Breeding record of the Indian Shaheen Falcon *Falco peregrinus peregrinator* on a man-made structure in Gujarat, India

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Abstract

We present a report on a breeding pair of Indian Shaheen Falcons (*Falco peregrinus peregrinator*), based on monitoring data collected through automated traps, surveillance cameras, and direct observations over a two-month period, from March 15 to May 15, 2025. In the second week of March 2025, a nest containing three bright, speckled brown-red eggs was found on a man-made cement pillar at a water intake well within the Mahi River habitat near Vadodara, Gujarat, India. The chicks hatched on March 25, 2025, and left the nest after seven weeks of growth, on May 15, 2025. Both parents completed 116 feeding flights (an average of 3.31 per day) over five weeks to feed the chicks. The highest number of flights was 54 (46.55%) observed in the morning, and 31 (26.72%) in the afternoon and evening. The prey delivered to the chicks included 14 items, such as 114 birds (38 from 11 species and 64 unidentified) and two bats. The discussion covers parental participation in care, nest cleanliness, fledgling development, and behavioural topics.

Introduction

The Indian Shaheen Falcon (*Falco peregrinus peregrinator* Sundevall, 1837) is a subspecies of the Peregrine Falcon (*Falco peregrinus* Tunstall, 1771), also known as the Black Shaheen or Indian Shaheen (hereafter referred to as Shaheen). It is a rare, strong, fast, and attractive falcon with blackish upperparts, rufous underparts, and a white throat. The complete black face mask sharply contrasts with the white throat. It also features distinctive rufous underwing-coverts. The male is smaller than the female and is about the size of a House Crow (*Corvus splendens*) (Döttlinger 2002). The Shaheen falcon is typically seen alone or in pairs and usually inhabits cliffs and rock pinnacles (Ali & Ripley 2001). This falcon is widely distributed across the Indian subcontinent, including Pakistan, India, Sri Lanka, central and southeastern China, northern Myanmar, and the Andaman and Nicobar Islands (Grimmett et al. 2011; White et al. 2024). Although it breeds in the Indian Subcontinent, there is limited data published on its breeding biology (Naoroji 2006; Pande et al. 2009).

Butler (1879) noted that it is rarely found, with a question mark indicating uncertainty about its occurrence, in Abu, Rajasthan, and the border forests of Gujarat. Ali (1954, 1955) did not record this species from Gujarat; however, Dharmakumarsinhji (1955) mentioned its rare status, which is occasionally observed in the coastal regions of Gujarat. Khacher (1996) provided an overview of the birds of Gujarat, including their presence on the crags of Mt. Girnar in Saurashtra and Mt. Abu, north of Gujarat. Ganpule et al. (2022) also reported sighting records of Shaheen from Gujarat, including Saurashtra (Girnar, Junagadh), central Gujarat (Pavagadh, Panchmahal), and isolated instances from Kutch. Nonetheless, the species distribution indicates that the Shaheen Falcon is an uncommon to rare resident of Gujarat, mainly inhabiting the hilly and forested areas of Saurashtra (Girnar Hills) and the forests from north to south Gujarat (Mori & Joshi, 2017). Occasionally, sightings in urban areas suggest that the Shaheen may be dispersing into surrounding regions in search of prey.

Shaheen Falcon is 'Least Concerned' in the IUCN's RedList category (BirdLife International 2021). However, knowledge of its population is inadequate in India. Studies on the Shaheen Falcon are very scanty (Samson et al. 2017). Mori & Joshi (2017) stated that a detailed ecological survey on the species, including its population status, distribution, habitat preference, and threats, is urgently required.

The Shaheen Falcon breeds from December to May, lays 3 to 4 eggs, and hatches chicks after about 48 days (Naoroji 2006; Vijesundara 2007, Pande et. al 2009, Grimmett et al. 2011). The nest is made on high cliff ledges, cavities, or gorges that are impossible to reach (Dharmakumarsinhji 1955; Naoroji 2006; Bhatt 2022). It is also recorded as nesting on man-made structures such as buildings and transmission or mobile towers in India (Naoroji 2006; Pande et al. 2009 & 2017). Recently, Bhatt (2022) recorded its breeding from remote areas of Girnar, Pavagadh, and Jessore on rocky cliffs, high hills, and mountains. Though the species is recorded breeding in India from December to May, it is found to migrate to parts of Gujarat from February to June (Dharmakumarsinhji 1955;

Bhatt 2022). We intend to represent new findings on its nesting in remote areas close to an urban city, utilisation of man-made structures, and it's breeding season different from what is described earlier.

