

---

[EJ] Evening Poster | A (Atmospheric and Hydrospheric Sciences) | A-CG Complex & General

## [A-CG38]Science in the Arctic Region

convener:Shun Tsutaki(The University of Tokyo), NAOYA KANNA(Arctic Research Center, Hokkaido University), Shunsuke Tei(北海道大学 北極域研究センター, 共同), Tetsu Nakamura(Faculty of Environmental Earth Science, Hokkaido University)

Thu. May 24, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

The Arctic and circumpolar region is the key area for the study of global change because the anthropogenic impact is projected to be the largest in this area due to the complicated feedback processes of the nature. A number of international and interdisciplinary research projects have been conducted for the studies on the land-atmosphere-ocean system. In order to understand the feedback processes occurring in the Arctic and to project the global warming in the future, we need to establish the intense observational network and to exchange the knowledge and information by combining the different scientific communities under the common interest of the Arctic. The objectives of this session are 1) to exchange our knowledge on the observational facts and integrated modelling and 2) to deepen our understanding on wide range of natural sciences related to the Arctic and the circumpolar region. Studies on humanities, social sciences, and interdisciplinary fields are also welcomed.

---

## [ACG38-P09]Variation of seasonal thaw depth at permafrost larch forest in eastern Siberia

\*Ayumi Kotani<sup>1</sup>, Takeshi Ohta<sup>1</sup>, Tetsuya Hiyama<sup>2</sup>, Taro Nakai<sup>2</sup>, Yoshihiro Iijima<sup>3</sup>, Trofim Maximov<sup>4</sup> (1.Graduate School of Bioagricultural Sciences, Nagoya University, 2.Institute for Space-Earth Environmental Research, Nagoya University, 3.Graduate School of Bioresources, Mie University, 4.Institute for Biological Problems of Chryolithozone, SB RAS)

Keywords:seasonal thaw depth, larch forest, soil water

This study investigated temporal and spatial variability of seasonal thaw depth at larch-dominated forests in the middle part of the Lena basin, eastern Siberia. We compared temporal and spatial variability of thaw depth at two larch-dominated forests mixed with birch and willow, in the southern and middle parts of the Lena basin. Difference in precipitation both of rain and snow and soil properties such as soil texture relate to difference in seasonal thawing speed and soil water content of the two forests. Field measurements of thaw depth using handheld dynamic cone penetrometer were repeated in each site in June&ndash;July (first half of summer) and September (before soil freezing). Although averages of thaw depth observed in the same season was not differ, their spatial variability showed contrast in two sites. Thaw depth relates to vertical mean penetration resistance in summer, while it relates to upper canopy and floor plant coverage in autumn observation.