

in the state. A detailed study on the breeding biology of the Shaheen Falcon from multiple locations in Gujarat could provide significant insight into the breeding requirements and the reasons behind the success or failure of nesting.

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References

Barve, S., Raman, T. R. S., Datta, A., & Jathar, G., 2020. Draft guidelines for conducting research on the nesting biology of Indian birds. *Indian BIRDS* 16 (1): 10–11

Bhatt, N., & Ganpule, P., 2017. The identification of the Red-naped Shaheen Falco peregrinus babylonicus, its separation from

F.p.calidus, in the field, and its status and distribution in north-western India. *Indian BIRDS* 13 (4): 85–92

Ganpule, P., 2016. The birds of Gujarat: Status and distribution. *Flamingo* 8(3) – 12(4): 2-40

Mori, D., & Joshi, V., 2017. Status and distribution of Black Shaheen in Gujarat. *Flamingo* 15 (2):

Naoroji, R., 2006. *Birds of prey of the Indian Subcontinent*. 1st ed. Om Books International. New Delhi

Pande, S., Yosef, R., & Mahabal, A., 2009. Distribution of the Peregrine Falcon (*Falco peregrinus babylonicus*, *F. p. calidus* and *F. p. peregrinator*) in India with some notes on the nesting habits of the Shaheen Falcon (*F. p. peregrinator*). *Peregrine Falcon populations—status and perspectives in the 21st century*. 493–520. Turul/Poznan University of Life Sciences Press. Warsaw-Poznan.

Pande, S., Zduniak, P., & Yosef, R., 2017. Nest occupancy and reproductive success of a subspecies of the peregrine falcon, the black shaheen (*falco peregrinus peregrinator*), in western india. *J. Raptor Res.* 51 (4): 470-475



Observations of a nest of an Indian Paradise-Flycatcher *Terpsiphone paradisi*

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The Balaram-Ambaji Wildlife Sanctuary is located near Palanpur, in northern Gujarat and is an excellent place for bird watching. I frequently visit this sanctuary, in different seasons, and have noted many species of birds. In the monsoon season of 2022, I was fortunate to find a nest of an Indian Paradise-Flycatcher (*Terpsiphone paradisi*). I monitored this nest and present here my observations on the nesting of this species.



Photo: Kailash Jani

Observations

On 10 July 2022, at around 07:00 hrs, I was visiting the sanctuary as per my routine. On that day, I saw a male white morph Indian Paradise-Flycatcher on a nest. The nesting site was at 24° 16' 1.1994" N, 72° 31' 33.5994" E. The male was incubating the eggs. It made short flights but always came

back quickly to the nest to incubate the eggs. The female 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. Incubation was mainly done by the male. I observed the nest till 12:00 hrs and returned back.

On 14 July 2022, at around 11:00 hrs, I reached the nesting site but it was raining. The male was sitting in the nest and I thought that hatching had not taken place. But, as soon as it stopped raining, the male started feeding the chicks. I observed that there were two chicks inside the nest. As it was raining intermittently, the male and female used to cover the chicks by spreading their wings, probably providing warmth and protecting them from the rain. I observed the nest till 15:00 hrs and then returned back.

On 16 July 2022, it was not raining and I could see that the chicks had grown slightly. I could clearly see the chicks and



Photo: Kailash Jani

Flycatcher...



Photo: Kailash Jani



Photo: Kailash Jani

observed the male feeding both the chicks frequently. The female rarely fed the chicks. On 21 July 2022, we reached the site early at 06:00 hrs and saw the chicks coming out of the nest. It was heartening to see that the chicks had fledged. They were flying short distances and the adults were keeping a close eye on them.

I kept detailed notes on the nesting and observed the following:

- 1) The male incubated the eggs most of the times and the female was always seen perched nearby
- 2) Whenever another female approached the nest, the male used to display to the other female while the nesting female used to aggressively fight with the new female and chase it away
- 3) The male used to feed the chicks while the female rarely fed them
- 4) The chicks were fed various insects like spiders, ants, moths and butterflies
- 5) Just above the nest of the Indian Paradise-Flycatcher, there was a nest of a White-bellied Drongo (*Dicrurus caerulescens*). Near the nest of the drongo were nests of White-browed Fantail (*Rhipidura aureola*), Red-vented Bulbul (*Pycnonotus*

cafer) and Oriental White-eye (*Zosterops palpebrosus*). On the approach of a prey bird like a Shikra (*Accipiter badius*), the drongo used to aggressively chase away the prey birds and also other potential threats to its nest. Nesting near the drongo gave obvious advantage to these birds

6) The entire nesting cycle, from building of nest till the chicks fledged took about 30-35 days

7) Since there are a large number of *Prosopis* sp. trees in this area, the nest was made in these trees. It seems *Prosopis* sp. trees are preferred due to thorns and the dense branches; the nest is well hidden and the thorns provide additional protection

8) The faecal sacs of the newly hatched chicks were taken away and deposited elsewhere due to which the nest remained clean. The male was seen taken away the faecal sac on a majority of occasions

9) An interesting observation was that when the Paradise-Flycatcher was building its nest, the Oriental White-eye used to steal some of the nesting material in the absence of the pair

10) The nest was made on a low hanging branch of a tree which was surrounded by small cliffs. The cliffs are likely to offer protection to the nest during the monsoon season when it sometimes gets windy

Discussion

The Indian Paradise-Flycatcher is common in this area and breeds widely in other parts of the state (Ganpule 2016). The breeding of this flycatcher is well studied (Ali & Ripley 2001, Gokula & Vijayan 2003, Das & Adhikari 2019) and the breeding period for this species in Gujarat is in the monsoon season, usually from March till August but chiefly May and June. The breeding in this area was in July.

