

Earth Song



One effect of Covid-19 has been a heightened awareness of our ecological impact. **Arun Janardhan** interviews six leading activists, conservationists and scientists across the country to understand what lies ahead

Vijaykrishnan
with Kalpana,
the elephant



Sreedhar Vijayakrishnan always wanted to just sit and watch elephants. He finds everything about the pachyderm fascinating; right from the way they pick a blade of grass, hit it against their forelimbs to clean it. Or how they treat their juveniles, learn to navigate through difficult anthropogenic landscapes and quickly adapt to changes in habitat.

He is intrigued by their ability to learn, having seen captive elephants trained in multiple languages and responding to commands in Malayalam, Tamil and Urdu. "It could be the tone or the pitch of the mahouts that's most exciting," he says from his home in Thrissur, Kerala.

Currently pursuing a PhD from the National Institute of Advanced Studies in Bengaluru, Vijayakrishnan's thesis is on social ecology and physiology of female elephants in the wild, with an interest in elephant behaviour in human-modified landscapes and conflict situations. He says it's assumed that only males get into conflicts, which is incorrect even though females may not take as many risks because of their babies.

In conservation, he believes it's more important to understand them because unless you have a healthy proportion of breeding females, the population doesn't have a long-term future. Several populations have sustained despite poaching pressures because females, who don't carry tusks, don't get targeted.

"My work is largely observation-based," says the researcher whose social media feed is littered with the elephant pictures he clicks. "There haven't been too many days in the last few years when I have not seen them. The last few lockdown months have been spent doing the less glamorous work of analysing data and organising it."

Having grown up in proximity to elephants in Kerala, listening to stories about them, seeing them in temples and chatting about them with mahouts, Vijayakrishnan developed an academic interest in them. He initially wanted to get a degree in forestry, but realised it would lead to more of an administrative job. The book, *Elephant Days And Nights: Ten Years With The Indian Elephant* by Raman Sukumar, inspired him to pursue a research career and get a Master's degree in wildlife biology.

"After over two decades with the species, you would think you know a hundred things about it. But the next day, it'll do the 101st thing. It's a complex species," he says about his subject of interest.

Elephants' brain morphology is similar to humans – they also share several complex behavioural traits, like cooperatively solving problems and grieving for

the dead. But, despite their elevated status in Indian mythology, tradition, and in spite of being adaptable to their environments, the narrative around elephants has often been one of conflict with humans. Only about 27,000 elephants remain in India now, with roughly 2,500 of them in captivity.

With more development activities around their habitat fringes, elephants are known to raid crop fields and attack people when threatened. Vijayakrishnan says in some cases, like in the Anamalai Tiger Reserve on the Kerala-Tamil Nadu border where his research is concentrated, early warning systems have been successful in mitigating property damage and human loss.

This June, when a pregnant elephant suffered a painful death in Palakkad district after eating a pineapple stuffed with firecrackers, the incident garnered a lot of attention, leading to the kind of online activism that's been endemic to the lockdown. He says while a lot of people became aware of the increasing conflict by sensationalising the issue, the symptoms were treated, but the cause got fogged out. "The fundamental issue is habitat loss and fragmentation – if you didn't have such stark farm-forest boundaries, you'd probably have a smaller proportion of conflict. Though some conflict is inevitable, it's a social rather than a wildlife problem.

"If a wild boar had eaten [the pineapple, as intended], it would have died without anyone knowing it. There is an inherent bias in perceiving such information – if it's an animal that does not have the aesthetic value of a tiger or an elephant, people wouldn't have noticed."

In ecology, research and conservation go hand in hand, says Vijayakrishnan, who has studied stress levels among elephants living in close proximity to humans in the Valparai plateau and away from them in Vazhachal reserve forests. He found that the elephants' stress hormones level go up by several percentage points when they're driven off crop fields. It's the kind of knowledge that translates from academia to practice.

The larger flaw, he says, is people tend to generalise when looking for solutions though the answers are site-specific – what works in the Nilgiris would not in West Bengal. The warning systems of Anamalai succeeded because of years of research. Conflict in several areas can have simple solutions like public transport – so people don't walk alone at night – or toilets, so they don't have to go into the fields.

"If I can add a few layers to our understanding of this species, I'll be happy," says Vijayakrishnan. ▶