

SURVEY OF INDIAN HOUSE CROW NESTS (*Corvus splendens splendens* Vieillot) IN THREE VILLAGES OF DISTRICT HOOGHLY, WEST BENGAL

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SUMMARY

A comparative survey of nests of the Indian house crow (*Corvus splendens splendens* Vieillot) was done in three villages i.e., Nabalgram, Nanipur and Sultangachha, under the P. S.: Polba, District: Hooghly, West Bengal. Large number of crow nests (60 - 65 %) were found mainly on the palm and coconut trees. In some other trees also the nests are found but their percentages are quite lower (1 - 2%). Height of the nests ranges from 5 - 10 m. Average clutch size, shape, colouration of the eggs and total length of the incubation period were also studied. The reason for the higher number of nests on the palm tree in these three villages may be due to the inaccessibility of the tree due to its smooth texture, erect nature and safe distance from the locality. Any other specific reason for building the nest on the palm or other types of trees is not known at present.

Considering their number and presence, we were interested to make a survey work on that particular spot during the period from March, 1993 to May, 1993.

Key words: nests, Indian house, crow, clutch, palm tree.

INTRODUCTION

The number of birds present in the Indian subcontinent are very high but very little is known about their breeding habits. The Indian house crow (*Corvus splendens splendens* Vieillot) is a confirmed commensal of man, almost an element of his social system (Ali and Ripley, 1971). The subject of nidification of crows have been accumulated from the works of Hume (1873, 1889), Dewar (1905), Ali (1926), Baker (1926, 1932), Rao (1936), Ali and Abdulali (1937), Sen (1947), Lamba (1963) in India. Some of the important aspects of nidification have also been noticed from the works of Lamm (1958) on the pied crow at Accra, Ghana; Emlen (1942) on the Western crows;



Fig 1. Represents the series of palm trees surrounding the pond in the village Nabalgram.



Fig 2. A protected nest of crow at the top of palm tree. The nest is oval in shape with two eggs.

Goodwin (1976) on crows of the world and Buttler *et al.*, (1984) on the North Western crows. Although many ornithologists and naturalists have described from time to time about some interesting topics like breeding seasons, situation and location of nests, measurement of nests and eggs, courtship, nest building pattern, incubation, etc., but these information are not sufficient to cover the whole aspects of reproduction. Considering the gap in information the present work has been undertaken to make a comparative survey of nests of the common Indian house crow in three villages of the district Hooghly, West Bengal.

MATERIALS AND METHODS

The present work was conducted on the variation of nest building pattern of the Indian house crow in some areas of West Bengal. During the time of field study, we happened to visit the three villages, e.g., Nabalgram, Nanipur and Sultangachha in the District Hooghly, West Bengal. The crow population of these three villages are enormous in number.

Study area

The three remote villages (i.e., Nabalgram, Nanipur and Sultangachha) are under the Police Station Polba, District: Hooghly, West Bengal. It is approximately 25 km. away from the Kalyani University Campus and 15 km. away from the river Ganges. The total number of households of these three villages are as follows: Nabalgram- 80; Nanipur- 70 and Sultangachha - 30. The nearest railway station is Mogra, which is about 6 km. away from these villages. The market complex is also 4- 5 km. away from this place. One bus route is present along one end of these villages. There is only one

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Fig 3. Series of coconut trees beside a pond in the village Nanipur.

common dumping ground for the dead animals. Vast agricultural fields are present where the crops are grown rotationally. Surrounding the agricultural fields there are numerous palm trees. In addition to the palm trees other trees which are quite common in these villages are coconut (*Cocos nucifera*), mango (*Mangifera indica*), babul (*Acacia nilotica*), tamarind (*Tamarindus indica*), banyan (*Ficus benghalensis*), margosa (*Azadirachta indica*), hogplum (*Spondias pinnata*), bamboo (*Bambusa spp.*), bael-fruit (*Aegle marmelos*) and siris (*Albizia lebeck*). The trees were identified according to Prain (1903) and Guha Bakshi (1984). These trees are present surrounding the households, on the village roadside and at the edge of the ponds adjacent to the houses. Amongst the various types of trees, the prevalence of palm tree is quite remarkable, especially in the Nabalgram village.

