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COLUMBA LIVIA: A BIG DANGER FOR AVIAN FAUNA IN RAJASTHAN

Dr. Hemu Chaudhary*

ABSTRACT

Columba livia or blue rock pigeon is easily available and plenty in numbers everywhere. It's body is big in size than many other bird species. The study was carried out in Jodhpur, both in urban and rural/sub urban areas in the year 2023. For the study road side survey and interviewing people to know the recent population of Columba livia and other birds, religious and mythological aspects etc. The result shows that people are much more religious and bird feeding was seen nearly in each society, there is a space bird feeding so called "Kabutaron ka Chabutara". Artificial bird houses are also built in rural areas, mostly residing by Columba. Mythological aspects also help to increase population size. Columba population is an indirect danger for other birds, as its big size keeps the other birds away from the feeding, nesting sites, bird houses. Thus indirectly it creates adverse effect on population of other avian fauna nearby.

Keywords: *Columba Livia, Feeding, Bird Houses, Other Avian Fauna, Adverse Effect.*

Introduction

Jodhpur is situated in the western part of Rajasthan and forming a gateway to the Thar Desert. People of this blue city are internationally well known for their hostess culture. From the ancient history Columba livia or blue rock pigeons are the birds having relationship with the people so far. While many other avian species are not able to adapt in urban areas but Columba are found plenty in the form of flocks and colonies in the urban environment. The average feral pigeon population in the world was noted by Jhonston & Janiga (1995). The birds feed on grains like wheat, bajra, corns, groundnuts, barley etc. Absence of predators and the large food supplies results in the pigeon population explosion which can bring conflict between humans and bird (Haag-Wackernagel, 1993). In Anand, Gujarat pigeon population count, human attitude towards pigeon, feeding, food varieties provided and pigeon control measures were studied by Sutariya (2020). A case study on increasing pigeon population on human in Texas Tech Campus studied by Albarracin et al (2019) show that it causes economic loss to humans in the form of disease transmission and infrastructure damage while answer of Rajya Sabha unstared question No. 1492 asked by Sh Dhiraj Prasad Sahu, given by Dr Mahesh Sharma, Minister of State in the Ministry of Environment, Forest and Climate Change that no reports has been received in the Ministry indicating that the population of pigeons are causing health hazards. Parasitic affections of domesticated pigeons (Columba livia) in Jammu, India was studied by Mehmood et al (2019). A total of 148 articles were analysed by Albarracin et al (2015) for knowing the impact of Non-Native birds on Native Ecosystem. A study by Engstrom et al (1985) on racing pigeons that strain of Paramyxovirus Type 1 (PMV-1) which was isolated in Sweden was found to have a high intravenous pathogenicity index (IVPI) in 6 weeks old chickens.

Objectives

- To know the recent population of *Columba livia* in urban and rural/suburban areas in Jodhpur.
- Factors affecting *Columba livia* population.
- Effect of *Columba livia* population on other avian fauna.
- Religious and mythological aspects.

* Professor, Department of Zoology, Government Girls College, Magra Punjala, Jodhpur, Rajasthan, India.

Study Area

Study covered both urban and rural/suburban areas like Jalori Gate, KN circle, Paota circle, Mandore Krishi Mandi, Basani Krishi Mandi, Pal Gaon of Jodhpur North and South district. (Note: the names of sites are given just the sake of convenience)

Methodology

For the study, Random Road side survey was carried out from April to September 2023 and interviewing the people through open ended questionnaire.

Observations

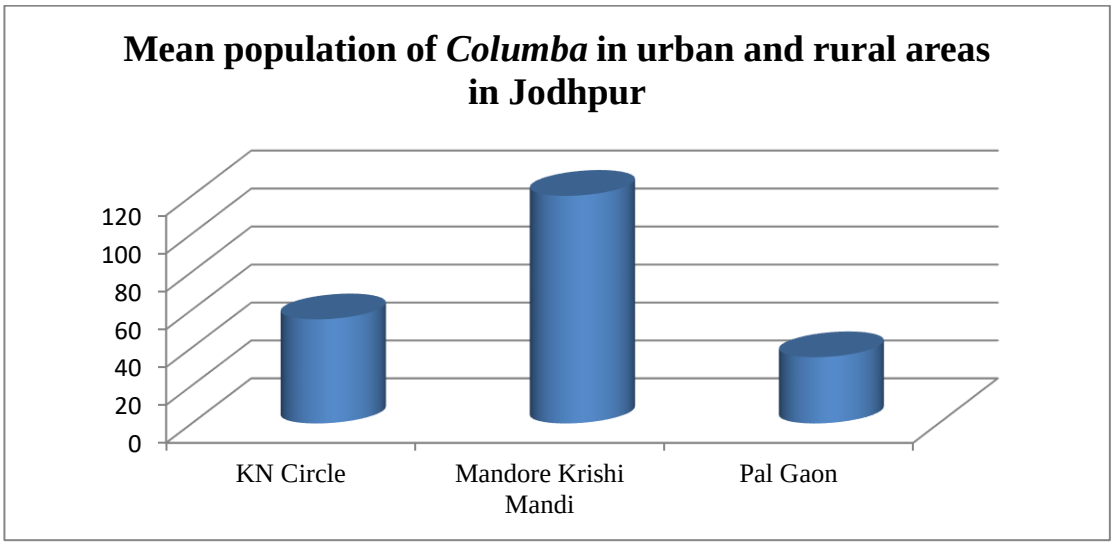

Fig. 1: Mean population of *Columba* /Km²in urban and rural areas in Jodhpur

Plate 1: Artificial feeding site of *Columba* on a footpath in urban area

Plate 2: Artificial feeding site of *Columba* in rural/ sub urban area

Plate 3: Bird house residing by *Columba* in rural/ sub urban area

Plate 4: Artificial feeding of *Columba* by human in rural/ sub urban area

Result and Conclusion

Columba livia, commonly known as blue rock pigeon is distributed in the whole world. It´s population was found much more than other bird species in the Jodhpur city; 10 times more to human population (Fig-1). It*s population growth rate was found much more in rural/suburban areas. The main reasons for the increase in *Columba livia* population is artificial feeding for religious purpose and myths between people or keep up with the Joneses. As there is a myth “sou dawa aur ek kabutar ki hawa” it means air comes from *Columba**s wings is equal to hundreds of medicine or keeps the human healthy. The religious purpose may be that man becomes wealthier by feeding the birds (Plate-4) and *Columba* is the bird easily available for feed as it inhabits near human beings. In urban areas, on footpath and in rural/ suburban areas, spaces built for artificial feeding were noted (Plate-1&2).It*s bigger body size keeps other avian fauna far away from it, it’s bigger flocks and colonies also do the same. As it was noticed that during feeding or resting whenever other bird come near, inflats the crop, making sound and runs away behind the birds. In this study it was found that on feeding places in rural areas and other locations where It*s was present, parrots, dove, house sparrow and other common avian fauna was not seen nearby. Bird houses (Plate-3) were also found full only from *Columba*. Thus it is a big danger for other local avian fauna. Seasonal study on *Columba**s population, other factors affecting its population size and effect on human health and threats to other bird species is further to be long term studied.

Conflict of Interest

There was not any conflict of interest.

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