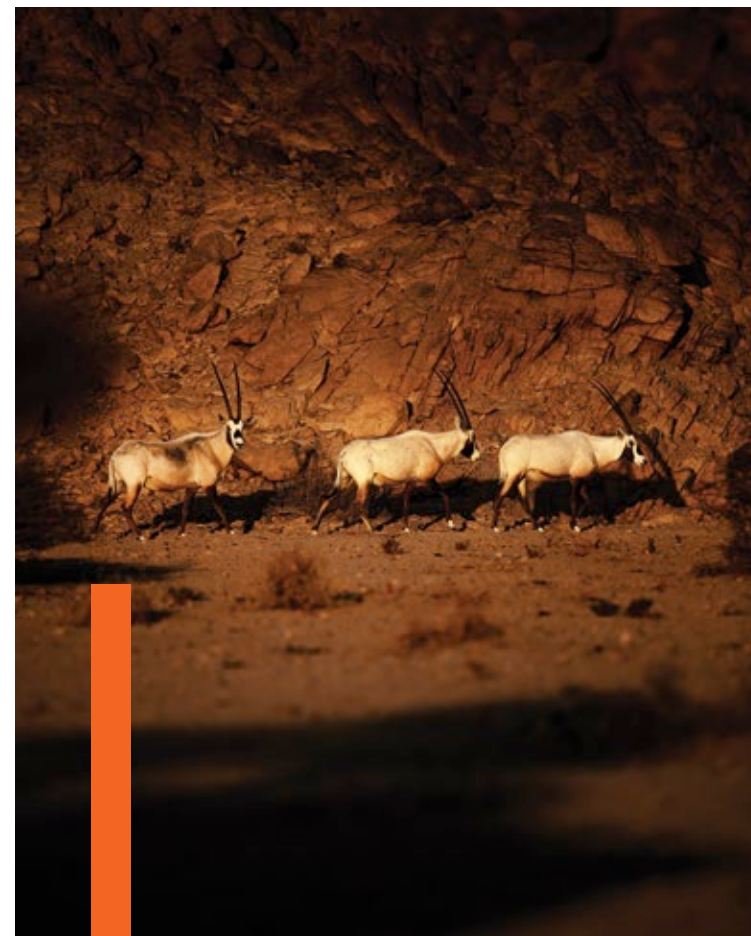


RUNNING

NEOM NATURE RESERVE IS MORE THAN A SANCTUARY FOR WILDLIFE: IT'S A HAVEN FOR ARABIA'S LOST SPECIES, AND A CHANCE TO DISCOVER ONE OF THE MOST UNIQUE DESTINATIONS ON EARTH

WORDS YI-HWA HANNA

WILD



Imagine this scenario: you're several years into the future, and visiting one of Saudi Arabia's most thriving tourism destinations. While there, you pay a visit to a historical site. It's beautiful, and the knowledge of all of the memories it has held for centuries only makes it more impressive. Your tour guide hands you a pair of Augmented Reality (AR)

or Virtual Reality (VR) goggles, and when you put them on, you're greeted with a live projection of the past: visions of ancient populations walking the very same paths you now walk. But the wonder isn't quite over yet – as you remove the goggles, you hear the pitter-patter of feet, and feel a unique vibration in the ground before you. And then you see it: an animal that was once extinct, right in front of your eyes, running wild and free across this incredible land. In the span of a few moments, you've just experienced the past, present, and future all at once.

This may be a fantasy now, but believe it or not, it's a scene that might someday be possible, thanks not only to the impressive amount of funding, research, infrastructure, and visionary thinking that's being poured into the kingdom's tourism industry, but also through the utterly remarkable rewilding efforts being conducted by NEOM Nature Reserve.

The reserve is both a place and a mission. Physically, it's described as an extraordinary location where majestic mountains, vast deserts, tranquil coastal plains, and vibrant marine habitats converge. Located within Saudi's Tabuk Principality, more than half a day's journey from Riyadh by car, part of it is also (albeit less commonly) known by the name Bajdah Wildlife Reserve. But Bajdah – which has been

ABOVE: The once-extinct Oryx can be seen running wild at NEOM Nature Reserve

TOP RIGHT: The reserve plans to plant 100 native trees, shrubs and grasses

BELOW: Dr. Paul Marshall

OPPOSITE PAGE: NEOM Nature Reserve



DESTINATION



open to visitors since May 2024 – is only part of what NEOM is doing to help bring back the true glory of the Arabian desert.

