## MEANS OF CARTOGRAPHIC VISUALIZATION IN THE RESEARCH OF THE VOLYN OBLAST NATURAL RESERVE FUND NETWORK

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Formation of an effective system for the conservation of the nature of the region and solution of modern environmental problems are impossible without creating a cartographic scientific and information base on environmental objects and improving the use of geospatial data. Improving the system in order to meet the needs of society in all types of geographic information is very important in the field of information and education, because the safe conservation and restoration of natural resources is possible only with the participation of a wide environmentally conscious and responsible public. The thesis analyzes cartographic editions of oblast, including digital form, about the current state of natural components and landscapes.

Ecological problems have territorial character, their solution requires a deep knowledge of the regional features of natural and social territorial systems, which is impossible without creating a geospatial, primarily cartographic, scientific and informational basis. In the study of the state and dynamics of the environment of the region, a special place is occupied by cartographic works that reflect the integrated spatial information on the status, development, structure and functioning of the territories and objects of the nature reserve.

The complex and important task of collecting and analyzing information that has been obtained directly in the natural environment for decades lies with scientific institutions of high level of protection within the territories and objects of the nature reserve fund: nature reserves, biosphere reserves, national nature parks. There are ongoing scientific studies of the fundamental laws of wildlife. The funds of these institutions are provided with card catalogs, herbariums, zoological collections, thematic photo libraries, samples of soil monoliths, etc. The most urgent question now is how to use this information more widely to shape citizens' environmental awareness. Civic maturity implies a caring attitude towards nature, manifested in personal involvement and responsibility for the conservation and multiplication of natural resources. However, the material and technical base of the educational process is needed, as well as the creation of an information space that will facilitate the uniting of efforts in the organization of environmental education and upbringing. Its directions are diverse: work with the media, holding press conferences, publications and announcements, creating films, booklets, brochures, photo albums, and cartographic works. A modern type of information activity is the creation of web pages, sites with which visitors can work independently at different times convenient for themselves and in different countries. In Volyn, the first catalogs of natural complexes, rare and endangered species of animals and plants of oblast were prepared in 1977 and 1987 by Yo. Romaniuk, in 1999 the «Natural Reserve Fund of the Volyn Oblast» was published, edited by M. Khymyn and others. The cartographic image of the state of the environment - the map «Nature Conservation» was placed in the «Atlas of Volyn Oblast» published in 1991 (edited by F. Zuzuk). Currently, active work within the framework of the project «Volyn Reserve» in cooperation with the Department of Ecology and Natural Resources of the Volyn Oblast State Administration is carried out by employees of the Department of Physical Geography of Lesya Ukrainka Eastern European National University. Several cartographic editions were drawn up and prepared for printing in 1917–1918: in 2017, the map M 1: 400 000 «Conservation territories of Volyn Oblast», booklet «Protected nature of Volyn» (compiled by V. Fesiuk, Z. Karpiuk), in 2018 – the album-catalog «Natural Reserve Fund of the Volyn Oblast» (authors Z. Karpiuk, V. Fesiuk, O. Antypiuk). In 2017, an interactive map of the region's environmental assets was created, containing large volumes of detailed textual and illustrative information about the protected areas of Volyn.

Depending on which extent environmental protection tasks are solved, the quality of economic and social life of the oblast depends to a great extent. It is advisable to use a cartographic method of research in order to solve a complex of environmental problems. Cartographic projects help to improve the education system and the information system on the conservation and sustainable use of the network of protected areas of oblast, natural resources, and environmental protection.