

under phumdi in the park needs to be increased. Theft of phumdi and flow or part of phumdi towards northern side needs to be checked. The collection of firewood, food, fodder, NWFP's and fishing etc are to be stopped completely. The area of the park has to be increased at the strategic places. Besides, an environmental need is to be created in which local people may volunteer as natural custodian of Sangai and other animals in the park.

Some suggested measures for tackling the problems in Conservation

- ◆ Providing effective protection
- ◆ Improving the habitat
- ◆ Encouraging eco-tourism and nature education
- ◆ Carrying out eco-development
- ◆ To undertake, aid, promote and co-ordinate research works
- ◆ Building infra-structure
- ◆ Human resource development planning
- ◆ Preparation of detailed management plan of KLNP
- ◆ Capacity building, training, awareness and extension activities
- ◆ Packaging and publicity campaign
- ◆ Ethnic information & Exhibition etc.
- ◆ Active involvement of surrounding population in management & conservation of brow-antlered deer.

seem to be kissing the mountains and the weather is most unpredictable. The Mother Nature seems to have been particularly lenient towards this region by bestowing the Himalayas with unparalleled wilderness. The deep silence is broken only by the chirruping call of birds, the breeding or alarm calls of the prey of tigers, the gushing sound of river waters or the thundering clouds. It is an important time for the animals too, for they voraciously feed, reenergize and breed.

Visit to Koluchar Reserve Forest

Our journey started with a long drive to the Saneh forest rest house, from where we started our trek. We had equipped ourselves with our brand new binoculars and camera equipments' for we could not simply afford to miss any moment. We had to hire ponies to carry our luggage and rations. The weather was cloudy but fortunately there were no rains. We started our trek at 12:30 p.m. after a short briefing by the Range Officer of the Kotri Forest Range. We kept looking for the animals and we were overjoyed when we spotted three gorals on a mountain slope on the edge of Koluchar River. Gorals prefer open habitats with good grass cover. They are surefooted and prefer to remain on steep slopes while grazing on grasses. We carefully watched this mountain goat for sometime and then carried on our journey through the gentle undulations of the Shiwaliks. We had one more sighting of the Goral after we crossed the Kotri river. The river Kotri is the very essence of life of the area and it fosters the rich flora and fauna of the region. It flows in a zig-zag pattern, silent and unruffled at some places and roaring at other places, carrying with it huge amount of silt which when deposited gives rise to the fertile terai plains. We had to cross the Kotri river several times and crossing it, was a fun and adventure for us as never before we had ventured in such rivers. We also saw a fresh elephant tracks on both sides of the river, which indicated that the animal had crossed over the river. But this seemed to be too less to quench our longing to see the majestic animal in wild and our desire was fulfilled as we spotted two cow elephants with one calf, just 300 meter from the river and less than 50m from us foraging peacefully.



Near Koluchaur river, on way to Chaukhamb (Outer Himalaya)

Sal (*Shorea robusta*) is the dominant species of the forest formation while Jamun (*Syzigium cumini*) dominates the riverain habitat. Jamun is an important food plant for birds and animals and the fruits are relished by ungulates and langurs and it is not uncommon to find herds of Sambhar congregated under the trees and feeding in on the berries dislodged by macaques or langurs. The moist deciduous forest is very rich in vegetation containing several species of trees, shrubs, herbs, grasses, ferns, lichens and orchids. However to our disgust, *Lantana camara* and *Parthenium* has invaded this virgin forest almost everywhere. The *Cassia tora* can also be found encroaching upon the grassland patches thus threatening the ungulates, which depend upon grasslands to a considerable extent both for feeding as well as for breeding. All these weeds are exotics but they have now invaded our forests, woodlands and grasslands so well that they have suppressed the growth and regeneration of the native species. These plants have no known commercial importance and they are not used by wildlife too.

The river Koluchar at several places is fed by small water sources locally called as *sots*. These small water channels contain cool and crystal clear water, which we relished and quenched our thirst. These water channels constantly add fresh water to the river and are very

M.Sc. Orientation Tour

- Rishi Kumar Sharma, IX M.Sc.

Come spring and the mountain ranges of Shiwaliks and the outer Himalayas are soaring with life, lush green, interspersed with the spectacular colors of various flowers and young growth. The clouds



Looking for tracks in Koluchaur

important for the fish as they use them as their breeding grounds. Although the river Koluchar supports several species of turtles, fish and amphibians, the golden mahseer is the pride of the river. Mahseer is a fresh water fish that requires calm, well-oxygenated water and a bed of sand and gravel for spawning thus making these water channels as important as the river itself. The little fingerlings of this marvel were clearly visible to us as alarmed by our presence, they moved haphazardly. But unfortunately in spite of being a schedule I species, their population is declining very fast due to indiscriminate fishing, dynamiting and poisoning. The construction of dams and consequent siltation of riverbeds is also responsible for its decline to a large extent. Mahseer when compared to other fish is more prone to depletion and extinction.

