



# POLAR ECOLOGY CONFERENCE 2020



February 12<sup>th</sup>-15<sup>th</sup> 2020

České Budějovice

Czech Republic



Jihočeská univerzita  
v Českých Budějovicích  
University of South Bohemia  
in České Budějovice

Iceland  
Liechtenstein  
Norway grants

Norway  
grants



**CONFERENCE SCIENTIFIC COMMITTEE**

Oleg Ditrich, Josef Elster, Marie Šabacká  
University of South Bohemia, Czech Republic

**ORGANISING COMMITTEE**

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

**ORGANISATION**

Centre for Polar Ecology and  
Czech Arctic Research Station  
Faculty of Science  
University of South Bohemia in České Budějovice

**SUPPORTED BY:**

Iceland   
Liechtenstein  
Norway grants

  
Norway  
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Conference is organised by the Faculty of Science, University of South Bohemia in České Budějovice and University of Tromsø, 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)"



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# CONFERENCE VENUE - Building C

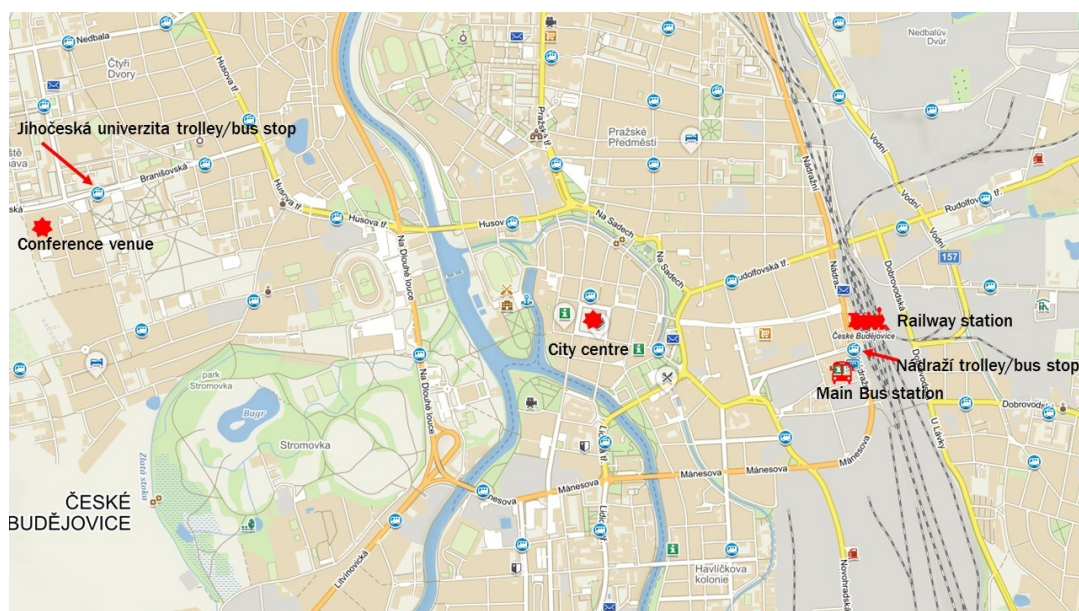
The conference will take place on the campus of the University of South Bohemia in Building C, room C2, Faculty of Science, Branišovská 1760.



There are many possible ways how to get there:

- **Public transport** - The trolley/bus stop “Jihočeská univerzita” is located 5-minute walk from the conference venue. Trolley bus number 3 runs to/from the railway/bus station approximately every 10 minutes.
- **Walking** - The conference venue is located a roughly 35-minute walk from the city centre or 50 minutes from the railway station. We recommend taking a more scenic and quieter route across Sokolský Island rather than following the main busy route.
- **Cycling** - The city is very flat and bike-friendly with many bicycle paths. You can rent a bike from a railway station or through a bike-sharing app Rekola. You can plan your cycling route using mapy.cz
- **Taxi or car** - Several taxi services operating within the city of České Budějovice. The approximate cost of one trip is 120-200 CZK.

TáGo: +420 601 250 260, Taxi Budějovice: +420 800 14 15 16, Citi taxi: +420 733 20 30 45



# GENERAL INFORMATION

## Registration/Information desk

Registration/information will be available at the following times:

- Wednesday, February 12: from 18:00 to 21:00
- Thursday, February 13: from 08:00 to 14:00

Information desk will be also located in the conference venue next to the entrance to the room C2.

