POLAR ECOLOGY CONFERENCE 2020



February 12th-15th 2020 České Budějovice Czech Republic











CONFERENCE SCIENTIFIC COMMITTEE

Oleg Ditrich
University of South Bohemia, Czech Republic

Josef Elster
University of South Bohemia, Czech Republic

Marie Šabacká
University of South Bohemia, Czech Republic

ORGANISING COMMITTEE

Marie Šabacká, Alexandra Bernardová, Eva Myšková Tereza Hromádková, Marek Brož, Martin Lulák

ORGANISATION

Centre for Polar Ecology, Faculty of Science, University of South Bohemia in České Budějovice

SUPPORTED BY:

Iceland Norway
Liechtenstein Norway
Norway grants grants

Conference is organised by the Faculty of Science, University of South Bohemia in České Budějovice and University of Tromso, The Arctic University of Norway (UiT) and is supported by Norway Grants via the EHP-BFNU-OVNKM-2-065-01-2019 project "Student conference - Arctic University of Norway and University of South Bohemia, České Budějovice (PEC 2020)"





LIST OF POSTERS

1	Anděrová V., Kavan J. Svalbard reindeer (Rangifer tarandus platyrhynchus) antler characteristics reflecting the local environmental conditions
2	Bechberger O. , Kreiling AK., Einarsson Á Vegetation patterns around Lake Mývatn in NE-Iceland: Impact of chironomid midges on terrestrial ecosystems
3	Berezkina A. , Kharkhota M., Kot Y., Utevsky A. Microorganisms from Antarctic benthic biotopes in the water area of the Argentine Islands, Graham Land, West Antarctica
4	Bernardová A. , Myšková E., Ditrich O. What is hidden in reindeer's droppings? A botanical and parasitological study
5	Branišová V., Ditrich O. Trematoda of the family Hemiuridae in Svalbard
6	Dietrich U. Effects of glaciers on sea ice physics and biology
7	Huseynli A. The soil-plant interactions of arctic willow in arctic soil chronosequence.
8	Kociánová M., Štursová H., Málková J., Jedlička T., Martincová M., Kozák M., Vosáhlová V. Scandinavian types of beaded stream ecosystem
9	Kovalenko P.A., Serga S.V., Gorobchyshyn V.A., Trokhymets V.M., Kozeretska I.A. Larval head capsule morphometrical traits of <i>Belgica antarctica from Petermann Island</i>
10	Koyama H., Wada T., Elster J. Cyanobacteria in the lake benthic microbial mats around Showa station, East Antarctica
11	Novotný D., Ditrich O. Diversity and life cycles of trematodes from family Opecoelidae in Svalbard
12	Pokorný R., Moravec J. Institute Julius von Payer for Subarctic and Arctic Research
13	Samchyshyna L. Vertical distribution of zooplankton in the Bransfield Strait (Antarctic Peninsula) at early austral summer 2018
14	Šamšulová T. Green microalgae in polar lakes: diversity, biogeography and methodology comparison
15	Sefilian A., Goncharova O., Matyshak G., Bobrik A. The Influence of Snow Cover on Soil Temperature in Western Siberia
16	Smržová L., Macek P. Reproductive traits of arctic plants
17	Špička J. , Hromádková T., Syrová M., Flousek J., Veselý P. Predator recognition during nest defence by arctic tern (<i>Sterna paradisaea</i>)
18	Tarasov Y. Homologs of β-tubulin 2 of Trichostrongylus tenuis in arctic helminths
19	Timofeeva M. , Goncharova O. Organic carbon compounds of the palsa catchment (Western Siberia, Russia)
20	Utevsky A. , Sinna O., Shmyrov D., Utievskiy Y., Levenets V. Habitat mapping of nearshore water areas for establishing special protected zones off the Argentine Islands, Graham Land, West Antarctica
21	Wada T., Koyama H., Kudoh S., Imura S., Elster J. The about JARE (Japanese Antarctic Research Expedition) and nature, research of around Japanese station in Antarctica
22	Zotov A. , Dzhulai A., Prekrasna I., Pavlovska M. Phytoplankton community taxonomic structure near Argentine islands during summer bloom

SCIENTIFIC PROGRAMME

Wednesday 12th February 2020

• 18:00-21:00: Registration and Icebreaker reception (at the lobby of the conference venue)

