

# Nesting Behaviour of Indian Paradise Flycatcher (*Terpsiphone paradisi*) At Loco Area in Kota City, Rajasthan, India

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## ABSTRACT

The Indian Paradise Flycatcher (*Terpsiphone paradisi*) belongs to the family Monarchidae. It is summer migratory bird in Kota. The present study has focus on nesting and behavioural ecology of Indian Paradise Flycatcher explored at Loco area, Kota from May to July 2022. The nesting behaviour of Indian Paradise Flycatcher is recorded for the first time in this area. 4 nests were recorded on 2 tree species during breeding season of Indian Paradise Flycatcher 2022. Breeding pairs are monogamous.

**Keywords:** Indian Paradise Flycatcher, Loco area, Behavioural ecology

## 1. INTRODUCTION

The Indian Paradise Flycatcher (*Terpsiphone paradisi*) is designated as a resident bird of the Indian subcontinent. It is native to the Indian subcontinent, Central Asia and Myanmar. Because of stable population, it has been listed as Least Concern on the IUCN Red List. *Terpsiphone paradisi* (Linnaeus, 1758) breeds in central and southern India, central Bangladesh and south-western Myanmar. Populations in Sri Lanka in the winter season are non-breeding. A graceful looking flycatcher (the adult male) sports a long ribbonlike tail. The males occur in two colour morphs cinnamon and white. Both colour morphs sport a glossy black head with blue ring around the eye, but white morph is entirely white below, while the cinnamon morph has cinnamon upperparts and tail, and dirty white underparts. The females are cinnamon above with a grayish throat have a shorter tail and they lack the male's blue eye ring. They make short aerial sallies after insects, usually returning to the same perch. Occasionally descends to ground to pull apart insects. Chiefly found in wooded habitats. Their call is a harsh "shreew." (Powered by Merlin). The Indian Paradise Flycatcher was recently recorded breeding at Loco area in Kota city, Rajasthan. The nesting behaviour of Indian Paradise Flycatcher for the first time in this area has been recorded.



Fig.1 A male Indian Paradise Flycatcher (White morph)



Fig.2 A male Indian Paradise Flycatcher (Rufous)



## 2. STUDY AREA

The Loco area (25°12'04.08" N 75°53'13.02" E) is located in Kota city, Rajasthan at about 2.5KM from Railway station, Kota and is an excellent place for bird watching. This site in summer and monsoon seasons is regularly visited and many species of birds like Indian Golden Oriole, Common Iora, Oriental White eye, Black Drongo, Asian Koel, Black-headed cuckooshrike, Eurasian Cuckoo, Indian Pitta, Lesser Goldenback woodpecker, Red vented Bulbul, Greater Painted Snipe, Oriental honey buzzard, Shikra etc. were sighted there. Four nests of Indian Paradise Flycatcher were reported during the visits which were monitored regularly for their nesting and other behavioural ecology.



Fig.3 Location map of Loco area, Kota city.

## 3. METHODOLOGY

All observations were taken during the breeding season from May to July 2022. Observations were made at the sites of four different nests, at least twice from the onset of courtship display, for each nest. Calling and displays of the Indian Paradise Flycatcher were observed to locate occupied territories and subsequently nests were identified. Primary observations were made with a pair of binoculars (Nikon 12×50). The breeding pairs were observed from the time when the eggs were laid till the chick left its nest. To record the behaviour, photographs were taken with DSLR camera and telephoto lenses (Nikon D7500 paired with Nikon AF-S Nikkor 200-500MM F/5.6E ED VR).

## 4. OBSERVATIONS

The record of the breeding of the Indian Paradise Flycatcher at Loco shed in Kota city has been displayed here. The breeding season in the study area was from mid May to July. Total 4 nests were found during the study period (May 2022- July 2022). They were cone shaped and built with fine roots, fibres and small leaves, compacted with cobwebs. Nests were built in shady undisturbed sites, away from the road. Nests were found on 2 tree species including Neem, *Azadirachta indica* (2 nests) and Desi babul, *Acacia nilotica* (2 nests). The average distance of the nest from the ground was at 8.82 feet height. Clutch size was 2-3 eggs. Incubation period was 14- 16 days. The chicks fledged after 12-15 days after laying of the eggs. On 30 May 2022, during field work carried out by the research scholars and research supervisors, Govt. College Kota, Kota, Rajasthan, the team observed the female paradise flycatcher incubating the eggs in the first nest that we saw. The female made short flights but always came back quickly to the nest to incubate the eggs. The male was present near the nest and was keeping a watch on the nest. It was seen perched on nearby branches but was always seen near the nest. But later on it was recorded that incubation was done by the male and female both.

In the morning of June 14, the three eggs hatched and the chicks were seen chirruping around the parents. Both the parents cleaned the nest by carrying the broken eggshells and other remains and disposing them far away. We observed three chicks inside the nest. The male and female used to cover the chicks by spreading their wings, probably providing warmth and protecting them from the sunlight and predators. We could clearly see the chicks and observed both the parents feeding the chicks frequently. The chicks were fed with various insects like dragonflies, wasps, moths and butterflies. Just above the nest of the Indian paradise flycatcher, there were nests of a Black drongo, Indian golden oriole, Red vented bulbul, Yellow-footed green pigeon and Red collared dove. On the approach of a prey like a Shikra and House Crow, the Black drongo used to aggressively



chase away the predator birds and also other potential threats to its nest. On 02 July 2022, juveniles of Indian Paradise Flycatcher left the nest. In the meantime, three more nests of Indian paradise flycatcher were also recorded out of which two nests got spoiled and in one two chicks were seen grown up.



Fig.4 Collecting nesting material by female.



Fig.5 A male paradise flycatcher incubating the eggs.



Fig. 6 A male paradise flycatcher feeding the chicks.



Fig.7 A female paradise flycatcher feeding the chicks.



Fig.8 Male parent taking pallet from chick's beak.



Fig.9 Juvenile ready to leave the nest.





Fig.10 A juvenile perching on a twig. its nest.



Fig.11 Female parent feeding the chick after leaving

### 5. RESULT

In the present work a detailed report of observations for the Indian Paradise Flycatcher has been presented. It is a matter of complete exploration of the breeding ecology, parental behaviour and life history of the Indian Paradise Flycatcher which would be relevant for the species as a whole.

Sr. No.	Nesting locality	Tree	Nest distance from ground (Feet)	No. of eggs	No. hatched	No. fledged
1.	Loco area, Kota city	Desi babul	7.10	3	3	3
2.	Loco area, Kota city	Desi babul	10.90	2	2	0
3.	Loco area, Kota city	Neem	11.20	2	0	0
4.	Loco area, Kota city	Neem	6.10	2	2	2

Table 1: Nest locality, tree species, nest distance from ground and breeding data of the Indian Paradise Flycatcher.

### 6. CONCLUSION

The investigations reflect about breeding grounds for Indian Paradise Flycatcher species which have successfully for a suitable area for their mating, nesting, egg laying, parenting and feeding. The results show that the nests which were constructed at more height of trees were less suitable for fledglings, while all the eggs were successfully hatched and fledgling were found live till leaving their nests. It may have occurred due to easy approach of Shikra or Crow like predators at a height of more than 10 feet.

The nesting of Black drongo like birds nearby also famous the protection of other birds because Black drongo always calls differently and chases the predators away from the nests.

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