

PYRN president Helena Bergstedt made presentations at two conferences in Russia

Two permafrost related conferences were held in Russia. 'The Arctic Science Summit Week 2019' took place at Northern (Arctic) Federal University and Northern State Medical University, Arkhangelsk, Russia, from May 22 - 30, and 'Key concepts of soil physics: development, future prospects and current application' was held at Lomonosov Moscow State University in Moscow from May 27 - 31, 2019. Our president, Helena, was able to represent PYRN at both conferences. At ASSW, she presented to attendees about PYRN's resources, goals and achievements. In Moscow, she presented "Some recent advances in permafrost monitoring using microwave remote sensing – implications for studying cold regions" and also fielded questions about PYRN related activities.

Some pictures from her visit to Russia below!



PYRN Russia Meeting #44 in Moscow, Russia

By Dmitry Nekrasov


On February 21st, the 44th PYRN Russia Meeting took place at the Institute of Geography, Russian Academy of Sciences. Young permafrost researchers gathered to hear a talk about “Technological ecosystem of ArcGIS: open resources for researchers” which was given by Evgeny Panchenko, Senior Specialist on geospatial technologies of ESRI CIS. Evgeny presented about variability of ESRI CIS products, explained differences between ArcMap and ArcGIS Pro, shared the features of different web-resources, and provided links to useful presentations and satellite image databases (specifically Arctic and Antarctic ones). More information can be found in our official group of PYRN Russia Meetings: https://vk.com/pyrn_44

During the coffee break, PYRN stickers were distributed among the attendees to identify themselves as a part of our community!



Arctic DEM Explorer

- 2 м (7й релиз)
- **Есть зоны без данных**
- Доступна через Pro, ArcMap, веб-приложения
- Time-enabled
- [Тьюториал](#)
- [Каталог в Living Atlas](#)



"Up until now, we've had a better map of Mars than we've had of the Earth." Ian Howat, director of the Byrd Polar and Climate Research Center at The Ohio State University



Group pictures of PYRN Russia members and attendees of PYRN Meeting + Couple of slides from the ArcGIS Presentation + Small afterparty :)

The event was streamed through our Instagram account [@pyrn_official](#) that allowed more PYRs to listen to the talk!

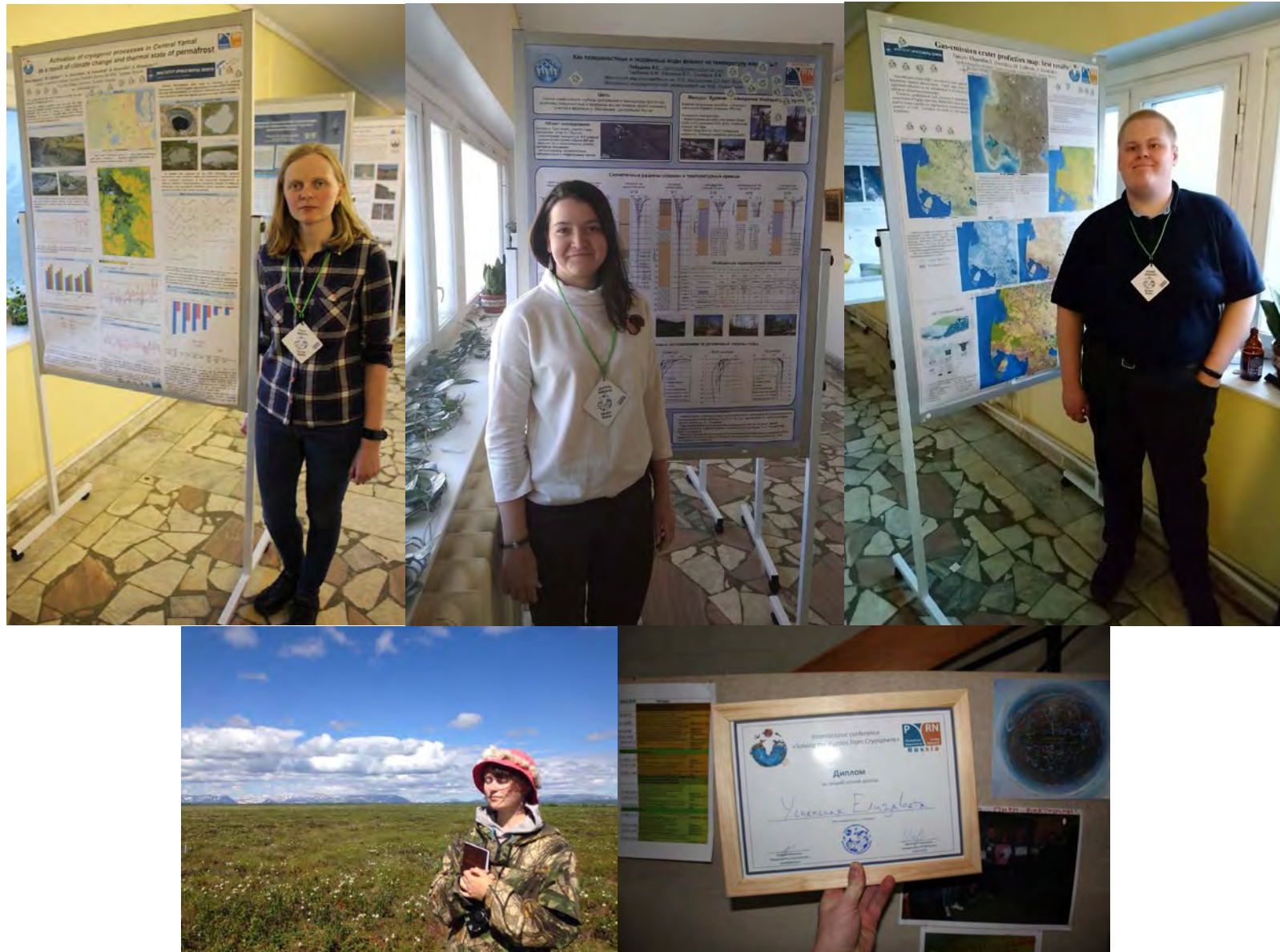
PYRN Russia Workshop in Pushchino, Russia