Study Area

During the winter bird counts in February 2025, we observed an active pair of Shaheen at Fajalpur, Vadodara, Gujarat. The place is located remotely adjacent to the river (Mahi Sagar). The pair was found actively foraging, hunting, and performing aerial displays (Fig. 1). Based on our observations, we suspected the possibility of their breeding in nearby areas, so we started continuous monitoring.

Figure 1: A pair of Shaheen Falcons perform aerial displays near Fajalpur, Mahi River Valley, and Vadodara. (Photo Credit: Raju Vyas)

The Mahi Sagar riverside area stretches about 6 km between Fajalpur and Vasad villages, marking the boundary between Vadodara and Anand districts in Central Gujarat, India. Both banks of the Mahi River are lined with lush riverine forests and agricultural fields. This area also includes two roads, two railway bridges, and ten radial collector wells (all on the south banks: Fajalpur, Raika, Dodka, and Poicha), which supply drinking water to urban areas like Vadodara city and nearby industrial zones.

Methodology

After locating the Shaheen Falcon's nest, we monitored its breeding activities for two months from March 15 to May 15, 2025. We gathered their nesting information with the help of automated cameras (Solar-Powered 4G Live Camera Surveillance and Wildlife Hunting Trail Trap Cameras).

We deployed a Godrej ACE Pro 4G Dome Camera system with a 7W solar panel and an integrated 18,000 mAh lithium-ion battery that provides up to 36 hours of autonomous backup under non-solar conditions. The camera was installed on a bridge expansion joint approximately 6–8 meters from the nest, positioned at a slightly elevated angle to maintain an uninterrupted view of the nest platform and nearby perch sites while ensuring no disturbance to the nesting birds. The unit was equipped with a 4MP (2560×1440) resolution, 1/2.8" CMOS sensor and supported H.264+ video compression at 25 fps, enabling high-definition continuous recording and fine-scale behavioural observation. The device featured four infrared (IR) LEDs that provided 30-meter night vision, ensuring 24-hour visibility under varying light conditions. The camera also included DWDR (Digital Wide Dynamic Range) and an auto electronic shutter for optimised image capture in complex lighting environments.

A key advantage of the system was its built-in 4G LTE connectivity, supporting both FDD-LTE (B1/B3/B5/B8) and TDD-LTE (B34/B38/B39/B40/B41) bands, which allows for real-time remote monitoring and motion-based alerts through a mobile application. The camera transmitted footage over a secure 4G network, with all recordings backed up to a 256GB (SanDisk Ultra) A1 external microSD card, providing 7 to 10 days of redundancy in case of network failure. A Jio 4G SIM card was utilised, providing reliable and consistent network coverage even in remote areas, making it a convenient choice for uninterrupted data transmission. Manual backups to an external drive were conducted every week.

To enhance our fieldwork, we installed another Wildlife Hunting Trail Trap Camera and motion-sensor time-lapse cameras (Bushnell's Trophy Cam 119405; Cuddeback Digital 1200) at the nesting site. The camera system captured 3-minute clips and still images. It was placed on a bridge expansion joint about 5 to 10 meters from the nest platform.

The field of view was carefully aligned to monitor activity around the nest without obstructing access or causing discomfort to the breeding pair. We followed strict ethical protocols to avoid disturbance to the nesting birds. As all observations were taken remotely, we avoided taking morphometric data of eggs and chicks. Installations of cameras and observations were conducted following the research guidelines and permissions (Bailey et al. 2019; Barve et al. 2020).

Besides camera recording, direct observations were taken using binoculars (Nikon 10x50 Aculon A211, Nikon Monarch 8x42, and Nature-Trek 12x50) and a Vortex Viper HD 20–60×85 spotting scope. We devoted approximately 149 hours in the field during the study period, collecting data during early morning (6:30–10:30) and late afternoon (16:30–19:30), when bird activities peaked. All monitoring was conducted from a concealed vantage point, safe from the nest.

