

Ecology and Feeding habits of Peafowl (*Pavo cristatus*) in Kapoori, Saharanpur, U.P., India

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Abstract

Indian Peafowl is a resident bird, omnivorous, ground-feeder, ground-dwelling, polygamous and widely distributed in India. They feeds on different parts of plants and different types of small animals. They liked moist and dry-deciduous forests to live but they can easily adopt in cultivated regions such as agricultural lands, gardens etc. They eat seeds, insects, fruits, small reptiles and mammals. The bluefowl lives in India and Srilanka. Green peafowl is present in Java and Myanmar (Burma). The present study was carried out to assess the ecology and feeding habits of Peafowl (*Pavo cristatus*) in natural condition at Kapoori, Saharanpur, U.P., India. It was observed that the preferences of food items by peafowl was depend upon the seasonal crops, scrub vegetation and uncultivated areas. It was observed that peafowl spend more time on feeding but at the time of heavy rain mostly peafowl do not like feeding.

Key word: Pheasant, Peafowl, Classification, National bird, Feeding behavior, Distribution

I. Introduction

The Indian Peafowl also known as blue peafowl or common peafowl. In 1963, It was declared that *Pavo cristatus* is a national bird of India, due to its Flagship value found on its glorious position in mythology of world. Peafowl belongs to the family Phasianidae (also known as Pheasant and it is a largest in size among the family Phasianidae) and order Galliformes (Ali and Repley, 1989). Male peafowls are known as peacocks and female peafowls are known as peahens. In India it is given the utmost protection by inclusion in Schedule 1 of wildlife (Protection) Act, 1972. Indian peafowl are polygamous (Ali and Ripley, 1969) and show sexual dimorphism. The peafowl having long train made up of elongated upper tail covert feathers which bear colourful eyespots (Kushwaha and Kumar, 2016). They raised into a fan or grand display during courtship. While the peahens lack the train and dull brown plumage. The male and female peafowl also distinguished by their neck colour appearance i.e. male recognized by blue neck and female recognized by green neck.

The Indian Peafowl lives mainly on ground of open forest, urban habitats, agriculture field, along stream with good vegetation and close to human habitation in semi-feral conditions. The Peafowl bird is listed in the threatened category of International Union for Conservation of Nature (IUCN) Red List or Red Data Book (IUCN. 2008). Peafowls are omnivorous in nature (Drisdelle, 2007), eating plants parts, flower petals, leaves, fruits (Chopra and Kumar, 2014) cotton fruits, *Acacia* seeds, *Cyperus* rhizomes, standing cereal crop (Johansingh and Murali, 1980), seeds, insects, arthropodes, reptiles, amphibians and small mammals also (Johansingh and Murali, 1980; Sathyanarayana, 2005). They play an important role in regulating the ecosystem balance and functioning. Also they are having religious importance (Thaker, 1963; Thapar, 1998). Peafowl roost in groups during night on tall trees, rocks, building or pylons (Parasharya and Mukharjee, 1999).

Classification and distribution of Indian Peafowl

Peafowl is inhabit throughout of India and other parts of sub-continent (Hanotte et al., 1991). There inhabit areas are near streams, old buildings, grassland, agriculture land, near human population of villages (Ali and Repley, 1989). Length of male peafowls (weight 4 to 6.5 kg.) are 180 to 230 cm. While the length of female peafowls (weight 2.5 to 4.5 kg.) are only 85 to 100 cm. Classification and distribution of Indian Peafowl are as follows-

Kingdom : Animalia
Phylum : Chordata
Sub Phylum : Vertebrata
Class : Aves
Order : Galliformes
Family : Phasianidae
Sub family : Phasianinae
Genus : 1. *Pavo*

2. *Afropavo*

Species : (i). *cristatus* (L. 1758)

(i). *congensis* (Chapin 1936)

(ii). *muticus* (L. 1766)

The Peafowl is an exotic bird in many parts of the world and it is native of India, Assam, Siam, Burma, Java, Ceylon and Malaya (Kushwaha and Kumar, 2016). Three species of Peafowl are found in different parts of the World (Dharmakumarsinhji and Lavkumar, 1981).

(i). *Pavo cristatus*, also known as blue Peafowl or Indian Peafowl, occur in Indian Subcontinent. They are threatened species.

