



MASTER PROGRAM
for polar and marine sciences



Bundesministerium
für Bildung
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GEOMAR
Helmholtz-Zentrum für Ozeanforschung Kiel

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[POMOR NEWSLETTER]

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POMOR Newsletter

Master Program for Polar and Marine Sciences
at the Hamburg University and the Saint Petersburg State University

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Editorial

After a three year break the POMOR Newsletter is back again. Three years is a long time, especially for our 12 year old master program.

We have achieved a lot of things in this period of time. We have got an international accreditation by ASIIN e.V. which was the high point we have been aiming for since last ten years. We presented the program at different conferences, fairs and round tables. We said good bye and welcomed new students, lecturers, university administration and POMOR team members. With two students groups we experienced very good and sometimes difficult times, we learned a lot together with them, we laughed and were serious overcoming all possible and impossible obstacles. We launched new events and met very interesting people who supported us on our way, from whom we learnt and with whom we really had fun. Our students grew personally and professionally, and we – hopefully – grew with them.

In this issue we would like to give a brief overview about the last three years (see page 4), to tell you about our alumni (see page 10) and their experiences during and after POMOR, to introduce our current – already sixth – POMOR group to you (see page 6) and to share our impressions and emotions with you.

Christmas and New Year are a special time for everybody and for us especially, because we launched this POMOR Newsletter in the Christmas time 2009. We will not make any New Year resolution except the usual ones this time. At the end of this eventful year 2013 we would like to thank all people and



organizations who have been supporting us and being with us: The German Ministry of Education and Research and the Russian Ministry of Education and Science, our partner universities and research institutions, German Academic Exchange Service, Embassy of the Federal Republic of Germany Moscow, all lecturers, supervisors and tutors in Russia and in Germany and of course all POMORs. We wish you all the best! May this Christmas be very special and may the New Year begin on a prosperous note!

Nadezhda Kakhro

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FACES

Professor Sergey Aplonov – geophysicist, Vice Rector of Saint Petersburg State University and one of the initiators of the recently founded Institute of Earth Sciences.

NK: Why did you choose geology as your main subject?

SA: I have a geological family background, but when I went to school I was fond of the humanities, e.g. history and literature. I still like them, actually. But in the summer before the last school year and the final secondary school examinations my father (actually, geologist, too) arranged a place in a research expedition to Southern Taymir for me. At that time I was only 16, I even didn't have my own passport yet. Many years later I realized, that the people whom I joined in their difficult and sometimes really dangerous routes, took enormous responsibility for me. Those were Soviet times, and if anything had happened to me during this expedition, they would have blown these people's head off. But everything worked out all right. And after coming back to Leningrad in autumn I hurried up to the Mining University and applied for preparatory classes for the Faculty of Geological Exploration. I was lucky again, because I met a great lecturer of physics there and I decided to become a geophysicist. As you see, I had chosen my profession 35 years ago and to be honest I have never regretted that choice.

NK: POMOR offers its students the chance to study abroad and to participate in international expeditions. Tell me about your most fascinating field practice.

SA: I think it was my internship after my third year at the university, in 1980. There were Olympic Games in Moscow in this year, and I was working as a geophysicist in the Khabarovsk region on the Bureya river. The situation with human resources was very bad in that far away region, that's why a 20-year-old third year student of the Mining University in Leningrad was seen as a real professional. It shows the

prestige of higher education in that time.

We got an excellent education, indeed. I was a leader of the exploration survey group, I planned all operations and I was responsible for their organization, and there were mainly 16-17 year-old graduates from the geophysical training school. Together we laid the routes through the Far Eastern taiga, we cut the firebreaks into the forest and carried out geophysical observations. The equipment was quite crap at that time, so sometimes we had to solder the electric contacts in the equipment with the help of a nail during the short rests sitting around the campfire (we carried tin and rosin in our backpacks, and there were no soldering irons).



„I started my professional career in the Arctic working as a geophysicist in the subpolar regions of Western Siberia...I am absolutely sure that the Arctic is one of the most interesting and fascinating places in the world“

I remember very well our long reconnaissance routes by foot which lasted from 10 to 14 days. We hauled 40 kg heavy backpacks, and this weight didn't change during the route at all, because the tinned meat and condensed milk we had eaten were replaced with new samples. I would have never believed that you can promptly fall asleep after you had crept into a tarp sleeping bag cover under a fir tree soaked to the skin, so tired that you have no power and you are not even in the mood to be hungry.

NK: During your scientific career you have worked in several different institutions. In brief, what did you take home from each of them and how did this experience lead you to where you are now?

SA: In fact, there are not so many organizations I have worked for in these 35 years. After graduating from the Mining University in 1982, I worked three years long for the Geophysical Expedition and carried out magnetic and gravimetric measurements in the Northern part of Western Siberia. This professional experience was very helpful for my career.

In 1986 I changed to the P.P.Shirshov Institute of Oceanology of the Russian Academy of Science and I had a noticeable drop in salary, by the way. It has to be said that it was extremely honorable to work in the structure of the Academy of Science at those times, and they employed very selectively. The director of the Institute of Oceanology was fighting for my position with the former President of the Academy of Science, the legendary academician A.P. Aleksandrov, nothing more, nothing less. In 1986 I got my PhD, and in 1989 I obtained my habilitation qualification. Fate threw me together with many outstanding senior scientists. I am very proud of the fact that my senior mates and teachers were Victor Efimovitch Khain, Lev Pavlovitch Sonenshein, Oleg Georgievitch Sorokhtin and Alexander Petrovitch Lisitsyn (it was my good fortune to participate in several ocean cruises aboard RV ACADEMIC MSTISLAV KELDYSH under his supervision). During numerous workshops, conferences and schools I met people of my age, excellent geologists, who are now leading institutes, universities, labs and university chairs in Russia and abroad. I still keep very warm and friendly contacts with most of them. In 1992 my friends and I founded an independent consulting company, TETHYS Geodynamical Research Center, which was very successful on the Russian and on the European markets 21 years long and went into liquidation for obvious reasons when I became Vice Rector of the Saint ►

Petersburg State University (SPbSU). In very difficult times for the Russian geology, we managed to show that basic research is essential for practical geological exploration. Among our customers were ExxonMobil, Total, Shell, Gazprom, Lukoil and other well-known companies.

In 1995 I started to work at the SPbSU as head of department of geophysics. In 2011 I was elected to be the dean of the Faculty of Geology, and in 2013 I was assigned to the position of vice rector for Geography, Geology, Geocology and Soil Science.

NK: You founded the Institute of Earth Sciences at the Saint Petersburg State University to optimize the scientific and teaching capacity of the two faculties. What will this new structure change for the quality of teaching? Which opportunities will the new institute offer the students and young scientists?

SA: This is a slight overstatement. It would be more correct to say that I was one of the initiators of the Institute of Earth Sciences based on the Faculty of Geography and the Faculty of Geology of SPbSU. I also don't like the word "to optimize", when it's about very good scientists and lecturers from both faculties of SPbSU with their rich and original history and traditions.

It's rather about a fusion of related and very close education and research directions. This step promises to be very advantageous. And a very good example for this is the master program POMOR. Geologists and geographers have many things in common: field trips, related educational and research programs, e.g. geocology, or geomorphology.

As for "optimization", it's only about the establishment of a state-of-the-art management system, about the consolidation of intellectual and financial resources, about the updating of educational programs which are to become attractive for

students and demanded by employers. This is the only way to preserve and to enrich our proud traditions. Otherwise they will be like dead symbols. In a word, as one of the writers said, we should take the fire from the past, not the ash.

NK: In the internationalization process the University is planning to invite foreign scientists, lecturers and students. What makes the University attractive for them?

SA: For instance, to work with the unique scientific equipment, which was bought for resource centers and labs of the SPbSU in the past few years; to experience field trips to different parts of our country. Students of Tromsø University, Norway, already have gotten this opportunity: Their bachelor students spend their summer practice with us on the Crimea, and our students go to the Northern Norway at the same time. Their master students participate in field work in Yakutia. And just to become familiar with unique geology of Russia is in my opinion worth it.

NK: In your opinion, except from the foundation of Institute of Earth Science, what was the most important event in the university life in 2013?

SA: It's difficult to choose one, because the last year was very eventful. I think that one of the significant events of 2013 was the revival of our own scientific degrees award after an almost 100 year-long break. SPbSU is at the moment the only university in the post-soviet Russia who is allowed to award a PhD. Among the first successful PhD awardees were two geologists. They were awarded PhD degrees in Earth Sciences.

