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DIVERSITY OF PHYTOPLANKTON RATE IN THE POND OF GRABARKA (BERDYCHIV) AND EVALUATION OF ITS ENVIRONMENTAL STATE (STRUCTURAL AND FUNCTIONAL PARAMETERS)

The lakes of anthropogenic origin are storage reservoirs and ponds, artificially created on rivers, and also old mined-out quarries and salt mines, filled with water, etc. [1].

The study of phytoplankton diversity in men-made water reservoirs are of undeniable theoretical and practical significance for the development of principles of application of men-made aquatic ecosystems bioproducts' potential and for biological indication issues.

The purpose of the paper was to determine the features of algal communities in the pond of Grabarka (Berdychiv) and to evaluate the ecological state of this water body as to the biodiversity of phytoplankton.

42 algological tests of phytoplankton served as **the material of the paper**. The stating of the taxonomic composition of algae was conducted referring to the latest floral reports [2-4].

The processing of the body of data was held in Microsoft Excel 2007 program.

During the study of plankton in the pond of Grabarka 84 species of algae representing 9 departments were found.

For the first time a detailed study of the species composition and quantitative development of planktonic algae in the pond of Grabarka was conducted. The taxonomic structure of the pond phytoplankton was analyzed, as well as the frequency of algal species. The peculiarities of quantitative development of phytoplankton and its dominant sector are determined, the analysis of seasonal dynamics of planktonic algae in the studied reservoir is made. The quality of water in the given pond is determined, and ecological status of the pond is estimated according to the presence of certain indicator species of water environment factor, and also according to the ratio of primary phytoplankton production and the degradation of organic matter.

The data obtained from our research is a significant addition as to the study of algal flora of men-made water bodies of Central Polissya.

The data obtained can be widely used in conducting environmental monitoring and predicting changes in water quality which result from human activity.

LITERATURE

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