



Nesting site activities in breeding time of Asian Paradise flycatcher, *Terpsiphone paradisi*, at Dandekar College, Palghar, Maharashtra.

R. B. Singh	Department of Zoology, S.D.S.M. College, Palghar-401404(M.S.), India.
Ravindra V. Gupta	Department of Zoology, S.D.S.M. College, Palghar-401404(M.S.), India.
Anuja A. Desale	Department of Zoology, S.D.S.M. College, Palghar-401404(M.S.), India.
S. J. Keni	Department of Zoology, S.D.S.M. College, Palghar-401404(M.S.), India.
Suprit S.Narvankar	Department of Zoology, S.D.S.M. College, Palghar-401404(M.S.), India.
Pooja H. Kini	Department of Zoology, S.D.S.M. College, Palghar-401404(M.S.), India.

ABSTRACT

Nesting site activities in Breeding time of Asian Paradise flycatcher were observed at R.D. centre of Dandekar college which is situated about 3 Km away from Palghar railway station. Palghar is the suburb of Mumbai. It was observed that both (male and female) were participating in incubation sincerely. In the activities neck movement and eye movement were maximum. Female was giving more time for incubation and male for defencing the territory. In this paper author's intent to elaborate nesting activities of Asian Paradise flycatcher.

KEYWORDS

Dandekar, Breeding behavior.

Introduction

The Asian Paradise Flycatcher *Terpsiphone paradisi* is a common but unevenly distributed. It is rare and very sporadic in the Deccan (Ali & Ripley, 2007). It is forest-living bird species that is widely distributed in Asia. Asian Paradise Flycatchers have twelve tail feathers of which the two central feathers of adult males are greatly elongated and form streamers. There are two colour types in males, rufous and white (Owen, 1963). Males are distinguished by their conspicuously broad blue eye-rings and greatly elongated central pair of tail feathers extending up to 25 cm beyond the rest of tail. Females have only one morph, dull rufous-brown with grey eye-ringed and short tail. (Owen, 1963; Ali & Ripley, 1972; Sibley and Monroe, 1990; Lekagul & Round, 1991; King et al., 1995; Mizuta, 1998; Mizuta and Yamagishi, 1998; Khobkhet, 2004; Robson, 2004).

The Asian Paradise Flycatcher, *Terpsiphone paradisi*, is monogamous and breeds mostly in broken foot hills country peninsular hills. Affects well watered and shady forest bamboo clad mullah, plantation and village groves spreading in winter to gardens and scrub. Both male and female take part in nest-building, incubation, brooding and feeding of the nestlings (Khobkhet, 2004). The incubation period last about 14-16 days and the nestling period 9-12 days. (Santoshi Yamagishi, 1998). The breeding season lasts from May to July (Ali & Ripley, 1972). The nest site selection in birds can be an important determinant of reproductive success by affecting losses caused by predators and weather the two most important causes of nest failure (Nolan, 1963; Ricklefs, 1969 a)

In this paper authors attempted to enumerate the different nesting site activities of Asian Paradise flycatcher throughout the breeding season.

Study Area

This study was conducted at Rural Development (R.D.) centre of Sonopant Dandekar College Palghar. The college is situated between Geographic coordinates of Latitude: 19°71'10" N Longitude: 72°75'94" E. Fig. 1. It is a developing and capital Town of newly carved palghar district of maharashtra and located about 90 kilometers north of Mumbai. Palghar lies on the Western Line of the Mumbai Suburban Railway on the busy Mumbai-Ahmadabad rail corridor. The college is situated about 3 km distance from

Palghar railway station.

R.D. centre of Dandekar College is cultivable garden and mostly contains chiku, mangos tree with mix, type natural vegetation. It is an isolated area of the collage with least minimum disturbance of human activities. Due to this birds are attracted in this area for nesting/breeding/foraging.

Fig 1.a and b. View of R.D. centre and nesting of Paradise flycatcher at Dandekar college, Palghar.



Material and method

The entire observations were recorded from a selected confined place in the R.D. centre without disturbing the birds. The observations were recorded by using Nikon Action 10x50 binocular and relevant photographs were taken from Canon 700 D. Birds were identified with the help of standard methods given by Ali and Ripley (1969, 1995, 1996), Grimmett et al. (1999), and Ali (2002).

Result and Discussion

The breeding behavior of Asian Paradise Flycatcher was observed during June 2015 to July 2016. In our observations it was observed that breeding season spread for 2 months, June and July, in this area. Ali & Ripley (2007), documented breeding season March to August, chiefly May to June.

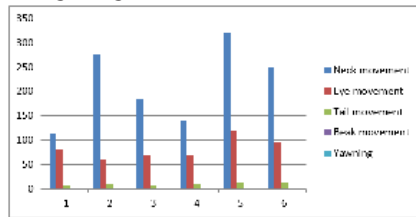
We observed different activities during breeding season like neck movement, eye movement, tail movement, beak movement and yawning. The frequencies of each activity recorded at different time intervals are given in (Table 1).

