

## **Embracing the wild**

I was never close to nature !!!! rather, that was my belief. I have been in cities and towns for quite some time. Even though, I have been teaching Zoology for more than a decade, I was separated from nature, till I started my research on frogs especially Tadpoles.

When I look back now, I realize that I was always with nature. I was brought up in the banks of river Pampa and was used to the rhythm of the music proclaiming the '*Swami Ayappan*' from nearby temple, during the Pilgrim season of Sabarimala. As Pampa takes it birth from Sabarimala, I took my energy from the river basin of Pampa. The seasonal downpours followed by the turbulent river; all floods my memory. The sandy shore during summer was the playground for many. I was amused that time, how water in the river rises quickly covering the sand bed in few minutes when we were playing and elders told us to get ashore. But then the first teaching of dams and their role in water conservation happened there. How the streams weather the rocks and made them into pebbles and gravels, how they paved the river bed, the quick sands, the whirlpools all rushed back to my memory. I felt a clinch when I felt how my kids to whom I teach Ecosystems and their services missed all these.

Those days monsoon, floods and the winds were not scary because they were predictable. But now, the disruptive monsoons, flash floods, increased frequency of cyclones makes our life unpredictable.

We say amphibians have seen the extinction of the mighty Dinosaurs, but they themselves are now in the verge of extinction with a current extinction rate of 41 percent. The bimodal life of many of them make them susceptible to desiccation and flood. The erratic monsoon have rendered them helpless. It will take time to reset their biological clock which has been tuned by nature taking millions of years. They may migrate to more suitable habitat, or to new elevations but those who are the sky islands fails to move as they have nowhere to go. It is sure that many of those species who were refined by nature's tireless refinement and selection will go extinct even before we discover them. It is the duty of every one of us, to protect our ecosystems and the habitats of all living things.

My first orientation to field happened in a field trip at Periyar Tiger Reserve with my 9-month-old son Joshua in 2018 and then on PTR always fills me with energy. The morning chirps of birds and the cool breeze of *Vallakadavu* Dormitory sowed an interest in me about forest for the first time. The presence of plastics I found in the dung of wild elephants of

these heavily protected National Park and wildlife sanctuary instilled in me the adverse effect of plastic pollution and intrusion of plastics into food chain.

For the first time I saw the larvae of dragon flies in the pristine streams of the park. These streams were fed by the water from the shola forest and the grasslands. They hold water to percolate to the soil and fill the aquifers below. They are a highly biodiverse ecosystem with many microhabitats which act as cradle for many specialist species. These grasslands play a great role in carbon sequestration too.

I saw in wild the bio indicators in action. The lichen covered rocks and tree trunks, the larval forms of dragon and damselflies which tell us about the pure air and water prevailed there.

On both sides of these streams, I could see the footprints of the giants or the ecosystem engineers, the Asian elephants, *Elephas maximus*. Studies have proved that these tracks of elephant's act as puddles of water during the hot summer. They turn out to be the cradles for many Anurans (frogs) where they lay eggs and their tadpoles live there. These tadpoles need not compete with other small fishes in these temporary puddles. This water filled tracks also help the tiny frogs to hop and connect with other populations and thus increase gene flow. For them these elephant tracks are magical! That's why we consider them as keystone species as with their absence an entire ecosystem may collapse. The links between different species are still widely unknown. Observation is an important attribute to biology students as it enables us to interpret the process of nature and see the natural selection and evolution in action.

As I visited PTR in the dry pre monsoon I was yet to encounter my then nightmare leeches!!!!.....

to be continued.....

**Priya**