

STEPS Students Report

Arina Falaleeva (D2)
Faculty of Geology, MSU

A possibility to take part in the STEPS program is a unique chance for researches, it is absolutely good way for students and young scientists, who want to develop their science career. Before, I have already been a member of the International Conference on permafrost topic in Potsdam, where I made report and discussed with foreign scientists from all over the world during four days. It was too small in comparison with STEPS program, where you can feel not only science atmosphere of University of Tokyo, you may know about scientists' life in Asian country with such great history and traditions as Japan.

At the laboratory of Dr. Yusuke Yokoyama at the Atmosphere and Ocean Research Institute of the University of Tokyo study climatic and oceanic environmental changes. Since my thesis connects with soil temperatures predictions in the permafrost zone and the subject of my research is permafrost area of the European North of Russia, which now changes under influence of climatic conditions, I need an advanced and reliable climate data for creating models of the current conditions and future forecasts. So, we focused on discussions about future climate and Earth system changes, the past climatic events, modern global climate models and global influence of Arctic and Atlantic Oceans. Every week with other lab matters we prepared and discussed latest foreign articles, especially those, were observed the method of radiocarbon dating, cause Yusuke's laboratory is specialized on this kind of researches. There is AMS Machine at the laboratory. AMS (accelerator mass spectrometry) is a highly sensitive method of counting atom, most widely used isotope studied with AMS is ^{14}C , besides radiocarbon dating this isotope is used in permafrost fields. It was really important for me to know, how this modern method and techniques used in this laboratory, because there is not such machine in Russia! And as a result, I observed the process of AMS measurements, with help of my colleague I could prepare one sample and summarized about ten scientific articles, which were focused on using radio carbon dating of isotope ^{14}C for studying permafrost.

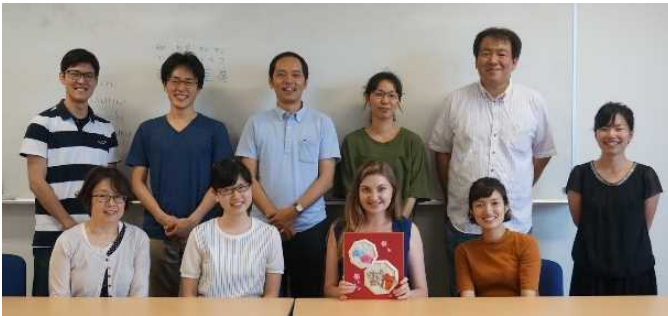
I really enjoy that time! I had very good conditions to work at Yusuke's laboratory (figure 1), all colleges helped me, I didn't need anything. Also, we had amazing tradition to take some sweets from place, which you have visited before meeting or if you had some event. When I finished my program, I was making Russian tradition food, called blini.

This experience provided me with a lot of useful advices and gave me another perspective on some approaches in my science work. I find this type of experience as very important for young

researchers. Looking ahead into the future, my long term goal, is to become a competent specialist and a researcher. Dr. Yusuke Yokoyama is striking example for me!

Just now I am equally motivated to work hard on reaching end goals for all of my studies that I outlined above. International collaboration would give me new knowledge and skills which I could use in my future researches, it would also help me to become a better scientist in general.

I am most grateful for this unique chance members of STEPS-office. It was a great honor for



me to be a part of Japan-Russia science researches going forward. I hope to our continue cooperative efforts. I have a great desire to develop my communication skills in international collaboration with Japanese researches in future!

Figure 1. Laboratory of Dr.Yusuke Yokoyama and me