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Stratigraphy of Late Pleistocene formations of the Mezen river valley

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In recent years received extensive and contradictory evidence on the genesis, age and area of spreading of quaternary formations in NW Russia. The reason for this - the heterogeneity of investigated objects and methods of research.
Within a valley of the river Mezen quaternary sediments are distributed everywhere. In outcrops opened sediments relating to the fifth and sixth stages of Middle Pleistocene, Upper Pleistocene and Holocene. Thickness of the quaternary sediments varies over a wide range, generally increasing from west to east. The authors have studied quaternary formations, opened in outcrops in valley of river Mezen (downstream) and its right tributary Peza, as well as in marine coastal cliffs.
The aim of the study was to demonstrate specific features of the lithological composition of quaternary sediments from various (in age and origin) moraine complexes of the Russian NW and to reconstruction of paleogeographic sedimentary environments in the Late Pleistocene.
Such attention to glacial sediments was dictated by the fact that they bear the most valuable information pertaining to the type and composition of provenances and to the geodynamic settings of feeding and sedimentation zones.
To achieve these goals following tasks were set:
1. Lithostratigraphic subdivision of the section of Quaternary sediments.
2. Correlation of local stratigraphic units with stratigraphic scheme adjacent areas using the geochronological, paleontological and paleoclimatic data.
3. Reconstruction of the main geological events Late Pleistocene NW European part of Russia.
First for glacial sediments in valley of the river Mezen applied lithological method, for determining the origin of formations. Was studied lithological composition of the sediments and were correlated geological sections. Also was conducted geochronological research.
Based on these results, it was found that:
- the glaciers of the Baltic Shield and the Czech lip penetrated into the valley of the river Mezen in Valdai time, forming moraines of different lithology;
- sea waters penetrated to the valley of the river Mezen in Leningrad and Mikulino time. In Mikulino time the basin was deeper.