

of the river bed and a cascade of reservoirs, rich habitats and other favorable living conditions in urban areas is enhance the ecological capacity of the species and groups of species of gulls as a whole. The main factors influencing the difference in the structure of communities of waterbirds reservoirs during the summer period, which includes gulls bird is overgrowing of coast with vegetation on the perimeter, which should be 0.20.

Thus, the analysis of the impact of environmental factors on the difference communities of waterbirds of Minsk showed that the ponds favorable for habitat of gulls are reservoirs: Chizhovskoe, Tsnyanskoe and Drozdy.

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## **USE OF HERPETOLOGICAL DATA FOR RECONSTRUCTION OF ENVIRONMENTAL CONDITIONS**

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During the Quaternary period recurrent coming of glaciers from Scandinavia to the East European Plain forced animals that were living there to migrate as temperatures were decreasing and natural zones were changing. It influenced on all species, but especially – on ectothermic (cold-blooded), which include reptiles and amphibians. In addition to the disappearance of herpetofauna directly from areas covered by glaciers, the number and diversity of species varied considerably in periglacial zone too. But, if small mammals used to form specific complexes that are not typical for nowadays and help to identify the climatic conditions of their existence, for amphibians and reptiles only the degree of diversity distinguishes assemblages from different climatic periods.

However, herpetological information can be very useful for biostratigraphy. At first, the presence of representatives of the cold-blooded animals in sediments suggests the absence of ice cover in the area. Secondly, the change of forest associations in the forest-steppe and steppe, under the current forest area, may indicate a climate aridization as a result of proximation of climatic conditions to glacial. Also, some types of amphibians that have shown changes in their areas of distribution in the past may be used to determine regional stratigraphic age, but only relatively large intervals. Nevertheless, each case within the history of the area should be examined carefully.

There are different approaches to reconstruction of paleogeographic and paleoclimatic conditions according to the data of research of herpetofauna. European method relies only on the composition of species in the burials, not taking into account the number of specimen or the taphonomy of a location. This approach may lead to wrong conclusions, which can be avoided if you take into account the proportion of species belonging to different ecological types. Considering this aspect, we can talk about the predominance of certain habitats, and therefore - about exist-

ing natural area. Reconstruction of the natural area, in its turn, carries the information about the landscape and the climatic conditions.

Speaking of landscape trends, reconstructed according to the remains of amphibians and reptiles, we can say that in the Pleistocene constant change of natural zones for the entire interglacial stages occurred. This conclusion does not contradict the data of palynological research. However, it should be noted that, as the pace of evolution of amphibians and reptiles is quite slow, detection of assemblages consisting only of modern species is not an indicator of their young age and a detailed division of the Late Cenozoic sediments on such paleontological basis is impossible, but it allows us to speak about certain climatic rhythm fauna exists within.

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## **INFLUENCE OF CEMENT INDUSTRY ON THE ENVIRONMENT**

Modern industrial production has a significant impact on the environment on a global scale. Contamination of the environment by industrial emissions has a negative impact on human health and on the environment as a whole. Today in the CIS countries, there is a rapid development of the industrial production of cement, dry mixes, concrete and concrete products, which in turn has not the most favorable impact on the environment, and even in Western countries, where there is a strict law on nature protection, the problem is very serious.

The production of cement is based on the use of non-renewable raw materials. The enterprises of the cement industry to the environment are allocated annually more than 27 million tons of dust. They account for 2/3 of the industrial emissions of solids and 44% gases.

According to CPCB (*Central Pollution Control Board*) cement industry is one of the 17 most environmentally damaging industries.

This production activity is a significant factor constraining development of the industry both in terms of environmental and economic costs and regional environmental constraints. This requires the integration of environmental factors that influence the formation of the cost of production, starting with the mineral extraction phase and ending with the production, transportation and use in the construction of the finished product. Among requiring consideration of environmental problems should be allocated associated with exposure to specific ecosystems:

1. Air pollution is generated by emissions from industrial processes:

- in the cement industry: cement dust emissions; gaseous emissions, including CO<sub>2</sub>, which according to researchers in the construction industry makes up 25% of all global emissions of industrial production; fast evaporating emissions from smokestacks components;