

Field Notes on Three Cases of Brood Parasitism by Cuckoos in 2023

Kai-Soon Chan & Suit-Kuen Cheong

Introduction

Brood parasitism in birds is the phenomenon whereby parasitic birds 'trick' other birds to do all the parenting duties to raise their offspring on their behalf. About 1% of all birds are known to be brood parasites and most of these have more than one brood host to improve chances of retaining their gene pools (Phillipsen, 2021). The phenomenon is also seen in insects and fishes but this report will focus on three cases of brood parasitism in cuckoos observed by the authors in Malaysia in 2023. All such cases were discovered during routine birding activities and the parasitic juvenile birds were found being fed by brood host of a different bird species, so-called interspecific brood parasitism. All the brood parasitic birds were known obligate brood parasites.

Case 1: Plaintive Cuckoo *Cacomantis merulinus* and Dark-necked Tailorbird *Orthotomus sutorius*, Bukit Larut foothills, Taiping, Perak, May 2023

On 2 May 2023 we were birding at the foothills of Bukit Larut, Taiping near the site for a Rufous-collared Kingfisher *Actenoides concretus*. While waiting for the fledgling female kingfisher to show up, we heard the begging calls of a juvenile bird and guessed that there would be other species of fledgling birds around, since that it was still the breeding period for birds. By following the direction of the calls, we found a juvenile Plaintive Cuckoo perched among the bamboo thickets calling continuously although the calls were not very loud. It was located in the middle to high canopy level. A tailorbird appeared beside it and fed it. Two adult tailorbirds were subsequently observed foraging nearby and photographs showed these were Dark-necked Tailorbirds (see Plate 1).

The calls of this juvenile cuckoo were somewhat similar to tailorbird calls, suggesting some form of vocal mimicry to avoid rejection by the host. Since tailorbirds often forage in lower canopy, the juvenile cuckoo subsequently also followed the brood host to the lower canopy but never perched very near the host, merely making begging calls nearby. The host tailorbird would approach the cuckoo and feed it whenever food was found. This consisted mostly of small insects. At least five or six instances of feeding were observed in the morning between 1030 to 1200 (see Plate 1). Quite often both the host tailorbirds and the parasitic juvenile were out of sight due to foliage blocking the view and the frequency of feeding was likely higher.

No observation was conducted outside of this period but it was learnt from social media that at least one other bird photographer was able to observe the same juvenile cuckoo feeding in the same area on a subsequent day.



Plate 1: Plaintive Cuckoo and Dark-necked Tailorbird, Taiping, Perak, May 2023

Case 2: Indian Cuckoo *Cuculus micropterus* and Black-and-yellow Broadbill *Eurylaimus ochromalus*, Rainforest Discovery Centre, Sandakan, Sabah, June 2023

A few days prior to a group birding trip to the Rainforest Discovery Centre, Sandakan, Sabah we were alerted to news of a juvenile Indian Cuckoo being fed by a Black-and-yellow Broadbill host. With information provided by the local community, we focused our birding at the area where the feeding had been observed. It was between the entrance to the canopy walk and the Bristlehead Tower. In the earlier parts of the morning on 10 June 2023, calls of Black-and-

yellow Broadbills were frequent and loud close to the canopy walk. Both the male and female were observed foraging but no juvenile cuckoo could be found. Later, at 1120, a rather similar broadbill call was heard but this was louder, more begging and miserable in nature. This was suggestive of vocal mimicry by the parasitic bird. The juvenile cuckoo was soon found very close to the canopy walk and it was rather confiding. Interestingly, it appeared to be searching for food by itself and was observed once finding a small caterpillar and eating it (see Plate 2). Calls of the broadbill host were not well heard then.

After being observed intermittently, the juvenile cuckoo was again observed perched waiting and giving out begging calls. It was observed to be fed by the host broadbill a few times (see Plate 2). Both the male and female broadbills participated in the feeding, although the female was doing it more frequently. Most of the food items offered were small insects including praying mantis. No caterpillar was observed.

