

Diversity and Status of Vultures in Chenab Region of Jammu and Kashmir

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ABSTRACT

Chenab region of Jammu and Kashmir is also called as erstwhile district Doda which comprises of the Doda, Kishtwar and Ramban located in the middle and outer Himalayan chain of North West Himalayas of Pir Panjal region. Vultures feathered creature is not so melodious as compared to other birds species but they play an important role in the ecosystem and keep it clean by feeding on carcasses and efficiently dispose the decaying matter and thus preventing epidemic. There are 9 species of vulture have been reported from India. Among them four are critically endangered, One endangered; three are threatened and one least concern as per the IUCN status; but during the last two decades the population of vulture decline drastically. This decline in Vulture population is attributed to the use of diclofenac in the animal farms, habitat loss, human interference, diseases, and low availability of food. The present article has reported three species of vulture from Chenab region along with their distribution and status and the study was carried from March 2018 to March 2020.

Keywords: Diversity, Chenab region, Jammu and Kashmir, Himalayas, Vulture, Endangered, Doda

INTRODUCTION

Chenab region of Jammu and Kashmir comprises of three districts i.e. Doda, Kishtwar and Ramban located in middle and outer Himalayan chain of North West Himalayas of Pir Panjal region. It is hilly region with typical terrain. Birds which are considered as a master of air (feathered Biped). This description is not applicable to any other group of animals. These being the master of air have been viewed as an indicator of environmental quality. The color patterns of feathers are one of the most important taxonomic diagnostic tools for their identification. Birds perform a variety of functions in their natural ecosystem e.g. Vultures Eagles kites Crows etc. act as an efficient scavenger and efficiently dispose animal carcasses, decaying matters and thus preventing epidemics. Vulture (*Gyps*) which play an important role in the ecosystem, their population has declined in the Indian subcontinent and Southeast Asia during the last decade and current population are estimated to be <5% of the original population [1]. The major reason for their decline appears to be the use of the veterinary drug Diclofenac, which is used for treating the cattle [1-4]. The other threats include Habitat loss, infectious diseases, environmental contaminants, low food availability and human interference. The nest site selection and breeding success of vulture primary depend on interaction with humans and other animals. In absence of Vultures, decomposition of carcasses become three times longer, therefore number of carnivorous mammals scavenging carcass increases three fold. The number of feral dogs and rats increases at least in Asia [5].

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Receiving Date: July 01, 2020
Acceptance Date: July 23, 2020
Publication Date: July 28, 2020

Study area

The present study was carried from March 2018 to March 2020 in Chenab Region (erstwhile district Doda) is located between 32⁰-53' and 34⁰-21' North latitude and 75⁰-1' and 76⁰-47' East longitude with an elevation up to 4200 meter. The study area is having subtropical climatic conditions along the national Highway at Ramban, Pul

Doda and Thathri where as the upper reaches experience the temperate type of climate. The study area has been divided into seven study stations i.e. Doda, Bhaderwah, Kishtwar, Ramban, Banihal, Thathri and Gandow (Figure 1) as these were all the Tehsil headquarters of erstwhile district Doda. Two different type of method i.e. line transport method and point count method were used to study the distribution and status of vulture in the area. In addition to this municipal towns and villages, dump yards and carcasses were also visited. The visit was made in the early hours in the morning and in the afternoon hours, besides irregular visit were also made, whenever carcasses were found. Sometimes during the survey presence or absence of vultures from the area is also confirmed from locals. The vegetation structure comprised of predominated evergreen species of *Pinus roxburghii*, *Cedrus deodara*, *Quercus sps*, whereas predominant deciduous tree species comprises of *Alnus nitida*, *Ficus sps*, *Aesculus indica*. Besides large no. of shrubs and herbs have also been reported from the study area.

