



## Avian studies from Cultural aspect, Economic, Social, Cultural, Religious and Ecological importance of birds to Humans.

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### ABSTRACT:

Birds serve a multitude of essential roles, encompassing their functions as predators, pollinators, scavengers, seed dispersers, and ecosystem engineers, among others. They also hold significant cultural, social, and religious value. However, the global decline in bird populations has led to a reduction in the vital ecosystem services they provide. Regrettably, these services often go underappreciated due to a lack of awareness and understanding. This review article aims to shed light on the pivotal role of birds in agro-ecosystems and the benefits they offer to humans, with the ultimate goal of promoting bird conservation. Sustaining healthy bird populations and their habitats is crucial for safeguarding various ecological services, ultimately enhancing human well-being.

Keywords: Agricultural Ornithology, Cultural Significance of Birds, Birds in Hinduism, Birds and Ecology.

### 1. INTRODUCTION

Birds are captivating creatures, each with its unique colors and characteristics, symbolically connected to the world around us. In the context of Indian culture, customs, beliefs, and practices, birds play a substantial role. The extensive meanings attributed to birds in Hindu mythology, exemplified by parakeets, peacocks, and swans, are subjects that continue to pique our interest.

Human interactions with birds have spanned thousands of years and encompass both practical and symbolic aspects. Economically, birds have been hunted for food since ancient times, and their domestication for meat and eggs dates back to ancient Egypt. Certain species have even been employed in hunting and food procurement, as seen in cormorant fishing and the use of honey-guides. Feathers have been used for bedding, quill pens, and arrow fletching. Presently, many bird species face habitat loss and other human-induced threats, prompting bird conservation efforts.

Birds have frequently played significant roles in the mythologies and religions of diverse cultures throughout history. For instance, the dove symbolized the Mesopotamian goddess Inanna, the Canaanite mother goddess Asherah, and the Greek goddess Aphrodite. In ancient India, the peacock represented Mother Earth. Birds have taken on diverse symbolic meanings, from bringing misfortune and death to being revered and used in heraldry.

Entertainment has also been intertwined with birds, as raptors have been used in falconry, while cage birds have been cherished for their melodious songs. Traditional sports like cockfighting and pigeon racing have utilized certain bird species, and bird-watching has grown into a popular leisure activity. Birds have left their mark in various art forms, including painting, sculpture, poetry, prose, film, and fashion. In genres like Chinese bird-and-flower painting, birds hold central positions in artistic expression.

#### 1.1 Economic Utilization

**Food:** Birds have been hunted for sustenance since prehistoric times. Archaeological studies have compared the energy gained from captured birds to the energy expended in their capture. While birds offer a lower return compared to larger game like deer, they surpass many plant resources. For example, waterfowl captured in a drive can yield around 2,000 kcal/hour, whereas an antelope can yield up to 31,000 kcal/hour, and wild rye around 1,000 kcal/hour.

**Assisting Hunters and Gatherers:** In some African communities, the greater honey-guide bird assists in locating wild bee nests.

**Materials:** Feathers, with their exceptional "loft" properties, are used for warm bedding, such as eiderdowns, and for winter clothing. Feathers have also been employed for quill pens, arrow fletching, and as decorative elements in fishing lures.

**Sports and Hobbies:** Birds, from eagles to small falcons, have been integral to falconry traditions, used both for sport and food. Cockfighting, an ancient spectator sport, has cultural significance and is still practiced in various regions.

## 1.2 Symbolic Significance

**Inspiration:** Birds evoke various emotions in people, from the joyous displays of lapwings to the haunting calls of tawny owls on cold winter nights. They inspire art, mark seasons, provide a sense of place, and serve as symbols of joy and love.

**Symbolism and Heraldry:** The perception of bird species as symbols varies across cultures. Owls, for instance, are seen as symbols of wisdom in much of Europe but are associated with bad luck and witchcraft in parts of Africa. Hoopoes, sacred in Ancient Egypt, symbolize virtue in Persia but are regarded as thieves in much of Europe and harbingers of war in Scandinavia.