NK: Have you been to the Arctic? If yes, which impressions did you experience? If not, would you like to go there and as what (e.g. tourist, scientist, administrator etc.)?

SA: I started my professional career in the Arctic working as a geophysicist in the subpolar regions of Western Siberia, on the Yamal peninsula, Gydan peninsula and Tazovsky peninsula. I am absolutely sure that the Arctic is one of the most interesting and fascinating places in the world even for a tourist. And if you take into account the fascinating Arctic geology, the impressions increase by a number of times.

NK: You work a lot in different fields and combine many duties. How do you relax

and where do you regenerate?

SA: I have really a lot to do, but nevertheless I try to find time for sports. I like skiing very much, I play billiard, and over the past years I have been a passionate traveler. In my summer vacations I travelled around the whole of Western Europe by car.

In general, my actual job is interesting due to its diversity. I have to combine many different activities, to communicate with a big amount of different people, to solve various problems. So my philosophy of life is: if you want to have a rest of one thing, just do another one. There is always a lot to do anyway.

NK: What will be your New Year's resolutions this year?

SA: The same ones as in the last years: to move forward, not to be satisfied with what has already been achieved and to try to be more amiable and kindhearted to people around me. I think that I managed the first one, but I still have to work on the second one.

NK: What would you wish our students and lecturers for the coming New Year?

SA: I wish the students good and smart teachers, and I wish the lecturers the same: good and smart students. And I wish all of you all the best, happiness and warmth in your homes and families, good luck and big achievements in 2014!

NK: Thank you very much! ■

2011-2013: NEWS AND FACTS ABOUT POMOR

September 2011

Master theses defence of POMOR IV (2009-2011)

Start of POMOR V

October 2011

Opening of the Living Exhibition at the Saint Petersburg State University in the presence of the Joint Russian German Commission for Scientific-Technical Cooperation. The Living exhibition / Science Live – Foci of German-Russian Cooperation in the Field of Marine and Polar Research was a travelling exhibition on the German-Russian research projects under the Agreement on the Cooperation in the Field of Marine and Polar Research between the German Federal Ministry of Education and Research and the Russian Ministry of Education and Science. The “Living”/„Live“ in the exhibition’s title means that instead of information panels, students and young scientists, involved in the bilateral projects, provided information on the exhibits as well as on their own researches, and gave talks. POMOR students 2002-2013 and POMOR professors participated in the exhibition events on all locations

Master diploma award (POMOR IV)



February 2012

Quality audit at the Hamburg University by ASIIN e.V. within the accreditation process

March 2012

Opening of the Living Exhibition at the Moscow State University

May 2012

Opening of the Living Exhibition in Bonn, at the Zoological Research Museum Alexander Koenig in the presence of Secretary General Dr. Georg Schütte

Opening of the Living Exhibition in Berlin at the Freie Universität Berlin

October 2012

Students of POMOR V participate in the Third International Student Forum in Berlin

Start of the semester at German universities

New program administration at Saint Petersburg State University

Launch of the new POMOR homepage www.pomor.spbu.ru

November 2012

Participation in the International Conference “Arctic Zone of the Russian Federation: North-Eastern Vector of Development” in Saint Petersburg with a plenary talk by Dr. H. Kassens on the Russian-German cooperation in the Russian Arctic

December 2012

POMOR student conference at GEOMAR

- February 2013 POMOR accreditation and management meeting at Hamburg University ►
- April 2013 POMOR presentation at the Big Geographic Festival at Saint Petersburg State University
- POMOR presentation at the Deutsche Woche in Saint Petersburg
- POMOR Open Door Day at the Faculty of Geology of Saint Petersburg State University
- May 2013 POMOR presentation during the Russian-German Week of Education, Science and Innovation in the Far East
- July 2013 Entry exams for POMOR VI (2013-2015)
- Accreditation by ASIIN e.V. till 2017
- September 2013 Student Initiation Ceremony and Orientation Days for POMOR VI
- Master theses defence of POMOR V
- October 2013 POMOR presentation at the Youth Forum of the Petersburger Dialog
- Master diploma award (POMOR V). The event is traditionally organized at Saint Petersburg State University parallel to the Russian-German Meeting within the framework of the Agreement on Cooperation in Polar and Marine Research between the Russian Ministry of Education and Science and the German Federal Ministry of Education and Research
- POMOR presents the first talk within the framework of the KÖPPEN International Seminar Series at Saint Petersburg State University “Iron Fertilization in the Southern Ocean: Scientific Experiment or Climate engineering?” by Prof. Ulrich Bathmann (Leibniz Institute of Baltic Sea Research Warnemuende). The “KÖPPEN International Seminar Series” will engage foreign scholars visiting Saint Petersburg State University in the wider fields of geosciences and biology and offer a forum of scientific exchange between senior students and staff of Saint Petersburg State University and the visiting scholars
- November 2013 New program coordinator from the Russian side: Ksenia Samusenko
- POMOR presents the second public lecture within the framework of the KÖPPEN International Seminar Series at Saint Petersburg State University: “Reconstruction of Cenozoic Arctic Ocean Sea-Ice History: „From IRD to IP25“ by Prof. Rüdiger Stein (Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research)
- December 2013 First POMOR Brown Bag Seminar takes place to discuss the results of the winter semester 2013/14 and to share impressions about the first semester of POMOR VI
- January 2014 First exam session of POMOR VI. Good luck!!! ■

POMOR VI: WHO IS WHO

The new POMOR group started in the winter semester 2013/14. Who are they and what is their motivation and interest in polar and marine sciences?



I'm originally from Yaroslavl. I've graduated from Yaroslavl State University, Faculty of Biology and Ecology. My specialty is geobotany and physiology of plants. POMOR came into my life just when I started to think that I should change something in my life. I think that this program is giving me a great chance to find the right way and follow it.

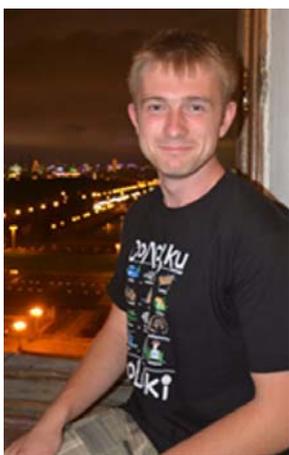
(Alexandra Boeva)



Hello,

My name is Alex. I was born in Syktyvkar, the capital of the Komi Republic, in 1990. I graduated from the department of oceanography, faculty of geography and geocology, Saint Petersburg State University, in 2013 and entered the POMOR master program. My diploma was connected with the research of biotic and physical oceanographical processes in the North Eastern Atlantic. I am interested in biooceanography, physical oceanography and satellite measurements. I am fond of technical computing, love horse-riding, yachting, reading good books.

(Alexey Buyniy)



My name is Evgeny Ivanov. I was born in Kovrov, Vladimirskaya region. During 2009-2013 I was studying in Lomonosov MSU, Geographical faculty, department of inland hydrology. I did research in methods of modern hydrology, like the use of acoustic doppler current profilers for different purposes and modeling of river flows in special computer programs. Since 2009, I took part in interesting winter and summer expeditions, for example, in Buryatia and Baikal, north shore of Cola peninsula and Hibiny mountains, Kaliningradskaya region and Yakutia. As a member of the European Geographical Society, I participated in international conferences, in Serbia in National Park Tara and in Tver. Also, I took part in all last Big Geographical Festivals in Saint-Petersburg. During the last one, I heard about the POMOR master's program and decided to join it, because I understood, that only inland water objects are too small for me. My portfolio and knowledge of English helped me to pass the entrance examines. Now, I am a student of POMOR. I don't know about my future specialization and area of scientific interests yet, but I think, I will decide it after two semesters. And my main dream in closer perspective is to take part in summer expedition in the Arctic on a big scientific ship. I believe that studying in POMOR master's program will give me knowledge, applicable in work, connected with the Arctic region. ►



Hello, I'm a geographer! Graduated from the Saint Petersburg State University, Faculty of Geography and Geoecology. As a specialist in regional geography focused on human life in polar region territories and on modern problems in natural protected areas. But the problems of anthropogenic activity interested me mostly, more specifically its effects on polar region ecosystems. So over the course of time the field of my interests concentrated on present-day reclaiming of the polar region. If someone is interested in salvation of vulnerable arctic nature, mainly important to have a solid knowledge base in natural sciences. That is why I chose POMOR. As for my background I have had a useful experience staying in the Arctic. Three summers ago I spent time on Spitsbergen archipelago. I gathered a lot of different experiences when I was staying in relatively wild nature of the Arctic. So I will continue my research of the polar region and I hope master program POMOR will help me in it.

