

A note on the death of an Indian Grey Hornbill *Ocyceros birostris* during a nesting attempt

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Hornbill breeding is unique since the female hornbill incarcerates herself in the nest cavity during the nesting period. The female entry into and exit out of the nest cavity during the breeding period is a vulnerable period for her as she faces predation risk. The female inspects the cavity by entering and exiting multiple times. At the end of this inspection period, she starts sealing the nest opening with her excreta, and the mud which is provided by the male from outside (Kasambe, 2011). The size of the cavity entrance must be opti-

mum for protecting the female and chicks from predation and not too small for the female or chicks to struggle while exiting. Unfortunately, human-modified habitats may provide limited nesting opportunities for these birds due to reduced tree cover, pushing them to nest in more suboptimal habitats.

The forest colony premises in Indore in the Madhya Pradesh state of India has the offices of the Chief Conservator of Forests and Divisional Forest Officer, and residential houses of



Image 1. Dead Indian Grey Hornbill female. Photograph by Neel Gadikar.



Image 2. A male Indian Grey Hornbill inspecting the cavity just above where the female had died.

the Forest Department staff, apart from a bio-diversity nursery. The premises has more than 50 large trees, and many of them with multiple cavities. Many of the trees are *Ficus* trees that provide food to frugivorous birds. As the breeding period approaches, many pairs of hornbills are seen in the premises searching for suitable nest sites. I have been monitoring hornbill nests in this premises since 2010.

During the monitoring of the Indian Grey Hornbill (*Ocyceros birostris*) nests in the Forest Colony Premises at Indore with my son Neel, I found a female Indian Grey Hornbill that had likely died while trying to exit the nest during the early breeding phase on 21st March 2021 (Image 1).

While another cavity just above this nesting cavity has been regularly used by hornbills for nesting, this nesting cavity has never been used for breeding by the Indian Grey Hornbill over the last 5 – 6 years since I started watching this tree. However, parakeets regularly use the cavity for breeding. On closer inspection, the cavity entry appeared to be very small. We could not confirm whether the female had entered and partially sealed the nest and then struggled to exit the cavity or whether the female managed to enter but struggled to exit later due to the small cavity entrance or deep nest floor (which may not provide a suitable platform for the female to use while exiting the nest cavity). It is also likely that the female was inexperienced and likely attempting nesting for the first time. Interestingly, the next day (March 22, 2021), we found another Indian Grey Hornbill pair inspecting the cavity just two feet above where the dead female was (Image 2). This incident highlights the potential shortage of large trees with suitable cavities for nesting in urban landscapes.

References

Kasambe R. 2011. Breeding behaviour of Indian Grey Hornbill in central India. The Raffles Bulletin of Zoology 24: 59–64.



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