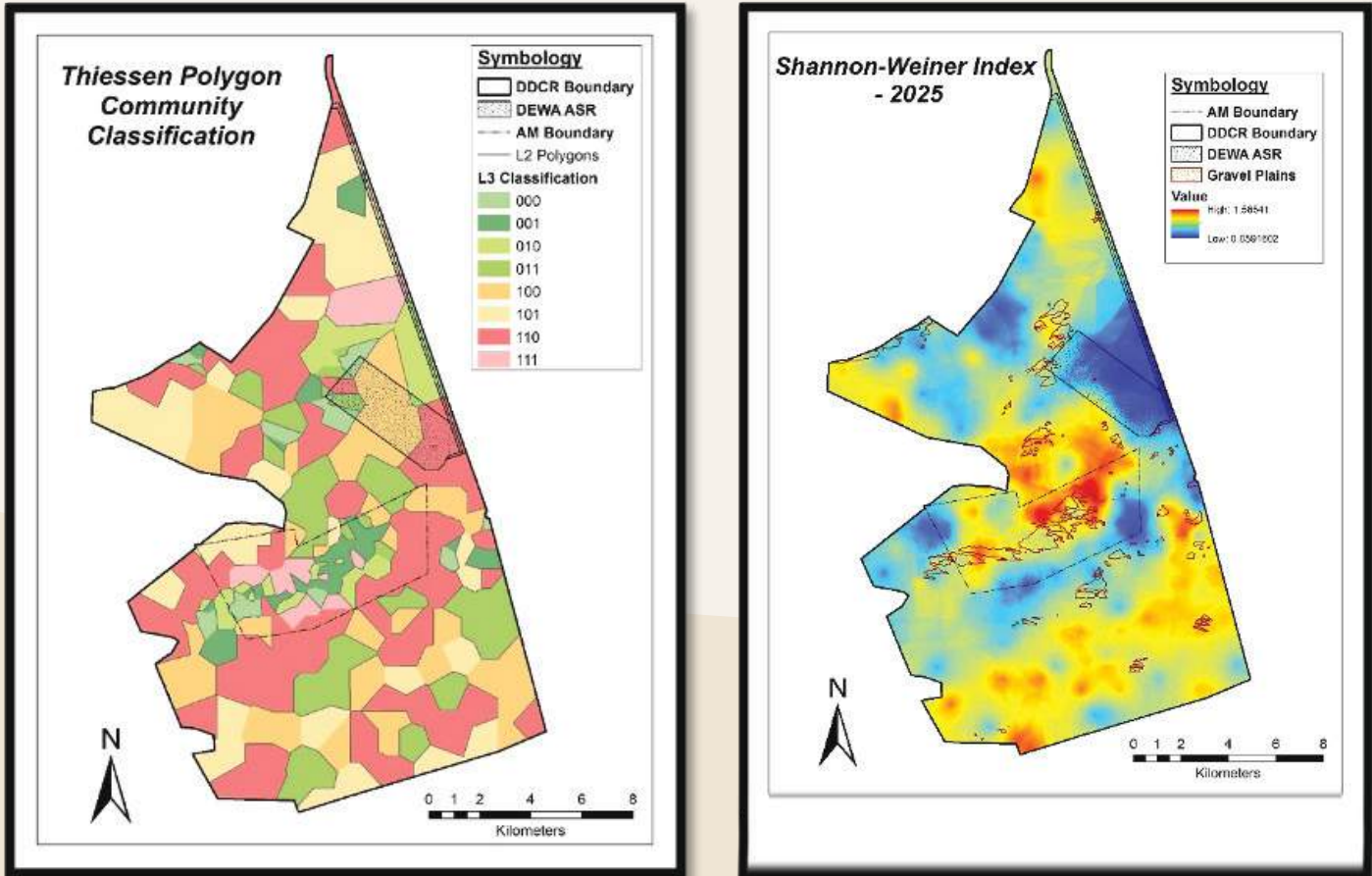


Survey site maps from 5-year survey (left) and yearly survey (right).

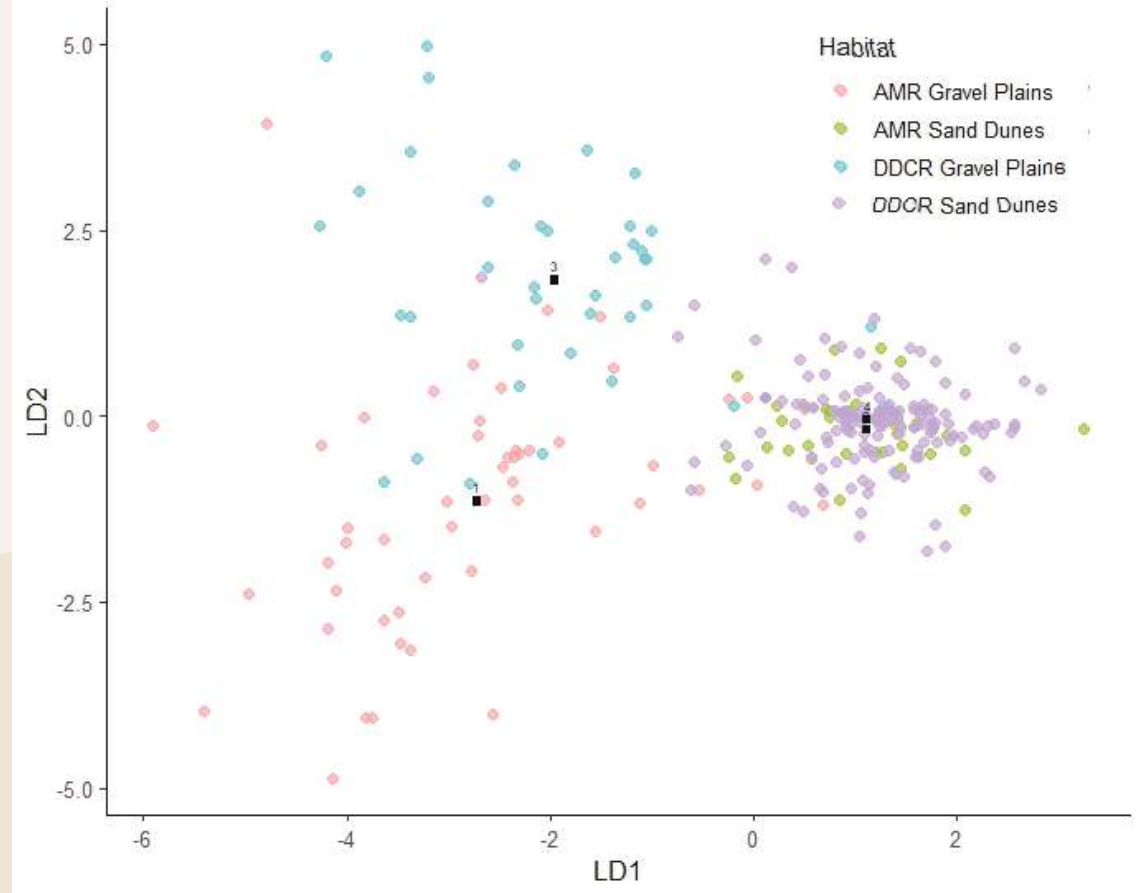
The 2025 vegetation survey was carried out from February to June. A total of 287 points were sampled across the whole of the reserve, sampling both gravel plains and sand dune habitats. Within each quadrat all plant species were identified, counted and measured. Abundance, frequency, density, cover, Importance Value Index (IVI), Significant Importance Value Index (SIVI) and biodiversity indices (Shannon-Wiener, Simpson's and Brillouin's) were then calculated for each sampling point. TWINSpan analysis was conducted to determine plant community classification. Discriminant Function Analysis (DFA) was used to evaluate whether vegetation sites could be separated by habitat type and whether historical distinction between Al Maha Reserve (AMR) and the wider DDCR remained meaningful. Diversity indices and abundance were interpolated across the reserve to create spatial vegetation patterns and community distributions derived from TWINSpan were mapped using Thiessen Polygons to visualize vegetation types across the landscape. In the 2025 survey a total of 21,301 plants were recorded

from 43 species across both habitats, with *Polygala irregularis* as a new record for the reserve which is considered Endangered in the UAE (National Red List). This species has been absent from long-term monitoring quadrants, suggesting either a recent colonization or previously undetected presence.