Data on nesting ecology, such as nest site location and nest type, breeding period, brood size, incubation, and parental care, were collected on a data sheet through direct observations and careful analysis of mounted camera recordings. Special attention was given to the parents' feeding behaviour, the chicks' food, and their behaviour. The growth of chicks was monitored, and changes in their plumage and behavior were documented. A checklist of avian species surrounding the nest site was created to assess prey availability. A detailed study of the minute differences between male and female parents during the breeding season was conducted using mounted cameras.

Observation & Results

Nest Site & Nest: The nest was built on a ledge of one of the cement pillars of an intake water well. This intake water well was connected by a long steel bridge, erected on five cement-constructed pillars, in the middle of the Mahi river. The 18-meter-high cement pillar features a 45 cm-wide top with 3-meter-long ledges on either side, one of which, a north-west-facing ledge, was selected by the pair for nesting, where a small amount of masonry and construction materials, including pebbles, rubble, and plastic debris (such as plastic bags), were present. The nest was built by collecting the available cement and concrete pebbles, arranging them into a small mound with a shallow depression in the centre (Fig. 2). The birds also kept a shrubby polythene plastic and a patch of plastic fibre bag adjacent to the nest.

Figure 2: Female Shaheen with bright red eggs marked dark speckled brown spotted three eggs and unnatural nesting materials in the nest, which was on a man-made structure. (Photo Credit: Raju Vyas)

Brood Size and Incubation: We discovered an active nest during its incubation period and observed three bright red colored eggs with dark speckled brown spots in the nest when an adult took a break from incubation activity. The size of the eggs appeared slightly larger than typical fowl eggs.

Incubation was done mainly by the female parent. She took a break from her incubation duty at an interval and wandered away, probably in search of food. The male guarded the eggs in her absence by sitting close to them. The female attended to the eggs throughout the night, and the male rested a few meters away under the bridge's steel structure. Occasionally, males incubated the eggs for a few minutes (n=5; 1-4 minutes) while in some cases, eggs remained unattended by both parents (n=9; 1-57 minutes). During the entire incubation period, the male was observed to bring food for the female. When the female was incubating, the male bird brought Dusky Crag Martins (*Ptyonoprogne concolor*) once, Kentish Plovers (*Charadrius alexandrinus*) twice. However, the female did not eat the prey at the nest; instead, she took it and flew away. The incubation was interrupted by a troop of Hanuman langurs (*Semnopithecus entellus*) passing by the nest site.

Hatching of Chicks: Two chicks hatched out on 25th March 2025. The two chicks hatched out at 15 minutes (11:37 hours and 11:52 hours). The third egg took longer and hatched on 26th March 2025 in the evening. The chicks were nidicolous with closed eyes and covered by white down feathers.

Figure 3: The pair of Shaheen Falcons with fresh chicks (A); the male offering a prey to the female (B); the female feeding her seven-day-old chicks (C); and both parents on parental duty (D).

Figure 4: The female Shaheen Falcons with two-week-old chicks (A); the chicks at the age of three weeks (B); the standing four-week-old chicks (C); the body colour and plumages of chicks at the age of five weeks (D). (Photo Credit: Mital Patel).

Fledgling, growth, plumages, and behaviours: The fledglings were fully developed by seven weeks. The chicks grew to the size of adults by showing ontogenetic changes in plumages and behaviours (Table 1**,** Fig. 3). They started resembling the adults in size and showed more vibrant plumage (Fig. 4 & 5). Behaviours such as head raising and wobbling, food-begging, wing-flapping, jumping, hopping, and prey-tearing were observed during their growth (Fig. 6). They started taking short flights and feeding on the food offered by their parents on their own by the end of the seventh week. The hatching and fledging success were 100% in this case. However, the recruitment rate is uncertain as one of the fledglings disappeared from the nest site after a heavy cyclone on 7th May 2025.

Feeding Frequency: We continued monitoring the pair that brought kills/food for the chicks through automated cameras and visual observations. The frequency of feeding the chicks increased by the end of the fifth week. The observations were clear, easy, and within the capturing range of the cameras initially; however, it became difficult as the chicks grew large and started moving on the entire three-meter-long ledge, making it difficult for the fixed cameras to capture them. Hence, data up to five weeks is presented here. The parents completed 116 feeding flights, averaging 3.31 feeding flights per day. Details of the weekly feeding activities over time are shown in Figure 7. Both parents participated actively in feeding and caring for the chicks. The earliest meal brought by a parent was recorded at 06:01 hours, and the last delivery was at 19:29 hours. The highest frequency of food delivery occurred in the morning, at 46.55% (54 flights), while the lowest was during the remaining periods (26.72%; 31 flights).

