

Volume 1, Issue 1



October - November 2024

# WILDLIFE

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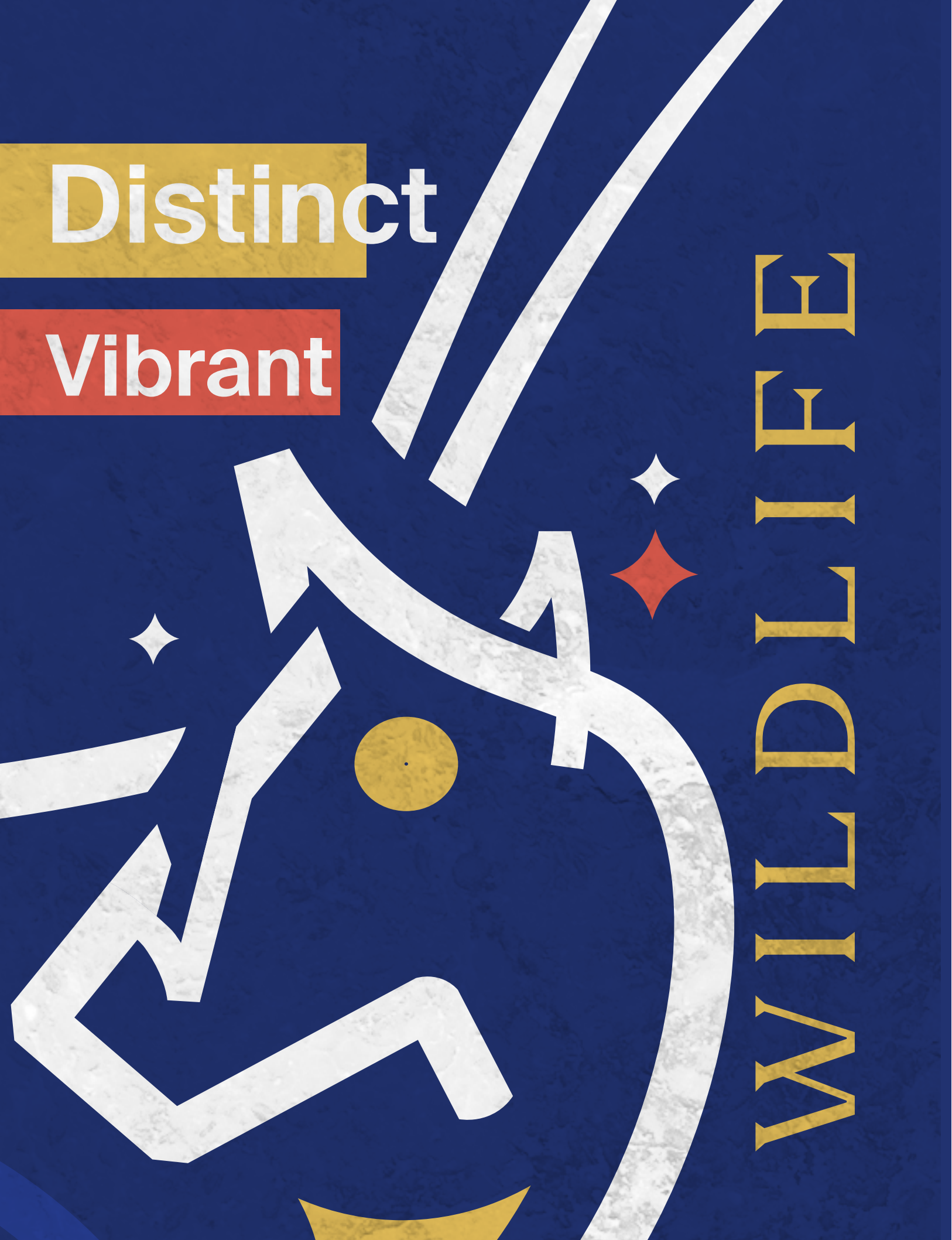
The Arabian Wolf's Fight  
for Survival



**Distinct**

**Vibrant**

**WILLDLIFE**





# WILDLIFE

## الحياة الفطرية

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**Supervisor General**

Dr. Mohammed Qurban

**Editor-in-Chief**

Ahmad Al-Boug

**Editorial Team**

Habib Mahmoud

Issam AlHajj

Mohammad Alyami

Khaled AlShammari

(May God rest his soul)

**Production**

Rawnaa for Specialized Media

Riyadh - King Abdulaziz District -  
Makkah Road, P.O. Box: 4508,  
Postal Code: 12411  
Email: [care@ncw.gov.sa](mailto:care@ncw.gov.sa)




المركز الوطني  
لتنمية الحياة الفطرية  
National Center for Wildlife  
المملكة العربية السعودية



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06





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Nature is Recovering

# Sustainable Partnership

Our Location



Fitri Platform



Reports







◆ **Dr. Mohammed Qurban**

Chief Executive Officer  
National Center for Wildlife

## The Six Pillars of Sustainability

### Our Moral and National Duty

Saudi Arabia is at an important moment in its environmental journey, where the need to protect our natural legacy has never been more pressing. As the stewards of a nation rich in biodiversity, the National Center for Wildlife (NCW) is dedicated to safeguarding the Kingdom's diverse habitats, conserving wildlife species, and managing protected areas to ensure that future generations inherit a thriving natural environment. This highlights our responsibility to protect Saudi Arabia's unique biodiversity.

Over the past few decades, NCW has made remarkable progress in wildlife conservation, driven by a deep commitment to preserving the natural beauty and ecological balance of our land. This initiative revealed evidence of the positive impact of our work, from the recovery of endangered species to the restoration of critical habitats. Our work is not just about addressing current challenges; it's about planning for the future, ensuring that our ecosystems remain resilient in the face of increasing environmental pressures.

Central to our efforts are the protected areas spread across the Kingdom. These areas serve as safe havens for species, offering the space and conditions necessary for wildlife to thrive. By protecting and managing these vital habitats, we create opportunities for species to rebuild their populations, maintaining the biodiversity that is essential to the health of our natural environment. These areas also play a crucial role in maintaining the natural balance, supporting plant and animal life that would otherwise be at risk.

Our approach goes beyond just protection. We are actively restoring habitats that have been impacted by human activities, including areas that have suffered from urban development, pollution, or overgrazing. Through reforestation projects, sustainable water management, and controlled reintroductions of native species, we are reversing the damage done to these environments, ensuring that they can support life once again. One of our key success stories is the reintroduction of the Arabian Oryx, which was once on the brink of extinction but is now thriving in protected areas across the Kingdom.

International cooperation is also at the heart of our strategy. NCW works closely with global conservation organizations, scientific institutions, and governments to share knowledge, develop best practices, and strengthen our conservation initiatives. Through these partnerships, we are able to expand our network of protected areas, ensuring that endangered species have the space and resources they need to survive and reproduce. Collaboration also helps us address wider environmental challenges, such as climate change, that affect ecosystems on a global scale.

Public involvement is a cornerstone of our conservation efforts. We believe that educating and engaging local communities is key to ensuring the success of our initiatives. When people are aware of the value of their natural surroundings and understand how their actions impact the environment, they become more invested in protecting it. Through outreach programs, educational campaigns, and local partnerships, we encourage community participation in the management of protected areas. This collective approach fosters a deeper connection between people and nature, inspiring a new generation of environmental stewards.

Our vision for the future is clear: a Saudi Arabia where wildlife thrives, habitats are restored, and the natural balance is maintained for the benefit of all. As we move forward with our strategic plan, NCW's dedication to protecting Saudi Arabia's natural legacy remains unwavering. We are confident that, with continued effort and collaboration, we can build a future where the natural world is preserved for generations to come.

The road ahead is long, and the challenges are many, but with the commitment of our team, our partners, and the people of Saudi Arabia, we believe we can achieve our goals. Together, we will ensure that Saudi Arabia's unique wildlife and natural heritage are not only protected but also celebrated as a vital part of our national identity.

# 30 x 30

## Saudi Arabia's Global Commitment Highlighted at the Hima Forum

In April 2024, a significant environmental event took place in Riyadh—the inaugural Protected Areas HIMA Forum. This landmark gathering attracted prestigious guests from around the world, all dedicated to the conservation of natural habitats and wildlife. Under the patronage of His Excellency Eng. Abdulrahman AlFadley, Minister of Environment, Water & Agriculture and Chairman of the National Center for Wildlife (NCW), the forum demonstrated Saudi Arabia's growing commitment to global environmental conservation and sustainability.





Conservation has long been ingrained in Arab culture and has remained a priority for Saudi leadership. In 1986, the National Commission for Wildlife Conservation and Development was formed, with one of its first initiatives being the creation of protected areas across the Kingdom. These efforts culminated in the formation of the National Wildlife Development Authority in 2019, which was later renamed the National Center for Wildlife. The NCW has revitalized the Kingdom's conservation strategies, directing resources to address threats facing both terrestrial and marine wildlife. Their approach emphasizes preserving biodiversity and habitats while promoting community involvement and achieving sustainable environmental outcomes.

In 2021, the NCW launched the 30x30 goal as part of the Saudi Green Initiative, pledging to protect 30% of Saudi Arabia's land and sea by 2030. This ambitious goal underscores the Kingdom's dedication to global biodiversity and environmental sustainability. At the 2022 UN biodiversity conference (COP15), countries around the world reached a target to restore 30% of degraded ecosystems—terrestrial and marine—by 2030, further aligning with Saudi Arabia's conservation aims.

The HIMA Forum emerged as a critical event, providing a platform for international and local experts to exchange ideas and collaborate on global, regional, and national conservation efforts. The forum helped to create a joint platform for sharing knowledge and setting a clear direction for future conservation strategies.

Dr. Mohammad Qurban, CEO of the National Center for Wildlife, described the organization of the forum as a clear reflection of Saudi Arabia's leadership in global environmental initiatives. "This initiative is part of a strategic plan to

## A Global forum in Riyadh to introduce international experts to Saudi achievements.

enhance the national system for protected areas, setting a clear direction for the Kingdom's efforts to safeguard vital natural sites for biodiversity," he noted.

Dr. Qurban further emphasized the importance of engaging international experts in improving the planning and management of protected areas, leading to more effective conservation efforts with wide-reaching environmental, social, and economic impacts.

The forum, which spanned four days, featured a variety of main sessions, workshops, and side meetings, as well as field visits to the Ibex Reserve and the King Khalid Royal Reserve. Participants had the opportunity to see firsthand the Kingdom's conservation efforts and explore the unique wildlife and significant landmarks these reserves hold.

HIMA, derived from the Arabic word for sanctuary, became the premier environmental event of the year. Its importance extended beyond its focus on conservation; it served as a collaborative platform where both international and local experts could share insights and aspirations. A significant part of the forum highlighted the role of community participation in conservation. Engaging local communities strengthens conservation efforts and fosters a deeper connection between people and the environment.



Prominent international and national organizations attended the forum, including:

- United Nations Environment Programme World Conservation Monitoring Centre (UNEP)
- International Union for Conservation of Nature (IUCN)

The forum also facilitated the signing of cooperation agreements and memoranda of understanding, further solidifying the Kingdom's conservation partnerships.

### Cooperation Agreements and Memoranda of Understanding

During the forum, several key agreements were signed to enhance collaboration on wildlife conservation:

- **NCW and IUCN West Asia (ROWA):** Dr. Muhammad Ali Qurban, CEO of NCW, and Dr. Hany El Shaer, Regional Director at IUCN ROWA, signed an agreement to strengthen cooperation in wildlife conservation and biodiversity protection.
- **NCW and Oxford University:** A memorandum of understanding was signed by Dr. Qurban and Prof. Tim Coulson, Head of the Department of Biology at Oxford University, to establish a framework for cooperation on wildlife research, academic meetings, and biodiversity enrichment in Saudi nature reserves.
- **NCW and Friends of Wildlife Society:** Dr. Qurban and Saleh Al-Hamidi, CEO of the Friends of Wildlife Society, formalized a partnership to focus on collaborative wildlife conservation, sustainable development, and raising community awareness.
- **NCW and Rahma Society:** Dr. Qurban and Abdul Aziz Al-Aqil, CEO of Rahma Society

for Animal Welfare, signed an agreement to strengthen collaboration on environmental, wildlife, and biodiversity matters. This partnership aims to combine resources and expertise to advance conservation efforts in Saudi Arabia.

### Key Recommendations from the HIMA Forum

The forum concluded with a series of recommendations designed to guide future conservation efforts:

- Encourage community participation in conservation management and natural resource distribution to ensure sustainable protection at national and regional levels.
- Diversify funding sources for protected areas to reduce reliance on government support.
- Assess the environmental services offered by protected areas and strengthen national legislation to align with international standards.
- Promote awareness of marine initiatives that support the protection of marine ecosystems.
- Accelerate the establishment of protected marine and terrestrial areas to meet the 30x30 goal, in collaboration with key stakeholders.
- Invest in ecotourism activities while ensuring urban planning aligns with environmental sustainability and natural landscapes.
- Prioritize risk reduction in conservation strategies and implement environmental solutions through continuous monitoring and robust management.
- Foster voluntary community engagement to drive wildlife preservation efforts.
- Showcase the Kingdom's achievements in wildlife conservation as a leading regional model.



Forum participants left with a deeper understanding of global conservation practices and new partnerships that will support the collective goal of achieving the 30x30 target. The HIMA Forum successfully established stronger ties between international and local conservationists, paving the way for ongoing collaboration in environmental protection.



**The community is a partner in protecting and caring for the natural reserves**





## A Timeless Legacy of Nature Preservation

### as Told by Mohammed Al-Qahs

In times of scarcity and hunger, local communities practiced what we now recognize as sustainability. Despite the abundance of wildlife, they followed self-imposed regulations and methods for environmental stewardship. These communities successfully implemented sustainable practices long before the advent of writing or media. They respected the environment, revered nature, and set clear rules and norms for managing their resources, defining specific locations and times for hunting and other activities. Unlike today, where hunting is often seen as a leisure activity, it was once a necessity for survival, not a luxury.



Al-Qahs explains the practice of voluntary abstention from hunting during breeding seasons. According to a story passed down from his father, this practice began with a moment of deep regret experienced by a hunter from a southern Saudi tribe. One day, the hunter set out with his rifle and, spotting a female ibex, fired a shot. But as he approached his catch, he was horrified to see the ibex's young nursing from their now lifeless mother.

This moment of regret changed the hunter's life. He abandoned hunting and made it his mission to raise awareness of the consequences of such actions. He approached the tribal chief and shared his experience. Moved by the story, the chief established a custom, known as 'Al-Hajer,' a complete halt to hunting during the breeding season in protected areas.

This act of compassion grew into a broader tradition of protection within the community. As Al-Qahs explains, 'Al-Hajer' is similar to what we now call a "ban," placing restrictions on hunting and grazing during specific times of the year to allow wildlife to thrive.



### The Tradition of Voluntary Abstention

Reflecting on these traditions, storyteller Mohammad Al-Qahs recounts how tribes in the Kingdom followed unwritten social laws to protect nature from human exploitation.



### **The First Protected Areas: Hima**

Al-Qahs further explains that tribes historically set up their own versions of protected areas, referred to as 'Hima,' a term akin to what we now call protected areas. One such area in the south of the Kingdom is known as 'Al-Manqa'a' or 'Al-Asha.' When it rained, the community would declare 'Al-Hajer,' prohibiting herders from entering the area for a month or two to allow the grass to grow and flourish.

