

**POPULATION STATUS AND BREEDING SUCCESS OF HIMALAYAN  
GRIFFON (*Gyps himalayansis* Hume, 1869) AND THREATS: A CASE  
STUDY FROM KHODPE, BAITADI DISTRICT, FAR WEST NEPAL**



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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS  
OF SCIENCE IN ZOOLOGY WITH SPECIAL PAPER “ECOLOGY AND  
ENVIRONMENT”

**SUBMITTED TO**

CENTRAL DEPARTMENT OF ZOOLOGY  
INSTITUTE OF SCIENCE AND TECHNOLOGY  
TRIBHUVAN UNIVERSITY  
KIRTIPUR, KATHMANDU  
NEPAL, 2014

## RECOMMENDATIONS

This is to recommend that the thesis entitled “**Population status and breeding success of Himalayan Griffon (*Gyps himalayansis* Hume, 1869) and Threats: A case study from Khodpe, Baitadi District, Far West Nepal**” has been carried out by **Mr. Manoj Kumar Joshi** for the partial fulfillment of Master’s Degree of Science in Zoology with special paper “**Ecology and Environment**”. This is his original work and has been carried out under my supervision. To the best of our knowledge, this thesis work has not been submitted for any other degree in any institutions.

I recommend that the thesis has been accepted for partial fulfilment of the requirements for the Degree of Master of Science in Zoology specializing in “**Ecology and Environment**”.

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Supervisor

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Date:.....

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This is to recommend that the thesis entitled **“Population status and breeding success of Himalayan Griffon (*Gyps himalayansis* Hume, 1869)and Threats: A case study from Khodpe, Baitadi District, Far West Nepal”** has been carried out by **Mr. Manoj Kumar Joshi** for the partial fulfillment of Master’s Degree of Science in Zoology with special paper **“Ecology and Environment”**. This is his original work and has been carried out under myCo-supervision. To the best of our knowledge, this thesis work has not been submitted for any other degree in any institutions.

I recommend that the thesis has been accepted for partial fulfilment of the requirements for the Degree of Master of Science in Zoology specializing in **“Ecology and Environment”**.

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## LETTER OF ACCEPTANCE

On the recommendation of supervisor “**Associate Professor Mukesh Kumar Chalise**” this thesis submitted by “**Mr. Manoj Kumar Joshi**” entitled “**Population status and breeding success of Himalayan Griffon (*Gyps himalayensis* Hume, 1869) and Threats: A case study from Khodpe, Baitadi District, Far West Nepal**” is approved for examination and submitted to the Tribhuvan University in partial fulfillment of the requirements for Master’s Degree of Science in Zoology with special paper “**Ecology and Environment**”.

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## CERTIFICATE OF ACCEPTANCE

This thesis work submitted by “**Mr. Manoj Kumar Joshi**” entitled “**Population status and breeding success of Himalayan Griffon (*Gyps himalayansis* Hume, 1869) and Threats: A case study from Khodpe, Baitadi District, Far West Nepal**” has been accepted as a partial fulfilment for the requirements of Master’s Degree of Science in Zoology with special paper “**Ecology and Environment**”.

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## DECLARATION

I hereby declare that the work presented in this thesis has been done by myself, and has not been submitted elsewhere for the award of any degree. All sources of information have been specifically acknowledged by reference to the author(s) or institution(s).

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## ABSTRACT

Himalayan Vultures are fairly common in the mid-hills and trans-Himalaya of Nepal. Population estimation and breeding success of Himalayan Vultures were studied in Khodpe, Baitadi, Far Western Nepal in 2010-2011. Harichan and Siddhnath cliffs were monitored extensively to estimate its population and nests were searched for its breeding success. Threats to the animal were identified with discussion with the local people of the area.

Altogether, 310 individuals of Himalayan Vultures were recorded with average flock size of 25.833 individuals. Forty individuals were recorded as the population size through Jackknife population estimation method. However there was no significantly difference ( $\chi^2=96$ ,  $df=11$ ,  $p > 0.1$ ) in Himalayan Vultures sighting in different months of visits. Similarly, Himalayan vulture aggregation in two cliffs were also not significant ( $\chi^2=48.9$ ,  $df=42$ ,  $p > 0.1$ ). The breeding success of Himalayan Vultures was excellent. Harichan cliff had 100% whilst Siddhnath cliff had 80% percent breeding success which accounts overall 90% of breeding success in the area.

Exploring awareness among local people survey was conducted with non-ending questions nearby the site of vulture species around 73% of the responds think that the population of Himalayan Vultures was decreasing from their area. About 19.7% of respondents think that loss of food, 10.5% think as veterinary drugs and 17.1% lack of proper nesting sites as the major threats to the survival population of Himalayan Vultures. Almost all (94.7%) people were unaware about the effect of diclofenac to the vultures' population. Majority of peoples 76% think vulture should be conserved because they are natural scavenger's (73.1%). Thus, management of carrions and protection of nesting habitat should be managed. Awareness initiatives and detail monitoring programs are needed to protect the Himalayan Vultures from Khodpe, Baitadi.

Keywords: Himalayan Vulture, Khodpe, population estimation, breeding success, diclofenac



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## ABBREVIATIONS / ACRONYMS

BCN	Bird Conservation Nepal
DNPWC	Department of National Parks and Wildlife Conservation
IUCN	International Union for Conservation of Nature
NSAID	Non-Steroidal Anti-Inflammatory Drug
RSPB	Royal Society for the Protection of Birds
UK	United Kingdom
VDC	Village Development Committee