(Alina Karpova)

My name is Liliya Khatmullina. I am 21. From one point of view I can definitely say that I am not a good specialist in any field. But from the other point I could say that I have tried lots of things and may be in some of them I am quite good :)

I have finished the Bachelor course at the Faculty of Biology of St. Petersburg State University in 2012. During my higher education I did a little work on foraminifera but it seemed not the thing I would like to study, so I changed a bit... and switched to Neurosciences! So my Bachelor thesis concerned MRI of children brains. I had almost entered the Master's program at the Faculty of Biology, but when the semester started I decided not to go on. I found a position in recently opened Research Resource center for Molecular and Cell biology and almost for a year I have been working there as a specialist in optical microscopy. One day I saw POMOR's advertising at the University and just thought "Why not?" So now I am here and I am happy because I feel it will be a great time!

Besides studying and working I have a lot of hobbies. I like theatre, and I had some great experiences in acting on the stage. I play the guitar a bit and love to sing. I have an analog photo camera, which you will see soon and hear its very loud sound as I will be catching your faces) And also I am keen on: dancing, travelling, camping, cycling, looking around and enjoying every moment of my life.

And I hope to find new good friends here and to do some funny and crazy things together! So...let's start!

Best regards,

Lilia



Hello) My name is Anna Kudryavtseva.

I came here from the town Nizhnevartovsk to study natural sciences. My choice was the Faculty of Geology of Saint Petersburg State University, where I got a bachelor's degree in 2013 at the Department of Sedimentology. I learned a lot of interesting things during my education and field practices in Karelia, Crimea and Northern Norway, but I wanted to continue my education in marine sciences and I think that POMOR is the right decision.

My everyday life is full of music and sport. I like snowboarding, swimming and riding a bike and I wish to learn snowkiting. But in the city I prefer to visit Mariinsky theatre and different music concerts.

Sincerely,

Anna ►





If someone asks my friends to describe me, they will tell you that I'm a pleasant, active and broad-minded person. I consider myself a multiple personality. My interests, together with science, are art, sports and travelling.

I graduated from St. Petersburg State University, Department of Chemistry. My background is Analytical Chemistry. I'm planning to continue to be engaged with the research activities, to enter a graduate school in Russia or Germany and to take part in some international expeditions and conferences.

I hope that the skills and knowledge that I have now and which I will gain in the course of studying at the program POMOR will help me to become a highly qualified scientist capable of solving complex problems in the field of polar and marine research.

(Maria Petrova)



I graduated from Faculty of Geology and Geography at Southern Federal University in 2009 with a degree in Geography. My specialization is Geography of the Sea. For four years I worked in Southern Scientific Center of Russian Academy of Science as a junior researcher. Then I tried to switch to something else and for about year I was working in Moscow Electric Company as a leading GIS specialist. It was so boring! I have realised that nothing is more interesting than science because it deals with understanding processes and forces that drive the life on Earth, and how they change and where it will lead.

I would like to be part of an ongoing activity dealing with the existential problems of people on Earth and contribute to possible solutions to those problems. So I chose POMOR as the best way to go back to the amazing world of science.

(Ekaterina Ponomarenko)

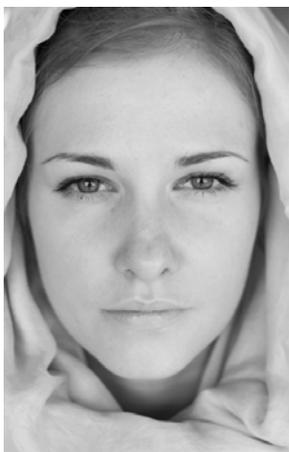


I have always dreamed of becoming a geographer because it is amazing to learn all about the world we live in and literally know something about every "corner" of the Earth. That was the reason why in 9th grade I decided to enter the geographical class of the Academic Gymnasium of St. Petersburg State University. Now I have a bachelor degree in hydrometeorology and work as a meteorologist at The Voeikov Main Geophysical Observatory in department of Monitoring and Research Division Atmospheric Chemistry and I understand that I made a right choice then.

In addition to my academic work, I enjoy painting and theater. Also I am in a pedagogical team and help disadvantaged children and children's homes.

My dream is to go on an expedition and see the aurora borealis.

(Kseniia Simonenkova)



My name is Maria Vasileva (nee Filichkina). I was born on the far East of Russia near the Sea of Okhotsk and spent all my childhood on the sea shore. Later I moved to Saint Petersburg to get a chance to get a better education.

My Bachelor work was connected with ecological research of Ekateringof park which is in the center of the Saint-Petersburg. I performed chemical tests in laboratories, investigated land and water structure, elements levels, etc. The aim of the work performed was to find out the ecological state of the park and suggest following actions that need to be implemented to improve the situation.

I choose State University because I understand the meaning and the importance of the education. I never felt like education is boring for me. I have obtained Bachelor Degree of Ecology at the age of 24 and I want to continue my education further. POMOR is a chance for me to use all my best skills and personal qualities, not to be just a person with a diploma but to create real value for the community and society. ►



I have graduated from the Southern Federal University in Rostov-on-Don (Department of Oceanology). During my studies at the University I started to work in the Southern Scientific Center of the RAS in field of marine biology and oceanography. I have researched spatial distribution of diatom algae from the sediment cores and plankton samples in connection with environmental and oceanographic conditions of the region. Under the supervision of more experienced colleagues I reconstructed environmental conditions in Holocene by the diatom analysis and by researching the current seasonal development of biotic organisms in connection with physical, chemical and hydrological properties of water. But it is obvious now for me, that it is necessary to train continuously for scientific work to be more productive. That's why I think that studying at the POMOR program is a great chance for me to improve my professional skills and to get the best experience in communication with professionals in oceanology. I hope to continue my research in the field of interrelation of physical, chemical and biological properties of water and marine biology.

(Anna Zolotareva)

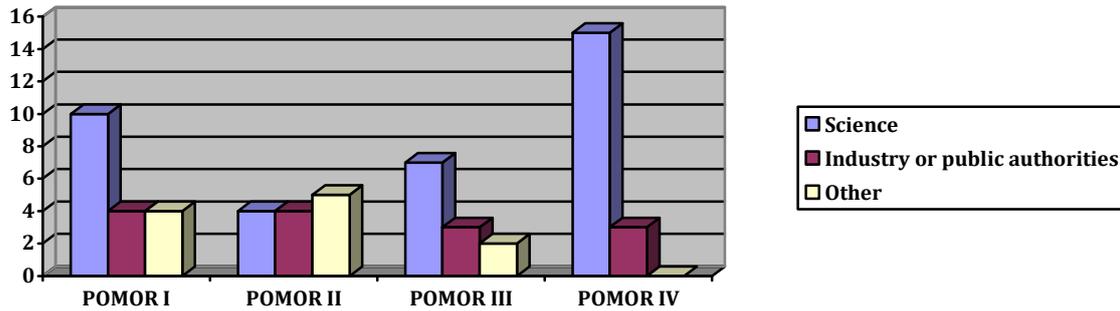


My name is Stefan Peeters. I'm 21 years old and I'm from the Netherlands. I studied Earth Sciences at the University of Utrecht and the last two years of my bachelor I was mainly focusing on geological and geophysical subjects. My bachelor thesis was about the evolution of a so called slab window beneath the Baja California peninsula and the relation of this slab window to the anomalous volcanic products found at the peninsula. I'm staying in Saint Petersburg for the first semester of this year.



Johanna Nevanpää Visiting student from Helsinki University ■

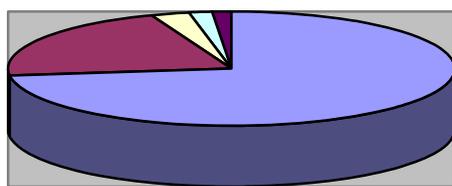
POMOR ALUMNI 2004 – 2011: WHERE ARE THEY NOW?



In 2009 we launched the POMOR Alumni Club which helps us to keep in touch with alumni and to know where they are, what they are doing, to inform them about the development of POMOR and to invite them to meet new students and to participate in special events. To know more about their lives we perform surveys at least every two years, after the graduation of one group.

On this diagram you can see a summary for the period 2004-2011, survey October 2013. We usually say that over 70% of our alumni continue their scientific career, and this is true. Especially after the introduction of a semester abroad, in Germany, in 2009, our alumni started to apply very actively worldwide and succeeded. The semester in Germany was the nearest step on the way to the international accreditation of the master program, which was carried out by the Hamburg University and the Saint Petersburg State University in 2012-13.