Thursday 13th February 2020

- 08:00-09:00: Registration
- 09:00-09:15: Welcome speech
- 09:15-09:45: Keynote talk Gradinger R. Fjord ecosystems
- 09:45-10:45: Science talks, session 1
 - 09:45-10:00 <u>Tarkhov M.</u> Permafrost organic carbon in palsa peatland ecosystems of North-Western Siberia: an intensive response to experimental warming
 - 10:00-10:15 **Voříšková J.** Fast response of fungal and bacterial communities to climate change manipulation in two contrasting tundra soils
 - 10:15-10:30 <u>Vonnahme T.</u> Effects of a shallow tidewater glacier on under-ice spring blooms
 - 10:30-10:45
- 10:45-11:15: Coffee break
- 11:15-12:30: Science talks, session 2
 - 11:15-11:30 <u>Pushkareva E.</u> Soil organic matter structure and cyanobacterial community composition in the soil active layer of Svalbard
 - 11:30-11:45 <u>Wierzgoń M.</u> Species composition of moss turf subformation on the Galindez Island (Argentine Islands, maritime Antarctic): setting a basis for monitoring of terrestrial environment
 - 11:45-12:00 Laanisto L. Playing hide and seek with intraspecific trait variability
 - 12:00-12:15 Kozeretska I. The origins of Antarctic vascular plants
 - 12:15-12:30
- 12:30-14:00: Lunch
- 14:00-14:30 Keynote talk Bárta J. Buried but not dead: Microbiomes of Arctic Cryosols
- 14:30-15:30: Science talks, session 3
 - 14:30-14:45 <u>Moravec J.</u> Arctic: power politics, natural resources and ecosystem services
 - 14:45-15:00 <u>Kalinowska A.</u> Untreated wastewater as an anthropogenic pollution in the Arctic settlements
 - 15:00-15:15 <u>Mandryka O.</u> New Ways for Polar Population Health Monitoring: Tools and Results
 - 15:15-15:30 <u>Gavrilo M.</u> Open Ocean: Arctic Archipelagos 2019. Severnaya Zemlya
 Multidisciplinary expedition towards better conservation of the pristine area of universal outstanding value
- 15:30-16:00: Coffee break

SCIENTIFIC PROGRAMME

- 16:00-17:00: Science talks, session 4
 - 16:00-16:15 **Elster J.** Annual development of mat-forming filamentous algae *Tribonema* sp. in hydro-terrestrial habitats in the Arctic
 - 16:15-16:30 <u>Rafiq M.</u> Tirich Mir glacier (Hindukush range) hosts fungi of unique characteristics with potentiality in biotechnological applications
 - 16:30-16:45 Kvíderová J. Algal mass cultivation in low-temperatures
 - 16:45-17:00
- 17:00-18:00: Poster session
- 19:00-22:00: Conference dinner (Naše farma)

Friday 14th February 2020

- 09:00-09:30: Keynote talk *Hromádková T.* The life strategy of the Arctic tern
- 09:30-11:00: Science talks, session 5
 - 09:30-09:45 **Akhil P.** Arctic tern a potential carrier of multi-drug resistant bacteria and ARG's into pristine polar environments?
 - 9:45-10:00 **Zmuczynska-Skabek K.** The influence of seabird colonies on Arctic shallow benthic communities
 - 10:00-10:15 <u>Bechberger O.</u> Habitat changes of polar bears in summer as assessed by long term observations in North-East Greenland
 - 10:15-10:30 <u>Ingle K.</u> Categorizing epibiotic communities from seaweed ecosystem in more ecological way
 - 10:30-10:45 <u>Kuzmina T.</u> Helminths of Notothenia coriiceps from the Vernadsky station area (Argentine Islands, Antarctic): alteration of the parasite community during last decades
- 10:45-11:15: Coffee break
- 11:15-12:30: Science talks, session 6
 - 11:15-11:30 <u>Štefková Kašparová E.</u> Is different lifestyle clue to different survival potential? Effect of climate change on marine polar biota.
 - 11:30-11:45 <u>Kreiling A.-K.</u> Temporal and spatial patterns of invertebrate diversity in freshwater springs in Iceland
 - 11:45-12:00 <u>Hejduková E.</u> How to survive winter? Annual study of freshwater diatoms in the Arctic.
 - 12:00-12:15 <u>Jaroměřská T.</u> Trophic Relationships in Cryoconite Holes
 - 12:15-12:30 <u>Procházková L.</u> Ecophysiology of the two most common algae in Arctic snow blooms
- 12:30-14:00: Lunch

SCIENTIFIC PROGRAMME

- 14:00-14:30 Keynote talk <u>Poste A.</u> Linking land and sea: Arctic coastal responses to riverine inputs of terrestrial material
- 14:30-15:30: Science talks, session 7
 - 14:30-14:45 <u>Stachnik L.</u> Trace metal flux during snowmelt from glacierised basin (Werenskioldbreen, SW Svalbard)
 - 14:45-15:00 <u>Kasprzak M.</u> Liquid water as a factor conducive to permafrost degradation in Svalbard
 - 15:00-15:15 **Szymanowski M.** Permafrost active layer thermics controlled by landform features
 - 15:15-15:30 Migała K. Bottom active layer and Impact of seawater on permafrost
- 15:30-16:00: Coffee break
- 16:00-17:00: Science talks, session 8
 - 16:00-16:15 <u>Kavan J.</u> Post-Little Ice Age development of coast in the locality of Kapp Napier, central Spitsbergen, Svalbard archipelago
 - 16:15-16:30 <u>Rantala M.</u> Sunlight shapes carbon cycling across the subarctic landscape – tracing solar fingerprints in lake water and sediment biochemistry
 - 16:30-16:45 **Kivilä H.** Effects of light and UV radiation on northern aquatic ecosystems
 - 16:45-17:00 <u>Karlsen S.R.</u> Mapping the seasonal dynamics with Sentinel-2 data in Svalbard

Saturday 15th February 2020

• 09:00-16:00: Excursion

Poster session

The poster session will be held in the lobby of the venue. Poster display boards will be set by early evening on Wednesday. We suggest you set up your poster upon arrival. Supplies will be available. Posters will remain on display during the whole event. All authors should be near their posters and prepared to discuss their work at the appropriate time on Thursday evening.

Notice to all attendees: As a courtesy to all presenters, we request that all attendees keep their phones in silent mode while attending the meeting.