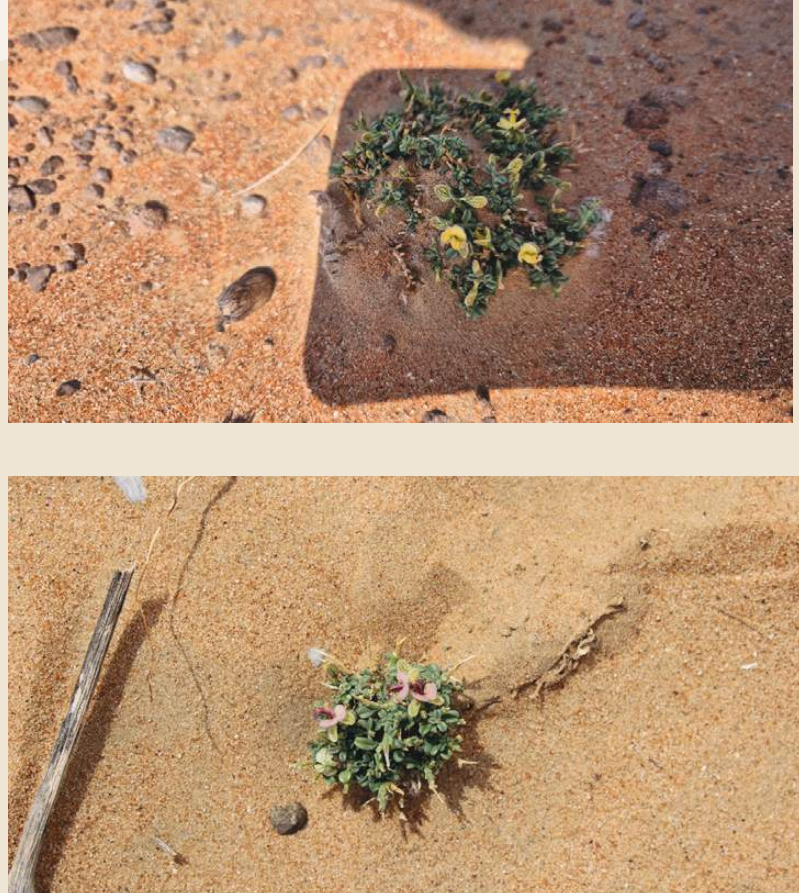
Overall comparison with previous surveys (2004 and 2009) indicates that vegetation in the DDCR has undergone notable shifts in composition, dominance, and structure over the last two decades. While overall species richness has increased (37 species in 2004 to 43 in 2025) data suggests a reorganization of community structure characterized by an increased dominance of a small number of highly adapted species, reduced relative importance of previously dominant/co-dominant species and persistence of rare species with very low abundance and restricted distributions. Such patterns are typical of arid ecosystems experiencing environmental stress. One of the most important factors influencing vegetation dynamics in the DDCR is water availability and herbivore density.



Spatial interpolation of Shannon-Weiner's diversity index (right) and TWINSpan vegetation community classification (left).



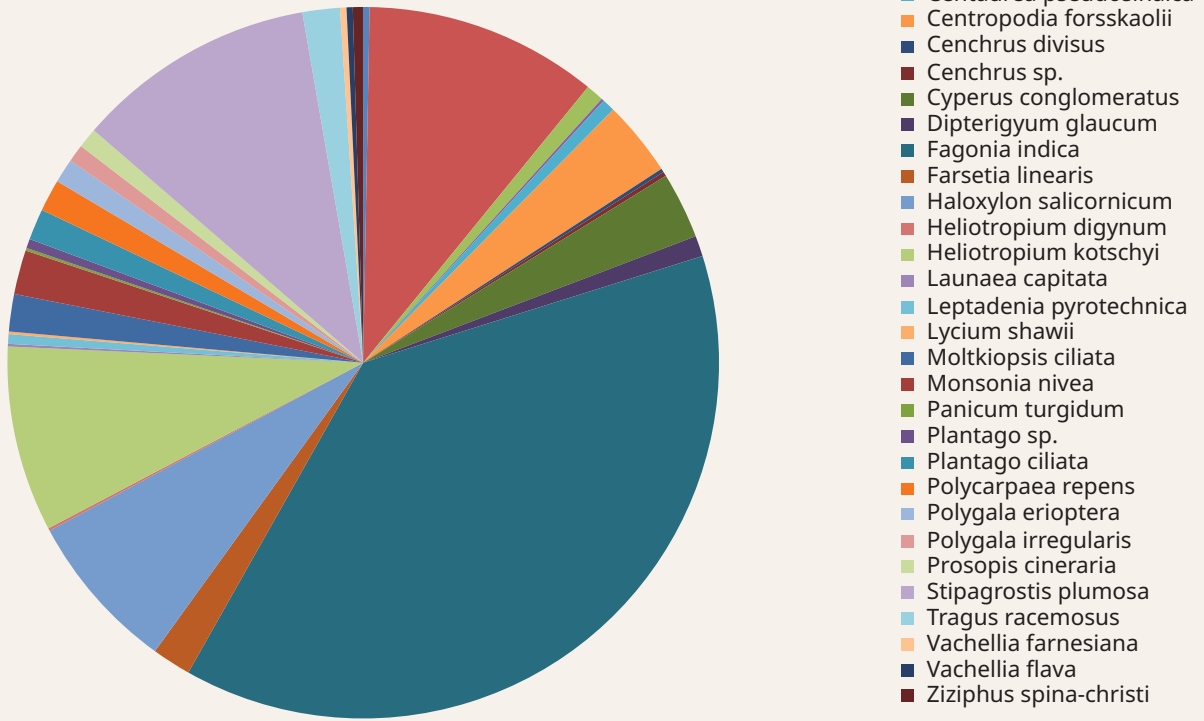
Species-level DFA plot showing separation by habitat type.



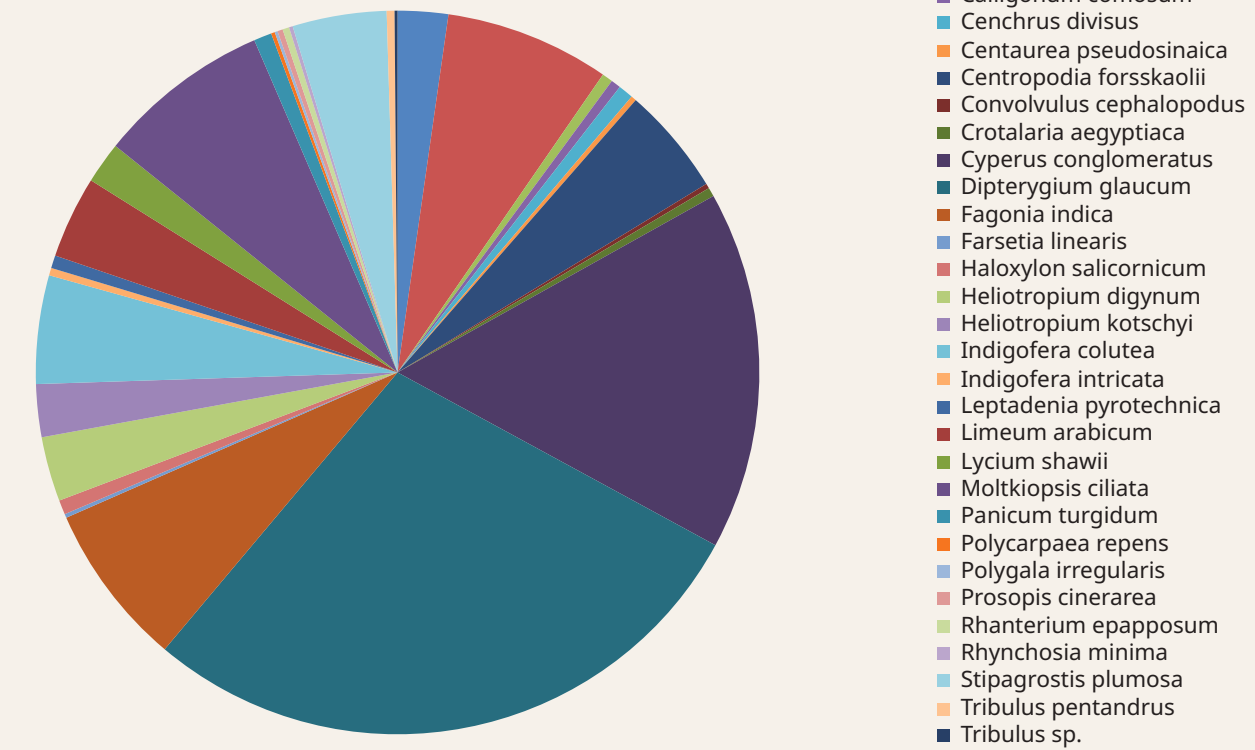
Polygala irregularis recorded during survey in both colour variants.

