

# FROM THE WILDERNESS

---

---

## DHOLKAND AND TIGER CONSERVATION

*A.J.T. Johnsingh*

The early winter sun was just rising over the hills as we started climbing the ridge behind Dholkand forest rest house in Rajaji National Park. I had the company of Mr. Yasin, one of the field assistants working here for the Wildlife Institute of India, and we were leading a group of 11 students doing their Master's in Wildlife Science at the Institute. This was the 5th batch the Institute had admitted, and the students had come from different parts of the country with varying degrees of experience in wildlife. This field trip was organised in order to familiarise them with the different facets of jungle craft.

The vegetation after the monsoon, which had barely passed, was dense and green. The morning stillness was being broken by noisy flocks of rose-ringed and blossom-headed parakeets which frequently flew overhead. Our mission was to go to Malawali valley, several ridges away, east of Dholkand, and to track an elephant herd which Yasin had seen two days ago. We had started this orientation tour with a field trip the previous evening when we were rewarded with a sighting of a magnificent tusker, from the safety of a ridge top, strolling through the forest, his tusks glimmering golden in the light of the setting sun. Yasin had said that quite a few elephants are around Dholkand, which is a regular phenomenon in winter. We proceeded, therefore, with utmost caution - stopping and listening to jungle sounds every 200m or so and looking for elephants and other wildlife from every possible vantage point along the path.

There were tell-tale signs in a dense patch of forest dominated by *Helicteres isora*; a group of elephants had rested there a few days ago. Powdery earth had been scooped up with fore-foot, gathered with the tip of the trunk, and thrown on the body. One barking deer, flushed by us from a distance of about five metres, ran about a hundred metres and then stood and barked a few times informing the jungle folk

that it had been disturbed. One black-headed oriole winged across the ridge, its golden mantle sparkling bright in the soft morning light. It sat on the top of a giant sal tree with dense dark green leaves, called melodiously a few times, and then flew away.

When we were about to descend into Sampavali valley the sound of some 'heavy' animal walking on the dry leaf litter under two banyan trees in the valley immediately below alerted us. We stood silently and scanned the valley with binoculars. It eventually turned out to be a group of red jungle fowl walking on the tinder dry fallen banyan leaves! Even a leopard would have found it difficult to walk silently on these dry leaves. Soon we descended into Sampavali valley where on the sandy dry river bed, which is locally called *rau*, we saw our first tiger pug marks for the day. There were old and new pug marks of at least two tigers, a large male and a female, along the *rau*. There were also the tracks of *babhar* grass cutters who illicitly throng the steep slopes of Rajaji in winter to cut the grass which is used for making ropes.

Our walk for the next half an hour along a narrow valley, which draws into Sampavali *rau*, was educative and exciting. Initially the scene of numerous polythene bags of different colours, left by the grass cutters at the junction of the valley and the *rau*, was appalling. Every bag was collected, to be brought back to Dholkand and destroyed. The trek, thereafter, gave us the feeling that we were walking in pristine tiger habitat. The stream bed in the valley was 3-5m broad covered with fine cream - coloured sand which was wet. Therefore, the tracks of tiger, sambar, chital, wild pig, langur and porcupine, which were abundant, were clear for observation. There were also human signs - the broad and bare foot prints of gujjars and the shoe/sandal impressions of the grass cutters. Fresh tracks of a large solitary elephant indicated that the giant had

gone ahead of us only minutes ago. Although we were silent, our approach disturbed a large group of langur. Startled, they jumped from tree to tree and in the process broke branches, and jumped off the trees to 'escape' us.

Soon we climbed a steep ridge covered with patches of grass and trees. Every step needed to be placed cautiously as the ground was covered with abundant small roundish stones which made the climb in most places slippery. There were many grass cutters on the steep slopes cutting grass and, although what they were doing was illegal, our approach did not make them panic at all! We flushed a magnificent sambar stag in hard antlers but could see it clearly only when it emerged out of the dense shrubbery about 50m away.

Our descent into a small ravine which led to Malawali valley was equally steep. In Malawali for the first time we came across buffalo tracks mixed with tiger tracks. We debated about the possibility of a conflict arising any time between the tigers and the *gujars*. The killing of one good milch-buffalo by a tiger can infuriate the *gujars*, and tempt them to poison the kill; the subsequent death of tigers can threaten the small isolated population of 8-10 tigers that live in and around Dholkand. This essentially represents the total population of tigers in a habitat of about one thousand square kilometres between Ganges and Yamuna. Tigers are extremely rare west of Yamuna. Dholkand, once a famous tiger shooting block, now does not have habitat contiguity with the nearest tiger habitat, which is the forest tract east of Ganges stretching from Chilla portion of Rajaji National Park to Corbett Tiger Reserve.

