Black Kite Populations Are Suffering Declining Trends in Kurukshetra And Likely to Experience Further Depletion-An Analysis Of Causes

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ABSTRACT

Black Kite *Milvus migrans* was seen capturing and captivating everything nearby the offal and garbage sites in Kurukshetra environs until recent past. Today it has been observed that between 2000 and 2010, its depletion is speeding fast, although not noticed in the scientific and social world. The skies in late morning hours are empty. Garbage sites demonstrate the absence of criss-crossing flights of this Kite. The popular sites of the roosting in the shape of Peepal *Ficus religiosa*, Banyan *Ficus bengalensis* and Mango *Mangifera indica* trees have been cut down in the first place. In Kurukshetra, the prime reason for the depletion could be attributed to destruction of foraging grounds (Elimination of garbage dumping sites), cutting down of traditional roosting and nesting sites and construction of colonies in the nearby erstwhile agriculture fields. The contiguous agriculture fields are devoid of any traditional trees like Peepal, Mango and hence no roosting and nesting places. The soaring Kites in the high skies in the forenoon and afternoon sessions were more or less absent. So much so that huge Garbage sites at Panipat Railway compound had no Black Kites. Shockingly, it seems that like Vultures, Black Kites are on their way to elimination in Haryana.

Keywords: Black Kite, Roosting and Nesting sites' elimination, Kurukshetra, Haryana.

INTRODUCTION

While going to New Delhi by Road, one sees thousands of Black Kites at the point of garbage dumping of household waste towards the left side near Maqbara Chowk at Karnal by pass Chowk. The present studies have been inspired to know about Black Kite in context of Kurukshetra environs and hence this endeavour. Moreover, no one has ever studies this bird in Kurukshetra in particular and Haryana in general.

Black Kite *Milvus migrans* (Boddaert) is better known as Cheel. Its nearer species include Shikra *Milvus migrans*, Sparrow Hawk *Accipiter nisus*, Crested Goshawk *Accipiter trivirgatus* and Besra Sparrow Hawk *Accipiter virgatus*. Its other distant relatives are Grey-headed Fish Eagle *Ichthyophaga ichthyaetus*, Pallas’s Fish Eagle *Haliaeetus leucoryphus*, Black Eagle *Ictinaetus malayensis*, Lesser Spotted Eagle *Aquila pomarina*, Greater Spotted Eagle *Aquila clanga*, Hawk Eagle *Nisaetus cirrhatus* and Booted Hawk Eagle *Aquila pennata*.

Black Kite is one of the most popular raptor birds nearby human inhabitations. Garbage and offal-stuffed sits harbor these kites in large number alongwith 2-3 other birds like Common Crow *Corvus splendens*, Common Myna *Acridotheres tristis* and Bank Myna *Acridotheres gilginianus*. The present papers attempts to comprehend a time period of about 25 years between 1985-2012. In the late 1980s, its number was rather overshooting the environs and skies of Kurukshetra. However w. e. f. 2000s onwards a significant decline was observed. Today the situation is hinting towards the skyline empty of all soaring birds, whatsoever.

The common Black Kite is an accipitrid and is widely distributed in the old World [22]. Its plasticity to inhabitat varied habitats and depend on varied food is remarkable. It used to be copiously over populated in Kurukshetra in the 1980s and 1990s. Its innumerous number around Karnal-Turn in Delhi was exampling to demonstrate its mind boggling numbers. However, in the present
times it seems it is fast declining. The issue of decline of Black Kite populations seems to be quite old in global sense in Bosco-Fontona, near the city of Montana in Europe [2]. However; the apparent decline of populations has taken place w.e.f. 1995 onwards in Haryana. Today, the decline seems to be alarming as no more nests are sighted and no more gyrating groups of soaring Black Kites in the forenoon and afternoon sessions. The present studies, albeit, preliminary and pioneering one, yet only raising a sensitive and crucial issue of widespread damage being witnessed in context of Black Kite, once upon a time (Upto 1995s) very common, very abundant but today appear to be decimated to a pitiful level. If the largest populations of Black Kite nearby the present study area (outside the scope of paper) are said to be available in Delhi near Karnal round-about then similar huge populations in Italy are said to survive even today in Pre-Alps [22].