The observations made at this nest are in line with what has been observed elsewhere in India for this species. The male plays a major role in incubation and feeding and the same was observed here. Ali & Ripley (2001) give period of incubation as 15-16 days and young leaving the nest about 12 days after hatching. Here too, the total nesting time was about 30 days.

The successful breeding here shows that the habitat is suitable for the Indian Paradise-Flycatcher. More studies will be helpful in knowing the breeding biology of this species.

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References

Ali, S., & Ripley, S. D., 2001. *Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka*. Volume 7, Sponsored by Bombay Natural History Society. Oxford University Press.

Das, N. & Adhikari, S., 2019. Study of nesting behaviour of Asian Paradise Flycatcher *Terpsiphone paradisi* (Aves: Passeriformes: Monorchidae) from southern West Bengal, India. *Journal of*

Threatened Taxa 11 (6): 13782–13785. <https://doi.org/10.11609/jott.4868.11.6.13782-13785>

Ganpule, P., 2016. The birds of Gujarat: Status and distribution. *Flamingo* 8 (3) – 12: 2-40

Gokula, V. & Vijayan, L., 2003. Foraging and nesting behaviour of Asian Paradise Flycatcher *Terpsiphone paradisi* in Mudumalai Wildlife Sanctuary, Tamil Nadu, India. *Forktail* 19: 142–144 □

Data on nesting of Lesser Flamingo *Phoeniconaias minor* in the Little Rann of Kachchh

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The paper by Rathwa (2022) regarding the successful breeding of the Lesser Flamingo (*Phoeniconaias minor*) in the Little Rann of Kachchh in the previous issue inspired to me dig out my old notes on the nesting of this species in the Little Rann of Kachchh. I was posted as RFO in the Wild Ass Sanctuary, also known as the Little Rann of Kachchh, at Bajana, and had observed nesting in this area. In the monsoon of 2010, the nesting was unsuccessful. In 2013, the nesting was successful while in 2014, it was partially successful. It was in 2014 that I was able to collect some data on the nest and eggs of the Lesser Flamingo in this area. I present this data on the nesting of this species in the Little Rann of Kachchh in 2014.



Photo: B. R. Makwana



Photo: B. R. Makwana

In 2014, flamingo nesting was observed in salt pans, about 12 km from Vachhraj-byet, in six different groups. The location was at 23° 12' 252" N, 71° 22' 799" E. It appeared that the soft mud / silt from river waters collected in the salt pans due to the flooding of the rann was helpful in nest building as the soft mud could be easily collected and shaped into the nest by its beak. Due to the collection of this mud, a small depression was caused around the nest. These depressions were of about six to nine inches in depth and about 12 inches wide. In all, a total of 3393 nests were counted, in which most nests had one egg but a few had two eggs. Of the six groups, I took measurements of two plots used for nesting. The measurement details of these plots are as follows:

Table 1: Measurements of nesting plots

Sr. No.	Length (mts)	Width (mts)	No. of nests	No. of eggs
Plot no. 1	18.40	18.40	221	180
Plot no. 2	16.30	19.70	265	225

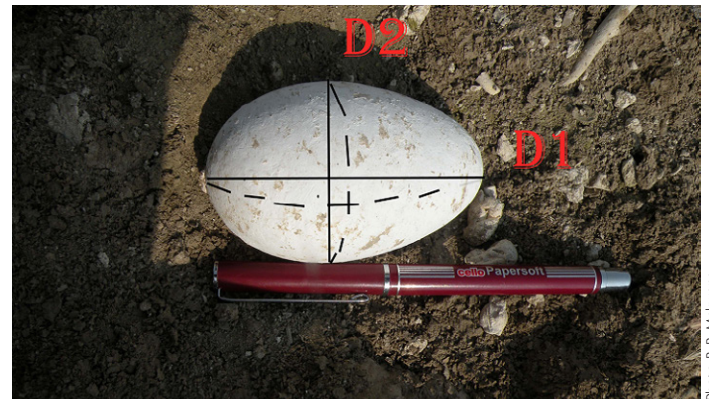


Photo: B. R. Makwana

Since the birds had left the nests and the nesting had failed, we took 25 eggs and took some measurements. The eggs were measured; the measurements - D1 and D2 - as shown in the photo given here were taken. Note that here, D1 and D2 are