The declaration of 'Al-Hajer' was a serious event, announced in markets with the firing of two shots from a rifle. This signaled the beginning of the restriction. Once the period ended, a phrase was declared: "We have permitted," signaling the allowance to return. Each tribe had its own specific rules and timing for 'Al-Hajer,' and these customs were deeply respected.

### **Consequences for Violating Al-Hajer**

Those who violated the 'Al-Hajer' restrictions faced social and financial penalties. According to Al-Qahs, violators were boycotted by the community. They were not allowed to enter markets, and no one would trade with them, turning them into social outcasts until they complied.

Fines were also imposed. For instance, someone who unknowingly entered a protected area was fined two sheep if they had sheep or a calf if they had camels. Those who knowingly violated 'Al-Hajer' faced harsher penalties, such as the confiscation of property. In some cases, up to a tenth of their livestock was taken as punishment for their disregard of the rules.

These penalties ensured the community's respect for the regulations, all of which were rooted in what we now refer to as sustainability. The community believed in the inherent value of wildlife, often saying, "Where are you going? Don't destroy it." This phrase urged people not to eradicate animals that enhanced the natural beauty of life, from rabbits to various birds.

### **A Call to Preserve Wildlife**

Al-Qahs carries with him the memory of these traditions, emphasizing the need for continued respect for the environment. "The earth is adorned with trees and wildlife," he says. "We must preserve them. We are no longer in need of hunting for survival, so hunting should not be treated as a luxury pastime as it is today."

He questions, "Why not let birds and animals like ibexes and deer live freely?" Reflecting on the past, Al-Qahs recalls how predatory animals, such as the Arabian leopard and the hyena, were once common but have now disappeared. "It's been 30 to 40 years since we've seen a leopard. Ibexes, which once filled the mountains, now only live on the highest peaks. Even gazelles, once abundant in the Empty Quarter, are no longer seen in herds."

Al-Qahs advises modern hunters to respect wildlife and the treasures it holds. "These resources must not be squandered," he urges. He goes further, highlighting how careless actions, like driving over grass before it has a chance to grow after rain, harm the environment. He calls for the reapplication of the principle of 'Al-Hajer' to protect the environment for future generations.



# THE RED SEA DECADE EXPEDITION

## The Red Sea under the Microscope

The unexplored marine areas of the Red Sea conceal countless secrets. From the smallest micro-organisms to mighty whales, this vibrant world teems with life and diversity, harbouring mysteries seldom dreamt of many of these hidden realms remained shrouded until the Red Sea Decade Expedition (RSDE), ventured into the depths, revealing a series of astonishing discoveries and introducing us to many new facts. The Red Sea is a huge body of water, separating Asia and Africa. It is the deepest, richest, and most diverse sea in the Middle East, extending from the Indian Ocean's edge in the south to the Mediterranean Sea in the north.

During this expedition, scientists, and explorers shared their fascinating discoveries over 126 days, bringing to light the unknown wonders of the Red Sea. This excitement was captured in a scientific meeting attended by young Saudis, scientists, and researchers this past February.







## Geological treasures revealed at a very special symposium.

The National Center for Wildlife (NCW), showcased this exceptional scientific achievement through the Red Sea Decade Expedition outcomes symposium. RSDE amassed an enormous amount of data, poised to revolutionize marine research. Such data is invaluable, supporting efforts to protect the marine environment by enhancing our understanding of biodiversity and its threats. Furthermore, this knowledge promotes eco-tourism, offering new insights into sites of natural beauty and paving the way for sustainable development projects through informed decision-making.



His Excellency Eng. Abdulrahman AlFadley, Minister of Environment, Water & Agriculture and Chairman of the Board of the National Center for Wildlife affirmed that, "The Red Sea Decade Expedition is exemplifies the Kingdom's dedication to safeguarding the marine environment. It reflects our commitment to applying the best global practices to preserve biodiversity and ecosystems, aiming for sustainable management, in alignment with Saudi's Vision 2030."

## Scientific Achievement

The symposium, under the patronage of his Excellency Eng. Abdulrahman AlFadley, brought together local and international marine science experts, government officials, and presented discussions on the expedition's exploration of the Red Sea's environments, biodiversity, and environmental characteristics. Aboard the international research vessel 'Ocean Explorer' and accompanied by the national vessel 'Al-Azizi', 126 researchers collaborated with institutions such as King Abdullah University of Science and Technology, King Abdulaziz University, and King Fahd University of Petroleum and Minerals, alongside projects like NEOM, AMAALA, and the Red Sea Projects.

## Marine Habitat Conservation

- The symposium featured lectures and discussions on preserving marine habitats, ensuring their sustainability. Highlights included:
- Biodiversity and distribution of mesophotic and deep coral reefs in the Red Sea
- Exploration of the Farasan's Blue Holes and Subsurface Sinkholes
- Assessing the abundance of anthropogenic seafloor litter in the Eastern Red Sea
- Volcanoes & chimneys in the deep Red Sea
- Uncovering the diversity of crustose coralline algae in the mesophotic Red Sea



“Studies and research deepen our understanding of the marine environment, uniting efforts to safeguard and promote its preservation. The National Center for Wildlife is committed to developing plans for data preservation and dissemination, supporting both research and business growth.”

– Dr. Mohammad Qurban, CEO, National Center for Wildlife





### **Future Goals**

The Red Sea Decade Expedition began in February 2022 with the aim of studying the entire Saudi Red Sea economic zone. Investigating both shallow and deep-water habitats and examining biodiversity using the latest genomic methods, the expedition generated a database of applied research and information material.

### **Key objectives included:**

- Studying deep-water coral diversity and distribution
- Exploring biodiversity from microorganisms to marine mammals
- Investigating mid and deep-water marine life
- Examining marine habitats and mammal diversity
- Mapping the seabed in coastal and deep waters.

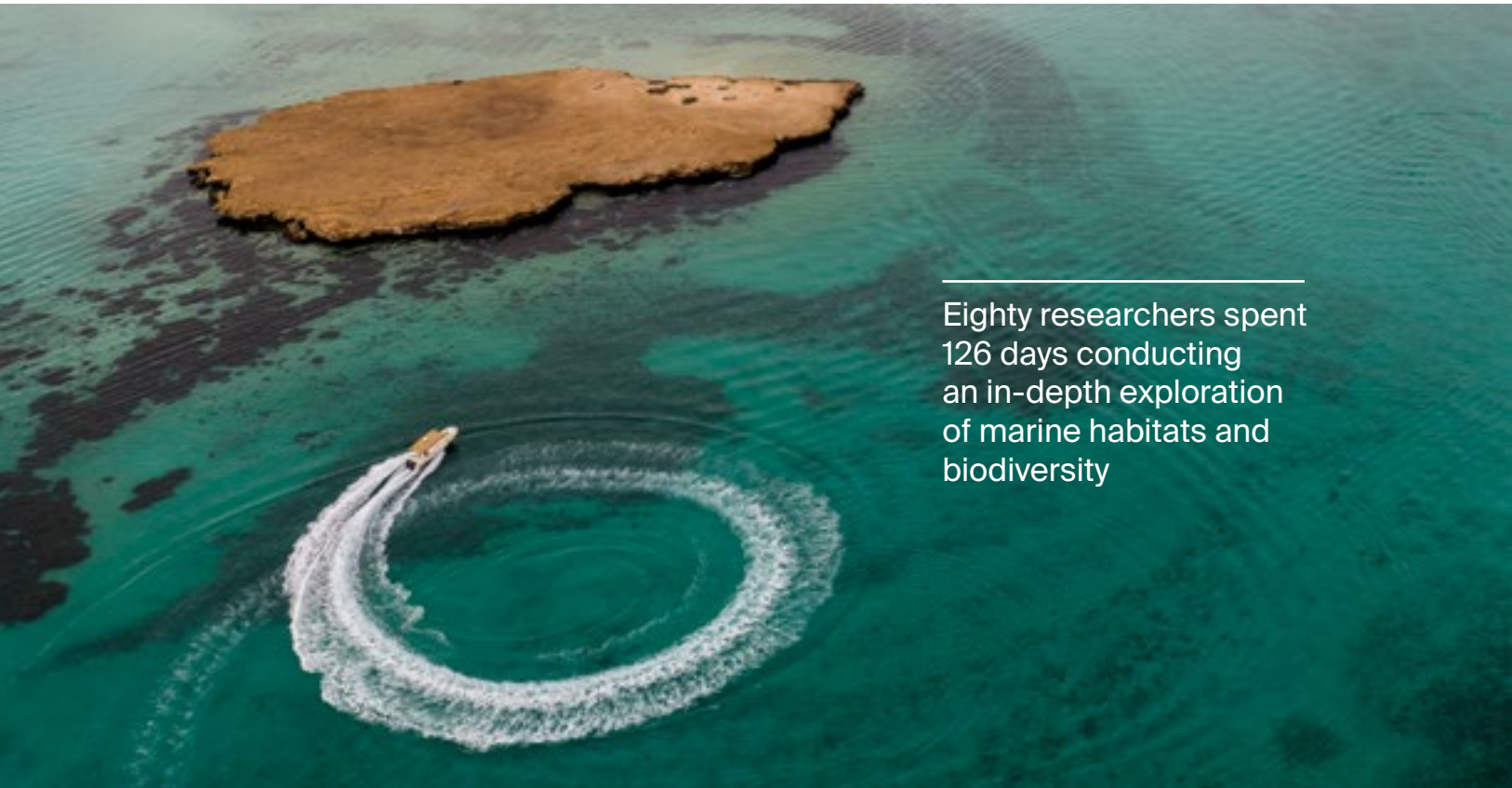


The Red Sea Decade Expedition, an initiative of the National Center for Wildlife, embarked from the Islamic Port of Jeddah, surveying unexplored regions from the Afifi area in the southern Red Sea to Aqaba Bay in the north. Accompanying this research were efforts to produce documentary and media materials, developing a clear vision of the Red Sea's environments, studying marine species, and creating biological maps of coral reefs, seagrasses, marine turtles, and other wildlife.



“The Red Sea Decade Expedition collected over 3,000 samples, uncovering previously unknown species and highlighting the Red Sea’s rich biodiversity. Beyond discovery, we’re developing strategies to protect endangered ecosystems, identify areas of high biodiversity, and understand ecosystem interactions. This research provides a strong foundation for a sustainable future for Red Sea marine life.”

– Omar Abu Nayyan, Project Manager, Red Sea Decade Expedition (RSDE)



Eighty researchers spent 126 days conducting an in-depth exploration of marine habitats and biodiversity





“The expedition team conducted extensive studies and research to formulate strategies aimed at safeguarding endangered marine systems and species within the surveyed regions. Marine exploration is crucial for establishing a comprehensive biodiversity baseline, identifying critical hotspots and unique features warranting protection, and evaluating the interconnectedness of ecosystems.”

– Prof. Carlos Duarte, King Abdullah University of Science and Technology



### Numbers from the Expedition

During the expedition, an impressive array of over 800 samples was gathered. This collection included 2,048 biological specimens for DNA analysis, 235 core sediment samples from the deep sea, and 150 live coral reef samples. Additionally, a comprehensive mapping of 62,758 square kilometres of the deep sea was completed, alongside 155 diving operations to evaluate marine habitats. These dives were supported by 44 manned submarine missions and 133 remotely operated submarine expeditions.

The research was conducted with the participation of more than 80 scientists and marine environment researchers. They were supported by two vessels—one national and one international. An aerial survey covered 373 square kilometres via 47 sorties, contributing further to the thorough exploration and study of the region's marine biodiversity and habitats.





## Coral reefs

During the expedition, researchers surveyed coral reefs across the Kingdom, uncovering numerous enchanting spots ideal for diving. They discovered picturesque coral reefs in deeper waters, which were extensively studied. Megan Nolan, a doctoral candidate in marine sciences at King Abdullah University of Science and Technology, highlighted, "We collected environmental data and measured the distribution of coral reefs, reaching depths of 310 meters into the Red Sea. This was one of the most significant studies we have undertaken."







### **Large creatures**

The researchers of the Red Sea Decade Expedition observed several large marine creatures, including sharks, rays, and whales. Notably, the expedition documented the first Bryde's whale registered in the Red Sea, suggesting that this species has started to settle and reproduce in the region. Sofia Frappi, a doctoral candidate in marine sciences at King Abdullah University of Science and Technology, confirmed, "During the exploratory trip to the Red Sea, we observed 600 fish species, constituting 90% of the shark species in the Red Sea, including rare sharks."

### **Major Discoveries**

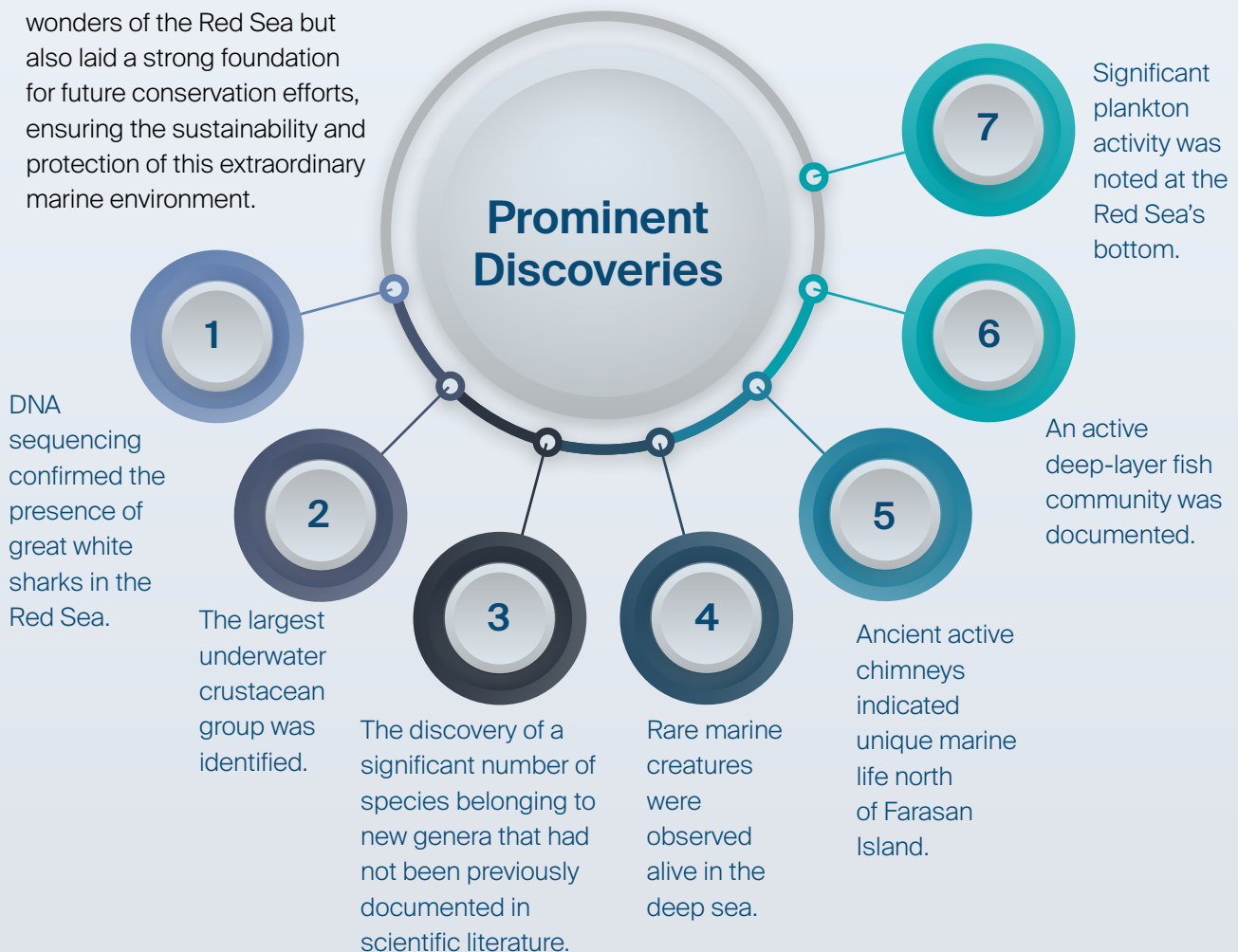
The expedition yielded numerous significant findings, including the identification of blue holes in the southern Kingdom, four new coral species, and a substantial biomass of lantern fish at depths of up to 1,000 metres. A volcanic mountain over 200 metres high was discovered at 400 metres depth. These revelations have profoundly enriched our understanding of the Red Sea's depths.



