

Cooperative Nesting Behaviour of the Dusky Broadbill – Brood Helpers

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Introduction

The January 2024 observation of cooperative nesting by the Dusky Broadbill in Hulu Langat, Selangor, Malaysia, has garnered significant interest among the bird-watching community of Selangor.

Cooperative nesting, also known as cooperative breeding, is a social system where more than two individuals of the same species care for a single nest and its young. This behaviour is uncommon, occurring in only about three percent of bird species (Arnold & Owens 1999). In cooperative nesting, the birds will be involved in building the nest, incubation, feeding the chicks, fending off predators and other nest related chores. There are many articles written about a pair of nesting parent birds dividing this labour, but not many reports of cooperative nesting involving more than the two parent birds. This article attempts to document birders' behavioural observations of the cooperative nesting behaviour of the Dusky Broadbill *Corydon sumatranus*.

While cooperative breeding in Dusky Broadbills has been recorded, it is unclear if helpers assist the breeding pair in the tasks of incubation, feeding and fledging (Wells 2007; Bruce 2020). Wells (2007) states that there have been many observations of helpers bringing nesting material but none yet of brood-helpers.

The Nesting and Environment

A messy, longish pear-shaped nest was built on the frond's end of an overhanging rattan around 9 m above the ground. It was in an open space with overgrown lower bushes and saplings, close to a hillside. The nest was made up of root pieces, dried leaves, small twigs and masses of an epiphytic creeping fern. It was approximately 40 m away from the nearest stream. Two chicks successfully fledged from this nest. A Crested Serpent-Eagle *Spilornis cheela* was always observed around the nesting area.

Observations

The first known record of this nest was in November 2023 when four Dusky Broadbills were sighted with nesting material in their mouths (Plate 1). The four birds were seen actively building the nest.

On a later date in January 2024 three Dusky Broadbills were sighted at the nest with prey. They were perched together on a nearby branch, ready to feed the chicks. No information was available as to whether the helpers were siblings, from a previous brood or unrelated. At this time, there were two chicks in the nest.



Plate 1: Dusky Broadbills with nesting material



Plate 2: Brood helpers with food for two chicks in the nest

On the day before the chicks fledged, the adults were seen perched on a nearby branch in front of the nest. They were continuously flapping their wings while looking in the direction of the nest, suggesting that the adults were prompting the chicks to fledge (see Plate 3).



Plate 3: Adults encouraging chicks to fledge (left) parent feeding chick (right)

Both chicks fledged on a rainy day on 22 January 2024 around 1pm. On that day Ristomoyo Suwondo recorded the chicks flying energetically out from the nest (video link: <https://fb.watch/sjxOo pGvd/>); initially they flew downward but managed to fly higher immediately. After fledging, both chicks were seen perched on a tree branch. The parents were only seen an hour after the chicks fledged.



Plate 4: Fledged juvenile Dusky Broadbills

Discussion

While earlier reports have reported Dusky Broadbills with helpers involved in nest building (Wells 2007; Bruce 2020), this report confirms the presence of brood-helpers. As the adults look alike, it is difficult to determine the actual parents and tease out finer roles. There is uncertainty about the role of brood-helpers in incubation and post-fledging care.

This report also describes adult encouragement of nestlings to fledge; a behaviour not uncommon in a number of species.

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References

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