Field Method

We were previously informed about the presence of crows in these three villages. The crows are not present throughout the whole day, but only during evening hours when they come from various places and roost on the large palm trees. These crows usually commute a long distance across the river Ganges and surrounding areas. In the evening hours, their presence is usually felt by their harsh and loud voice.

During the time of survey work we took the help of some local people who could climb the tall palm and other trees. Every morning we went to the particular site and observed the types of trees used for the nest building process by the crows.

Nest Construction

Male and female individuals of a mated pair started nest construction at the end of March and within a week finished the construction process. On an average all the nests were completed by second week of April, in this particular region. The nests were mainly present on the palm trees. But in addition to the palm trees, they had also built their nests on some other trees present in these villages (Table 1). The percentage of nests in palm trees are higher than other trees (Table 2).

Nest construction materials

Depending on the availability of the materials, the time taken

for nest building varies. To give the nest a definite shape the crows usually use dry parts of the small branches of mango, guava, jackfruit and bamboo sticks, which are available nearby. With the help of these dry branches they usually give the nest an oval shape. The inner region of the nest is usually lined with some softer material like dry hay, grass and some fibrous soft parts of palm and coconut trees. The construction process in this region usually takes 8 - 10 days.

Egg laying

After construction of the nests, egg laying starts within a day or two. One to five eggs are normally laid at intervals of twenty four to forty eight hours. On an average, 3 eggs are found in the nests of these crows.

Size and colouration of eggs

Shape and size of the eggs were observed in all the nests. Eggs are oval with an elliptical outline. The size of the eggs varies from 3-4 cm (Table 3). Eggs are bluish green with some brown spots on them. No abnormal colouration of eggs was noticed within the nests of crow population in these villages.

Incubation period

Generally incubation period of these birds varies from 15- 18 days. In most of the cases, the female individuals spend maximum time for incubation. During the time of incubation one bird of the pair takes charge of the nest, while the other bird goes out for food. So, the interesting feature here is that the nest is usually never left unattended.

Reaction to foreign objects

During the time of incubation if someone disturbs them, they cannot tolerate and usually lose their self control. Crows of neighbouring nests come out and jointly attack the intruders with the help of their pointed beaks and sharp claws.

DISCUSSION

The distribution pattern of nests and breeding pattern of the Indian house crow (*Corvus splendens splendens* Vielliot) in three villages of District Hooghly, West Bengal, has been studied in the present survey. From the entire study it is revealed



Fig 4. A protected nest of the Indian house crow with completed clutch on the coconut tree.

Table 1. Common trees present in the three villages in Hooghly district, W.B.

Local Name	Common Name	Scientific Name	Family
Tal	Palm tree	<i>Borassus flabellifer</i> L.	Arecaceae
Narikel	Coconut tree	<i>Cocos nucifera</i> L.	Arecaceae
Neem	Margosa tree	<i>Azadirachta indica</i> A.Juss	Meliaceae
Babla	Babla	<i>Acacia nilotica</i> (L) Del.	Fabaceae
Tentul	Tamarind	<i>Tamarindus indica</i> L.	Fabaceae
Bot	Banyan	<i>Ficus benghalensis</i> L.	Moraceae
Aam	Mango	<i>Mangifera indica</i> L.	Anacardiaceae
Amra	Hog-plum	<i>Spondias pinnata</i> (L.F.)Kurz	Anacardiaceae
Bans	Bamboo	<i>Bambusa</i> spp.	Poaceae
Bel	Bael-fruit	<i>Aegle marmelos</i> (L) Corr.	Rutaceae
Siris	Siris	<i>Albizia lebbek</i> (L) Benth	Fabaceae

Table 2. Number and distribution of nests on various trees in three villages of Hooghly district, W.B.