One place in the river bed was cluttered with three to four day old pug marks. We studied them and concluded that atleast a large male and a young female had been around. This abundance of tracks and the flight of a white-backed vulture from a tree nearby also indicated the possibility of a kill around. The hills, with countless gullies, and covered with dense tall grass and trees, rose steeply on one side of the *rau*, while on the other side the terrain was flat, and covered with a dense *Mallotus philippinensis* jungle. I speculated that the kill could

have been taken up in the hill and therefore asked every one to walk in an extended line, up the hill, for about 50m to look for the kill.

While the search was on I walked into the *Mallotus* forest where I accidentally came upon a drag mark. Tangles of sambar hair along the trail gave the identity of the prey. The drag mark through dense bushes was clearly visible and within minutes, I could locate the remains of a fully eaten sambar stag whose hard antlers had been hacked off. When others assembled at the kill site, we searched around and found the lower jaws of the sambar which is necessary to age the animal based on eruption and wear of teeth. The wear indicated that the stag could be between eight and ten years of age. We broke the thigh bone and the cheese like hard marrow indicated that the animal was in perfect health. Thereafter, we back-tracked the drag mark and found that the sambar had been killed at the edge of the *Mallotus* jungle when it had come to the river bed to drink. On the same spot, where the kill had been made, the tiger had removed the viscera of the stag, which should have considerably reduced the weight of the kill. The kill, which must have weighed between 250 and 350kg had, thereafter, been dragged into the *Mallotus* forest.

We were happy that, whoever had removed the antlers, either the *gujars* or the grass cutters, had come upon the kill only after it had been fully eaten by the tiger. But the stealing of the antlers had removed a morsel of food, rich in calcium, important for porcupine to grow their quills.

This exciting discovery after a stiff walk had delighted and vitalized every one of us and, therefore, the remaining five kilometres which lay between us and Dholkand, did not worry us. On the way we watched crested tree swifts whistling and hunting insects in the air, caught and identified a young snake as a chequered keel-back, and collected a tiger scat. We also observed that Malawali valley with its abundant *Zizyphus mauritiana*, and *Mallotus* trees, which offer nutritious forage to wild ungulates, will be an excellent wildlife habitat if buffaloes and people could be banned from the area. We went past a *gujar dhera* which has sprung up in Malawali

valley after a 15 years. The *dhera* is located close to a very dense patch of cool sal forest, one of the very few favourite resting sites for elephants in Rajaji. I walked with grave concern for the future of the wildlife values of this area. My fears grew further when I came to the road where, on a giant *Ficus* tree, hardly 10m from the road, a hidden *machan* was seen. Fresh tracks of a leopard on the road, however, gave me a comforting feeling that at least some species can be resilient against such onslaughts. But I wondered for how long

Our last long walk in Dholkand during this trip will be remembered for a long time by all of us. We set out early in the morning along the *Guleria rau* towards the Shivalik ridge to see a tiger den which is little over three kilometres from the rest house. There were abundant signs of tiger, sambar, chital and elephant along the river bed. The students had been instructed not to speak unnecessarily while in the forest and to walk as silently as possible. One of the principles of jungle craft in elephant forest is to try and hear the elephant before it hears you and to see it before it sees you. Although the directions were obediently followed by every one, we walked into a bull elephant as we came along a foot path through a patch of dense tree jungle. The wind had been blowing from the direction of the elephant towards us and, therefore, the only way the elephant could have become aware of our arrival would have been by hearing our footsteps. When detected at a distance of about 15m, the elephant was seen rapidly turning around, with cocked ears, and running in the opposite direction. Around 1300 hrs when we were about 500m from the rest house we saw a young tusker at a distance of about 80m in the middle of the *rau* along which our path went. He was scraping a large sand stone boulder and feeding on the powder. We sat in the cool shade of the forest close to a ridge, which we had decided to use as an escape terrain if charged by the tusker, and observed him. The sound of him scraping the rock with the tip of the trunk and blowing the powder into his mouth was clearly audible. We watched and waited for half an hour and, as he did not show any sign of moving, and as we got delayed for our afternoon programme, we talked loudly to budge him from the path. On hearing us the tusker got alerted, stood alarmed for

a few seconds and then climbed the nearby ridge and rested in the shade hardly 40m from the path. With great reverence for these noble creatures, we returned to the rest house. On the last night of our stay, sitting around the fire place, we discussed the importance of a place like Dholkand in tiger and other wildlife conservation, which is going through a disturbing crisis today. Of the eight subspecies of tiger, three have already gone the way of the dinosaurs, and the South China tiger is doomed to become extinct by the end of this century. India, often quoted as a shining example for conservation in Asia, is reported to have little more than 50% of the total tiger population in the wild. This has saddled us with the onerous task of saving the tiger for mankind as the chances of saving the tiger in countries like Myanmar, Cambodia, Laos and Viet Nam seem bleak.

