

Correspondence

Large Hawk Cuckoo *Hierococcyx sparverioides* from Maharashtra

On 26 February 2019, we were birdwatching for a bird survey conducted by our Koyna Nature Conservation & Ecotourism Organization, in Koyna Wildlife Sanctuary, Maharashtra. While birding along a stream of the Kapna River (17.39°N, 73.68°E) near Dhankal village (Taluka Patan, District Satara), we noticed a bird that flew over us and settled on a tree in front. The location is near the crest of the Western Ghats with a patch of dense evergreen forest on one side of the stream, and open forest on the other. This cuckoo-like bird seemed different from the other, regularly seen, cuckoos of the region. SD carefully got closer and took pictures of it [207–210]. It sat there for a while before flying off into the nearby jungle.

The bird was later identified as the Large Hawk Cuckoo *Hierococcyx sparverioides* by its distinctive black chin, reddish-brown breast with dark streaks, and the heavier barring on its flanks, which differentiate it from the common and similar looking, Common Hawk Cuckoo *H. varius* (Rasmussen & Anderton 2012; Payne & Kirwan, 2019;).

The bird is a winter visitor to peninsular India, found along the Eastern- and Western Ghats (Rasmussen & Anderton 2012). Ali

& Ripley (1981) gave its winter distribution as Madhya Pradesh, Orissa (=Odisha), Tamil Nadu, Karnataka, and Kerala. Further, they mentioned of many unsupported winter sight records that were unreliable owing to the possibility of confusing it with the Common Hawk Cuckoo

There has been one previous report of this species from Maharashtra—of an exhausted individual that was brought to the Bombay Natural History Society on 08 November 2002 by a person from a house behind Taj Hotel at Gateway of India, Mumbai, and identified by Saraswathy Unnithan (Unnithan & Patil 2003). We contacted Mrs Unnithan, who said that the bird was handed over to them in a cage; no photographs were taken, and the specimen might well be in the Society's collection (Saraswathy Unnithan, *pers. comm.*, 03 November 2019). Apart from this instance, the species has not been recorded in any of the publications from Maharashtra (Abdulali 1973; Prasad 2006; Pande et al. 2011); the only exception being the *Fauna of Maharashtra—Aves* (Editor-Director, 2012), though no details of the observation, or photographs of the bird have been given. There are no records in any of the commonly used online sources: www.xeno-canto.org, www.ibc.com, www.indianaturewatch.net, www.orientalbirdimages.org, or www.flickr.com.



207. Ventral view of Large Hawk Cuckoo.



209. Ventral view close up of Large Hawk Cuckoo.



208. Dorsal view of Large Hawk Cuckoo.



210. Dorsal view close up of Large Hawk Cuckoo.

The previous northern-most records from the bird's wintering range in the Western Ghats are from Goa, although rare (Baidya & Bhagat 2018). eBird shows three records, all from the Tambdi-Surla area in eastern Goa, near the Western Ghats range (eBird 2019). Hence, this appears to be the first documentation of this species from the state of Maharashtra.

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Some observations on duetting in the Greater Coucal *Centropus sinensis*

The Greater Coucal *Centropus sinensis* is widely distributed in the Indian Subcontinent, both in urban and rural settings, and its call is distinctive (Ali & Ripley 1969). The deep bass, sonorous 'whoop-whoop-whoop-whoop...' call is instantly recognizable. Observations on the number of 'whoops' per call (from a few to 20-30), with a frequency of 2-3 whoops per second, have been well documented (Ali & Ripley 1969). Further, the vocal repertoire of the Greater Coucal is far wider than the classical 'whoop', and up to eight distinct call types have been documented (Natarajan 1993).

Two interesting features of the Greater Coucal's vocalization are that both partners have a strong voice, contrary to what is generally assumed about a male's domination of avian vocalization, and that the male and female often coordinate their separate calls into a melodious 'duet' with intertwined notes. Hall (2009) describes

duets as vocalizations that '...vary in form from loosely overlapping songs to highly coordinated duets where paired birds both adjust the timing and type of phrases they sing to fit those of their partner over the course of the duet. Duet coordination therefore signals how attentive an individual is to its partner, both to the partner and to other listeners.' Avian duetting is estimated to occur in about 18% of the world's bird population (Tobias et al. 2016). Ali & Ripley (1969) discuss the Greater Coucal's vocalization as, 'Usually in duets: as soon as one bird begins calling another within earshot (its mate?) almost invariably joins in.'

I present here some observations on the duetting characteristics of Greater Coucals.

To distinguish between normal calls/counter-calls of unattached birds and those of a bonded pair that duet, was a challenge. This was resolved by pure chance when a pair of bonded Greater Coucals took up residence in a green patch just above the fishing village of Odxel, on the northern bank of the Zuari River, Goa, just before it empties into the Arabian Sea.

Visual observations on the pair's movement and calling pattern indicated that the pair had a territory that extended for c.500 sq. m. Calls were heard mainly early in the morning, around a half hour before sunrise. They continued sporadically for one to two hours. Short vocalization spurts also occurred at dusk. A Zoom H1n portable recorder, with its built-in stereo X/Y 90° microphones (96kHz, 24-bit), was used and timed to start at 0600 h for a period of up to two hours. Recordings were analyzed using Adobe Audition CS5.5. On 29 January 2019, a clean recording was obtained from a short distance, which enabled this analysis. The total length of the original recording was 62 min with an excellent two-minute section at the 48th-50th minutes that contained both, single calls by both partners, and several duets. In order to determine whether these recordings were representative in relation to a wider spectrum of the species itself, a spectrographic analysis was made of the 55 Greater Coucal recordings from India on the global website www.xeno-canto.org. Of these, seven recordings contained duets (Table 1).

Table 1. India recordings of Greater Coucal judged to be duets on xeno-canto.org (Xeno-Canto)

XC Cat. No.	Recorder	Location	Date	Duration/min
XC 21128	Mascarenhas (2007)	Odxel, Goa	12 November 2007	0.24
XC 90405	Roy (2011)	Narendrapur, West Bengal	19 November 2011	0.47
XC 161204	Pinto (2012a)	Aldona, Goa	25 April 2012	0.57
XC 161234	Pinto (2012b)	Aldona, Goa	01 July 2012	1.27
XC 161236	Pinto (2012c)	Aldona, Goa	08 August 2012	1.16
XC 162834	Pinto (2012d)	Aldona, Goa	22 September 2012	2.08
XC 423656	Prabhu (2018)	Manipal, Udupi, Karnataka	04 July 2018	0.20

Call signatures: While male and female Greater Coucals are practically indistinguishable in both colour and size, it is clear that there are two distinct audio signatures (Fig. 1) from the pair. In this particular section, the calls were made sequentially, without the overlap one would attribute to a duet. One partner had a low frequency/low amplitude call (Frequency band: 188Hz to 565Hz) while the other, a high frequency/high amplitude call