The northern aspects of the region are moister and richer in vegetation as compared to the south facing aspects as the harsh rays of sun dry out the moisture making it difficult for the vegetation to grow and regenerate. The ascetic silence of the lofty hills is frequently broken by the call of sambhar, cheetal and barking deer alarm calls. Otherwise the only sound is that of the rustling leaves and the whispering air. The macaques are found in good numbers all along the hills and are very shy of human beings. They

immediately jumped over trees and made their way towards uphill on spotting us. The macaques are omnivores but they feed mainly on vegetation and are known to sleep for long hours to digest the alkaloids present in the leaves of certain plants.

By 5:00 p.m. in the evening we had reached the Koluchar forest rest house. As we sat in the Verandah of the forest rest house sipping our tea, we saw 18 oriented pied hornbills sitting on a single tree along the boundary of the rest house just 10 meters from us. Koluchar is a paradise for birdwatchers. During our short stay of four days, we spotted more than 103 sp. of birds. After finishing our tea we went to the nearby river to refresh ourselves and here again we spotted 22 oriental pied hornbills flying overhead. We also saw tracks of jungle cat, and hoof marks of cheetal. As the sun bid us adieu in the west and the horizon sparkled and dangled with the orange and red colors set along the foreground of lush green hills and the rippling waters of the river, we returned to the rest house for our night halt. While as the night drops dead and brings to halt most of the life particularly for we human beings who feel completely helpless in the dark, it is the time when another group of these interesting wild creatures roam and scan the forests. Yes, it is the time for the

hunters known for their stealth, unusually well developed senses and mystery of operation. Even a hound of a Jackal on a dark night may send chill down the spine.

Next day we went to the surroundings a few kilometers to acquaint ourselves of the place and to get glimpses of some of the creatures. As we walked across the murky waters of the river Koluchar, we could clearly see the hoof marks of cheetal and barking deer and track of jackal. Elephant footprints were also very clear and the footprints along the other side of the bank indicated that the elephant had crossed the river in the morning. The sun was rising slowly in the east behind the hills to mark the beginning of yet another day in the untouched land of wilderness. The cool breeze combined with the serene and ethereal beauty of the landscape filled us with inexplicable joy and ecstasy. The snow white clouds seemed to embrace and kiss the hills clad in green and the clarion call of the peafowl seemed to add music to the carnival of nature.

As we moved calmly, imbibing every moment of nature's glory, one amongst us pointed towards the adjoining Lantana bushes. We slowly approached the lantana bushes but could not make out anything and as we stood near on opening

WELCOME GUESTS

- A group of 13 senior IFS Officers undergoing 16th Professional Skill Upgradation course at IGNFA accompanied by faculty members on July 4, 2003.
- A class of 30 cadets and two masters from Rashtriya Indian Military College, Dehradun on July 31, 2003.
- A class of 25 IFS (Probationers) of 2003 batch from Indira Gandhi National Forest Academy, Dehradun on August 6, 2003.
- A class of 71 B.V.Sc. Final year students from Veterinary College & Research Institute, Namakkal, Tamil Nadu on August 22, 2003.
- A class of 20 M.Sc. students and two faculty members from School of Mathematics & Allied Sciences, Jiwaji University, Gwalior on August 25, 2003.
- A group of 46 students from class VI to XII and one teacher from Raja Ram Mohan Roy Academy, Dehradun on August 29, 2003.
- A batch of 22 participants from 12 countries of Asia & Pacific Region of International short course on Geo-informatics for Biodiversity Assessment undergoing training at IIRS Dehradun on September 8, 2003.
- A group of 60 students of B.V.Sc. Final Year from Tamil Nadu Veterinary and Animal Science, University, Madras Veterinary College, Chennai on September 11, 2003.
- A class of 15 B.Sc. III year, Forestry Students from Kerala accompanied by two faculty members from Kerala Agricultural University, College of Forestry, Vellainikkara, Trichur, Kerala on September 13, 2003.
- A batch of 25 senior IFS officers undergoing Advance Forest Management course at IGNFA, Dehradun on September 17, 2003.
- A group of 25 students of III year Zoology and 5 staff members from SGTB Khalsa College University of Delhi, Delhi on September 25, 2003.
- A group of 30 teachers from different Universities undergoing training at FRI from Forest Research Institute, Dehradun, September 25, 2003.