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Western Hoolock *Hoolock hoolock* preying on chicks of Greater Racket-tailed Drongo *Dicrurus paradiseus* in Lawachara National Park, Bangladesh

DELIP K. DAS

On 3 May 2011 at 12h18–12h33, Indranil Kishor and I observed a group of Western Hoolocks *Hoolock hoolock* being mobbed by two Greater Racket-tailed Drongos *Dicrurus paradiseus* at Lawachara National Park, District Moulavibazar, Bangladesh (24°20'N 91°47'E). The gibbon group consisted of one adult female with infant, one adult male and one unsexed black-coloured juvenile.

I soon noticed that the female Hoolock was holding a half-grown drongo chick in her hand, and that another chick was present in a nest next to her. She was busy eating the flesh of the chick, unconcerned by the strong mobbing of the drongos. After finishing the first chick she took the second chick from the nest. The chick

was calling and waving its legs continuously to escape. The female Hoolock inspected the chick for some time, holding it upside down in front of her face, and shaking it a couple of times whilst looking around her, causing the victim's parents to become frantic in their mobbing. She shifted to another branch and again held the chick upside down while it opened its gape to its widest extent. After a while, she bit off the chick's head, ate it, and then started eating the body. The whole event, from picking the live chick from nest to biting off its head, took c.3 minutes; Plates 1–4 illustrate the sequence. While this was happening, I noticed that the adult male gibbon, c.6–8 m distant in another tree, was consuming a third chick, which it

Plate 1. Female Western Hoolock about to take chick from nest of Greater Racket-tailed Drongo *Dicrurus paradiseus*.



Plate 2. Greater Racket-tailed Drongo mobbing the female Hoolock.





Plate 3. Female Hoolock inspecting the chick before eating it.

must have taken from the nest before moving away and allowing the female access to the other two. The usual clutch-size of Greater Racket-tailed Drongo is three, sometimes four (Rocamora & Yeatman-Berthelot 2009), so it would appear that the gibbons predated the entire brood of the pair in this instance, although the juvenile evidently got nothing: it sat silently observing the adult male at a distance of 2 m. Tight scheduling precluded observations from continuing long enough to document post-predation behaviour.

A reference search on hoolocks (Tilson 1979, Gittins & Tilson 1984, Mukherjee 1986, Choudhury 1991, Ahsan 1992, Alfred 1992, Feeroz & Islam 1992, Islam & Feeroz 1992, Feeroz *et al.* 1994, Bujarbarua & Das 2001, Kakati 2004) revealed no reports of these gibbons predated bird chicks. However, Western Black Crested Gibbons *Nomascus concolor* have been reported predated nestlings and eggs of birds in China (Fan & Jiang 2008), and there is a case of predation by White-handed Gibbon *Hylobates lar* of a hen *Gallus* (Carpenter 1940, Newkirk 1973).

Islam & Feeroz (1992) reported that several species of bird (magpies *Cissa*, drongos *Dicrurus* and laughingthrushes *Garrulax*) sometimes chase Western Hoolocks when they are in food trees, with drongos being more aggressive, continuing confrontations until the gibbons leave; but actual predation has not apparently been observed in the wild before. However, given how often the gibbons are high in trees, thereby hindering precise observations of food items, and the frequency with which mobbing occurs, such predation may be commoner than the lack of records might suggest.

The feeding ecology of Western Hoolock is well studied. It is primarily vegetarian, consuming, in some habitats, over 100 species of plants although in some places apparently many fewer (Alfred 1992, Islam & Feeroz 1992, Ahsan 2001). It also consumes some prey items, predominantly invertebrates but also birds' eggs (Mukherjee 1986, Alfred 1992, Ahsan 2001). In their diet, figs dominate and fruits are very important; however, lianas, flowers, shoots, petioles, exudates, nectar and other plant foods, including



Plate 4. Female Hoolock eating the chick's headless body.

lichens, are also consumed (Islam & Feeroz 1992, Ahsan 2001, Bujarbarua & Das 2001, Kakati 2004).

