

VULTURE: A Magnificent Bird

Krishnendra Singh Nama*

Research Supervisor,
Dept. of Life Science, Career
Point University, Kota
(Rajasthan)



*Corresponding Author

Krishnendra Singh Nama*

E-mail: namasahib@gmail.com

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INTRODUCTION

Raptor is a much diversified group of avian fauna and found in almost all habitats in the world. Among these, Vulture is the most elegant species. As, tiger is the king of the jungle, similarly with a unique body structure and skyscraper flight makes a vulture the king of the sky. Vultures are major avian scavengers and play an important role in keeping the environment clean by scavenging on animal carcasses and thus checking the outbreaks of epidemic. All vulture species provide a range of ecological, economic and cultural services. They are the alone documented obligate scavengers and are uniquely adapted to a scavenging lifestyle.

The *Jatayu* avatar in the Ramayana was actually a vulture. In Persian culture, it is a custom to feed dead bodies of people to vultures. In ancient times, the place where an epidemic spread and many people were killed in a famine, then their bodies were thrown out of the village, which were cleaned by vultures, which would eliminate the risk of infection.

All over the world there is 23 species of vulture, of these nine species are found in India. Slender-billed Vulture is the most critically endangered in the world and perhaps the most endangered raptor with nearly 200 pairs surviving in the wild. There are seven vulture species found in Rajasthan viz. Long-billed vulture (*Gyps indicus*), White-backed vulture (*Gyps bengalensis*), Red-headed vulture (*Sarcogyps calvus*) and Egyptian vulture (*Neophron percnopterus*) as breeding residents, Himalayan griffon (*Gyps himalayensis*), Eurasian griffon (*Gyps fulvus*) and Cinereous vulture (*Aegypius monachus*) are winter migratory species here.

Animal husbandry is not only a business of Rajasthan but also a part of culture. That's why livestock population is quite high here, so the distribution of vultures depends upon the carcasses of these animals is also widespread.

25 Districts of Rajasthan including Ajmer, Barmer, Beawar, Bharatpur, Bheelwara, Bikaner, Bundi, Chittorgarh, Churu, Dungarpur, Jaipur, Jaisalmer, Jalore, Jhalawar, Jhunjhunu, Jodhpur, Kota, Nagaur, Pali, Pratapgarh, Rajsamand, Sawai Madhopur, Sikar, Sirohi, Udaipur serves as either feeding, roosting or breeding grounds of vultures.

In special reference to Kota the largest population of Long-billed Vultures in South-east Asia is situated in a stretch of approximate 42 kms. along with Chambal River between Kota Barrage to Bhainsroadgarh, Rawatbhata. Vulture population is high in gorges and less observed in the riparian area. Over the entire vulture habitat is good due to the availability of water, food, roosting, nesting and soaring sites. So it can be considered as Natural Paradise of this divine bird.

The major feeding grounds of these vulture species are Jamuniya, Borabas Villages, Ananthpura Caracas yard, Kota Thermal Power Station area, Sawan-Bhado Dam area at Kota and Bridge Site, Namoon Ghati, Township Area at Rawatbhata.

Reasons for decline of vulture species:

There was a time when large kettles (group of vultures) were seen hovering in the sky. And when these flocks descended on the dead body of an animal, they used to convert it into a skeleton within a few minutes. But within a few years vultures almost disappeared and today they are found in very limited numbers in very few parts of the world. It is said in the proverbs in our rural areas that foreigners took the vultures with them in the ship.

Study says there were 40 million vultures in India in the 90s. But within a decade they reached the verge of extinction. Slender-billed, Long-billed and White-backed are most affected among all species. That's why in the year of 2000, the IUCN declared these species in category of Critically endangered – category of highest risk.

A variety of explanations and hypotheses like reduction in food availability, poisoning, habitat loss, pesticide intoxication, calcium deficiency, infectious disease or a viral disease have been proposed. The clear cause of

mortality remains unidentified but is suspected to be an infectious disease.