Black Kite in India has been studied by Desai and Malhotra [8] Verghese [25] and Malhotra [21] and Black Kite has been studied elsewhere by Oddi and Moltoni [20], Arroyo [1], Arroyo and Alarcón [3], Bustamante and Hiraldo [5-6], Veiga and Hiraldo [24], Blanco [4], Vinuela [26] and Sergio et.al [23]. Some work on various birds of Kurukshetra has been done by Gupta and Kaushik [10-14] and Gupta et al. [15-18]. Black kite spends maximum time in soaring and gliding in thermals, perhaps, in search of food. Tail is forked and wings are angled. Black Kite is available in temperate and tropical parts of India, Eurasia, parts of Australia, Oceania etc. Black Kite has several sub-species in the world. In India, it used to be available as Cosmopolitan in distribution and its skies. Its plumage is dark and is not rufous as is the case of Brahminy Kite. The upper plumage is a little brownish and neck and head paler. The feathers have cross bars and mottled at the base. Lower portion of body is pale brown. Bill is black. The claws are black. The reasons connected with the fast depletion of the Indian sub-species need to be investigated and hence the present paper.

**MATERIALS AND METHODS**

The unconscious mind certainly observes the surroundings and the memories reside as buffer information in the mind. This concept reveals the real story of depletion of Black Kite in Kurukshetra (Latitude 29°05’ to 30°01’ and Longitude 76°02’ to 77°00’). The study sites include observations at places like Dhaka Basti, Thanesar, Railway station, Harsh Ka Tilla, Ansal Sushant City, Ansal Harmans, villages Like Mathana, Sonti, Ladwa, Bani, Nandi, Bhoji, Lab-kai, Garh Pur, Gari Birbal, Indri, Bhadso, Umri, Shodi, Bodhi, Sirsama, Shadipur ladwa etc. Therefore the study sites include amalgamations of highways, villages, agriculture fields, towns, tree plantations within a periphery of 25 Kms. The observations are spread over a broad period of 25 years (1985-2012) in a casual manner yet actually noticing the bird in the context of its nesting, roosting, and foraging. The evidence has been converted into real photographs by seriously surveying the study area by singularly focusing attention on Black Kite. An intensive survey of the entire area has been done afresh during September to December, 2012.

**RESULTS AND DISCUSSION**

*Milvus migrans* govinda (Boddaert, 1783) belongs to order Falconiformes and family Accipitridae. Its sister species in the Indian sub-continent are Yellow-billed Kite (*Milvus aegyptius*), Red Kite *Milvus milvus* and Black shouldered Kite *Elanus caeruleus*. Its sister species in the other parts of the world are European Black Kite *Milvus migrans* migrans, Black-eared Kite *Milvus migrans* lineatus and Small Indian Kite (formerly Black Kite) *Milvus migrans* govinda.

It is an interesting bird in the sense that whereas other common birds like sparrows, partridges are facing depleted populations. It is surviving still in rather substantiated numbers. It is mostly observed in the high skies, scanning the ground below for its prey animals and other
items of food in the household wastage material dumping sites just near human inhabitations. At times, it can be seen perched on ground also where it suspiciously reaches out to food etc.