## 1.3 In the arts

### Painting and Sculpture

Throughout history, birds have been a prominent subject in various forms of art, including paintings, sculptures, and other artistic creations. Even in the earliest times, they found their place in human artistic expression, as evidenced by their presence in cave paintings.

In the realm of Chinese art, bird-and-flower painting stands as one of the three major subjects, alongside landscapes and figures. This tradition dates back to the time of the Five Dynasties in the 10th century. Notably, artist Huang Quan introduced the naturalistic *xiesheng* style for bird paintings. Japan, too, has a rich tradition of celebrating birds in the arts, with their influence extending to painting, woodblock printing, cloisonné, ceramics, and poetry, particularly during the 18th and 19th centuries. Prominent print artists like Utamaro and Hokusai blended Western and Chinese influences to achieve a sophisticated artistic effect, while Hiroshige breathed new life into the traditional bird-and-flower genre.

### Poetry

Birds have been a source of poetic inspiration since ancient times. For instance, in one of his most famous works, the Roman poet Catullus wrote about a girl and her beloved pet sparrow in "*Passer, deliciae meae puellae*" (Sparrow, delight of my girl).

Birds also played central roles in medieval poetry. An exemplary instance is the 1177 Persian poem "The Conference of the Birds," where birds from around the world gather under the guidance of the wisest bird, the hoopoe, to determine their king.

### Music

The melodious songs of birds have left their mark on composers and musicians in various ways. They can serve as a wellspring of inspiration, leading to compositions infused with the spirit of birdsong. Some composers, like Vivaldi and Beethoven, have intentionally incorporated bird songs into their musical creations, a tradition continued by numerous later composers. In addition, some have integrated actual recordings of birds into their works, a practice initially observed in the works of Ottorino Respighi. Notable instances include Beatrice Harrison's 1924 duet with a nightingale and David Rothenberg's 2000 collaboration with a laughingthrush.

### Dance

Birds have also assumed central roles in dance traditions across the globe. For example, in Papua New Guinea, Goldie's bird of paradise takes center stage in a captivating dance performed by two men. Adorned in grass skirts featuring the bird's plumes on the rump, they carry cassowary feathers in their hands and on their armbands. As they dance, they skillfully imitate the bird's calls. This dance, performed on significant occasions, carries a special significance and magic. Preparations for such performances involve dietary restrictions and a prolonged submersion in a cold stream to prepare the performers' minds.

## 1.4 Religious importance

**Sacred birds of India** (source [https://bnhsenvis.nic.in/KidsCentre/BirdsinLegends\\_880.aspx](https://bnhsenvis.nic.in/KidsCentre/BirdsinLegends_880.aspx))

S. No	COMMON NAME	SCIENTIFIC NAME	MYTHOLOGICAL NAME	RELIGIOUS ROLE
1	Eagle (Crested Serpent Eagle)	<i>Spilornis cheela</i>	Garuda	Garuda is associate of Indra and Sun. Also a vehicle of Vishnu.
2	Kite (brahminy Kite)	<i>Haliastur indus</i>	Garuda	Also Consider as a Garuda. (but the Eagle is the more probable bird)
3	Vulture	<i>Gyps bengalensis</i>	Jatayu & Sampat	Jatayu fought with Ravana to save Sita. His brother Sampati Confirmed Sita's abduction to Lanka and her imprisonment in the forest of ashoka trees.
4	Owl (Brown Wood Owl)	<i>Strix leptogrammica</i>		Vehicle of Chamunda, a form of Durga. Vehicle of Goddess Lakshmi in Bengal.