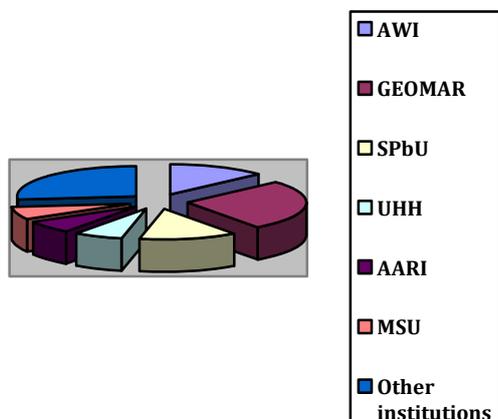
But also before going to Germany for one semester, POMOR students applied and finished their doctoral studies in Russia and outside Russia, most often in Germany. At the moment there are four among POMOR alumni 2004-2011 who received their PhD in Germany: Irina Polovodova and Anna Nikulina (Christian Albrechts University of Kiel), Nikolai Koldunov (Hamburg University) and Evgenia Bazhenova (Bremen University).



In October 2013 we performed a new survey and realized that POMOR alumni fill vacancies in Northern Europe, mostly in Germany, and in Russia. It concerns positions in all fields: In science, in industry and public authorities or in other spheres. ■

POMOR IV (2009-2011)

It was the first POMOR group spending one semester at German partner universities. Most of them are doing or finishing their PhD at the following institutions:



The experiment with introduction of the semester in Germany gave the POMOR students more self-confidence and courage to apply for PhD positions at European research institutes and universities. Most of them were successful and gained positions in institutions listed on the left. Among other institutions there are Göttingen University (Germany), University of Oulu (Finland), University of Turku (Finland), Simon Fraser University (Canada) and Main Geophysical Observatory in Saint Petersburg (Russia). One student tried her luck at the Mexico University (Mexico), but returned back to Saint Petersburg.

LOOKING BACK AFTER TWO YEARS, WHICH INFLUENCE DID POMOR HAVE ON YOUR LIFE?

Ekaterina Ivanova:

I graduated from POMOR in 2011. After I came back to Russia, I wrote my PhD thesis and had a defense in the Main Geophysical Observatory, department of applied climatology. My PhD thesis was closely connected with research that I did in Germany for the Master thesis. It really helped me a lot. Now I am working in the Russian Academy of Sciences and continue to study the topic, connected with my German research. I like to work there. We have a lot of field work and I participate in international conferences from time to time.

I still keep in touch with several professors and students from the University of Hamburg. POMOR gave me an understanding that science can join people from different countries and a feeling that it is very easy and interesting to communicate with foreign scientists. International scientific cooperation is really important; it helps to get new ideas and provides many opportunities that can change our life.

Anastasia Zhuravleva:

As an Alumni of POMOR, I won't be the only one, if I suggest that the master program exerted a great influence on me.

My research preferences switched from modeling aspects in the field of social ecology to paleoclimatic reconstructions on the basis of microfossils and stable isotope records.

The master program pointed out possibilities in up-to-date scientific research, revealed ways for international and national cooperation, for funding and supervision problems.

It helped me out to feel quite comfortable in international research groups and provided a chance to work with interesting people, outstanding scientists, and experts of their subjects.

In my opinion, what I have now is a completely other life, another story, which I could never even imagine for myself, if for no other reason than POMOR has completely changed my visions for career prospects and life standards.

And... Yes. POMOR, thank you for making the best friends ever!!!

Alexandra Loginova:

I am PhD candidate of the SFB754-2 project in GEOMAR Helmholtz Centre for Ocean Research Kiel in the working group of Prof. Dr. Anja Engel.

I am glad that one day 4 years ago I gathered all my courage and came to make an entrance exam to POMOR master program. It was very difficult to make this decision, completely new field and (Oh God!) studies in English, but curiosity won and I came. I never regret that I joined POMOR. It was a little tough and very interesting to study new subjects, to meet interesting people, to learn about so many exciting projects, I never could have imagined! POMOR taught me to dream, I think everyone of us desired to see and to investigate subject of our studies – the Poles. POMOR made my dream come true; I had a lucky opportunity to join TRANSDRIFTXVII expedition to the Laptev Sea, and luckily as well I could make my Master thesis on new field for Laptev Sea on samples collected in TRANSDRIFTXVII. After POMOR I could not stop to dream, I wanted to stay in science. ►

Now Tropical Oceans are subject of my studies, and I am very happy to do my PhD in Biological Oceanography, but without POMOR I would never get there.

Therefore I am very thankful to POMOR, its coordinating and teaching board, to my scientific advisers, and other POMOR students for having these great two years.

Irina Kryukova:

PhD student (Water Problems Institute of RAS, Moscow)

A mere four years ago a word "pomor" was associated for me only with native inhabitants of the White Sea coast. Nowadays this word means much more: POMOR is SPbU and Hamburg University, the Arctic and the Laptev Sea, GEOMAR and AWI, TRANSDRIFT expeditions and Tiksi, diatoms etc. This list is endless. POMOR means two years of hard but at the same time fascinating studies, exciting summer practice, teachers who inspire you with their lectures, new friends and great opportunity to take part personally in cutting-edge polar researches.

POMOR became a very important part of my life. Looking back I definitely can say that it was a right choice. Currently I continue my research that was started as a Master's diploma and do my PhD thesis at the Institute of Water Problems of the RAS.

In my opinion POMOR is a perfect launch pad for those who are interested in polar and marine research activity.

Ekaterina Kaparulina:

Two years have already passed since we finished our study. I still can't realize that time is flying so fast. Nevertheless, two years have passed. This time was completely different from the student time, all of us started to live the "new life".

After the graduation I started to look for a job and worked during almost 1 year at St. Petersburg engineering company "Geodizond" as a geophysicist. My colleagues and I made the inspection of the underlying ground and foundations supporting both buildings and structures using the geophysical method of UWB (electromagnetic impulse ultra-wideband sounding).

Nowadays I have got a PhD position in Finland. I am working at the Department of Geology on the basis of Oulu University in cooperation with Thule Institute. My PhD project is one of the part of a wider scientific venture through the International Arctic Science Committee endorsed international network program PAST Gateways (Palaeo-Arctic Spatial and Temporal Gateways). The main aim of this PhD project is to produce new information on the rate of natural environmental changes and their mechanisms especially on the transition and changes between extreme events during the past 130 000 years at the Russian Eurasia territory. The data generated will be collected to a database from which GIS-based reconstructions for the environmental change in certain time slices can be displayed. There is then a possibility to display various paleogeographical maps, showing sea-level changes, temperature variations, vegetational changes, ice extent and drainage basin development for general and

scientific purposes. Integration of marine and terrestrial results of environmental change is one of the purposes of this project.

The knowledge gotten from the POMOR master program really helps realization of this kind of multidisciplinary research. The international network where POMOR involved me in still takes a part in my scientific life. In this year I participated in different national and international conferences, summer schools and workshops. It was very pleasant to meet teachers, instructors and colleagues from my previous study.

I would like to thank all of the POMOR people for staying in contact and hope to see you soon.

Sofya Antonova:

POMOR influenced my life extremely, to the maximum. POMOR gave me most what I have now. It opened absolutely new ways of life for me, such ways, I would never imagine before. I realized that science is really what I want to do, and I don't regret about my decision up to now :) Currently I'm a PhD student at the Alfred Wegener Institute in Potsdam and I'm dealing with permafrost research. I participated in two expeditions to the Lena Delta, and I have to say it's probably the most exciting experience in my life. I met so many extremely nice and interesting people since I started POMOR, that I nearly jealous to myself :)) I would like to send my warmest greetings to all my POMOR group mates and ALL people who makes the POMOR existing. And Happy New Year and Merry Christmas! ■

SEA ICE FIELD SCHOOL IN BARROW by Valeria Selyuzhenok

At the beginning of May I travelled to Barrow, a small town on the northernmost part of Alaska to take part in sea ice field school. The course was designed to be interdisciplinary and during just 10 days we've learnt a lot about remote sensing, morphology, physics and biology of sea ice. We have spent more than one week on the ice taking cores and measuring different ice variables in order to understand the physical nature of the ice. We brought ice samples to the laboratory and counted tiny plankton inhabiting this ice. We have used a variety of devices to get the data on snow depth and ice thickness for different areas: smooth level ice and huge ice ridges. We have investigated satellite images covering the ice area of several square kilometres around Barrow to get an impression of how the ice surface looks on a broader scale. We even put a camera into the drill hole to see how the ice looks from below. We felt that all the possible scientific topics were covered. And the topic of our last field day promised to complement all of the scientific questions. On the very last day we drove skidoos along a whaling trail to the fast-ice edge where a captain of a Barrow whaling crew, Joe Leavitt, shared with us his experience and knowledge about sea ice. Having been dependent on whaling for centuries, native communities developed their own methods for estimating sea ice conditions. These people know how to estimate where polynyas (areas of open water within the ice cover) are developing just by looking at the colour of the sky at the horizon. They can name numerous types of sea ice; they know which ice ridges are grounded and where the ice is prone to breaking up. The whalers can also predict how the ice will behave in certain weather conditions. To catch a whale, the whalers go offshore to the fast-ice edge and pick a proper spot for camping. They camp on the ice, waiting for a whale to come close.