## Strategic Objectives

The expedition aligns with the National Center for Wildlife's mission to preserve and enhance biodiversity and ecosystems within the Kingdom. By highlighting the unique features of the Red Sea, the expedition has increased awareness of the region's environmental wealth and biological diversity, showcasing the beauty and ecological significance of the marine ecosystems.

This remarkable expedition has not only unveiled the hidden wonders of the Red Sea but also laid a strong foundation for future conservation efforts, ensuring the sustainability and protection of this extraordinary marine environment.





# Nature's Hidden Marvels in the Red Sea



Natural Habitats

## Blue Holes

Blue holes are an enchanting natural wonder, attracting curious tourists and captivating scientists alike. From above, they appear as halos of deep blue water, sharply contrasting with the surrounding turquoise sea.

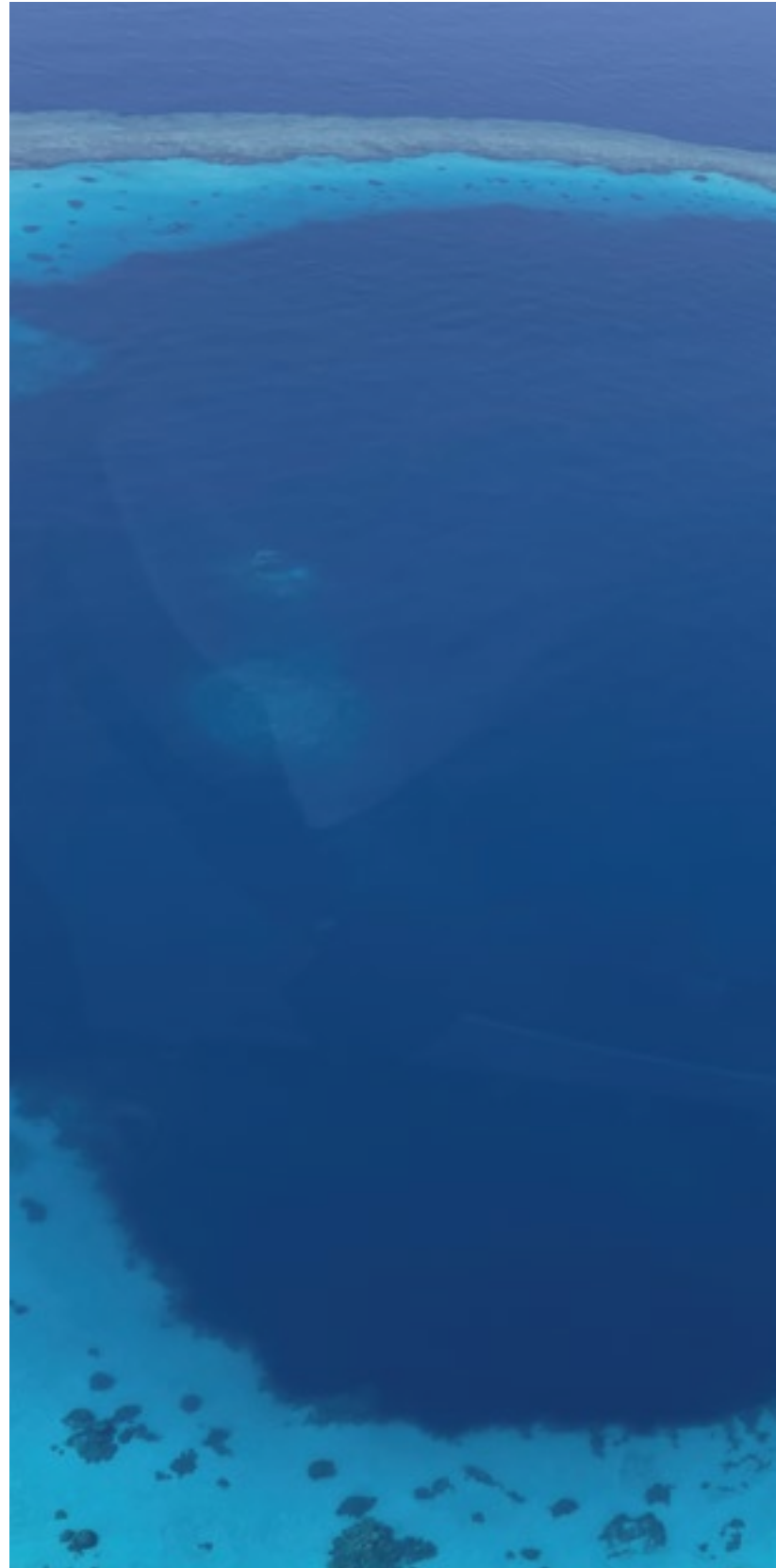
Contrary to the idea that these formations are remnants of ancient celestial impacts, blue holes are actually vast caves, flooded when sea levels rose at the end of the last Ice Age. These azure abysses, found in the heart of the Red Sea, offer refuge to marine life, sheltering them from the harsher elements of the open ocean.

## Geological Treasures

Blue holes are geological marvels that have fascinated explorers since their discovery in 1971 by underwater pioneer Jacques Cousteau. Over the years, they have gained fame as natural wonders, beloved by scuba divers and marine researchers.

In the recent Red Sea Decade Expedition, which explored previously uncharted areas of the Red Sea, a remarkable discovery was made—ten blue holes within Saudi Arabian waters. Preliminary studies of two of these formations revealed depths ranging from 47 to 51.5 meters. The National Center for Wildlife (NCW) has now launched comprehensive studies to investigate their geomorphology and biodiversity. This research aims to uncover the mysteries hidden within these underwater formations and shed light on the unique ecosystems they host.

Globally, the deepest blue hole, Taam Ja' Blue Hole in Chetumal Bay near Mexico and Belize, was measured at over 420 meters in December 2023, setting a new record.







### **Marvels of the Marine World**

With their striking circular shapes and considerable size, blue holes are true wonders of the marine world. These submerged oases host a vibrant array of marine life, including fish, coral reefs, sponges, and turtles. Their deep, dark blue color is caused by sunlight refracting through their narrow openings and reflecting off the depths below.

In Saudi Arabia, blue holes account for nine percent of the marine areas designated for protection, covering 20,000 square kilometers. The Kingdom has an ambitious goal to increase the percentage of marine protected areas from 5.5% to 14.5%, as part of the 30% Marine Protected Areas Roadmap. This effort highlights the importance of conservation and the role blue holes play in protecting marine biodiversity.

These ecosystems are under threat from human activities, such as unregulated fishing, making their preservation crucial. Blue holes not only serve as prime tourist destinations but also offer significant research opportunities into marine biodiversity. Globally, blue holes draw thousands of visitors each year, with famous sites in Belize, the Bahamas, Palau, and Egypt. Tourism related to these sites supports local economies and creates numerous jobs.

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## A Safe Haven for Marine Life

The Red Sea's blue holes provide an exceptional refuge for dolphins, offering them sanctuary from predators in a way rarely seen elsewhere in the world.

Recognizing the uniqueness of these ecosystems, NCW is spearheading a comprehensive initiative to map and study the blue holes in the Red Sea. Collaborating with international researchers, NCW is conducting detailed 3D mapping and documenting the rich biodiversity within these ecosystems.

Plans are underway to designate these blue holes as key marine protected areas within the framework of Vision 2030. This designation will emphasize their critical importance as stable habitats for coral reefs, sanctuaries for marine mammals, and invaluable sites for scientific research.





### **Preserving the Future of Blue Holes**

To ensure effective conservation, it is essential to assess the threats facing these ecosystems. By identifying risks and adopting global best practices for management, we can better protect these underwater sanctuaries for future generations.

The seclusion and unique environmental conditions of blue holes make them hotspots for microbial biodiversity, typically located in low-lying coastal regions.

NCW, in collaboration with King Abdullah University of Science and Technology (KAUST), is undertaking extensive studies of the blue holes in the Red Sea. These research initiatives will focus on exploring the environmental characteristics, biodiversity, and potential threats to these vital ecosystems. The goal is to implement effective conservation strategies that safeguard these extraordinary natural resources for years to come.





# A Bright Future as a UNESCO World Heritage Site

By Ahmad Al-Boug  
Editor-in-Chief

After almost 900 days of perseverance, a Saudi team embarked on a long and challenging journey through the vast, arid deserts of the Empty Quarter. On 20 September 2023, the mission was completed with the reintroduction of 930 species, marking a significant moment in Saudi Arabia's environmental history.



This achievement earned Uruq Bani Ma'arid Protected Area its place on the UNESCO World Heritage List, recognizing Saudi Arabia's conservation efforts and commitment to environmental protection.

Uruq Bani Ma'arid has been protected for nearly 30 years. However, it wasn't until 2021 that the National Center for Wildlife (NCW) set the goal of turning it into a global conservation model. This vision was realized through an extensive plan to meet international standards and achieve UNESCO recognition.

To protect the ecosystem, a range of sustainable initiatives were undertaken. Water was recycled at ranger stations, solar power was utilized, drones were deployed to minimize emissions during surveys, and hidden cameras monitored the area's biodiversity. The project was a

collaboration between NCW, academic researchers, local and international experts, and the Ministry of Culture.

Although Uruq Bani Ma'arid covers only 2% of the 600,000 square kilometers of the Empty Quarter, it is vast—spanning 12,765 square kilometers and housing diverse ecosystems. Its varied landscapes include sand dunes and mountains, and it is home to 121 plant species out of the 930 species found in the region. The Arabian oryx, which was reintroduced in 1995, is the most notable species. Thanks to the area's rich biodiversity, the Arabian oryx has thrived, reducing its endangered status.

The successful reintroduction of the Arabian oryx, mountain gazelle, and Arabian sand gazelle showcases the effectiveness of the conservation work. These

species now symbolize Saudi Arabia's dedication to environmental preservation, thanks to the tireless efforts of NCW and its partners.

As this journey continues, the protected area, nestled at the western edge of the Empty Quarter near the Tuwaiq Mountains, offers unique ecosystems that support rare species native to the Arabian Peninsula.

The UNESCO recognition affirms that NCW's conservation practices align with global standards. This acknowledgment boosts Uruq Bani Ma'arid's profile as a premier destination for eco-tourism, showcasing Saudi Arabia's commitment to protecting and promoting its natural heritage on the world stage.

# Saudi Arabia's Uruq Bani Ma'arid Protected Area Earns World Heritage Status

In Uruq Bani Ma'arid, the Arabian oryx roam freely, but the only shots taken here are with cameras, not guns. "We don't want to tire them out," says Mubarak Al Dosari with a warm smile, reflecting the care of someone deeply connected to nature. As his four-wheel drive glides across the golden sands, he scans the horizon for a glimpse of these elusive creatures. "There they are!" he exclaims as white dots appear against the sprawling orange dunes.



104 Species  
of birds



18 Species of  
reptiles



121 Species of  
plants

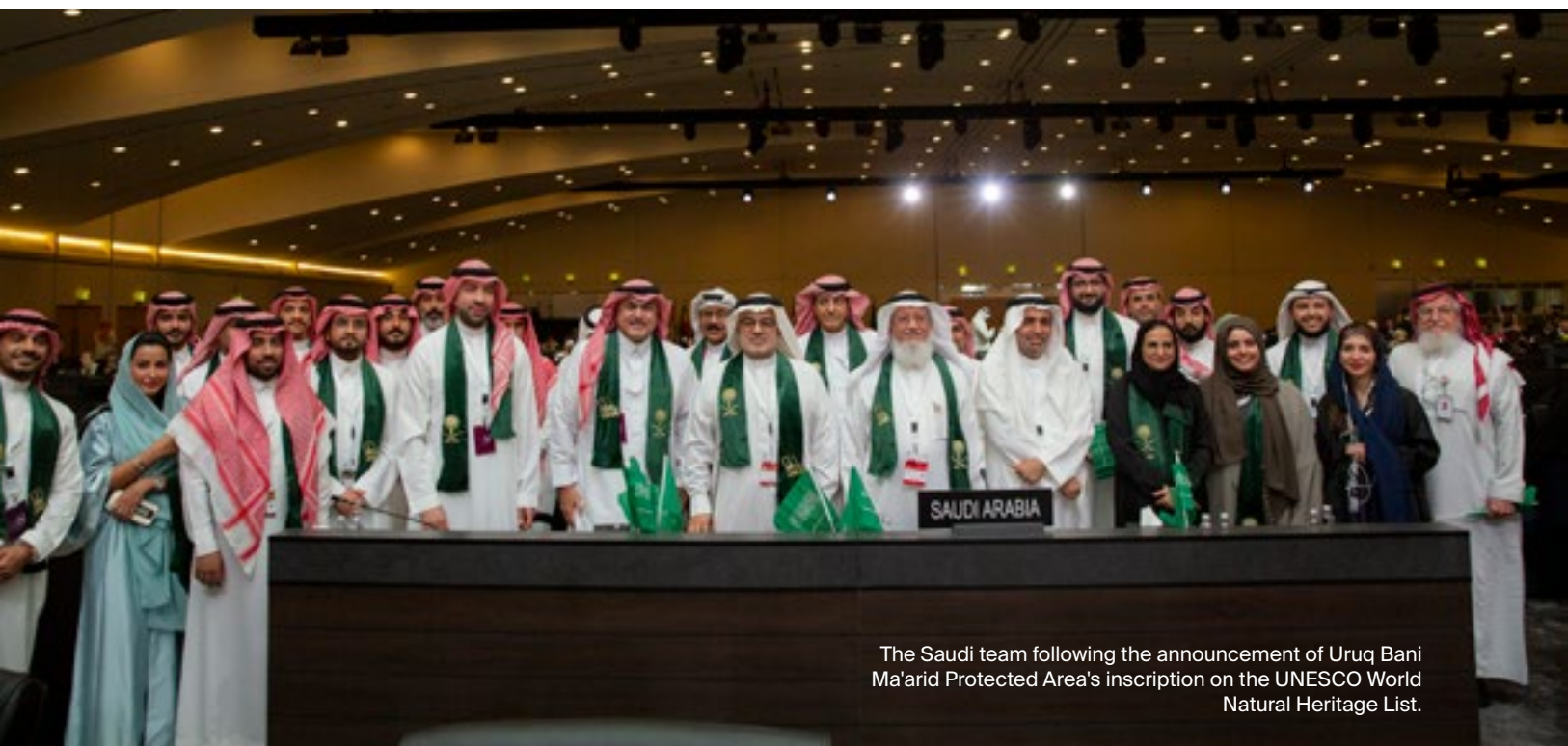


The oryx, sensing us, scatter—leaving nothing but dust and the thrill of pursuit. Capturing the perfect photograph in Uruq Bani Ma'arid isn't easy. Morning and evening excursions often end with little more than gazing at the vast desert landscape. Tracks left by gazelles and oryx crisscross the reserve, an area larger than Lebanon, located on the southwestern edge of the Empty Quarter and the southern tip of the Tuwaiq mountain range.