5	Crane (Sarus Crane)	<i>Grus antigone</i>		The crane is a symbol of love, fidelity, long life and marital bliss
6	Crow (House Crow)	<i>Corvus splendens</i>		It is usually identified with departed souls or ancestors. The bird is the vehicle of Shani (Saturn). In Buddhism, the Dharmapala Mahakala is represented by a crow in one of his physical/earthly forms. It is believed that crows heralded the birth of the First, Seventh, Eighth, Twelfth and Fourteenth Lamas.
7	Dove/ Pigeon		Kapotesvara and Kapotesvari	It is said that, Shiva and Parvati live in the form of a male and female dove called Kapotesvara and Kapotesvari respectively in the Amarnath Cave.
8	Parakeet (Indian Rose-ringed Parakeet)	<i>Psittacula krameri</i>		It is Associated with Andal (Alvar or Saint of Tamil Vaishnavism). The parakeet is sacred to Goddess Meenakshi.
9	Peacock	<i>Pavo cristatus</i>		Whenever Indra, lord of the heavens, transformed himself into an animal, he is believed to have become a peacock. Peacock named Paravani is the vehicle of Lord Kartikeya (also known as Skanda or Muruga). The bird is sometimes associated with Goddess Saraswati, as a vehicle. The crown of Lord Krishna is usually adorned with a peacock feather. The Mori clan of the Bhil tribe of Central India worships the peacock as a totem. Similarly, the peacock is the sacred totem of the Jat community. The bird is sacred to Ahir and Khand tribes. The Warli tribe of Maharashtra fix peacock feather in a pot to represent their god Hirva. There is a belief that Sita was born from the egg of a Peahen. According to popular legend, Parvati manifested herself in the form of peahen in the ancient village of Mylapore
10	Pheasant (blood Pheasant)	<i>Ithaginis cruentus</i>		It is sacred to the Lepchas who are the aboriginal inhabitants of Sikkim.
11	Rooster	<i>Gallus gallus</i>		The bird heralds the rising sun and is hence a symbol of the sun. In Tamil tradition, it was taken as the symbol on flag by Lord Muruga. It is associated with Goddess Kamakhya of Assam.
12	Swan	<i>Cygnus olor</i>	Hamsa	It is Vehicle of lord Brahma and Goddess Saraswati. It is sacred to the Buddhist.

### 1.5 ECOLOGICAL IMPORTANCE

Birds are extremely valuable to agriculture because they serve as fertiliser, pollinators, and biological control agents in the following ways:

1. POLLINATORS: A variety of little birds, such as hummingbirds, that inhabit groves and meadows with blooming plants are responsible for pollination. Some flowers are exclusively responsive to bird pollination because they are specifically made for it. The fruit-eating birds aid in the seeds' widespread dispersion.
2. FERTILISER: Bird dung, also known as guano, is a material that includes nitrogen, phosphates, calcium, iron, and other elements. It's widely applied as fertiliser. Guano accumulates in vast amounts on Chilean coast islands, where there are few rainfall and where many migratory and seabirds breed. Guano is then shipped to various agricultural nations.

3. **BIOLOGICAL CONTROL:** When it comes to biologically suppressing harmful agricultural pests, birds are a farmer's best friend. Thousands of tonnes of weed seeds are consumed by the seed-eating birds every year, which helps to suppress the unwanted weeds in agricultural fields.

Similarly, millions of tonnes of dangerous insects that reside as pests on crop plants are consumed by insectivorous birds. By feeding on mice, rats, moles, squirrels, hares, rabbits, and other rodents, some carnivorous birds, including hawks, owls, and eagles, shield the crops from harm. Additionally, birds gather insect larvae that feed dangerous worms and eat plant leaves.

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## CONCLUSION:

Birds occupy a very significant position in the human society. They provide us food, medicine, fertilizers, beautiful decoratives give us enchanting songs and brings about pollination. In addition they form various sources of amusement and exercise biological control over injurious crop pests. Besides their many-beneficial aspects, certain birds are harmful for mankind.

Certain birds such as peacocks, eagles, kites and other carnivorous birds are destroyers of several venomous and injurious creatures, such as snakes, scorpions, etc. Some species and varieties of pigeons have been trained and used as messengers in wars and love affairs from early days. Many birds profess changes in seasons. In India, the appearance of cuckoo suggests the onset of spring. The dance and peculiar voice of peacocks in cloudy weather indicate rain fall. Certain birds help hunters by giving danger signals to them. Some sparrows cry before carnivorous animals such as tigers hidden in the bushes. Game birds like ducks, quails, herons, pheasants and pigeons, etc., are used for entertainment. Singer birds like cuckoo, bulbuls and canary amuse persons by their sweet and melodious voice, Parrots, Maynas, and Parakeets amuse man by repeating their voices and are, thus, good sources of recreation.

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