NATURE'S PASSIONATE AND METICULOUS CHRONICLER

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What does it mean to observe the natural world with the curiosity and enthusiasm of a child? How does one record such observations in meticulous detail, while still conveying a sense of wonder? How does education shape our relationship with the natural world? Why do we value some species over others? Explore these and other questions through the life and writings of M Krishnan.

((_ The average educated adult knows little or nothing of the teeming plant and animal life of the country, and cares less. Livestock does not interest him, and the world is to him a place which holds only human beings. He can never make friends with a hill or a dog, and if he has no one to talk to, no book to read, and no gadget to turn and unturn, he is quite lost. School education is solidly to blame for all this-children are not taught to know and appreciate nature at first hand, only terms and explanations from books. They think of nature as something necessary for passing examinations, as something unfortunately necessary. And when they are grown, they are unaware that they have missed half the joy of life".--M Krishnan in an essay titled 'Nature Study'.

This excerpt leaves us with a brief but revealing insight into both Krishnan's views on education and into the many shades of his relationship with the natural world—one that was eccentric, passionate as well as empirical (see **Box 1**).

The average student

Madhaviah Krishnan was born on 30th June, 1912 to a modest Tamil Brahmin family in Tirunelveli (see Fig. 1). His father, A Madhaviah, was a Tamil writer and reformer. Krishnan was the youngest of eight siblings. Like his siblings, he was brought up with a deep appreciation for literature and the arts. In the early 1920s, the family moved out of a congested part of Madras to a house that his father had built in Mylapore. This move proved decisive. Unlike the concretised jungle Mylapore has become today, it was at the time home to paddy fields, coconut groves, and verdant pastures. Stray wanderings brought Krishnan upon mongooses, palm civets, snakes, tortoises, varieties of birds, and the odd blackbuck.

Box 1. Krishnan's views on education:

In his essay 'Nature Study', Krishnan avidly criticized what he referred to as the 'concentric system' of learning. This pedagogical misadventure, according to Krishnan, found students being guided on "more and more of the same thing", even as they passed from one grade to another. He explained this with reference to the cow, as it repeatedly appeared in the textbooks of every successive grade at the time: "The first year the child learns that the cow has four legs (quadruped), gives us milk, and eats grass (herbivore). The next year, maybe, there is a lesson on milk and another on how the cow is a mammal. And in Form IV the young naturalist learns how the cow chews cud (ruminant), and that its stomach is cut up into compartments". According to Krishnan, the same error could be

His early education was in Hindu High School. While his academic work was unexceptional, he read widely and his interest in literature and art deepened during this period. In 1927, Krishnan joined Presidency College, Madras, to appear for his intermediate examination. Soon after, he joined its BA programme. During this period, he made acquaintance with the remarkable field botanist, Professor PF Fyson, who was painstakingly compiling the flora



Fig. 1. M Krishnan. Credits: Asha Harikrishnan. URL: https://www.mkrishnan.com/. License: Used with the permission of the rights owner.

repeated if the curriculum or teacher got fixated on a certain model or theory of understanding the natural world. In either case, the result would be the same-a false sense of confidence. Krishnan's alternative lay in taking children and young learners more and more into the open. Instruction, he felt, ought to reveal the relationships between and within species, both floral and faunal. In choosing or designing books for children, he felt that children would "readily insert themselves in any text if it was free from morals and illustrated in colour". Krishnan also recommended that schools maintain a 'market garden' 'poultry-run', 'goat-pen', 'pigeon-loft', and a 'middle-sized school dog.' He suggested regular field visits to forests that were to be devoid of excessive discipline and led by teachers who were equally willing to learn.

of the southern Indian hills. Thanks to Fyson, Krishnan developed an interest in the multifarious interactions between animals and plants. One of Krishnan's early observations concerned the attraction of the koel to the highly poisonous drupes of the yellow oleander, such as the ones that adorned his garden. While the plant was avoided by many other birds and squirrels, Krishnan was among the first to record, with much amazement, how the koel "sidles up to a fruit and stabs it with its bill, excavating and removing a piece of the mesocarp that it swallows with an upward toss of the head".

