

Observation notes on the breeding of Shikra *Accipiter badius* in Kachchh

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Introduction

Shikra (*Accipiter badius*) is a common and widespread bird of prey, being the commonest resident *Accipiter* species in India (Naoroji, 2006). It is also a typical resident in most parts of Gujarat (Ganpule *et al.*, 2022). Due to its adaptability, Shikra is seen in different habitats and is a resident of towns and cities. It is also frequently seen around gardens and wooded areas around human habitation. Shikra is commonly seen in Bhuj and its surroundings.

I present some interesting observations regarding the breeding of Shikra in Bhuj.

Observations

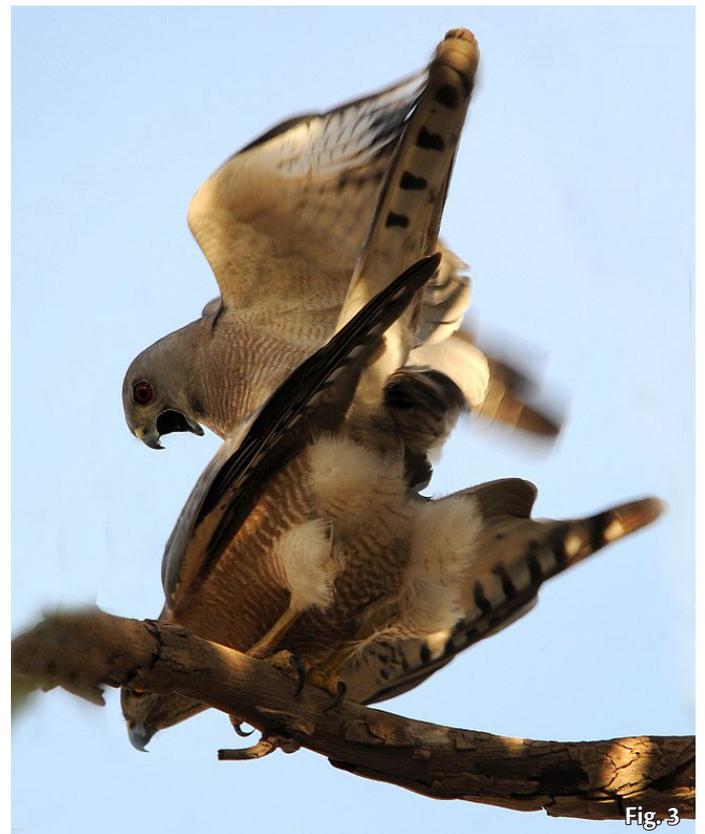
I have been observing this beautiful raptor near my home since 2006. Over the past 17 years, I have seen many interesting aspects of breeding this species and will give details of some selected events here. From the terrace of my house, many large trees are visible, three of which are frequently used by a pair of Shikra. The nest site is about 35-40 meters from my terrace, and a Neem tree (*Azadirachta indica*) and Indian Siris (*Albizia lebbek*) adjoining my terrace are used for their activities (Fig. 1). I have closely observed this raptor while on my terrace in my spare time. We hear the mating calls of the Shikra regularly from my residence from February to March.



Mating: I have observed mating in the Shikra on many occasions. I am citing two interesting observations here.

On 1 February 2021, I recorded a video of a female Shikra on the top of a leafless stem of the Neem, which was lower than I had seen. I had taken support from the parapet wall of my terrace to record the bird. I heard the beginning of a mating call from a tall *Eucalyptus sp.* on my left. The female looked towards the male bird but gave no reaction and continued to finish its prey. I had seen many mating events and knew conditions were favourable. I continued recording the female

bird, not making sudden movements, so it would not get alarmed. The female ate its prey slowly, while the mating call got progressively louder. The male came nearer to the female and flew about two feet lower. Then, after breaking its speed, it mounted the female with flapping wings while uttering mating calls. The female raised its tail, cooperating with its male. After copulating, the male stepped over the female and flew away. I could record the entire mating sequence and also observe the semen from the act. (Fig 2-3-4).



