

Session M-ZZ39 at the Annual JpGU Joint Meeting 2018 (May 22nd, 2018, PM)

Environmental, socio-economic and climatic changes in Northern Eurasia

We invite presentations on the biogeochemical and hydrological cycles, climate and ecosystem interactions in Northern Eurasia (land-cover/land-use change, atmospheric aerosols, soil, and permafrost changes that affect and are being affected by human activity, climate and ecosystem change), “human dimension”, and tools to address the Northern Eurasia studies. In environmental studies, our Session foci are on the carbon cycle of Northern Eurasia and on the permafrost changes in Siberia, Asian Mountains, and the Arctic coastal regions.

In the regional water cycle studies, our Session foci are on the changing distribution of precipitation intensity, frequency, especially, in the cold/shoulder season transition periods when surface air temperature is close to 0°C, and on the pattern and seasonal cycle changes of runoff.

In the “human dimension” studies, our Session foci are on assessments of impact of the ongoing environmental changes in Northern Eurasia on the human well-being and on mitigation strategies development in response to harmful consequences of these changes.

Among the tools, a special attention at the Session will be paid to the perspectives of improving the coupling between the human and natural systems, through the use of Earth system models and integrated assessment models, to explore interactions and feedbacks between the various components of the coupled human-Earth system and to understand the role of Northern Eurasia in the global Earth system.

Three particular regional foci of this Session will be the studies of changes that impacts regional sustainable development in the Dry Latitudinal Belt of Northern Eurasia, the Eurasian Arctic, and the boreal forest zone of Northern Eurasia.

We invite also early career scientists associated with (or interested in) the Northern Eurasia Future Initiative (<http://nefi-neespi.org/NEFI-WhitePaper.pdf>) ; see also the latest publication “Northern Eurasia Future Initiative (NEFI): facing the challenges and pathways of global change in the twenty-first century in “Progress in Earth and Planetary Science” journal. (<http://rdcu.be/Dybk>).

Conveners:

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