

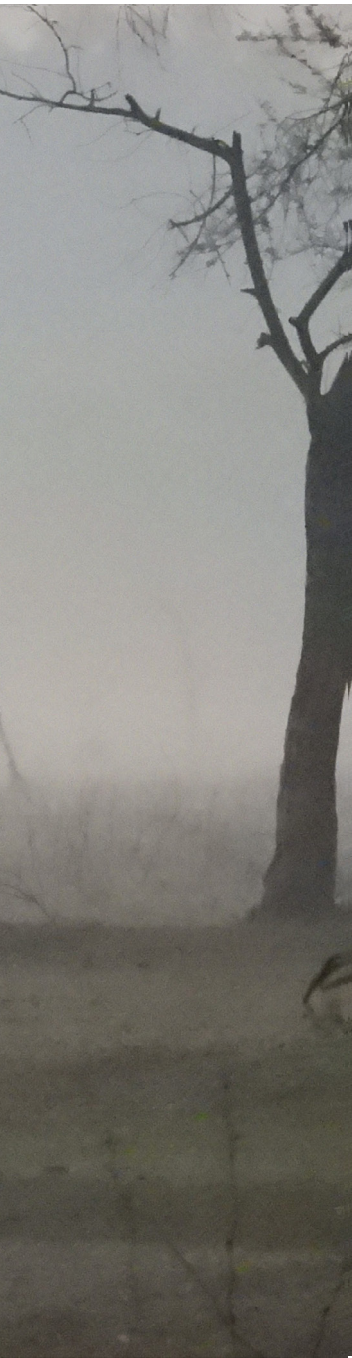
A DAY IN JHILMIL

-MANAS SHUKLA



Bulls in the all-male coalition group returning to the forest after a nutritious breakfast in croplands (Credit: Michael Isaac Rayen)

Waking up at 2 am is not typically how an [M.Sc.](#) student would choose to start their Saturday, especially after a week saturated with academic work. However, a summons from Dr. Bivash Pandav always takes precedence over any weekend relaxation. A long-overdue trip to the Jhilmil Jheel Conservation Reserve – a small saucer shaped wetland covering an area of 37.83 km², on the left bank of the Ganga River in Chiriyapur Forest Range of Uttarakhand's Haridwar district near Rajaji Tiger Reserve – was finally a reality. Thus, our [M.Sc.](#) (Wildlife Science) cohort boarded the bus, albeit half asleep. It may have taken a while for some of us to realise that we were no longer dreaming when we alighted onto the dreamlike landscape of Dassowala. The red waxing gibbous moon lingered near the horizon, and the surrounding fog was faintly lit by distant urban lights.



This time and space was strategic as we were about to witness an uncommon yet significant phenomenon – a coalition of supposedly solitary male elephants. A large group of bulls traverses almost nightly to visit croplands on the other side of the River Ganga and typically returns before sunrise. As we made sure none of us smelled like fruits, Dr. Bivash briefed us on the nature and dynamics of male elephant coalitions. In highly fragmented forests and urbanised areas, bulls of diverse age classes tend to congregate and adopt a 'high-risk high-reward' strategy, gorging on nutritious crops in agricultural fields together. Field studies from a similar all-male group in Karnataka have also highlighted this behaviour as a strategy solitary males have been forced to adopt, succumbing to the pressures of increasing anthropogenic disturbance. While the high risk part emanates from probable negative interactions (sustaining injuries when repelled, or even death due to electrocution), the high reward is by way of improved nutrition and, subsequently, better body condition through crop produce intake. Within a few minutes, we got a signal from Imam ji, our trusted and experienced local collaborator. There it was: a strikingly huge tusk, making its way across the River Ganga. Its massive tusks were easily discernible despite the dim and foggy twilight. Moments later, the rest of the group followed, tailed by a noticeably young male, who was as enthusiastic as any teenage boy would be to be a part of a heist group. We counted a record high of 11 individuals, with fresh footprints seen (from another direction) of a twelfth who managed to slip past our sight!

A remarkably eventful morning such as this had already set the course of the day. We proceeded to observe two adjacent nest-bearing *Bombax ceiba* (or Red silk-cotton) trees near the river bank, one of which we suspected belonged to a pair of Pallas's Fish-Eagle (*Haliaeetus leucoryphus*), since we heard squeals of this majestic endangered raptor a few hours ago. About an hour of waiting was to no avail, and we moved forward thinking that the nest might have been abandoned. But as fate would have it for us, just minutes later we were informed that the fish-eagle pair had returned to the nest! Rushing back to the bank, we witnessed the pair manoeuvring around the nest. The moment was further embellished by a large kettle of griffons, comprising nearly 40 individuals, soaring overhead. Shadowed by the wings, we stood in awe until the raptors glided out of sight.

