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COVER STORY

# A House for the House Sparrow

*The House sparrow is disappearing from many of our cities and towns. We can resurrect their numbers by simple steps like providing alternative nesting sites for these little chirping birds.*

**T**HE gentle chirruping of the small bird is slowly vanishing. As the House sparrow loses its living space to other aggressive birds and also to humans, it is disappearing in large parts of the world. In the last few years the bird has gone completely missing from most urban neighbourhoods.

As humans settled down to agriculture and set up permanent settlements, the House sparrow was

among the first animals to develop a close association with humans. This led it to being given the name *Passer domesticus*. The House sparrow is also commonly known as *Gauriya*.

Unfortunately, the species has been declining since the early 1980s in several parts of the world. There has also been noticeable decline in the number of House sparrows in several parts of India particularly across Bangalore, Mumbai, Hyderabad, Punjab, Haryana, West Bengal, Delhi and other cities. Several

surveys conducted by ornithologists and researchers suggest that the dramatic decline in population of the sparrow is an unfortunate reality.

Scientists and researchers suggest several causes responsible for the diminishing population like unavailability of nesting space, decrease in food availability, changes in human lifestyle, pollution, electromagnetic radiation from mobile phone towers (obsolete theory now) and diseases. However, the foremost reason seems to

House sparrow is a symbiotic bird species closely associated with humans





Male House Sparrow



Female House Sparrow

*We must succeed in bringing back the House sparrows in our lives, so that the future generation can also enjoy the pleasure of watching these small and chirping little birds in their homes.*

be declining nesting sites in urban and suburban regions.

Recently, however, there has been an elevated interest in avifauna and its conservation. Therefore, strategies and efforts for their conservation are being implemented throughout the country. Being a cavity bird, installation of nest boxes may be an effective attempt to increase the vanishing population of the House sparrow.

### House Sparrows

The Gouraiya or the House sparrow is a little, stocky song bird with thick bill, short leg, measuring about 14-16 cm, weight 26-32 gram and having a wing span of 19-25 cm. The sexes are dimorphic, that is, the males and females look different.

The male is warm brown above, with a grey crown and nape. It has grey cheeks and grey under parts with black round eyes. The female is somewhat featherless with a grey brown crown, a pale, buff supercilium, and an unmarked throat and breast. Juveniles are similar to the adult female.

House sparrows have a life span of 3 to 13 years. They prefer thatched houses, bungalows and concrete structures to build their nests. In suitable areas, they often form loose colonies, typically of 10-20 pairs.

The sparrow generally relies on animal food (insects), and plant foods (seeds, grains, nuts and fruits). It is primarily a seed-eater and sometimes supplements its diet with insects. In rural areas sparrows feed on the seeds of cultivated grain crops such as oats, wheat, barley, corn, and maize.

But the House sparrow is also helpful in eradicating harmful insects. It feeds its chicks on the larvae of the alfalfa weevil and cut-worms, both of which are destructive to alfalfa crops. They also prey on grasshoppers, mosquitoes and larvae of several harmful insects.

Dust bathing is a very significant behavior of the House sparrow. It takes dust baths even when water is available. House sparrows prefer very fine dust and will flap up a storm when they find a patch of it. By digging a hole with their feet, they push their bellies into the dust. The main reason for dust bathing may be for making the skin smooth and to remove feather parasites. The dust also absorbs excess oil that is then removed as the dust is preened away.

### Global Decline

During recent decades, there has been a marked global decline of the House sparrow populations especially in the United Kingdom and in several western European countries. In England, the

## HOUSE SPARROWS OF THE WORLD

- Arabian Golden sparrow
- Chestnut sparrow
- Saxaul sparrow
- House sparrow
- Sind sparrow
- Plain-backed sparrow
- Dead Sea sparrow
- Lago sparrow
- Great sparrow
- Kenya sparrow
- Shelley's sparrow
- Socotra sparrow
- Cape sparrow
- Northern Grey-headed sparrow
- Swainson's sparrow
- Desert sparrow
- Eurasian Tree sparrow
- Sudan Golden sparrow
- Southern Grey-headed sparrow
- Spanish sparrow
- Russet sparrow
- Somali sparrow
- Parrot-billed sparrow
- Swahili sparrow

populations in rural areas have declined by 47% since the mid 1970s, whereas those in urban and suburban areas have declined by about 60%. High reduction of sparrow population in London (60%), Glasgow (99%) and Hamburg (77%) has led to its inclusion on the UK Conservation Red List.



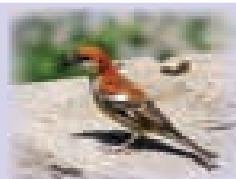


In Europe, trends since 1980 show that populations have undergone a moderate decline, based on provisional data for 21 countries from the Pan-European Common Bird Monitoring Scheme (Bird Life International, 2011).