Figure 5: The appearances of body plumages of Shaheen Falcons nestlings at the age of six weeks (A); the nestlings at the age of seven weeks with food (B); a nestling looks similar to adult at age of seven week (C); nestling on way to first flight after 50 days (D). (Photo Credit: Mital Patel).

Food Spectrum: The parents fed the chicks sixteen food items, including birds and bats (twice). These food items include eleven species of birds, including wagtails, doves, waders, and a few unidentified bird species (Table 2, Figs. 8 & 9). The parents killed and beheading the bird prey, brought it near the

nest site, plucked them by removing the feathers, and then presented it to their chicks (Fig. 10 and 11) (67.24%). Later, they also brought intact prey bodies occasionally.

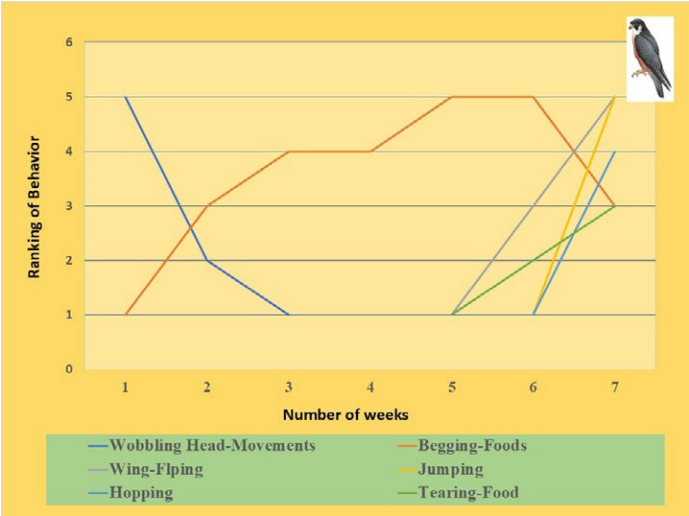

Figure 6: The pictograph shows various ontogenetic behavioural developments in the chick from one week to seven weeks.

Parental Care: Though male and female parents were involved in caring for the nest, eggs, and chicks, the mother was devoted to more duties. The female performed incubation largely, and the male guarded/ supervised the nest from a close distance and also incubated the eggs occasionally in the absence of the female. The female was also conscious of removing the carcases and remains of uneaten prey from the nest. The female took the prey remains or carcass in her beak and flew away. It is difficult to comment whether she discarded them or consumed them. Both parents communicated effectively by calling each other, being more vocal, especially when with each other at the nest and while bringing prey or kill for the chicks, or in the presence of intruders around the nesting site.

Sexual dimorphism is observed in this particular pair. The recording of mounted cameras allowed close observations of male and female adult birds to compare their morphology during the breeding season. The male was comparatively smaller than the female (Fig.12). Other morphological features adding to their sexual dimorphism are described in Table 3.

Avifaunal Diversity surrounding the Nesting Site: The Mahi riverine habitat supports diverse wildlife, including a rich avian fauna. During the study period, we identified 82 bird species belonging to 38 families (Table 4), including two species of nocturnal birds: Spotted Owlet (*Athene brama*) and Indian Eagle Owl (*Bubo bengalensis*). Also, four diurnal birds belong to Family Accipitridae (Black kite *Milvus migrans*, Oriental Honey-buzzard *Pernis ptilorhynchus*, Western marsh harrier *Circus aeruginosus*, Shikra *Tachyspiza badia*), within a radius of one kilometre from the nesting site. As the parents fed their chicks largely with bird prey, the avian diversity in this area seems important for their selection of the site.

