Sarus Crane....

important sighting. This individual was later identified as a second-year sub-adult female, by senior ornithologist Yoav Perlman from Israel, through the kind help of my friend and field researcher Giovanni Leonardi from Italy. This individual was last seen and photographed on the 14 March 2019 by the second author, and was believed to have returned back to its breeding grounds. It stayed in this area for more than three months, which is a rather long period for this species to stay at one location.

Over the past 10 years, there have been occasional and irregular sightings of this falcon, which have mainly been from the Little Rann of Kachchh and from the Greater Rann of Kachchh (Mori & Shah 2017). There have been other sightings of Saker Falcon in the winter season of 2018-2019 in Gujarat, which included sightings from the Little-, and Greater Rann of Kachchh. This sighting is a first record of this species from Nal Sarovar in the past many years. Also, it is important to note is that the Saker Falcon, which is a winter visitor mainly to the deserts now, was seen wintering throughout the season in a farmland area, close to a bustling village and in an area frequented by humans regularly. It should be noted that there were large numbers of Calandrella sp. larks, mostly Greater Short-toed Larks (Calandrella brachydactyla), in the surrounding area and their number was estimated to be in thousands (pers. observation). It is possible that due to the easy availability of prey, this falcon came and stayed here for the duration of the winter. This sighting of a Saker Falcon from Nal Sarovar is important and suggests that this species is seen outside of its preferred habitat of deserts if there is availability of prey. Similar locations should be scouted for the presence of Saker Falcon, especially in Saurashtra.

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A first confirmed breeding record of Oriental Dwarf Kingfisher Ceyx erithaca in Gujarat

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Introduction

The Oriental Dwarf Kingfisher (Ceyx erithaca), is also known as the Indian Three-toed Kingfisher. Since the last few years, the Oriental Dwarf Kingfisher has been recorded from multiple sites in Gujarat (Jat 2015, Rathod 2017). It was assumed that the species could be a breeding migrant to the forests of south Gujarat as it was recorded attempting to dig a tunnel near Ahwa, in Dang Forest (Mistri et al. 2017) and an individual was recorded in Vansada National Park in October 2018 (Mishra 2018). However, there is no confirmed breeding or nesting record reported from Gujarat. We report here a nest of an Oriental Dwarf Kingfisher from Vansada National Park.

Observations

On 30 June 2019, a pair of Oriental Dwarf Kingfishers was seen in Vansada National Park during a field survey. The pair was seen digging a burrow in a vertical land cutting (mud bank) about 2.5 mts above the ground. The location was very close to a dirt road. There was a small stream around 30 meters from the nesting site. When seen for the first time, the pair had just started to dig the burrow. Both the male and the female were actively participating in digging the burrow. Within two days, they dug a burrow around 1.5 ft deep (horizontally) in the mud bank. Later on, they were observed to continue digging the burrow for the next few days. During daily observations, we observed the birds twice with kills; once it was a skink and the other time, it was a small frog. They were more active in the early morning and late evening. In the process of digging, they continuously went in and out of the burrow and also perched on a nearby tree. While coming back, they used to have mud on the beak.

The rains were a big problem, as during heavy rain, some portion of mud bank was washed away and the burrow became exposed. On 11 July we decided to check within the burrow with the help of an endoscopic inspection camera.





Table 1: Observations at nest of Oriental Dwarf Kingfisher

Date	Time	Observation(s)
30 June 2019 - 1 July 2019	-	The pair was first seen while making a burrow in the vertical mud bank.
2 July 2019	14:30 hrs	Found inside the burrow, with some dirt in its beak.
3 July 2019	09:30 hrs	Observed the male holding a skink (probably <i>Eutrophis macularia</i>) in its beak and perching near the burrow.
3 July 2019	11:22 hrs	Pair seen in a bamboo thicket, on the other side of the road.
4 July 2019	07:30 hrs	One bird seen perching in the bamboo thicket on the other side of the road, holding a frog in its beak. Unfortunately, it was not possible to identify the species of frog as the entire body of the frog was not visible.
4 July 2019	07:42 hrs	Came out of the burrow with dirt in its beak and went in again after an interval of 20-30 seconds. Action repeated several times
5-6 July 2019	-	Heavy rain and no sightings during multiple visits.
7-8 July 2019	-	Sitting on the perch near the burrow
9 July 2019	-	Heavy rain and no sightings during multiple visits.
10 July 2019	-	Seen in the burrow.
11 July 2019	09:16 hrs	Five eggs noted. No bird was there during the visit.
12 July 2019	07:46 hrs	Seen incubating the eggs inside the burrow
13-16 July 2019	-	The nest site was observed only occasionally as we preferred not to disturb the birds. It was raining very frequently.
17 July 2019	-	Seen in the burrow.
18 July 2019	-	Female observed inside the burrow incubating while male was seen in the bamboo thicket on the other side of the road.
20 July 2019	-	No sightings during multiple visits at the nesting site.
28 July 2019		Nest destroyed due to incessant rains washing away the mud bank
29-30 July 2019		Pair last seen near the destroyed nest

Nest details recorded are as follows:

Nest Site: Vansada National Park

Nesting Substrate: Horizontal burrow with larger egg chamber in vertical land cutting (mud bank)

Height above ground: 8 feet

Habitat within immediate surrounding area (ca. 50 mts): Water stream, deciduous forest, bamboo thicket

Distance of nest from pathway: 4 meters

Number of eggs: 5

Date on which eggs were laid: 8-11 July 2019

Date of destruction of the nest: 28 July 2019

While inspecting, we discovered that five eggs were present. The eggs were probably laid between 8 July and 11 July. After discovering the eggs, we decreased our visits to the nesting site, as we did not want to disturb the birds. During the occasional visits, we noticed that the male was seen near the nesting site and the female was seen incubating the eggs in the burrow.

This year, the rains were very heavy and it was raining every day. The soil around the burrow, on the land cutting, was getting washed away and on 28 July 2019, due to heavy and continuous rain for the previous three days, the entire mud bank collapsed and the nest got destroyed. The birds were seen around the nest site for two more days but after that, we were not able to find the birds again. The nest details are given here and the observations recorded at the site are given in table.

Discussion

Our observations confirm that the Oriental Dwarf Kingfisher breeds in Gujarat. The breeding season is similar to what has been documented in Chiplun, Maharashtra; the number of eggs is also similar (Palkar et al. 2009). The incubation period for this species is around 17-18 days and it is possible that the chicks would have hatched or were on the verge of hatching when the nest was destroyed, as 17 days had passed from the date when the eggs were laid.

Palkar et al. (2009) list the difficulties faced by the Oriental Dwarf Kingfisher during breeding and one of the reasons given is that 'the birds excavated the nest in loose land cuttingthe earth caved in easily during the onset of heavy rainfall'. This is precisely what was observed here and it appears that the destruction of the nest due to heavy rainfall washing away the mud bank is a problem faced by the species during breeding. The amount of rainfall is also important and affects its breeding. The destruction of the nest was documented here but it is not known to what extent this factor affects its breeding success; Palkar et al. (2009) noted that five eggs (out of 24) were destroyed due to collapse of the nest chamber.

Future observations of nesting of the Oriental Dwarf Kingfisher in Gujarat will be useful in understanding the breeding ecology of the species here and would help in understanding reasons for breeding success (or failure) in the state.

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