In Germany, it is classified as near threatened due to the large scale local declines. However, Bird Life International (2011) listed House sparrow as a Least Concern species as it has an extremely large range and population size.

House sparrows feeding on insects and leftover household food

House sparrows taking dust bath (left) and water bath (right)

## HOUSE SPARROWS OF INDIA

Name	Description	Photo	Distribution	Abundance Code
<i>Passer hispaniolensis</i> (Spanish sparrow)	16 cm, a chestnut and black sparrow with a stout bill. Sexes are dimorphic.		Erratic winter visitor to plains of Northwest India mainly east to Haryana and south to Rajasthan. Vagrant in Uttar Pradesh.	Uncommon
<i>Passer pyrrhonotus</i> (Sind sparrow)	12 cm, slim, brown and grey sparrow with neat, rectangular black bib. Sexes are dimorphic.		Local breeding resident. Restricted to areas of Punjab and Haryana.	Uncommon
<i>Passer rutilans</i> (Russet sparrow)	15 cm, a bright chestnut sparrow with usually yellowish-buff underparts. Sexes are dimorphic.		Locally common breeding resident in northern mountains from north Pakistan to east Myanmar.	Fairly common
<i>Passer montanus</i> (Eurasian Tree sparrow)	14 cm, a brown and buff sparrow with a rounded, chest-nut crown. Sexes alike.		Locally common breeding resident in Uttaranchal.	Fairly common
<i>Passer domesticus</i> (House sparrow)	15 cm, brown and grey sparrow with stout bill. Sexes are dimorphic.		Common breeding resident throughout plains and foothills. Rare in parts of the Northwest and the Northeast.	Common

**Scenario in India**

According to an ornithological survey conducted by the Indian Council of Agricultural Research (ICAR), the sparrow population in Andhra Pradesh alone has dropped by 80% and in other states like Kerala, Gujarat and Rajasthan it has fallen by 20%, while the turn down in coastal areas was as sharp as 70% to 80%.

In recent years, ornithologists have observed sharp decline in House sparrow populations across India in Uttar Pradesh, West Bengal, Punjab, Rajasthan, Delhi, Haryana, Bangalore,

Mumbai, and Hyderabad. In parts of Thiruvananthapuram (Kerala), for instance, where volunteers had noticed small flocks of six to eight sparrows till 1998, they had disappeared without a trace by 2003. In Lucknow (Uttar Pradesh) recent surveys reveal the complete absence of House sparrows in several sites since 2013.

**Threats to House Sparrows**

Among the many threats counted as reasons for global decline in House sparrow populations are changing

lifestyles of humans, unavailability of nesting sites, and threat from predators.

The breeding season starts in March and runs through to August. In some cases chicks have been reported in the month of September also. House sparrows are generally regarded as monogamous although extra pair paternity can vary from population to population.

Natural nesting sites of House sparrows include spaces available within man-made buildings. They nest in any space be it a ceiling fan holder, tube-light holders, crevices of houses, blocked/unused pipe holes, thatches or electricity meters. But House sparrows never use shrubs or trees for nesting.

Bushy plants are always used for roosting by House sparrow usually in large flocks. The nest is constructed by using different materials like straw, twigs, paper, leaves, grasses, fabric, etc., making an altogether untidy structure. It is lined with fine hair, wool and feathers. But

The bushy plants are always used for roosting by House sparrow usually in large flocks





The breeding season of House sparrows starts in March

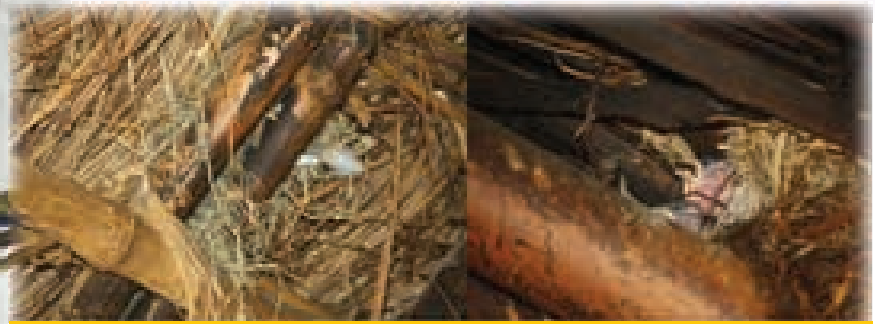
now there is competition for nesting sites among the doves, Rock chats, bulbuls and House sparrows. Their chicks are also attacked by predators such as crows, shikra, and black kites in cases where the nests are exposed. Some chicks even die after falling from the nests. Sparrow nests in thatch are often destroyed by cats.

