



Save the vultures: A Long-Billed vulture looks out for food in a protected area

To most of us lay people, the vulture is an ugly bird which we have always avoided looking at, as they are believed to be harbingers of death and associated with carcasses. Being great big ugly birds, they naturally do not attract our attention, like the beautifully iridescent humming bird for instance. Yet, vultures play a subtle yet important ecological role in the environment as primary carrion feeders and disposers of carcasses. They clean up carcasses of domestic and wild animals and also human corpses in certain communities. In the last decade, the vulture populations have declined by more than 95 per cent in India, Nepal and Pakistan and the annual rate of decline continues to increase according to scientists who have been concerned about the phenomenon.

Three species of Gyps vultures namely, the Oriental White-backed Gyps bengalensis, Long-billed Gyps indicus, and Slender-billed Gyps tenuirostris, are now listed as critically endangered species (BirdLife International 2001). That is a worrisome factor and scientists and ornithologists have written several papers on the reasons for this decline.

Neeta Shah, an advocacy officer with the Vulture Advocacy Programme initiated by the Bombay Natural History Society (BNHS), points out that with the absence of vultures, expensive alternate methods of carcass disposal have been necessitated. Culturally too, the Parsi community and some of its rituals have been affected by the decline in vulture population, as they depend on these birds to scavenge their dead in the famous Tower of Silence.

Shah reveals that the BNHS along with the Royal Society for the Protection of Birds (RSPB) and the Zoological Society of London (ZSL) have found through research that a non-steroidal, anti-inflammatory

A great environmental service the vultures do when they scavenge dead animals. However, the dead that they feed on are in turn killing the birds, which, researchers speculate could be owing to the presence of veterinary diclofenac in domestic animals and cattle.

While restoration efforts are being undertaken, the situation is grim, with almost a 97 per cent decline in vulture population. Marianne de Nazareth assesses the problem's gravity

The dead haunt vulture populations



Pic: Aadesh Shivkar

Two of a kind: Vulture populations have also suffered a lot and many species are on the verge of extinction

veterinary drug (NSAID) Diclofenac, could be the prime cause for the crash in vulture populations in Pakistan, India and Nepal. Veterinary diclofenac, according to Neeta, was introduced into the Indian market just a decade ago. It became popular because it easily treated symptoms in a broad range of injuries and illnesses. There was immediate, though short-term relief for the animal. Thankfully, the drug has no curative values and so it can be replaced. The Asian vulture, unfortunately has been exposed to diclofenac through the carcasses of live stock treated with the drug rather than through humans.

Upon a closer examination of the birds that had died, it was found that this veterinary drug may have been the reason for their death, caused by visceral gout and kidney failure. Shah adds that the findings shockingly exposed the fact that even if 1 per cent of the total animal carcasses contained diclofenac, and they were eaten by the birds, it could lead to catastrophic deaths. The Wild Life Institute of India collected 1,000 carcasses, of which 5 to 8 per cent contained diclofenac, which portrays a very grim scenario for the vulture in India.

According to another paper titled *Diclofenac disposition in Indian cow and goat with reference to Gyps vulture population declines*, by MA Taggart *et al*, since the early 1990s Gyps vulture populations have collapsed across India. Populations of at least three species are known to have been affected (oriental white-backed Gyps bengalensis, long-billed G. indicus and slender-billed G. tenuirostris vultures) and have declined by more than 97 per cent since 1992. All three species are now listed as critically endangered by the IUCN World Conservation Union, despite the fact that G. bengalensis was, in the previous decade, considered to be the commonest large raptor in the world.

Interestingly, this paper also indicates that despite mounting evidence regarding the role of diclofenac in affecting a population



Pic: Nitin Srinivasamurthy

Magnificent creatures: An Egyptian vulture. Vultures do a great ecological service by clearing dead remains

decline in vultures, its importance as the cause for the decline in vulture population in India, has been questioned. In certain regions of the country, vultures can still be found in areas where diclofenac is likely to be used, although the numbers reported are very small compared to those sighted in the same areas during the early 1990s. Likewise, other potential agents of decline have also been suggested as likely to reduce the survival and nesting success of vultures. Whilst consideration of alternative or contributory causes remains important, the evidence that diclofenac is the major cause for a huge number of vulture deaths appears overwhelming, says the study.

The situation hasn't come to be due to a want of initiative from the government's end. The Indian



Pic: Dr. Satish Pandey

A White-backed vulture

Recently, eight Long-billed vultures were observed on the ledges of the steep and rocky cliffs dotting the Ramadevarabetta State Forest. The birds seemed healthy

government has given a green signal for an alternative drug and a directive to phase out diclofenac in a stipulated time frame. This has set a positive precedence for the rest of the

vulture range countries in Southeast Asia, and will definitely bring back the population from the brink of extinction, provided all the necessary steps are taken.

Fortunately for the raptors, several researchers are taking a keen interest in restoring the vulture population to its original number. Breeding of Long-billed Vulture *Gyps indicus* at Ramanagaram hills, Karnataka India, a study by S Subramanya and O C Naveein, scientists from the University of Agricultural Sciences, Bangalore, is a case in point. The hills of Ramanagaram are located in the south-west of Bangalore and have been a home to critically and globally endangered vulture species for a long time. Recently, eight Long-billed vultures were observed on the ledges of the steep and rocky cliffs dotting the Ramadevarabetta State Forest. The birds seemed healthy, say the scientists and these vultures, according to the Bombay Natural History Society (BNHS), appear to be the only known and last surviving population of the species in inland southern India.

"The survival of this small population of vultures gives hope that its entire population may not have been lost in this part of the country. It is quite possible that this isolated population has been able to resist the effects that have almost decimated the species elsewhere, or may not have been exposed to the same," avers Subramanya.

However, obviously shaken by the steep decline in the numbers, Shah maintains, "Conservation breeding and scientific intervention was called for because of the plummeting figures. Vultures needed to be bred in captivity in a diclofenac-free zone to help restock the species. The BNHS along with the Haryana government in partnership with the UK-based RSPB and Darwin Initiatives, has set up the vulture breeding programmes, with Dr Vibhu Prakash, principal scientist from BNHS in charge. Had we only observed them earlier despite their unattractive looks, they wouldn't have to depend on such programmes to support their future." 🌍

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