## Prof. Dr. Roman Vasilevich Desyatkin

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### Research areas

- Alaas ecosystems, soil science, environmental science

### Select publications

1. Katamura F., M. Fukuda, N.P. Bosikov, R.V. Desyatkin. Charcoal records from thermokarst deposits in central Yakutia, eastern Siberia: Implications for forest fire history and thermokarst development - Quaternary Research, 71 (2009) 36–40.
2. Hara S., Y. Hashidoko, R.V.Desyatkin, R. Hatano and S. Tahara. High Rate of $N_2$ Fixation by East Siberian Cryophilic Soil Bacteria as Determined by Measuring Acetylene Reduction in Nitrogen-Poor Medium Solidified with Gellan Gum //Applied and Environmental Microbiology, 2009, vol 75, No. 9. - p. 2811-2819.
3. Desyatkin A.R. Takakai F., Fedorov P.P., Nikolaeva M.C., Desyatkin R.V., Hatano R. CH4 emission from different stages of thermokarst formation in Central Yakutia, East Siberia / / Soil Science and Plant Nutrition, 55(4), 2009, p. 558-570
4. Desyatkin R. V., S. N. Lesovaya, M. V. Okoneshnikova, and T. S. Zaitseva. Palevye (Pale) Soils of Central Yakutia: Genetic Specificity,Properties, and Classification // Eurasian Soil Science, 2011, Vol. 44, No. 12, pp. 1304–1314.
5. Roman Desyatkin., A. Fedorov, A. Desyatkin, P. Konstantinov. Air temperature changes and their impact on permafrost ecosystems in eastern Siberia - Thermal Science, 2015, Vol. 19, Suppl. 2, pp. S351-S360.
6. Okoneshnikova M. V., Desyatkin R. V. Soils of Northern Spurs of the Cherskii Ridge in the Area of the Northern Pole of Cold: Morphology, Properties, and Classification // Eurasian Soil Science, 2017, Vol. 50, No. 8, pp. 898–906. DOI: 10.1134/S1064229317080099
7. Desyatkin R. V., Desyatkin A. R. Temperature Regime of Solonetzic Meadow-Chernozemic Permafrost-Affected Soil in a Long-Term Cycle // Eurasian Soil Science, 2017, Vol. 50, No.11, pp. 1344–1354. DOI: 10.1134/S1064229317090022
8. Zakharova E.A., Kouraev A.V., Stephane G., Franck G, Desyatkin R., Desyatkin A.R. Recent dynamics of hydro-ecosystems in thermokarst depressions in Central Siberia from satellite and in situ observations: Importance for agriculture and human life // Science of The Total Environment. 2017, Volume 615, Pages 1290–1304.
9. Shinya Iwasaki, Alexsey R. Desyatkin, Nikolai V. Filippov, Roman V. Desyatkin, Ryusuke Hatano. Carbon stock estimation and changes associated with thermokarst activity, forest disturbance, and land use changes in Eastern Siberia // Geoderma Regional, 14 (2018) e00171. Pp. 1-11.
10. Alexey R. Desyatkin, Shinya Iwasaki, Roman V. Desyatkin and Ryusuke Hatano. Changes of Soil C Stock under Establishment and Abandonment of Arable Lands in Permafrost Area—Central Yakutia // Atmosphere, 2018, 9, 308 – Pp. 1-14. Doi:10.3390/atmos9080308.

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**Research areas**

- Biogeosciences, climatology, soil science, environmental science

**Select publications**

1. Tei, S.; Sugimoto, A.; Yonenobu, H.; Matsuura, Y.; Osawa, A.; Sato, H.; Fujinuma, J.; **Maximov, T.** Tree-ring analysis and modeling approaches yield contrary response of circumboreal forest productivity to climate change. *Global change biology* **2017**, *23*, 5179–5188.
2. Cuss, C.W.; Guéguen, C.; Andersson, P.; Porcelli, D.; **Maximov, T.;** Kutscher, L. Advanced Residuals Analysis for Determining the Number of PARAFAC Components in Dissolved Organic Matter. *Applied spectroscopy* **2016**, *70*, 334–346.
3. Wang, P.; Heijmans, M.M.P.D.; Mommer, L.; van Ruijven, J.; **Maximov, T.C.;** Berendse, F. Belowground plant biomass allocation in tundra ecosystems and its relationship with temperature. *Environmental research letters*. 2016.
4. Atkin, O.K.; Bloomfield, K.J.; Reich, P.B.; Tjoelker, M.G.; Asner, G.P.; Bonal, D.; Bönisch, G.; Bradford, M.G.; Cernusak, L.A.; Cosio, E.G.*; et al.* Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. *The New phytologist* **2015**, *206*, 614–636.
5. Kagawa, A.; Sugimoto, A.; **Maximov, T.C.** 13CO2 pulse-labelling of photoassimilates reveals carbon allocation within and between tree rings. *Plant, cell & environment* **2006**, *29*, 1571–1584.
6. Kagawa, A.; Sugimoto, A.; **Maximov, T.C.** Seasonal course of translocation, storage and remobilization of 13C pulse-labeled photoassimilate in naturally growing Larix gmelinii saplings. *The New phytologist* **2006**, *171*, 793–803.
7. Ivanov, B.; **Maximov, T.** *Proceedings of International Conference "The Role of Permafrost Ecosystems in Global Climate Change"*: *Held by Institute for Biological Problems of Cryolithozone of Siberian Division of Russian Academy of Sciences, Yakutsk, Russia, at National Academy of Sciences of the Sakha Republic (Yakutia), 3-5 May 2000*; Izd-vo SO RAN: Yakutsk, 2001.