

The Pheasant Sings Once More

Pheasant Conservation in the Great Himalayan National Park

By Jennie R.B. Miller

I crouched low on the pine needles, carefully laying one foot in front of the other as I silently stalked my prey. Ten metres ahead of me, Peter Kaestner fiddled with his audio player and soon a “mew” crackled loudly from the speaker. He motioned firmly for me to stop and I settled quietly behind a fallen log on the steep slope, straining my eyes for a flash of red amongst the darkening conifer forest around me. Minutes passed. As we held our positions, the recorded call continued to blare into the trees.

Then softly—an echo sounded from the forest, a “mew” distinctly different from the one emanating from our machine. I propped myself up, stretching my neck for a glimpse of the bird I had been waiting for two months to see, but to no avail. The sound retreated as suddenly as it had come. Peter turned to face me, and although twilight obscured his face, I knew he was grinning. “Did you see him?” Peter asked me, his voice light with excitement, “What a beauty, and that brilliant red throat...my first Western Tragopan!” I smiled faintly, but I hardly shared his enthusiasm, for the Western Tragopan had once again eluded me.

Like most of the ecotourists I met that spring, Peter had come to the Great Himalayan National Park (GHNP – See *Sanctuary* Vol. XIX No. 3, June 1999) in Himachal Pradesh just to set eyes on the Tragopan. With fewer than 5,000 individuals left in the wild, ranging across Pakistan and northern India, the bird’s reputation as the rarest pheasant in the world lures many birdwatchers to the GNHP. Concern about the bird peaked 10 years ago, when K. Ramesh of the Wildlife Institute of India announced a sharp decline in the GHNP populations of the Western Tragopan, Himalayan Monal and Koklass Pheasant. I had come to India from the United States to study their decreasing numbers, and to investigate whether recent management changes had managed to reverse the decline.

The remoteness and rough terrain of the GHNP act as natural barriers to people, making harmful activities like poaching and logging logistically and financially inefficient. But the environment is nonetheless vulnerable to human impacts. The villagers living around the park enter the Protected Area to graze their livestock and collect firewood, medicinal plants and mushrooms. Their methods of collecting morel



Nestled at an altitude ranging from 1,500 to 5,000 m., the Great Himalayan National Park supports a mix of temperate and alpine forests (facing page) comprising several species of oak and conifers. Though mammals are less visible, the park is a birders’ paradise. The dense undergrowth harbours five species of pheasants including the highly-endangered Western Tragopan *Tragopan melanocephalus*, the brilliantly-coloured Himalayan Monal *Lophophorus impejanus* (above) and the Koklass Pheasant *Pucrasia macrolopha*.

COLLECTING GUCCHII

Morel mushrooms *Morchella esculenta*, known as *gucchii* by local Himachal villagers, are palm-sized, cream-coloured fungi that grow around fallen trees in high-elevation broadleaf and conifer forests. Mass collection of *gucchii* in the GHNP was stimulated by expanding international commercial markets in the 1960s to such an extent that by 1997, villagers were earning 70 per cent of their cash income from the extraction and sale of *gucchii* and other non-timber forest products. Today, a single kilogramme of dried *gucchii* fetches Rs. 10,000 in local markets and the fungi remain an important source of income for many villagers. The camouflaged appearance of *gucchii* forces villagers to stray from park trails and literally leave no leaf unturned. Not only do people trample vegetation, but they also disturb nesting pheasants, which breed from April to June when *gucchii* collection is at its peak. Fewer villagers have been collecting *gucchii* since the GHNP was notified in 1999 and our research suggests that the reduction in human disturbance is allowing populations of the Western Tragopan, Koklass Pheasant and Himalayan Monal to recover.

My plan was to study pheasant species in the Tirthan Valley of the GHNP for two months. Because pheasants are excellent indicators of the health of their ecosystems, understanding their ecology would allow me to assess the state of the environment of the GHNP.



PETER KESTNER



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This is possibly the only image of the elusive Western Tragopan (top left) in the wild. The final notification of the park, coupled with efforts to involve villagers in conservation has reduced the villagers' dependency on park resources and allowed populations of the enigmatic Western Tragopan, Himalayan Monal and Koklass Pheasant to recover to some degree. There is greater awareness among villagers of the conflict between their traditional, unsustainable livelihoods such as uncontrolled firewood collection (above), extraction of medicinal plants and mushrooms, livestock grazing and expanding pasture land (top right) and the survival of natural biodiversity.

