



## Why common bird goes uncommon: The house sparrow

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### Abstract

All plant and animal species are equally important component for the existence for others and directly or indirectly contribute in constructing their food chain and food web, and if the bird which has played a great role to build our own childhood memory which makes us nostalgic, so if they are declining in population it is matter of huge concern. Yes we are talking about our own courtyard sparrow: The House Sparrow. This has not happened all of a sudden due to any industrial catastrophe or natural calamity, but its due to our own blinded race towards development at the cost of our own environment existence, due which all living creature are in stake, house sparrow is just a small creature which is being noticed from last 10 to 15 years only; and needs much more government as well as community attention.

**Keywords:** endangered avian species, house sparrow, courtyard sparrow, mobile tower radiation, reduced nesting space, urban development, population migration

### Introduction: Background

The House sparrow and its subspecies are worldwide in their distribution, except in the Polar Regions. Sparrows have had a symbiotic relationship with humans for the past 10,000 years<sup>[1]</sup>. Sparrow is a social bird whose scientific name is *Passer domesticus*. Sparrows get many of us nostalgic. When we watched Ek Chidiya Anek Chidiya - a popular animation film that told the metaphorical story of how a united flock escaped a birdcatcher - on Doordarshan National Television of Indian Government in the 1980s, we loved to relate to those birds as sparrows. So common and so sociable, the chirpy ones were part of our childhood in Delhi<sup>[2]</sup>. In India's capital New Delhi, sparrow has been declared as 'State Bird' in 1992. The house sparrow is also the 'State Bird' for the State of Bihar in eastern India<sup>[3]</sup>. On 14th August 2012; Sparrow was again re-declared the state bird of Delhi. Sparrow is getting extinct due to lack of natural habitat in Delhi. According to one figure, 70 percent of city population has decreased while 50 percent of the population has decreased from the villages. Sparrow occurrence is lower in cities compared to towns and villages, and this is again consistent in different parts of the country. Still, there is a large variation in the occurrence of sparrows from city to city. For example, sparrows are reported to be widespread in Mumbai and Coimbatore, but are missing in most localities in Bengaluru and Chennai, while Delhi is intermediate<sup>[4]</sup>. The United Nation (UN) observes, 20<sup>th</sup> March every year as the 'World Sparrow Day' signifying the global importance of this species.

### Classification

Common Name	-	House sparrow
Local Name	-	Goraya
Zoological Name	-	<i>Passer domesticus</i>
Kingdom	-	Animalia

Phylum	-	Chordata
Class	-	Aves
Order	-	Passeriformes
Family	-	Passeridae
Genus	-	<i>Passer</i>

Conservational Status – Schedule – IV, according to wildlife (Protection) act, 1972 and classified as Least Concern (LC) by the IUCN<sup>[5]</sup>.

### The importance of the house sparrow to mankind

House sparrow is important for both environment and mankind.

It contributes in several food-chains constructing food-webs; Preys on insects, avoiding its attack on other plants. Form a major part of the food chain for other birds like magpies. Help in studying general biological problems, such as evolutionary mechanisms, temperature metabolism and pest control. House Sparrow, as is evident from the name, was originally a part of every home. It is part of the culture of many religions. Acts as a green living component in a home by using our waste like cotton pieces, paper, left out food grains, and others<sup>[6]</sup>

### Reasons for declining population of house sparrow

Decreasing number of Sparrow in recent times has been detected by research for the following main reasons:-

1. The real estate boom in cities of India has been transforming several old localities into high value concrete jungles. This ultimately leads the unfortunate sparrows in losing their potential safe nesting and breeding sites. Felling of several old trees for the construction of highly modernized, scenic and well lighted boulevards and avenues further reduces potential nesting sites for these smaller birds<sup>[3]</sup>.
2. High population pressure in cities with dense crowded

residential, no green stretches, it results in lessening breeding opportunities for several erstwhile city wildlife and avian populations including the helpless and hapless house sparrows. Naturally their numbers started falling over the past decades. Moreover, lack of safe nesting sites exposes these tiny birds and their chicks to several predators including cats, crows, raptors, snakes and humans.

