

General Announcements

Thank you very much for your registration to the International Symposium on “Pan-Arctic Water-Carbon Cycles and Terrestrial Changes in the Arctic: For resilient Arctic Communities”. This symposium will be carried out in online via Zoom. The Zoom link will be sent out one week in advance of the event to all who registered.

From the next page, you can find the program, in which schedule (time zone) is indicated in Japanese standard time (JST).

[For oral session speakers]

Oral presentation consists of 15 minutes talk and 5 minutes discussion. Please prepare your presentation material in PowerPoint or PDF format.

[For poster session speakers]

Two poster sessions are set in the first day (8 March) and the third day (10 March). In each day, we request corresponding authors to talk contents of poster very briefly (within 2 minutes). We also request corresponding authors to send poster in PDF file to < pawcs-archi-ws@isee.nagoya-u.ac.jp > before 1 March (Tue.).

Program

8 March (Tue.)

13:30 - 13:40 Opening

(Chair: Kazuhito Ichii)

13:40 - 14:00 Tetsuya Hiyama et al.
Progress of the PAWCs project

14:00 - 14:20 Tomonori Sato et al.
Enhanced water vapor transport toward Siberia originated from Arctic Ocean investigated by tagged moisture transport model

14:20 - 14:40 Masahiro Tanoue et al.
Relationship between sea ice retreat and precipitation isotopic ratios around Arctic region

14:40 - 15:00 Kimpei Ichiyanagi et al.
Considering warming impact on stable isotopes in precipitation observed at Tiksi in northern Siberia

15:00 - 15:10 Coffee Break

(Chair: Tomonori Sato)

15:10 - 15:30 Hironari Kanamori et al.
Interdecadal and multidecadal variabilities in summer precipitation over three major Siberian river basins

15:30 - 15:50 Kazuyoshi Suzuki et al.
Effect of permafrost thawing on discharge of the Kolyma River, Northeastern Siberia

15:50 - 16:10 Alexander Fedorov et al.
The climate warming-induced degradation of ice-rich permafrost landscapes in Central Yakutia

16:10 - 16:30 Avirmed Dashtseren et al.
Climate change during the last 60 years and its impact to permafrost degradation in Mongolia

(Chair: Tomonori Sato)

16:30 - 16:50 Brief (2 minutes) oral presentations for all posters.

16:50 - 17:30 Poster Session

9 March (Wed.)

13:30 - 13:40 Opening

(Chair: Masayuki Kondo)

13:40 - 14:00 Trofim Maximov et al.
30 years of Russian-Japanese research on climate change in Eastern Siberia – SakhaFluxNet:
results and prospects

14:00 - 14:20 Shunsuke Tei
Vulnerability and resilience of larch tree growth to climate changes in eastern Siberia

14:20 - 14:40 Roman Petrov et al.
Carbon balance of typical tundra ecosystem of the North-East of Russia

14:40 - 15:00 Hirohiko Nagano et al.
Contrasting 20-year trends in NDVI at two Siberian larch forests with and without multiyear
waterlogging-induced disturbances

15:00 - 15:10 Coffee Break

(Chair: Hironari Kanamori)

15:10 - 15:30 Da Wang et al.
Changes in terrestrial vegetation activities from 2000 to 2019 observed by satellite-based
products across Siberia

15:30 - 15:50 Kazuhito Ichii et al.
Impact of anomalous high temperature in the 2020 spring-summer season on terrestrial carbon
cycle across Siberia

15:50 - 16:10 Masayuki Kondo et al.
Enhanced net CO₂ uptake induced by autumn cooling in western-central Siberia

16:10 - 16:30 Masahito Ueyama et al.
Methane emissions from the forest floor of a black spruce forest on permafrost in interior Alaska

16:30 - 16:50 Akihiko Ito
Simulations of wetland methane emission using a process-based model and GCP-CH₄ protocol

(Chair: Yoshihiro Iijima)

16:50 - 17:30 Discussion (Closing of the second day)

10 March (Thu.)

13:30 - 13:40 Opening

(Chair: Yuichiro Fujioka)

13:40 - 14:00 Yoshihiro Iijima et al.