THE RESEARCH STUDY

To study the pheasants in the GHNP, I collected data on the birds' abundance in 2008 and compared these densities to abundance data collected by K. Ramesh (the Wildlife Institute of India) from 1997-1999. Both our research teams employed the same field methods and utilised two techniques of data collection to best fit the behaviour of each species. Because the Himalayan Monal is conspicuously active during the day, we measured the number of individuals viewed per kilometre while walking trails. In contrast, the Western Tragopan and Koklass Pheasant's tendencies to skulk among dense undergrowth make them notoriously elusive to birdwatchers. Although silent during the day, the males of these species call loudly to females at dawn during their breeding season from April to June, allowing us to measure their densities by listening to the number of males calling in a given area. We ultimately discovered that the population densities of all three species have remarkably increased more than threefold, suggesting that the reduction in human disturbance following the final notification has permitted the pheasants to thrive.

mushrooms (called *gucchii* in the local language) are especially disturbing to wildlife and have been identified as the primary threat to pheasants (see box on page 47).

From 1994 to 1999, an eco-development programme was implemented in the villages around the park to reduce people's dependency on natural resources. The final notification of the GHNP was passed during the last year of the project. With it came the laws of the *Wildlife (Protection) Act, 1972*, which banned the extraction of all biomass (such as *gucchii*, firewood and fodder) from the park. Enraged by the restrictions set on their livelihood and culture, some villagers attacked park property in protest, an incident from which the Forest Department is still rebuilding its infrastructure.

Several years later, I heard about these events in the United States during my final year of college from a family friend and active humanitarian in Himachal Pradesh. The scenario reminded me of other conservation situations, with one major difference: this story had no ending. Had the villagers stopped entering the park? How had the environment responded to lower levels of human disturbance? No one had investigated the effects of the eco-development and final notification on the biodiversity of the area, leaving the villagers' sacrifices unjustified.

Eager to answer these questions, I contacted the GHNP director, Sanjeeva Pandey, and the Wildlife Institute of India, and applied to carry out research on the park through a U.S. Fulbright Scholarship. One year later, after my graduation, I found myself driving along the

stomach-churning, winding roads of Himachal Pradesh towards the GHNP.

My plan was to study pheasant species in the Tirthan Valley of the GHNP for two months. Because pheasants are excellent indicators of the health of their ecosystems, understanding their ecology would allow me to assess the state of the environment of the GHNP. My focus was the Western Tragopan, Himalayan Monal and Koklass Pheasant and I wanted to compare the current situation in the GHNP with the results that Ramesh had found 10 years earlier. This would enable me to evaluate the eco-development project and the impact of the final notification of the Protected Area to biodiversity conservation.

During the pheasant breeding months of April and May, I backpacked through the park, camping in week-long increments at a series of study sites. Each day I rose before dawn and listened for Western Tragopans and Koklass Pheasants, recording the male territory calls that rang through the valley as the rising sun painted the Himalayan skies. I also walked the twisting trails, counting Himalayan Monals as they swept down the slopes around me. While Himalayan Monals often flew overhead and Koklass Pheasant occasionally scurried across my trail, the Western Tragopan failed to reveal itself, despite my long hours in the forest. In almost two months, I had not one glimpse of my elusive subject.

To guide me through the unfamiliar forests of the GHNP, I hired a local named Pritam Singh as my field assistant. He lived in Kharongcha on the border of the GHNP, a village in the Eco-development Zone, and had aided Ramesh in counting pheasants a decade earlier. Raised in a family of farmers, Pritam knew the forest intimately, and his knowledge proved to be invaluable in helping me locate study sites and identify fauna. His rough hands, weathered face and sparkling eyes told of a rough yet satisfying life lived off the land.

Pritam not only served as my eyes and ears in the field, but also as my connection to the people I met, since I spoke neither Hindi nor the local dialect of the Tirthan Valley. My silence offered me a personal yet objective perspective of rural Himachal. On days I took off from fieldwork, I lived in Kharongcha, which is connected by an eight kilometre walking trail that winds through steep mountain sides and serves as the village's only access to groceries, medicine and public transportation.