The 2025 survey period was characterized by negligent rainfall with virtually no precipitation recorded across the DDCR since April 2024, resulting in extremely dry conditions. Likewise at the time of this survey the reserve had ~760 Arabian oryx (*Oryx leucoryx*) which is more than double the sustainable level (carrying capacity calculated at 300-350 individuals), along with ~560 Arabian gazelles (*Gazella arabica*) and ~270 sand gazelles (*Gazella marica*). This level of herbivore pressure results in selective grazing, suppression of regeneration and competitive release of less palatable or graze resistant species.

Floral community composition in gravel plains measured as SIVI

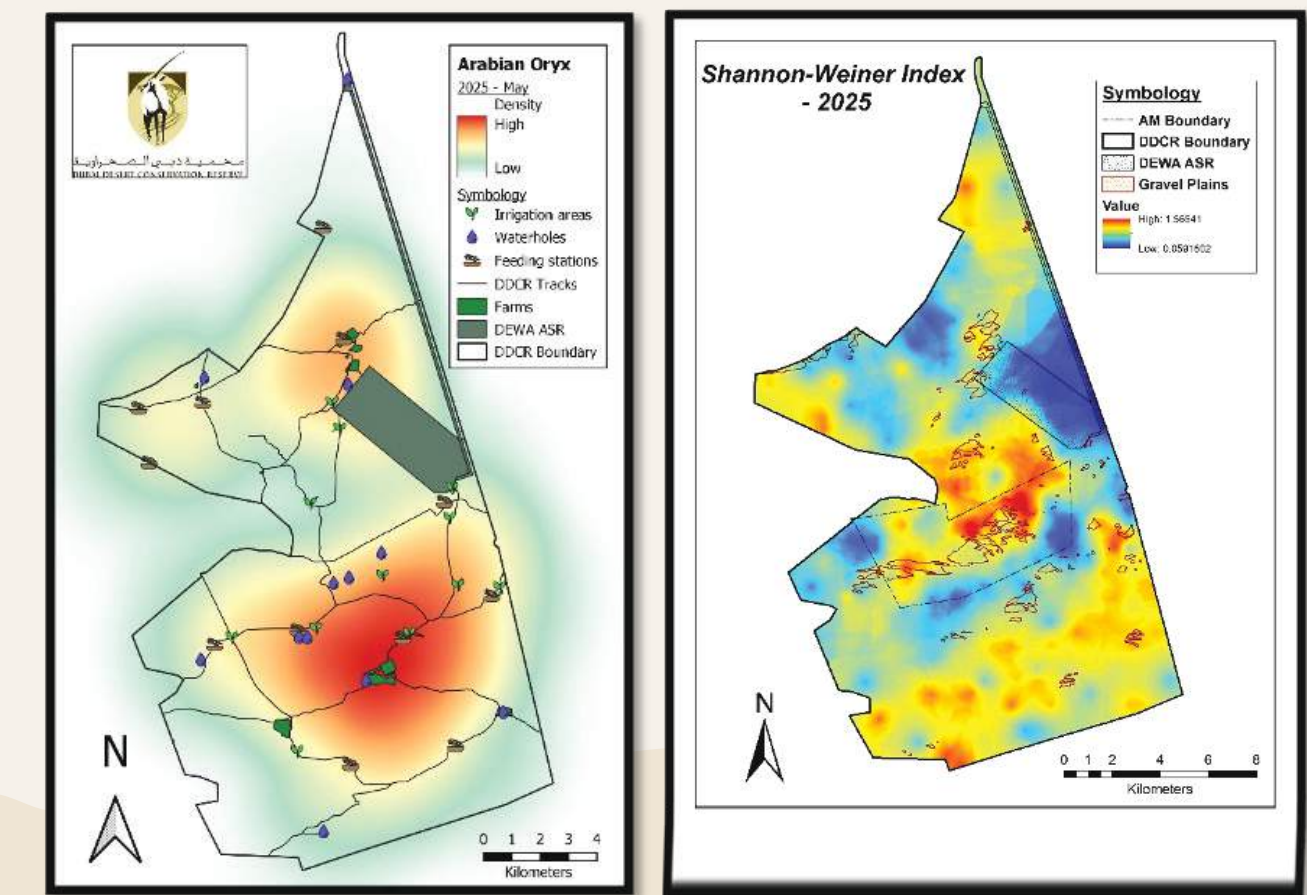


Floral community composition in sand dunes measured as SIVI



These processes help explain the increase in stress tolerant species, decline in abundance of historically dominant taxa and reduced structural complexity in some areas of the reserve where ungulate herds are more commonly found. TWINSpan analysis confirmed clear differentiation between gravel plains and sand dune communities with subdivisions reflecting environmental gradients from local conditions. This supports the premise that habitat type remains the main driver of vegetation structure but is increasingly modified by grazing pressure, climatic variability and human disturbance.

Spatial analysis revealed that the DEWA ASR development area corresponds to zones of low or nil vegetation diversity indicating direct habitat loss, soil disturbance and disruption of natural regeneration processes. The contrast between this disturbed zone and surrounding areas highlights the sensitivity of desert vegetation to physical disturbance. Together these findings highlight the importance of integrated management approaches that consider grazing pressure, climate variability and land use impacts. Continued long-term monitoring will be essential to track these dynamics and support effective conservation of the DDCR's unique desert ecosystem.



Ungulate heatmap showing Arabian oryx herd concentrations (left) and spatial interpolation of Shannon-Weiner's diversity index (right).

Ungulate Summary Report: 2023 – 2025

Arabian & Sand Gazelles Survey in the DDCR

The DDCR is home to two gazelle species, the Arabian Gazelle, *Gazelle arabica*, and Sand Gazelle, *Gazelle marica*. The Arabian Gazelle are primarily found in mountains or in habitats in close proximity to mountainous regions, while the Sand Gazelle is predominately found in desert environments. The gazelle population in the DDCR is continuously increasing and has been since the reserve was found two decades ago. Throughout the year, the DDCR staff monitor this increase in population with two methods of counting. Gazelles are counted weekly by staff who travel throughout the reserve using designated tracks. Another method of counting the gazelle population is by having a thorough gazelle survey which is organized twice a year in different seasons. The gazelle survey is conducted in the early morning and consists of people in several vehicles counting all gazelle throughout the reserve at the same time to avoid double counting and to count

gazelle when they are most active. The results of the latest gazelle survey conducted in March 2026 found that there are a total of 793 Arabian Gazelle and 161 Sand Gazelle in reserve, which is an increase to the previous gazelle survey count. It is believed that these numbers are lower than the actual population of gazelle in the reserve. The gazelle survey is more accurate than the weekly count, however, neither the gazelle survey nor the weekly count cover remote areas of the reserve and zones which do not have designated tracks. The Arabian Gazelle was predominantly found in the center and in the north of the reserve, where the Al Maha resort is situated and where tour operators have their camps and touristic activities. The more elusive Sand Gazelle was mostly recorded in the south of the reserve which is off limits to humans.



Arabian Oryx:

The Arabian Oryx, *Oryx leucoryx*, is the largest animal roaming the reserve. The Arabian Oryx went extinct in the wild in the 1970’s but today, with regional conservation efforts, the Arabian Oryx population is thriving throughout the region. The DDCR has become a recognized safe haven for oryx in the region and has a flourishing population. In 2002, 70 oryx were reintroduced and by 2020 roughly 900 oryx were recorded inside the DDCR. The increase of population from the status of being extinct is positive, however, when there is an overpopulation of oryx, they can overgraze on natural vegetation which will then have a direct negative impact on other native fauna and flora species inside the reserve. Taking DDCR’s size, the ideal carrying capacity of oryx is roughly 300 individuals. Since April 2021, DDCR management have mitigated oryx overpopulation by relocating them to large enclosures just outside of the reserve. Once in the enclosures, oryx can then be translocated to other protected areas or other suitable environments. Today, the rough estimation of oryx inhabiting the DDCR is 750 individuals. It is planned to move roughly 500 oryx into the enclosures before the end of this year. This operation will be performed in the cooler winter months for the safety of the oryx.