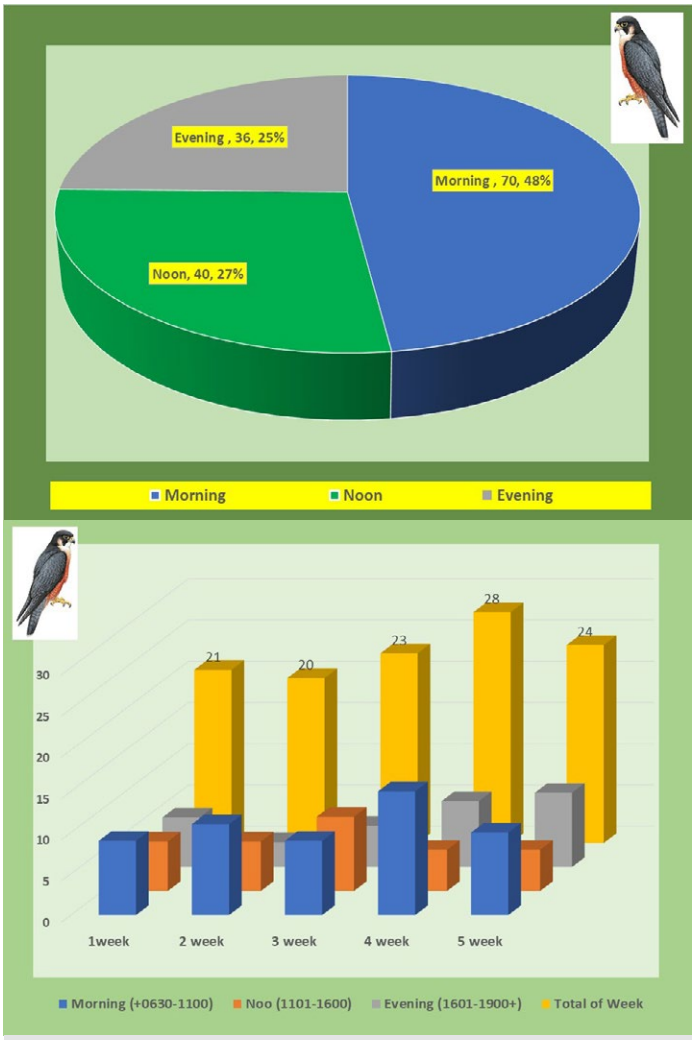

Figure 7: The graphs show the flight frequency of prey delivery each week (A) and different periods (morning, afternoon, and evening hours) of the day (B).

Discussion

Earlier, the Shaheen Falcon has been documented showing adaptation in nesting sites, especially using man-made structures such as tall buildings and transmission or mobile phone towers for nesting (Naoroji 2006; Pande et al. 2009, Pande et al. 2017), window ledges on high-rise multistorey buildings (Fig. 13) in Mumbai (N. Shethana, Personal Communication; February 205) and Pune (S. Sathe, Personal Communication; March 2025), Maharashtra, India. Here, we observed that a pair uses a cement concrete column of an intake water well (French Well) in the Mahi riverine habitat,

Figure 8: Female Shaheen Falcons feeding a prey Eurasian Collared Dove (*Streptopelia decaocto*) to two-day-old chicks. (Photo Credit: Devratsinh Mori)

which supports the earlier records of using man-made structures for nesting. Additionally, there are unpublished reports of Shaheen successfully breeding offspring using man-made structures like this.

Figure 9: Three-week-old chicks and the uneaten bat wing (Class: Mammalia). (Photo Credit: Mital Patel)

Figure 10: Shaheen cleans feathers and decapitates prey (Roseringed Parakeet *Psittacula krameri*) before delivering them to the chicks. (Photo Credit: Raju Vyas)

The falcon used unnatural materials in the current study, such as pebbles, rubble, and plastic debris. They might have used readily available materials at this suitable nesting place. The bird had nested on a ledge, keeping the nest high from the ground/water to protect it from predators. The site was selected based on the availability of prey food for adults and growing chicks. Many bird species are recorded nesting on man-made structures based on these factors (Gahbauer et al. 2015; Liu & Li 2024; Tere & Patel 2025). Many bird species' use of human-made materials for making nests has been described earlier (Mallet et al. 2020; Gallitelli et al. 2023; Liu & Li 2024). In some studies, materials such as plastics are also significant in their diets (Merlino et al. 2018; Wayman et al. 2024; Pietrelli et al. 2025). Using unnatural materials in nest construction can seriously threaten apex predator species, such as raptors.