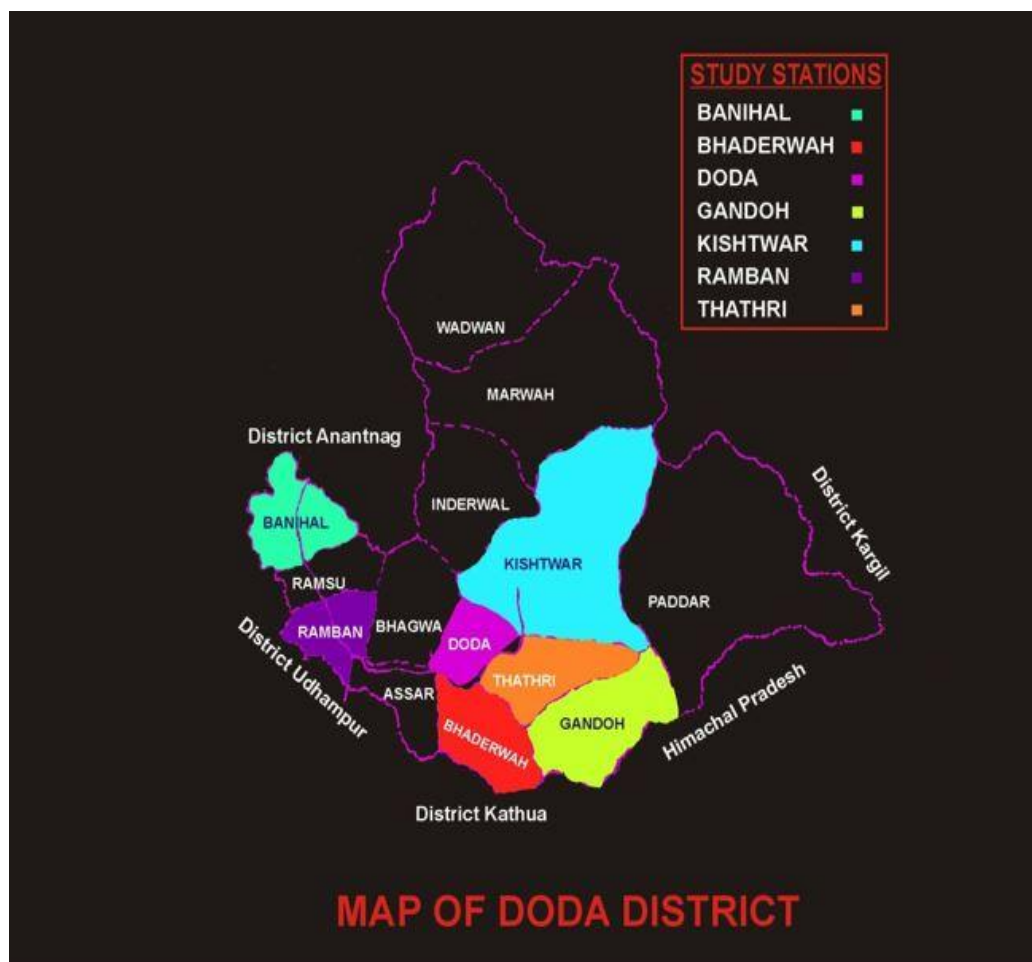


Figure 1: Map of erstwhile district Doda

OBSERVATION AND DISCUSSION

During the course of observation which was carried out in Chenab region of Jammu and Kashmir, three different species of vulture were reported i.e. Himalayan long billed vulture (*Gyps indicus*) Himalayan Griffon Vulture (*Gyps himalayensis*) and Indian white backed vulture (*Gyps bengalensis*) (Table 1). The identification of these birds was done from the handbook of Ali and Repley (1968-74) [6].

It has been observed all the three different species of vulture were found in all the study station across the study area, it is because the area is having the similar type of Terrain and climatic conditions. During the course of survey

13 animal carcasses (all of cattles), 9 of which were found in the outskirts of the villages, 3 besides the road and one in the forest area. Besides dumping yard near the cities/ town were also visited which were used for dumping slaughter house waste, chicken waste and so on. Where Himalayan Griffon Vulture and Himalayan long billed Vulture was frequently observed, beside dogs and Jungle crows were also observed at these sites. It has also been observed that there is a reduction in the numbers of carcasses in the area. It is because of the reasons that cattle owners sell these to slaughter houses as this is my personal observation. This decline in food availability could be the additional factors in hastening the decline of vultures in Chenab region of Jammu and Kashmir as been proposed for northern Indian population (Prakash opcit). Wani et al;(2005) [7] has observed good number of vultures while making survey of avian fauna of Doda But after a gap of 13 years there seems to be catastrophic decline in vulture population which is an alarming signal. Moreover long billed vulture was mostly observed near the villages or in forest areas.

Table 1: Study station showing the distribution of Vultures in erstwhile district Doda

Study Sites	Latitude N	Longitude E	Elevation	Habitat Type/Site	Himalayan Griffon Vulture	Himalayan Long Billed Vulture	Indian White Backed Vultures
Doda	32°-55'	75°-2-75°-45'	900 m	subtropical	+	+	+
Bhaderwah	32°-59'	75°-45'	1650 m	Temperate	+	+	+
Gandoh	75°-32'	32°-55'	970m	Subtropical /Temperate	+	+	+
Thathri	33°-2'	75°-41'	990m	Subtropical	+	+	+
Kishtwar	33°-3'	75°-15'	638m	Temperate	+	+	+
Ramban	14°-33'	75°-17'	747m	Subtropical	+	+	+
Banihal	33°-27'	75°-16'	1647m	Subtropical/temperate	+	+	+



Bird 1: Himalayan Long Billed Vulture



Bird 2: Himalayan Griffon Vulture



Bird 3: Indian White Backed Vulture

CONCLUSION

The present study regarding the status of Vulture in Chenab region suggest that there is a great decline in their number as compared to the previous reports. Thus there is an immediate need to conserve these predatory birds for the sustainable and healthy ecosystem.

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