Krishnan's academic credentials were average. Since he had obtained a third class in both his BA and MA, his job prospects were dim. On his family's urging, he applied for and obtained a law degree in 1936, but there is no record of his having practised as a lawyer. After a brief apprenticeship course in a court, he worked as an artist in Associated Printers and in the Madras School of Art. In 1937. Krishnan started working as a freelance writer, publishing nature-related notes in newspapers. In 1942, a recommendation helped Krishnan secure employment with the Maharaja of Sandur. He stayed in Sandur, a region now falling

"After all," Krishnan observed in the same essay. "one never knows beforehand what one might see when setting out, and much of the value of such study lies in its being as per no set plan". In this enduring openmindedness is a basic ethic that Krishnan relied on throughout his career-to desist from the attempt to pin nature down with knowledge. To this end, Krishnan believed in reminding himself as also his wards, that Man (with a capital M) will never be able to master nature. No matter how hard we try, we will never be able to contain it within the ambit of our systems of knowledge. This sentiment is reflected in Krishnan's remark, "Nature is not simple, logical, and reasoned-thank God it is not". Through this piece, Krishnan expanded the concept of nature from a mere object of study to a subject of endless reverie and fascination.

in Bellary (Karnataka), for eight years. During this period, Krishnan worked as a schoolteacher, judge, publicity officer, and political secretary to the Maharaja. These jobs were anything but exciting to him. However, the vast hinterlands incited fresh wanderings and the Sandur stint yielded several other gems of writing. In one such piece, Krishnan marvelled at how the Bellary countryside attracted thousands of rosy starlings (Pastor roseus) in September and October. It would be reasonable to expect these birds to be drawn to areas that were rich in crops and fruit; instead, they flocked in pockets that were devoid of both. What could be the reason for this unusual pattern? Krishnan ended his essay with this question.

The remarkable naturalist and writer

In 1949, Sandur lost its princely status in independent India; and Krishnan returned to his father's house in Madras. It was at this stage that he emerged as a freelance writer, naturalist, and photographer. Starting in 1950, Krishnan came to maintain a fortnightly column titled 'Country Notebook', in the pages of 'The Statesman' of Calcutta, which he sustained for 46 long years. He also

Box 2. The focus of Krishnan's nature writings:

Importantly, Krishnan was not singularly interested in the physical presence of animal species in their true diversity. He was equally keen to assess their emotional state (see Fig. 2). On the one hand, he was moved by any unwarranted pain caused to animals by human hands. On the other hand, he did not fail to observe and record moments of humour, fear, and love within the animal kingdom. He referred to the latter as "emotive kinships". Such kinships, according to him, could not be captured statistically, but only through a fostered intimacy with the animals that one was studying. Thus, he related with great delight the interminable friendship between Rati and Sundari, two elephants in a forest department's camp, whom even the managers felt wise to keep together, "not out of any sentimental motives but because, otherwise, the work suffers". He also observed how a "sideways alare" amounted to an act of intraspecific communication between chitals. In mapping the variable expressions and moods of birds, as manifested in their chirps and songs, he affirmed that even though they were "moved by powerful instincts, [they] are highly emotional and complex beings". Each of these pieces is illustrative of the empathy with which Krishnan immersed himself in the world of animals.

It is equally remarkable that Krishnan did not need to go as far as a forest, zoo, or national park to experience such empathy. Even a fat old lizard in his house would suffice. One such specimen found him pondering over how the



Fig. 2. A doe of the tiny, and now rare, mouse deer. Even with smaller species, Krishnan opined that *"to treat live, sentient subjects as a mass of conditioned reflexes and instinctive responses is utterly futile".*

Credits: M Krishnan. Taken from M Krishnan (1965). 'Letter from M Krishnan'. Cheetal: 7 (2): 10-11. Published by the Wild Life Preservation Society of India (https://wpsidoon.org/).

lizard's tail compensated for its relative "voicelessness" by serving as an "organ of emotional expression". He received birds in his garden, as also toads, with rapture. Bandicoots also provoked curiosity. At other times, when rain lashed Mylapore, he would step out to see how the birds, squirrels, and monkeys were enduring it. Even today, it would be hard to find an environmentalist who writes as passionately about both wild animals and their urban counterparts as Krishnan did.