By Dmitry Nekrasov

On April 15th the PYRN Russia Workshop took place during the Pushchino Permafrost Conference “Solving the puzzles from Cryosphere”. During the evening of the first day of the conference, PYRs gathered together in the small and cozy cafe “Katyusha”. The goals of the evening event were numerous: enhance friendly and productive collaboration between PYRs, get new connections through networking, listen to the business stories from senior colleagues (in our case IT specialists from Belarus producing modelling software for institutes and organizations that study permafrost) and level up team building skills while completing the challenging PermaQuiz prepared by PYRN Council Member Alexey Maslakov. Cold beer and hot snacks at the end of a long conference day favoured the PYRN Workshop. By 11 pm, all talks were given, all certificates granted, PYRN stickers spread, beer drank, snacks eaten and fun delivered! :) PYRs went back to their flats/hotels/dorms to have a good sleep before the next day of conference. See some pictures from this event below:



PYRN was also one of the Pushchino conference supporters. Three young researchers won PYRN poster awards (Rite in the rain notebook, pen and PYRN Certificate): Day 1 - Elena Babkina, Day 2 - Lyudmila Lebedeva , Day 3 - Ruslan Khairullin. One young researcher won PYRN oral talk award (5000 rubles and PYRN Certificate): Elizaveta Uspenskaya. See the photos of the winners below!



Moreover, the whole Pushchino Permafrost Conference “Solving the puzzles from Cryosphere” was streamed through our social media account by Alexey Lupachev - scroll down and take a look at more photos from the event: https://vk.com/pyrn_russia

PYRN Russia members gave talks at TRANSOILCOLD2019 in Saint-Petersburg, Russia

By Pavel Kotov

'Transportation Soil Engineering in Cold Regions' conference took place in St. Petersburg, Russia from 20 to 23 May 2019. PYRN Russia members gave talks, took part at the Young Geotechnical Engineers Symposium and represented PYRN during their presentations. Denis and Pavel were also awarded with conference certificates. See some pictures below!



PYRN at the SPARC 2019 in Brno/Czech Republic

by Filip Hrbacek and Isabel Prater

In April, the Czech PYRN group co-organized the Students in Polar and Alpine Research Conference (SPARC) 2019. The Department of Geography at Masaryk University in Brno/Czech Republic hosted the fifth annual meeting with 29 students and Agata Buchwal, Jan Blahůt, Linda Nedbalová and Neil Glasser as keynote speakers. The presentations covered a wide range of topics both from bio- and geoscience research from the Arctic and Antarctica, but mountainous regions were also included. Again, permafrost-related talks were strongly represented with about one third of all

contributions. PYRN supported this great meeting and enabled the organizers to provide refreshments during the whole conference—that were accepted with pleasure by the participants.