3. Avian and Seasonal Diseases; Lack of flying spaces; Shortage of nesting spaces in urban areas.
4. Predation, especially by Eurasian Sparrow hawks & carnivorous animals.
5. Inadequate presence of insect food for nestling sparrows also declining insect populations.
6. Change in agricultural practices; Very high use of pesticides, weedicides & insecticides in agriculture. Feeding on cereals which are grown with aforesaid mentioned kind of practices & excessive use of inorganic chemical fertilizers.
7. Electromagnetic radiation coming out through various mobile towers, devices emitting radiations<sup>[7, 12]</sup>.
8. Vehicular & industrial - air & noise pollution also contribute in declining avian population including Sparrows.
9. Sparrows may not become extinct, but being resilient, they may migrate to safer zones, feed at public granaries, market places, ports and rail stations, nest at nearby sites and adapt to stabilise their population.
10. Poaching for its commercial usage including to serve as food for zoo animals and as aphrodisiac drug for humans.

**Conservation status**

*Passer domesticus* is protected under wildlife protection act 1972 in India while this species listed as threatened species in IUCN Red Data Book. Concern is being expressed on the declining number of sparrow in the country and the need for

protection is being felt. Sparrow protection campaign is being organized in collaboration with citizens in the joint program of Bombay natural history and Ministry of Environment and Forest<sup>[8]</sup>.

According to an article printed in veterinary world journal 2010, the widely used petroleum product and insecticide is the main cause in reduction of sparrow population<sup>[9]</sup>. BBC news reported in year 2008 that sparrow species ending very fast in England and Netherlands with whole Europe. Mohd Dilabar, the winner of environment time magazine 2008 and founder president of Nature For Ever (NFS), tried to conserve sparrow by putting nest shape wooden boxes in plants; which was quite appreciable. Raghvendra Rao, the WWF officer studding by program of field study of house sparrow from year 1988 in Mysuru urban area.<sup>10, 11</sup> Population of sparrow is also declining very fast in Central Indian Cities but it can easily be watched in small towns and villages; however none of the study conducted in this area and never tried to conserve the species.

**Folktales**

Sparrow is a social bird and lived in the Indian community by becoming a part of the human family. It has great importance in Indian culture and civilization. According to a story, a daughter-in-law talk about her sadness with sparrow in the courtyard of the house and the sparrow becomes her friend after hearing her sorrow and sends a message to call her in maternal house. In another folk tale, grandmother encouraged her grandchildren to call the sparrow for feeding them grains in the courtyard and encourage children have to eat food, and in a short time the children eat all the foods while jumping with the sparrow. But in the present environment there is no courtyard in house, neither the family base between the grandmother and grandsons nor the sparrow in the courtyard of the house.



**Fig 1:** (i). Female (ii). Male (iii). Eggs in nest of House sparrow

**Conclusion**

A house sparrow is associated with human habitation. Being very sensitive to changes in the environment, it is one of the most preferred indicator species of urban ecosystems. A stable house sparrow population indicates a healthy ecosystem for human beings in terms of air and water quality, vegetation and other parameters of habitat quality. Whereas, a declining

population of the bird provides a warning that the urban ecosystem is experiencing some environmental changes unsuitable for human health in the immediate future. Given that house sparrows are perhaps the first wild birds to be closely associated with human settlements; their declining populations may have a lot to convey about the quality of urban environment, something that we need to know. It is now

time for a serious nationwide comprehensive survey to evaluate the true status of the species so that appropriate measures could be adopted for the successful conservation of this declining species. The United Nation (UN) observes, 20<sup>th</sup> March every year as the 'World Sparrow Day' signifying the global importance of this species. On this note, we are only speculating the possible decline, although not conclusive at this point of time. The measures which could be adopted for conservation are so general in approach and doesn't require any state of art technology involvement; improving the condition of our environment by reducing all kind of pollution respectively will certainly help.

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