NEOM Nature Reserve serves as the foundation for NEOM's commitment to protecting 95% of its area for nature. Its efforts are led by Dr. Paul Marshall, NEOM's Head of Nature. An active Adjunct Professor at Australia's James Cook University, Marshall brings award-winning expertise to the project. He holds a PhD in Coral Reef Ecology and Management, has earned a Vice Chancellor's Distinguished Award for his ongoing contributions and dedication to the field of nature conservation, and has authored a number of notable publications on everything from climate change to coral bleaching. And in Saudi Arabia, his primary focus is to develop and implement solutions to not only safeguard, but also bring new life to NEOM's expansive land – including fostering the return of several lost species.

"I grew up surrounded by the striking natural beauty of Australia – camping in eucalyptus forests, boating along its coastlines, walking tide lines, and watching the seasons shift in the bush. Those early experiences instilled a sense of wonder in me that never left. Over the years, I've worked with many of the world's leading conservation management agencies, helping to bridge land and sea, and adapt ecological practice to the accelerating challenges of climate change. But nothing compares to what we're building here in NEOM," Marshall says.

What they're building, to be specific, is a place that is committed to protecting 95% of its nature. The reserve plans to plant 100 million native trees, shrubs and grasses to rejuvenate the environment. It is also aiming to restore 1.5 million hectares of habitat, as well as revive key species populations. So far, the species they've already returned to this land includes the Arabian oryx, mountain and sand gazelles, Nubian ibex, red-necked ostrich, and Lanner falcon – which, prior to these efforts, had not been spotted in the wild in Saudi Arabia for at least four decades.

"This is conservation reimaged," Marshall says. "We're not simply protecting what remains, we're restoring

DESTINATION

→ what was lost, at a scale and ambition almost unprecedented globally. As Head of the NEOM Nature Reserve, I'm leading a team committed to rewilding an entire desert biome – reviving ancient ecosystems across tens of thousands of square kilometres. NEOM's Nature Reserve is a laboratory, a sanctuary, and a bold signal to the world that ecological restoration in arid lands is not only possible – it's essential."

The return of the lost species

At the heart of NEOM's rewilding strategy is what Marshall calls a phased, ecologically grounded sequence of species reintroductions. "We began with herbivores – species whose presence had been erased by decades of overgrazing and hunting. Arabian oryx, ibex, sand and mountain gazelles have returned to our Conservation Focal Areas, now thriving under close management. These animals are not just visible symbols of recovery; they are foundational agents of ecosystem function. As part of our programme, we have seen the birth of the first Arabian oryx in NEOM in over a century. That moment marked more than a milestone – it signalled the return of a future that once seemed lost," Marshall says.

The effort it took to do this required a lot more than the fantastical approach one might imagine after having watched, say, a *Jurassic Park* film. Marshall and his team mapped habitat types, hydrology, and historical ranges to match each species with the environments where they're most likely to thrive. For predators, they're taking a staged approach. "We'll

RIGHT: Exploring the wonders of NEOM Nature Reserve

FAR RIGHT: The reserve is home to a variety of lizard species, including rare desert varieties

BELOW: Camping is one of the visitor experiences planned for NEOM Nature Reserve

BOTTOM RIGHT: The reserve is a dream for nature and wildlife enthusiasts, and photographers of all levels alike



soon reintroduce striped hyenas – resilient, ecologically vital carnivores that once roamed these landscapes freely. And we're preparing the landscape for the return of cheetahs, whose ecological role as coursing predators is critical to prey population regulation and ecosystem balance," Marshall explains. "We've also begun trials with smaller mammals like hyrax and Arabian hares, and initiated reintroductions of raptors such as barbary and lanner falcons. These efforts contribute to restoring complex food webs and trophic cascades, key features of resilient ecosystems," he adds.

The greening of a desert

This rewilding effort, Marshall explains, is complemented by an equally ambitious re-greening programme – restoring vegetation across some of the most degraded landscapes in the Arabian Peninsula. In the coastal lowlands, where groundwater over-abstraction and decades of livestock grazing had accelerated desertification, they've launched a massive active restoration initiative. "Our native plant nursery, among the largest of its kind in the region, produces over two million seedlings annually. These plants, carefully propagated from locally adapted genotypes, are hardened before planting, mulched and watered through distributed

FANTASTIC BEASTS

THE NUBIAN IBEX is a desert-dwelling wild goat that can be found in NEOM's rocky, mountainous terrain, typically recognised by its impressive arched horns. Males have backward-arched horns that can reach up to a metre long, while females have much shorter horns and are lighter in colour. They are incredible climbers, with their rubbery-

soled hooves acting as suction cups on hard surfaces, helping them navigate steep cliffs to avoid predators such as wolves. NEOM has successfully reintroduced 53 Nubian Ibex to the Reserve. These add to the population of several wild ibex that have naturally returned to the area, and are often caught on camera as part of NEOM's monitoring

programme. They join the Arabian Oryx as another key majestic horned beast in the Reserve. When the Arabian Oryx was first reintroduced there in December 2022, it was the first time the animal had walked the sands of north-western Saudi Arabia for nearly 100 years.