(ii). *Pavo muticus*, also known as green Peafowl, found from eastwards to Sumatra. Now they are endangered species.

(iii). *Afropavo congensis*, also known as Congo Peafowl or African Peafowl, occur in Belgian, Congo. They are vulnerable species.

The Peafowl is widely distributed in India sub-continent, from the south and east of the India river, Jammu and Kashmir, East Assam, South Mizoram and the whole of the Indian peninsula (R. Sabesh, 2010). The population is very high in Mathura, Chitrakoot, Rajasthan, Madhya Pradesh, Agra, Kanpur, Sitapur, Lucknow etc. while some districts are reported that population is decline in Lalitpur and Jhansi (Ali and Repley, 1989). The breeding season of the Indian Peafowl is not fixed and it may breed any time of the year but they likes rainy seasons for breeding (Munir et.al., 2018).

II. Materials And Methods

The field observation on Indian Peafowl were conducted during the months of September to December 2018. The survey sites included 2 km. radius of Kapoori village, Saharanpur, U.P., India in natural condition, which latitude is 29.785258° and longitude is 77.7373396° and 269 meters above the sea level. Peafowls were visually observed by binoculars (GOR Standard 10×50). The observations were recorded in the early morning and early evening hours.

III. Result And Discussion

Peacocks are omnivorous, ground-feeders that eat insects, reptiles, worms, seeds, grains and fruits (Harikrishnan et al., 2010). Even in their natural range, these birds roam in villages, cities, parks and near human societies in search of food. Sometimes they damage agriculture crops but they also eat locusts, rats small snakes and grasshoppers, which is beneficial to farmers. Animal body has to perform different mechanical activities for which they need energy derived from food (Okoro et al., 2016). Elliott et al., 2014 reported that nutrients are required from food to maintain body structure and growth. Charlton et al., 2015 and Nowak et al., 2016 studied that insects are good source of protein while plants are enriched in calcium level that is essential for egg production. Johnsingh and Murali, 1980 had mentioned similar findings on feeding association between Indian Peafowl and King crow. Yasmin and Yahya 1996, recorded that Indian Peafowl fed on a mixture of seeds, leaves and wild herbs.

In the present study, It was observed that female peafowl spend more time on feeding then male but at the time of heavy rain mostly peafowl do not like feeding and also noted that they feed on grains so known as granivorous and because in the agronomic ecosystem they mostly feed on paddy (Sathyanarayana et. al., 2005). In 1981 similar observation were recorded by K. Navaneethakannan were noted that Peafowl spend maximum time in feeding activity in comperision to other activities. In 2010 Jones and Dawkins reported that female Peafowl spent most of the time in feeding, moving, resting guarding and other behavior. Ali and Ripley (1983) had reported that large birds used tall trees and small birds need small trees for roosting. Kushwaha and kumar (2016) observed that Indian Peafowl preferably roosted on top of the tall trees so that they could get vision from all directions and they generally selected the tallest trees for roosting in order to protect themselves from the free climbing, night predators such as the leopard and other cats. Also worked on diet preferences and general behavior of peafowls in captive environment by Praveen et. al., 2018.

In this study, Indian Peafowl were observed to fed on leaves, flowers and fruits of different plants such as wheat, matar, paddy, mustard, bathua, pear, pilkhan, maize, carrot, tomato, cucumber, watermelon, brinjal, potato etc., also like to fed on small animals like ant, earthworm, lizard, snake, beetles, termite etc and they would like to eat seasonal grains, fruits, vegetables, crops etc. Similar kind of observation also recorded by Kaur and Kler in 2017. The variety of food is required in captive environment for birds as recommended by Central Zoo Authority (Raja, 2007) and 30 gm. Bread, 30 gm onions and garlic, 100 gm spinach, 60 gm oil seeds and small insects, worms and animals in captive conditions (Sikandar et al., 2015). Junaid Naseer et al., 2018, investigated that major portion of faecal contents were of plant materials as compared to animal contents. Small size pieces of the sand and gravel (known as non-food materials) were seen in the faecal matter that help in improvement of their digestive system. Previous studies showed that more than 32% of faecal contents were composed of non-food items (Trivedi and Johnsingh 1995).

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