



Occupation of Indian Giant Squirrel nests by White-rumped Vultures *Gyps bengalensis* in India

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Abstract

This note reports a case of nest occupation of the Indian Giant Squirrel *Ratufa indica* by the White-rumped Vulture *Gyps bengalensis* in India.

For species nesting on cliffs, the availability of suitable nesting platforms is a severe limitation and hence there is considerable competition for these, both at inter- and intra-specific levels (Collias & Collias 1984). Here we describe the first cases of the nests of Indian Giant Squirrels *Ratufa indica* being taken over by pairs of White-rumped Vultures *Gyps bengalensis* in southern India.

Riparian areas constitute the most important habitat of the White-rumped Vulture, currently listed as critically endangered (BirdLife International 2001). Tall trees with large crowns and within continuous canopy are ideal for providing nesting and roosting sites (Ali & Ripley 1979; Ramakrishnan *et al.* 2014).

The Indian Giant Squirrel is a solitary species occurring in riparian areas as its most important habitat (Ramachandran 1988). Giant Squirrels are predominantly arboreal, thriving in high canopies, and also need tall trees for making their nests (or drays). Twigs and dry leaves are used in the construction of the shallow nests. The breeding season of the Giant Squirrel starts in October and ends in January.

To reduce the risks of predation and infection of the nests by parasites or disease, the Giant Squirrels build several nests within their territories (Ramachandran 1988; Borges 1989). The breeding season of the White-rumped Vulture starts in September and ends in May. Nest construction peaks in September and October and the chicks fledge in April and May (Baral *et al.* 2007; Grubh 1984; Ramakrishnan *et al.* 2014).

During the period 2012 to 2015, we observed a total of four Indian Giant Squirrel nests that were occupied by pairs of White-rumped Vultures in the Jagulikadau area of the Sigur Range in Nilgiri North Forest Division, Nilgiri District, Tamil Nadu, Southern India. Two of the nests were in *Terminalia arjuna* trees (Fig. 1) and two were in *Ficus bengalensis* trees (Fig. 2). *Terminalia arjuna* and *Ficus bengalensis* are dominant tree species in riparian ecosystems in southern India. Among these four occupied nests, two nests contained chicks which fledged successfully; one in a *Terminalia arjuna* tree in 2012 and 2013, and one in a *Ficus bengalensis* tree in 2014 and 2015. Incubation was observed in the other two nests in the 2013 and 2014 breeding seasons but no chicks were reared.

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Fig. 1. Indian Giant Squirrel nest occupied by the White-rumped Vulture in a *Terminalia arjuna* tree; newly hatched nestling at nest.

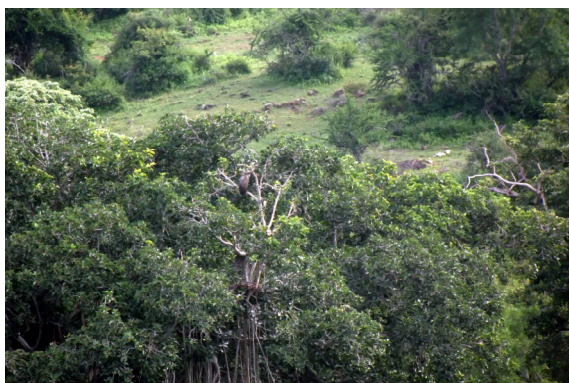


Fig. 2. Indian Giant Squirrel nest occupied by the White-rumped Vulture in a *Ficus* tree; new born nestling at nest.

Cases of nest competition and occupation of the nests of other species have previously been reported in several cliff-nesting raptor species (Collias & Collias 1984; Newton 1979; Newton 1998). Especially in vultures nest occupation was observed in cliff nesting species to occupy other cliff nesting raptors nest (Fernandez & Donazar 1991; Margalida & Garcia 1999; Crowson & Kruger 2014). We have not come across such cases in the published literature. Therefore, the present observations suggest that this is most likely the first known case of this behaviour for the White-rumped Vulture.

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