Guides like Mubarak and his colleague Farhan spend their days navigating this expansive land. On one afternoon, Mubarak halts the vehicle abruptly, his eyes trained on faint animal tracks in the sand. "Jara sayd," he says, using the local dialect for animal tracks. Though hunting has long been banned here, the ancient language persists, a reminder of the days when these

lands were once stalked by hunters. Now, however, we carry only cameras, seeking to capture the wild beauty of the desert's inhabitants without disturbing their peace.

Occasionally, Mubarak or Farhan will call out "Dimna!"—meaning animal dung. In ancient times, these traces were also linked to memories of abandoned homes, immortalized in poetry. In the early Arab civilization, hunting shifted from a survival activity to a symbol of status for the elite, inspiring hunting poetry that celebrated the chase of gazelles and oryx. Armed only with bows, arrows, and horses, early hunters respected the balance of nature, taking only what they needed. But modern hunting, with firearms and four-wheel drives, disrupted that delicate balance, threatening the desert's fragile ecosystems.



The Saudi team following the announcement of Uruq Bani Ma'arid Protected Area's inscription on the UNESCO World Natural Heritage List.



### A Modern Conservation Success

With the advent of modern hunting technologies, overhunting led to the near extinction of key species. By the 1970s, the Arabian oryx had disappeared from Uruq Bani Ma'arid. However, the story of this protected area did not end there. In 1986, Saudi Arabia launched ambitious recovery efforts focused on the Arabian oryx. Through reintroduction programs, the oryx population began to grow, and by 2020, there were 81 individuals in the reserve. In 2023, that number increased to 105, and by 2024, the population reached 116.

This remarkable conservation achievement was recognized on the global stage when Uruq Bani Ma'arid was inscribed on the UNESCO World Heritage List in September 2023, marking a significant milestone in Saudi Arabia's ongoing efforts to protect its natural heritage.

### A Sanctuary for Desert Species

Uruq Bani Ma'arid, located along the western edge of the Empty Quarter, is more than just a habitat for the Arabian oryx. Covering over 12,760 square kilometers, the reserve includes valleys, salt flats, and sandy plains, forming one of Saudi Arabia's most crucial habitats. The towering Tuwaiq Mountains and parallel sand dunes, some as high as 165 meters, contribute to the region's rich ecological diversity.

Despite the harsh, arid climate, the reserve is teeming with life. The western region, in particular, is home to endangered species, sheltered by its valleys, gravel plains, and sandy pathways. Uruq Bani Ma'arid supports 104 species of birds and 18 species of reptiles, making it a biodiversity hotspot in the desert.



Rangers conduct daily patrols to prevent intrusions into the protected area.

Vulture has found sanctuary in Uruq Bani Ma'arid



### **The Valleys of Life**

The reserve's valleys are fertile oases, essential to the area's ecosystem. With 121 species of plants from 35 plant families, these valleys play a crucial role in supporting both herbivores and invertebrates. Many of the plant species are valuable as forage for animals, while others possess medicinal properties. Invertebrates, such as beetles and flies, thrive in this environment, providing food for larger species and ensuring the survival of the desert's fragile ecosystem.

### **Adapting to Harsh Conditions**

The Uruq Bani Ma'arid reserve is a place where only the hardiest species survive. Beetles, for instance, store water for long periods, while predatory and parasitic insects minimize their need for plant nutrition by feeding on other creatures. With 664 species of invertebrates from 127 families, they are the most common residents of the reserve.

Temporary water sources, though scarce, play a vital role in sustaining life. When rain does fall, grasses and plants briefly flourish in valleys such as Wadi Khashabi, Wadi Sudair, and Wadi Mureikha, providing sustenance for both plants and animals.



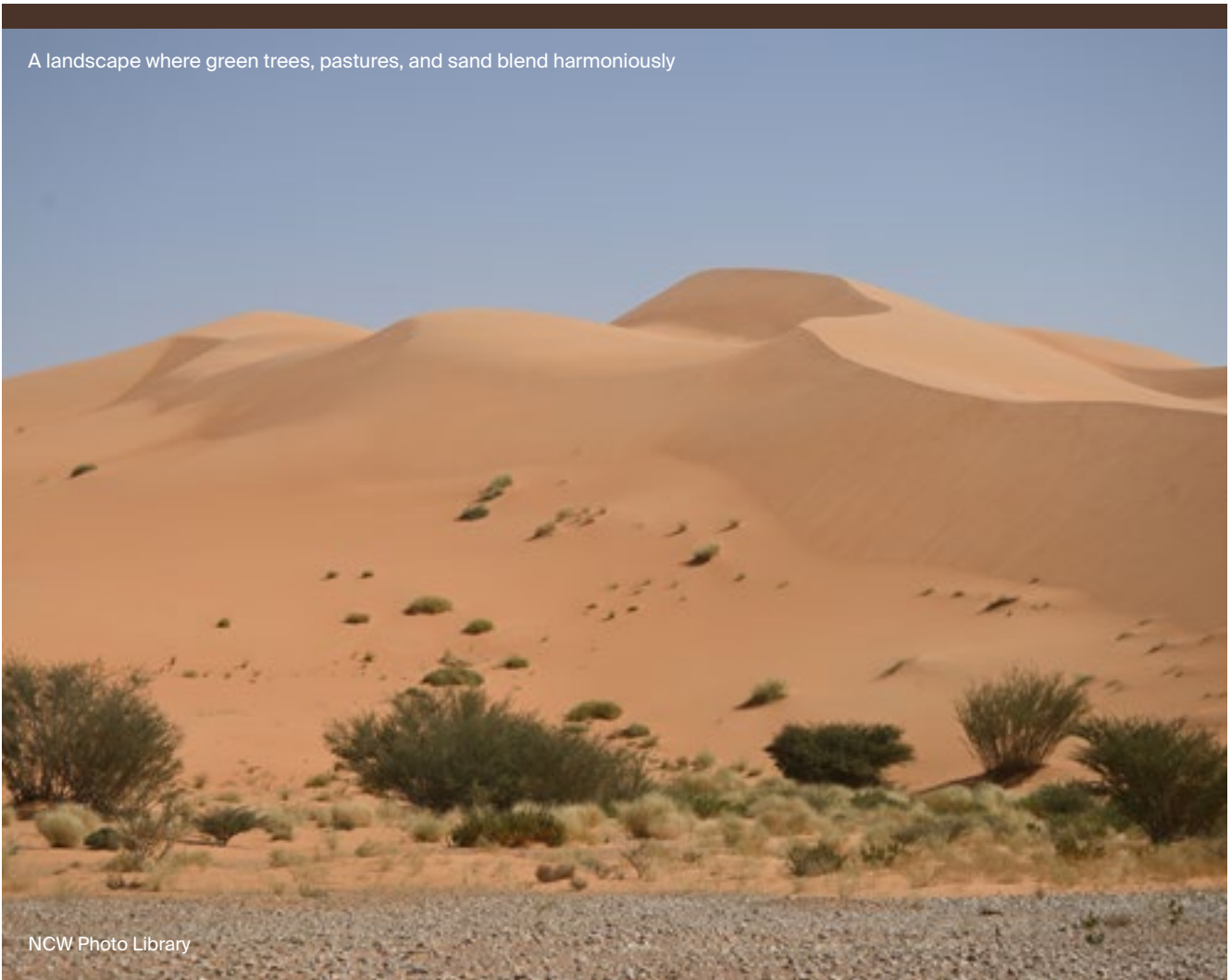
## A Model for Conservation and Eco-Tourism

The reserve's conservation success has transformed Uruq Bani Ma'arid into a potential eco-tourism hotspot. Saudi Arabia's national plan for eco-tourism in protected areas is set to include guided experiences for visitors, allowing them to explore the dunes, valleys, and wildlife of this stunning desert.

Visitors will soon have the chance to observe the Arabian oryx in their natural habitat—no longer a species on the brink of extinction, but

thriving in the wild, thanks to the dedication of conservationists. The reserve is a living example of environmental and biological evolution, as described by Dr. Mohammad Qurban. Since 1995, efforts to protect the oryx and other wildlife have turned Uruq Bani Ma'arid into the richest area for biodiversity in the Empty Quarter and the only place where the Arabian oryx roams freely in self-sustaining herds.

◆  
A landscape where green trees, pastures, and sand blend harmoniously



# National Plan to Solve the Baboon Problem by 2026



In an effort to tackle the growing baboon problem, the National Center for Wildlife (NCW) has devised a sustainable solution expected to be fully implemented by 2026. Speaking in front of a large screen connected to the Remote Sensing Unit, Engineer Khalaf Al-Shamri, NCW's Head of Information Systems, outlined the spread of baboons across the Kingdom's western and southern regions.

Using data processed by artificial intelligence, Al-Shamri revealed that, by September 2023, 36,000 baboons had been monitored across 561 hotspots. Thanks to 34 field teams, over 36,000 reports of baboon-related issues have been addressed, focusing on reducing the damage caused by these animals in populated areas.





**Al-Sudais: Baboons  
Drive Broader  
Environmental Issues  
with Serious Impacts**

The growing baboon problem has far-reaching environmental, economic, and health consequences, warns Al-Sudais. Urban expansion and easy access to high-calorie human food have caused significant changes in baboon behaviour, upsetting the social systems they've maintained for thousands of years. The introduction of rich human diets has altered their hormonal balance, lowered the age of maturity and accelerating reproduction, contributing to the "Wandering Females" phenomenon.

The Program addressing this crisis focuses on multiple solutions: restoring ecological balance, gathering detailed data on baboon populations, and curbing harmful human practices. Key aims include raising awareness about predator conservation, studying baboon ecology, and preventing the spread of diseases between humans and baboons.



### The Rise of the 'Wandering Female' Baboons

The breakdown of baboon social structures has led to drastic changes in their behaviour and biology. Once naturally wary of humans, baboons now live closer to human settlements, often approaching them. The shift in their diet, driven by access to high-calorie human food, has altered their hormones, lowering the age of maturity in both sexes and shortening the breeding cycle.

This has given rise to a new phenomenon - 'Wandering Females'. Previously unheard of in the wild, this behaviour sees female baboons leading groups of other females, a stark contrast to their traditional male-dominated society. The collapse of their social order has allowed this new dynamic to emerge, highlighting the deep impact of human influence on these wild creatures.

The issue of "wandering females" isn't unique to baboons; it's become a significant concern affecting both locals and visitors in various regions. These monkeys, having altered their behaviour, now

pose a risk by damaging crops, threatening public safety with sudden attacks, and spoiling the natural and tourist landscapes where they roam. Wildlife experts suggest that human activity plays a key role in this problem. Park goers and travellers often feed the monkeys high-calorie foods, which boosts their reproduction rates and leads them into more populated areas. The problem has thus escalated. Baboon primates, originally from the mountainous and desert regions of the Arabian Peninsula, are known for their intelligence and adaptability to different environments.

In some regions of Saudi Arabia, baboons have become a troubling presence, with their numbers soaring dramatically over the last forty years. This surge has led to a host of environmental, economic, and social issues.

Studies identify four primary factors driving this problem. Firstly, there is an imbalance in the baboons' natural habitats. Drought and climate changes have severely reduced available food sources, and the absence of natural predators, such as leopards, wolves, hyenas, and black

eagles, has allowed the baboon population to grow unchecked.

Secondly, urban expansion has had a detrimental effect. The rapid development of residential areas, agricultural lands, and roads has fragmented the baboons' habitats. Additionally, cutting down trees and overgrazing have degraded the vegetation, pushing the baboons into urban areas and their outskirts.

The third factor is the availability of alternative food sources. Baboons benefit from being fed directly by locals or tourists, and they also scavenge from waste containers in cities, along roads, and in landfills. These sources are higher in calories than their natural diet, making them particularly appealing.





Finally, changes in baboon behaviour and physiology are contributing to the problem. The baboons' social dynamics have shifted towards a more domesticated behaviour due to easy access to human food. This has led to increased aggression and a higher birth rate, as the troop competes for resources. The physiological changes include earlier sexual maturity and shorter birthing intervals, further fuelling the population boom.

The baboon issue has been a concern for over 40 years, driven by a complex mix of ecological imbalances. In response, the NCW has introduced a thorough programme focused on sustainable management. The goal is to control the rising baboon numbers in urban and agricultural areas of the western and southwestern regions of Saudi Arabia.

In the initial phase, the programme has identified over 40,000 baboons across six regions, with more than 500 population centres. The initiative comprises several projects aimed at restoring environmental balance in these areas. While these solutions will take time to show results, ongoing monitoring and sustainable interventions are crucial to achieving long-term success.



### Integrative and Sustainable Approach

The NCW's initiative tackles the baboon issue through a comprehensive and sustainable strategy, involving key stakeholders in the process. By examining the interactions among baboons, humans, and their environments, and drawing on global best practices, the programme aims to restore ecological balance in the affected regions. The programme has five main goals:

- **Restore Ecosystems:** Rebalance ecosystems disrupted by the growing baboon population using proven global methods.
- **Develop a Database:** Create

a detailed database to track baboon numbers, distribution, and factors affecting their population, enabling ongoing monitoring and sustainable solutions.

- **Promote Conservation:** Raise awareness about the need to protect natural predators and discourage harmful practices such as feeding baboons.
- **Economic Improvement:** Offer integrated solutions to manage baboon numbers, enhancing the economic conditions of affected areas.
- **Conduct Research:** Undertake studies on baboon behaviour and health, including monitoring diseases shared between baboons and humans.



### Implementation Timeline

The programme is rolling out in three phases. The first phase, running from December 2021 to July 2023, focused on surveying baboon populations, identifying problem areas, and addressing issues in Makkah and surrounding regions.

The second phase, starting in May 2023 and expected to continue until December 2026, aims to manage and reduce baboon numbers through integrated interventions, executed in three stages.

The final phase, set to begin in December 2026 and extend to 2030, will concentrate on ensuring the sustainability of the solutions implemented.

### Baboon as the driving force

Eng. Omar Al-Sudais, the director tackling the baboon population surge, provided insights into the multifaceted nature of this issue. He explained, “Our view on the baboon problem extends beyond simply dealing with one type of wild animal. It is a complex issue rooted deeply in the entire environmental system, involving interactions between the environment, humans, and the baboons themselves”.

Addressing the issue starts with understanding its origins. The rapid development over the past decades, which overlooked environmental standards, has led to habitat destruction and fragmentation. This has pushed baboons into residential areas and made them reliant on human

food sources. Overflowing waste dumps, brimming with surplus food, have further attracted these primates, altering their behaviour and reproduction patterns.