This is a great opportunity to point to the possibility of NRs to get funding from PYRN for social events or similar occasions. Just use the Funding Application Form you can find online and get in touch with PYRN ExCOM!

The proceedings of SPARC are online available:

<https://www.researchgate.net/publication/332754370> Proceedings Students in Polar and Alpine Research Conference 2019



Impressions from the 5th SPARC in Brno (clockwise): conference attendees at the poster session, Daniel Nývlt welcomes the participants and opens the conference, group picture of the conference attendees and conference refreshments.

PYRN membership

By Denis Frolov and Helena Bergstedt

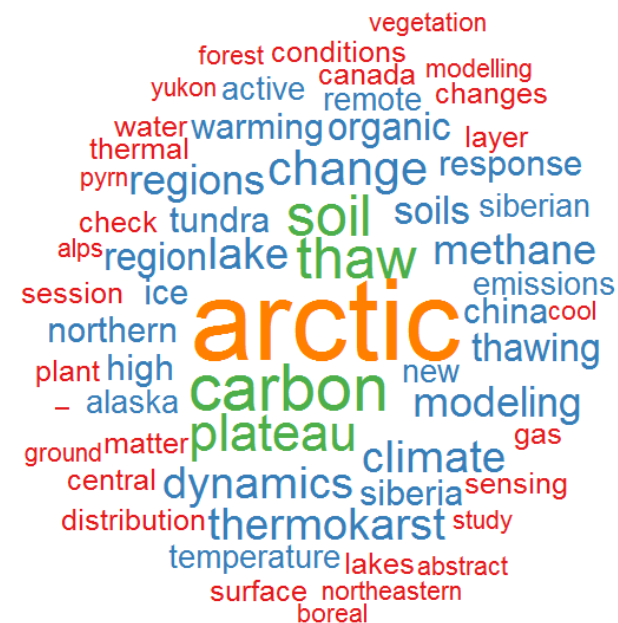
We improved the functionality of our website and members are now able to login and edit their profile. Did your affiliation or research area change since you signed up for PYRN? Please have a look if your information is up to date and edit it if necessary. To access your profile, please visit: <https://pyrn.arcticportal.org/join-us/intranet>

Please also check the national PYRN branches at <https://pyrn.arcticportal.org/national-representatives/national-pyrn-branches>. It has recently been added and is going through modification process, but some data is already there!

PYRN Tweets in 2019

By Evan Wilcox





To the right is a word cloud of all of our tweets so far in 2019. Larger words appeared more often in our tweets, which are mostly from our #APermafrostPaperADay series. All of these words appeared at least five times out of our 190 tweets (not counting retweets). Unsurprisingly, 'arctic' is at the centre of this diagram, but 'mountain' does not appear, only 'alps' on the left outer rim. We also see that the regions 'Siberia', 'Alaska', 'China', 'Canada' appear in similar frequency. Are there any components of permafrost which you would like better represented in our #APermafrostPaperADay series? If so, tweet us [@PYRN_official](https://twitter.com/PYRN_official)! The word cloud was created using the R package ['wordcloud'](#), and tweet data was downloaded directly from twitter and cleaned using code adapted from [Intro to Text Analysis with R](#).