Table 1. Showing the various Roosting and Nesting Sites of Black Kite in Kurukshetra Environs between 1985-2012

| Sl. No | Name of Site | Name of Tree | Comments |
|--------|--------------|--------------|----------|
| 1      | Railway Station Guard Instruction Site | Peepal: *Ficus religiosa* | Removed under renovation: Now no Black Kites Roosting and Nesting |
| 2      | Eucalyptus plantations on Platform No.-1, towards Karnal | Eucalyptus plantations of Railway board | Harvested in 2007: No Nesting and Roosting Site |
| 3      | Huge Eucalyptus plantations on Ambala-Pehowa divergence of Railway Line | Eucalyptus plantations | Harvested in 2007: Nesting and Roosting Site |
| 4      | Rajeev Nagar (Dhaka Basti) illegal encroachment by BPL Parivars | Garbage site | Removed: Now Human settlement colony |
| 5      | Rajeev Nagar (Dhaka Basti) illegal encroachment by BPL Parivars | Mango Orchard | Removed: Now Human settlement colony |
| 6      | GT Road near Samani and Jhirbani villages towards Karnal | Peepal and Banyan Tree | Populations of Black Kites still survive |
| 7      | Nilokheri town garbage site near Railway track | Eucalyptus plantations | Populations of Black Kites still survive |
| 8      | Sirsama village near Pipli town | Peepal tree | Populations of Black Kites still survive |
| 9      | Rice mill in Mathana Town | Eucalyptus plantations | Populations of Black Kites still survive |
| 10     | Bir Sonti Reserve forest | Eucalyptus plantations | Populations of Black Kites still survive |
| 11     | Indri town garbage site | Garbage site’ Eucalyptus tree plantations | Populations of Black Kites still survive |
| 12     | Bodhi village on Kurukshetra-Indri Road | Mango Orchard | Populations of Black Kites still survive |
| 13     | Labkari-Gari Birbal village 12 Kms from Indri Town towards East | Eucalyptus Plantations | Populations of Black Kites still survive |
| 14     | Bhadso village 10 Kms from Pipli town | Eucalyptus and Peepal Tree | Populations of Black Kites still survive |
| 15     | Amin Village-A historical village | Eucalyptus and Peepal Tree | Populations of Black Kites still survive |
| 16     | Jyotisar Tirth-A historical town | Peepal and Banyan Tree, Eucalyptus plantations | Populations of Black Kites still survive |
| 17     | Nandi-Bhoji village 8-10 Kms from Ladwa town in Kurukshetra | Eucalyptus plantations | Populations of Black Kites still survive |
| 18     | Mirjapur village 3 Kms from Kurukshetra University | Eucalyptus plantations | Populations of Black Kites still survive |
| 19     | Bani village on the Ladwa-Hinori Road | Eucalyptus plantations | Populations of Black Kites still survive |
| 20     | Khera village on the Indri-Gari-Birbal road towards east | Eucalyptus plantations | Populations of Black Kites still survive |

It is, even in the wake of total elimination of vultures, seldom seen nearby carcasses of domestic cattle which are now attended on by cattle egrets and crows. *Milvus migrans* mostly roosts on Peepal and Old Mango trees. It generally nests in January and that too on the top of Peepal trees. All the nests were observed on the very top of Peepal trees. Moreover, these birds were observed incubating the clutch in January-February only. The nests are made of rough and tough twigs. Considering roosting and nesting habits, it is borne out from the present studies that *Milvus migrans* prefer Peepal trees only. It was observed to practice roosting in solitary or groups. Its decline has been fast w.e.f. 2000s. Its future is unsafe.

In Europe also, Black Kite has been marked out as a declining species [27]. The decline in Kurukshetra has been observed in the 2010s and is being substantiated by the present studies. It is evident from Figure 1 that Black Kite was approximately 1000 Kites in 1980s, then it persisted upto 1995 when it was available in abundance. However, it is also evident from
Figure 1 that decline started in 2000 and sharply continued downward during 2000-2005 to 2010-2012. Today i.e. in 2012, the decline is approximately 98% [5-6] have reported that Black Kite populations were stable in Western Europe between 1970-1990. The present studies hint that Black Kite populations were stable in Kurukshetra during 1980s to 1990s and decline is witnessed only after 2000s (Figure 1). It proves that decline of Black Kite started quite early in Europe in 1970-1990 [5]. Surprisingly, the present studies hint towards the fact that tremendous decline of Black Kite in Kurukshetra, India has set in w.e.f. 2005. Pesticide contamination has been reported to be one cause of Black Kites population decimation in Western Europe [19-20].

