

Staying Near The Hornbill Nest

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NAMERI is a national park (opened in November 1998) located at the foothills of the Eastern Himalayas in the Sonitpur District of Assam, against the northern lines of the Jia Bhoroli River. It is among the thickest and the most threatened reservoirs of flora and fauna in the world.

The national park consists of over 30 species of mammals and about 400 species of rare birds. The eco-region of the park is regarded as a mega biodiversity hotspot of the Eastern Himalayas. This area of the park experiences tropical monsoons receiving an average annual rainfall of 3400 mm.



(Photo credit: Dipanjan Ghosh)

Picturesque Jia Bhoroli River against the scenic backdrop of Nameri National Park

Nameri National Park was declared as a forest reserve in the year 1978 and later a wildlife sanctuary in the year 1985. The boundaries of the Nameri National Park extend up to the east and south-west bank of Bor Dikorai River, starting from the interstate boundary of Arunachal Pradesh and Assam. The park covers a total area of 200 square kilometres and is augmented by some parts of the Balipara reserve forests.

For nature lovers, one of the main reasons for visiting Nameri is to have a look at different species of hornbills. Nameri is one of the best places to spot hornbills in India. It is home to six out of nine hornbill species found in the Indian subcontinent, viz., Indian grey hornbill (*Ocyeroceros birostris*), Oriental pied hornbill (*Anthraceroceros albirostris*), Great Indian hornbill (*Buceros bicornis*), Rufous-necked hornbill (*Aceros nipalensis*), Wreathed hornbill (*Rhyticeros undulatus*) and the illusive Brown hornbill (*Anorrhinus tickelli*).

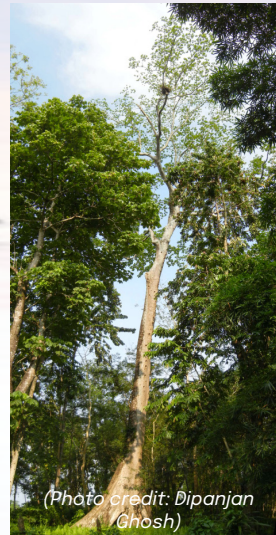
And this is why, we were hopeful that luck might favour us to catch a sight of some hornbills as we made ourselves comfortable in the Nameri Eco Camp situated just between NH 54 and the picturesque Jia Bhoroli River. The Nameri Eco Camp was set up in 1994 and is the outcome of a joint effort of the Department of Forest, Wildlife, Government of Assam, and the Assam (Bhorelli) Angling and Conservation Association with the financial support of the North Eastern Council.



(Photo credit: Dipanjan Ghosh)

Entrance to the Nameri Eco Camp

As we entered the Eco Camp, a mighty and old tree caught our attention. Its trunk was marked by many holes. We learnt that these were nesting holes of the great Indian hornbill.



(Photo credit: Dipanjan Ghosh)

Large tall tree with hollows on its trunk – signs of abandoned nests of great hornbill

Our driver on the tour, Jayanta Sangma, a congenial fellow, informed us that animal sightings in Nameri are very sparse, except for elephants. But it is possible to sight and encounter birds especially the great hornbills in the evening between 5-6 pm when they return from the jungle and fly across the river overhead. It is said that the wing beat of a great hornbill can be heard more than a half kilometre away.

The great Indian hornbill (*Buceros bicornis*) is much more attractive than it appears in photographs. It is the largest and heaviest of the hornbill species found in the Indian subcontinent. Great Indian hornbill inhabits mainly in evergreen and moist deciduous forests of South and Southeast Asia. In India, they are found in a few forest areas in the forests of Western Ghats and in the forests along the Himalayas. Their distribution extends into Nepal, Myanmar, Thailand, Malaya, and Sumatra.