DDCR Ungulates:

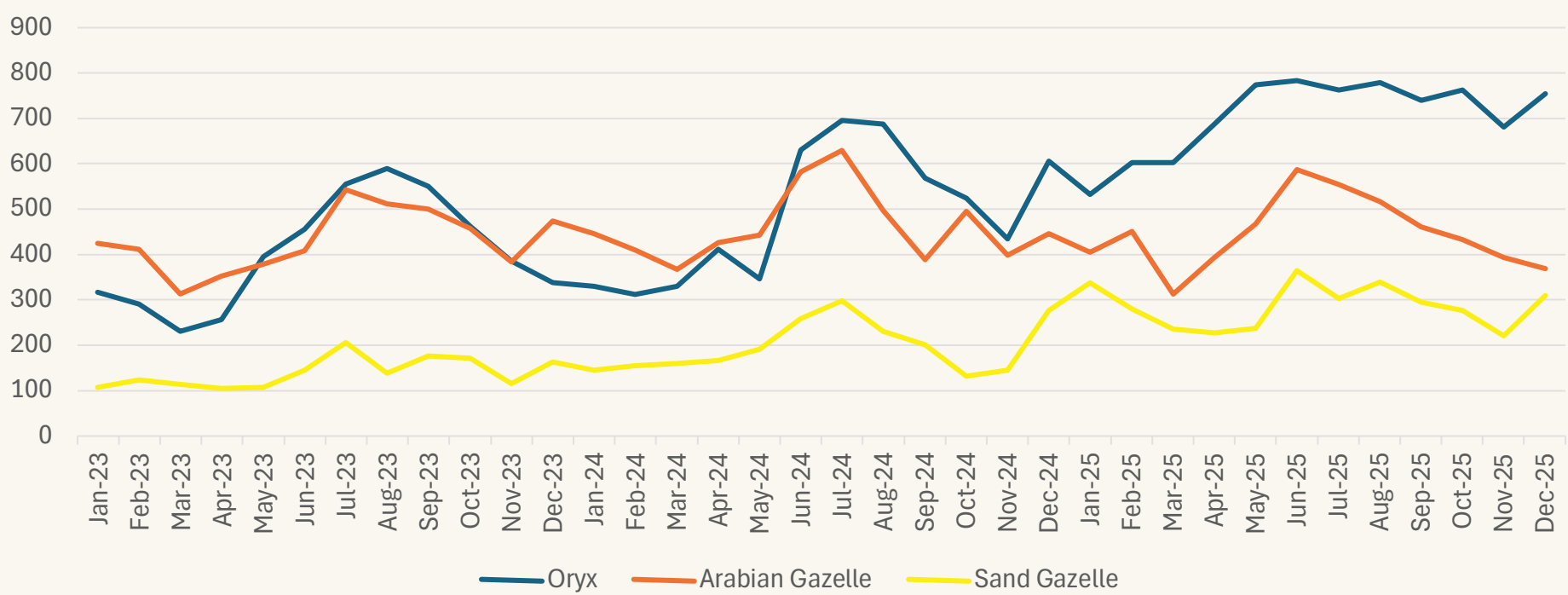
The ungulate populations inside the reserve are continuously increasing due to several important factors. Over the past two decades the DDCR has limited human activity and created a natural environment with an abundance of vegetation. Also, the reserve does not have a natural predator, which in effect gives antelope an ideal environment to thrive in. Today we can see a continuous incline of ungulate populations in the DDCR which can have a negative impact on the overall biodiversity of the reserve. The main concern is that overgrazing by these ungulates will have a negative impact on the reserve’s wildlife shelters and food security. The DDCR management team are continuously recording, monitoring, and managing the antelope populations inside the reserve. Oryx and gazelles can be found throughout the entire reserve, including in remote areas, which can be challenging to record, however, weekly counts and field surveys do generate a good estimation of population sizes, births, and deaths. Recordings of ungulates from 2023 to 2025 are displayed in the below tables and figures (Table 1 & Figure 1).



Table 1: Ungulate counts, births, deaths from 2023 to 2025

Month	Oryx Count	Oryx Births	Oryx Deaths	A.Gazelle Count	A.Gazelle Births	A.Gazelle Deaths	S.Gazelle Count	S.Gazelle Births	S.Gazelle Deaths
Jan 2023	319	0	0	425	0	2	110	0	0
Feb 2023	293	0	0	412	0	0	126	0	0
Mar 2023	233	0	0	316	0	5	116	0	0
Apr 2023	258	0	3	354	0	1	107	0	0
May 2023	397	0	0	381	0	1	110	0	0
June 2023	456	3	1	410	0	0	146	0	0
July 2023	555	11	2	542	0	0	206	0	0
Aug 2023	589	0	0	511	0	0	140	0	0
Sept 2023	550	0	1	501	0	1	177	0	0
Oct 2023	463	0	0	458	0	0	173	0	0
Nov 2023	386	1	0	385	0	2	117	0	1
Dec 2023	340	1	0	474	0	0	165	0	0
Jan 2024	332	2	0	447	0	0	146	0	0
Feb 2024	313	1	0	411	0	0	156	0	0
Mar 2024	332	1	0	369	0	1	162	0	0
Apr 2024	412	0	0	427	0	0	167	0	0
May 2024	347	0	0	443	0	0	192	0	0
June 2024	630	0	0	582	0	0	258	0	0
July 2024	695	0	0	628	0	0	297	0	0
Aug 2024	687	2	2	497	0	2	231	0	0
Sept 2024	569	3	0	390	0	1	201	0	0
Oct 2024	524	2	0	496	0	5	134	0	0
Nov 2024	436	2	5	400	0	3	146	0	0
Dec 2024	605	13	1	447	0	4	276	0	0
Jan 2025	532	2	0	406	0	3	336	0	0
Feb 2025	602	13	2	452	0	3	279	0	1
Mar 2025	602	10	2	315	0	2	236	0	5
Apr 2025	686	2	2	395	0	2	227	0	1
May 2025	773	5	0	467	0	2	237	0	0
June 2025	782	2	2	586	0	2	363	0	0
July 2025	762	14	2	553	0	1	303	0	0
Aug 2025	778	1	6	516	0	1	338	0	0
Sept 2025	738	4	2	461	0	2	294	0	0
Oct 2025	761	2	2	433	0	2	276	0	1
Nov 2025	681	0	0	394	0	0	221	0	0
Dec 2025	754	3	3	370	0	2	309	0	0

Figure 1: Ungulate Population Count from 2023 to 2025



- Figures show that all ungulate populations are increasing, in 2025 the Arabian Oryx is almost reaching 800 individuals recorded and the Arabian Gazelle population is close to the 600 mark.
- The Sand Gazelle population is the smallest; however, it is still increasing, going from roughly 100 individuals recorded in 2023 to 300 individuals recorded in 2025.
- The sharp inclines during the summer months indicate that ungulates are recorded in high numbers and in accessible areas which have shade and water, while sharp declines during winter months indicate lower numbers being recorded due to ungulates roaming into remote and inaccessible areas.



9. Current research

Monitoring Programme for the Major Site Values of the DDCR

This programme includes the objectives, methodology and expected outcomes of monitoring each of the Major Site Values (MSV) identified in the DDCR Management Plan. The results of this programme will provide us with performance measures for each of these MSV and will be used to evaluate our success in achieving successful conservation outcomes.