The problem is compounded by the loss of natural predators—such as leopards, wolves, and vultures. The degradation of vegetation due to excessive tree clearing and overgrazing, alongside human provisioning of food in public areas and gardens, has exacerbated the issue. These challenges now pose significant environmental and economic risks, impacting agricultural production and public health.

### The 3 Pillars on which the Program focuses:

Man	Nature Environment	Baboons
<ul style="list-style-type: none"> <li>- Raising awareness</li> <li>- Setting legislation</li> <li>- Changing behaviors</li> </ul>	<ul style="list-style-type: none"> <li>- Rehabilitation</li> <li>- Natural sanctuaries</li> <li>- Conservation</li> </ul>	<ul style="list-style-type: none"> <li>- Reducing numbers</li> <li>- Sterilization</li> <li>- Relocation</li> </ul>

### Damage Assessment and Sustainable Management of Increasing Baboon Populations Program

General Objective	6 Main Objectives
<p>To address the domesticated populations in residential, agricultural, and public road areas, and to rehabilitate natural environments; in order to preserve the existing populations in wild areas and ensure ecological balance.</p>	<ol style="list-style-type: none"> <li>1. Restoring the ecological balance of ecosystems by applying best global practices.</li> <li>2. Creating a database on the numbers, distribution, and spread of all factors affecting baboons.</li> <li>3. Raising awareness about the importance of preserving native predatory species.</li> <li>4. Stopping misguided practices towards baboons.</li> <li>5. One of the key outcomes of an integrated solution to the problem is the economic improvement of affected areas.</li> <li>6. Conducting environmental and behavioral studies on this species of baboons, and examining zoonotic diseases shared between baboons and humans.</li> </ol>



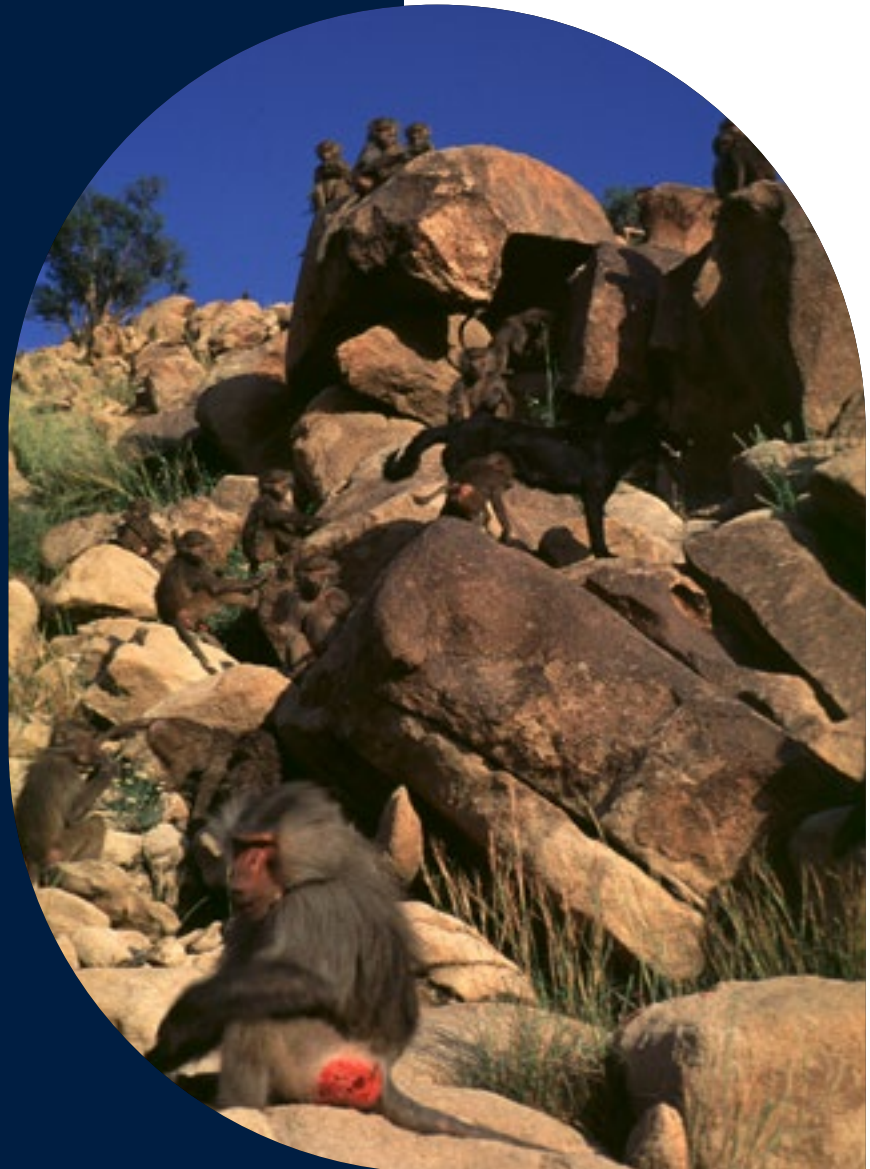
## SAR 500 Fine for Feeding Baboons

Under the implementing regulations of the Environment Law aimed at protecting wildlife and their products, anyone caught feeding baboons or other wild animals will face a fine of 500 Saudi riyals.



Al-Sudais believes the key to a lasting solution lies in establishing environmental reserves. “Our goal aligns with the Vision’s directive to create 30% protected areas on land and sea, meeting international targets. These reserves will offer ideal environments for various species, ensuring their preservation and protection.”

In addition to the comprehensive solutions being developed by the NCW, Al-Sudais envisions creating parks, recreational areas, and safari zones for rehabilitated baboons. These areas could become popular tourist spots, offering visitors a chance to engage with the baboons in a controlled environment. He remarked, “Developing a sustainable solution to this problem is crucial. I see the baboon as the driving force encouraging numerous other projects, each helping different types of wildlife!”



# Saudi Arabia's Pioneering Achievements Shine on World Wildlife Day

As the world celebrates World Wildlife Day (WWD), Saudi Arabia proudly highlights its remarkable achievements in wildlife conservation, both within the Kingdom and across international borders.

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## **Falcons Soar Again: The Hadad Program**

A major milestone celebrated was the Saudi Falcons Club's release of the first group of falcons outside the Kingdom, as part of the Hadad program. In November 2023, the initial release took place in Bishkek, Kyrgyzstan, marking a significant step in Saudi Arabia's commitment to international conservation efforts. This initiative not only underscores the Kingdom's dedication to protecting falcon species but also preserves the cultural heritage of falconry, which is deeply embedded in Saudi history.

The Hadad program aligns with Saudi Arabia's broader mission to enhance biodiversity and ensure the sustainability of natural resources, driven by Vision 2030. Key to its success was the collaboration between

## **Our Responsibility to Protect Wildlife**

### **Raise Awareness:**

Educate others on the importance of wildlife and the challenges it faces.

### **Support Conservation:**

Contribute to organizations working to protect wildlife and preserve biodiversity.

### **Reduce Consumption:**

Minimize the use of natural resources to protect wildlife habitats.

### **Advocate for Legislation:**

Support laws that safeguard wildlife from poaching and illegal trade.

Together, we can safeguard wildlife and create a better future for generations to come.

the National Center for Wildlife (NCW) and the Saudi Falcons Club. Together, they secured all necessary permits and established scientific criteria for both local and international releases. The falcon release followed thorough studies of the site, and satellite technology is now used to track the falcons' movements, with the involvement of researchers and local communities from both Saudi Arabia and Kyrgyzstan.

This initiative not only helps boost falcon populations but also serves as a model for sustainable wildlife conservation on a global scale. The Hadad program received international recognition in 2021 when it was commended at the International Union for Conservation of Nature (IUCN) Conference in Marseille, France.

## **Reviving the Arabian Leopard**

Saudi Arabia's environmental efforts also include the restoration of the endangered Arabian leopard. This critical initiative focuses on breeding and reintroducing the Arabian leopard into its natural habitat, with the



## Key Numbers

**50,000**

Species of wildlife that meet the needs of billions of people worldwide.



**1 in 5**

One in five people globally relies on wildlife for their livelihood and food.



**2.5 Billion**

The number of people depending on wood fuel for cooking.



**1 Million**

Species currently threatened with extinction.



goal of ensuring its long-term survival. The program is a vital component of the Kingdom's broader conservation strategy, reflecting its dedication to protecting native species and restoring ecosystems.

### Champions for Migratory Species

Another highlight is Saudi Arabia's recognition as a "Champion for Migratory Species" by the Convention on the Conservation of Migratory Species of Wild Animals (CMS). The award, presented at the 14th Conference of the Parties in Samarkand, Uzbekistan, recognizes the Kingdom's leadership in addressing illegal hunting, capture, and trade of migratory species in South-West Asia for 2024-2026. This accolade reflects Saudi Arabia's significant contributions to protecting biodiversity, led by the Custodian of the Two Holy Mosques and the Crown Prince.

What distinguishes Saudi Arabia's approach to wildlife conservation is its integrated strategy. The Kingdom has launched a national environmental strategy, established regulations for hunting, and developed protection criteria for endangered species. These measures are supported by specialized environmental security forces and automated systems, promoting environmental awareness through targeted programs. Saudi Arabia's comprehensive approach is setting new standards in environmental stewardship on both regional and global levels.

### World Wildlife Day: A Call for Global Action

World Wildlife Day is an annual celebration of the diversity of plants and animals across the globe. From majestic big cats roaming the savannas to delicate butterflies in rainforests, this day highlights the importance of wildlife in maintaining ecological balance.

This year's theme, "Connecting People and Planet: Exploring Digital Innovation in Wildlife Conservation," emphasizes the role of technology in enhancing wildlife protection and fostering sustainable development. Through innovative digital solutions, individuals and organizations are making strides in safeguarding endangered species and restoring vulnerable ecosystems.

Wildlife plays an essential role in maintaining environmental equilibrium by stabilizing soil, controlling pests, and regulating climate. It also supports food security and provides critical resources, such as medicine, to communities around the world. Economically, wildlife contributes significantly to tourism and recreation, while culturally, it holds deep value in the traditions of countless communities.

However, wildlife faces numerous challenges, including habitat loss, pollution, overexploitation, and the impacts of climate change. Deforestation and urban expansion have destroyed natural habitats, while poaching continues to drive many species toward extinction.



# Saudi Arabia's Pioneering Conservation Efforts

## Restoring the Arabian Leopard

The Arabian leopard, the largest and most powerful feline in the Arabian Peninsula, is one of the rarest animals in the world. Over the past century, its population has dwindled dramatically due to poaching and habitat destruction, placing it in the “Critically Endangered” category. However, Saudi Arabia is working to change that narrative through its impressive breeding and reintroduction programs, offering hope for the survival of this magnificent creature.

Vanishing Species





Beyond its physical presence, the Arabian leopard holds significant cultural importance in the Kingdom. It symbolizes strength and beauty and has been immortalized in folklore, legends, and ancient rock art across Saudi Arabia. The admiration for this animal runs so deep that its name has traditionally been used to describe individuals known for their exceptional strength and valor.

### **The Arabian Leopard: A Unique Predator**

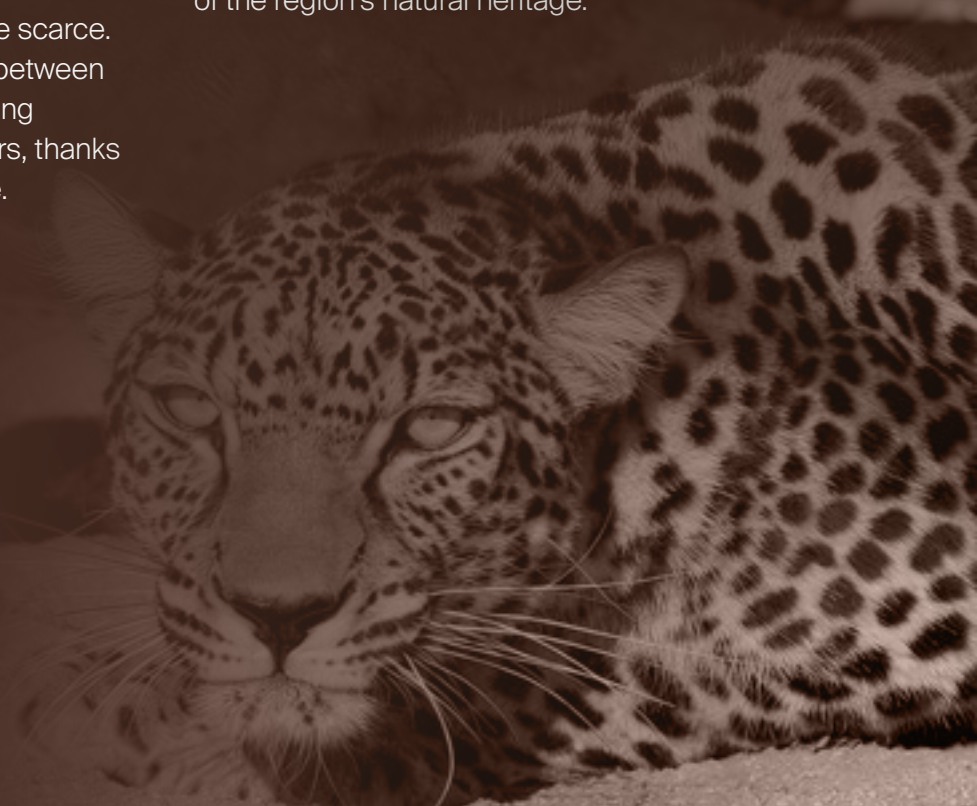
The Arabian leopard is a distinctive subspecies of leopard, uniquely adapted to the harsh, arid landscapes of the Arabian Peninsula. Weighing about 35 kilograms and standing around 90 centimeters at the shoulder, it may be smaller than its African and Asian relatives, but it is no less formidable. Its light-yellow fur, adorned with black rosettes, helps it blend into the rocky desert environment, while its long tail aids in navigating steep terrain.

The leopard's diet consists of wild prey such as ibex, gazelles, and hares, though it may resort to livestock when natural food sources are scarce. In the wild, these animals typically live between 10 and 13 years, but in managed breeding programs, they can reach up to 20 years, thanks to safer conditions and consistent care.

### **Saudi Arabia's Conservation Efforts**

Saudi Arabia has made tremendous strides in preserving the Arabian leopard, launching several initiatives to secure its survival and reintroduce it into its natural habitat. A significant milestone in these efforts came on January 18, 2022, when the Saudi Council of Ministers declared February 10 as Arabian Leopard Day. This national observance gained international attention, and in June 2023, the United Nations General Assembly declared February 10 as International Arabian Leopard Day, recognizing the global significance of this conservation effort.

In February 2019, His Royal Highness Prince Mohammed bin Salman, Crown Prince, Prime Minister of the Kingdom of Saudi Arabia, launched the Global Fund for the Arabian Leopard, aimed at ensuring a viable, sustainably managed population of the Arabian leopard, its prey, and its natural habitats. This initiative aligns with the Kingdom's broader Vision 2030 goal of achieving environmental sustainability, ensuring that the Arabian leopard remains an integral part of the region's natural heritage.