Cut off from mainstream society, I immersed myself in the daily life of a Himachali villager. From the window of my mud and wooden house, I watched the hardworking residents



Gucchii, a morel mushroom *Morchella sp.* that grows in the leaf litter along the higher reaches of Himachal Pradesh, is highly prized by gourmets across the world. This edible forest produce contributes to a substantial portion of the local people's income, but the ecological consequences of the collection have not been fully documented.

wrestle with the land to survive, pulling grass from the fields to feed their cows, chopping wood for their fires and herding goats and sheep along narrow pathways to graze.

Witnessing the villagers' connection to the land opened my eyes to a critical component of conservation biology that my American college education was unable to provide. I learned first hand that conservation solutions must delicately interweave ecological as well as social factors. In their attempts at objectivity, scientists too often forget that humans are also a part of such remote ecosystems. The term 'socio-economic dependency on forest resources' fails to convey the exhaustion of a woman who spends a day climbing through vegetation in search of a palm-sized fungus that could earn half of her family's annual income. The word 'ecotourism' similarly omits visions of a middle-aged man with a fourth-grade education bent over an English phrase book, struggling to memorise words that will qualify him to work as a tour guide. Living in Kharongcha sensitised me to the needs of rural communities and showed me that biodiversity conservation can occur only amidst a compromise between humans and the environment.

The GHNP is one example of that compromise. Every day in the park, I witnessed signs that the wilderness is thriving. I counted the tree rings of naturally fallen conifers that revealed

THE WESTERN TRAGOPAN

A medium-sized, charismatic pheasant, the Western Tragopan *Tragopan melanocephalus* is highly endangered and found only at altitudes of approximately 1,350 to 3,600 m. along the Himalaya. Its range extends from northwestern Pakistan through Kashmir and Himachal Pradesh to Uttarakhand. The bird prefers the dense under-storey of temperate, subalpine and broadleaf forests. The male is brilliantly coloured, with white-spotted red and black feathers along his body and red patches on the sides and back of the neck, while the female is pale brown with black spots. During the breeding season (April to June), the male's throat inflates to reveal purple-coloured lappets. The male also displays blue horns and calls repeatedly to attract the female. Tragopans build their nests either on the ground in thick undergrowth or in tree hollows about three metres from the ground. The birds feed on oak leaves, bamboo shoots, roots, seeds, acorns, berries, insects and other invertebrates.

ages of 100 years and more. Himalayan Monal rained down on me in large groups and often filled the forest with their shrill calls. I saw yellow-throated marten and red giant flying squirrel, Royle's pika and goral, rhesus macaque and Hanuman langur. My thrill at these sightings turned to nervous excitement when I also encountered the scats and foraging sites of larger predators. My assistants told stories of villagers who returned from the forest with limbs mutilated by leopards and bears, and of men and women who never returned at all.

After two months of data collection, I could confidently confirm the trend. The GHNP populations of Western Tragopan, Himalayan Monal and Koklass Pheasant have more than tripled in abundance. The eco-development programme and final notification appear to have reduced villagers' dependency on park resources, allowing the Protected Area to recover. Yet, although human presence has lessened, it has not fully ended. I occasionally passed villagers on park trails carrying knapsacks that bulged with *gucchii*. While eco-development appears to have helped many people find alternative livelihoods, villagers who are unemployed and landless continue to enter the forests out of poverty.

As if to underscore the recovering biodiversity of the Great Himalayan National Park, a Western Tragopan finally did appear before me on one of my very last visits to the park. The morning after Peter saw the Tragopan, Pritam and I packed our equipment and left camp early to record Monals along a nearby trail. A thick forest of conifers and oaks rose out of the morning mist as we tromped sleepily along the damp trail. Pritam was several metres ahead of me when he froze mid-step and dropped to his knees. Eyes wide in disbelief, he gestured frantically toward a grassy meadow on the slope below us. Hardly 30 m. from us stood an adult male Western Tragopan, his red neck glowing brightly against the white mist. For a brief moment he posed, framed between two conifers, before running down the hillside to disappear silently into the dense underbrush. 🐾