

# ***Interactive comment on “Sedimentary ancient DNA and pollen reveal the composition of plant organic matter in Late Quaternary permafrost sediments of the Buor Khaya Peninsula (north-eastern Siberia)” by Heike Hildegard Zimmermann et al.***

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Organic matter of ancient permafrost with high content of ice is very exposed influence of climate. That is why it is important to get a characterization of the organic matter within such sediments as a whole, and in particular organic matter of plant origin. The authors of the ms demonstrated the high potential of a combined approach, including palynological sedaDNA and analyzes to solve problems related to the identification and taxonomy of plant communities forming the organic matter in the Late Quaternary

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permafrost sediments, the conditions of its transformation and accumulation. Authors shown that the combination of different techniques for palaeobotanical reconstructions allows expanding our understanding on the taxonomic composition of the organic substances of plant origin, to trace the changes in the structure paleo plant community in time and space and to assess the conditions for its accumulation. In general, the work seems to be important and interesting.

Page 6, line 23-24 The DNA samples were stored at -20°C and the pollen samples were stored at 4°C. Recommended: The subsample for following sedaDNA and pollen analysis were stored at -20°C and 4°C, respectively.

Page 6, line 24-25 In total, 54 samples were drilled (approximately 3 to 4 samples per metre) for each kind of analysis. Recommended: meter

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