With changing lifestyles the availability of nesting sites is reducing for these little chirping birds. Ventilators, which used to be there in all the houses about 12-15 years back, are going out of fashion. The increasing inclination towards comfort is leading to the use of ACs in almost every house, office and even schools. When ACs are used the doors and windows are to be closed, thus forbidding the entry of House sparrows.

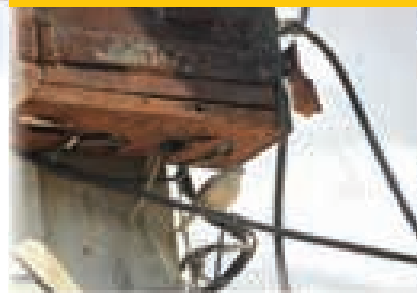
Modern designs and house plans do not leave any crevices or space even outside the buildings that can be used for nesting by the sparrows. Individual and housing societies also use several methods to keep away the birds such as spikes, nets and other bird pest management techniques. With modernization, humans have forgotten to live in harmony with other living creatures that were once closely associated with them.

**Artificial Nest Boxes**

In recent years, artificial nest boxes have been promoted in houses and gardens to provide a safe and secure place for the House sparrows to build their nest and lay eggs. Artificial nest boxes are fast becoming a familiar sight in many houses and gardens. These boxes have proved extremely valuable for the house sparrows because they provide alternative nesting site for them. It is also a great pleasure for bird lovers to watch this little active bird utilising the artificial nest boxes to raise its young ones safely and successfully.



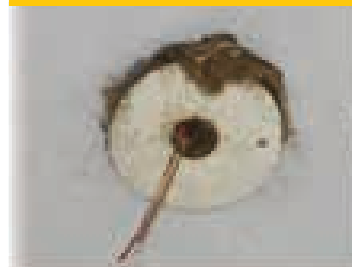
Nests in roof thatch



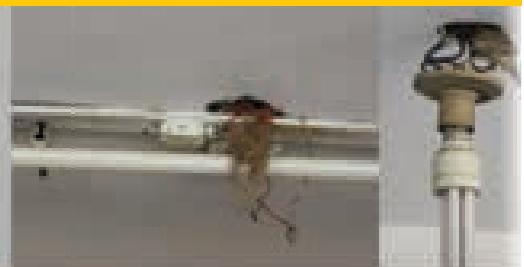
Nest in electricity meter



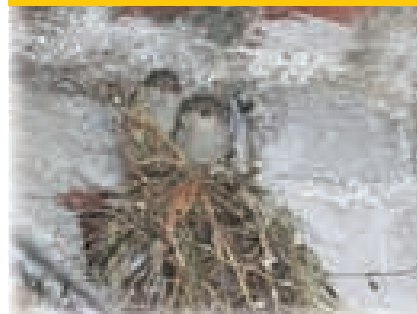
Nest in street light



Nest in fan holder



Nest in tubelight holder



Nest in wall crevices

The artificial nest boxes are being designed and constructed by various innovative means.

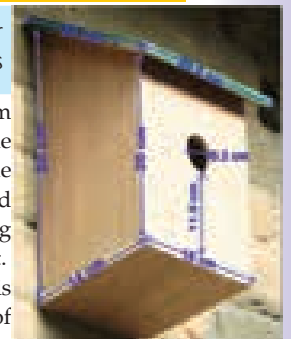
**Wooden nest boxes:** The wooden boxes are constructed using water-proof plywood with scientific measurements. Other material such as saw dust ply or cardboards can also be used.

Normally, the height of the box is 20 cm and width 16 cm. An entrance hole of 3.2 cm is kept to assure nesting of only House sparrows. The hole of the entrance is at a height of 9.2 cm from the base of the box. Ventilation slits are also made in

Wooden nest boxes as per specific measurements

the boxes to keep them airy and dry. At the bottom, a drainage hole helps in removing and cleaning the broken egg materials from the nest.

No painting is done except the top of the boxes to give them a natural look. The roof of the nest box is painted with green colour to protect from water and dew. There can be provision for







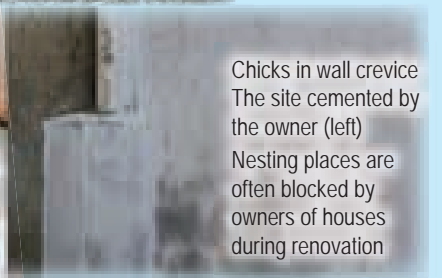
House sparrow in a crevice in a building



Competition for nesting space with other birds; Laughing dove (left) and Red-vented bulbul (right)



A chick falls from a nest (extreme left)  
Nest in thatch destroyed by cat (left)



Chicks in wall crevice  
The site cemented by the owner (left)  
Nesting places are often blocked by owners of houses during renovation

- The boxes should be fixed at an average height of 6-24 feet.
- The nest boxes should be fixed under shaded portion of the house to prevent direct rainfall, dew and sunlight.
- Ensure the box does not move too much in windy and stormy weather. The boxes should be fixed such that they are supported by the wall. This reduces the free movement of the nest box when approached by the nesting birds.
- The nest boxes should never be installed on trees as they are always associated with humans and construct nests in man-made buildings.

the House sparrows to sit by providing a platform to the nest box.