DDCR Monitoring Plan							
	Major Site Values	Monitoring Study	Aim	Methods	Timelines	Performance Measures	Thresholds
1	Fauna						
1.1	Arabian Oryx Oryx leucoryx	Monitoring of Arabian Oryx in the DDCR	Maintain a healthy, optimum and self-sustaining population of Arabian oryx in the reserve. To achieve this aim it is imperative to implement a long-term monitoring program in order to have a better understanding of the Arabian oryx population and their requirements and subsequently to utilise this understanding to make better management decisions for the DDCR.	Species weekly counts	Weekly (Tuesdays)	Population size	200-300
				Body condition scoring (BCS)	Bi-annual	Muscle mass and fat stores	2.5-3.5
1.2	Arabian Gazelle Gazella arabica	Monitoring of Arabian Gazelle in the DDCR	Maintain a healthy, optimum and self-sustaining population of Arabian gazelle in the reserve. To achieve this aim it is imperative to implement a long-term monitoring program in order to have a better understanding of the Arabian gazelle population and their requirements and subsequently to utilise this understanding to make better management decisions for the DDCR.	Species weekly counts	Weekly (Tuesdays)	Population size	200-300
				Distribution assessment	Annual (Winter)	Breeding effort	Stable population
1.3	Sand Gazelle Gazella marica	Monitoring of Sand Gazelle in the DDCR	Maintain a healthy, optimum and self-sustaining population of Sand gazelle in the reserve. To achieve this aim it is imperative to implement a long-term monitoring program in order to have a better understanding of the Sand gazelle population and their requirements and subsequently to utilise this understanding to make better management decisions for the DDCR.	Species weekly counts	Weekly (Tuesdays)	Population size	100-200
				Distribution assessment	Annual (Winter)	Breeding effort	Incr. population
1.4	Lappet-Faced Vulture Torgos tracheliotos	Monitoring of Lappet-Faced Vultures in the DDCR	Gain a better understanding of the status of the Lappet-faced vulture population visiting the reserve and identify their home-range, breeding and roosting sites.	Observations	Continuous	Population size	20-40 individuals
				Camera trapping (Waterpoints)	Continuous	Roosting	Roosting site identified
				Camera trapping (Vulture restaurant)	Continuous	Breeding	Breeding site identified
1.5	Pharaoh Eagle-owl Bubo ascalaphus	Monitoring of Pharaoh Eagle-Owl in the DDCR	Gain a better understanding of the population status of the Pharaoh eagle-owl within the DDCR and to learn more about their diet and breeding ecology.	Nest survey	Annual (Feb-May)	Breeding effort	2-5 nests
				Camera trapping (Waterpoints)	Continuous		
1.6	Macqueen's Bustard Chlamydotis macqueenii	Monitoring of the Macqueen's Bustard in the DDCR	To have an established breeding population of Macqueen's bustard in the DDCR and surrounding area.	Species weekly counts	Weekly (Tuesdays)	Breeding effort	1-5 nests
				Distribution assessment	Annual (Winter)		
1.7	Arabian Wildcat Felis lybica lybica	Monitoring of the Arabian Wildcat in the DDCR	To have a better understanding of the population status of the Arabian wildcat in the DDCR. As they are a main threat to the Arabian wildcat, feral cats will be eradicated from the reserve.	Camera trapping (Waterpoints)	Continuous		
				Trapping feral cats	Continuous		
2	Habitats						
2.1	Sand sheet with perennial herbs	Vegetation survey for sand sheets with perennial herbs	To implement the continuous practical and efficient vegetation monitoring with the application of appropriate functional analysis for valid data interpretation that will lead to adaptive management plans for the reserve with sets of priorities and objectives.	Vegetation monitoring	Annual (Winter)	Cover and species distribution	5-10%
				Vegetation survey	Every 5 years	Diversity	Simpson 0.8-0.9
2.2	Interdunal plains and Gravel plains	Vegetation survey for interdunal plains and gravel plains	To implement the continuous practical and efficient vegetation monitoring with the application of appropriate functional analysis for valid data interpretation that will lead to adaptive management plans for the reserve with sets of priorities and object	Vegetation monitoring	Annual (Winter)	Cover and species distribution	7-14%
				Vegetation survey	Every 5 years	Diversity	Simpson 0.8-0.9
2.3	Nazwa limestone outcrop	Vegetation survey for Nazwa limestone outcrop	To implement the continuous practical and efficient vegetation monitoring with the application of appropriate functional analysis for valid data interpretation that will lead to adaptive management plans for the reserve with sets of priorities and object	Vegetation monitoring	Annual (Winter)	Cover and species distribution	Not declining
				Vegetation survey	Every 5 years	Diversity	Simpson 0.8-0.9
3	Flora						
3.1	Ghaf Groves (Prosopis cineraria)	Ghaf groves survey	Mapping the change in the natura Ghaf groves over time is an essential aspect of conservation of the DDCR's natural resources and monitoring at the species level requires on-ground observations. This project will explore the viability of tracking changes of individual tree plants over time across the two Ghaf groves using regular inspection and measuring trees. Satellite imaging will also be used to monitor tree health over time.	Ghaf groves survey	Continuous	Tree population	Not declining
						Tree health (NDVI)	
3.2	Endangered and habitat restricted species: Dipcadi biflorum and Euploca rariflora	Vegetation survey for Nazwa limestone outcrop	Monitoring changes in populations of Dipcadi biflorum and Eupoloca rariflora in to ensure the conservation of these endangered species.	Vegetation monitoring	Annual (Winter)	Species presence and distribution	Increasing

Vulture Research Update

Conducted by Conservation Officer, Basil Roy

Vultures in the UAE are rarely seen, however, in the DDCR they are daily visitors. Four species of vulture have been recorded in the reserve, The Lappet-faced Vulture, *Torgos tracheliotus*, Egyptian vulture, *Neophron percnopterus*, Eurasian Griffon Vulture, *Gyps fulvus*, and Cinereous Vulture, *Aegypius monachus*.

In the end of 2023, a new vulture restaurant was established in order to attract vultures to a site which will have a capture and release operation. All four species of vulture have been recorded by camera trap at the newly established vulture restaurant. The use of camera traps on site allows to monitor vulture numbers, vulture behaviour, vulture adaptation to the newly built cage, and more recently the conditions of the site.

At this stage, the entire cage is complete. The trap door has been equipped with an automatic closing mechanism using a remote control, allowing for someone to remotely shut the main cage door from over 300 meters away. Other updates to the

cage include a live camera trap fitted inside the cage allowing for the DDCR team to get instant notifications on their phones when vultures enter the cage. Another upgrade to the cage is a small water hole was built so that vultures can preen and be more relaxed when inside the cage. Also, large boulders and tree trunks were placed around the cage, allowing for vultures to roost and be more comfortable at the site.

The last time a vulture was recorded at this site was in September 2025. There have not been any carcasses available for several months, which might explain why there hasn't been any vulture presence since September. As soon as a carcass can be provided to the cage, we will be able to see the vulture's reaction to all the new cage upgrades and hopefully be able to have a capture and release operation before the summer months.



A



B



C

A. Vulture cage for the capture and release program at the new Vulture Restaurant

B & C. Vulture cage upgrades, including a remote-control cage door and a built-in waterhole for vultures

Biodiversity in Ghaf Trees (*Prosopis cineraria* (L.) Druce) with focus on bird nesting

Conducted by Conservation Officer, Maria Jose Martin.

I have completed the data collection phase across the different areas with Ghaf groves. However, I continue to search for and record nests, although with less focus on detailed nesting behaviour. This year, I am concentrating on the final stage of my research, which involves analysing the data with the aim of obtaining meaningful and useful results.

Last year, we placed a tracker on one of the owlets, but it stopped working, presumably due to its solar panel. This year, I ordered two trackers to be deployed on a Long-legged Buzzard chick and a Pharaoh Eagle Owl owlet. However, due to the current situation in the area, the trackers have not yet arrived. Although the chicks are still in their nests, I cannot guarantee that the trackers will arrive before they fledge.

In addition, I have incorporated a new line of research within the project: pellet analysis to study feeding patterns across different locations. While some pellets can be identified as “recent,” most cannot be dated accurately. Therefore, the analysis focuses on feeding patterns by location rather than time. So far, I have separated pellet components and identified several

rodent mandibles, ribs, and femurs, as well as reptile bones. I am also continuing to actively search for nests.

This year, I have recorded the same breeding pairs nesting in nearly identical locations as last year:

1. Pharaoh Eagle Owl

This pair has used the same nest for the past two years in an area known as West Ghaf Grove. Both the male and female were observed around mid-January, perching on the same tree. The female was confirmed on the nest by the end of January. This year, only one owlet is present.

2. Long-legged Buzzard

The first nest was recorded in the southern part of the reserve, in a single tree located in an area known as Faqah. This area has low human activity, and the pair is quite skittish. The pair was observed at the nest in January; however, the number of chicks could not be confirmed.

3. Long-legged Buzzard

A second nest from the same pair as last year was recorded in February in the West Ghaf Grove, in a tree where they nested two years ago. This nest contains three chicks.

