

Buceros bicornis



Common name: Great hornbill, greater Indian hornbill, two-horned calao, concave casqued hornbill, large pied-hornbill

Classification:

Kingdom: Animalia

Phylum: Chordata

Class: Aves

Order: Coraciiformes

Family: Bucerotidae

Genus: *Buceros*

Species: *bicornis*

Profile:

The great hornbill, the state bird of Arunachal Pradesh, is one of the largest of the hornbills. It can reach up to 95-120 cm in length (inclusive of tail) with a wingspan of 152 cm and a weight of 2-4 kg. The prominent identifying feature of the species is the large yellow and black hollow casque (helmet like structure) on its large heavy beak running up to the forehead. This curious feature serves several functions. It acts as a "resonating chamber" that amplifies the nasal sounds that the bird makes. It is also an indicator of sexual maturity-although hornbills start developing a casque at the age of six months, it takes five years to develop a really prominent structure. The great hornbill is black with white feathers on the tail, wings, abdomen and neck. Some feathers on the neck appear yellowish due to gland oil. Female birds are smaller in size and can be distinguished by their blue eyes with a white iris as opposed to red eyes with deep red irises found in males. There are bristles around the eyes similar to eyelashes. Because of its impressive size and colour, it has found significant attention in most local tribal cultures and rituals of Arunachal Pradesh, much to its disadvantage in recent years. The great hornbill is considered to be a key seed disperser and hence, critical for forest survival.

Lifespan: Up to 50 years

Distribution: The great hornbills are native to India (southwestern ghats and the Himalayan foothills), Bhutan, southwestern China, Bangladesh, Thailand, Malaysia, Cambodia, Vietnam and Laos. Three main populations of the species have been identified: at the base of the central Himalayas in Uttarakhand up to Assam, Nepal and Myanmar, in southwest china (Yunnan, Yingjiang and south Xishuangbanna districts) the Mergui archipelago and the Southeast Asian countries and an isolated population in Sumatra. The bird inhabits the tall canopy of evergreen and moist deciduous forests in an altitudinal range of 600-2,000 m. The bird moves seasonally, depending on the fruit supplies, mainly from Uttaranchal in the central Himalayan region up to Arunachal Pradesh in the eastern Himalayas and Bangladesh.

Population: Data unavailable

Behaviour: Hornbills are loud birds with distinctive calls that be heard over large distances. The birds nest together in groups of 6-40 but become territorial during breeding season. However, group displays of upto 20 birds have also been observed at times. The species is monogamous and mating pairs usually return to the same nesting site every year. Male members participate in aerial casque butting flights during mating to win over a female hornbill. The female climbs into an empty tree hole to lay her eggs and she (along with her mate in some cases), builds a wall of mud, wood bark, dirt and dung at the nest entrance. She remains imprisoned in this nest from the time of laying the eggs until the chicks are semi-developed. A small hole is left in the wall to allow the male to bring food for the female during incubation. During this period the female undergoes a complete moult.

- **Diet:** The species primarily feeds on fruits, particularly figs. Insects, lizards, snakes and small mammals makeup their subsidiary diet.
- **Reproduction:** Breeding season: January-April; Incubation Period: 38-40 days; Clutch Size: 1-2 eggs; Sexual Maturity: 4 years.

Current status:

- **Status:**
 1. IUCN 2008: Near Threatened
 2. CITES 2008: Listed in Appendix I

- **Threats:**
 1. Loss of habitat due to deforestation that directly affects nesting and feeding territory.
 2. Hunted in India and Indonesia for food and their brilliantly coloured casques.
 3. Various parts of the great Indian hornbill have a very high demand among local people. The blood of the chicks is said to have a soothing effect on departed souls. Their feathers are used for headdresses, their fat for medicinal uses, their meat for a sumptuous meal and their skulls are worn as prestigious decorations.

- **Conservation practices:**
 1. Captive breeding programmes have not been successful because of the difficulty in providing natural foraging lifestyle.
 2. Kerala has named the great hornbill as its state animal, which has spread awareness about the conservation status, and need for protection.
 3. The Hornbill Specialist Group, AZA Hornbill TAG, EEP Hornbill TAG and Asian Hornbill Network are jointly publishing a newsletter highlighting conservation initiatives in zoos around the world.
 4. Conservation programmes have attempted to provide tribes with feathers from captive hornbills and ceramic casques to substitute the natural ones.