Climate impact on the carbon emission and export from Siberian inland waters (SIWA)

Sergey Kirpotin
Tomsk state university, Russia

JPI Climate Transnational Collaborative Research Projects on Russian Arctic & Boreal Systems
Climate change and the permafrost carbon feedback

E. A. G. Schuur\textsuperscript{1,2}, A. D. McGuire\textsuperscript{3}, C. Schädel\textsuperscript{1,2}, G. Grosse\textsuperscript{4}, J. W. Harden\textsuperscript{5}, D. J. Hayes\textsuperscript{6}, G. Hugelius\textsuperscript{7}, C. D. Koven\textsuperscript{8}, P. Kuhry\textsuperscript{9}, D. M. Lawrence\textsuperscript{10}, S. M. Natali\textsuperscript{10}, D. Olefeldt\textsuperscript{11,12}, V. E. Romanovsky\textsuperscript{10,14}, K. Schaefer\textsuperscript{15}, M. R. Turetsky\textsuperscript{31}, C. C. Treat\textsuperscript{16} & J. E. Vonk\textsuperscript{17}

Permafrost-carbon complexities
Climate impact on the carbon emission and export from Siberian inland waters (SIWA)

Jan Karlsson (Swe), Sergey Kirpotin (Russia), Hjalmar Laudon (Swe), Oleg Pokrovsky (France), Chris Soulsby & Doerte Tetzlaf (UK)

- JPI Climate Transnational Collaborative Research Projects on Russian Arctic & Boreal Systems
- Project period: 2014-2017
- Interdisciplinary project linking expertise in aquatic biogeochemistry, hydrology and permafrost dynamics
- PhD student (Swe): Svetlana Serikova start June 2015

Funding: Swedish Research Council (VR), Natural Environment Research Council (NERC, UK)
To quantify the importance of lakes and streams for the C cycle of the taiga-tundra region of W Siberia, including CO$_2$ and CH$_4$ exchange with the atmosphere and export of land based C to coastal regions.
Scientific approach

Comparative studies of lake-stream networks across a climate gradient in western Siberia, combined with remote sensing and modelling

Field work 2015: Field surveys of gas exchange (CO$_2$, CH$_4$)
- 50 Lakes + streams (of river Ob, Taz and Pur)
- Survey Ob river + main tributaries
- Survey Yenisey river + main tributaries

2016-17: Detailed hydrology and C fluxes in selected catchments. Modeling and upscaling
Questions

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