



Feathers of Feral Pigeons (*Columbia livia*) as Bioindicator for Heavy Metals Pollution in Jaipur, India

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Abstract: Biological indicators are used to ascertain and monitor the health and functioning of ecosystem. This study investigates whether feral pigeons (*Columbia livia*) can be used as bioindicators for heavy metal pollution in an urban environment. The concentrations of copper (Cu), cadmium (Cd), lead (Pb) and zinc (Zn) were analysed in the contour feathers of pigeons. The average range concentration of Cu was 7.05 to 9.07 ppm, Cd was below the range of 0.02 to 2.02 ppm, Pb was 2.37 to 3.0 ppm and Zn was in range of 27.14 to 35.13 ppm. There was no significant difference between the concentrations of metals between various sites. Feathers reflect the body burden of metals and also can be used as a non-invasive tool for indicating the metals concentration of pigeons which indirectly indicates the metal pollution of an environment.

Keywords: Feathers, Heavy metals, Urban environment, Feral pigeon, Non-invasive
