

Unearthing the secrets of Indian savannas

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Unearthing the secrets of Indian savannas Premium

Why is there a collective amnesia about the savannas of India? As it often does, it all goes back to the British Empire, which played a crucial role in shaping the imagination of what a forest or savanna is

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Preeti Zachariah

Hyena waiting for their share of the lion's kill. Taken in the Masai Mara. | Photo Credit: Staincliffe

For most of us, the word savanna conjures up a singular image: the vast plains of the Serengeti in Africa, teeming with wildlife... open grasslands dotted with trees... lots of zebra, lots of wildebeest, African elephants trudging through them, says animal ecologist and conservation biologist Abi T. Vanak at a recent lecture titled *Secrets of the Indian Savanna* at the Jawaharlal Nehru Planetarium in Bengaluru.



Ecologist and conservation biologist Abi T. Vanak during the lecture. | Photo Credit: SPECIAL ARRANGEMENT

It was part of *Kaapi with Curiosity*, a monthly public lecture series organised by the International Centre for Theoretical Sciences in collaboration with the Jawaharlal Nehru Planetarium and other educational institutions in the city.

As school geography textbooks are likely to have told us, the world's savannas are primarily located in Africa, South America, and Australia. "India is very clearly missing from this list," says Abi, the director of the Centre for Policy Design at the Bengaluru-based Ashoka Trust for Ecology and Environment (ATREE). Yet, he adds that scientists have recently said that bioclimatic envelopes in India are similar to African savanna systems.

At the lecture, Abi, using a series of visual aids, including maps, videos, and photographs, delved into the idea of an Indian savanna, the wildlife and communities that inhabit this biome, his work mapping the mesocarnivores found in them and why we must stop dismissing these crucial open natural ecosystems.



Wildebeests run across a sandy riverbed of the Sand River as they arrive at Kenya's Maasai Mara National Reserve from Tanzania's Serengeti National Park during the start of the annual migration. | Photo Credit: TONY KARUMBA

About the savannas

A savanna is typically defined as a mixed tree-grass system with scattered trees amidst a continuous layer of grass. Within this broad definition, we could have different types of savannas depending on the density of trees, which in turn depends mostly on how much rain the landscape receives. "There are a couple of other factors, but it is mainly rainfall that is a key determinant on whether you have a very grassy system or you have more of a tree system," he says, pointing out that India too, particularly western and central India, has swathes of savannas.

The savannas in India are ancient, having come into existence millions of years ago, according to Abi. Not only is there a range of historical and archaeological evidence that proves this, but "we also know this because there are a lot of savanna-adapted species still found here...species unique to these dryland ecosystems," he says. And yet, the vegetation map of India does not address this. "Instead, what you see is one forest type after another," says Abi, who has been trying to correct the misconception that there are no savannas in India. "We do actually have savannas, and they extend through most of India," he reiterates.

Abi says that many of the open natural ecosystems in the Indian subcontinent that we consider forests are, in fact, savannas. "You would be hard-pressed to find a difference between these landscapes and those in many parts of Africa and other savanna belts."



An Indian Fox roams the open lands near Ramnathgudpalle village in Vikarabad. | Photo Credit: SPECIAL ARRANGEMENTS

A colonial legacy

So, why is there this collective amnesia about the savannas of India? As it often does, it all goes back to the British Empire, which played a crucial role in shaping the imagination of what a forest or savanna is. When the British first arrived in India, Abi says, they envisioned it to be a land of tigers and elephants, species that are typically thought to be found in forests.

In their eyes, India had either thick forests or wasteland, with the former alone being valued since it was a source of timber to ship back home to the U.K. or for railway construction in India. “This categorisation of wasteland persists today,” says Abi.

So prevalent is this view that the Indian government even has a document called the Wasteland Atlas of India to identify land which are “unutilised and have the potential to produce food grain and provide vegetation cover,” as the introduction to the document states. Going by this, much of the Indian savanna—an estimated 70%—ends up being misclassified as a wasteland. “The savannas of India are the most threatened landscapes or natural ecosystems left in India.”

