

Black-headed Ibis & White-throated Kingfisher feeding activities in open gutters and garbage dumping sites in Shyam Nagar (Kamrej), Surat, Gujarat

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Introduction

Black-headed ibis (*Threskiornis melanocephalus*), also known as the Oriental white ibis, Indian white ibis, and black-necked ibis. The Black-headed Ibis is one of several large waterbird species in south and southeast Asia. White-throated kingfisher (*Halcyon smyrnensis*), also known as the white-breasted kingfisher. The White-breasted Kingfisher is a common species found in plains and lower hills all over India. Black-headed ibis is categorized in "Schedule IV" under the Indian Wildlife Protection Act (1972), while as 'Near Threatened' by IUCN Red List" because of its decreasing population status in the last few decades (BirdLife International, 2016).

Observation & Results

Open gutters and garbage dumping sites are located at Shyam Nagar (21.263085°N, 72.948087°E), Kamrej, Surat. Open gutters and garbage dumping sites have a variety of anthropogenic disturbances like vehicle noise pollution, urbanization, Human interferences etc. Open gutters and garbage dumping sites are visited by Black-headed Ibis during their breeding season only,

so Black-headed Ibis are considered residential migratory birds in Surat (South Gujarat). White-throated kingfisher very common and permanent resident bird in Shyam Nagar, Kamrej, Surat.

Six pairs of Black-headed Ibis and 2 pairs of White-throated Kingfishers (Male & Female) are found feeding in Open gutters and garbage dumping sites. And other birds, such that Common Myna, Indian Pond Heron, Cattle Egret, Intermediate Egret, Rocky Pigeon, House Crow, Red-vented Bulbul, Indian Robin, House Sparrow, etc, are found in Open gutters and garbage dumping sites. The main factor in selecting Open gutters and garbage dumping sites was the best food availability.

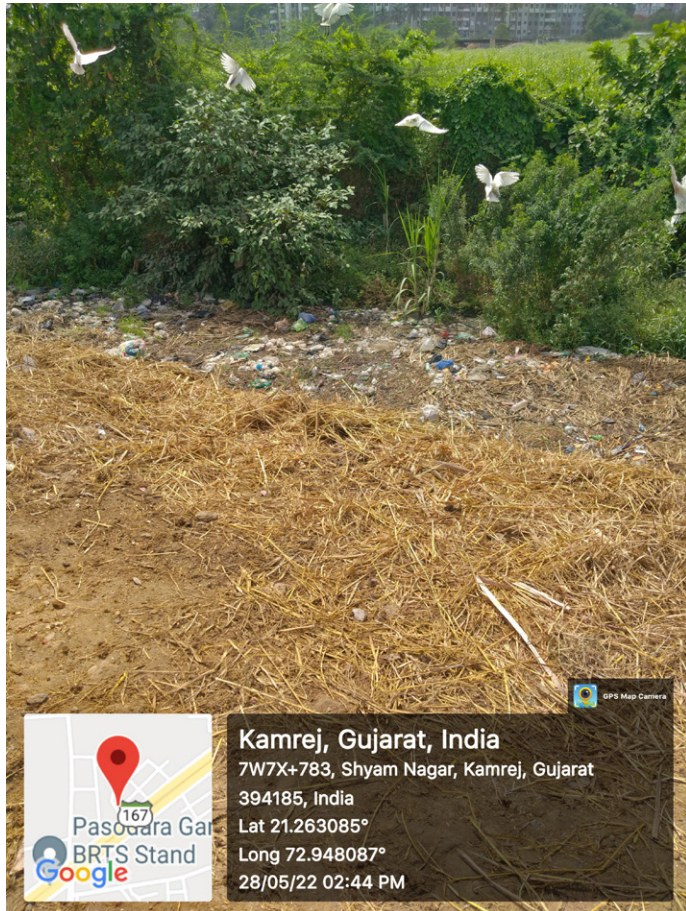
Black-headed Ibis: Black-headed Ibis choose a nesting site after carefully assessing the nearby foraging area. Black-headed ibis forages in a range of natural and man-made habitats. Microhabitat preference of black-headed ibis changed seasonally (Chaudhury & Koli 2018). Seasonal wetlands were the most preferred habitat, likely to provide optimal feeding ground in the form of the large marshy open area than perennial wetlands. Using sewage lines throughout all seasons may be because of high chironomid larvae and oligochaetes density, which is often close to vegetation or in moist soil in standing water (Frederick & Bildstein 1992; Safran *et al.* 2000; Sundar 2006). Seasonal water level variations in different habitats may cause variations in abundance, foraging, and diet of large waterbirds owing to changes in the availability of resources (Kushlan 1981; González 1997; Sundar 2006).

Therefore, few encounters in monsoon season may be due to high water availability throughout the area, which increases population dispersion. Grazing areas, sewage lines, and crop fields provided supporting habitats in monsoon when marshy open areas around wetlands become submerged. Municipal garbage, along with rotten vegetable matter and carcass also provided additional feeding sites for black-headed ibis in the study area (Chaudhury & Koli 2016).

White-throated Kingfisher: This bird is well known for its versatile food and feeding habits (Ali & Ripley 1983, Mukherjee, 1975). Large insects, fish, Earthworm (Yahya & Shahla 1991), Crab (Asokan *et al.* 2009), frogs, lizards, geckos, common skinks, young birds, and mice form a major part of their diet in India (Ali, 1996).

Black-headed Ibis....

The White-throated Kingfisher feed on various Arthropods, Amphibians, and Reptiles (Asokan *et al.* (2009). They benefit agriculturists by taking various insects such as grasshoppers, crickets, centipedes, mantises, scarabs and other beetles, ants, winged termites, locusts and dragonflies etc (Islam & Kamruzzaman 2008). Thus, they keep checking the populations of various insect pests of crops. So they are also known as insectivorous birds.



White-throated Kingfisher food consisted largely of insects and secondarily of fishes. Moreover, they mentioned that the food also consisted of frogs and lizards (*Mabuia* and *Calotes*, etc.), mice and birds like fledgling sparrows, adult white-eye and munias and red-wattled lapwing chick (Ali & Ripley 1983)

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