Table 1: Activities of Female and Male (collective) Asian Paradise Flycatcher at Dandekar College, Palghar.

Sr. no.	Female/ Male (F/M)	Time in Min.	Activities of Female					Yawning
			Neck movement	Eye movement	Tail movement	Beak movement		
1.	F	02.17	113	80	7	0	0	
2	F	06.25	277	160	10	0	0	
3	F	02.56	185	70	7	0	0	
4	F	03.29	140	70	10	2	1	
5.	M	04.00	321	120	12	0	0	
6.	M	03.29	250	97	10	0	0	
Total		22.31	1286	597	56	2	1	

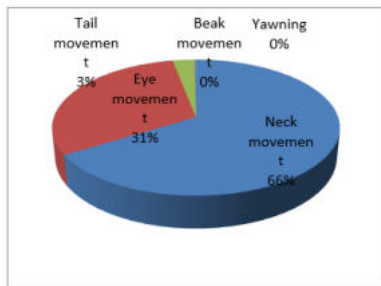
It was collectively found that the neck movement was highest followed by eye movement and Yawning was the least minimum. (Fig. 2).

Fig.2.Activities of Female and Male Asian Paradise Flycatcher at Dandekar college, Palghar.



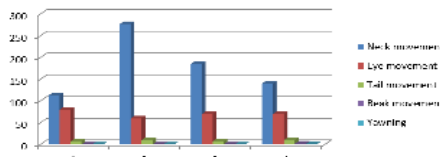
The maximum activities in descending order were neck movement, eye movement, tail movement, beak movement and yawning which were 66%, 31%, 3%, 0%, 0% respectively. (Fig. 3).

Fig.3.Percentagewise Activities of Male and Female Asian Paradise Flycatcher at Dandekar College, Palghar.



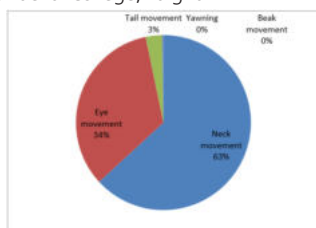
When observations were analyzed individually then it was found that Female spend maximum time for neck movement followed by eye movement. (Fig. 4)

Fig. 4. Activities of Female Asian Paradise Flycatcher at Dandekar College, Palghar



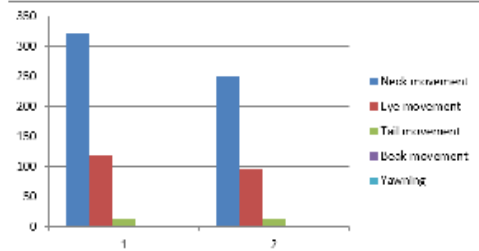
While calculating the activities in percentage it was found that neck movement (63%) followed by eye movement (34%). (Fig. 5).

Fig. 5. Percentagewise Activities of Female Asian Paradise Flycatcher at Dandekar college, Palghar.



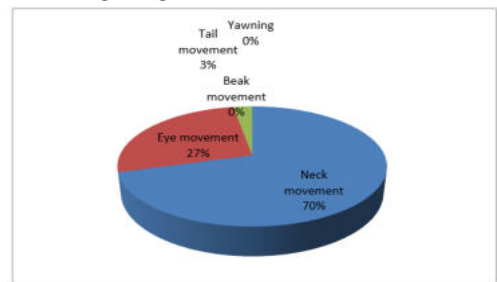
When result were analyzed for male it was found that male was also showing the same pattern of activities i.e neck movement was highest followed by eye and tail movement.

Fig. 6. Activities of Male Asian Paradise Flycatcher at Dandekar college, Palghar.



In our observation it was found that neck movement (70%) which is highest followed by eye movement (27%) and tail movement (3%). (Fig. 7).

Fig.7.Percentagewise Activity of Male Asian Paradise Flycatcher at Dandekar college, Palghar.



In our observation we found that male spent less time as compared to female in incubation. But male was found very aggressive in term of defence of their territory. Once the male is left the nest from incubation female immediately used to take over the nest without wasting time, on the other hand male may not come immediate. Both were participating in the nurturing / incubating the eggs. Asian Paradise Flycatcher used to change the position of the eggs with the help of beak by putting head inside the nest. During incubation while leaving the nest Asian Paradise Flycatcher communicate vocally with each other in such a way that the nest was not left alone.

Conclusion

In our study at R.D. centre of Dandekar college, Palghar. It was found that Asian Paradise Flycatcher was breeding in the month of May and June. Both were participating in incubation. In the entire period neck movement and eye movement were found maximum. While female was giving more time for incubation. Male was busy in protecting the territory. Both were found very honest to each other and sharing the family responsibilities.

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