Thirty years after the radioactive fallout, the accumulation of 137Cs and 90Sr by various parts of the growth and undergrowth plants in the pine forests of the reserve continues to be determined by species specificity of the plants to accumulate them and to a lesser extent by the conditions of the site of occurrence.

The specific specificity of accumulation of ^{137}Cs and ^{90}Sr by different parts of plants growing underbrush and undergrowth differs by forest types. In the species of undergrowth and undergrowth, a general tendency is observed to increase the transition coefficient of ^{137}Cs and ^{90}Sr from wood to roots. Between the roots and leaves of pronounced orientation, their changes in the undergrowth and the undergrowth stage have not been revealed.

With the increase in soil moisture, the tendency of ^{137}Cs transition to the components of undergrowth and undergrowth species to decrease and ^{90}Sr of ^{90}Sr transition coefficient in the organs and tissues of plants undergrowth and undergrowth is on average an order of magnitude higher than the ^{137}Cs transition coefficient [2].

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DEVELOPMENT OF A SOFTWARE MODULE ON THE ESTIMATION OF THE EXPOSURE TO THE PROTECTION OF ATMOSPHERIC AIR DURING THE STATE ECOLOGICAL EXPERTISE

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The implementation of the state policy of the Republic of Belarus in the field of ensuring environmental safety is carried out, including through the mechanism of state environmental expertise, including phased control in the field of environmental protection (at the stage of placing the construction object, when issuing a conclusion of state environmental review, issuing a conclusion on compliance with environmental requirements safety of the completed construction of the facility, at the stage of post-project analysis).

Keywords: state environmental expertise, automated information system, EcoNaR, standards for permissible emissions, pollutant.

The automated information system is designed to automate and prepare project documentation when submitting projects for state environmental impact assessment, including automating the process of calculating environmental safety indicators when planning and carrying out business and other activities that use natural resources and (or) is affected environment, visualization of the calculated data using geographic information systems (GIS), as well as during state ecological expertise.

The developed system is designed for use by employees of the state institution of education "Republican Center for State Ecological Expertise and Advanced Training of Executives and Specialists" of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus during state environmental impact assessment, design organizations and institutions to automate the calculations of the methods given in environmental norms and rules of the EcoNaR 17.01.06-001-2017 "Environmental Protection and nature management. Environmental Safety Requirements", other legislative acts.

In order to ensure environmental safety, the calculation of exceeding the limit values of concentrations of emissions of pollutants in atmospheric air is made in accordance with paragraph 10 of environmental norms and rules of the EcoNaR January 17, 2006-001-2017 "Environmental protection and nature management. Environmental safety requirements" approved by the Decree of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus July 18, 2017 No. 5-T. The instruction on the procedure for establishing standards for permissible emissions of pollutants into the air determines the procedure for establishing standards (temporary standards) of permissible emissions of pollutants into the air, and also determines the composition and content of the project (project adjustment) of standards for permissible emissions of pollutants into the air.

The main goal of creating an automated system is to increase the efficiency of the work of design organizations and employees of the state environmental expertise, to simplify public access to relevant environmental information. Efficiency is expressed in reducing the time for preparing project documentation, systematizing the work of state environmental expertise experts to verify incoming documentation, and visual presentation of the results.

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COMPARATIVE ECOLOGICAL ANALYSIS OF THE AVIFAUNA OF THE PARKS OF THE CITY OF MINSK

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The paper presents data on population density, species richness, biodiversity of avifauna and the dominance of certain species of birds in the Park complexes of the city of Minsk. It is established that the most favorable place for bird habitat is the territory of the Park "Drozdy". Less preferred bird habitat is the Park of the 50th anniversary of the Great October revolution.

Keywords: avifauna, biodiversity, population density, dominance

The study of birds is an important part of the study of the diversity of living organisms in any territory. Due to the high species diversity and abundance of birds can be considered good indicators of the environment, the changes of which have recently become increasingly negative. This is especially true of the environment of large cities with dense residential buildings in which the majority of environmental regimes change significantly. Therefore, an important task is to preserve any parts of the city close to natural complexes. Such complexes in the cities are parks. They are characteristic urban habitats where a complex of birds of different ecological groups adapted to urban conditions is formed. Therefore, urban parks play a major role in preserving the species diversity of the avifauna [1].

The purpose of this work is to study ecological characteristics of the avifauna of the parks of Minsk.

Place research – Park named "Chelyuskintsev" together with the Botanical garden; Park named 50th anniversary Of the great October revolution; Loshitsa estate and Park complex; nature monument of national importance "Dubrava"; forest Park" Medvezhino"; Park "Drozdy".

During the research it was revealed that 61 species of birds live in the territories of Park complexes of Minsk in summer. The greatest species diversity is the Park "Drozdy" – 41 species, followed by the Botanical garden and Park. "Chelyuskin" – 36, Loshitsa Park – 36, Dubrava – 34. Relatively limited species composition was observed in the forest Park "Medvezhino" – 24 species and in the Park of the 50th anniversary of the great October-20 species.

The highest total population density of birds was observed in the Park of Drozdy – 443.94 ind/ha, therefore, in this area birds found the most comfortable place to live. The lowest density is observed in the Park of the 50th anniversary of the Great October-83.02 ind/ha, which indicates the lack of environmental conditions for nesting and finding food for birds.