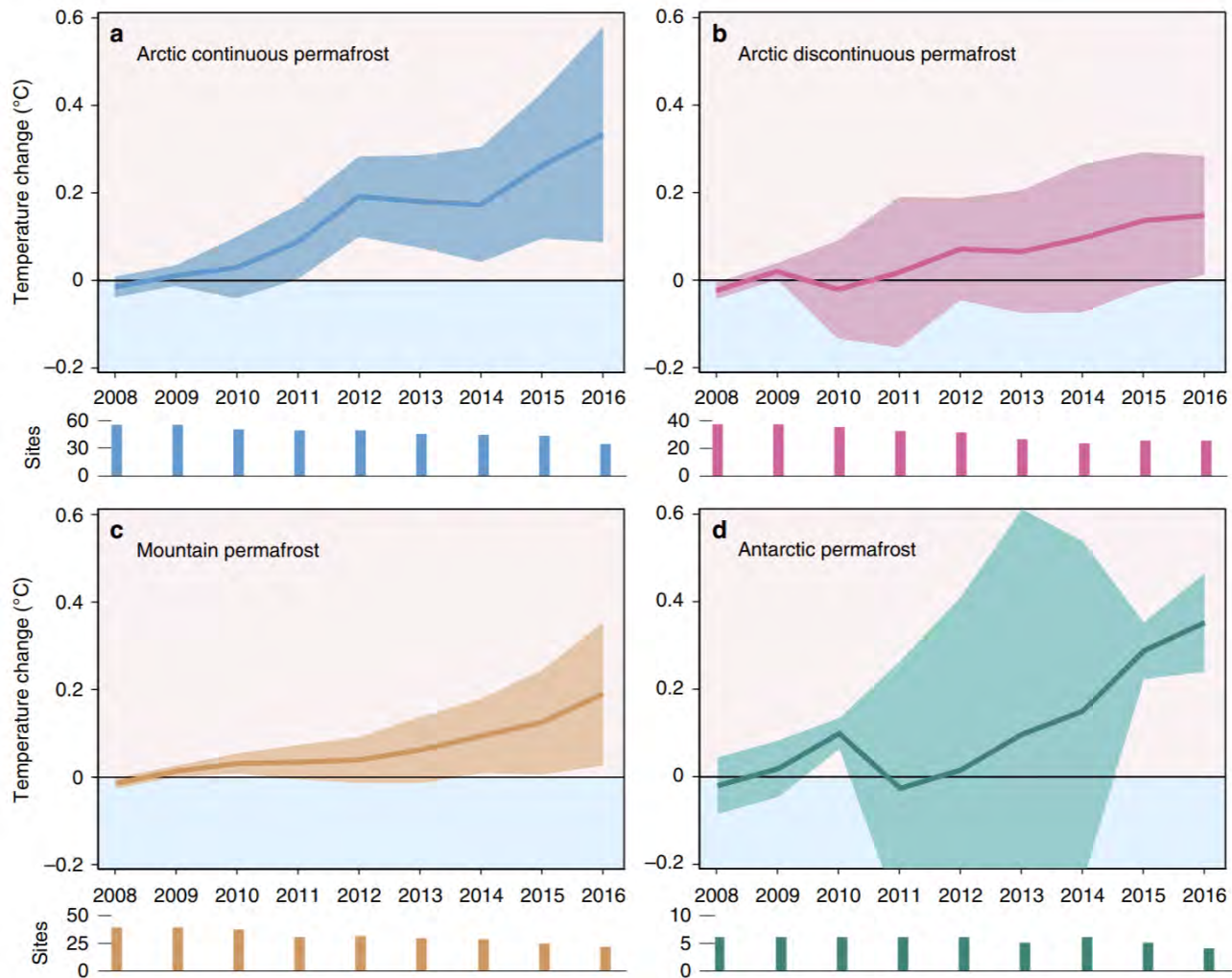


Most Viewed Paper of Winter/Spring 2019

By Evan

Wilcox

The most viewed #APermafrostPaperADay since the last newsletter was “Permafrost is warming at a global scale” by Biskaborn et al. 2019 in Nature Communications. The article synthesizes a “global data set of permafrost temperature time series from the Global Terrestrial Network for Permafrost to evaluate temperature change across permafrost regions for the period since the International Polar Year (2007–2009)”. As the title suggests, permafrost temperatures increased in all four permafrost regions within the small 8 year analysis window. The article reached 1.4k people with 35 shares, 42 , 9 , 5 , and 1 . You can download the article pdf for free [here](#).



New study shows patterns of carbon release from thawing permafrost in Siberia

By Jannik

Martens

The new study by Wild et al. published in Proceedings of the National Academy of Sciences (PNAS) in May 2019 combines a decade-long observational record of ^{14}C in organic carbon of four large Siberian rivers and provides a quantitative picture of carbon that specifically stems from permafrost and peat deposits. Distinct seasonal patterns suggest that dissolved organic carbon primarily stems from gradual leaching of surface

permafrost soils while particulate organic river load reflects abrupt collapse of deeper permafrost deposits. This shows that Arctic rivers echo large-scale dynamics of permafrost carbon remobilization in response to Arctic warming.

