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MEMORABILIA ZOOLOGICA

**Structure of the fauna of Warsaw;
effects of the urban pressure
on animal communities**

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REVIEW PAPER BY THE INSTITUTE OF ZOOLOGY
STRUCTURE OF FAUNA IN URBAN ENVIRONMENT

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ABSTRACT

This article opens a series of papers on faunal communities occurring in urban areas of Warsaw (1981-1982). Comprehensive ecological and studies conducted in Warsaw by the Institute of Zoology, Polish Academy of Sciences. The scope of the study and the methods used are described. The Institute of Zoology in the field of ecology and zoology of urban areas is considered. The results of field and laboratory

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Part 1

Basic ecological properties of urban areas concern the physical environment, chemical, and thermal properties. All essential habitat parameters such as air, soil, trophic conditions, and climate are modified. Plant cover is totally transformed. Urban green areas are managed artificially, and this does not imply that always in accordance with natural ecosystems. All these changes are followed by significant transformations in the world of animals, which are neither controlled nor even perceived by man. In fact, despite some deviations resulting from a specific character of the habitat, the main structural and functional properties of urban ecological systems are similar to those of natural ecosystems. Thus, the quality of urban habitats, including the quality of life to man, depends on the proper structure and harmonious interaction of all the components of the system.

Urban habitats are usually unsuitable for faunal communities. But they have not only harmful effects, they also enhance the occurrence of many species, and among them not only obligatory synanthropic fauna but also animals living in free nature. As a result, the species composition and abundance of urban fauna are largely modified. Both the number of taxa and the abundance of species (1981-1982) are markedly lower there as compared with non-urban areas. On the other hand, the animals able to adapt themselves to local conditions may largely increase their abundance as their enemies and competitors are frequently absent from towns.

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