

Sighting of Red-headed Vultures (*Sarcogyps calvus*) in a group.

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<http://dx.doi.org/10.4314/vulnew.v73i1.2>

Abstract

Asian vultures are endangered birds included in Schedule 1 of the Wildlife Protection Act, 1972. From the nine species of vultures found in India, five are reported from the Bundelkhand region in central India. An exhaustive survey was done in the Panna Tiger Reserve, Madhya Pradesh, from January to June 2016. Red-headed Vultures (*Sarcogyps calvus*) are solitary in nature but during the survey we collectively sighted a total of 12 Red-headed Vultures in Panna Tiger Reserve, whilst eight were recorded in the region between Hinauta and Dhudhua Seha in one group. Red-headed Vultures are facing serious threats of habitat loss and lack of food availability along with diclofenac poisoning, and they require various conservation measures to maintain their population.

Introduction

The status of vultures in and around the Indian sub-continent is in the spotlight as ornithologists remain concerned over their declining populations (Kushwaha & Kanaujia 2009).

Asian vultures are endangered birds included in Schedule 1 of the Wildlife Protection Act, 1972. There are nine species of vultures found in India of which five species are reported from the Bundelkhand

region of Madhya Pradesh, including the Red-headed Vulture (*Sarcogyps calvus*). The Red-headed Vulture was resident throughout the Indian subcontinent and found up to an altitude of about 3,000 m in the Himalayas, but it is sparsely distributed and nowhere abundant (Naoraji 2006). It is a relatively timid bird at feeding sites, compared to other vulture species. It is usually solitary or seen in pairs. The dwindling population of Red-headed Vultures is facing the threat of extinction and is included in the critically endangered category of the IUCN red list. They usually reside in semi-desert areas, deciduous forests, foothills and along riversides.

Apart from declines caused by diclofenac poisoning, vultures have also declined in many parts of their former distribution ranges owing to food shortages and loss of habitat (Pain *et al.*, 2003). The breeding population and status of Red-headed Vultures too is facing a serious threat from habitat loss and other biotic pressures (Chhangani & Mohnot 2004).

There are several likely reasons for the presence of vultures in the Panna Tiger Reserve of Madhya Pradesh. Some of these include: climatic and socio-economic conditions, tradition of livestock

rearing, availability of food, shelter and breeding sites (i.e. large trees). They appear to be playing an important role in the conservation of Red-headed Vultures in the Panna Tiger Reserve. The present study reports on the presence of Red-headed Vultures and threats to their existence.

Study Area

The Panna Tiger Reserve (24°27'–24°46'N; 79°45'–80°09'E) is geographically located in the Vindhyan Range and encompasses an area of 542.67 km² in Panna and Chattarpur Districts of Madhya Pradesh (Fig. 1). The average rainfall of Panna Tiger Reserve is about 1100 mm. In 1994, it became the 22nd tiger reserve in the country and 5th in the state. In 2007, an Award of Excellence was given to Panna for the best maintained tiger reserve in the country by the Ministry of Tourism. The terrain of the tiger reserve is categorised by widespread plateaux and gorges, and can approximately be divided into three distinct plateaux on the Panna side of the Ken River: the upper Talgaon Plateau, the middle Hinnauta plateau, and the Ken valley.

The moist deciduous forests of the Indo-Gangetic Plains start in the

reserve, which is located on the northern teakwood and eastern part of the Kardhai forests. The common tree species are *Diospyros melanoxylon*, *Madhuca indica*,

Tectona grandis, *Buchanania latifolia*, *Anogeissus latifolia*, *A. pendula*, *Lannea coromandelica* and *Bosswelia serrata*.



Figure 1: Map of Panna National Park, Madhya Pradesh, India.

Materials and Methods

Extensive surveys for roosting and feeding sites, active nests and their consequent monitoring, were undertaken in the study area using a motorbike for short distances, and a 4X4 vehicle for long distances. For the study, some of the current

primary and secondary information of vulture populations (Chhangani 2005, Vardhan *et al.* 2004) was used. A 70 D SLR camera and 50 X Olympus binoculars were used for photographic records. All identifications of vultures were based on Naorji (2006), Kazmierczak (2000) and Ali & Ripley (1987).

Results and Discussion

Red-headed Vultures were usually sighted either singly or in pairs. Most of them were observed during flight and roosting. Ali & Ripley (1978) and Kazmierczak (2000) record them as being more solitary than most other vulture species; during the survey collectively we sighted a total of 12 Red-headed Vultures in Panna Tiger Reserve. A maximum of eight was reported in the region between Hinauta and Dhudhua Seha in a group at one time attending to Blue bull *Boselaphus tragocamelus* carcasses (Fig. 2, which also includes an adult Long-billed Griffon *Gyps indicus*); two birds were to one side, still feeding. Of these eight individuals, three were females and the rest were males. (The female has the lower scapulars and tertials distinctly white and colour of the eye is brown (Naoroji 2006).) Observations of Long-billed Griffons (Fig. 3) in the reserve are the subject of another contribution (in prep.).

There appears to be a strong correlation between the existence of Red-headed Vultures and that of predators such as Tiger *Panthera tigris*, Leopard *P. pardus*, Striped Hyena *Hyaena hyaena*, Sloth Bear *Melursus ursinus*, Wild Dog *Cuon*

alpinus, and Jackal *Canis aureus*. The predator populations are on the increase, and they deliver a good supply of carcasses for vultures. Other species of vulture, *Gyps indicus*, *Neophron percnopterus* and *Gyps himalayensis* were also observed during the study. There was only a single nest of the Red-headed Vulture observed in the Dhudhua Seha Range, where the vultures nested successfully in 2013 and 2014.

The presence of Red-headed Vultures in this area is an indication of a healthy environment and the birds' natural dispersion. This area should be regularly monitored as an important locality for Red-headed Vultures. The Panna Tiger Reserve can be developed as a potential breeding site and should also be included in any Red-headed Vulture conservation project or other conservation actions.

Red-headed Vultures are facing serious threats of habitat loss and lack of food availability, change in land use and agricultural practices (Chhangani 2002, 2003, 2005) along with diclofenac poisoning (Oaks *et al.*, 2004). They also require various conservation measures so as to maintain their population.

Conclusion

Efforts for *in situ* conservation in the Panna Tiger Reserve are needed. A more comprehensive study is required to estimate the exact population number and breeding

pairs, and the nest locations. The data obtained will also support the managing of a vigorous Red-headed Vulture population as this is one of the zones in the Bundelkhand region where the species still exists.



Figure 2: Red-headed Vultures unusually observed in a group during feeding. Two additional vultures are nearby out of sight.



Figure 3: Other species of vulture (*Gyps indicus*) in Panna Tiger Reserve.

Acknowledgements

Thanks are due to the Head of Department of Zoology, University of Lucknow, for providing facilities for study. Also thanks to Madhya Pradesh Forest Department for permission to carry out the study. We wish to thank the staff of the Panna Tiger Reserve for their continuous help and support. Two reviewers helped to improve earlier drafts.

Keywords: Bundelkhand, Panna Tiger Reserve, endangered, habitat loss, diclofenac

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