**Shoe box as sparrow nests:** Unused shoe boxes that people generally throw away can also be used for the sparrow nest. Shoe boxes having length of 27 cm, width 14.5 cm and height 9 cm have been used on experimental basis by the Biodiversity and Wildlife Conservation Lab, University of Lucknow, Lucknow.

The size of the entrance hole should be the same as in the wooden nest box i.e. 3.2 cm, to avoid nest occupancy by other birds. The shoe boxes are wrapped in brown colour waterproof sealing tape to give it a natural look as well as to increase the durability of the boxes.

**Earthen pot as nest boxes:** Small earthen pots with diameter of 13 cm and depth of 13 cm can also be used for the

purpose. The entrance hole of the earthen pot measures 8.5 cm. The earthen pots are used as it is without applying any paint. Earthen pots as nest boxes are also available commercially.

### Installing Nest Boxes

- Location of nest boxes should be safe so that they cannot be approached by predators.
- The assembling and the nailing should be done systematically to provide strength.
- Installation should be done with proper drilling and heavy nail with holder.
- Nest box should be tied up with metallic wires so that it does not get removed from its fixed place due to small jerks, ensuring safety from attack of predators.

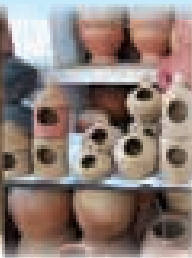
### Conservation Strategies

House sparrows are opportunists and are able to live wherever there are suitable nesting sites, roosting sites and enough food availability. The recent decline of the House sparrow (*Passer domesticus*) in India is widely as well as timely recognized. Therefore, strategies and efforts for their conservation are being implemented throughout the country to put a halt to the dwindling population before urbanisation leads them to the category of the Critically Endangered.

In India, the Nature Forever Society (NFS), started by Mr Mohammed Dilawar, has been working for the conservation of House sparrows and other common flora and fauna since 2006. It has spearheaded programmes and projects that are making a visible difference to sparrow populations in cities. Some of the initiatives started by the Nature Forever Society are "Common Bird Monitoring of India", "World Sparrow Day", "Project Save Our Sparrows", "Nature Forever Society Sparrow Awards" and "Adopt a Feeder and Nest Program", among others.

The Biodiversity and Wildlife Conservation Lab in the Department of Zoology, University of Lucknow together with the Uttar Pradesh State Biodiversity Board has also embarked upon sparrow conservation efforts through

Shoe box as nest box (below) and small earthen pot as nest box





Artificial nest box installation



House sparrow nest boxes presented as Memento during various awareness events (above left) and distributed to the local public free of cost (above right)



House sparrows loving the new alternative abodes

programmes such as Adopt a Feeder and Nest Box, Sparrow Census, and awareness programmes and workshops in Uttar Pradesh. Effort is made to involve students through various events during Wildlife Week and World Sparrow Day.

Besides various competitions for students, the volunteers are also asked to spot sparrows in their vicinity and create

awareness by distributing flyers, pamphlets, posters and calendars on sparrows among the local people. Artificial Nest boxes are being promoted by presenting them as Mementos to dignitaries in various awareness programmes. They are also provided being provided to the local people free of cost.

On 15 August 2012, the then Chief Minister of Delhi Ms Sheila Dikshit declared sparrow as the "State Bird of Delhi". This declaration was part of "Rise for the Sparrows" - India's largest conservation programme for sparrows. On 9 January 2013, Bihar Chief Minister Mr Nitish Kumar also announced the sparrow as the State Bird of Bihar.

The Nature Forever Society celebrated the first World Sparrow Day in India on 20th March 2009. The idea was to convey the message of conservation of the House sparrow and other common birds and also mark a day of celebration

*Don't let them fall*

## "HELP SPARROWS LIVE WHERE YOU LIVE"



to appreciate the beauty of biodiversity which we take so much for granted. The World Sparrow Day attempts to bring sparrow lovers and nature supporters on a common platform, and start a conservation movement to save the common flora and fauna of the world.

Wherever possible people should try to provide an alternative nesting site for the House sparrows. In this manner, perhaps, we may succeed in bringing back the House sparrows in our lives, so that the future generation can also enjoy the pleasure of watching these small and chirping little birds in their homes.

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