In India too, where there is an increasing level of tiger poaching in the recent years and a drastic decline in the morale of the forest staff, the chances of saving the tiger in various protected areas vary. Tigers will survive in premier protected areas like Corbett, Kanha and Nagarhole well into the next century. These prime tiger habitats should continue to get the maximum conservation care the country can bestow on them. It is time we plan site-specific innovative conservation measures in places like Rajaji where the tiger is threatened with imminent extinction.

About twenty years ago there was a *gujar dhera* hardly 200m north of the Dholkand rest house. The people and the buffaloes of the *dhera* caused continuous disturbance in Dholkand, Guleria and Sampavali valleys. Thanks to the far-sightedness of Shri. K.N.Singh, a forest officer, who took a bold decision to remove this *dhera* and give total protection to an area of about 20 sq.km, by stopping grazing, and fodder and grass cutting. This exemplary settlement has been supported by other officers, who followed Shri. K.N.Singh, although in the recent years there has been an increase in poaching and grass cutting.

Nevertheless, even now Dholkand stands out as the best wildlife habitat in Rajaji and its wildlife

abundance is comparable to Paterpani, another Shivalik habitat in Corbett Tiger Reserve. Paterpani, however, has a much larger buffer to protect it and has enjoyed total protection for the last 60 years. We find Dholkand an ideal training ground right in our backyard.

The best way of managing a protected area is to have distinct zones with different objectives - core area for biodiversity conservation and the buffer zone, if necessary, for meeting the biomass needs of the people. Ideally, the core area should be in the middle surrounded by a vast buffer. Such a zonation for management is not possible in Rajaji National Park for three major reasons. One is that the 800 sq.km. Park, which sprawls on either side of Ganges, is almost divided into two by development projects, more along the west bank of Ganges. Secondly, the shape of the Park, which is narrow and long, with numerous villages and several towns abutting the border, does not lend itself well for creating a large core area with adequate buffer. The third but most important reason is the presence of large numbers of *gujars* spread all over Rajaji, thwarting any idea of large cores. The Uttar Pradesh forest department, by offering viable and acceptable alternatives, may one day convince all the *gujars* to settle outside Rajaji. Till then we have to urgently implement a workable alternative which should safeguard the wildlife values of Rajaji.

One way of accomplishing this is by establishing seven to ten mini core areas in the Park, totalling a maximum of 150 sq.km. These mini core areas should be totally free from grazing, lopping and grass collection. Though the entire Park should get protection from poaching, special efforts should be focused on these core areas to totally eradicate poaching. As a model, we should start with Dholkand which, with the inclusion of Binj and Malawali valley, can be one of the two large mini core areas in the Park, with an area of about 30

sq.km. The other one, that needs to be immediately established, is around Dogudda-Suni Sot valley, an important tiger area in Chilla. There is enough expertise available with forest officers like Shri.D.V.S.Khati, who have an intimate knowledge of the Park, and can help establish other mini core areas. These mini core areas and the surrounding wildlife habitats of the Park, if managed properly, can easily support 20-40 adult tigers and can ensure the survival of tiger west of Ganges. Other endangered animals like king cobra and elephant can also find undisturbed havens.

Do we have the will power and commitment to establish the mini core areas immediately and save the tiger from imminent extinction from the vast tract of forest west of Ganges? The lessons we will learn from this experience could help us in tiger conservation in other forest tracts where the predator par excellence is on the brink of extinction.

Some months ago, on a summer day, I had taken a group of four school children to Dholkand. In the evening we went along a ridge and saw two bull elephants, a *makhna* and a tusker, peacefully feeding in a valley. As night approached we sat in the open veranda and had our supper watching the star-spangled sky and a bright full moon which gave us sufficient light to see large animals like deer even 50m away. When we were about to retire agitated alarm calls of sambar, chital and langur suddenly reverberated through the silence of the night in the dense forest which stretches in front of the rest house. We listened and soon heard the *Aaang... Aaang... Aaang...* call of the tiger, mournful call of a languishing species, coming from the forest in front. A little later the cook came running to us and whispered that there are two tigers in the patch of grass land to the left of the rest house. We silently hurried to the kitchen from where every one of us could see these giant cats looking in the direction of the rest house and then vanishing into the jungle.

\*\*\*