Since the assumption is that these lands serve no useful purpose, they are often appropriated for more “productive” purposes, such as agriculture, green energy projects and industrialisation. Also, since they are thought to be degraded forests,

afforestation drives are frequently conducted on them. “Tree plantation programmes are also endangering our savannas,” says Abi. “They were never meant to have trees. Yet, we are planting thousands of trees on our savannas, destroying them.”

Pockets of grasslands

One of the most common pictorial representations of the savannas of Africa is this: herds of antelopes galloping through sun-baked grass, leaving behind clouds of dust in their wake. Interestingly, as the book *Bandobast and Khabar: Reminiscences of India*, written by the British officer Colonel Cuthbert Larking, implies this may have once been a common enough sight in India. “Captain Norman Franks, the commissioner there (in Indore), took me one morning into the Maharajah Holkar’s preserves, and on a large plain, we once saw quite a thousand buck in different herds,” he writes in this memoir, published in 1888.

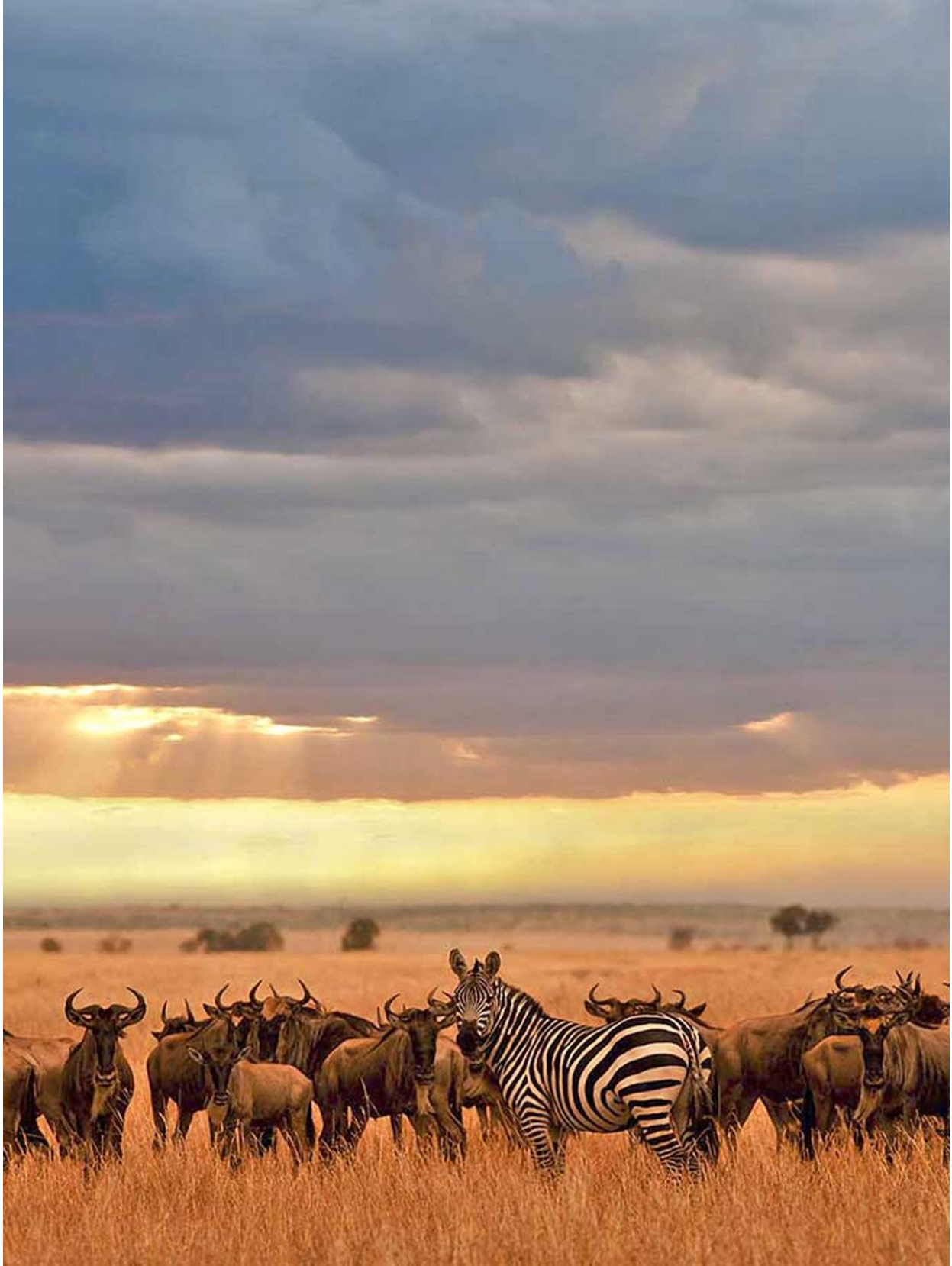
While most antelope species are primarily found in the savannas of Africa, a few species, such as the chinkara, blackbuck, Tibetan antelope, and four-horned antelope, are native to India. “At some point in our history, we also had those vast herds of antelopes,” says Abi, adding that these scenes can no longer be seen in India. “They have gone because of British activity...a lot of hunting...also because we have converted most of those wide plains into agriculture, cities, factories and so on,” he says. “But we still have a few pockets of grasslands in India.”