There are two essential things defining the position of the camp: ice should be thick enough to carry the weight of a caught whale and it also should be a point from which the crew can safely get back home in the case of ice break-up. The importance of the last one we saw in person. Joe brought us to the place which they defined to be safe for camping.



Fig. 1 Preparing for electromagnetic ice thickness measurements by M. Nicolaus

He explained to us that a pressure ridge would keep the ice in place, while the ice lying further offshore can break up at any moment.



Fig. 2 Whaling captain Joe Leavitt by Evan Firth

Two hours later, when a second group of us arrived to the spot, a 10 cm ice crack had appeared just at the boarder of the camp. Deciding to error on the side of safety, we re-mounted our skidoos and made our way to safer ice. ■

POLAR ADVENTURE by Irina Semeryuk

Cruise AREX2012 was started on June 12. The RV Oceania left the port of Gdansk and made its way toward the Norwegian port city of Tromsø where I joined the research team. I was a bit nervous how to meet my Polish colleagues first time. I was worried in vain. The student team was very friendly and after a couple of days I was feeling like I had spent at least a month with them.



Fig. 1 Oceania

The life on the board of the RV is in general divided into two parts: station work (4 hours by day and the same time by night) and the rest.

Some stations are only 200 m, the others are much deeper, more than 3000 m from the sea surface to the bottom. In this case only the downcast CTD could take 2 hours!

Who counts the time? Waiting for the commands from the captain's bridge to start station work, students could exchange scientific experience, share future plans, take another cup of coffee (that was important especially for the night shift!) and admire the beauty of midnight sun and amazing dark blue sea!



Fig. 2 The sea

In the middle of our cruise we reached Longyearbyen, the administrative center of Svalbard.

During supply of our vessel with additional water and fuel we had the chance to discover amazing wild landscapes around the "city", get a free internet connection in the library and buy polar souvenirs for friends!

When we went back to the open sea to continue our cruise program, the sea met us not in a good mood. All operations were stopped because of dangers for the people and the equipment; by the way to sleep on the upper bed was not so easy as well!

In spite of the weather condition planned research program was carried out and the end of my cruise slowly came. I made the last glance through the window of the plane to see "Oceania" once more, and I am at home after three flights. ■



Fig. 3 In Longyearbyen

URBINO SUMMER SCHOOL IN PALEOCLIMATOLOGY

by Ekaterina Kaparulina

The Urbino Summer School in Paleoclimatology (USSP) course focuses mostly on the description and representation of past climate dynamics, the understanding of past, present and future climates and their changes. This summer school is held in the small hill town of Urbino, in the Marche region of Italy, experienced a great cultural flowering in the 15th century, attracting artists and scholars from all over Italy and beyond, and influencing cultural developments elsewhere in Europe.

I was lucky to get a scholarship from ECORD (European Consortium for Ocean Drilling Research) and take a part in this school. It was really helpful for me as my research is closely connected with investigation of paleoclimate. I work under the project "Rapid environmental changes in the Eurasian Arctic – lessons from the past to the future" at the Thule Institute, University of Oulu, Finland.

During three weeks of intensive course I and my 54 fellow from around the world attended lectures and seminars at the Urbino University. We've got a lot of new knowledge and refresh the old one on different areas of paleoreconstruction studies, such as paleoclimatology, paleoceanography, climate modeling, cyclostratigraphy, biogeochemical cycling etc. This course demonstrates how the work and research in this direction might be interesting from the multidisciplinary point of view.

Except the courses of lectures and seminars we had opportunities to make some exercises on data analysis, sediment description, working with special program software for modeling. During this time a field trip to Gubbio region was organized. We observed boundaries between stratigraphic units, described outcrops, took geological and paleontological samples. I want to note that this school included not only so-called official part but also informal or "bonus" part. From a social point of view the USSP gives a chance to meet world famous scientists from different research areas and countries, to meet other students or future colleagues. All the time the USSP people are in a contact during the classes and after that. The students have a great possibility to discuss their work and ask questions concerning research almost all day.

Besides the lectures the really actual seminar under the name "Woman in Science" was organized where the questions concerning gender policy were discussed in the informal atmosphere.



Fig. 1 City Urbino

Additionally a 3 days conference was held at the basis of Urbino University where the students could present their research, discuss it and take advice and useful notices about their work from the instructors and other students. This year was a special USSP course. It was the 10th USSP course. All the students and instructors were invited for the celebration of 10th anniversary of the school which was coincided to annual Cioppino conference.

I really appreciated all lectures, seminars and discussions during this course. I hope it was useful and memorable experience for every USSP student. I look forward to seeing them again at future scientific meetings. The USSP is a high level of education and scientific communication, and I would recommend to take part in this for masters and doctoral students who are interested in paleoclimatology study. ■



Fig. 2 10th USSP students

MASTER DIPLOMA AWARD 2013

Photos by Karen Volkmann-Lark

Saint Petersburg State University and Hamburg University awarded the POMOR V students their Master degrees in the festive Peter Hall of the old Twelve Collegia on October 22, 2013 in presence of the participants of 18th Bilateral Meeting in the frame of Agreement on cooperation in polar and marine research between the Russian Ministry of education and science and the German Federal Ministry of Education and research.



Prof. Dr. S. Aplonov,
SPbSU



K. Wollin,
BMBF



Prof. Dr. E.-M. Pfeiffer,
Hamburg University



Dr. B. Tanner,
BMBF



Dr. N. Kaledin,
SPbSU

After the award we asked the new alumni to answer the following questions:

1. IF YOU COULD TURN BACK TIME, WOULD YOU STUDY AT POMOR AGAIN?

- Yes, I would!
- If I had the chance to restart my education I would apply for the POMOR program once more, for sure.
- Sure I would! I don't remember regretting my decision about POMOR
- Yes, without any doubt and hesitations. I am sure that the decision to study at POMOR was one of the most important in my life.
- Yes, definitely

2. WHAT IMPRESSED YOU THE MOST DURING YOUR STUDIES?

- The great impression I had during the lectures of foreign professors. There was a chance to see how science is applied in real life.
- The differences between the two countries and the Russian culture.
- The difference between two educational systems. In the German system professors involve the students more in the research process, which is inspirational, while in the Russian system professors (not everyone, but the majority) give facts and techniques without emotional input.
- The variety of subjects\lectures and consequently the variety of opportunities after the graduation, also amazing enthusiasm of the graduates who already finished their studies and can't imagine their life without Arctic or marine research work. First it surprised me a bit but now I feel the same excitement about my work.
- Every period of the study was impressive in its own way. The best memories for me is the expeditions we went to and the year I stayed in Germany.
- I was impressed by the global meaning of given information. And I liked very much our field work aboard RV "Professor Molchanov"

3. IF YOU HAD THE OPPORTUNITY, WHAT WOULD YOU CHANGE IN THE MASTER PROGRAM?

- I would like to change some of the courses, for example, it would be great if some Russian professors would give not only different definitions, but also show how it looks like.
- More time for the master thesis (real 6 months) and more input about glaciology and permafrost.
- I would try to diversify the topics of the lectures. And include more practical exercises (professor Ch.-W. Dullo gave us seismic images to identify oil horizons and that is basically all practical application we had)
- More lectures about such skills as presentation and poster-making, maybe more English, somehow organize prof-orientation or smth like that – it can be a seminar where possibilities for future master thesis or area of research can be

structured and presented to help students to see the whole picture of the huge variety of topics, maybe to remind them of the lectures they have attended. to prepare an approximate list of professors who are familiar with POMOR and will be able to take a student who has not a lot of time for a master project. Perhaps this will help them to choose their way.