In the early 1970s, the Oryx was extinct in the wild due to hunting and poaching – but conservation efforts across the region have seen its numbers swell in recent years, with more than 208 now calling NEOM home. Fun fact: it's thought to be the inspiration for the mythical unicorn.



"That emotional connection has helped drive remarkable public engagement. In the first nine months of opening our rewilding reserve to visitors, we received over 120,000 pass bookings – many from the surrounding region," he continues.

Visiting consciously

Marshall explains that NEOM Nature Reserve is designed to be experienced, but never at the expense of ecological integrity. Their zoning system includes: conservation focal areas, conservation landscapes, and wilderness areas. The conservation focal areas involve intensive management, with limited visitor access and active restoration. The conservation landscapes are open to guests, with self-guided exploration allowed across vast, semi-restored environments. And the wilderness areas consist of remote, process-led zones with minimal human footprint.

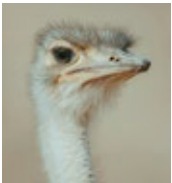
"With real-time environmental monitoring, adaptive management and a new generation of ranger programmes, we're pioneering a conservation model where access and protection are not at odds but mutually reinforcing," Marshall says.

A heart-led win for Saudi's tourism sector

Six years after the launch of the kingdom's global tourism visa programme, NEOM Nature Reserve are surely and steadily pioneering an entirely different kind of destination that most visitors to the Middle East – or indeed, anywhere in the world – are accustomed to. The results the team is aiming for will take a little more time to be fully realised – after all, the creation of this type of progress is certainly not as fast as some of the creatures it's reintroduced, such as the Arabian Sand Gazelle (which can clock speeds of up to 100km per hour in short bursts), or the Lanner Falcon (which is known for its speed and agility, with the ability to dive at speeds of more than 320km per hour). But eager guests can already visit. To experience what's taking root there – already an impressive experience, even five years before they reach their 2030 targets – visitors will need to book a pass through the Discover NEOM app. They'll have to prepare for some off-road driving, and some significant time spent on the road – but once there, they'll be welcomed with a jaw-dropping destination rooted in restoration, innovation and long-term stewardship.

"Instead of walking through crowded cities, we invite visitors to hike re-greened wadis, where they can spot falcons riding thermals above the cliffs, and track the quiet prints of gazelle across the sand. Here, they'll feel awe. They'll feel silence. We hope that they will carry that change with them," Marshall says.

"NEOM's rewilding programme is just beginning. But even now, I've seen deserts turn green, seen oryx calves take their first steps, and watched the faces of children light up as they spot wildlife they never imagined could live in their backyard," he continues. "This is not just conservation – it's a rewilding of our relationship with the natural world. And it's happening, right here, in one of the most unexpected places on Earth." **BT**



FAST, NOT FURIOUS

The largest and fastest living bird on Earth, the flightless Red-necked Ostrich can stand up to 2.7m tall and weigh more than 150kg. Their eggs, at 15cm long and weighing up to 1.4kg, are the largest of any living animal. The 27 chicks that have been successfully raised in NEOM Nature Reserve feed on seeds, grass, leaves, and occasionally small insects or animals, and can run at speeds of up to 70km/hr.

irrigation systems for up to three years. We've already planted over 4.8 million native trees in fenced areas where livestock and off-road vehicles are excluded."

But perhaps the most compelling evidence of success, Marshall states, is in what he describes as their passive restoration zones. "In upland deserts where we've simply removed grazing pressure, we're seeing wildflowers and native grasses return in spectacular abundance. After rainfall, entire valleys erupt in bloom, an ecological memory awakened. I've stood at the edge of a fenced zone and marvelled at the contrast: inside, a riot of life; outside, bare sand stripped by hooves."

From treasured memory to lived experience

"Rewilding here isn't just ecological, it's cultural. We've had Saudi visitors tell us of grandfathers moved to tears upon seeing images of oryx and gazelles returned to their ancestral terrain. For them, these species aren't novelties, they're heritage," Marshall says.



IMAGES NEOM