The following day on 11 June 2023, the broadbills were still observed in the same vicinity but they were much less active. The juvenile cuckoo appeared later and was fed at 1220 but the observation was restricted by foliage and distance from the canopy walk. In the afternoon a few instances of feeding of the juvenile cuckoo by broadbill were again observed close to the Bristlehead Tower at 1520.

The local birdwatching and photography community informed us that this brood parasitism between broadbills and cuckoos was not new in this area. For this season it had been going on for at least one week before our arrival indicating that the juvenile cuckoo had fledged for quite some time and was about to be independent. This was suggested by the fact that it had been observed being able to search for food by itself.



Plate 2: Indian Cuckoo and Black-and-yellow Broadbill, Sandakan, Sabah, June 2023

Case 3: Dark Hawk-cuckoo *Hierococcyx bocki* and Chestnut-capped Laughingthrush *Garrulax mitratus*, Fraser's Hill, Selangor, June 2023

On 27 June 2023 morning we wanted to do some short birding while waiting for our breakfast at Puncak Inn. We walked to the public car park near the public toilet area which was within the Selangor part of the Fraser's Hill. On arrival at about 0745, we found a few Chestnut-capped Laughingthrushes feeding on the ground and around the dispersed rubbish. One of them was observed to fly away with food into the nearby trees and disappear from view. Soon after, the begging calls of a juvenile bird were heard from the direction where the laughingthrush flew. On approaching the trees, a juvenile hawk-cuckoo was found calling from a perch but no laughingthrush was seen. Photographs of the hawk-cuckoo indicated it was a juvenile Dark Hawk-cuckoo (see Plate 3). The hawk-cuckoo changed perches in the same tree several times and after about 30 minutes, a Chestnut-capped Laughingthrush hurriedly came and fed it (see Plate 3, video extracts). The nature of the food offered could not be determined due to the poor lighting conditions. Both birds then flew further away and were lost from view although calls were still heard. No further observation of the hawk-cuckoo could be obtained after that.



Plate 2: Dark Hawk-cuckoo and Chestnut-capped Laughingthrush, Fraser's Hill, Selangor, June 2023

Discussion

Interspecific brood parasitism i.e. parasitism in which the host and parasitic birds are of different species, is a fascinating and intriguing phenomenon to be observed. However, such

phenomena have not been extensively reported for the Malaysian context, although some articles have been published from Singapore (OwYong 2015). It is interesting that three such cases could be observed in the space of just two months (May-Jun) this year and several other cases of brood parasitism were also shared on social media from Singapore photographers around the same period. The cases from Singapore involved different brood hosts (fantail, tit-babbler) and different brood parasites Brush (Rusty-breasted) Cuckoo *Cacomantis variolosus*, Square-tailed Drongo Cuckoo *Surniculus lugubris*. In the experience of the authors, such cases were not that common in previous years. Whether this year represents a change in the prevalence of brood parasitism is an issue to be considered. If there had been a real change, it means that brood parasites are having an upper hand in the evolutionary arms race against brood hosts this year. It would be interesting to try to find and study the factors that resulted in this change and birders are urged to be more vigilant in looking out for this phenomenon.

Typically, brood parasites devise ways of avoiding rejection by brood hosts, including visual or vocal mimicry. Some hosts also develop means of detecting and rejecting their nest having been invaded by other birds. In previous years, Banded Bay Cuckoo *C. sonneratii* hosted by Common Iora *Aegithinia tiphia* was the most common brood parasitism observed by the authors but this has not been observed this year.

In view of the often-great disparity in appearance between the chicks of brood host and the parasitic birds, the parasitic cuckoos have evolved means of avoiding rejection. Vocal mimicry appears to be the main strategy in the first two cases in this report.

Acknowledgement

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References

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