- I would make the first two semesters in Russia more structured.
- I might reduce a little the number of lecturers so as to give the rest of them more time to thoroughly develop the contents of their lectures.

4. WHICH BOOKS SHOULD A POMOR HAVE READ?

- It depends on interests of each student. In general I'd recommend "Marine geology" by J.Kennet.
- Jo Lendle – Alles Land (The history of Alfred Wegner)
- All classical adventure books and of course more scientific books by Jacques-Yves Cousteau, Thor Heyerdahl, Jack London 'Northern Stories. The text books should include basic overview of oceanography, geography and biology. And, of course, it is better to go through the recommended literature which is sent (or should be sent!!) before the foreign lectors come to arrange the lessons.
- I am sure that it is mainly depends on the field a POMOR aims to. Nevertheless, it would be nice to read some general book about Arctic and Antarctic to feel the atmosphere and the beauty of these regions.
- Kennett, James P., 1982. Marine Geology. Prentice Hall, 813 p.

5. WHICH SPECIAL EXPERIENCE DID YOU TAKE HOME FROM GERMANY?

- For me it was an experience to live alone without family and to solve some household problems by myself. To meet people, to know new people and to communicate with them were also great experiences that I took home with me.
- I took home the spirit of Christmas and the habit of organizing your working space (which is easy with a wide range of the colorful devices available in the German shops). I enjoyed studying German with the international students and to share with them the traditions of their home countries. The chance to dive into a different culture brings a lot of experience and understanding that Russians and Germans have more in common than people probably think.
- Presentation skills were improved, I admired work and scientific enthusiasm of German professors, very well equipped labs, learning a lot about Germany and Germans, making new friends from all over the world, learning more about opportunities for your future as a scientist
- Germany gave me the great feeling of what science is. There I realised which topic I wanted to focus on.
- To make a talk in English in 30 minutes for a presentation on a quite complex topic.

6. HOW WOULD YOU DESCRIBE POMOR TO OTHER STUDENTS IN A FEW WORDS?

- Applied /Always interesting /Experience-full /Full of perspectives
- German-Russian Cooperation; in English; focus on natural sciences, but possibility to broaden your horizon (languages, cultures, visa applications, etc.)
- POMOR is a program for people interested in polar sciences. It opens a lot of doors and leads through scientific communities all over the world if you are patient, ambitious and inspired.
- Amazing adventure that will change your life
- Probably One of the Most Original and Rare programs you can find.
- POMOR is an interesting, multidisciplinary program with great opportunities for a future scientific life. ■

A PhD? YES, IN CAMBRIDGE! By Julia Gottschalk

It seems a long time has passed since I finished my Master's studies. I remember that thinking about and organizing the next step, which was applying for my PhD, was a huge task as application deadlines were ringing. Now, it is actually my PhD project that appears to me as the most challenging task I have ever had.

This contribution is about how I found my way to Cambridge and how it feels like to live and work at the world-renowned University of Cambridge.

The way to Cambridge. I completed my Bachelor's and Master's studies both at the University of Bremen, Germany. During my Bachelor's studies I spent an academic year in Russia. I studied Oceanology and Geophysics at the St. Petersburg State University, worked as a student assistant in the Otto-Schmidt-Laboratory and wrote my Bachelor Thesis about deglacial climate changes in the Laptev Sea supervised by Dr. H. Kassens (GEOMAR, Kiel) and Prof. Dr. R. Henrich (University of Bremen). I occasionally attended POMOR lectures apart from my regular lectures in the Department of Geology. Since then some POMOR-III students are very good friends of mine. After finishing the Master "Marine Geosciences" I started a PhD at the Earth Sciences Department in the University of Cambridge, UK. That was one year ago.

But first, applying for funding. I applied for funding of my PhD project at the University of Cambridge 11 months prior to the start of the PhD, which is very common especially in the UK. It was not only me but also my PhD project that had to convince the Trust of the Gates Cambridge Scholarship. There several ways to find a PhD project. You can either develop your own PhD proposal in cooperation with researchers from the University or simply check which research projects are posted by the department of your choice. My funding, the Gates Cambridge Scholarship, is a full-award scholarship for 90 graduate students (and their research projects) each year from all around the world outside the UK to study and live in Cambridge. It has been launched in 2000 after a generous donation by the Bill and Melinda Gates Foundation and provides the financial backbone for researchers from all disciplines to work on crucially important, societal and scientific problems. As the scholarship is available to Russians please browse www.gatesscholar.org if you are more interested.

Life in Cambridge. Cambridge is definitely different than everything I have ever experienced before. A phrase you often hear "Cambridge is an Out-of-world-bubble" fits quite well. The University of Cambridge is over 800 years old and some traditions and rules have survived over the centuries. Every student belongs to one of 36 Colleges in Cambridge, which is a place to live, study and eat among fellow students, where you can join cultural and social events as well as find pastoral and academic services. Fellows of the colleges, researchers that are paid by the college, are allowed to walk on the college lawns (perfect British lawns) whereas students are not.

If students are accompanied by fellows, they would be allowed to step on the grass. It is not very logic, isn't it? However, Cambridge is a particularly stimulating place in many ways but especially from the scientific point of view. You can find the first edition of Isaac Newton's Principia Mathematica with handwritten notes in the Wren Library, walk through streets where Steven Hawking must have also been, eat in the pub where Watson and Crick announced their discovery of the DNA.

Cambridge is very small in comparison to St Petersburg. Everything is accessible within walking or biking or punting distance. Punting is a very traditional means of transport on the river Cam in Cambridge where you use a pole to push yourself and your boat forward. This leads frequently to traffic jams on the river when tourists are flooding the city in summer.

The entire city can be considered as university campus because university libraries, laboratories and departments are spread over the entire city. It is very difficult to escape from anything that looks like or is associated with the university. Luckily, there is a massive offer of talks, events, festivals and sports. You can spend your time with zumba or yoga, wine tasting, rowing the Cam up and down (even at 6 am in the morning) or listening to talks about the vastness of space or the growing behaviour of tiny neurons. Cambridge has everything to offer that easily distracts you from doing the PhD. It certainly does not get boring.

Polar and marine Geosciences in Cambridge and my PhD project. Polar Geosciences and Geology are well represented in Cambridge. A lot of thrilling research is done at the British Antarctic Survey, the Scott's Polar Institute and in the various departments of the University of Cambridge. I am based at the Earth Sciences Department in the division "Climate Change and Earth-Ocean Atmosphere Systems", where I study the contribution of processes in the Southern Ocean on the variability of atmospheric CO₂ on the basis of marine sediment cores. See www.esc.cam.ac.uk for other projects in Volcanology, Petrology, Geophysics, etc.

To conclude, Cambridge is a very special place and definitely an ideal place to start an academic career and to live in. It might not be easy to step through the door but once in you are able to push all doors open you want.





Figure: To me Cambridge is

- a) a scientifically excellent place to be, work and study,
- b) an intriguing beauty (when rain ceases),
- c) a place where you can combine fun with testing your own limits as well as
- d) Incredibly interesting and odd at the same time. ■

A Russian experience by Henriette Kolling

When I started my master in 2010 I would have never thought what a big role Russia and its people would play in those 2 years.

It all started at the welcome meeting at the University when totally unexpected were 7 Russian POMOR students sitting there. We all were a little intimidated, the Germans and Spanish about the new study situation and how to deal with "those Russians" and the Russians about the expected accurate Germans.

Soon we all found out we could get along pretty well, and it got very obvious that the Russian and German universities are not that different at all.

After a few weeks we could jump over our shadows and started to bond. In Germany it is tradition that every geologist has to be baptised to be protected by Saint Barbara. As we found out that our Russians weren't baptised yet, we talked them into doing it and ended up having a wonderful evening and party together – one of many.

The time flew by and soon the semester was over and the time of 'our' Pomor's was running out. With a final big party full of home made traditional Russian food we had to say 'Пока!'

My interest in Russia was growing, and I was thinking how to get money to visit my new friends in Saint Petersburg. But then I got the opportunity to join a 3 week summer expedition to the Laptev Sea. Without having ever been to Russia the expedition started at the end of August with a long (even in Russian standards) journey with stops in Moscow, Irkutsk and Yakutsk.

I soon realized that my mental picture of Russia I had so far was based on the European Russia. The further we got east the more new things I had to add to my mental picture. Arriving in Tiksi our start and end port of the expedition I was stunned by the town and how its people manage to deal with those circumstances they live in – caused by nature and history.