In hindsight, one may see some danger of anthropomorphism (or the tendency to attribute human qualities to nonhuman animals) in Krishnan's writings. Nonetheless, it was through these writings that Krishnan established a high standard, if not ethic, for interspecies companionship between humans and animals of all kinds—big and small, near and far, charismatic and "pariah".

continued writing for other newspapers, like 'The Hindu', 'The Illustrated Weekly of India', and 'The Indian Express'. While Krishnan wrote on a variety of subjects including art, fiction, cricket, and literary history, his most remarkable pieces were on natural history (see **Box 2**).

By this time, the average college student under Fyson had developed into a seasoned naturalist. One of the things that set Krishnan apart is that he chose to focus on the landscape and wildlife of peninsular India. Another distinguishing feature was that he had evolved his own methods of study. For example, he had special gear manufactured to observe the natural world. This included items like a cap and a veil that he wore to avoid being detected by animals. In his own words he had, "over the years... acquired the ability to stay still and to move, if I must say, in slow motion". Another unique aspect was his style. Krishnan's writing was rich in detail that came from his own observations and fieldwork. Each piece was often accompanied by his own pen-and-ink drawings or excellent photographs. It is impossible to overlook the child-like amazement in Krishnan's reflections or even his flair for language. But, more than anything, what was distinctive about Krishnan's pieces was his spirit of inquiry. As the pieces on the koel and rosy starling show, Krishnan was inclined to rake up questions and pursue a suspenseful trail, even if there were no final answers (see **Box 3**). This may have had something to do with the fact that he enjoyed reading detective novels in his spare time, and unsolved mysteries did not seem to harass him. Interestingly,

Box 3. Krishnan's questions:

Here are some other examples of the kind of questions Krishnan would pose to his readers:

- Are there factors beyond love and territory that inspire birds to sing?
- Do monkeys hug out of affection?
- Does the gaur, which can smell the coming of the rain, possess a strong ground scent?
- Does the elephant occasionally devour water hyacinths to obtain its supply of iodine?

Do you have some questions of this kind that you could add to this list?

in asking these questions, Krishnan did not feel compelled to provide all the answers. Rather, it seemed to be a part of his strategy to lead the reader down an alley of interesting facts, only to abandon them to a growing curiosity that was their own by now.

The courageous conservationist

In 1959, thanks to a scholarship, Krishnan gained the opportunity to tour the length and breadth of the country. This period coincided with the early phase of nation-building that witnessed the rampant construction of big dams, mining projects, railway lines, roads, plantations, and the extension of agriculture. Unlike many, Krishnan was not enamoured. He boldly questioned the patriotic spirit driving these projects, given that it grossly failed to respect the sovereignty of wildlife over its territories (see Fig. 3).

The bulk of his concerns came to revolve around the elephant. Wildlife suffered in general; birds, cats, and other smaller animals managed to avoid contact with advancing civilization to degrees that were not possible for the elephant. By virtue of being a big, wide-ranging, and long-lived animal that is deeply attached to its habitats and corridors, the elephant was bound to come into increasing conflict with humans (see **Box 4**).

Even as Krishnan's understanding of elephant behaviour matured, India launched Project Tiger in 1973. This remains a much-celebrated, centrally sponsored scheme for the conservation of the Indian tiger. Krishnan, who was a founding member of the steering committee of this project, did not deny that reserving land for the tiger and its prey base would offer a level of reprieve for the elephants. However, it



Fig. 3. A photo titled, 'Electricity comes to elephant country'. Krishnan had a simple maxim for wildlife conservation, *"Leave well alone".*

Credits: M Krishnan. Taken from M Krishnan (1965). 'Letter from M Krishnan'. Cheetal: 7 (2): 10-11. Published by the Wild Life Preservation Society of India (https://wpsidoon.org/).

left him with a niggling worry at the other end of the scale: "When even the decline of the tiger, which has captured human imagination in India for some 200 years, was noticed only at the last stage, it is only logical

Box 4. In defence of elephants:

Unfortunately, many of Krishnan's contemporaries were not above the spirit of their times. A close clique of naturalists, foresters, and administrators came to contentiously argue that elephants were destructive to forests. They suggested that it was in the character of elephants to multiply fast, populate tracts, and uproot the trees and saplings that fell along their migratory routes. Krishnan meticulously laid bare the nonsense of such ideas. Some went as far as to condone the strategic culling of elephants to make space for development. Krishnan countered this by showing how such measures made things worse. Elephants that survived gunshots, only to be left with open, festering, and maggotridden wounds, became doubly hostile to human society. Krishnan's pleas often fell on deaf ears.

