



Indian Peafowl emphasising breeding and roosting behaviour in Kapoori Govindpur, Saharanpur (U.P.)

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Abstract

Indian Peafowls (*Pavo cristatus*) are cosmopolitan in distribution. Present study was planned to evaluate the breeding and roosting behaviour of Indian peafowl reared in naturally at agriculture field of Kapoori Govindpur, Saharanpur (U.P.). They eat seeds, insects, fruits, small reptiles and mammals. The breeding season of the Indian peafowl is not fixed. It may breed throughout the year but animals prefer to breed during the rainy seasons. Observations recorded indicate that 08 birds breed in the month of July to October 2019. The roosting habits of Indian Peafowl were observed that they likes plants for roosting such as Amaltas, Peepal, Mango, Jamun, Eucalyptus, Pilkhan, Poplar etc trees. It was observed that at the time of heavy rain peafowl mostly likes roosting behaviour in comparison to other behaviours. Peafowl roost in groups during night on tall trees, rocks, building or pylons.

Key word: Breeding behaviour, Roosting behaviour, *Pavo cristatus* and predators.

Introduction

Indian Peafowl (common peafowl or blue peafowl) is a resident bird, omnivorous, ground-feeder, ground-dwelling, polygamous (Ali and Ripley, 1969) and show sexual dimorphism and widely distributed in India, Pakistan, Sri Lanka and Northern areas of Bangladesh (Samour et al., 2010). Family Phasianidae (also known as Pheasant and it is a largest in size among the family Phasianidae and order Galliformes, Ali and Ripley, 1989), refers to three types of peafowl namely Indian Peafowl (*Pavo cristatus*), Green Peafowl (*Pavo muticus*) and African Congo Peafowl (*Afropavo congensis*) (Pinthong 2012). 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. Green peafowls are considered to inhabit dry forest of Cambodia, Thailand, Vietnam, China and Indonesia (Naseer et al., 2017). The peafowl having long train made up of elongated upper tail covert feathers which bear colourful eyespots (Kushwaha and Kumar, 2016). African Congo Peafowl mostly found in forests of the Democratic Republic of Congo (Mulotwa et al., 2010).

The peafowl having long train made up of elongated upper tail covert feathers which bear colourful eyespots, 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. 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). They were observed to be both communal and solitary roosters while females were observed to have only communal roosting habits (Gadgil M and Ali S. 1975). Roosting is a most common process of birds, which lowers the loss of body heat and decreases the risks associated with predators (Kaur and Kler, 2017). Their 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. 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). 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). Roost site selection plays a pivotal role in the nesting success of any species. Judicious selection of the roosting site may enhance the survival of birds, by virtue of reduced heat loss, information sharing, accountability of population, and better protection from predators (Gadgil and Ali 1975).

Materials and Methods

Study Area

The field observation on Indian Peafowl were conducted during the months of July to October 2019. The survey sites included 1.5 km. radius of Kapoori Govindpur village in Distt. Saharanpur, India. The present study was emphasising breeding and roosting behaviour under natural condition. Which latitude is 29.785258°N and longitude is 77.7373396°E 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.

Breeding Season and roosting behaviour

The breeding season of the Indian peafowl is not fixed. It may breed throughout the year but animals prefer to breed during the rainy seasons. Observations recorded indicate that 08 birds at agriculture field of Kapoori Govindpur, breed in the month of July to October 2019. The trees were counted in roosting region of peafowl through regular monitoring in and around 1.5 km radius of Kapoori Govindpur village. They likes plants for roosting such as

Amaltas, Peepal, Mango, Jamun, Eucalyptus, Pilkhan, Poplar etc trees. Roosting is a most common process of birds, which lowers the loss of body heat and decreases the risks associated with predators

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. Yasmin and Yahya 1996, recorded that Indian Peafowl fed on a mixture of seeds, leaves and wild herbs. The breeding season of the Indian peafowl is closely related to the monsoons, and therefore the timing in the year varies according to locality (Johnsingh and Murali, 1980). The breeding season of the Indian peafowl is not fixed. It may breed throughout the year but animals prefer to breed during the rainy seasons. The breeding season usually begins in March. Males may mate with several females in a season.

The peacocks establish breeding territories in a common area called a lek (Petrie, et. al. 1999). They display by shaking their characteristic trains to attract females (Ali and Ripley 1980). Peahens walk through the lek and choose a mate. After breeding, the female will lay 3-8 eggs and incubate them for 28 days until they hatch (Shivraj Kumar 1957). The chicks are able to follow their mother around shortly after they hatch, and can fly up into the treetops after a few days. In this study observations recorded indicate that 08 birds at agriculture field of Kapoori Govindpur, breed in the month of July to October 2019. Roosting is a most common process of birds, which lowers the loss of body heat and decreases the risks associated with predators (Praveen et. al., 2018). 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. In this study, It was noticed that Peafowl were resting under the shades at the time of noon and show different behaviour at the time of evening. Peafowl were found to prefer trees likes Amaltas, Peepal, Mango, Jamun, Eucalyptus, Pilkhan, Poplar, Kikar, Banyan etc. trees for roosting. Also same finding was found by our study.

It was observed that at the time of heavy rain peafowl mostly likes roosting behaviour in comparison to other behaviours. Judicious selection of roosting sites enhances the survival of birds by virtue of reduced heat loss, information sharing accountability of population and better protection from predators (Gadgil and Ali, 1975). Further ecological and behavioral studies should be conducted on Indian Peafowl so as to better understand its ecological niche in formulating its conservation strategies in different niches of agro ecosystem. All roosting behaviour described (including pole roosting) were recorded from the road side where there is always vehicular traffic. It seems that in the selection of roosting sites, safety against

predators is more important than the disturbance due to vehicular traffic (Parasharya and Mukherjee 1999).

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