After we left port with our ship the YAKOV SMIRNITSKY I had to experience the beauty but changeability and roughness of the Laptev Sea – one day the sea was totally flat, it was sunny and warm. Taking water samples on deck was fun; working in the laboratory was pleasant. The next day a storm with big waves and snow was shaking our ship and us inside. At first we kept on working, on deck it was getting more and more uncomfortable and working in the laboratory filtering water samples made me sea sick. The storm forced us to stop working and all we could do was wait for it to stop. It wasn't always easy to keep a good mood, just sitting around in a shaking and roaring ship. But as soon as the storm had hit us as soon it was over. After we had arrived back in the port of Tiksi we had some free time and took the chance for a hike in the Siberian tundra. After nearly 4 weeks I came home to Kiel totally speechless of the raw beauty and width of the Laptev Sea and the nature of the Siberian tundra.

So, I had made it to Russia, but I still hadn't seen my POMOR friends again. Before I could think about that I was asked to join the Living Exhibition, an exhibition about Russian-German cooperation in Arctic research. And soon two German friends and I were sitting in a plane to Moscow. The exhibition was shown in one of the Buildings in Moscow State University, knowing German universities I was amazed by its size. ►

Living Exhibition at Moscow State University

At our first meeting before the opening I met some of my old friends I had last seen in Kiel half a year ago. We had a great time together, spending the days at the exhibition and the evenings at the German embassy cooking and eating together and playing games until late in the night. On the free days my Russian friends showed us Moscow. I had the feeling everything was bigger there – the streets, the snow mountains at the side of the street and the metro. After nearly two weeks our time was over but I left with the knowledge that the exhibition would have two more stations in Germany.

And a few months later we were on our way to Bonn to open the exhibition and meet other Russian friends again. Like in Moscow we lived together and had a very nice time filled with a mix of Russian and German things. The final and last exhibition took place in Berlin, my old home. I was excited to show my Russian friends my old home.

Over the whole time of the exhibition I made new Russian friends and saw old friends again.

That is my Russian experience so far. But I really hope the next one is close by.



Fig. 1 Saint Barbara

Source: <http://magnificat.ca>



Fig. 2 Sunset on deck of the YAKOV SMIRNITSKY



Fig. 3 Living Exhibition at Moscow State University

Henriette is now a PhD student at the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research Bremerhaven in the group of Professor Rüdiger Stein. ■

EXPEDITION TO THE UPPER LENA RIVER 4/08-19/08/2012

by Kseniia Ashastina

I am a bit ashamed to admit that this expedition was my first scientific expedition – every summer during my University studies all the departments had field practices in Russia or abroad, moreover we with our friends go hiking pretty often - so I'm familiar with staying in a tent, making fire, taking a bath in a very nice mountain river and asking questions about the surrounding world.

But this was the first real one! The aim of expedition to the upper Lena was the description of the Lena terrace-complexes and sampling of the Lena terraces and the terraces of its main tributaries –Tutura, Talma, Ilma and Ilikta. Samples are necessary for the further reconstruction of the historical evolution of the Lena channel, the reconstruction of past climate conditions and for dating.

The list of reasons why I was lucky to take part in the expedition is long but not the least point are the members – 8 experienced scientists and only 3 students, so all three of us had an exclusive chance to learn absolutely new geographical and geological, geomorphological and chemical nuances.



Fig 1. The group. Kseniia is the 6th from left

Brief facts:

Starting point – Irkutsk

Number of the expedition group – 12 persons + the Kamaz

Aim – to make geomorphological description of Lena terraces and select samples for further dating and reconstructing of sedimentation conditions.

Sampling for – Grain size, Spore-pollen, OSL, radiocarbon, Be analysis

Number of samples – 538

Number of tributaries explored – 4

Number of kilometers passed – 900

Everything started in Irkutsk at 4 am when the plane touched down on Siberian land and fresh foggy air welcomed us and without any permission hugged us with coldness. Irkutsk is a very interesting city located on the shores of Irkut and Angara rivers 66 km to the west of

the Baikal lake, it was founded in 1661 and since then not much has changed- every woman in Irkutsk has a fur coat, because of severe Siberian winters. All citizens of the city or *irkutjane* are sure that they live in the geographical middle of the World – but they keep the secret how to measure it. It still takes a lot of time to get through the city – not only because of its size but also due to quality and arrangement of roadnet – to minimize the car accident number a lot of roads are one-way traffics.

In Irkutsk we met The Kamaz – it is a breakthrough of the Russian car industry – 6x4, wheel diameter 34 inches – the real land cruiser. It doesn't need roads to ride – just a map and a driver. By the way roads in Siberia are wonderful and unpredictable, on the map they exist but in the reality – noup, that is why our Kamaz is The Kamaz. And the rules of road traffic are totally different from the ones we are used to, in the Irkutsk region the main hero on the road is a cow.



Fig. 2 A hero

They move around without paying attention to the place they are going to and if they want to spend some time standing in the middle of the road enjoying fresh Siberian air – nothing can break down their decision. Even signaling and strong words are useless. Only slight pushing can work if one dares.

During the first week of our trip to the Lena and tributaries we were surrounded by an endless green ocean with rare blue foam of meandering rivers in it. Huge areas are covered by fields, forests and hills covered with forests – the only way to define forest from field is to notice colorful spots of flowers scattered around the green ocean.

Practically all the time we were staying in tents on some nice field close to the river. Do you remember the main hero on the road? Well we experienced that cows are bosses not only on the roads. After successful fishing ►

(3 tiny fishes were put back in the river) all the expedition members went to sleep – it is easy to fall asleep after all day long work in $+35^{\circ}$ air, as soon as the Sun dives into the green ocean, temperature drop to $+6^{\circ}$ – and in cold light the myriad silver stars over the head don't help to withstand a strong wish to hide in the sleeping bag. Daria (one of the three lucky students) and I were watching 7th and 5th dreams correspondingly when suddenly voices of cows intervened in our dreams. They were surrounding the tents (not on purpose I want to believe) and scared us to death, but fortunately before we were able to make any wise decision, someone had already been out of the tent screaming and asking the cows to change the direction, and the heroes did – maybe the cows were scared even more than us, cows used to walk this route all their lives and one night strange textile pyramids appeared on the way and made a lot of noise. Now I am smiling but that night I was scared a lot.

We collected samples, measured terraces and made descriptions of outcrops – during this time a lot changed with the ocean surrounding us. Green turned into pale green waves of hills covered with fields, dark green forests transformed into foam standing still on the top of waves. Scattered spots of flowers became paler.

The only thing that hasn't changed were low clouds, we thought that we could touch it and feel their cold. When clouds hurried to some unknown place bared the dark turned upside-down bowl of infinite sky, my breath was taken away. As a huge silver spider the Moon was crossing the bowl along the net of tiny sparkling myriads of stars.

Our breath was taken away also by tremendous terraces – some were hidden in a Green Ocean and only a skilled eye of a scientist could recognize it, others were huge – up to 50 meters high, of course making a description was a pleasure. But the one that amazed everyone was so called Shishkinskaya Pisanica (literally "Writings of Cone village"). It is an archaeological monument, which consists of more than 3 000 pictures made with ochre on the rock terrace of the Lena. The time of this writings is dated back to the Late Neolith. These paintings are called writings because a lot of scenes of daily life are immortalized – hunting, battles, celebrations.

This expedition was one of the most outstanding stories in my life. I would like to thank POMOR and Jörn Thiede for taking me on board, SPSU for organizing and Sochava Institute of Geography SB RAS for navigating the expedition. And all members of the expedition for great time of learning and sampling, watching and enjoying the time. ■

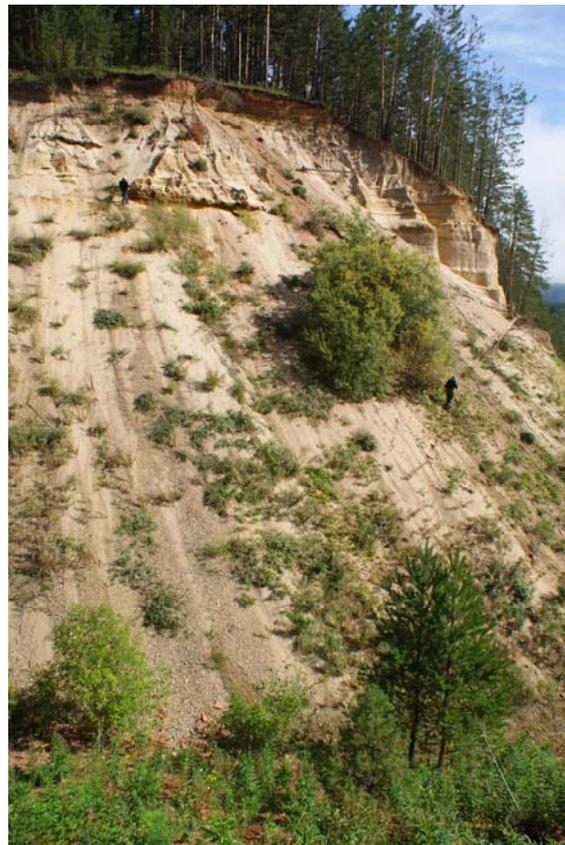


Fig. 3 The biggest terrace



Fig. 4 Picanitcy

THE FIRST STUDENT FROM GERMANY AT POMOR: AN INTERVIEW WITH MAX BOXLEITNER

NK: Why did you choose "POMOR"?

