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*Dr. Pradipta Kumar Basu*  
OFFICER IN CHARGE, W.B.E.S.  
Government General Degree College, Mangalkote  
Dt. Purba Bardhaman, West Bengal- 713132



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## URBAN GROWTH AND THE POPULATION OF HOUSE SPARROWS [*Passer domesticus* (LINNAEUS, 1758)] AND HOUSE CROWS [*Corvus splendens* (VIEILLOT, 1817)]: IS THE DYNAMICS OF URBAN ECOSYSTEM UNDERGOING A RADICAL CHANGE?

**DEBRAJ BISWAL \*** ✉️

Department of Zoology, Government General Degree College at Mangalkote, Burdwan – 713132, West Bengal, India.

\*Author to whom correspondence should be addressed.



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**DEBRAJ BISWAL<sup>1\*</sup>**

<sup>1</sup>Department of Zoology, Government General Degree College at Mangalkote, Burdwan – 713132, West Bengal, India.

**AUTHOR'S CONTRIBUTION**

The sole author designed, analysed, interpreted and prepared the manuscript.

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**ABSTRACT**

Birds including house sparrows and house crows have always been considered as ecosystem indicators reflecting the health of the environment. Complete absence of a species (that was previously abundant) is not desirable from the ecologist's point of view. Anthropogenic activities like urbanization and deforestation have peaked in recent years resulting in the loss of biodiversity. This is not solely linked to the number of species but also the interactions among them that shapes up the ecosystem. The current study focuses on the sudden disappearance of house sparrows and house crows. The study area chosen was Chinsurah, West Bengal, India, as the place has undergone rapid urban growth in the last two decades with simultaneous erosion of the sparrow and crow populations. The urban sprawl of Chinsurah in the past few years was studied using satellite imagery data (from Google earth) and Landsat data (from GLCF) captured on a temporal scale. The study area was surveyed for documenting the preferable habitats of birds where they were found roosting. A comparative study of the architecture of the old and new/renovated buildings shows that buildings with modern designs lack suitable nesting sites. In addition, the loss of tree cover deprives the birds of their foraging grounds. Bird species like common myna, greater coucal, Indian treepie, black drongo and black kite have been observed living close to human settlements in the study area. They are known to exert predatory and/or competition pressures on house sparrows and house crows. Other factors affecting the sparrow and crow populations were also investigated. The declining bird species seems to affect the urban ecosystem by causing shifts in ecological balance. This can, however, be minimized by considering the ecological factors while planning urban

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