Ordovician trilobite fauna from erratic boulders from northern Poland

Tomasz Janczylik^{1*}, Sigitas Radzevičius², Maria Wojcieszak¹ and Bartosz Glinka¹

- ¹ Polish Geological Institute–National Research Institute, Rakowiecka 4, 00-975 Warsaw, Poland
- ² Department of Geology and Mineralogy, Institute of Geosciences, Vilnius University, M. K. Čiurlionio 21/27, LT-03101, Vilnius, Lithuania
- * Corresponding author, tjanc@pgi.gov.pl



The first regional studies related to the distribution of Scandinavian erratic sedimentary rocks and fossils in northern Poland began in the 19th century. These studies have focused on lithological classification of the erratic boulders and on trying to determine where they came from. At the same time, the first studies of trilobite fossils found in erratic boulders were published. This study compares the new preliminary results of the research with more recent studies.

New material comes from northern Poland, an area covered mainly by morainic till of the Pomeranian and Poznan phases of the Vistula glaciation. A total 53 erratic boulders with Ordovician trilobites were collected. The precise and correct way in which the

fossils were prepared allowed the morphological features of the trilobites to be seen and led to the identification of 22 taxa.

The most common trilobites founds are the family Asaphidae. The next most numerous trilobite fauna is the family Pterygometopidae (subfamily Chasmopinae). The Early and Middle Ordovician trilobite fossils from the western part of Poland represent about 56% of all the Ordovician trilobite fossils collected. In contrast, no Early and Middle Ordovician trilobite fossils were collected in the northeastern part of Poland (only Late Ordovician trilobite fossils were collected).

Due to the comparatively limited collection of Ordovician trilobite fossils collected, these statistics will be verified by further research. The maintenance of a database of collected Paleozoic erratic boulders and fossils will allow for a comparison of the material with Western European rock and fossil collections. This study will also allow to explore the variation of the distribution of Palaeozoic sedimentary erratic boulders during the successive glaciations.

Keywords: Ordovician, trilobites, Vistula glaciation.