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COUNTER THEORY | Mehek Mehta studied impact of mobile tower frequencies on sparrows, opposed belief that it led to decline in bird's population

Mobile towers don't affect sparrows: 12-yr-old researcher

Tanea Bandyopadhyay

Research done by a 12-year-old girl has found that mobile tower frequencies are not responsible for the decline of sparrows in the city as is popularly believed.

Mehek Mehta studied the auditory range of sparrows and other common birds and the impact of mobile tower frequencies on them. She has been awarded the silver medal at the Homi Bhabha Balvaidnyanik Competition for her research.

"I had to a research project for the competition and I wanted to look at the declining numbers of sparrows in the city. Some news articles attributed it to radiation from mobile towers, but there was no scientific explanation backing this claim, so I decided to conduct my research on this issue," said Mehta.

Mehta observed the operating frequencies of mobile towers and found that the range of spectrum allocated to towers was between 900 MegaHertz to 1800 MegaHertz. She found that this far exceeded the upper limit of the hearing range of sparrows, which is 250 Hertz to 18 KiloHertz.

As reports claimed that mobile tower frequencies were said to interfere with their auditory mechanism, Mehta's research contradicted these claims.

Mehak won a silver medal for her research at the prestigious Homi Bhabha Balvaidnyanik competition - Sudharak Olwe/dna

Mehta then proceeded to study the auditory range of other common birds such as crows and pigeons and found that they share the same auditory range. "If this was the case then the population of crows and pigeons should also be affected but their population had not faced such a drastic difference. I consulted around 6 research papers and projects and also visited 18 to 20 parks and found that sparrows were not present in the same numbers as crows and pigeons."

On the basis of her readings, Mehta found that there was a 60% decline in the sparrow's population since 2005 and it was a worldwide phenomenon. She then tried to find another reason for the decline of the birds.

"One probable reason is that crows and pigeons have a wider range in terms of diet, i.e. they can survive on the food available in urban spaces, and can also scrounge up foodstuffs from waste dumps, but sparrows survive on food grains and now more and more people are adopting packed food grains and very few dry grains in the sun anymore," said Mehta

Mehta also cited other reasons such as the loss of nesting area with urban structures adopting glass and steel facades as well as air and noise pollution created by vehicular traffic (horns fall well within the hearing range of birds).