

House Sparrow (*Passer domesticus*): on the brink of extinction

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The house sparrow (*Passer domesticus*) is one of the most familiar bird because of its tendency to live in close association with human. It has even been mentioned in some of our Mythologies and Folklores. It was once a very common bird that is well known for its cheeping and chirruping all around our houses. In South India people believed it to be a good omen, if a house sparrow built a nest inside the house the people. There was a close bond between man and sparrow that it was named as a domestic species and hence the name *Passer domesticus*. It has proved to be adaptable to most situations like nest sites, food and shelter along with the humans which means they rarely hide from humans and has evolved with them and is always found in and around human habitations.

Passer domesticus is a small brown and grey bird. The male house sparrow have gray heads, white cheeks and a black bib and eye mask plus a chocolate hood which is divided in half by a broad grey band running from beak to the nape of its neck. The female are a plain creamy-brown with gray-brown underpants. Their backs are striped with cream, black and brown. They have a length of 14 cm, weighs 34g with a wing span of 24 cm. House sparrow's behavior is quite noisy, constantly chirping and have raucous fights in the nest. They are social birds and flock together in search of food and may cover a range of 1.5 to 2 miles. It mainly nest in cracks, buildings, roofs, climber on walls or in trees etc. House sparrow eat seeds in winter and insects in summer. Even feed on food scraps put out in gardens. Nestling fed on aphids, caterpillars, weevils and grasshoppers. They form colonies of around 10-20 pairs. They are usually faithful to a breeding area, with nesting, roosting and foraging all taking place within a small area and produce two to four broods per year.

Current Status

The house sparrow which used to be very common in both urban and agricultural areas have been in decline in many parts of the world and the reasons for their declining population is still not very clear. A recent survey in Europe reported that the population of sparrows in major cities had declined by 50%. In London, 90% decline was observed. The south and east of England have been affected most by the decline. As a result of this, the house sparrow is now red listed in UK Birds of conservation concern. In India also once sparrows used to be found in great abundance but now they are on the verge of extinction. The decline of house sparrow seems to be an global phenomenon. The decline is visible in countries where they have a statistical data on the declining rate and because of which it is red listed and considered as a species of high conservation concern but in India, there is no statistical data on house sparrows. No systematic population surveys of house sparrows have ever been done.

Current Threats

Reduce food supplies- They were dependent on left over grains thrown by people after cleaning their grains. But now with time everyone is getting pre-cleaned grains from the stores. They also feed on aphids. Aphids are reduced due to habitat destruction, by toxic chemicals contained in lead-free petrol. Similarly caterpillars have been declined



because of changes in gardening methods, use of insecticides, herbicides etc. Also the car fumes result in a reduction in invertebrate populations which is the food of house sparrows.

Reduction in nest sites- Nest sites have been reduced due to renovation of buildings especially roofs but house sparrows always build nest in tilted houses under the rafters, and in some holes at the roofs. They also build nests in hanging lampshades, wall clocks, behind photo frames on walls. But now there is no tilted houses with rafters i.e. they are deprived of nesting places in the urban developed areas.

Diseases- Some parasite such as *Salmonella* and *Trichomonosis* have been reported to cause a disease in house sparrow.

Predation- some predators have been cited as affecting house sparrow such as Sparrowhawks, domestic cats and magpies.

Current Actions

Earlier the conservation of house sparrow did not arise but now they are rescued with special efforts. In India people are now providing shelter to them by making artificial nests for them like wooden boxes on trees, waste cardboard boxes to them on the roof of their houses and walls or within their housing complex. Now campaigns and events to adopt nest boxes are launched in India. To mark the importance of sparrows as an indicator of healthy ecosystem for human beings the Chief Minister of Delhi declared sparrow as a State Bird Of Delhi in 2012. That declaration was a part of conservation programme named "Rise for the sparrows" which aims to save the species and create awareness about their life, ecology and management.

Future Actions

In order to save the house sparrow from the verge of being extinct several initiatives has to be taken at all the levels- individual level, community level, state as well as at

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national level. Apart from the reduction in food and nesting sites there could also be some other factors which might have had a effect on the population of house sparrow like automobiles pollution which have had a residual effect on the eggs of sparrows making them thin shelled, higher noise pollution also caused a disturbance to them, pollution caused by microwave towers, replacement of native plants by exotic varieties etc.