Perhaps the pesticide usage in agriculture during 1980s and 1990s has travelled to Haryana in 2000s to 2012 where agriculture practices are as intensive and modern as anywhere in Europe. Garcia Ferre and De Juan [9] have reported nest robbing as the cause for Black Kite downward populations trends. Compared to this, the present studies hint towards habitat destruction in Kurukshetra (Haryana) as one very crucial factor in the destruction of Black Kite populations. In a periphery of 30 Kms in and around Kurukshetra, the centuries old outskirts of Thanesar and Kurukshetra town have been overtaken by urbanization and colonization process and cutting down of Peepal trees. It is evident from Table-1 that Black Kite was seen roosting and nesting on very old mango trees’ very old orchard where today it is one of the most thickly populated colonies of the town. It is very difficult to point out the overall causes of decline of Black Kite populations in Kurukshetra, yet it is perhaps the decimation of its roosting and nesting sites. However, the causes need to be detailed out based on an extensive study of a large area including the adjoining states.

Amongst several causes, failure to secure a safe breeding place, failure of eggs to hatch, contaminated food at garbage sites may be the turning milestones in the debacle of Black kite populations in Kurukshetra. Given all, the present studies certainly and very explicitly seem to vouch for a massive decline in Black Kite populations in Kurukshetra w.e.f. 2005s till date i.e. 2012. Black Kite in Kurukshetra were virtually observed in a variety of places in various corners of Kurukshetra including stands of Eucalyptus trees near Platform No.1 in Railway Station complex, garbage sites at Rajiv Nagar, old Mango trees near Dhaka Basti, Old single and a bunch of 2-5 Peepal trees and even the top of water-tank. Similar observations have been reported by Sergio and Boto [22] in Italian Pre-Alps. Cliff nesting was absent in relation to the absence of cliffs in Kurukshetra. No serious focus was done on its feeding habits, yet it seem to prey upon rodents in the fields and Railway station alongwith on garbage sites and thus is an opportunistic feeder as reported by Delibes [7], Arroyo [1], Vinuela and Viega [28] and Blanco [4].

The harassment of Black Kite in the low borne skies was frequently observed and it was Common crow birds and even Common Myna. Black Kites were hardly seen in large numbers near Brahm-sarovar, which in a very big artificially maintained religious pond. However, here Black Kite was observed sharing mango trees as roosting site with Brahminy Kites. Black Kite was never observed preying upon fish in Brahm-sarovar complex. The future aim of the present studies is to incorporate pesticide-studies to establish some physiological debacle in this sensitive issue of Black Kite decimation to a level of 98%. Pollution of some kind interfering with breeding cycle may also be looked into on urgent basis. It seems that the fate of Black Kite in northern India is going to be on the track wherein Vultures have shipped into oblivion only 10 years back i.e. 2000 AD or so.

CONCLUSIONS

Resident race of Black Kite is encountered in Kurukshetra and it’s another race i.e. winter visitor could not be observed. It was seen in sky borne conditions at varying heights, flying and soaring, gliding in the skies in the forenoon sessions in late 1990s and early 2000s. The skyline was virtually dotted with Black Kites. Near human inhabitations, it was seen gliding and flying in very close vicinity of garbage heaps. In the afternoon the second bout in the skies was a repeat of the morning session. The eucalyptus tree Eucalyptus obliqua and popular Populus tremula are inadequate resting and nesting sites. Those few traditional trees still safe are supporting only nominal number of Black Kites. The situation needs to be investigated well in time to substitute conservation plans. As of now there is a possibility that Black Kite may go down...
the way of vultures in Haryana. Official dumping of domestic garbage has resulted in depleted foraging grounds. It seems that perpetuation of garbage dumping sites is conducive for the perpetuation of Black Kite. Causes of this sad demise of this beautiful bird are yet to be determined.

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