The day then turned towards understanding a few anthropogenic dimensions of wildlife management. Dr. Bivash led us to the Haridwar-Najibabad road, or National Highway 34, where construction is underway on two elevated sections, apparently being the aftermath of linear infrastructure development and wildlife welfare meeting common ground. A masters' dissertation study in 2017-18 by WII alumnus Sultan Singh provided evidence that a 5 km stretch of this road was choking connectivity between two forest/habitat patches, forcing wild animals to cross the road and put themselves at risk of accidental collisions. Coming from the Wildlife Institute of India, this study was deemed credible enough to be accounted as evidence in the court of law, and thus a proposal for a 5 km elevated road to be built by the National Highways Authority of India (NHAI), was put forth. It was hoped that this mitigation measure would result in a safe and sufficiently wide underpass for wild animals, stabilising the local ecosystem and drastically reducing animal-vehicle collisions. However, the final settlement converged to two 1200 m long underpasses each, joined by a 600 m long block wall. Far from ideal as it may be, it can still be seen as a significant victory for long-term conservation.

To fulfill the missing element of this trip, our next stop was at Jhilmil Jheel where we climbed up the watchtower adjacent to the Lake and scoured the landscape with our binoculars. A herd of nearly 50 barasingha or swamp deer (*Rucervus duvauceli*) were at their usual spot, taking their noon rest. Their crouched posture may have obscured their bodies, but the outstanding male antlers were enough to give their location away. Some individuals in the herd remained vigilant, while most lazed off amidst the grasses. Not far off in the backdrop was a muster of six Asian Woolly-necked Storks (*Ciconia episcopus*), like sentinels in repose. Exhausted from sleep deprivation and walking under the scorching sun, we too took a moment to relax as the sounds of the forest were taken up by distant chital (*Axis axis*) alarm calls.

There couldn't have been a more momentous end to the day than gorging on an invigorating meal of curd rice served on teak (*Tectona grandis*) leaves, accented with papad and chillies. Filling our water bottles with mint leaves, we boarded the bus back to the Institute as a pair of Crested Serpent-Eagle (*Spilornis cheela*) were calling out to each other behind us. Each of our field notebooks may attempt to capture the most striking elements of our trip, much like this article. However, when compared to the first-hand experience of Jhilmil Jheel, all words seem inadequate.

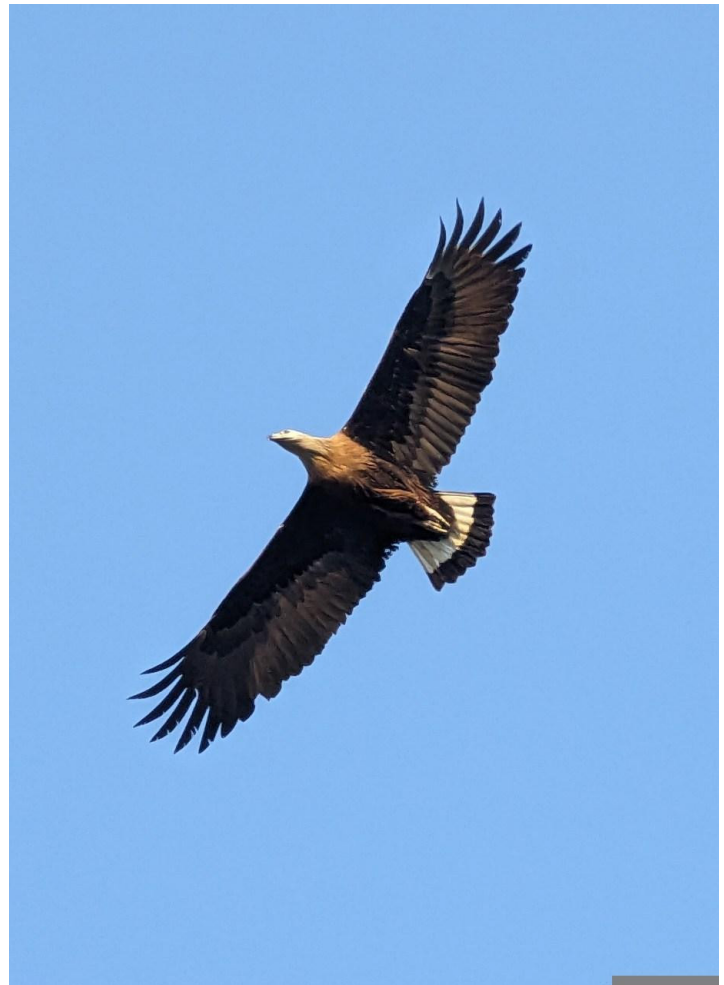
About the Author

Manas is an aspiring ecologist from the XIX MSc (Wildlife Science) batch at the Wildlife Institute of India, with research interests aligned towards raptor ecology. He has collaborated with his peers to publish butterfly and bird field guides for the Mussoorie Wildlife Sanctuary. Additionally, he was previously a technical assistant in tiger and elephant estimation exercises with the Institute's Tiger Cell. Keen on writing and photography, he finds his own path towards contributing to scientific communication.

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The northern swamp deer (Rucervus duvaucelii duvaucelii) unwinding with Woolly-necked Storks (Ciconia episcopus) on account of a warm afternoon (Credit: Betwonsaoo Passah)



The magnificent Pallas's Fish-Eagle (Haliaeetus leucoryphus) soaring over River Ganga in Jhilmil Jheel Conservation Reserve (Credit: Manas Shukla)