## Collaborative Initiatives for Conservation

The National Center for Wildlife (NCW) and the Royal Commission for AlUla (RCU) are key partners in Saudi Arabia's efforts to conserve the Arabian leopard. This collaboration focuses on breeding programs, environmental research, and scientific innovation, aiming to protect the biodiversity within Saudi Arabia's protected areas.

Joint efforts include field studies in the leopard's natural habitats, biodiversity surveys, and the creation of wildlife corridors to ensure the long-term survival of the leopard and other species. These initiatives underscore Saudi Arabia's dedication to scientific excellence and environmental stewardship, setting new standards for conservation in the region.

## Engaging the Next Generation

From December 2023 to February 2024, the Saudi Ministry of Culture held the Arabian Leopard Story Competition, encouraging Saudi youth to participate in storytelling and artwork centered around the Arabian leopard. This digital competition aimed to raise awareness among children and teenagers about the importance of conserving this majestic species.

## A Rich Legacy in Arab Heritage

The Arabian leopard has long been celebrated in Arab culture, and its symbolic significance is reflected in ancient poetry. Renowned poets like Imru' al-Qais and Al-Khansa described the leopard as a symbol of courage and strength. The animal's influence extended into warfare metaphors, with warriors often compared to leopards, preparing for battle in "leopard skins."

Saudi Arabia's conservation efforts are more than just a push to protect an endangered species; they are part of a broader effort to preserve the cultural and natural heritage that the Arabian leopard represents. Through combined national and international initiatives, the Kingdom is playing a leading role in safeguarding this powerful symbol of the Arabian Peninsula.





# Saudi Arabia's Four New Scorpion Species Documented in Global Gene Bank

Dr. Ahmed Badri, Invertebrate Ecologist,  
National Center for Wildlife

In 2023, the National Center for Wildlife (NCW) made a groundbreaking contribution to the field of arachnology by documenting 12 species of scorpions across Saudi Arabia. Among these, four species were recorded for the first time globally, marking a significant milestone for both Saudi Arabia and global biodiversity.

One of the most notable discoveries was the Hadb Scorpion (*Leiurus hadb*), which was highlighted in the renowned international journal *Zookeys* on September 7, 2023. This new species, named in honor of the Majaama Al-Hadaab Protected Area in southern Riyadh where it was found, is the 35th scorpion species identified in Saudi Arabia. This finding adds to the global inventory of over 2,000 known scorpion species and expands the known diversity of the genus *Leiurus*.

## A New Addition to Global Arachnology

Belonging to the Buthidae family, the Hadb scorpion was discovered by a dedicated NCW research team. Morphological and genetic analyses confirmed that this species is distinct from other members of the *Leiurus* genus found in Saudi Arabia. This new addition brings the total number of scorpion genera to 22 worldwide and marks the fifth species of the *Leiurus* genus documented in Saudi Arabia. The discovery has been officially recorded in international databases like Zoobank and Genbank, further enriching global knowledge of scorpion biodiversity.

Ongoing research is focused on assessing the distribution and conservation status of the newly

discovered species, with the aim of ensuring its protection under International Union for Conservation of Nature (IUCN) standards.

## Conservation Efforts for Endemic Scorpions

Among the 12 species recorded in 2023, all are endemic to Saudi Arabia, making their conservation a priority. Unfortunately, nine of these species lack sufficient data, rendering them vulnerable to ecological threats. This gap in knowledge highlights the urgent need for robust conservation measures to safeguard these unique species and their habitats.

To address this issue, the NCW is developing a comprehensive national database of scorpion fauna. This tool will be invaluable for researchers and conservationists, providing critical information for informed decision-making on species protection and management.

## The Importance of Conservation Strategies

Conservation strategies for scorpions must be informed by a thorough understanding of their geographic distribution and habitat needs. This will enable the implementation of both on-site and off-site conservation techniques, tailored to each species. Regular assessments and public education about the ecological importance of scorpions are also vital. Scorpions play an essential role in maintaining ecological balance, and their loss could have far-reaching consequences for Saudi Arabia's ecosystems.





## Key Species Identified



Tihama Scorpion  
*Androctonus tihamicus*



Jordan Black Scorpion  
*Leiurus jordanensis*



Khaybar Scorpion  
*Compsobuthus khaybari*



Hadb Scorpion  
*Leiurus hadb*



# Napoleon Wrasse

## A Majestic Fish on the Brink of Survival

The Napoleon wrasse *Cheilinus undulatus*, known for the distinctive hump on its forehead, is one of the ocean's most captivating creatures. Its unique appearance, reminiscent of the hat worn by French General Napoleon Bonaparte, has earned it the common name. Also referred to as the Humphead wrasse, this majestic fish inhabits coral reefs, rarely straying far from its underwater sanctuary.

Despite its size and grandeur, the Napoleon wrasse is now endangered, its population dwindling due to unsustainable fishing practices. However, hope remains on the horizon as conservation efforts, including those led by Saudi Arabia, are taking root to protect this remarkable species and ensure its survival.







### **A Global Citizen of the Ocean**

The Napoleon wrasse roams the warm waters of the Pacific and Indian Oceans, as well as the Red Sea, where Saudi Arabia has become a critical stronghold for this species. Found in abundance along the Red Sea coastline, especially in regions like Haql, Duba, and Yanbu, these waters serve as essential sanctuaries for the fish. Recent studies have also revealed significant populations in Qunfudhah and around the Farasan Islands.

For over a decade, the fishing of the Napoleon wrasse has been banned in Saudi Arabian waters. Despite this, illegal fishing practices have persisted, driven by the demand for this fish as a luxury delicacy. Yet, a turning point may finally be in sight. Over the past three years, Saudi Arabia has implemented strict environmental regulations and launched public awareness campaigns aimed at safeguarding the species. The tide seems to be turning in favor of this majestic fish.





### **The Unique Biology of the Napoleon Wrasse**

With its prominent hump, fleshy lips, and curious nature, the Napoleon wrasse is a favorite among divers. Males are adorned in striking shades of blue and green, while females, smaller and lacking the characteristic hump, display vibrant orange hues. These fish possess the rare ability to change sex, with males typically growing larger than their female counterparts.

The Napoleon wrasse can weigh up to 300 kilograms and reach lengths of over two meters. Its long lifespan, up to 50 years, adds to its unique status, but also makes it more vulnerable. With a slow reproductive cycle—it takes up to five years for individuals to reach sexual maturity—this species is especially sensitive to overfishing and environmental pressures.

### **Guardians of the Coral Reefs**

The Napoleon wrasse plays an essential role in maintaining the delicate balance of marine ecosystems. It feeds on a variety of organisms, including oysters, sea urchins, and the destructive crown-of-thorns starfish—a notorious threat to coral reefs. This starfish, which secretes venom and consumes coral, can devastate reef systems. The Napoleon wrasse, with its ability to prey on the crown-of-thorns starfish, acts as a natural guardian of coral reefs, preserving their health and biodiversity.

The decline of this species not only threatens the wrasse itself but also jeopardizes the survival of the coral ecosystems it helps protect. The survival of the Napoleon wrasse is therefore not just about preserving a single species but about safeguarding the entire marine environment.





### **From Predator to Prey**

Despite its formidable size, the Napoleon wrasse faces constant threats throughout its life cycle. Eggs and larvae are preyed upon by various sea creatures, while juvenile fish are vulnerable to predators like the red firefish and groupers. Even as adults, Napoleon wrasses are hunted by larger predators such as sharks and barracudas.

However, the most significant threat comes from humans. Overfishing has disrupted the balance of the marine food chain, threatening not only the wrasse but also the ecosystems it helps sustain.

### **A Decade of Conservation Efforts**

Saudi Arabia has been at the forefront of efforts to protect the Napoleon wrasse. A decade ago, the Kingdom banned fishing of the species, and today, strict regulations are in place, including fines of up to 50,000 SAR and prison sentences for repeat offenders. The National Center for Wildlife (NCW) has taken a leading role in monitoring and studying the species, with the goal of ensuring its recovery.

Future conservation efforts include the creation of marine reserves and the establishment of legal frameworks for sustainable fishing practices. These steps are vital to the long-term survival of the Napoleon wrasse and the health of the marine ecosystems in which it plays such a crucial role.





### **What Does the Future Hold?**

Globally, the outlook for the Napoleon wrasse remains precarious. Populations have declined by up to 75% in some regions, such as East Asia and the Gulf of Mexico. In Saudi Arabia, while population numbers have not been precisely determined, the protection of the species is a national priority. As part of the Kingdom's Vision 2030, there are plans to convert 30% of Saudi Arabia's area into natural reserves, which will provide critical protection for the wrasse and other endangered species.

A new integrated conservation plan, set to launch between late 2023 and early 2024, will involve international collaboration, awareness campaigns, and scientific research. This comprehensive approach aims to preserve not only the Napoleon wrasse but the delicate balance of the marine ecosystems on which so many species depend.









## The Reintroduction of Over 7,000 Animals to Their Native Habitat in Saudi Arabia

# Nature is Recovering

Saudi Arabia is home to a unique combination of natural, climatic, and geographical features that make it a globally significant region for wildlife preservation. The Kingdom encompasses hundreds of endangered plant and animal species and is strategically located at the crossroads of Asia, Europe, and Africa. This position makes it a vital destination and transit point for diverse populations of migratory birds and animals.

To protect its environmental wealth, Saudi Arabia has established numerous terrestrial and marine protected areas and parks. From October to April each year, during optimal conditions, these areas welcome endangered species, offering them a chance to thrive in their natural habitats. Through the Saudi Green Initiative, National Center for Wildlife (NCW) is leading three specialized programs aimed at reducing the number of species facing extinction by conducting captive breeding programs and reintroducing animals into the wild.







### **Captive Breeding and Reintroduction Efforts**

Captive breeding and the reintroduction of endangered species to their natural habitats are at the core of NCW's mission. These initiatives not only enrich biodiversity but also contribute to restoring ecosystems and promoting environmental balance. Aligned with Saudi Arabia's Vision 2030, these efforts create a positive environmental impact, improve the quality of life, and enhance the tourism potential of protected areas, encouraging eco-tourism.

Each year, NCW announces new species releases into various protected areas, closely monitoring the animals using state-of-the-art technology to track their adaptation and reproduction.

## The Return of 7,000 Animals to Their Natural Habitat

NCW's captive breeding and reintroduction program has achieved remarkable success, with over 7,000 animals reintroduced to the wild, including:

- Nubian Ibex *Capra nubiana*
- Asian Houbara *Chlamydotis macqueenii*
- Verreaux's Eagle *Aquila verreauxii*
- Cape Hare *Lepus capensis*
- Mountain Gazelle *Gazella arabica*
- European Turtle-dove *Streptopelia turtur*
- Chestnut-bellied Sandgrouse *Pterocles exustus*

NCW conducts in-depth research to determine the optimal release numbers and timings. Using the latest global technologies, the center tracks wild populations to better understand the risks and challenges these animals face in their natural environments. Further plans include the breeding and reintroduction of additional species such as the Caracal *Caracal caracal*, Arabian Wolf *Canis lupus arabs*, striped hyena *Hyaena hyaena*, and cheetah *Acinonyx jubatus*.

### Animals Belonging to Breeding and Reintroduction Programs



Steppe eagle  
*Aquila nipalensis*



Sandgrouse  
*Pterocles*



Lappet-faced vulture  
*Torgos tracheliotos*



Pharaoh eagle-owl  
*Bubo ascalaphus*



Eurasian griffon vulture  
*Gyps fulvus*



### The Arabian Oryx Returns to NEOM Reserve

In northwest Saudi Arabia, the NEOM nature reserve, spanning 25,000 square kilometers along the Red Sea coast, has collaborated with NCW to restore its natural environment. By 2022, the reserve was prepared to receive its first new residents after nearly a century, including Arabian oryx, alpine ibex, and gazelles. This effort symbolizes the commitment to preserving biodiversity for future generations. This year, the reserve saw the release of 80 Arabian sand gazelles, 12 mountain gazelles, 12 alpine ibex, and 28 Arabian oryx.

### Nationwide Specialist Breeding Centers

NCW operates several breeding and research centers focused on restoring endangered species to their natural habitats. These centers oversee genetic programs, veterinary care, and the rehabilitation of various species before they are released into reserves. In Riyadh, the Wildlife Research Center manages six breeding programs for species such as the Arabian sand gazelle, mountain gazelle, Neumann's gazelle, alpine ibex, Arabian oryx, and Persian ibex.

The Taif Center focuses on local species, including the houbara bustard, Arabian oryx, red-necked ostrich, mountain gazelle, and Arabian leopard. Recently, the Royal Commission for AlUla has taken full responsibility for the Arabian leopard breeding program.

### Upholding Global Standards

NCW collaborates with various departments within the General Administration for Wildlife Conservation to conduct applied field research that monitors the reproduction of species in their natural environments. Equipped with modern research facilities, NCW adheres to international

standards, ensuring that species are adequately prepared for release. Advanced tracking techniques are employed to assess reproductive success and improve program efficiency, preserving endangered species and restoring balance to ecosystems.

### Numbers of Creatures Released During the 2022-2024 Seasons

Saudi Arabia's Vision 2030 and the Saudi Green Initiative aim to protect 30% of the Kingdom's terrestrial and marine areas. This includes reserves managed by NCW, royal reserves, and national parks. By the end of the 2022-2023 release season, notable releases included:

Type	Number
Nubian Ibex <i>Capra nubiana</i>	290
Asian Houbara <i>Chlamydotis macqueenii</i>	104
Verreaux's Eagle <i>Aquila verreauxii</i>	1,018
Cape Hare <i>Lepus capensis</i>	109
Mountain Gazelle <i>Gazella arabica</i>	198
Eurasia Turtle-dove <i>Streptopelia turtur</i>	59
Chestnut-bellied Sandgrouse <i>Pterocles exustus</i>	9

The 2023-2024 season began with 85 species released in the Prince Mohammed bin Salman Royal Reserve, 132 in the NEOM Reserve, and 56 in the King Khalid Wildlife Reserve. At the COP28 UN Climate Change Conference in Dubai in 2023, the International Union for Conservation of Nature (IUCN) honored three NCW-affiliated reserves for their wildlife conservation efforts.

# The Arabian Wolf's Fight for Survival

## Echoes of the Wild

Our ancestors left us a proverb to illustrate the delicate balance between predator and prey: “The wolf shall not die of hunger, and the sheep shall not cease to be.” This saying underscores the necessity of maintaining equilibrium in the natural world, where the wolf must hunt to survive but cannot decimate the sheep population.

Historically, people understood this balance well, often contending with wolves preying on their livestock and relying on dogs to protect their flocks. But today, as we navigate a rapidly changing world, wolves face new, unprecedented challenges.

Wolves that once survived the harsh ice age are now battling the “cement age.” International conservation indicators warn that, without urgent intervention, the haunting howls of wolves may soon vanish from large parts of North America, Europe, and Asia. These majestic creatures are not just predators; they play a crucial role in maintaining ecological balance and must be protected to preserve this harmony.











## Adaptable and Majestic

Wolves, members of the Canidae family, are celebrated for their distinct howls, complex social structures, and exceptional hunting skills. Despite being the same species *Canis lupus*, wolves have evolved into several subspecies, each uniquely adapted to its environment.