Registration for the PEC 2020 includes your welcome package, and it covers the following:

- Icebreaker reception  
(Wednesday, from 18:00 to 21:00, lobby of the venue)
- Conference dinner  
(Thursday, from 19:00 to 22:00, Naše farma restaurant)
- Excursion to Kleť observatory with a grab-and-go lunch  
(Saturday, from 09:00 to 16:00)
- Refreshment during Coffee breaks and Poster session

**NOTE:** Please wear your name tag at all times, as it serves as your admission ticket to all events and Conference dinner.

## Internet access

Wifi: JU\_wireless / JU\_wireless\_WebAAA

Login: pec2020

Password: poleco20

## Food

During Coffee breaks and Conference dinner food allergens will be marked accordingly.

# SCIENTIFIC PROGRAMME

## Wednesday 12<sup>th</sup> February 2020

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

## Thursday 13<sup>th</sup> February 2020

- 08:00-09:00: Registration
- 09:00-09:15: Welcome speech
- 09:15-09:45: Keynote talk - **Gradinger R.** The changing Arctic Ocean ecosystems
- 09:45-10:45: Science talks, session 1
  - 09:45-10:00 **Tarkhov M.** Permafrost organic carbon in tundra 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 **Vonnahme T.** Effects of a shallow tidewater glacier on under-ice spring blooms
  - 10:30-10:45 **Goncharova O.** Spatial distribution of organic and inorganic carbon fluxes on a wetland complex: hot spots and leading factors (West Siberia, Russia)
- 10:45-11:15: Coffee break
- 11:15-12:30: Science talks, session 2
  - 11:15-11:30 **Pushkareva E.** Soil organic matter structure and cyanobacterial community composition in the soil active layer of Svalbard
  - 11:30-11:45 **Wierzgoń M.** 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 - **Poste A.** Linking land and sea: Arctic coastal responses to riverine inputs of terrestrial material
- 14:30-15:30: Science talks, session 3
  - 14:30-14:45 **Moravec J.** Arctic: power politics, natural resources and ecosystem services
  - 14:45-15:00
  - 15:00-15:15 **Mandryka O.** New Ways for Polar Population Health Monitoring: Tools and Results
  - 15:15-15:30 **Gavrilo M.** 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 **Jimel M.** Annual development of mat-forming filamentous algae *Tribonema* sp. in hydro-terrestrial habitats in the Arctic
  - 16:15-16:30 **Rafiq M.** Tirich Mir glacier (Hindukush range) hosts fungi of unique characteristics with potentiality in biotechnological applications
  - 16:30-16:45 **Kvídařová J.** Algal mass cultivation in low-temperatures
  - 16:45-17:00
- 19:00-22:00: Conference dinner (Naše farma)

## Friday 14<sup>th</sup> 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 **Bechberger O.** Habitat changes of polar bears in summer as assessed by long term observations in North-East Greenland
  - 10:15-10:30 **Ingle K.** Categorizing epibiotic communities from seaweed ecosystem in more ecological way
  - 10:30-10:45 **Kuzmina T.** 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 **Štefková Kašparová E.** Is different lifestyle clue to different survival potential? Effect of climate change on marine polar biota.
  - 11:30-11:45 **Krelling A.-K.** Temporal and spatial patterns of invertebrate diversity in freshwater springs in Iceland
  - 11:45-12:00 **Hejduková E.** How to survive winter? Annual study of freshwater diatoms in the Arctic.
  - 12:00-12:15 **Jaroměřská T.** Trophic Relationships in Cryoconite Holes
  - 12:15-12:30 **Procházková L.** Ecophysiology of the two most common algae in Arctic snow blooms
- 12:30-14:00: Lunch

# SCIENTIFIC PROGRAMME

- 14:00-14:30 Keynote talk - **Bárta J.** Buried but not dead: Microbiomes of Arctic Cryosols
- 14:30-15:30: Science talks, session 7
  - 14:30-14:45 **Stachnik L.** Chemical weathering characteristics in two glacierised basins reveal a long-term biogeochemical impact of deglaciation
  - 14:45-15:00 **Kasprzak M.** 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
- 15:30-16:00: Coffee break
- 16:00-17:00: Science talks, session 8
  - 16:00-16:15 **Kavan J.** Post-Little Ice Age development of coast in the locality of Kapp Napier, central Spitsbergen, Svalbard archipelago
  - 16:15-16:30 **Rantala M.** 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
- 17:00-18:00: Poster session