In the early 1970s, as part of a report submitted on behalf of the International Union of Conservation (IUCN), the scientist RH Waller rehearsed several disparaging remarks about elephants, especially with respect to the region of Wayanad (Kerala). Given IUCN's prominence, these findings were left unchallenged by others. But Krishnan pounced on them. In 1968, Krishnan had been awarded the Jawaharlal Nehru Fellowship to support a broad-based ecological survey of mammals in Peninsular India, including parts of Wayanad. The findings of this study were published in 1971 by the Bombay Natural History Society (BNHS) as a valuable book called 'India's Wildlife'. More significantly, Krishnan's fieldwork for this fellowship helped show that the destruction attributed to elephants was the "simple and inevitable consequence of deep, diverse, and sustained human penetrations".

Box 5. As in forests, so in cities:

Interestingly, as Krishnan grew in stature, his concerns did not remain restricted to forests. The immediacy of his concerns took a form of activism that included urban ecologies, domestic animals, and "pariah" species. So, for example, he fretted about the disappearance of indigenous varieties of livestock, such as the Amrit Mahal bullocks due to the use of tractors. He remained consumed by the cruelty weathered by animals in the city that was his home. It pained him to see how beasts of burden, particularly donkeys, were brutally overworked and grossly under-cared for. Likewise, he shot down the proposal of the National Committee for Bird Preservation to eliminate crows in municipality areas for 'encouraging charming and inoffensive birds such as orioles and flycatchers'. He countered this proposal with one to increase the green cover in cities, suggesting that this was sufficient to do the trick. No mass murder of crows was necessary. Similarly, he defended the Indian "pariah" dog from those who wished to rid the streets of them in an essay where he shared the opinion that: "There is no better house-dog. It is so clever and willing; you can teach it practically anything".

that the decline of less glamorous animals, like the lion-tailed macaque, the sloth bear, the hyena, the wolf, and the dinky little Indian fox has gone largely unnoticed". In time, Krishnan added species such as water monitors and wild dogs to this list and simultaneously flagged possibilities relating to the 'local extinction' of the

blackbuck and the leopard. In doing so, Krishnan may have foreseen the possibility of what is today referred to as 'silent extinction'. This is a process whereby our priority for 'charismatic' flagship species can blindside us to the claims of smaller and less-spectacular ones that could be equally salient to healthy ecosystems (see **Box 5**).

Box 6. Some important resources for school libraries:

These three books include some of Krishnan's writings:

- Shanti and Ashish Chandola's (2014) book: 'Of Birds and Birdsong' with a foreword by the renowned ornithologist Zafar Futehally, published by Aleph, New Delhi;
- Ramachandra Guha's (2007) anthology of Krishnan's writings: 'Nature's Spokesman: M Krishnan and Indian Wildlife', published by Penguin Books, New Delhi; and
- Krishnan's own two-volume set, 'India's wildlife in 1959-1970', published by BNHS, Mumbai.

Some of Krishnan's articles that appeared in the Journal of the BNHS (or JBNHS) can be obtained by writing to the current editor:

- Krishnan (1952). 'Koels eating the poisonous fruit of the Yellow Oleander.' JBNHS, 50 (4): pg. 943-945;
- Krishnan (1955). 'The Rosy Pastor in the Bellary Area.' JBNHS, 53 (1): pg.128;
- Krishnan (1974). 'RH Waller's observations on wildlife in India: a partial rejoinder'. JBNHS, 71 (3): pg. 594-598;
- Krishnan (1978). 'Disconnected observations on a species of *Scolapendra*.' JBNHS, 75 (1), pg. 239-240; and,
- Krishnan (1978). 'Emotive kinships amongst animals'. JBNHS, 75 (3), pg. 613-618.