These include the Arabian wolf *Canis lupus arabs*, arctic wolf *Canis lupus arctos*, red wolf *Canis lupus rufus*, and Mexican wolf *Canis lupus baileyi*, among others. Each faces significant challenges but demonstrates remarkable adaptability to a wide range of environments. Their intelligence, social behavior, and resilience have fascinated humans for centuries, appearing in folklore and myth. Yet, their relationship with humans has often been marked by conflict.

## In Conflict with Humanity

Wolves have always been in conflict with humans, especially in regions where they prey on livestock. These attacks lead to financial losses and foster fear and tension within farming communities. Finding a way to balance wolf conservation with human livelihoods remains a challenge.

Fortunately, public attitudes towards wolves are changing. More people now recognize their environmental value, and efforts to promote coexistence include non-lethal deterrents like guard dogs and educational programs that explain wolves' behavior and ecological role. The reintroduction of wolves into Yellowstone National Park in the U.S. has been a successful example of how these conservation efforts can restore ecosystems.













### The Arabian Wolf’s Battle for Survival

The Arabian wolf, a subspecies of the gray wolf, is uniquely adapted to the desert landscapes of the Arabian Peninsula. These wolves are smaller than their northern relatives, which helps them survive in a harsh environment with limited food and water resources.

Arabian wolves are found in Saudi Arabia's mountainous regions, particularly in protected areas such as the Ibex Reserve and King Salman bin Abdulaziz Royal Nature Reserve. Unlike the larger packs of gray wolves, Arabian wolves live in smaller groups of two to four individuals, an adaptation to their arid environment where prey is scarce.

Despite their adaptability, Arabian wolves face significant threats. Farmers often target them for attacking livestock, and some wolves are even killed and hung from trees as a deterrent to others. This long-standing practice has severely impacted their population.

### Conservation Efforts in Saudi Arabia

In response to the dwindling numbers of Arabian wolves, the National Center for Wildlife (NCW) has dedicated years to studying the genetics of these wolves and developing conservation strategies. These efforts include breeding programs aimed at restoring their populations in the wild. NCW also raises public awareness through social media campaigns and imposes heavy fines—up to 80,000 Saudi Riyals—on those who hunt wolves without proper licensing.

Saudi Arabia has implemented executive regulations to protect wildlife, making it illegal to display, sell, or transport wolves or their products without authorization. These measures are essential for preserving the Arabian wolf’s role in maintaining ecological balance.

### The Arabian Wolf at a Glance

<b>Species</b>	<i>Canis lupus arabs</i>
<b>Weight</b>	20 kilograms
<b>Length</b>	114 cm
<b>Lifespan</b>	6-8 years (up to 12 in captivity)
<b>Status</b>	Endangered
<b>Color</b>	Brown with black and gray tones
<b>Diet</b>	Deer, rabbits, and livestock

### Wolves in Literature and Culture

Wolves have long captivated the imagination of poets and writers in the Arab world. In literature, they are portrayed as symbols of strength, cunning, and resilience. From moral stories that emphasize the wolf’s ferocity to scientific analyses of their behavior, wolves hold a prominent place in Arab culture. Works such as "Wolves in Arabian Heritage" and "The Wolf in the Desert Environment" explore their roles in history, legends, and ecology.

# A Haven for Migratory Birds

## 499 Wings Over Saudi Arabia



Saudi Arabia, uniquely positioned at the crossroads of Asia, Africa, and Europe, serves as a vital passageway for millions of migratory birds. This vast kingdom, with its diverse landscapes, acts as a natural bridge guiding birds on their extraordinary journeys between the fertile breeding grounds of Europe and Central Asia and the warm winter retreats in Africa.

Flanked by the coastlines of both the Red Sea and the Arabian Gulf, Saudi Arabia is home to striking terrestrial and marine environments. These varied habitats support an impressive array of bird species—499 in total. Among them is the Asir magpie (*Pica asirensis*), a species found nowhere else on Earth but in the rugged Sarawat Mountains of southwest Saudi Arabia.





Of the 499 species, 27 are globally endangered, highlighting the Kingdom's crucial role in the preservation of these species and their fragile habitats. Saudi Arabia's landscapes, ranging from towering mountains to serene wetlands, offer sanctuary to a rich diversity of birdlife. These birds have adapted to thrive in the arid deserts, coastal wetlands, and high mountain ranges of the Arabian Peninsula.

### The Endemic Asir Magpie: Saudi Arabia's Unique Jewel

The Asir magpie, Saudi Arabia's sole endemic bird species, is a stunning reminder of the rich biodiversity of the Arabian Peninsula. Found exclusively in the Asir region, this striking bird has adapted to the rugged conditions of the Sarawat Mountains. Its presence adds a layer of ecological importance to the region and underscores the necessity of protecting these fragile ecosystems.

Beyond the magpie, 13 other endemic and semi-endemic bird species make their home in the Arabian Peninsula, showcasing the region's unique ecological offerings. Saudi Arabia is a sanctuary for birdlife that has evolved to survive in this challenging, yet rewarding, environment.

### Wetlands and the Avian Sanctuary

Despite the Kingdom's arid deserts, the wetlands along its coasts are a haven for bird species that typically inhabit Arctic shores. These areas, particularly the mudflats of the Arabian Gulf and Red Sea, attract migratory birds, providing them with refuge during their epic journeys. Although the deserts create a lower bird density overall, Saudi Arabia's natural landscapes still support an astounding 27 million pairs of birds each year, showcasing nature's resilience in this ancient land.

### Threats to Bird Populations

While Saudi Arabia is a critical stopover for millions of birds, these avian travelers face several threats, including:

**Poaching:** Illegal hunting poses a significant risk to endangered species.

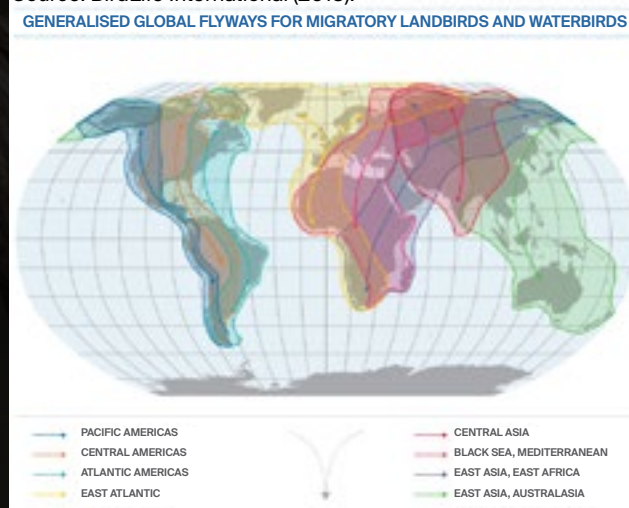
**Illegal Trade:** The unlawful capture and trade of birds threaten biodiversity.

**Power Lines:** Migratory birds frequently collide with power lines, causing injury and death.

**Habitat Loss:** Rapid urban, industrial, and agricultural development is shrinking the natural habitats that these birds rely on for survival.

Efforts to mitigate these threats are essential for preserving the Kingdom's avian diversity and safeguarding the future of these species.

Source: BirdLife International (2018).



*BirdLife International (2018) State of the world's birds*

Saudi Arabia lies at the heart of two major bird migration paths:

- The Black Sea-Mediterranean Route: Used by migratory raptors and songbirds.
- The East Asia-East Africa Route: A critical passage for migratory aquatic birds.

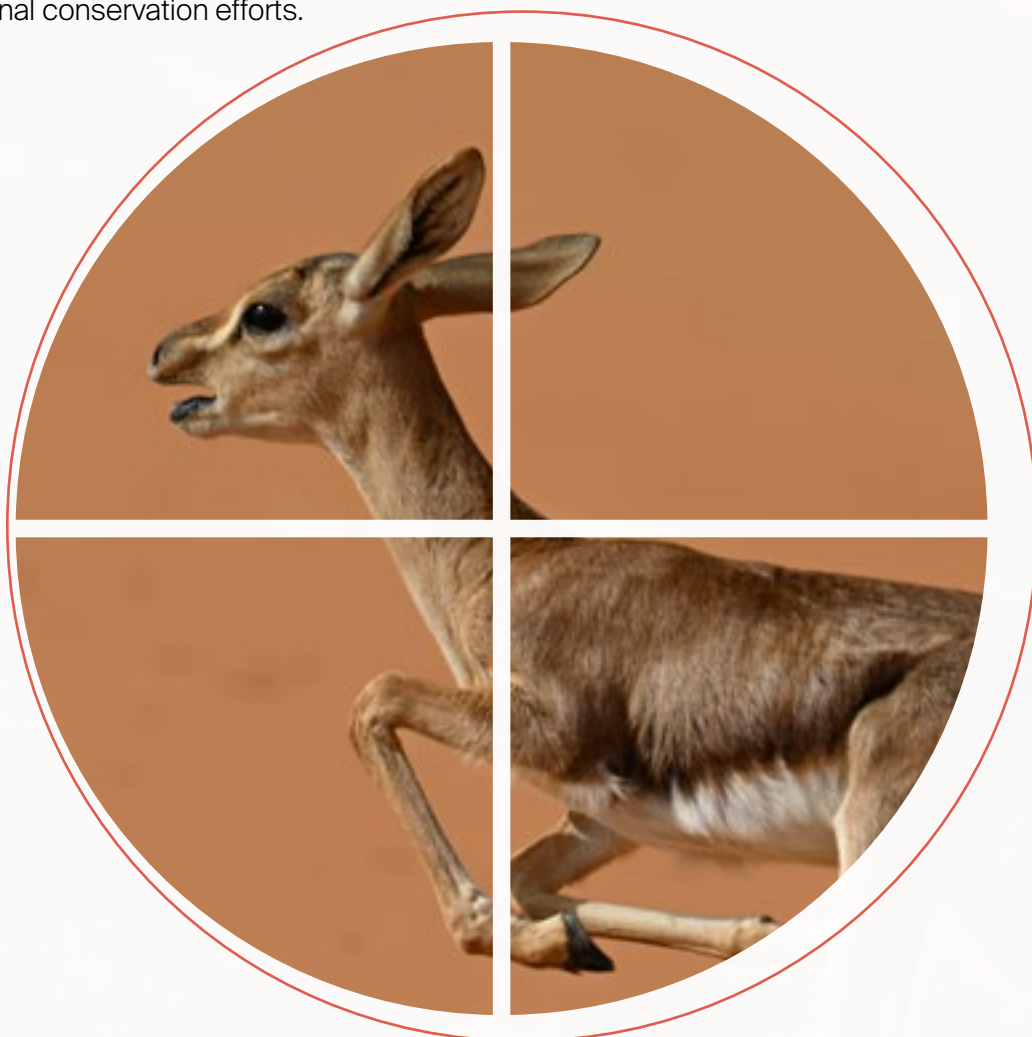
These routes underscore the Kingdom's role in sustaining global bird populations by providing essential rest stops for birds traveling vast distances.

# Balancing Heritage and Conservation

## Responsible Hunting in Saudi Arabia

Hunting laws in Saudi Arabia are deeply rooted in the Kingdom's cultural traditions. These regulations, derived from Islamic teachings, reflect a profound respect for nature and its resources. Civil enforcement mechanisms ensure that hunting is carried out responsibly, with an emphasis on conservation and the protection of endangered species.

Saudi Arabia plays a significant role in global biodiversity conservation, actively participating in the protection of 5,600 species of fauna and 30,000 species of flora. This commitment underscores the Kingdom's dedication to both national and international conservation efforts.







### **Saudi Arabia's Rich Biodiversity**

Despite its harsh climate and challenging geography, Saudi Arabia boasts a remarkable diversity of ecosystems. These range from sprawling deserts and highlands to wetlands and forests. The Kingdom's coastal waters are home to vibrant coral reefs, enhancing its ecological diversity. However, factors like deforestation, overgrazing, and poaching have led to habitat destruction and increased pollution. Many species now face extinction, and urgent conservation efforts are necessary.

### **Hunting: From Survival to Hobby**

Hunting has long been part of human survival, but today it has evolved into a popular hobby, both locally and globally. For many enthusiasts, the hunting season is eagerly anticipated, with vacations planned around the hunt. The time spent in nature, pursuing game, is considered one of the most enjoyable experiences, deeply rooted in tradition and heritage.

### **Proper Hunting Etiquette**

In Saudi Arabia, hunting is governed by a set of rules designed to preserve biodiversity and ensure responsible practices. These regulations not only support wildlife conservation but also benefit the economy and tourism. Central to Islamic teachings is the rule that hunting should be done out of necessity and with respect for the environment. Hunters are required to pronounce the name of Allah during the act, and there are strict prohibitions on hunting during certain religious times, such as while in ihram (pilgrimage) or near religious sanctuaries.

### **Saudi Vision 2030 and Environmental Regulations**

As part of Saudi Arabia's Vision 2030, the National Environment Strategy was launched to strengthen environmental efforts. In July 2020, new Environmental Regulations were introduced under Royal Decree No. (M/165). These regulations, which include comprehensive hunting laws, are key to preserving Saudi Arabia's wildlife and natural heritage. The regulations also established five specialist environmental centers, including National Center for Wildlife (NCW), tasked with overseeing wildlife conservation efforts.



## Hunting Regulations and Prohibited Species

Hunting certain endangered species, such as the Arabian leopard, hyena, and Arabian wolf, is strictly prohibited year-round. Hunting is only allowed for certain species under specific regulations, which detail the approved tools, locations, and times for hunting. All hunting must be conducted with the proper permits, which are issued through the FITRI platform, a dedicated wildlife service under NCW.