## 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 Friday 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.



# LIST OF POSTERS

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



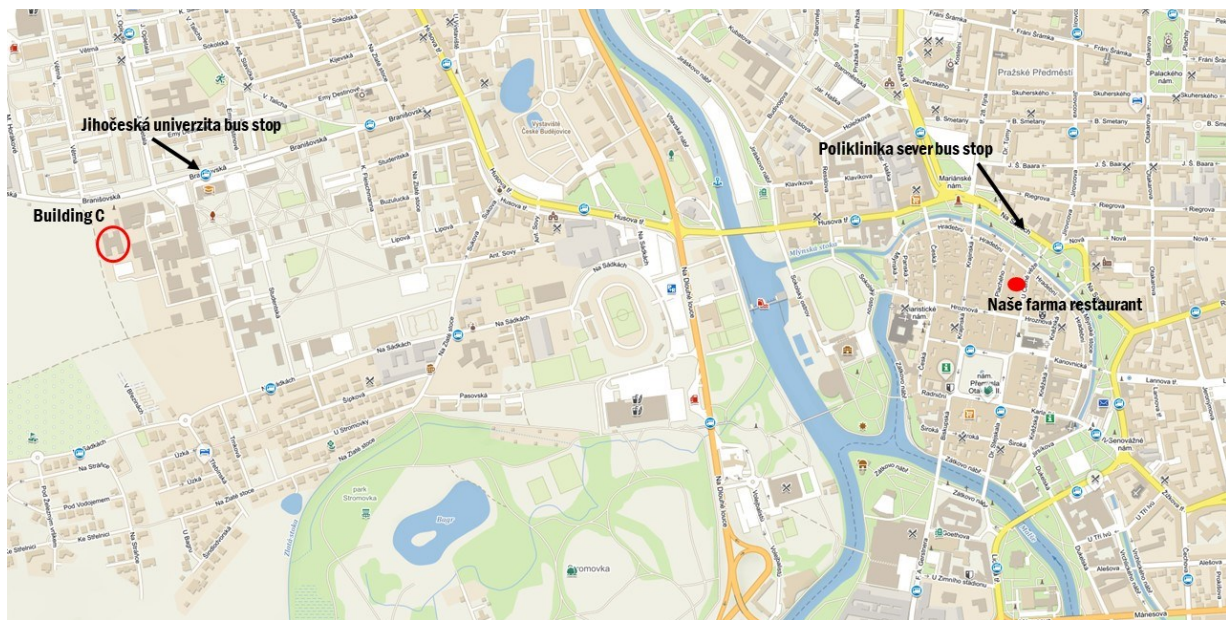
# CONFERENCE DINNER - Naše farma

The conference dinner will be held on Thursday 13 from 19:00 to 22:00 in the restaurant Naše farma in the centre of České Budějovice. The dinner will be served as a combination of cold/hot buffet (vegetarian and lactose-free also).

**NOTE:** Drinks are not included in the dinner.

## How to get there

- by foot: approx. 35 minutes from the Building C, Faculty of Science
- by bus: number 3 from the bus stop "Jihočeská univerzita" to "Poliklinika sever", the bus leaves the stop every 5-15 minutes, the ticket for the bus is possible to buy on the bus stop, the price: 16 CZK one way (credit/debit card payment possible)



Naše farma is a joint project of several South Bohemian farms from the foothills of the Novohradské Mountains and Czech Canada. On our pastures, we have the largest herd of bison in the Czech Republic, and also sheep, fallow deer, and even llamas. Our restaurant Naše farma, serves dishes from its own ingredients or from friendly farms from South Bohemia, right in the centre of České Budějovice.



## FIELD TRIP - Kleť observatory

Departure for the field trip will be at **09:15**. Meeting point is in front of the **Building C**. Please, be there at least **10 minutes** before the departure. Return is expected between **15:00** and **16:00**.

We provide a grab-and-go lunch for the field trip.

The Kleť Observatory is a research institution belonging to few natural science centres of Southern Bohemia in the Czech Republic. The observatory is situated south of the top of Kleť mountain (at an altitude of 1070 m), southwest from the town of České Budějovice, where the seat of the directorship and observatory archive are located. Kleť Observatory was founded in 1957. There are one hundred and fifty clear nights per year with a good astronomical seeing on the average. Today the Kleť Observatory is known in the Czech



Republic and especially in the world for its research of asteroids and comets. Although the main task of the work is to refine the orbits of near-Earth asteroids, they have made more than a thousand confirmed discoveries of new asteroids, as of 1 July 2017 exactly 1021. By this number Kleť belongs to the narrow European top and world twenty-five. In addition, four comets have been discovered.