It is noteworthy that both the Pharaoh Eagle Owl and the Long-legged Buzzard pairs in the West Ghaf Grove have initiated nesting later this year compared to the previous season.



Figure 1 Pharaoh Eagle Owl nest

- A. Pharaoh Eagle Owl pair perching on the same tree
- B. Female in the nest
- C. Owlet



A



B



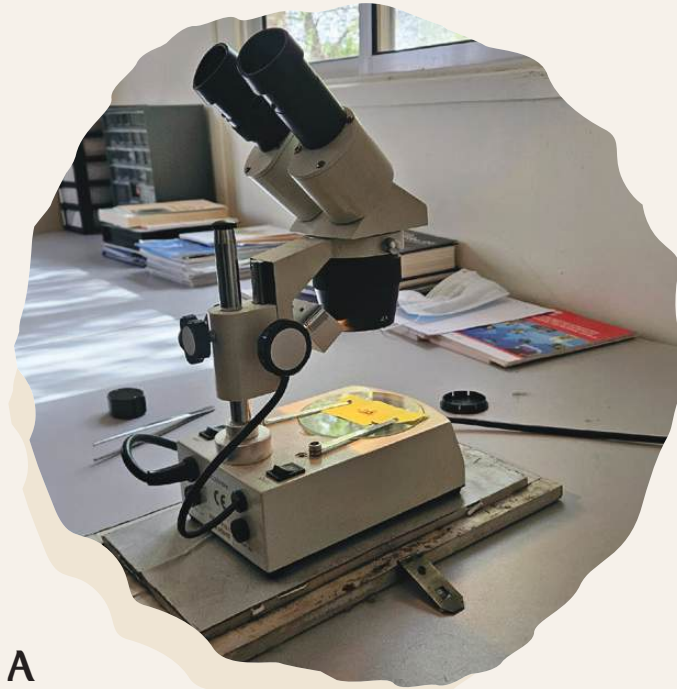
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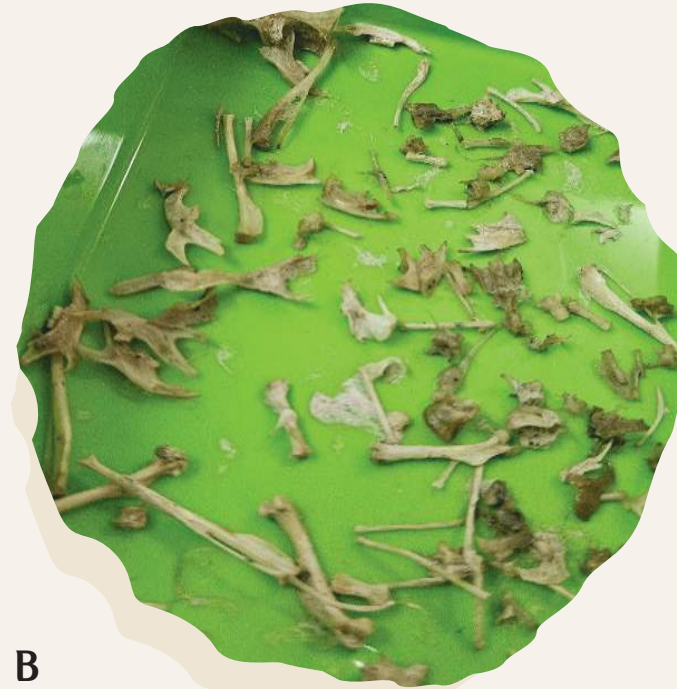
D

Figure 2 Long-legged Buzzard nest located in West Ghaf Grove

- A. Nest
- B. Female perching on the tree where the nest is located
- C. Three chicks on 24th March 2026
- D. Three chicks on 6th April 2026



A



B



C



D

Figure 3 Analysis of Owl pellets

- A. Micoscope used to ID remains
- B. Prey remains from a disagggregated pellet
- C. Mandible augmented
- D. Rodent skull and mandibles

Baseline Assessment of Nocturnal Reptiles

Conducted by Conservation Ranger, Pubudu Madurapperuma

Nocturnal reptiles are an important but relatively understudied component of desert ecosystems. Their activity patterns are adapted to cope with extreme daytime temperatures and limited resources in arid environments. Despite their ecological importance, information on nocturnal reptile diversity across the Arabian Peninsula remains limited, and many species have not been systematically surveyed.

The DDCR, the first protected area in the UAE managed as a national park, contains diverse desert habitats that support a variety of reptile species. However, while monitoring programmes exist for mammals, birds, and vegetation, focused surveys on nocturnal reptiles have been lacking. This study provides the first baseline assessment of nocturnal reptile diversity in the reserve, contributing important data for future monitoring and conservation planning.

Spatial Patterns of Species Richness Across Quadrats														
Species Name	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14
Stenodactylus doriae	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stenodactylus leptocosymbotes		✓		✓	✓			✓	✓	✓		✓	✓	
Trigonodactylus arabicus	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Hemidactylus robustus			✓											
Bonopus tubercalatus	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Cerastes gasperetti							✓	✓			✓		✓	
Eryx jayakari			✓			✓		✓						✓
Echis carinatus	✓	✓	✓	✓	✓				✓					✓
Myriopholis macrorhyncha				✓					✓	✓				
Diplometopan zarudni								✓						✓

Quarter-wise total specimen count				
Species name	1st Quater	2nd Quater	3rd Quater	4th Quater
Stenodactylus doriae	40	37	42	13
Stenodactylus leptocosymbote	23	19	26	15
Trigonodactylus arabicus	22	45	45	23
Bonopus tuberculatus	11	17	15	10
Hemidactylus robustus			1	
Cerastes gasperettii		3	5	2
Eryx jayakari		1	1	1
Echis carinatus	1	4	13	14
Myriophollis macrorhyncha		1		2
Diplometopan zarudni				4
Total	97	127	148	84

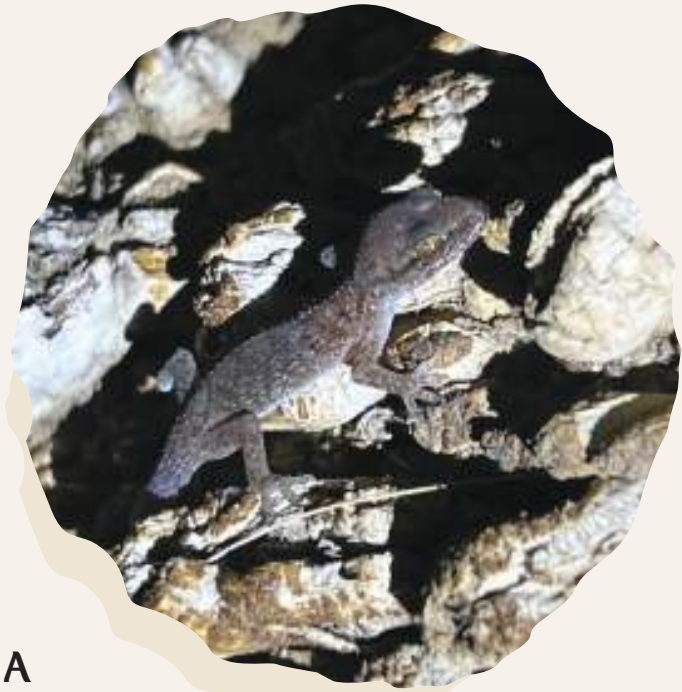
Results (to date)

During the year-long survey, 14 quadrats were sampled four times across the year, covering approximately 98 km of walking effort within the quadrats over 84 survey hours. A total of 456 specimens representing 11 species were recorded during the surveys.

Overall, 10 nocturnal reptile species were documented within the quadrats. Among these, *Hemidactylus robustus* was recorded during the survey, representing a new addition to the DDCR reptile checklist.

Additionally, ophiophagy (snake-eating behaviour) was observed in *Echis carinatus*, which was documented preying on *Myriopholis macrorhyncha*. This observation represents the first documented record of this behaviour in the Arabian Peninsula. The findings were later published in the Asian scientific journal *Taprobanica*.

However, out of the 16 nocturnal reptile species recorded from the DDCR, only 10 species were recorded within the surveyed quadrats, while one species, *Hemidactylus flaviviridis*, was recorded outside the quadrats. The remaining five species were not recorded during the survey period. These results highlight the need for further research and extended monitoring to better understand the distribution, habitat use, and population status of the remaining nocturnal reptile species within the reserve.