The most encouraging thing is one that we can still find them in some rural areas and in some urban belts where the environmental conditions are still meeting their basic requirements. Therefore the attitude of people towards conservation has to be changed who considered that only few animals like tigers, elephants etc need to be conserved. Those people should be aware about the importance of house sparrows and their conservation by wildlife act of India. In order to conserve this species a lot of research work should also be done in India because there is very little research done on the common birds.

As currently there is no National House Sparrow Action plan to conserve house sparrow and little survey information is available therefore the following things should be done on the priority bases-

- With the help of field surveys the knowledge about its distribution and population should be gathered
- Investigate about its habitat, ecology, food and feeding patterns especially during its nesting season.
- Conservation based awareness programmes, projects, seminars, workshops, training courses should be done.
- Data and information related to house sparrow should be documented in various forms: survey forms, on internet, in printed form (books, newspapers) etc.
- So we need to apply more innovative and conservation strategies for our house sparrows. Therefore, by adopting these initiatives we can easily bring back the house sparrows in our lives. So that our future generation can also enjoy the pleasure of watching these small and chirping guests in our homes.

Report on Rescue, Treatment and Release of Common Leopard (*Panthera pardus*)

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A Common leopard (*Panthera pardus*) aged about 2 yrs was found lying on the ground in the forest area of Teesta Valley Range, Darjeeling on 17.03.2012 by the patrolling team of Wildlife Division I, Forest Department, Darjeeling. The animal was found injured in the head region and it was immediately rescued and brought to the Veterinary hospital of Padmaja Naidu Himalayan Zoological Park around 1:30 p.m.

During examination the animal had multiple head injury and the animal seemed blind. The body temperature of the animal recorded was 37.7°C after which it was kept in the in-patient ward followed by treatment with the following antibiotics:

1. Inj. Tazo 1 gm (Im/ly)
2. Inj. Melonex 3 ml (Im/ly)
3. Inj. Curadex 2 ml (Im/ly)
4. Inj. Trineurosol H 5 ml (Im/ly)

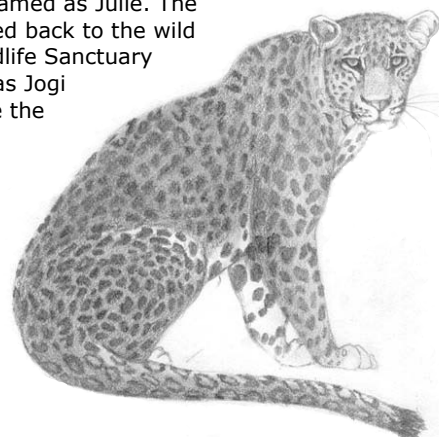
The external wounds was washed and treated with Betadin and Neosporin powder. The animal was fed with ½ kg of chicken in the evening

On observation the next day the animal had taken its feed. The same line of treatment was continued for five days (18.03.2012-21.03.2012) during which the animal recovered well including its wounds was seen healing up. No feed rejection was observed except on 18.03.2012 where it was seen that the animal had rejected 100 gms of chicken out of 1 kg. Further the animal was observed to be taking its feed well and was behaviourally sound. The most important observation was that the animal's eyesight showed marked improved.

On 24.03.2012, 2 Tab Neurobion was given which was continued for a week followed with 10 ml of Vimerol for six days. On 12.04.2012 the animal was also vaccinated with

1ml Felovac PCT 1 ml (Im/ly). The animal was kept in the park for a period of one month.

The animal was tranquilised for shifting in the animal enclosure after the quarantine period got over; 3 ml of ketamil (Im/ly) and 1 ml of Xylazine (Im/ly) was used to sedate the animal at 2:45 p.m. After complete sedation at 2:55 p.m. 5 ml of blood was drawn out for further examination. Immediately after shifting the animal to its enclosure 1 ml of Reversine (Iv/ly) was administered to the animal. Animal regained consciousness at 3:15 p.m. The animal was led out in the enclosure every morning following different forms of enrichment. The animal was playful and ate its feed well, however on the morning of 28.04.2012 one of its keeper noticed Leechs inside the animal's nose on both its side. The animal was physically restrained and a total of fourteen leeches were taken out in an hour. The leeches were later identified as *Hirudinaria* sp. The animal was kept in the zoo premises for a period of 5 months and was named as Julie. The animal was released back to the wild at Mahananda Wildlife Sanctuary in an area known as Jogi Jhora 10 km inside the National Park.



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