

OF BIRDS, BEES AND US

While humans are only now beginning to grasp the truth about EMR, the birds may have already flown

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THE THREAT TO OUR ecology from Electromagnetic Radiation (EMR) is not idle speculation. The thermal and non-thermal effects of EMR act directly on the physiology of life forms. Research has found that trees exposed to high frequency waves convert these waves into electric currents, which flow down and change the soil's electrical conductivity and pH, both important parameters.

A University of Leeds study found an 80 percent decline in bee diversity, from 1980 levels, in over 100 sites across the UK and the Netherlands. That is an 80 percent decline for an organism critical as a pollinating agent. In Florida, 35 percent of bee colonies disappeared in 2007-2008 and the disappearance has subsequently hovered around 30 percent.



Life in balance: An egg under observation shows unnatural signs in the embryo after exposure to EMR radiation

Recently, a young Indian scientist, VP Sharma, working for his PhD in our lab, proved a drastic decrease in the brood area and egg-laying rate per day of the queen bee in hives exposed to EMR. The pollen-carrying and returning ability also gets reduced significantly.

In our country, even a city of the size of Chandigarh has more than 335 cell phone towers continuously emitting EMR. Bees are disappearing and although I am not an apiarist, I am inclined to link the disappearance of bee colonies to the EMR cloud rather than a new disease. For, if it were a disease, we would find dead bees near hive sites. What is being reported is disappearance, not death.

But, it's not just bees. There are others like the hoverfly, whose drastic decline in the UK has naturalists, horticulturists and agriculturists very worried. This has, in turn, led to a decline in insect-pollinated wild flowers. Then, there's an example we would all identify with. Remember the house sparrow? This bird loved living in cities, in and around buildings, and we grew up around the sparrow in India. But, it has virtually disappeared since the 1990s — in India and in the birds' native Europe.

Various reasons have been suggested like the use of pesticides in gardens, the changing nature of architecture, and the rise in the number of automobiles. But, the one reason that might explain the sudden and simultaneous disappearance of the man-friendly sparrow the world over is the coinciding mushrooming of cell towers and electro clouds.

Our work at the Panjab University has shown that fertilised eggs exposed to EMR show poor early development of chick embryos, especially of the heart, brain and neural tube, and reduced differentiation in somites. The negative effects of EMR are not limited to the animal world. Even in plants exposed to EMR, we have seen poor seed germination and an adverse effect on enzyme activity that impacts overall metabolism and, consequently, growth and development.

The planet we live on supports life through a large team effort of organisms that form a long and life-sustaining chain of cause and effect that we call ecology. And like a chain, one weak link weakens the whole. Bio-diversity loss like the disappearance of house sparrows, honeybees or the hoverfly is the weakening link in our ecology. The ultimate cost will be ours to pay.