Figure 11: Mother Shaheen feeds a killed Rose-ringed Parakeet (*Psittacula krameri*) to her sixth-week-old nestlings.B - Devratsinh Mori)

Figure 12: The gender difference observed in a particular pair of Shaheen Falcons (*Falco p. peregrinator*). (Photo Credit: A - Mital Patel, B - Devratsinh Mori)

During the study, the highest frequency of food delivery was in the morning. This indicates high morning hunting activity in Shaheen and food needs for growing chicks. Offering the plucked-bodied bird prey in the initial stage and later the

intact bird prey by the parents, is a learning process of hunting prey. Both parents participate equally in parental care, with varying degrees, except for the nest sanitation duty performed by only the female. This duty demonstrates mother's exceptional care and the importance of removing uneaten food remains from the nest and nest site, to prevent troubles from others vermin attracted by decaying prey.

Figure 13: Shaheen nest on window ledges of multistorey buildings in Mumbai, Maharashtra, India.
(Photo Credit: Nosherwan Sethna)

There is limited data on the Shaheen, especially regarding the Indian population. Pande et al. (2017) mentioned that this species does not breed in the dry habitats of Rajasthan and Gujarat. Therefore, this document on the breeding of the Indian Shaheen is necessary to highlight that the species is also breed in Gujarat. Though it is the second record of Shaheen breeding in gujarat after bhatt (2022). It is the first instance when the breeding birds have been monitored right from incubation till the chicks fledged.

According to secondary sources, it is a rare resident breeder in India and Sri Lanka (Samson et al. 2017). It is considered locally vulnerable in Shri Lanka (Wijeratne 2007) based on its population. Many raptor species are declining worldwide due to the use of organochlorine and organophosphate pesticides, and a similar trend has been observed in this subspecies of Peregrine Falcon in Sri Lanka (Döttlinger & Nicholls 2005). A high priority is needed for the conservation of the species, as there is a significant demand for birds in traditional falconry in neighbouring countries (Latif 2017). We noted a threat in Shaheen, as a few birds were victimised during kite festivals (Fig. 14). A recent report of bird use in falconry (Mori 2025) is a minor threat, but not insignificant.

Figure 14: An injured Shaheen was found at kite festivals by a victim of manza. (Photo Credit: Raju Vyas)

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Table 1: The ontogeny changes and development of the Shaheen Falcon's fledglings (*Falco peregrinus peregrinator*) were noted during the study up to the 7th week.

Dates	Age	Growth and Plumage	Body Colour	Chick behaviour /Remarks
25 March	1st Day	Pure white in colour, it looked like a small clump of cotton with very few downy feathers.	Blackish-grey eye and pink greyish bill, white pink feet with black claws.	Hardly raised its head.
25-31 March	1st Week	The body was covered with off-white downy feathers.	Till the egg-tooth appeared on the upper bill.	Raised his head and begged for food.
1-7 April	2nd Week	Grown about half the size of the tarsi of the parents.	Feather buds developed,	While begging for food, the neck appeared unstable, and it was finding it difficult to gather food from the parents' bill.
8-14 April	3rd Week	The body colour was still mainly white with a few black or brown specks due to feather pins on the wings, back, body, and tail regions.	Egg-tooth disappeared from the upper bill.	Begging for food from the parents with low-pitched screams. Capable of standing and squatting.
15-21 April	4th Week	The number of black and brown feathers developed on its wings, back, and head. Wings and tail tips become brownish. Grown up to half the size of the parents	Body colour grey-black with a few downy feathers remaining. A small notch on the upper bill.	Neck and head movements are steady. Perfectly capable of standing or squatting. Wings flapping, Capable of holding food in a bill, screaming loudly
22-28 April	5th Week	Chick has grown sizably, almost 60-70 % of the size of the parents.	Body colour grey-black with cream. Below the eye, on the chest, and the tail tips become brownish. Upper bill tip changed to black and claws dark black.	Chicks were alert and responded to intruders. Wing and feet stretching was observed. Walked well on the ledge.
29-5 May	6th Week	Body part covered with true feathers. Chicks have grown to almost 90-95 % of the size of the parents	A notch is visible on the upper bill. Body colour is black with scaly markings. Light-grey dotted band marking on the tail.	Jumping and hopping started. Chick started tearing the looted food from his parents.
6-12 May	7th Week	Looks similar to adult / parents. Body. Chest dark red-brown with dark brown markings	Body colour is much like that of an adult but brighter, except for the eye, cere, and bill.	Chicks are capable of engulfing the food items. Roosting on a nearby branch from the nest