Some of Krishnan's articles that appeared in 'The Statesman' in the early 1950s have been freshly digitised. These can be accessed here: https://www.mkrishnan.com/uploads/1/1/2/5/112547211/1950-54_cn.pdf.

Box 7. Some questions to ponder over:

O. Krishnan chooses to illustrate concentric systems of learning through the manner in which cows are treated in the school curriculum. Do you know of any other such examples? Describe one.

Q. Think of an animal in your immediate surrounding that interests you. Write a note describing any of its peculiarities in as much detail as possible.

Q. Think of a contemporary naturalist who has extended their sensitivity to both wild and domestic animals. Compose a short biography of them.

Q. Can you list five endangered species that are not seen as being as spectacular or charismatic as tigers and elephants? Try making a collage to highlight these species.

Q. How are current development projects impacting the elephant? Investigate this in an elephant habitat nearest to you.

Parting thoughts

In recognition of his work on wildlife conservation, Krishnan was awarded the Padma Shri in 1970. In 1995, Krishnan was nominated to the Global 500 Roll of Honour of the United Nations Environment Programme (UNEP) for, in his words, "close on half a century's continuous effort in trying to inform and stimulate an interest in the public in India's stupendous heritage of wild flora and fauna being steadily depleted". He leaves behind a legacy that can be retraced from the existing literature both by and on him (see **Box 6**).

The life and work of this student of nature offer many examples of the role of relentless curiosity and deep sensitivity in chronicling and conserving the natural world (see **Box 7**). As Krishnan reminds us, "Only the great heritage of nature that we have owes nothing to our contrivance, intellect, or imagination, and is beyond our creative genius, though we still have the power to destroy it".

Key takeaways

- M Krishnan's life and work offer many examples of the role of relentless curiosity and deep sensitivity in chronicling and conserving the natural world.
- As a young student, his educational record at school and college was unexceptional. However, he read widely and developed a deep interest in wildlife and art.
- The opportunity to study under the field botanist Professor PF Fyson helped this average student develop into a seasoned naturalist with an eye for the multifarious interactions between plants and animals.
- After holding a variety of unexciting jobs, Krishnan chose to earn his living as a freelance writer, naturalist, and photographer.
- Through his writings, Krishnan established a high standard, if not ethic, for interspecies companionship between humans and animals of all kinds—big and small, near and far, charismatic and "pariah".
- As a conservationist, Krishnan was courageous in questioning the patriotic spirit driving development projects in independent India for its failure in respecting the sovereignty of wildlife over its territories.
- Krishnan questioned the role that school education played in introducing children to the joys of the natural world. He offered important philosophical and practical cues to engage the curiosity and care of children for the teeming plant and animal life in the country.



Notes:

- 1. The word "pariah" is believed to originally refer to a member of an indigenous tribe from South India who played drums (referred to as parai) at events like weddings and funerals. It soon evolved into a casteist slur. While it was widely used in the times in which Krishnan lived and wrote, our awareness of its derogatory connotations has grown since then. When used with reference to non-human animals, it can have a wide range of meanings, including 'native', 'free-ranging', 'outsider', 'commonplace, ordinary, or mundane', 'drab or unattractive', 'scavenger', 'outcast' or some combination of these. This word has been retained in this article not only because Krishnan's interest in these species defied common perceptions associated with the more derogatory uses of this word, but also because his observations and writings have played an important role in challenging and changing many of these perceptions.
- 2. Source of the image used in the background of the article title: Indian elephants in a stream. Credits: PickPik. URL: https://www.pickpik.com/elephants-family-group-river-wildlife-nature-mammal-5110. License: Royalty Free.

For further reading:

- 1. Bittu Sehgal (2017). 'M Krishnan: In Remembrance and Gratitude'. Nature in Focus. URL: https://www.natureinfocus.in/environment/in-remembrance-and-gratitude.
- 2. Kumaran Sathasivam. The national treasure that was M Krishnan! Madras Musings. (Archive) Vol. XXII No. 14, November 1-15, 2012. URL: https://madrasmusings.com/Vol%2022%20No%2014/the-national-treasure-that-was-m-krishnan.html.

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