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PHYTOMASS OF URBAN ECOSYSTEMS AS THE BASIS FOR ATTRACTION OF DESIRABLE AND UNDESIRABLE ORGANISMS

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Abstract Under increase of pressure on nature, many organisms have adapted to a new environment and began an active attack on new ecosystems. Urbanized communities are part of the biosphere and live according to the fundamental laws of ecology. Urban green plantations having both alive and dead phytomass are attractive for urban pests. Under increase of natural hazard activity and anthropogenic pressure, biological indication as cheap monitoring methods becomes necessary. Urban plants are natural indicators of ecological pressure: float asymmetry is a measure of mutagenic pollution. Abnormal form of three is criteria of teratogen pollution. The more plants have abnormality, the more resources for pests. Importance of such an indication is increased by Chernobyl and Fukushima incidents etc. The ratio between number of species and their biomass has mathematical description available to the prediction of the number of weed plants and phytophagous, which will occupy urban plantations. Urban populations have a higher phenotypic variation than wild ancestors. According to data of ICUP (1993 – 2014), 3 important processes during the 22 years took place: 1. Development of fundamental knowledge about urban pests. 2. Development of practical methods of pest control. 3. Ecological and evolutionary processes in pests that allowed them to take extensive ecological niches. The latter occurred most rapidly and efficiently, and the pests have proved to be stronger than program of pest management. Some organisms in the urban environment were more populated than their ancestors in the wild. Dead plant phytomass is resource for the breeding of termites. These insects produce gases that significantly affect global climate. In some cases, increase in the number of pests occurs after natural disasters. So, tsunami 2011 in Japan washed up on the shore a huge biomass of marine animals. It has become a breeding ground for the development of many pests and sharply worsened sanitary conditions in coastal areas. The first ICUP conference was dominated by reports offering chemical methods of control and rotation of pesticides. These methods have been, and will continue to apply, despite their possible negative environmental consequences. However, an increasing number of works devoted to environmentally friendly methods of struggle, reproducing the processes occurring in nature without human influence. This is the use, along with pesticides, repellents, including those of natural origin. An important aspect of pest management under policy of "green economy" – the shift from synthetic pesticides to substances derived from natural materials and organisms, and synthetic analogs of such substances. Accordingly, the fight against plant pests and pathogens for humans can only be effective based on the latest achievements of scientific ecology and on control of their resources.