- In last decade, diclofenac residues have been identified as a cause for declining *Gyps* vulture population in South Asia. Diclofenac is toxic to vultures even in small doses, causing kidney failure. That results in uric acid accumulating in the birds' blood and crystallizing around their internal organs—a condition called visceral gout.

But this is not true in the perspective of Kota because this problem was seen only in vultures of those areas where they have to fly far away in search of water. But in Kota, they get water easily which dilutes the concentration of poison and reduces the problem of Kidney gout.

- In this area the different anthropogenic activities like wood cutting, browsing, lopping, grazing, fishing, mining, presence of approach road etc. are very common which are the reasons of decline of vulture population directly or indirectly which affects nesting and roosting of vulture population.
- Vultures eat animals that die from collisions with vehicles on the road. But after feeding, the vultures become somewhat heavy & clumsy. Even to take off they have to run for some distance. Which themselves are killed by the incoming high-speed vehicles. Such incidents have happened between Sawai Madhopur to Kota railway line in previous years.
- These birds with wingspan of up to 6 feet fly in a special pattern, due to which they sometimes come in contact with high tension electric wires and are killed due to high electric shock.
- Stone mining is high as per need of the local people due to this nesting habitat lost which is the main cause of the vulture decline specially in some areas of banks of Ricer Chambal at Kota.

- Fishing is also a factor affecting indirectly the vulture habitat due to human interference or interaction increase and cause the habitat degradation of vulture survival in this area.
- There is also an unexpected fact where in the last decades, the population of vultures has declined by more than 95 percent, giving a boost to the population of stray dogs suffering from rabies. These dogs are at the forefront of the competition for getting food from vultures today.

How to Conserve the Vultures ?

- ✓ All those painkillers given to cattle should be legally banned by looking for another alternative. If anyone is found to be using it, then there should be a provision for severe punishment.
- ✓ The areas where vulture breeds, should be protected by authoritarian laws. A good example of this was established in Kota: illegal tree cutting and grazing in the Garadia Mahadev area was strictly prohibited by the Forest Department for the last 2 years; besides this, the over tourism that has been done there was also regularized since then the vulture nests have seen an increase of about 10%.
- ✓ The vehicle speed should be maintained regularly and if an animal collides with the vehicle and dies, the road authority should immediately remove carcass from the road and keep it in a place where the vulture can eat it easily.
- ✓ In the roosting, feeding & nesting areas of vultures, electric lines should not be installed; and if there is no other alternative, then the power cables should be covered with an electro-resistant cover.
- ✓ Illegal mining and fishing should be banned in the areas, mainly in those portions of Chambal where vulture's nests.
- ✓ The population of stray dogs should be controlled. For this, programs like their sterilization should be run.

Recommendations ?

- ❖ After the year 2000, there has been no scientific vulture census of entire Rajasthan nor any research work has been done. Therefore, firstly, there is a need to make a war effort to collect the factual data related to them. Similar to Tiger & Great Indian Bustard, a great importance should also be given to vultures.
- ❖ A chain of awareness campaigns in rural, tribal, civil area should be held to stop the use of pain killers for cattles.
- ❖ Where vultures are found, *Vulture Restaurants* should be established, here dead bodies of animals should be dumped from nearby city, towns and villages.
- ❖ A management plan should be made for *in situ* conservation of vultures at the national and state level of the government and the forest department.
- ❖ Forest Department should construct water bodies in those areas where vulture roosts, feeds & breeds. So they can get ample of water, which will help to reduce the toxic concentration of poisonous compounds if present in carcase. It may be an effective effort to reduce the mortality of the bird.

If vultures are not preserved in time, it is clear that the extinction of a bird will create an ecological health hazard. The end of which is sure to be a human tragedy. **Remember, human culture is impossible without vulture culture.**



Fig. 1: A wake of Vultures on carcass