All Photos: Jaysukh Parekh



Fig. 4

In another incident in 2023, a Shikra pair was seen mating in the Neem, just about 8-10 meters away. Although it was hidden behind the foliage, I managed to get some photographs. The surprising thing about this mating act was that both birds had similar eye colour. Initially, I thought both birds were females. I took some photographs, especially post-mating, when a male stepped over the female and stood for a while. In this photo, it was clear that the mating pair had the same eye colour (Fig. 6). Earlier, I sent the images to experts in many close-up mating photos I had taken, but without the mating photo, both experts identified the bird as a female. However, after it became clear from the mating photos that the bird mounting (on top) was a male, the experts corrected the identification as a sub-adult male. In the image given here (Fig. 5), the bird on the left is a male, while the bird on the right, with a slightly raised tail, is a female. The eye colour of the male is like that of the female, and it is a sub-adult bird. Surprisingly, a sub-adult male was mating with an adult female, the first time I had observed!. Also, the female's cloaca was visible (Fig. 6). Since eye colour is essential in sexing the Shikra, I continued to photograph the sub-adult male. However, even after 70 days, there was no significant change in the eye colour of the sub-adult male.

Nest building: The nest of the Shikra in this area is usually high in trees. The nest is made of dry sticks, but wires and other artificial things are also used. The nest is an untidy-looking structure. In 2023, the nest was entirely made of sticks, while steel or metal wires were used in an earlier nest. A

comparison photo of the current nest and the previous year's nest is given here (Fig. 7).



Fig. 5



Fig. 6



Fig. 7

I had never seen Shikra collecting nesting material from the ground. They always cut dry stems directly from the tree (Fig. 8). The pair repairs the nest continuously till the fledgling of chicks. The nest made this year was about 20 meters high on an *Eucalyptus* sp. tree, a favourable height to keep watch from my terrace. In the morning, the light used to be very suitable

Shikra....

for photography. In June, once there was a windy atmosphere, and the branch carrying the nest tree was swinging excessively a to the requirement, the female continued to repair the nest. The centre of the nest is saucer-shaped and deep so that the eggs do not slip with the movement of the branch. Surprisingly, once I saw the female searching for something on the neem tree after mating. I saw it cutting a one-inch square bark piece from the dry neem stem and heading toward the nest. This must be Shikra's most minor nesting material (Fig. 9). Since this bark was cut meticulously, it was likely selected for a special purpose or like tilling a gap in the nest wall.



Hunting: The Shikra is seen in urban and rural areas. It is well known that the Shikra hunts a variety of prey. I present some observations of Shikra hunting Indian Spiny-tailed Lizards (*Saara hardwickii*).

Here in Kachchh, Spiny-tailed Lizards form colonies near villages, in open ground with very little vegetation. They make burrows near small plants so the hatchlings can be fed easily. May-June is the time for Shikra to provide food for its chicks. Burrows of lizards are full of hatchlings during this period. I have seen 8-10 hatchlings outside their burrows while the adults try to put them back into the burrows for safety. Shikra quickly hunts the young Lizards. I have seen the Shikra hunting the Spiny-tailed Lizards many times. Once, I took a photograph where the Shikra had one lizard on each leg and was trying to catch a third one! The third hatchling managed to escape but was injured (Fig. 10). It is visible in the photo towards the right of the frame.





Fig. 12



Fig. 13

Cyclone ‘Biporjoy’ and its effects: The cyclone ‘Biporjoy’ struck Kachchh in June 2023. The sub-adult male was not seen near the nest for the whole day. The wind was increasing, and there was a prediction of heavy rain and strong winds. Since there were chicks in the nest, which were less than a week old (figs 14-15), I continued to monitor the nest. The female was not seen hunting or bringing food to the nest for more than a day; indeed, the female was not ready to leave the chicks in this fast wind in the risky nest. The next day, the female left the nest briefly and went to the nearby Neem, where the male had just arrived. The male transferred a freshly killed lizard to the female; it was also a surprise that the male did not come to the nest but transferred the food 40 meters away. In this area, only one sub-adult male was seen for a long time, so there is no doubt that it was another sub-adult male. (Can it be due to sub-adult age?) The female flew back to the nest and fed the chicks. There was heavy rain and wind, and I could see from my house that the *Eucalyptus* was swaying more than 30 degrees! The female was not visible in the nest. (Fig. 16) However, after the rain and wind had stopped, I checked on the chicks and was overjoyed to see they were alive. The chicks had passed a challenging test early in their lives without their mother’s help. Nature at its best! The chicks eventually fledged.

General observations: In Shikra, eye colour is an important feature to identify male/female/juvenile and subadult. Sometimes, due to the nictitating membrane, the eye colour can appear different from the actual colour. The fledgling/

juvenile Shikra has pale blue-grey eyes, which will gradually turn yellow in adult females and orange to reddish in males. When the Shikra becomes mature (after the second year), the eyes will become yellow to orange in females and reddish in males. The older the bird, the deeper the colours. Old males (10+ years) will have eyes so profoundly red that they look deep red-brown. Since eye colour is essential in identifying the sexes, I always tried to get good photos of the birds so that the eye colour could be judged. In the photo given here (Fig. 11), a series of images illustrates the eye colour in different individuals.

