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Peer reviewed original articles

- Webb, H., Fuchs, M., Abbott, B.W., Douglas, T.A., Elder, C.D., Ernakovich, J.G., Euskirchen, E.S., Göckede, M., Grosse, G., Hugelius, G. and Jones, M.C., 2025. A Review of Abrupt Permafrost Thaw: Definitions, Usage, and a Proposed Conceptual Framework. *Current Climate Change Reports*, 11(1), pp.1-15. <https://doi.org/10.1007/s40641-025-00204-3>
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Schuur E.A.G., B.W. Abbott, W.B. Bowden, V. Brovkin, P. Camill, J.P. Canadell, F.S. Chapin III, T.R. Christensen, J.P. Chanton, P. Ciais, P.M. Crill, B.T. Crosby, C.I. Czimczik, G. Grosse, D.J. Hayes, G. Hugelius, J.D. Jastrow, T. Kleinen, C.D. Koven, G. Krinner, P. Kuhry, D.M. Lawrence, S.M. Natali, C.L. Ping, A. Rinke, W.J. Riley, V.E. Romanovsky, A.B.K. Sannel, C. Schädel, K. Schaefer, Z.M. Subin, C. Tarnocai, M. Turetsky, K. M. Walter-Anthony, C.J. Wilson, S.A. Zimov (2011) High risk of permafrost thaw. *Nature*, 480, 32-33, doi:10.1038/480032a. *Editorial material*

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Selected first-authored conference contributions

- Hugelius G (2018) The carbon cycle in the northern permafrost region. Invited keynote plenary speaker, the fifth European conference on permafrost (EUCOP5), Chamonix, France
- Hugelius G., Ahlström A., Canadell J., Koven C.D., Jackson R.B. and Luo Y. (2016) The representation of non-equilibrium soil types in earth system models and the potential to benchmark specific soil processes, AGU Fall Meeting 2016, San Francisco, USA.
- Hugelius G, Loisel J, MacDonald G, Jackson RB, Treat C, Turetsky MR and Yu Z (2015) Consolidating and updating estimates of northern peatland extents and carbon stocks, AGU Fall Meeting 2015, San Francisco, USA.
- Hugelius G. (2014) Estimating Soil Carbon Pools in the Northern Permafrost Region: Challenges in Adapting Datasets to Models, AGU Fall Meeting 2014, San Francisco, USA. Invited speaker.
- Hugelius G, Strauss J, Zubrzycki S., Harden JW, Schuur EAG, Ping CL, Schirrmeister L, Grosse G., Michaelson GJ, Koven C, O'Donnell J, Elberling B. Mishra U., Camill P., Yu Z., Palmag J and Kuhry P (2014) Estimated stocks of circumpolar permafrost carbon with quantified uncertainty ranges and identified data gaps, AGU Fall Meeting 2014, San Francisco, USA.
- Hugelius G. (2013) Assessing uncertainties in circumpolar permafrost carbon maps by comparing them to local scale studies *AGU Fall Meeting 2013*, San Francisco, USA.
- Hugelius G. and Tarnocai C. (2012) Storage of soil organic carbon in the upper 3 m of the northern circumpolar permafrost region, *AGU Fall Meeting 2012*, San Francisco, USA. Invited speaker
- Hugelius G. (2011) Uncertainty analysis for estimates of soil organic carbon storage in permafrost terrain, a regional study from the western Russian Arctic, *AGU Fall Meeting 2011*, San Francisco, USA.
- Hugelius G., T. Virtanen T., Kaverin D. and Kuhry P. (2010) Estimating soil organic carbon storage in periglacial terrain at very high resolution; a case study from the European Russian Arctic. *Third European Conference on Permafrost* (EUCOP III), Longyearbyen, Svalbard.
- Hugelius G., Routh R., Kuhry P. and Crill P.M. (2010) Characterization of Soil Organic Matter in Permafrost Terrain – landscape scale analyses from the European Russian Arctic. *Third European Conference on Permafrost* (EUCOP III), Longyearbyen, Svalbard.
- Hugelius, G., Kuhry, P., Tarnocai C. and Virtanen T. (2009) Total storage and landscape distribution of soil organic carbon in the Central Canadian Arctic. *EGU General Assembly*, Vienna, Austria.
- Hugelius, G., and Kuhry P. (2008) Patterns in Soil Carbon Distribution in the Usa Basin (Russia): Linking Soil Properties to Environmental Variables in Constrained Gradient Analysis. *Ninth International Conference on Permafrost*, Fairbanks, USA.
- Hugelius, G., Kuhry, P., Tarnocai C. and Virtanen T. (2008) Total Storage and Landscape Distribution of Soil Carbon in the Central Canadian Arctic Using Different Upscaling Tools. *Ninth International Conference on Permafrost*, Fairbanks, USA.