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# Geological research for public outreach and education in Lithuania

Grazina Skridlaite (1) and Rimante Guobyte (2)

(1) Institute of Geology and Geography, Nature Research Centre, Vilnius, Lithuania (skridlaite@geo.lt), (2) Lithuanian Geological Survey, Vilnius, Lithuania (rimante.guobyte@lgt.lt)

Successful IYPE activities and implementation of Geoheritage day in Lithuania increased public awareness in geology. A series of projects introducing geology to the general public and youth, supported by EU funds and local communities, were initiated. Researchers from the scientific and applied geology institutions of Lithuania participated in these projects and provided with the geological data.

In one case, the Lithuanian Survey of Protected Areas supported the installation of a series of geological exhibitions in several regional and national parks. An animation demonstrating glacial processes was chosen for most of these because the Lithuanian surface is largely covered with sedimentary deposits of the Nemunas (Weichselian) glaciation. Researchers from the Lithuanian Geological Survey used the mapping results to demonstrate real glacial processes for every chosen area. In another case, 3D models showing underground structures of different localities were based on detailed geological maps and profiles obtained for that area. In case of the Sartai regional park, the results of previous geological research projects provided the possibility to create a movie depicting the ca. 2 Ga geological evolution of the region. The movie starts with the accretion of volcanic island arcs on the earlier continental margin at ca. 2 Ga and deciphers later Precambrian tectonic and magmatic events. The reconstruction is based on numerous scientific articles and interpretation of geophysical data. Later Paleozoic activities and following erosion sculptured the surface which was covered with several ice sheets in Quaternary.

For educational purpose, a collection of minerals and rocks at the Forestry Institute was used to create an exhibition called “Cycle of geological processes”. Forestry scientists and their students are able to study the interactions of geodiversity and biodiversity and to understand ancient and modern geological processes leading to a soil formation.

An aging exposition at the Museum of Erratic Boulders in NW Lithuania is being rearranged for educational purposes, to show the major rock types and their origins more clearly. A new exhibition is supplemented with computer portals presenting geological processes, geological quizzes, animations etc. Magmatism, metamorphism, sedimentation and other geological processes are demonstrated using erratic boulders brought by glaciers from Scandinavia and northern Russia. A part of the exhibition is devoted to glaciation processes and arrival of ice sheets to Lithuania. Visitors are able to examine large erratic boulder groups in a surrounding park and to enjoy beautiful environment. The exhibition also demonstrates mineral resources of Lithuania, different fossils and stones from a human body.

In all cases it was recognised that a lack of geological information limits the use of geology for public outreach. Ongoing scientific research is essential in many places as well as a mediator’s job for interpreting the results of highly specialised research results and to adapt them for public consumption.