

Flocking Behavioral Patterns and Seasonal Flight Activity of the Rose-Ring Parakeet, Around Dharni Region of Western Area of Melghat.

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Abstract:

This study reveal that the daily flight activity rose ringed parrots at early morning with huge flocking of parrots, and they find the food around farms located at Dharni region nearer to the small village Talai and Takarkheda. Similarly the flight activities at evening time the pattern of flight were differently acted, when they back towards the nesting. The intension behind the remarkable study of flight activity of Adults and younger parrots showed different variation in flying activity and their behavioral patterns of early morning and evening time.

This study suggested that the daily observation of flight activity of rose ring neck parrots move early in the morning from their nesting towards the food searches in the forest, farm etc. and *vice versa* again towards the nesting areas when they get back flight activity of flocking at evening time.

Key words: Flocking, Rose ring Neck Parrots, Nesting, Food, Flight Patterns.

Introduction:

Most of all the bird pests present in the region of Central Punjab, Pakistan, the rose-ringed parakeet (*Psittacula krameri*) is the most serious avian pest. The parakeet, by virtue of its large feeding niche, has acquired the status of a potentially dominant pest as usually it feeds and plunders the nutritious food items in fairly large proportions, (Khan & Ahmad, 1983).

The parakeets obtain food from various existing resources in both open and stored grains, causing intensive damage and economic losses. They prefer well moisture habitats to establish their roosts among trees viz. *Cedrela toona*, *Eugenia cumini*, *Dalbergia sissoo*, *Ficus bengalensis*, *Salmalia malabarica* and *Terminalia arjuna*, which predominately occur close to the food crops nearby the food crops, in canal and riverine irrigated habitats (Sarwar *et al.*, 1989). Studies on the day long movement patterns of the rose-ringed parakeet (*Psittacula krameri*) carried out for two consecutive days in five months in a communal roost showed total number of parakeets recorded. It was concluded that the number of parakeets varied in all five months, and a roost located close to the food crops, provided the parakeets with an almost effortless access to fetch the food, and thus, obliterate the food items to cause economic losses, (Khan 2002).

The rose-ringed parakeet (*Psittacula krameri borealis*) remains one of the primary vertebrate pests of the fruit orchards, cultivations and native wildlife. It seems to have settled as stable and sustainable populations in different ecological habitats (Arscott *et al.*, 2002). Depredations of the parakeets appear more intensive at about sunrise and yet again, at the late evening, before returning to their roosts (Butler 2003). It remains significant that, the roosting sites remain more or less permanent for several years in the life of parakeets, as they maintain them for their varying diurnal periodicities, and also closer to the food crops for foraging and feeding, without covering long distance (Khan 2002).

Materials and Methods:

Flocking behavioral and flocking habits of rose- ringed parakeet were studied for a period of 12 weeks (October 2021 to December 2021) in irrigated farm fields of Tehsil Dharni located Village Talai and Takarkheda, where sufficiently large crops be present. Occurrence of such crops largely remains experimental throughout the year, and therefore, no possibility occurs here for the limitation of food to variety of birds. Various crops *viz.* wheat, maize, rice, fodders besides fruit orchards like citrus, mango, guava, occurs in good proportions. Different trees of variable heights also perform not only as shelter for birds', but also offer appropriate a place where birds regularly settle or congregate to rest at night, and nests (hollows), maintained by them for long durations. For the present study, surveys were conducted to flight behavioral activity of flocks of the rose-ringed parakeet within the large agricultural area of Dharni region of Melghat. The parakeet settle was quite huge and was located less than distance away from the well grown croplands. Observations were made consecutively in the present studies and were observation on the basis of bulk flocking, forward journey at early morning for the searching of food and return journey towards the nesting at evening.

Results and Discussion:

In this study reveals that the flocking behavioral pattern shows little difference concerning the flight towards food availability at early morning at 6 to 7 am for the searching of food and *vice versa* returning journey towards nesting at evening 5 to 6 pm daily observational study through the photographic analysis or flocking size and height of the flight of rose ringed parakeets. It seems to be observed that the early morning flight showed more height approximately 90-100 feet. of flock size containing 400-500 parrots group from the land surface area with creating sound as for call and communicate to each other. But in the return journey of flocking flight behavior seems to different, flocking flight at evening time showed very less distance approximately 10-15 feet contains 200-300 parrots group. Distance from land surface to the flight area, without noising any sound as communication in between the flocks size of parakeets.



Fig. 1. Map view of Dharni region of Amravati District



Fig. 2. Area were study at Dharni region of Melghat
(Note: study area were noted with red colour arrow mark)

Fig. 3. Monthly parrots flights of flocking behavior and size (September-2021 at Morning & Evening flight)



Fig. 4. Monthly parrots flights of flocking behavior and size (October-2021 at Morning & Evening flight)



Fig. 5. Monthly parrots flights of flocking behavior and size (November-2021 at Morning & Evening flight)



Fig. 6. Monthly parrots flights of flocking behavior and size (December-2021 at Morning & Evening flight)



Table-1 Monthly noted flocking behavior and size of parrots (2021):

Months	Morning Time (Forward Journey from the Nesting) 6:00 to 7:00 am	Evening Time (Back Journey towards Nesting) 5:00 to 6:00 pm
September	400-500*	200-300*
October	400-500*	200-300*
November	400-500*	200-300*
December	400-500*	200-300*

**Note: approximate number of parrots in flight as per photographic collection may vary.*

Present study scenario showed that observation on the basis of the flock size of parrots in their natural habitats and behavioral patterns distinctively appears as in morning flight had a dispersed patterns in flight as shown in photo plates which indicates that random flight in parrots, more height than that of evening flight in four month observation. And in the return flight of parrots towards nesting they showed very less distance flight, and made pattern of flight was ‘V’ shaped.

Conclusion:

In this observational study showed that flocking size and their behavioral patterns varies. Parrots are locally common in the area of Dharni Melghat region; it appears seasonally available with the abundance of

feed in surrounded areas such as, maiz, rice, cajanus, chickpea, and wheat as well as fruits such as guava, berry etc. traditionally crop taken by the Melghat peoples. This observation may show in the futuristic development and identified the issue act as pest for cropping because they feed voraciously on available food in their farm field. This available basic information of theirs seasonal flight and behavioral patterns seems to be identified as their habits and habitat study in the further study.

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