A mature great Indian hornbill is 100-130 cm long, with a 150 cm wingspan and a weight of 2-4 kg. Females are smaller



(Photo credit: Siddhartha Goswami)

Brightly coloured horny casque on top of a very large bill is the hallmark of an adult Great Indian Hornbill



(Photo credit: Rupak Ghosh Dastidar)

A great hornbill flying across the river overhead

than males. The most prominent feature of the great hornbill is its very large bill, which bears a sizable, bright yellow and black coloured, concave, horny growth – the casque. Even though it looks considerably heavy, the bill is actually very light; it is made up of thin-walled hollow cells.

The casque serves no known purpose, except sexual attraction. The back of the casque is reddish in females, while the underside of the front and back of the casque is black in males. Hornbills' first two neck vertebrae have been fused to support their large bill. Unlike other birds, hornbills have highly pneumatized bones, with hollow air cavities extending to the tips of the wing bones.

The great Indian hornbills live for nearly 35-50 years, or even more in captivity. Though we spotted a monogamous pair coming together merely for mating purposes, hornbills are usually seen in small groups of 2-40 individuals, larger groups occasionally aggregating on tall fruit trees in the vicinity. Great Indian hornbills sometimes fly at great height over the forest canopies. The flight involves stiff flaps followed by glides with the splayed and up curled wings.

Great hornbills are predominantly frugivorous, i.e., their diet consists mainly of fruits. They even obtain the water that they need entirely from their diet of fruits. Interestingly, they cannot swallow food caught at the tip of the beak as their tongues are too short to manipulate it, so they toss it back to the throat with a jerk of the head.

Great hornbills fulfil their need of protein-rich food by eating small mammals like squirrel, birds like owl and jungle owlet, small reptiles and insects. Hornbills are considered important for maintaining the ecosystem healthy because they consume a large number of insects and small animals considered pests.

Large, tall and old trees, particularly emergent that rise above the canopy, seem to be preferred for nesting by hornbills. The great hornbills choose the highest branches with little foliage as roost site. They arrive punctually at sunset from long distances, following the same routes each day.



(Photo credit: Dipanjan Ghosh)

Great hornbills prefer the highest branch of a tall tree with little foliage as the roosting site

Once courtship and mating are over, the female finds a tree hollow and seals herself in with faeces and plaster made up mainly of pellet of mud. The male gathers the pellets from the forest floor and gives them to the female who stays inside the nest leaving a slit for a window big enough to receive food. The clutch consists of one or two eggs.

The female remains imprisoned inside for 6-8 weeks, where she incubates for 38-40 days relying on the male to feed her food until the chicks are half developed. During this period the female undergoes a complete moult. She emerges after she re-growing fresh feathers and her young are feathered. In the breeding season, males work hard. Some male hornbills are so exhausted after the nesting process that they may even die.

The great Indian hornbill is deemed as the state bird of Kerala and Arunachal Pradesh. In fact, a great hornbill named 'William' that lived on the premises of the Bombay Natural History Society (BNHS) was also the inspiration for the logo of the BNHS and the name of its building – Hornbill House.

Perhaps due to its impressive body colour, large size, and specially designed beak, the great hornbill is considered important in many tribal cultures and rituals. Among the Sema Naga, Nishi, Zomi, Paite, and some other tribes, a festival is incomplete without a hornbill feather in their headdress. Outside India, in Borneo, this is a common practice among aboriginals.

Unfortunately, their population is declining rapidly in some areas. It is evaluated as Near Threatened on the IUCN Red List of Threatened Species and listed in Appendix I of CITES. Due to indiscriminate hunting by aboriginals for its various parts, the future of the great hornbill is in real peril. The beaks and head are used in charms, feathers are used for dance and the flesh is believed to be medicinal. Young birds are also considered a delicacy.

It is because of such illogical beliefs that the numbers of these winged creatures are decreasing. Besides, habitat loss in the form of forest clearance for agriculture, such as the slash-and-burn method of farming in the Himalayas and the Western Ghats, has also likely contributed to declines. Decline is also probably impacted by the pet trade.

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