*6th May Cyclone

Table 2: List of prey foods brought by a pair of Shaheen Falcons (*Falco peregrinus peregrinator*) for the chicks up to the end of the 5th Week (28th April 2025)

No.	Name of Prey Species (Scientific Name)	Total	%
1	Common Myna (*Acridotheres tristis*)	2	1.72
2	Rosy Starling (*Pastor roseus*)	8	3.44
3	Bank Myna (*Acridotheres ginginianus*)	2	1.72
4	Eurasian Collared Dove (*Streptopelia decaocto*)	6	5.17
5	Common Sandpiper (*Actitis hypoleucos*)	2	1.72
6	Rock / Feral Pigeon (*Columba livia domestica*)	8	6.89
7	Wood Sandpiper (*Tringa glareola*)	2	1.72
8	Red-collared Dove (*Streptopelia tranquebarica*)	2	1.72
9	Little Stint (*Calidris minuta*)	2	1.72
10	Rose-ringed Parakeet (*Psittacula krameri*)	2	1.72
11	Little Swift (*Apus affinis*)	2	1.72
A		**38**	**32.75**
12	Unidentified Wagtail	03	02.58
13	Unidentified Dove	03	02.58
14	Unidentified Wader	06	05.17
15	Unidentified bird	64	55.17
16	Unidentified Bat	02	01.72
B		**78**	**67.24**
	Total number of Prey A+B	**38+78**	**116**

Table 3: Sexual dimorphism is evident in this specific breeding pair of Shaheen Falcons (*Falco peregrinus peregrinator*)

Characteristics	Gender	
	Male	Female
Size	**Smaller and more slender**	**Larger and bulkier**
Body shape	Streamlined	Broader chest and more robust
Collar marking	Faint whitish collar from throat to upper chest	Rufous-brown collar broader and extending further down the chest, with a more distinct whitish throat and neck border than the male.
Crop portion	Whiter	More rufous
Tail tip	Easily visible	Appearing almost entirely black
Overall behaviour	Slightly shy	More confident and approachable
Body colour	Paler bluish-grey tone	Richer brownish black
Upper mandible	Narrow and fine	Thicker and more curved
Bill tip	Pale greyish	Darker grey or blackish
Nostril	Small and oval	Yellow large cere area with nostril, but it seems comparatively a little bigger
Cere	Pale yellow	Brighter yellow
Eye rings, lores, and legs	Yellow, but slightly duller	Bright yellow
Supercilium	Less distinct	Slightly more prominent
Crown	Uniform dark tone	Similar, but with a deeper tone

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Table 4: List of bird species recorded within one kilometre of the nesting site of Shaheen Falcons (*Falco peregrinus peregrinator*)

	Family	No	Common Name of Birds (Scientific Name)
1	Phasianidae	1	Barred Buttonquail *Turnix tanki*
		2	Grey Francolin *Francolinus pondicerianus*
		3	Indian Peafowl *Pavo cristatus*
2	Anatidae	4	Ruddy Shelduck *Tadorna ferruginea*
		5	Indian Spot-billed Duck *Anas poecilorhyncha*
3	Ciconiidae	6	Painted Stork *Mycteria leucocephala*
		7	Asian Openbill *Anastomus oscitans*
		8	Wolly-necked Stork *Ciconia episcopus*
4	Threskiornithidae	9	Black-headed Ibis *Threskiornis melanocephalus*
		10	Glossy Ibis *Plegadis falcinellus*
		11	Indian Black Ibis *Pseudibis papillosa*
		12	Eurasian Spoonbill *Platalea leucorodia*
5	Ardeidae	13	Indian Pond Heron *Ardeola grayii*
		14	Cattle Egret *Bubulcus ibis*
6	Phalacrocoracidae	15	Little Cormorant *Microcarbo niger*
7	Acciptridae	16	Shikra *Tachyspiza badia*
		17	Black Kite *Milvus migrans*
		18	Oriental Honey-buzzard *Pernis ptilorhynchus*
		19	Western Marsh Harrier *Circus aeruginosus*
8	Rallidae	20	White-breasted Waterhen *Amaurornis phoenicurus*
		21	Common Moorhen *Gallinula chloropus*
		22	Common coot *Fulica atra*
9	Recurvirostridae	23	Black-winged Stilt *Himantopus himantopus*
10	Charadriidae	24	Red-wattled Lapwing *Vanellus indicus*
		25	Kentise Plover *Charadrius alexandrinus*
11	Scolopacidae	26	Black-tailed Godwit *Limosa limosa*
		27	Green Sandpiper *Tringa ochropus*
		28	Common Sandpiper *Actitis hypoleucos*
		29	Wood Sandpiper *Tringa glareola*
		30	Little Stint *Calidris minuta*
12	Columbidae	31	Eurasian Collared Dove *Streptopelia decaocto*
		32	Spotted Dove *Spilopelia chinensis*
		33	Laughing Dove *Streptopelia senegalensis*
		34	Rock Pigeon/ Feral Pigeon *Columba livia/domesticus*
		35	Yellow-legged Green Pigeon *Treron phoenicopterus*
13	Psittaculidae	36	Rose-ringed Parakeet *Psittacula krameri*
		37	Plum-headed Parakeet Psittacula cyanocephala

