



## **Preliminary results of a multidisciplinary study of the buried peatland and host sediments of the Moscow-Valdai age (Dmitrov, Moscow region, Russia)**

**Ekaterina Ershova**<sup>1,4</sup>, Svetlana Sycheva<sup>2</sup>, Svetlana Kuzmina<sup>3</sup>, Inna Zuganova<sup>2</sup>, Pavel Panin<sup>2</sup>, and Margarita Meteleva<sup>1</sup>

<sup>1</sup>Moscow State, Ecology and Geography of Plants, Moscow, Russian Federation (ekaterinagershova@mail.ru)

<sup>2</sup>Institute of Geography RAS, Moscow, Russian Federation

<sup>3</sup>Paleontological Institute RAS, Moscow, Russian Federation

<sup>4</sup>Kazan Federal University

The poster presents preliminary results of multidisciplinary studies of a 5-m section of Middle and Late Pleistocene deposits found in a quarry near the town of Dmitrov, Moscow region. The section includes Moscow fluvioglacial sands, alluvium, lake sapropels, and a layered lens of peat overlain by Valdai cover loams with large cryogenic deformations. The sediments were described and analyzed for pollen, plant macrofossils, and insect remains. The results of pollen analysis suggest that the deposits were formed during the second half of the Mikulino (Eemian) interglacial and during the transition to the Valdai (Weichselian) Glaciation (MIS 5e to MIS 5d). The pollen diagram reflects the replacement of deciduous forests by coniferous forests and the subsequent replacement of closed dark coniferous forests by open communities dominated by birch, shrubs, light-demanding grasses, and *Artemisia*. Seeds and fruits of wetland and aquatic plants, including endocarps of the extinct species *Potamogeton sukaczevii*, were found in samples from peat and underlying lake sediments. This may indicate the Mikulino or Early Valdai age of the studied deposits. The entomological fauna indicates the predominance of coastal and marsh species. Environmental conditions were relatively cool, rather characteristic of the late Interglacial. It is expected to obtain micromorphological, physicochemical characteristics of the sediments, as well as OSL dates to clarify the age of the sediments. This work was supported by RFBR, grant N19-29-05024 mk.