
BIOMINERALOGY AND THE NATURAL ENVIRONMENT IN WESTERN POLISSYA AND ADJACENT AREAS



Director of the school – Fedir Zuzuk, Ph. D., Doctor of Geology, Full Professor, Head of the Department of Physical Geography at LUEENU. Dr. Zuzuk is a recipient of the badge “For Scientific Achievements”.

Email: zuzuk@eenu.edu.ua

Areas of scientific research: biomineralogy, the natural environment in Western Polissya and in neighbouring territories.

Scientific output of F. Zuzuk. More than 200 research papers, including seven monographs have been published, as well as eight textbooks and atlases.

Research supervision of the following Ph. D. theses:

Summary. In the field of biomineralogy, study is devoted to the extent to which urolithiasis is prevalent among people in Ukraine and throughout the world. The research in this field focuses both on urolith mineralogy data in patients suffering from various diseases and on a comparison of these data with those of patients in other areas of Europe, as well as in Asia, America, Africa, and Australia. A related research topic involves the study of the natural environment in Western Polissya and in neighboring territories. The research includes such aspects as geological structure, relief, climate, surface water, and environmental protection facilities.

Scientific activity of the school. Among the most important findings are the following: First, urolithiasis and its spread in the Ukrainian popula

tion and in the world as a whole is related to the levels of the environmental pollution and to the living standards, age and sex of the patients. People suffering from urolithiasic diseases may be found in countries both with low and with high living standards. Secondly, 40 minerals and other compounds have been discovered. Their crystal structure, morphology, ontogeny, and physical properties have been thoroughly studied. The mineral composition of uroliths has changed significantly during the last two centuries. Their composition reveals a tendency to evolve from urate to oxalate. Furthermore, it has been revealed that microorganisms play a vital role in lithogenesis.

The school has systematized and generalized findings in the area of the nature of Western Polissya and adjacent areas with respect to their geological structure, relief, climate, surface water, and natural resources. In addition, cartographical research has been carried out. Nine scientific conferences have been held.

Members of the School

Vasyl Diakiv, Ph. D. in Geology, Assistant Professor in the Department of Environmental and Engineering Geology and Hydrogeology at Ivan Franko National University of Lviv.

Email: dyakivw@yahoo.com

Areas of scientific research: ecology, biology and medical mineralogy, ontogenesis, patterns of formation and disintegration of pathogenic bioliths, fractal theory, and radiography of minerals.

Iryna Netrobchuk, Ph. D. in Geography, Assistant Professor in the Department of Physical Geography at LUEENU.

Email: Iryna-nim@ukr.net

Areas of scientific research: hydroecology; issues relating to anthropogenic load and to the ecological balance in river basin zones; environmental assessment of river water quality; atmospheric weather studies.

Volodymyr Desiatnyk, manager of the Makintour travel agency; researcher in the Department of Physical Geography at LUEENU.

Email: desyatnykvv@ukr.net

Area of scientific research: regional cenozoic paleogeographic research

