



## NATURAL HISTORY OBSERVATIONS FROM CHURDHAR WILDLIFE SANCTUARY

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Nestled in the outer Himalayas in the Sirmour district of Himachal Pradesh, the Churdhar Wildlife Sanctuary stands as a hidden gem, rising to an impressive elevation of 3,600 metres at its peak. The Sanctuary contains diverse terrain and rich biodiversity driven by differences in gradient, slope, aspect and edaphic factors. These variations result in two primary forest types within the Sanctuary—Himalayan moist temperate forests and sub-alpine birch and fir forests—each hosting its own mosaic of life.

Our journey began at Noradhar, a village perched at 2100 m, dominated by Banj oak, moist deodar, and moist temperate deciduous forests. Species like *Quercus leucotrichophora*, *Quercus floribunda*, *Rhododendron arboreum* among others made up the primary floral elements along with lush herbaceous plants such as *Sauromatum venosum* and

*Potentilla indica*. The flora transitioned dramatically as we ascended toward Shirgul temple from 2500 to 3000 m, where the forests gave way to a mix of Kharsu oak and Western mixed conifer forests. Here, trees such as *Pinus wallichiana* and *Abies pindrow* stand tall, with cones of *Picea smithiana* waiting to disperse their seeds. At the highest reaches of the Sanctuary, between 3000 to 3600 m, the landscape begins to resemble the sub-alpine regions of the greater Himalayas. *Rhododendron campanulatum* shares the slopes with *Betula utilis*, creating a dense, dynamic ecosystem.

For bird enthusiasts, Churdhar is a paradise. Even under heavy fog and relentless rain, we recorded an impressive 83 bird species over four days, many of them lifers. From the lowland oak forests of Choras (1900 to 2200 m), which echoed with the calls of Himalayan Black-lored tits, Great Barbet,

Wedge-tailed Green-pigeons and different woodpeckers, to the rocky streams where Brown dipper flitted along with Spotted forktails and Plumbeous redstarts, we marvelled at the variety. We were greeted by the sweet whistle of the Blue Whistling-Thrush, which heralded the start of our day. Mixed-species flocks often composed of Grey-hooded warblers, various species of tits, laughingthrushes, woodpeckers and even Rock thrushes, weaving through the forests, foraging, was a common but fascinating sight. The lower elevations were a mosaic of forests and farmlands, therefore, human commensals such as mynas, sparrows, crows as well as open area specialists such as Rock Bunting, Yellow-breasted Greenfinch, Himalayan Prinia were present.

As we hiked higher, the birdlife transitioned once more, with forest specialists such as White-tailed nuthatches and Bar-tailed treecreepers making an appearance. Mystery bird calls echoed through and we found ourselves going off-track trying to identify the culprits which turned out to be a pair of Black and Yellow grosbeaks high up in the canopy mobbing a poor Asian Barred Owlet. At an elevation of 3000 m, beyond the timberline, the forests give way to alpine scrub (krumholz) dominated by Rhododendron campanulatum bushes. Here, we encountered alpine specialists like the Gray-sided Bush warblers actively vocalising to mark and defend their territories. Majestically soaring up above were raptors such as the elusive Bearded Vulture, Himalayan Griffon and a rare Eurasian Hobby, darting through the mountains with lightning speed, while below, the undulating valleys echoed with the sounds of nature.

Churdhar not only hosts an incredible diversity of life but also a sheer variety of beautiful landscapes. The valleys here are surrounded by towering mountains, their slopes blanketed by dense deodar, oak, and pine forests. From the rare Musk deer and Himalayan black bears to leopards that stealthily navigate the wilderness, this Sanctuary protects a range of charismatic megafauna and a wide array of birds. On our way back to retrieve the camera trap that we had deployed on the first day, a couple of us encountered a leopard in an extremely narrow, and slippery path consisting of boulders and flanked by tall grass on both sides. As the eyeshine slowly descended from the side of the path and stood around 10-15 feet ahead of us, we foolishly panicked, turned back and ran, luckily not slipping on the slippery boulder path.

Only once we reached a good 50-100 metre away from the leopard did we look back; our adrenaline-filled bodies decided not to retrieve the camera trap the same night, but the following morning.



In the midst of our exploration, we found ourselves mesmerised by the smaller inhabitants of Churdhar. The cacophony of cicadas reverberated through the eerie forest setting, lending an irreplaceable charm to the forest. The riparian habitats promised some odonate treasures like the "banded krait" (or common clubtail) dragonfly, *Ictinogomphus rapax*, and the brilliantly metallic Lestidae damselflies. Ephemeral puddles in and around Churdhar also had *Orthetrum* sp. dragonflies. In the same stream flowing through the centre of the forest, we heard calls of Nepal Paa Frog *Nanorana minica* and saw large individuals of the less vocal, and mucus-secreting Murree Hills Frog *Nanorana vicina*. A bright flash of green, and there was a beautiful Assam sucker frog *Amolops formosus* sitting on a moss-covered rock unperturbed by our close proximity. As we moved through the Sanctuary, every step brought new discoveries, from the colourful butterflies fluttering among the alpine flowers to the rustling of pikas dashing between boulders.

One of the most memorable moments was the sighting of a Himalayan keelback, a docile snake, basking in the early morning sun by the roadside. The simplicity of its patterning and chocolate brown colouration, brought to mind the Nilgiri keelback of the Western Ghats. Despite these astounding sightings, what we most wanted eluded us; the Himalayan pit viper (*Gloydius himalayanus*) and the Nepal pit viper (*Trimereurus septentrionalis*). Nevertheless, we remain hopeful for the future, knowing that Churdhar's secrets will reveal themselves slowly, in their own time.

However, the Sanctuary is not without its challenges. The degradation of land by cattle and tourists is a persistent problem here. Gujjar settlements, along with their livestock, impose significant stress on the landscape, trampling shrubs and grasses, and contributing to forest degradation. Forest gaps have appeared in areas that were once dense with trees. The presence of tourists—approximately 2,000 per day—compounds these pressures, with stray dogs further endangering local wildlife. The presence of invasive plants, trampling by cattle, and uncontrolled lopping for feed have further strained the delicate balance of this ecosystem. Despite this, Churdhar retains much of its ecological integrity, and efforts continue to maintain its biodiversity.

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