A



B



C

- A. *Hemidactylus robustus* (Heyden's Gecko)
- B. Ophiophagy observation of *Echis carinatus* during reptile survey
- C. *Eryx jayakari* preying on *Stenodactylus dorei*

10. Volunteer Projects

Volunteer Engagement and Outreach



One of the key objectives of the Dubai Desert Conservation Reserve (DDCR) is to increase public awareness and engagement. The volunteer programme continues to be a vital tool in achieving this goal by actively involving the community in conservation efforts.

Now in its third year, the programme continues to grow, with a total of 463 volunteers registered to date. During the 2025–2026 period, community participation remained strong across a range of activities, demonstrating increasing public interest and commitment to conservation initiatives.

Key volunteer contributions included:

- **Clean-up Campaigns:**

A total of 28 volunteers participated in a 3-hour clean-up activity, contributing 84 volunteer hours toward maintaining the reserve.

- **Camera Trap (CT) Support:**

10 volunteers assisted in changing SD cards from permanent camera traps while learning about monitoring techniques, contributing 50 hours.

- **Gazelle Surveys:**

Two surveys were conducted to count and identify gazelle species across the reserve, with 16 volunteers contributing 96 hours of fieldwork.

In addition to field activities, DDCR continued its webinar series, further extending outreach and education efforts. An average of 30 participants attended each session, with a total of 6 webinars delivered, amounting to approximately 81 hours of engagement.

Overall, the volunteer programme contributed a total of 311 engagement hours, reflecting both strong community involvement and the programme's effectiveness in promoting conservation awareness.



Social media has become an essential tool for connecting with people and an invaluable platform for outreach. Consistent daily posts and interactive games have successfully captured the public's attention, leading to a significant increase in followers. This growing engagement, along with a heightened level of interest from our followers, has laid a strong foundation for the development of a volunteer program.

Our social media interactions now reach approximately 2200 accounts each week, with notable spikes in activity during the posting of monthly highlights from our camera traps. This increased visibility not only broadens our reach but also strengthens our connection with the community, paving the way for deeper involvement and support.



11. Wildlife

Ungulate population policy:

In line with the DDCR's purpose and as an ecological imperative, the policy is to significantly reduce and then regulate ungulate populations to restore the natural balance and aid the recovery of the desert ecosystem.

This will be accomplished by a tested, phased and carefully monitored programme of reducing and subsequently regulating the ungulate populations that will involve a combination of translocation, controlled eradication and natural predation of the Oryx and two gazelle species, with consequent adjustments to their supplementary feeding.

The population of Arabian Oryx in the reserve had reached unsustainable numbers that exceeded the reserve's capacity with evidence of overgrazing having damaging impacts on the natural vegetation. The situation arose as a result of the Arabian Oryx having no natural population regulators such as food restrictions (supplementary feed is provided), migration

or predators. Excess population creates risk of disease transmission, mortality from aggression and abnormal behaviours due to stress, such as pacing along the fence. Moreover, everything is connected and an ecosystem with overpopulation of any one species can lead to the overall loss of biodiversity, as other species are displaced through habitat loss or change, and over utilization of resources. Therefore, it has been necessary to implement a project to move some Arabian Oryx from the DDCR into two adjacent enclosures and then stop the continued breeding by the separation of males and females.

As of January 2026, the reserve's Oryx population has exceeded 750 individuals, significantly surpassing the estimated ecological carrying capacity of 250–300 animals. The reserve management team is actively collaborating with the relevant local authorities to reduce the population to levels that are aligned with the reserve's sustainable ecological carrying capacity.



12. DDCR Visitors

Visitor Management Policy, DDCR Management Plan

As a premium tourism destination, the DDCR will continue to deliver a range of authentic and quality experiences for visitors by enforcing regulations and limiting visitor numbers to levels that do not undermine the Reserve’s inherent values. In line with the DDCR’s stated purpose, high impact visitor activities will be strictly restricted to existing designated areas while low impact nature-based visits and activities will be promoted and encouraged with greater access to the Reserve.

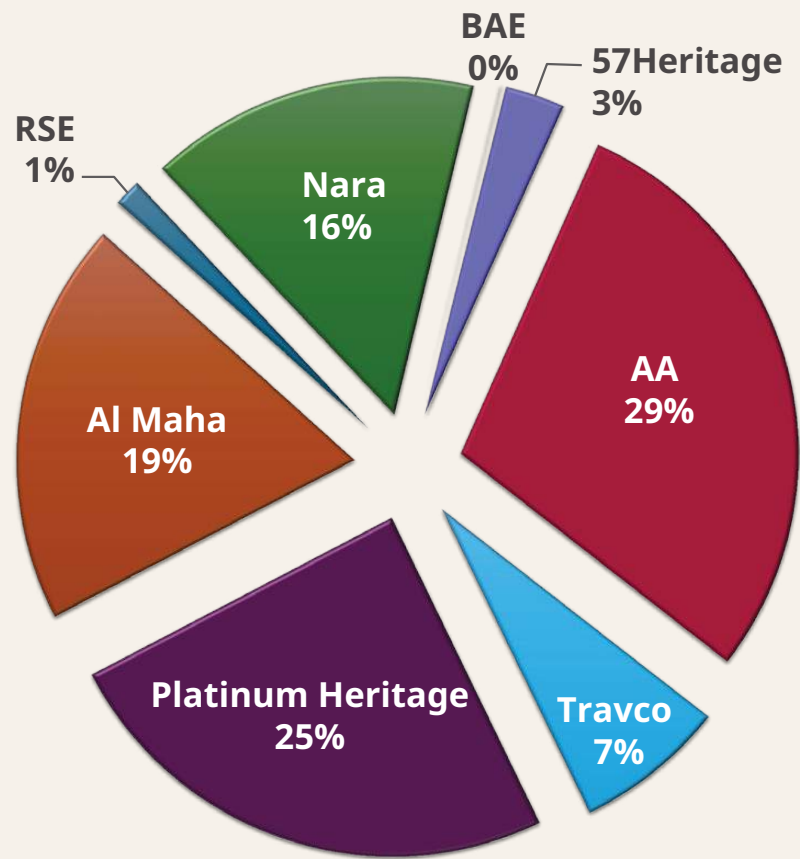
Visitors to the DDCR are all through tour operators that hold a concession agreement with the Reserve or as guests of the Al Maha Desert Resort.

Prior to the onset of regional tensions in February 2026, visitor numbers to the DDCR remained consistent with those recorded during the 2024–2025 period.

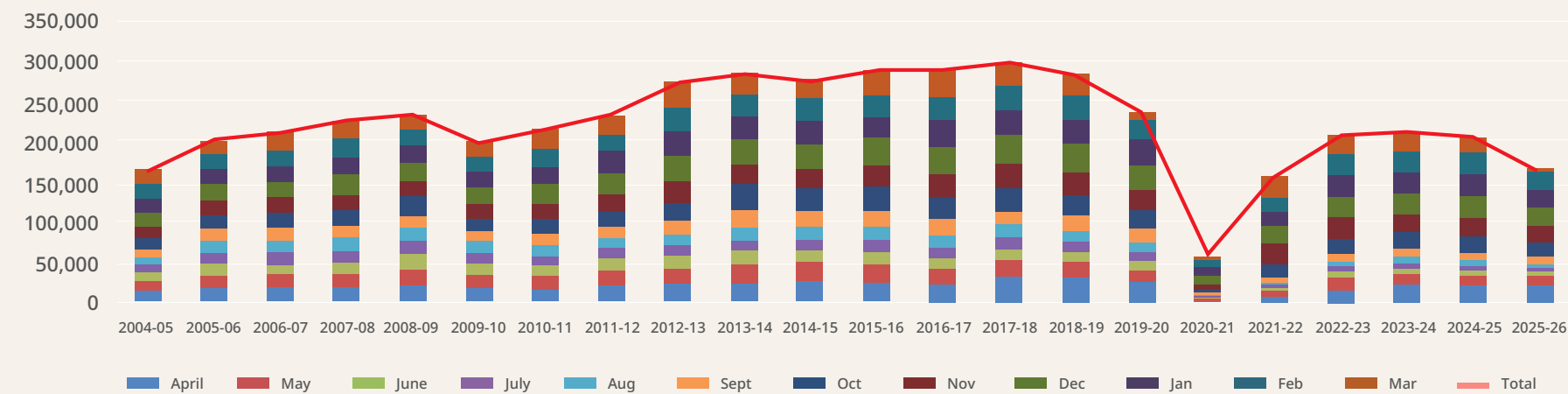
A total of 167,049 visitors came to the DDCR in 2025-2026, with Platinum Heritage, Arabian Adventures, NARA Desert Escapes and Al Maha providing the bulk of visitors.

