The Network of Young Permafrost Researchers of Russia (Tasks and Prospects)

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Introduction

As is known, more than 60% of the area of Russia is located in the permafrost zone the economic development of which is underway. Generations of geocryologists already solved many important tasks but even more tasks require solution. The diverse series of engineering and nature-protecting problems is solved or will be solved in the nearest future by young engineers and scientists working in different organizations and companies. The permafrost response to climate change remains understudied. The study of the interaction of economic activity objects and permafrost is considered important due to the development of oil and gas, mining and transport infrastructure in the Russian North.

In the modern world the young generation of the Earth cryosphere researchers actively participates in the solving these problems and improves its level significantly thanks to the materials available in Internet. The integration of knowledge on permafrost and geocryological processes in the Russia's information space can be executed only by means of succession of methodological approaches and all-round cooperation not only at the international level but also at Russian level. The interaction between permafrost researchers is required and valuable in the process of study of hard-to-access districts in the conditions of departmental dissociation of geocryological data. Such cooperation can be executed by virtue of the Permafrost Young Researchers Network (PYRN) formed by the International Permafrost Association (IPA) in 2005. Nowadays, the number of the Network members reached more than 200 people from 50 organizations of Russia. This is more than in any other country of the world.

The members of the Russia's Permafrost Young Researchers Network organized the first PYRN-Russia Workshop “PYRN in Russia: from frozen to thawed state” in Pushchino on the 23rd-25th of October 2009 for 20 young permafrost researchers from Moscow, Pushchino, Saint Petersburg, Syktyvkar and Yakutsk [Bonnaventure 2009]. Some students and postgraduates examined the ideas of the Network at the Grand Geographical Festival in Saint Petersburg State University and at the 17th International Scientific Conference "Lomonosov" in Moscow State University in 2011 [Shmelev 2011]. The subjects discussed within the framework of the round-table conference "Experience Exchange: Polar Education and Knowledge Propaganda" aroused a great interest of students and participants of the 4th Conference of Russia’s Geocryologists in 2011 [Kraev 2011]. The solution for the issues of grant support, the report tender and of the professional seminar concerning young participants of the 10th International Conference on Permafrost in Salekhard in 2012 became the responsible assignment for the Permafrost Young Researchers Network members. The members of the Permafrost Young Researchers Network of the Earth Cryosphere Institute SB RAS plan to conduct the youth's scientific seminar since 2012 three times a year in the Tyumen Scientific Center of SB RAS.

The work of the Russia's Permafrost Young Researchers Network is aimed at involvement of the youth in research of permafrost problems and in work in accordance with the specialization with the use of the knowledge received in the process of studying in universities and institutes. While participating in the Permafrost Young Researchers Network, a young specialist can self-fulfill and gain the support of like-minded fellows.

On the Permafrost Young Researchers Network in Russia

The Russian group was formed several years after the formation of the international Network. It was aimed at the union of the potential of all Russian permafrost researchers in order to popularize and spread the scientific knowledge on the cryolithozone and increase the activity of the Russia's "permafrost" youth. Such consolidation is fulfilled by the forces and the actions of young researchers only with the support of more experienced and wiser senior colleagues. The Russia's Permafrost Young Researchers Network unites the specialists from different spheres of geology, geography, design, construction and operation of buildings and structures.

Targets and tasks

The network tries to form a single Russian information-communication field for cryosphere researchers within which information and experience could be exchanged and contacts could be found for cooperation in the scientific and the
production spheres. Consequently, the following organizational tasks arise:

- Formation of a single Russian-speaking scientific-popular information site (website) with continuous information replenishment.
- Formation of a regional network and assignment of representatives from organizations dealing with permafrost problems.
- Organization of measures improving the qualification level of young permafrost researchers (conferences, master classes and lyceums).
- Assistance to young permafrost researchers in reception of various types of grants.
- Assistance in the employment of students and graduates of profile higher-education institutions in accordance with the specialization in "permafrost" organizations.
- Development of a program of additional seminars for the school course that are dedicated to the Russian North's nature (for example, http://ine.uaf.edu/werc/projects/permafrost/).
- Assistance of mass media in the reception of relevant information on the cryosphere.
- Language barrier overcoming (learning of foreign languages at the conversational and the written levels).
- Website creation is a priority. It will be an information portal where the following required information could be easily published or found:
  - news in the cryosphere world;
  - vacancies;
  - conferences;
  - field studies, field schools and expeditions;
  - organizations where students can have practical training;
  - scientific projects, probations and grants;
  - scientific materials (books, articles, reports, courseworks, graduation and thesis works);
  - personal scientific research in the heading "About my research";
  - permafrost seminars (Permafrost Institute, Pushchino, Moscow State University, Institute of the Earth's Cryosphere, RAS Institute of Geography, RAS Institute of Geocology);
  - journals of the State Commission for Academic Degrees and Titles on the permafrost subject in which authors can publish articles accepted for thesis defense and in grant reports;
  - access to journals in various libraries of Russia and the world;
  - equipped laboratories;
  - foreign language courses in "permafrost" organizations for improvement of the conversational and the written levels with the emphasis on the permafrost terminology.
- Conclusions

Nowadays, the concept, the mission, the purpose and the tasks of the Permafrost Young Researchers Network were defined; the core consisting of the representatives of organizations executing the two-way communication between their colleagues and the Network was formed; the organizations database was created; the site structure was formed; meetings are conducted every month in Moscow for the discussion of organizational questions, news, problems and prospects.

The permafrost young researchers association faces a lot of unsolved problems: specifically, popularization of the Network in remote regions of the country (in Western and Eastern Siberia and the Far East). A gap is observed in the activity between young specialists and students of the Russia's European part and the regions behind the Urals. The Network is poorly known there, and this means that the activity of local permafrost researchers is not elucidated [Urban 2011].

The subscription for the postings of the Permafrost Young Researchers Network participants is possible at pyrn-russia@googlegroups.com. Registration at www.pyrn.org is required if you want to become a part of the international network.

References


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