Natural and anthropogenic methane emissions in West Siberia estimated using a wetland inventory, GOSAT and a regional tower network

Outline:

West Siberia contributes a large fraction of Russian methane emissions, with both anthropogenic and natural sources. For quantifying the anthropogenic emissions, we used high-resolution methane data collected by the University of Tokyo and the University of Tsukuba. We estimated the contribution of wetlands to the methane emissions, using the GOSAT data. We also used the Flexpart model to estimate the methane emissions from wetlands. The methane emissions from wetlands are estimated using the GOSAT data, and the contribution of the wetlands to the methane emissions is estimated using the Flexpart model. We also used the GOSAT data to estimate the methane emissions from wetlands.

References:

Glekou, M., Klepauer, I., Filipov, I., Makaryuk, S., Michalits, T.: Regional methane emissions from West Siberian rivers. ERL, 6, 045214, 2011.

Acknowledgements: Authors acknowledge contribution by Environment and Climate Change Canada, Hui Li, Zhimin Cui, Hanyu Li, Jiangwei Lu, Xinwei Wang, Xiaojie Chen, Pan Min, Yuchen Xia, Xiaoyan Wang, and Yunzhi Zhang. We thank the Russian Ministry of Agriculture for providing the data. This work was supported by the Russian Science Foundation, grant No. 18-77-10004.

EUG2020-16416 © Authors 2020