Ritual/courtship display is performed late in the morning, with one bird taking off from around the nest, flying high in circles, and the partner joining it. Both birds glide high in the sky, and both birds sometimes go far away—generally, only a pair glides in the sky. Once, I saw an adult male and female active and gliding in the sky. While these two birds were gliding, he third one, an adult, joined the pair. A beautiful scene, with three Shikra flying in circles, was seen. The third bird could have been from a nearby area. These three birds were flying over me. Clicking them in a single frame was difficult, but I shared a mixed picture of all the three birds (Fig. 12). Sometimes, in courtship, a bird jumps and moves unevenly in front of its partner (Fig. 13). I have seen such behaviour many times, but could not take good photos. The courtship display of the Shikra is quite variable.

Discussion

The Shikra is a well-studied raptor, and its breeding biology is well-known (Dharmakumarsinhji 1955, Naoroji 2006, Suryawanshi 2021). My observations were not part of any detailed study and were made opportunistically. However, I was able to observe many fascinating facts of its breeding cycle in Kachchh.



Fig. 14



Fig. 15



Fig. 16

I have often observed the Shikra preying upon Spiny-tailed Lizard hatchlings. Another interesting observation was the pairing of the sub-adult male with the adult female. Naoroji (2006) has stated that this raptor starts breeding after one

year; hence, it is likely that this sub-adult male was suitable for the adult female. However, further study is required to check whether this is a frequent occurrence or if sub-adult males find it difficult to get mates. It is also interesting why the male did not go to the nest tree to transfer the lizard. The effect of the cyclone on the adult pair and the chicks was observed for the first time in this species during the nesting period. Another interesting observation is that it meticulously collects tiny, one-inch wood bark as a nesting material. The survival of the chicks during the cyclone was noteworthy and showed the resilience of the birds in adverse conditions.

Though the Shikra is well studied, many things about this species' breeding biology are still unknown. In a dry area like Kachchh, the breeding biology and food requirements may differ slightly from those of other parts of the country. It is recommended that more studies on the breeding biology of this raptor be carried out in this region.

Acknowledgements

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References

- Dharmakumarsinhji, R. S., Undated (=1955) *Birds of Saurashtra, India with additional notes on the birds of Kutch and Gujarat*. Bhavnagar, Saurashtra. Published by the Author
- Ganpule, P., Varu, M., Trivedi, B., & Raina, A. D., 2022. *A field guide to the birds of Gujarat*. Bird Conservation Society, Gujarat. Ahmedabad.
- Naoroji, R., 2006. *Birds of prey of the Indian Subcontinent*. 1st ed. Om Books International. New Delhi
- Suryawanshi, K., 2021. Nesting behaviour and diet of Shikra *Accipiter badius* in Ajanta, Maharashtra. *Indian BIRDS* 17 (2): 50–53. □

Regular Nesting of Asian Openbill Stork *Anastomus oscitans* at Jalalpore within Urban areas of Navsari city of Gujarat State, India

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Introduction

The Asian Openbill Stork (*Anastomus oscitans*) is a long legged large wader belonging to Ciconiidae family. It is a “Least Concerned species” according to IUCN RedList categories. The species is very rare in the Sind and Punjab regions of Pakistan, but widespread and common in India, Sri Lanka, Burma and Thailand (Ali and Ripley, 1978). It breeds in India, Pakistan, and Nepal eastward throughout Indochina and is now dispersing more widely in Southeast Asia, due to changes in climate and food availability (BirdLife International, 2024). It inhabits inland wetlands agricultural landscapes, irrigation

canals, seasonal marshes, river banks and tidal flats and feeds on molluscans, small fishes and frogs (Sundar, 2006; Sundar *et al.*, 2016). The Asian Openbill Stork breeds from April to September (Ali and Ripley, 1978). The knowledge of Asian Openbill Stork is available through the detailed studies conducted at many parts of India and Nepal, describing them inhabiting and nesting in and around wetlands, agricultural lands and urban areas (Datta and Pal, 1993; Sundar, 2006; Sundar *et al.*, 2016; Mohapatra, *et al.* 2019; Koju, *et al.* 2020). However, the species is not much studied in Gujarat. The Openbill is a common resident species in Navsari district,