Thermokarst landscape change detected by multiple geospatial data in Churapcha, Central Yakutia

14:00 - 14:20 Takahiro Abe and Yoshihiro Iijima

Thermokarst subsidence near the settlement of selected cities in the Lena-Aldan interfluvium, Central Yakutia, revealed by ALOS-2 InSAR

14:20 - 14:40 Kosuke Takaya and Takeshi Ise

Automatic detection and mapping thermokarst in eastern Russia using satellite images and deep learning

14:40 - 15:00 Taiga Sasagawa and Hiroki Mizuochi

Feasibility study toward spatiotemporal mapping of water and vegetation distribution over thermokarst wetlands in Siberia by synergy of optical and microwave satellite data

15:00 - 15:10 Coffee Break

(Chair: Hiroki Mizuochi)

15:10 - 15:30 Go Iwahana et al.

Consequences of wildfires in boreal forests underlain by ice-rich permafrost near Batagay, NE Siberia

15:30 - 15:50 Kazuki Yanagiya et al.

Spatial heterogeneity of post-fire abrupt permafrost thaw detected by L-band InSAR and on-site observations at Batagay, Northeastern Siberia

15:50 - 16:10 Yuriy Zhegusov

Climate change impact on food storage practice in ice cellars (buluus) in Central Yakutia (example of Tattinsky district)

16:10 - 16:30 Mamoru Ishikawa et al.

Deteriorating permafrost and spring water in Mongolia

(Chair: Hiroki Mizuochi)

16:30 - 16:50 Brief (2 minutes) oral presentations for all posters.

16:50 - 17:30 Poster Session

11 March (Fri.)

13:30 - 13:40 Opening

(Chair: Yuto Tashiro)

13:40 - 14:00 Liudmila Lebedeva et al.

Recent changes of river streamflow in Eastern Siberia

14:00 - 14:20 Hotaek Park et al.

Quantitative contributions of source waters to hydrological processes of the Lena River basin separated by a tracer model

14:20 - 14:40 David Gustafsson et al.

Spring flood and river ice break-up forecasting for Yakutian rivers in the HYPE-ERAS project

14:40 - 15:00 Stepan Grigorev et al.

Rural Communities of Yakutia in the Face of Devastating Floods: Historical Experience, Protection, Adaptation

15:00 - 15:10 Coffee Break

(Chair: Hotaek Park)

15:10 - 15:30 Yuichiro Fujioka et al.

Differences in Local Perceptions about Environmental Changes in and between Communities in Eastern Siberia

15:30 - 15:50 Viktoriya Filippova and Liliya Vinokurova

Changing Watery World: traditional knowledge and adaptive practices of indigenous peoples of Yakutia

15:50 - 16:10 Aleksander Georgiadi and Pavel Groisman

Long-term changes of Water Flow, Water Temperature and Heat Flux of two Largest Arctic Rivers of European Russia, Severnaya Dvina and Pechora

16:10 - 16:30 Yuto Tashiro et al.

Reason for the high concentration of dissolved iron in the Amur River from 1995 to 1997 – possibility due to permafrost degradation –

(Chair: Tetsuya Hiyama)

16:30 - 17:30 General Discussion

List of poster presentations

Ayumi Kotani

Soil freezing and spring CO₂ fluxes in larch forests of Siberia – to untangle drivers of growing season forest productivity

Valentina Sofronova and Beatrycze Nowicka

Changes in content of α -Toc and induction curves of chlorophyll fluorescence (OJIP) in field-grown low temperatures-stressed *Ephedra monosperma*

Marat Grigorev and Trofim Maximov

Ecological and physiological features of the process of photosynthesis of white birch (*Betula platyphylla*) in South-Eastern Yakutia

Yohei Kurosawa et al.

Spatio-temporal variability of vegetation response to climate in the forest-tundra ecotone

Naoto Omori and Yoshihiro Iijima

Detection of interannual changes in water and vegetation change areas in Eastern Siberia using the ALOS series dataset

Shihori Kawashima et al.

Factors for local-scale spatiotemporal variation of spring onsets of vegetation in interior Alaska

Xiling Zhou et al.

A mechanism of Eurasian winter temperature variability linked to Arctic change investigated using a large ensemble experiment