## Fines and Penalties

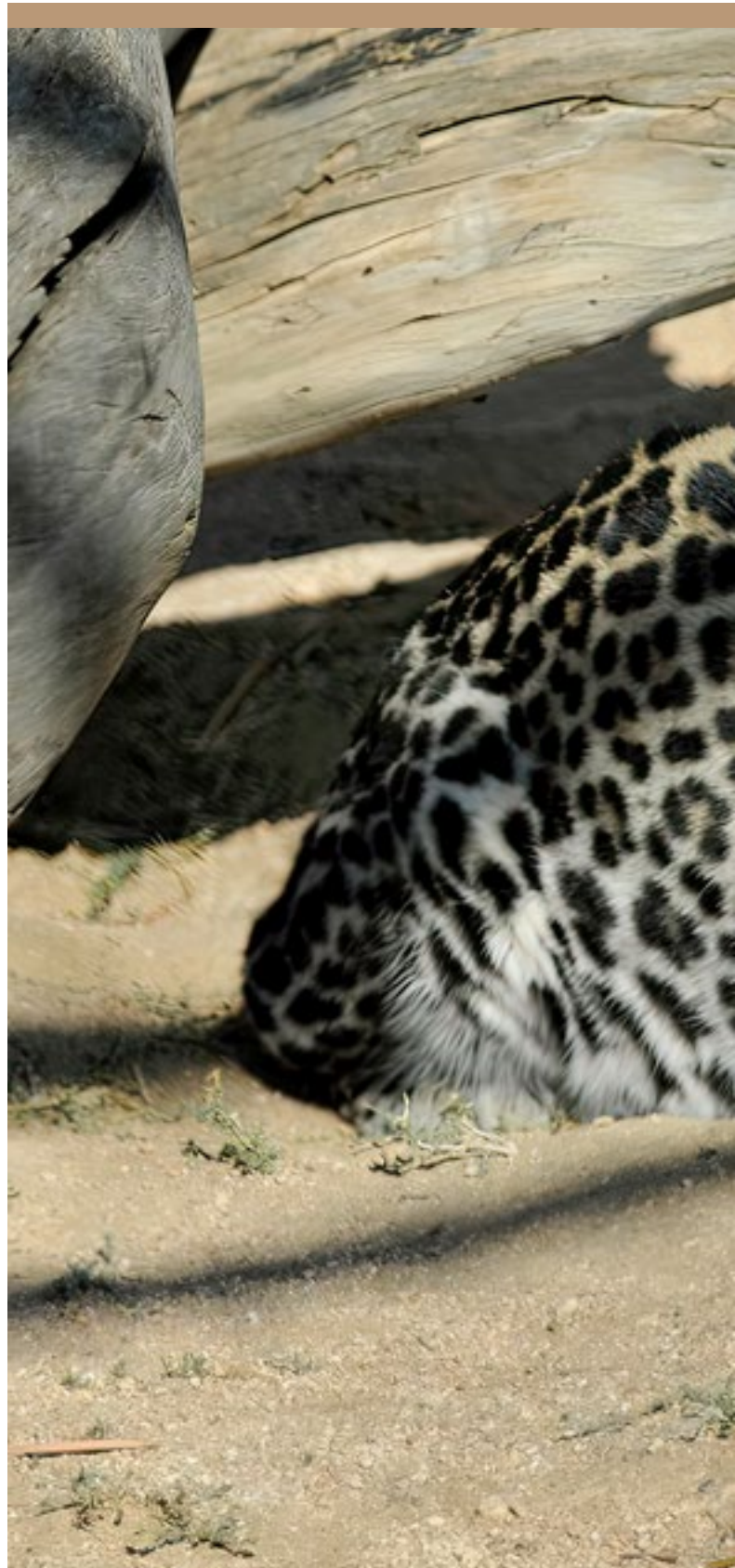
Saudi Arabia enforces strict penalties for hunting violations. Fines for offenses like hunting without a permit, using unauthorized tools, or targeting prohibited species can range from SR 10,000 to SR 100,000. Private hunting grounds are also subject to regulations, and violations can result in fines as high as SR 1,000,000, depending on the severity.

## International Cooperation

The Kingdom is a member of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an agreement regulating or banning the international trade of species at risk of extinction. Saudi Arabia has been a member since 1996, working with 180 other countries to protect and conserve biodiversity globally.

## Conclusion

Saudi Arabia's approach to hunting reflects a delicate balance between cultural heritage and conservation. With robust laws in place and international cooperation through agreements like CITES, the Kingdom is actively working to preserve its rich biodiversity. Under Vision 2030, initiatives such as the National Environment Strategy ensure that future generations will inherit a thriving and sustainable natural environment.







Hunting of the Arabian Leopard is prohibited year-round





Arabic is a rich and complex language, with one English word often having multiple translations. Simply using a direct translation can sometimes fail to capture the full meaning, leading to confusion. This is particularly true for the word 'wildlife.'

In Saudi Arabia, the term "Natural Life" is used to describe organisms that have remained untouched by human influence in their physical, physiological, or behavioral traits. This contrasts with the more common term "Wildlife," which is often a direct translation of the English word used across the Arab world.

The Kingdom's preference for "Natural" over "Wild" stems from a deeper cultural and religious understanding. "Natural" more accurately reflects life forms as they were created by God, thriving in their natural habitats across diverse ecosystems like land, sea, deserts, and mountains. On the other hand, "Wild" is more limited in scope, often referring specifically to land environments and evoking images of wilderness or desolation.

## The Unique Perspective of Saudi Arabia's Term for 'Wildlife'

Historically, ancient Arabs referred to animals living outside human control as "savage," a term used to describe creatures that lived independently of humans, outside domestication. This label conveyed the idea of "estrangement" rather than "wildness." For instance, the oryx was called "wild cattle," and the zebra was referred to as a "savage donkey." Even plants, such as date palms growing without human care, were considered "wild."

Over time, the word "savage" has undergone a semantic shift, a common linguistic process where a word's meaning evolves. Originally signifying isolation or life outside human influence, "savage" gradually became associated with fear, aggression, and predatory behavior. Today, it is more fitting for ferocious animals like lions or lynxes but no longer applies to a gazelle, a vulnerable prey species, or a plant growing peacefully in nature.

This change prompted the search for a term that could encompass all forms of life—predators, prey, plants, and animals—across various ecosystems. "Natural" emerged as the best fit.

It reflects the innate qualities endowed by the Creator in all living things, highlighting the natural instincts and behaviors that define their existence.

For example, a lion is naturally inclined to its role as a predator, engaging in hunting, defending its territory, and raising its young. Similarly, a gazelle follows its natural role as prey and an herbivore, feeding on plants that grow and reproduce according to their natural cycles.

### The Concept of 'Nature'

"Nature" is the foundation of this understanding. It represents a divine system, untouched by human interference, where all living things interact harmoniously with their environment. The term "Natural Life" was adopted to reflect this broader, more holistic view of life in the Kingdom.

This term not only serves as a unique definition for wildlife but also establishes a scientific term that resonates with the public's understanding. It captures the essence of life as it exists in the natural world, rooted in Saudi Arabia's cultural, religious, and environmental context.







## A Complete Guide to Safe, Enjoyable, and Responsible Hunting



Hunting is a cherished recreational activity worldwide, offering people an opportunity to connect with nature, experience the outdoors, and create lasting memories with friends and family. However, before setting out on a hunting expedition, it's important to adhere to safety guidelines and regulations that ensure a successful, enjoyable, and ethical experience.

In Saudi Arabia, the National Center for Wildlife (NCW) has developed the Hunting Guidelines booklet. This comprehensive guide is designed to support hunters in practicing safe, responsible, and conservation-friendly hunting. It provides key information on hunting ethics, principles, and regulations, as well as relevant international agreements and treaties. Additionally, the guide outlines species that can be legally hunted without endangering biodiversity, ensuring that hunters contribute to wildlife preservation.

The guidelines emphasize the importance of responsible hunting, presenting valuable scientific insights and practical recommendations that foster a deep respect for the natural environment. Saudi Arabia's diverse habitats—spanning

forests, mountains, deserts, and coastlines—support a rich array of wildlife. However, human activity has caused ecological challenges, making it crucial to implement protective measures. The guide serves as a timely reminder of the importance of preserving Saudi Arabia's biodiversity.

### NCW's Role in Wildlife Conservation

The booklet highlights the National Center for Wildlife's (NCW) role in conserving Saudi Arabia's wildlife, habitats, and ecosystems. It underscores the significance of balancing traditional hunting practices with modern conservation efforts. While hunting remains an integral part of Arabian culture, it is essential that these practices are aligned with sustainability goals, ensuring that wildlife populations are maintained for future generations.

NCW collaborates with national and international organizations to regulate hunting and preserve biodiversity. Through initiatives like the Fitri platform, NCW helps manage hunting activities, ensuring adherence to legal and ethical standards.

### A Well-Organized Reference

The Hunting Guidelines booklet is structured to make information accessible and user-friendly. The first section covers the ethics and principles of hunting, focusing on the responsibilities of hunters and the necessity of protecting wildlife. It provides historical context and outlines the modern challenges facing hunting practices.

The second section details international agreements and treaties relevant to wildlife protection, while the third section

explains the implementing regulations for hunting in Saudi Arabia. It highlights the types of animals that can be hunted, the designated hunting areas, the approved gear, and the licensing procedures required for lawful hunting. Importantly, it explains how these regulations help protect endangered species and sustain biodiversity.

Further sections focus on the sustainable hunting standards, offering detailed criteria for determining which species can be hunted and the specific seasons for hunting. The guide also includes essential information on bird species permitted for hunting, offering clarity for enthusiasts. The Fitri platform is introduced as a key tool in managing hunting activities, allowing hunters to apply for permits, report their catches, and stay informed on wildlife conservation efforts.

### Endemic and Protected Species

One of the appendices lists bird species endemic to Saudi Arabia, which are fully protected. It also outlines the penalties for hunting prohibited species and violations of the Implementing Regulations. The appendices serve as a valuable resource for hunters, helping them navigate the legal framework and avoid actions that may harm wildlife or lead to fines.

### Digital Access for Hunters

The booklet is available for easy access through a QR code, providing hunters with a convenient way to stay informed on hunting regulations and conservation guidelines while on the go.





## Embracing Our Shared Responsibility

Nurtured by Nature  
Kenana Dahlan

In the tapestry of life, each thread represents a different living being, all woven together to create the beauty of our world. Just like us, animals and plants are integral parts of this tapestry, relying on the same air, water, and balance in nature. It's up to us to look after them and treat them as partners in this amazing world we live in.

Humans have been entrusted with a special job by nature - to take care of our planet and all its inhabitants. Whether on land or in the sea, it's a collective responsibility to protect and preserve the natural world. After all, animals and plants are like neighbors, sharing the same resources that sustain us all.

Various entities, including the National Center for Wildlife, play an important role in ensuring that efforts are made to safeguard nature, not just for now, but for the future too. These entities work tirelessly to promote conservation efforts and raise awareness about the importance of preserving biodiversity. Society as a whole is called upon to join in and contribute.

There has been a noticeable increase in discussions about environment lately. This is due to a growing recognition of the importance of taking care of our planet. From online campaigns to educational initiatives, the message is clear: everyone has a part to play in protecting nature and keeping it healthy.

Publications like this magazine are part of the effort to spread this message. They aim to help individuals understand why nature matters and what actions they can take to help. They're not just for experts - they're for anyone who cares about the planet and wants to make a positive impact.

When considering our connection to nature, it is evident that we're all part of the same ecosystem. By taking care of the environment, the collective human race is ultimately taking care of itself. As stewards of the Earth, it's important to acknowledge our shared duty, recognizing that by protecting nature, humanity secures its own future too.





# Discover Wildlife Magazine in Augmented Reality

In this inaugural issue, Wildlife Magazine introduces readers to an enhanced experience through Augmented Reality (AR). This innovative technology elevates the content by providing an immersive and interactive experience. With just your smartphone, you can access exclusive videos, photos, and dynamic features, bringing the pages of the magazine to life. No additional apps are required—simply enjoy seamless exploration.

## How to Access AR Content:

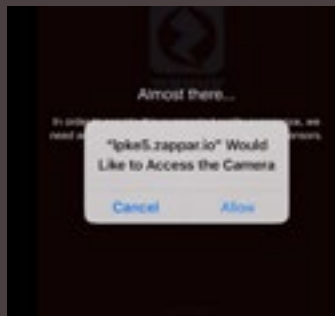
### 1 Locate AR Symbols

Look for pages marked with the Augmented Reality symbol and AR code.



### 2 Scan and Access

Launch your smartphone's camera and scan the AR code on designated pages.



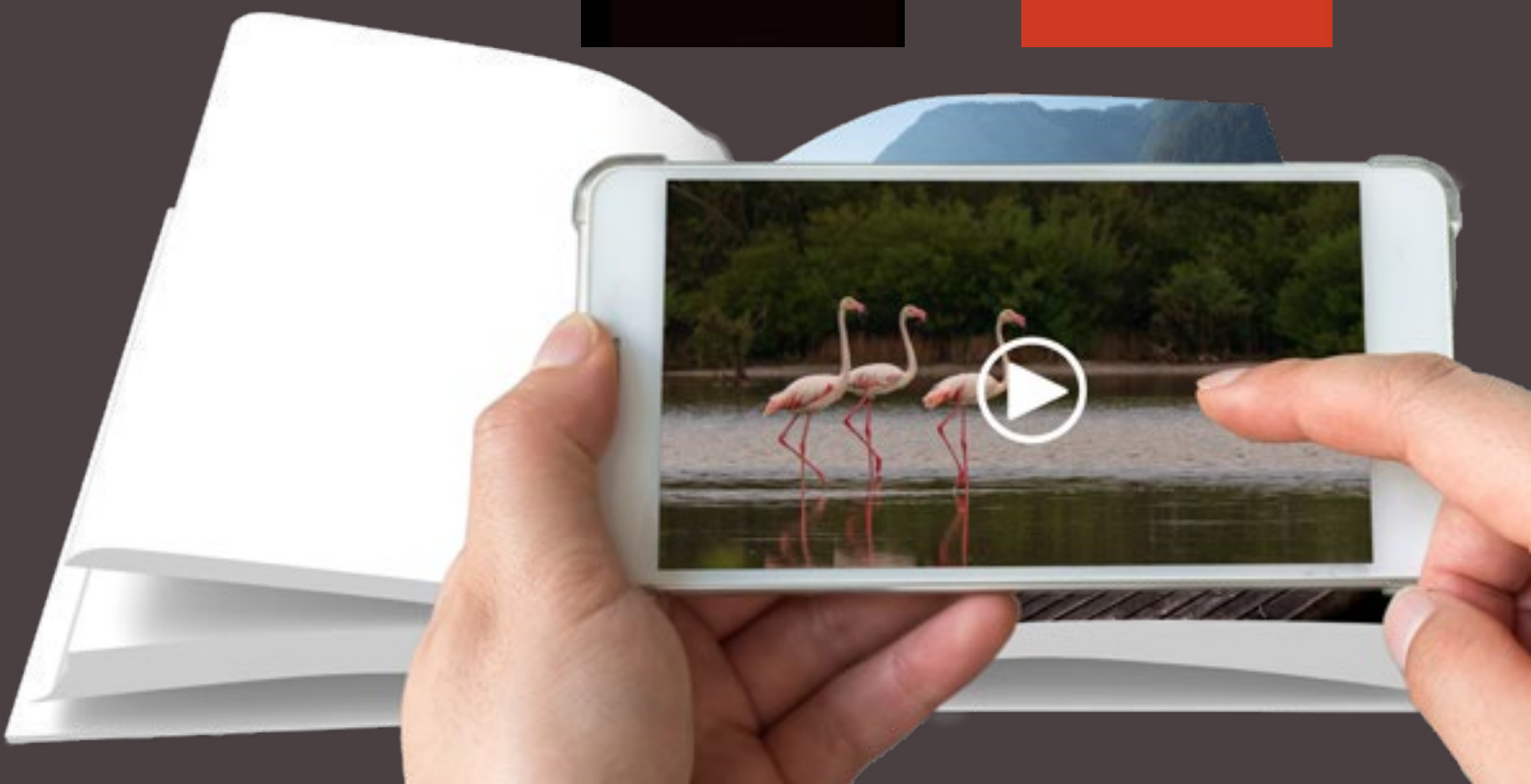
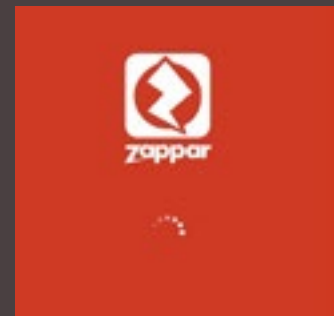
### 3 Approve and Proceed

Follow the prompts—three notifications for iPhone users, two for Android.



### 4 Engage with Interactive Content

Experience exclusive videos and interactive features as they come to life on the pages of Wildlife Magazine.





## Through the Lens

### **The Caracal**

Medium-sized carnivorous mammal, part of the small Felidae family. Known for its remarkable speed and agility, it is one of the fiercest predators of its kind. The Caracal plays an important role in maintaining ecological balance by regulating prey populations and supporting the health of its natural environment