Read the full paper here: <https://www.pnas.org/content/116/21/10280>

Northern Hemisphere permafrost map based on TTOP modelling for 2000–2016

By Helena Bergstedt

The Evaluation of the Northern Hemisphere permafrost map based on TTOP modelling for 2000–2016 at 1 km² scale has been published in Earth-Science Reviews.

Read the full paper here: <https://www.sciencedirect.com/science/article/pii/S0012825218305907>

Or have a look at the data here: <https://doi.pangaea.de/10.1594/PANGAEA.888600>

New comment of experts show the changing landscape and consequences for carbon release

By Matthias Winkel

In a recent Nature comment (<https://www.nature.com/articles/d41586-019-01313-4#ref-CR3>) Merritt Turetsky together with other experts in the field of permafrost science report on dramatic changes in thawing soils of the Arctic that might double the warming due to the release of greenhouse gases. The expert team discusses dramatic landscape changes through subsidence, flooding and landslides that influence whole ecosystems and damaging regional infrastructure. All of these changes might be linked to large carbon feedbacks that already in a small region can have large impacts on climate change. The experts identified 5 major next steps to fill the knowledge gaps: 1. Extend measurement technology, 2. Fund monitoring sites, 3. Gather more data, 4. Build holistic models and 5. Improve reports.

APECS Canada - ASA Mentor Award Nominations

Do you know anyone who has made a meaningful impact to the scientific community in the North? APECS Canada and the ArcticNet Student Association are looking to recognize a mentor who has contributed significantly over a period of several years to the mentoring and fostering of polar early career researchers in Canada.

We encourage nomination packages from a variety of backgrounds for this award, including academics, industry professionals, community members, Elders, educators, public servants, and anyone else that has made a meaningful impact on polar early career researchers.

For more information on the award and how to nominate a mentor, visit www.apecscanada.wixsite.com/ehpecs/mentor-award or contact Jacqueline Hung at jacqueline.hung@queensu.ca.

The deadline for nomination package submissions is September 15, 2019.

Upcoming Dates



Canadian Geophysical Union Joint Annual Meeting with Canadian Meteorological and Oceanographic Society with 27th IUGG Scientific Assembly

10-14 June, Montréal, Québec, Canada

Main Conference Topics: Broad, international range of subjects across geophysics, meteorology, and oceanography

More information can be found at <http://iugg2019montreal.com>

18th International Conference on Cold Regions Engineering and 8th Canadian Permafrost Conference 2019

18-22 August, Québec City, Québec, Canada.

Main Conference Topics: Sustainable infrastructure development in a changing cold environment etc.

More information can be found at <http://iccre-cpc2019.com/>

24th International Symposium on Environmental Biogeochemistry (ISEB2019),

22-27 September, Potsdam, Germany.

Conference on environmental biogeochemistry with a special session on cold environments

More information at <https://iseb2019.org/>

11th AK Permafrost of DACH

25-27 September, Salzburg, Austria.

Workshop on permafrost of the german speaking countries Germany, Austria and Switzerland.

For infos please contact: magdalena.rupprechter@georesearch.ac.at

Svalbard Science Conference 2019

5–6 November 2019, Oslo, Norway.

The conference will focus on Svalbard in a pan-Arctic setting, aspiring to enhance cooperation and quality within Svalbard research, build and strengthen interdisciplinary and international networks.

More information at: <https://forskningsradet.pameldingssystem.no/svalbard-science-conference>

The first Southern Hemisphere Conference on Permafrost (SouthCop) 2019

04-14 December, Queenstown, New Zealand.

Main Conference Topics: Rock glaciers, permafrost hazards, permafrost engineering, etc.

More information can be found at <https://www.southcop19.com/>

Stay up to date with PYRN social media

By Dmitry Nekrasov, Evan Wilcox and Matthias Winkel

Just a reminder that **PYRN** is active in a variety of social media channels! Follow us now!

We use platforms like Twitter, Facebook, and Instagram to communicate news about PYRN, articles, information on events and photos.



*Be part of the PYRN social media community and reach out to hundreds of permafrost enthusiasts! Use the tag **@pyrn_official** and hashtag **#pyrn** on Twitter, Facebook and Instagram on to share your updates or pictures via the '**PYRN**' account.*

This Newsletter was prepared by PYRN ExCom 2018-2020 team

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