14	Cuculidae	38	Asian Koel *Eudynamys scolopaceus*
		39	Common Hawk-Cuckoo *Hierococcyx varius*
		40	Greater Coucal *Centropus sinensis*
15	Strigidae	41	Spotted Owlet *Anthene brama*
		42	Indian Eagle Owl *Bubo bengalensis*
16	Apodidae	43	Asian Palm Swift *Cypsiurus balasiensis*
		44	Indian House Swift *Apus affinis*
17	Coraciidae	45	Indian Roller *Coracias bengalensis*
18	Upupidae	45	Common Hoopoe *Upupa epops*
19	Alcedinidae	46	White-throated Kingfisher *Halcyon smynensis*
		47	Common Kingfisher *Alcedo atthis*
		48	Pied Kingfisher *Ceryle rudis*
20	Meropidae	49	Green Bee-eater *Nyctyornis athertoni*
21	Bucerotidae	50	Indian Grey Hornbill *Ocyceros birostris*
22	Megalaimidae	51	Coppersmith Barbet *Psilopogon haemacephalus*
23	Picidae	52	Lesser Golden-backed Woodpecker *Dinopium benghalense*
24	Dicruridae	53	Black Drongo *Dicrurus macrocercus*
		54	White-bellied Drongo *Dicrurus caerulescens*
25	Oriolidae	55	Indian Golden Oriole *Oriolus kundoo*
26	Corvidae	56	House Crow *Corvus splendens*
		57	Rufous Treepie *Dendrocitta vagabunda*
		58	Large-billed Crow *Corvus macrorhynchos*
27	Hirundinidae	59	Dusky Crag Martin *Ptyonoprogne concolor*
		60	Wire-tailed Swallow *Hirundo smithii*
28	Pycnonotidae	61	Red-whiskered Bulbul *Pycnonotus jocosus*
		62	Red-vented Bulbul *Pycnonotus cafer*
29	Cisticolidae	63	Grey-breasted Prinia *Prinia hodgsonii*
		64	Common Tailorbird *Orthotomus sutorius*
		65	Ashy Prinia *Prinia socialis*
30	Leiothrichidae	66	Jungle Babbler *Argya striata*
31	Sturnidae	67	Brahminy Starling *Sturnia pagodarum*
		68	Common Myna *Acridotheres tristis*
		69	Bank Myna *Acridotheres ginginianus*
		70	Rosy Starling *Pastor roseus*
32	Zosteropidae	71	Indian White-eye *Zosterops palpebrosus*
33	Muscicapidae	72	Indian Robin *Copsychus fulicatus*
		73	Oriental Magpie-Robin *Copsychus saularis*
34	Dicaeidae	74	Pale-billed Flowerpecker *Dicaeum erythrorhynchos*
35	Dicaeidae	75	Purple-rumped Sunbird *Leptocoma zeylonica*
36	Paasseridae	76	House Sparrow *Passer domesticus*
		77	Yellow-throated Sparrow *Gymnoris xanthocollis*

37	Estrildidae	78	Indian Silverbill *Euodice malabarica*
38	Motacillidae	79	Western Yellow Wagtail *Motacilla flava*
		80	White Wagtail *Motacilla alba*
		81	Paddyfield Pipit *Anthus rufulus*
		82	Tree Pipit *Anthus trivialis*

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