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Notes on the life-history and taxonomy of *Muscicapa dauurica umbrosa*, an overlooked Bornean canopy bird

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Introduction

Erwin's (1982) experiments into tropical canopy insect diversity suggested that the rainforest canopy may harbour the majority of the planet's terrestrial animal diversity, most of it undescribed. While birds are relatively well known (e.g. Mayr 1946), avian species of the tropical rainforest canopy feature among the least known, and a disproportionate number of new avian taxa have involved high-canopy forms such as Neotropical *Herpsilochmus* antwrens (e.g. Davis & O'Neill 1986, Whitney & Álvarez 1998, Whitney *et al.* 2000) and Old World *Muscicapa* flycatchers (e.g. Wells 1982, King *et al.* 1999). At Danum Valley (Sabah, Malaysia), one of the ornithologically best-explored sites in the Sunda Islands, Edwards *et al.* (2009) recently photographed a strikingly distinct new *Dicaeum* flowerpecker.

Here we concentrate on a Bornean flycatcher taxon, *Muscicapa dauurica umbrosa*, endemic to the high canopy of lowland rainforest. Recently described (Wells 1982), little is known about this form. We present some of the first life-history data including a documentation of its nest, and offer comments on its taxonomy.

Observations

FER visited Lambir Hills National Park in Sarawak (Malaysia; 4°11'52"N 114°02'34"E; 50 m a.s.l.), not far from the border with Sabah, from 2–12 June 2010. On most days during this period, he visited the canopy tower near the visitor centre of the national park in the early morning (approximately 06h30–07h30). On the first of these visits, he discovered a nest attended by two individuals of *Muscicapa dauurica umbrosa* (for identification see below).

The height of the nest above ground was estimated at 38 m, using the tower for reference. The nest was about 20 m from the tower platform across an 'aerial clearing'. It constituted an open-cup structure of twigs and mosses with an outer diameter of c.25 cm built in the crevice of a loose branch hanging perpendicularly from a vertical main branch of the canopy crown of an emergent rainforest tree (Plate 1).

Two birds regularly attended this nest. They were never seen at the nest simultaneously, but occasionally sat together on a nearby branch. During the whole period, no pulli or juveniles were perceived. The nest was unattended for up to 4 minutes at a time, after which one of the two adults was usually seen flying to the nest and spending 1–4 minutes in and around it.

Both adults were moderately streaked on flanks and throat, and were rather rich rufous-brown on their upperparts, with rump

perhaps more intensely rufous (Plates 2, 3). No eye-ring was perceived, although Plate 2 erroneously suggests one. The basal half of the lower mandible was rich orange.

Discussion

Breeding phenology

The only previous information on the life history of *M. dauurica umbrosa* comes from Wells & Francis (1984) who collected a pair of adults with enlarged testes and brood-patch, respectively, on 27 July 1983 near Sepilok (Sabah, Malaysia), and subsequently collected a pair tending a fully grown juvenile on 8 July 1984 at the same locality. Their data coincide well with ours to suggest that the annual breeding period of *M. d. umbrosa* (at least June–July) encompasses the height of the northern summer, when no northern migrants of *M. dauurica* would be present in Borneo. As Wells (1982) pointed out when discussing the biogeography of the widespread Siberian breeder *M. d. dauurica* (or *M. latirostris cinereoalba*, following the nomenclature of the time), the presence of a resident form in a small part (north-eastern Borneo) of the wintering range of the former is unusual for Oriental birds, and nothing is known about the ecological interactions between the two. The timing of breeding of *umbrosa* in June and July may well be due solely to the regional climate, which is slightly drier from April to October than at other times, if it is not simply evading northern migrants during the rearing of the young.

Coloration and identification of this taxon

Little is known about *M. d. umbrosa* in life. The species is rarely observed by field ornithologists, probably owing to its canopy-inhabiting lifestyle and vocal and behavioural inconspicuousness, as in other *Muscicapa* flycatchers. During a total of eight months of birdwatching activity in Sabah and Sarawak, JAE has observed *M. d. umbrosa* on only two occasions, both in the Danum Valley conservation area (Sabah; 5°1'12"N 117°44'48"E) in June 2007 and May 2009. Encounter rates for other field ornithologists with experience in Borneo are similarly low (R. O. Hutchinson verbally). Although there are field observations from Brunei (Mann 1987), the few specimens available are all from within Sabah, namely the type from Tawau (Wells 1982), one adult from Lahad Datu and four adults and one juvenile from Sepilok Forest (Wells & Francis 1984). There is thus a need to clarify the field identification of this bird.

The pair seen nesting at Lambir appeared moderately streaky on flanks and throat, not unlike *M. [d.] williamsoni*, and were