Tour Operator Summary 2025-2026														
	April	May	June	July	August	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	%
AA	5,914	3,851	2,214	176	176	2754	5013	4066	5,083	4461	5081	3	38,792	23%
Platinum	6,248	2,853	1,294	1216	1,061	1944	4873	6202	6,772	7,039	6671	46	46,219	28%
Al Maha	3,721	2,977	2,533	2167	2,474	2786	3961	4184	4,457	3,463	4269	2,383	39,375	24%
Sand Sherpa	261	87	8	2	19	25	198	363	597	554	626	19	2,759	2%
Nara	5,694	2,159	425	0	0	960	3544	4933	4,802	5,084	5363	0	32,964	20%
BAE	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
57 Heritage	657	397	226	285	249	259	597	762	1,446	1,185	861	16	6,940	4%
	22,495	12,324	6,700	3,846	3,979	8,728	18,186	20,510	23,157	21,786	22,871	2,467	167,049	100%

Tour Operator Summary 2024-25



Dubai Desert Conservation Reserve - Annual Visitors



13. Major Projects

Outreach and Public Awareness Policy, DDCR Management Plan

Concerted efforts will be made, and resources mobilised to raise local, national, and international awareness of the DDCR's natural and heritage significance, its conservation purpose, and social values. The aim is to build wide public understanding and support for the Reserve's conservation by designing and implementing awareness, outreach programmes and marketing campaigns. The target audiences will be local and international visitors, tour operators, local communities, and senior decision-makers. The Visitor Centre will be a place for people to enhance their environmental awareness and connect with the unique desert habitat of the DDCR. Visitor centres are facilities that prepare visitors physically, mentally, and emotionally to experience special places. Better visitor experience leads to better word of mouth which leads to the success of the DDCR's visitor activities.

The Visitor Centre will continue its aim to achieve the following.

- Enhance the visitor experience by adding new activities they can experience before or after touring the reserve.
- Connect DDCR visitors with an authentic desert experience.
- Be used as a platform to develop an educational programme for schools and higher education.
- Better understand DDCR visitors' motivations and needs and identify opportunities to provide a better experience.
- Raise visitors' awareness of desert values and to elicit support for its conservation.

Solar Panel Installation at DDCR Visitor Centre Parking

As part of DDCR's ongoing commitment to sustainability and environmental stewardship, the installation of solar panels over the Visitor Centre parking area has been successfully completed. This initiative now provides clean, renewable energy to support facility operations while also offering shaded parking for guests. By integrating solar power into the reserve's infrastructure, DDCR has further reduced its carbon footprint and strengthened its broader conservation and sustainability objectives, contributing to a greener future for both visitors and the reserve.



Extension of DDCR Visitor Parking

To better accommodate the growing number of visitors to the Dubai Desert Conservation Reserve, the expansion of the Margham parking area has been successfully completed. The project has increased parking capacity and enhanced the overall visitor experience by providing safer and more convenient access to the reserve, while ensuring the surrounding desert environment remains protected.

As part of the development, the area has also incorporated nature-based solutions through the planting of more than 250 Ghaf trees. Over time, these native trees will provide natural shade for vehicles while also creating valuable nesting opportunities for indigenous bird species, further supporting the reserve’s long-term conservation and sustainability objectives.

Reintroduction of the Arabian Wonder Gecko

Recent research by Tamar et al. (2021) highlights that the UAE population of *T. keyserlingii* is small, isolated, and increasingly threatened by habitat loss and human activity, with many local populations already disappearing over time. The study also found that the remaining animals are genetically very similar, meaning conservation efforts such as reintroduction can be carried out safely and effectively. In this context, the planned reintroduction into the protected Dubai Desert Conservation Reserve (DDCR), through a collaborative effort between Dubai Safari Park and DDCR, represents an important step toward securing the species’ future in the UAE and marks a major win for reptile conservation in the region.





14 DDCR Affiliations



IUCN Green List of Protected Areas

The IUCN Green List of Protected and Conserved Areas is the first global standard of best practice for area-based conservation. It is a programme of certification for protected and conserved areas that are effectively managed and governed. The DDCR is a Candidate Site for the IUCN Green List.



15. A word from the Conservation Manager

As I reflect on the 2025–2026 year, it is clear that this has been another landmark period for the Dubai Desert Conservation Reserve. Building on the momentum and achievements of previous years, the reserve has continued to strengthen its position as a leading model for desert conservation, environmental education, and sustainable ecosystem management within the UAE.

Over the past year, our dedicated team of conservation officers, rangers, and support staff have demonstrated exceptional commitment and professionalism in protecting one of the region's last remaining inland desert ecosystems. The continued growth and collaboration within our diverse team has enhanced our operational efficiency, strengthened decision-making, and encouraged innovative approaches to the conservation challenges we face. As Conservation Manager, I remain incredibly proud to work alongside such passionate and talented individuals whose dedication continues to drive the reserve forward.

One of the highlights of the year has been the continued success and expansion of our Visitor Centre and environmental education programmes. Since its opening, the centre has become an important platform for inspiring the wider community and increasing awareness of the

remarkable biodiversity that thrives within Dubai's desert environment. Throughout 2025–2026, we welcomed schools, educational groups, and visitors from across the region, providing engaging experiences that foster a deeper understanding of conservation and sustainability. Our continued collaboration with valued tourism partners, such as Arabian Adventures, Eedama and Sand Sherpa, has further strengthened our ability to deliver high-quality educational and eco-tourism experiences that promote environmental stewardship among future generations.

At the same time, regional tensions during the year resulted in a significant reduction in tourism activity across the reserve. While this presented operational challenges, it also created a unique opportunity to observe wildlife behaviour in areas that would normally experience regular safari vehicle activity. Encouragingly, we observed animals increasingly exploring and utilising these previously disturbed habitats, highlighting the resilience of the ecosystem and the positive ecological impact that reduced tourism pressure can provide. In this regard, the temporary slowdown in visitor numbers has offered valuable insight into habitat use and wildlife recovery within the reserve.



This year also saw important progress across several infrastructure and sustainability initiatives designed to support the reserve’s long-term conservation objectives. The expansion of the DDCR Visitor Centre parking facilities was successfully completed to accommodate future visitor demand, while the installation of solar panel systems over parking bays marked another significant step toward integrating renewable energy solutions within reserve operations.

We are also particularly excited about the future introduction of the Arabian Wonder Gecko to the reserve. This initiative represents an important milestone for biodiversity conservation and habitat restoration within the DDCR, and we are optimistic about the ecological value this unique native species will bring to the desert ecosystem.

In addition, the 2025 vegetation survey produced some truly astonishing results, revealing clear ecological succession within several plant

communities across the reserve. These findings demonstrate encouraging signs of habitat recovery and ecosystem development, reinforcing the importance of long-term ecological monitoring and adaptive conservation management practices.

Managing herbivore populations continues to remain one of the reserve’s most important ecological priorities. We will continue exploring environmentally responsible and ecologically sensitive methods to reduce the Arabian oryx population toward the reserve’s ecological carrying capacity, while remaining hopeful that plans for the future introduction of a native apex predator can eventually provide a more natural and sustainable mechanism for population regulation and ecosystem balance.

As we move forward into the implementation phase of the 2025–2030 Management Plan, this year has also provided an important opportunity to review the outcomes and achievements of our

previous strategic framework. The lessons learned and successes achieved under the 2019–2024 Management Plan have helped shape a new generation of strategic goals that align closely with the United Nations Sustainable Development Goals and the long-term vision for conservation in Dubai.

Finally, I would like to extend my sincere gratitude to all our stakeholders, tourism partners, researchers, volunteers, and The Emirates Group for their continued support and collaboration throughout the year. The accomplishments of 2025–2026 would not have been possible without these strong partnerships and the shared commitment to preserving one of the UAE’s most important natural landscapes for future generations.

With best regards,

Gerhard Erasmus
Conservation Manager





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