A bunch of Blackbuck in search of their habitat near Kanajri village outskirts of Ahmedabad. | Photo Credit: VIJAY SONEJI

Human-dominant now

Most of these grasslands are human-dominant today, but they still manage to hide some secrets from us, says Abi, going on to play a clip from the ATREE-produced documentary *Hidden in Plain Sight*, which chronicles a six-year-long study, by Abi and his team, conducted in human-dominated grassland landscapes close to Baramati in Maharashtra. “They still hold wildlife that has learnt to coexist with people, species such as the Indian fox, jungle cat and golden jackal, among many others.”



One Zebra within a herd of Blue Wild Beasts during the migration of Serengeti. | Photo Credit: boezie

While these species, referred to as mesocarnivores, play an essential ecological role, he says, little is known about them. “We were able to get core information of how these animals are using this landscape,” he says, listing some of the team’s findings. For instance, while the Indian fox stuck to the grassland and avoided the tracts used for agriculture, the golden jackal seemed to prefer the latter, while the jungle cat wandered almost everywhere. “There was one jungle cat called Sultan even walking in the city, probably bullying the alley cats,” he says.

Most importantly, this study clearly proves this: wildlife isn’t restricted to forests and sanctuaries but is also found in our backyards. “We don’t need large wildlife sanctuaries for these species, just small patches of habitat,” he says. “These animals are learning to adapt and survive with us.”



A family of Indian Fox found in the grasslands of Vikarabad. | Photo Credit: SPECIAL ARRANGEMENTS

Why savannas matter

Not only are these landscapes home to many species of plants and animals, but they are also home to many communities that live off these grassland ecosystems. For instance, millions of pastoral communities use these landscapes to graze their cattle. “If you have eaten goat or sheep meat, it has most likely come from these savannah landscapes,” he says.

They also play a critical role in carbon sequestration, storing the greenhouse gas securely in the soil, making it a fantastic natural climate change solution. As the likelihood of forest fires increases, thanks to rising temperatures, savanna-sequestered carbon becomes more crucial than ever. “(Unlike in forests) It cannot be burnt away and is more stable,” says Abi, who firmly believes restoring India’s savannas is essential. “If you can restore these landscapes, you also restore the biodiversity in them, sequester carbon, and enhance people’s livelihoods.”

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