

Where have all the monkeys gone?

Narayan Sharma



WHAT DOES THE FUTURE HOLD? A troop of stump-tailed macaques in Gibbon Wildlife Sanctuary.

Sometime in the year 2005, I sat watching a troop of Assamese macaques on the edge of the Gibbon Wildlife Sanctuary but little did I realise that the troop was 'on the edge', literally and metaphorically. Three years later they disappeared and even today, they remain untraceable. It seems as if the sanctuary has perhaps started to pay off its extinction debt, one that it incurred many many years ago when it separated from its parent, contiguous forest. Here, in the upper Brahmaputra valley, the local extinction of primates in fragmented forests is no longer an aberration; it is rather rapidly becoming a rule.

History tells us that just two centuries ago the situation was not so dismal. The region was covered with an unending swathe of tropical lowland rainforests teeming with wildlife. Neither the wet rice cultivation—introduced here during the first half of the thirteenth century by the mighty Ahoms—nor the sparse human population had had any noticeable impact on the health of the forest.

But since the discovery of tea during the first half of the 19th century and its

subsequent expansion deep into the valley, the landscape started changing irreversibly. Forests were cleared for tea, railway lines and timber, and to accommodate a burgeoning human population with its growing aspirations. The riches of coal and oil that the forest yielded from its subterranean depths ironically resulted in its further opening up and subsequent destruction. These developments, accompanied by an unprecedented, unabated encroachment of all forested areas, have led to the once-contiguous forests of the past existing today only as numerous relicts, scattered and squeezed in the vast sea of tea estates, human settlements and agricultural fields.

Since that lost day in 2005 I have been trying to understand how the last primates in these forest fragments are trying to cope desperately with fragmentation. Perhaps the birds or butterflies would have been more ideal subjects, but I chose primates for several selfish reasons. They are relatively easy to spot and census, and they often respond rather differently to fragmentation, sometimes even within the

same community. Many of them are seriously threatened, perhaps on the brink of local extinction, and my interest in them thus seemed urgent, at least to me.

Whatever may be the reason, I must unabashedly confess that ultimately it was my own personal weakness for these animals that may have overpowered all other ecological sensibilities. After all, research is, like it or not, driven by passion, not so much by academic responsibilities!

I began my journey with a survey of primates in three disjunct fragments, together known as the Bherjan-Borajan-Podumoni Wildlife Sanctuary, located in the Tinsukia district of eastern Assam. My observations, compared to those during earlier surveys, soon revealed a sad truth: all the primate species and populations that I was following were in sharp decline; most tragically, Podumoni had lost every single one of its primates, Bherjan all its hoolock gibbons, the cynosure of most primate conservation efforts in northeastern India, and Borajan its once-plentiful, but today completely neglected, stump-tailed macaques.

I subsequently scaled up my surveys to cover the entire fragmented forests of the upper Brahmaputra valley; I was keen to evaluate the spatial and temporal distribution of primates in all these sites. This time, in addition to the standard survey methods, I developed an extensive network of key informants and I interviewed them all to discover, for myself, the historical distribution of primates in these patches.

Much data were analysed, and patterns began to emerge. Almost every fragment had lost at least one or more species; in a few cases, even the forest patch had vanished completely! The macaques emerged as the most threatened group of primates, contrary to the popular belief of gibbons being in most serious trouble. All primates were, however, not affected by fragmentation in alike ways; there were



THE DEPARTED. The exit of Assamese macaques from Gibbon WLS signals impending disaster.

striking differential responses. It turned out, nevertheless, that except for the ubiquitous rhesus macaque, the distance of a fragment from its nearest contiguous forest seemed to be the most critical factor determining the occurrence of any species within the fragment.

It is perhaps telling that none of the fragments that I surveyed any longer support all the seven primate species the region harbours. We naturally wondered why it was so. Was it competition between species for scarce resources or fragmentation-mediated human disturbances that are primarily pushing these species to local extinction? I realised that the coexistence, or lack of it, of several primate species in each fragment was the key issue that would allow me to best comprehend the precarious state-of-being of the primates of the Brahmaputra valley.

I decided to revisit the Gibbon Wildlife Sanctuary, a forest patch less than 20 sq km in size. In 2005, I had found healthy, breeding populations of the region's entire complement of primates within this one fragment. It was a unique opportunity to understand anthropogenic regimes as

well as the ecological and behavioural mechanisms that could have enabled the persistence and coexistence of this rich primate assemblage, otherwise extinct almost across the entire valley. But this was not to be. I was already too late, for that last single troop of Assamese macaque had gone forever and I would never know what was most responsible for its disappearance.

I, nevertheless, toiled on. I have now gathered ecological and behavioural data on the remaining six primate species hoping to unravel the mechanisms that have kept them going, and have allowed all of them to still hang on, albeit precariously. Time is limited for me, and for these primates. I hope that the analysis of my data and my understanding of their lives happens much before it is time for one of them to depart again. I should at least be able to write a requiem for the last Assamese macaque. 🐵

Bats and other beasts of Valparai

Eleni Foui



It has been two years since I first came to India to study the bats of the Valparai plateau for my Master's project. Back then I had no experience; nevertheless I was enthusiastic and hoping for at least a decent thesis. Seven weeks later, having worked during the monsoons with lots of difficulties, I was not quite satisfied with the work. Even though my thesis did not turn out that bad, I was nagged with a strong desire to return and continue the work. Few months later, an opportunity arose. Five months of mist-netting provided some additional data on diversity of the bats in the area. This time I am here for longer and this is giving us the opportunity of getting one step closer to our original goal.

Since 2008, we have documented 12 species of bats. We have identified day and night roosts and hopefully, with the recent recordings in different land uses we will find a pattern

contd on page 20