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# SPATIAL DISTRIBUTION AND HABITAT CHOICE OF TWO SYMPATRIC SPECIES OF HORNBILLS IN VIDARBHA, MAHARASHTRA, CENTRAL INDIA

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### **ABSTRACT**

Vidarbha is the eastern region of Maharashtra state, lies on the northern part of the Deccan Plateau and has the Satpuda Hill ranges to the north. Vidarbha region has two species of hornbills, i.e., Indian Grey Hornbill Ocyceros birostris and Malabar Pied Hornbill Anthracoceros coronatus. The Malabar Pied Hornbill is now listed as Near Threatened by the IUCN. Data collected from three methods is used in this paper, data collected during field surveys by the authors, compilation of published bibliographic data of previous sightings and by compilation of data from citizen science forums. The study indicates that the spatial distribution of the two sympatric hornbill species is largely influenced by fragmentation of well protected forests due to agricultural expansion and urbanisation. The Malabar Pied Hornbill prefers and is mainly confined to the protected areas like tiger reserves and wildlife sanctuaries. Whereas, the Indian Grey Hornbill prefers fragmented forests and large gardens in urban areas and is also found in protected forested areas overlapping with the Malabar Pied Hornbill.

**Keywords:** Spatial distribution, habitat choice, *Ocyceros birostris, Anthracoceros coronatus*, Central India



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#### Abstract

Vidarbha is the eastern region of Maharashtra state, lies on the northern part of the Deccan Plateau and has the Satpuda Hill ranges to the north. Vidarbha region has two species of hornbills, i.e., Indian Grey Hornbill *Ocyceros birostris* and Malabar Pied Hornbill *Anthracoceros coronatus*. The Malabar Pied Hornbill is now listed as Near Threatened by the IUCN. Data collected from three methods is used in this paper, data collected during field surveys by the authors, compilation of published bibliographic data of previous sightings and by compilation of data from citizen science forums. The study indicates that the spatial distribution of the two sympatric hornbill species is largely influenced by fragmentation of well protected forests due to agricultural expansion and urbanisation. The Malabar Pied Hornbill prefers and is mainly confined to the protected areas like tiger reserves and wildlife sanctuaries. Whereas, the Indian Grey Hornbill prefers fragmented forests and large gardens in urban areas and is also found in protected forested areas overlapping with the Malabar Pied Hornbill.

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#### INTRODUCTION

Tine species of hornbills are found in India but five of these are threatened (IUCN 2017). Indian subcontinent's hornbill species are, Great Hornbill *Buceros bicornis* (Near Threatened), Rufousnecked Hornbill *Aceros nipalensis* (Vulnerable), Wreathed Hornbill *Aceros undulatus* (Least Concern), White-throated Brown Hornbill *Anorrhinus austeni* (Near Threatened), Malabar Pied Hornbill *Anthracoceros coronatus* (Near Threatened), Malabar Grey Hornbill *Ocyceros griseus* (Least Concern), Oriental Pied Hornbill *Anthracoceros albirostris* (Least Concern), Indian Grey