A case of total albinism in a Red-vented Bulbul *Pycnonotus cafer*

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Albinism is the reduced production, or absence, of the pigment melanin—a trait regulated by genetic polymorphism (Kinnear *et al.* 1985; Oetting & King 1999). Consequently, albinos have paler-than-usual skin coloration, white hair or feathers, and pink-coloured eyes (Jeffery 1997; van Grouw 2006). Although not widespread, albinism has been recorded from a variety of taxa, both invertebrate and vertebrate, in many parts of the world (Ortenburger 1922; Sage 1962; Gross 1965; Mitchell & Mazur 1998; McCardle 2012; Fernández-Rivera *et al.* 2015).

Only a single instance of albinism in birds has been reported from Sri Lanka so far, that of an albino Indian Nightjar *Caprimulgus asiaticus* from Udawale, south-central Sri Lanka (Perera & Jayasena 2012). Here, we document the first Sri Lankan record of an albino Red-vented Bulbul *Pycnonotus cafer*.

The Red-vented Bulbul is an omnivorous bird native to southern Asia, and is among the most common and widely distributed birds of Sri Lanka, having been recorded across all bioclimatic and elevation zones (Henry 1998). It is also known to occupy a wide range of habitats including dry scrub, open forests, grasslands, and many anthropogenic habitats such as home gardens, and croplands (Rasmussen & Anderton 2005).

We observed an albino fledgling Red-vented Bulbul on 05 February 2014 at a private residence located in the suburban town Gampaha, Sri Lanka (07.09ºN, 80.01ºE; 18 m asl, wet zone lowlands). The albino bird (~10 cm from beak to tail) was reared inside a metallic cage (length: 40 cm, width: 30 cm, and height: 50 cm), which was placed in the veranda of a private residence **[157]**. The residents informed us that the bird fell out of its nest, which was located in the home garden. Subsequently, the residents transferred the juvenile into the artificial wire cage. The parents continued caring for the juvenile in its new location.

We observed the bird daily, from a distance of about 7 m from the cage, for four to five hours per day, between 0825 and 1610 hrs, for two consecutive months. The parents of the albino fledgling had a normal Red-vented Bulbul's plumage **[158]**. They fed and guarded the albino juvenile continuously. On an average, they fed the juvenile 30.5 (±6.5) times a day with small fruits, such as berries, as well as with adult and larval insects of variable sizes (~ 05–15 mm). Incidental observations, by the residents, confirmed that this parental care lasted for over six months until the albino bird's demise on 24 August 2015.

157. Albino chick of Red-vented Bulbul *Pycnonotus cafer*.

Photos: A. S. Dias

158. Normal plumaged parent of albino Red-vented Bulbul feeding the juvenile.

Extreme variations of skin pigmentation have been recorded earlier in Red-vented Bulbuls. Law (1921) reported a melanistic individual from India that was a deep black, with the complete absence of white or pale coloration, whereas Berry (1894), Baker (1915), and Joshua (1996) reported different forms of partial

albinism and leucism among bulbuls. Albinos may have lower probability of survival in the wild. Absence of melanin results in the impaired development of the iris, retina, eye muscles, and optic nerves; thereby albinos are likely to suffer vision impairment due to the inability to focus acutely, the heightened sensitivity to light, and the weakened perception of depth (Heiduschka & Schraermeyer 2007). White, or pale, coloration prevents them from camouflage, making them highly conspicuous to predators (Sandoval-Castillo *et al.* 2006; Acevedo *et al.* 2009). Furthermore, melanin blocks harmful radiation, the absence of which can make albinos susceptible to complications from UV-induced injury (Binkley 2001). Given the absence of brightly-coloured, multi-patterned plumage, albinos are unlikely to attract mates or conspecifics; therefore, they will not be able to make social or kin groups (Binkley 2001). On the contrary, Mestri *et al.* (2011) recorded successful reproduction of partial albino adult birds in two successive years. Ghose & Khan (2005) made similar observations on an albino adult Red-vented Bulbul foraging in a mixed-species feeding flock. In both observations, the albinos were elusive, constantly sought concealment within the denser part of the canopy, and less agile.

The degree of parent care provisioned for this albino juvenile was remarkable. The duration and feed rates, as well as protection were comparable to those given to normal wild juveniles (Ali & Ripley 2001; Sharma & Sharma 2013). Parental investments for albino offspring can be maladaptive and incur deleterious fitness costs since albino juveniles have lower survival probability and lower mating success to pass genes to the next generation (Bensch *et al.* 2000). Red-vented Bulbuls have extended breeding seasons (June–September), and they are known to sire (~3) multiple broods per season (Watling 1983; Zia *et al.* 2014). Given such a reproductive capacity, the parental birds could have enhanced their fitness by abandoning the albino juvenile and simply rearing a second brood (Székely *et al.* 1996). We did not find any peer-reviewed literature documenting the continued parental care by normal wild adult birds for their albino offspring.

The continued parental care, after the juvenile was dislodged, and subsequently translocated to an artificial cage at a different location, was noteworthy. This observation demonstrated the adaptive nature of bulbuls to human settlements (Watling 1983; Sharma & Sharma 2013; Zia *et al.* 2014). Red-vented Bulbuls are known to nest inside human dwellings, and to rear their young at such locations. Although relocating dislodged avian nestlings is not an uncommon act performed by human (Clutton-Brock 1991), we are unaware of any published records where parental birds continued caring for a translocated juvenile. We suspect that this behavior could be a result of parental–offspring signaling, and the ability of the parents' offspring recognition based upon strong cues emitted by the dislodged juvenile (Godfray 1991).

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