Common Name of the tree	Nabalgram		Nanipur		Sultangachha		Location of nests on the tree
	No.	%	No.	%	No.	%	
Palm	46	62.16	22	62.86	6	60.0	Uppermost part
Coconut	9	12.16	6	17.14	nil	-----	Uppermost part
Margosa	1	1.35	nil	-----	2	20.0	Uppermost part
Babla	4	5.40	2	5.71	nil	-----	Middle and upper most part
Tamarind	6	8.10	nil	-----	2	20.00	Middle and upper most part
Banyan	3	4.05	nil	-----	nil	-----	Uppermost part
Mango	1	1.35	5	14.28	nil	-----	Upper and middle part
Hog plum	1	1.35	nil	-----	nil	-----	Uppermost part
Bamboo	1	1.35	nil	-----	nil	-----	Middle part
Bael-fruit	1	1.35	nil	-----	nil	-----	Uppermost part
Siris	1	1.35	nil	-----	nil	-----	Uppermost part

Table 3. Data concerning the various aspects of breeding biology of the Indian house crow in three villages of Hooghly district, W.B.

Common Name	Av. height of the nest (m.)	Number of eggs in each nest (Av.)	Number of nest in each tree	Other nests associated with the crow nest
Nabalgram				
Palm tree (46)*	8.84	3	one	nil
Margosa (1)	5.18	4	one	nil
Tamarind (6)	8.23	4	one	nil
Coconut (9)	7.62	3	one	nil
Babla (4)	5.79	3	two	pond heron, common myna
Banyan (3)	10.06	3	one	common myna
Mango (1)	5.48	4	one	nil
Siris (1)	9.14	4**	one	nil
Hog-plum (1)	5.79	4**	one	nil
Bamboo (1)	7.62	3**	one	nil
Bael-fruit (1)	7.62	2**	one	nil
Nanipur				
Palm tree (22)	8.53	3	one	nil
Coconut (6)	9.14	3	1- 2	nil
Mango (5)	5.48	3	1- 2	common myna
Babla (2)	6.40	4	one	nil
Sultangachha				
Palm tree (6)	9.14	4	one	nil
Tamarind (2)	8.53	4	two	common myna
Margosa (2)	6.40	3	one	nil

* Number of nests in various trees.

**Number of eggs in each nest.

that although there is a similarity in the geographic feature of these three villages, some differences can be noticed in the presence of nests on various trees (Table 2). Nests on the palm trees are quite higher than the other trees. Baker (1932, 1935), Ali and Ripley (1971) pointed out that mango trees are frequently selected by crows for nest construction although they have no special preferences. One important aspect that may be mentioned here is that the palm trees are mainly present within the agricultural fields and they are quite distant from the residential areas of the three villages. There is no nearby market complex or railway station. Only one common dumping ground is present beside the villages. The exact reason for nesting in this particular spot is not properly understood. These birds also roost in this particular site also. Ali and Ripley (1971) mentioned that crows actually like to stay at communal roosting sites. In these three villages there are no communal roosting places, however. It is assumed that the preference of roosting sites on the palm trees, especially in these areas may be due to minimum disturbance from the local people, wild animals, or some other physical features.

From the survey work another interesting point has come out that nests of crows are not only present on the palm trees but they are also found on various trees (Table 3) present in these villages. This feature is witnessed only in the Nabalgram village. But in the village Nanipur and Sultangachha the nests are not present in all the trees. Considering their prevalence on the palm trees, it seems that the crow population in this area are 50 times higher than the total number of palm trees are not sufficient to accommodate all the mated pairs for their nest construction. So they have shifted to other trees in the locality.

Any special preference (chemical communication) for the palm tree by the crows cannot be said with certainty. The crows may have preferred the palm trees only for their safety.

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