MB: That is a question many people have asked me in St. Petersburg.

The first reason is that I find the thematic orientation of the master program interesting. Before I studied geography and geology in Zurich/Switzerland and after receiving my Bachelor's degree I was looking for something new and challenging. I had done a Russian language course in Zurich, not knowing that I would once have to speak the language. I have been to St. Petersburg and in my memory the city was one of the most impressive places I have seen so far.

So when I came across the POMOR-Master, I thought: this could be it. Studying one year in St. Petersburg, then in one of the partner universities in Germany and receiving two diplomas in the end sounded promising and the perspective, to live in Russia for a while seemed exciting.

NK: Did you encounter cultural difficulties?

MB: I didn't come to Russia without expecting any difficulties, but besides some communication problems there is not much to complain about. I didn't get my visa in time and arrived one week after the lectures had begun, but it was a warm welcome. Solving the administrative issues was a bit of a challenge, because my Russian was pretty bad. But after a while I improved my Russian and started to understand, how the clocks in Russia tick. One of the bigger problems was that not all lectures were completely held in English, which made it hard for me to follow.

One of the very positive things were the 8 hours of Russian lessons per week, which helped me a lot to improve my language skills and to understand the Russian culture better. And the lessons were free! In the course of the first week I received an email of my Russian teacher in which she wrote that she would like to meet me. I didn't even know that I was supposed to receive language training. That was a superb surprise and I am thankful for this generous offer of the Saint Petersburg State University.

One of the major differences I encountered, is that Germans (including me) are always keen to plan everything in advance, which in Russia is not always possible in the way it is in Germany, though it in the end still works out. For example I didn't know where I would stay in St. Petersburg till the day I arrived. The evening before the flight I at least got the dormitory address.

Here the Germans probably have to learn to be more indifferent and relaxed.

NK: What are the differences in the life of a student in Russia compared to the life of a student at a German university?

MB: Because we are only 12 students, lectures were more like in school and more personal, which made it much easier to get in contact with the professors. For the same reason we had to give a lot of presentations ourselves, which was a lot of work, but good practice. But POMOR is not like most other study programs in Russia or in Germany, which makes it hard to compare. One of biggest differences concerning my student's life was the accommodation in the dormitory. Sharing a room with another -unknown- person is not common in Germany and was new for me too. It took me some time to get used to that, but at the end of the day it was okay and interesting. I received a scholarship from the university, so I didn't have to pay the semester fees, paid much less for the dormitory and even received some pocket money. Things that I missed at SPGU were e.g. a real campus and the cultural or sport offers I was used to from the universities I knew.

NK: What did your daily routine in Russia look like?

MB: A normal work day usually meant classes to around 4pm, two hours Russian lesson and sport in the evening. But of course there was also enough time to meet friends.

NK: How did you spend your free time in St. Petersburg?

MB: Being a student in Russia gives you the possibility to get free admission to most museums and monuments, which is great. I visited many of them and even some that I would otherwise have not considered worthwhile. I really liked just roaming around St. Petersburg and of course I spent a lot of time with my new friends. I really like the Russian extremes (cultural, weather, etc.) The white nights were beautiful though I like the Russian winter even more. We don't have these temperatures in Germany. Ice and snow turned everything into a winter wonderland. I enjoyed the weekends, when I had the possibility to get out into the nature and walk through the forest or on the Baltic Sea. After the first semester my friends and I went to a university camp in the north of St. Petersburg for a week. Here we went mostly cross-country skiing over frozen lakes and in beautiful forests. When we came back from some hours of skiing, our hair and eyelashes were usually covered by ice crystals making us look like snowmen. Here I also set my personal temperature record with -37°C.

I have also visited some other cities like Moscow, Novgorod, Pskov and Vyborg. Russia is much more than St. Petersburg, though of course St. Petersburg is one of the first things that flash up in my mind when I think about

NK: Do you have a favorite place in St. Petersburg?

MB: I think one of my favorite places in St. Petersburg is "Blagoveshenskiy Most" with the view of the port, especially when the Neva is frozen and the sun is shining. Just beautiful!

NK: Can you list some peculiarities that made an impression on you in St. Petersburg?

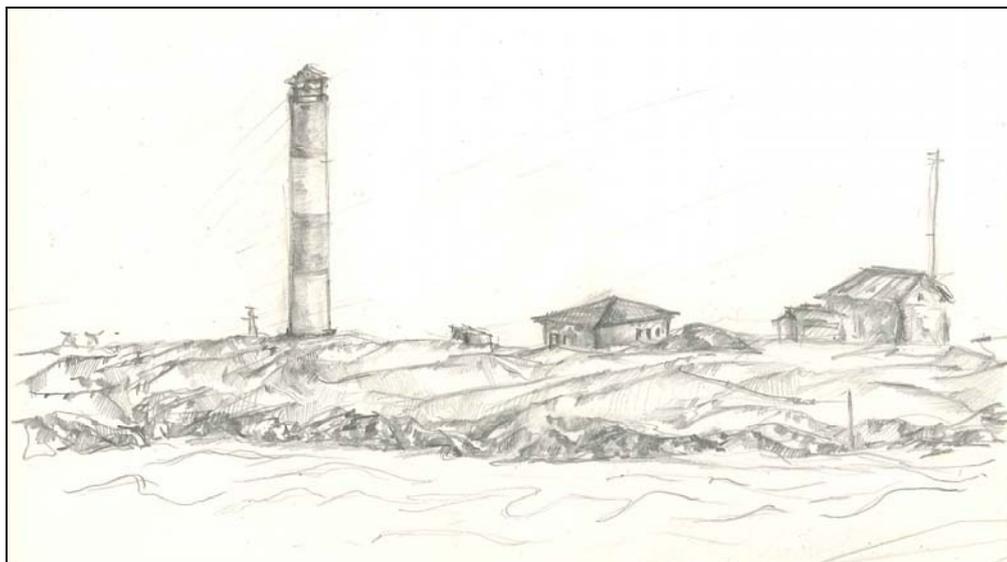
MB: Most Russians are rough on the outside, but nice on the inside. In public or in the streets people show a different face than at home.

- No balalaika and bears.
- Russians are hospitable.
- You can buy flowers almost everywhere (although that is not really important for Germans).

Russia. ►

- Some shops are open 24 hours and even on Sundays.
 - Public transport at night is not student-friendly.
 - The Russian kitchen offers tasty dishes. I especially like the soups (yxa!)
- I could continue the list, but it's these little experiences everybody has to make on his own, that make a stay in a foreign country so interesting. I will come back with pleasure. ■

DRAWINGS by Daria Elkina



Sosnovets Island



Fog of the Kara sea

A GREAT CHANCE IN MY LIFE by Veronika Emetc

Two years ago I didn't know anything about POMOR program (Master Program of Polar and Marine science) and of course I did not expect to have such a great chance in my life. Starting as a common student, I thought that all future plans and desires seemed unrealistic. But now I am student of Hamburg University, this summer I was in two expeditions and I hope that it is just the beginning.

My first expedition was in July. We went to the North Pole on the atomic icebreaker "50 Years of Victory", started in Murmansk with a course on Franz Josef Land and then moved to the North Pole at a latitude of 90 degrees north (Fig. 1). Our main objectives were the visual observations of sea ice: its thickness, total concentration, hummocks concentration and ice compactness. We recorded observations in a magazine, showing the coordinates and time and after interpreted the images taken with the video camera MOBOTIX M12 installed on the outside deck.

During the first semester in St. Petersburg University we had many lectures about climate and specific processes in Polar Regions. But when you see the nature with all its splendor and versatility with your own eyes, it gives you knowledge that you would never obtain sitting in the library. Every day I was admiring what I could see just by looking out of the porthole in my cabin.

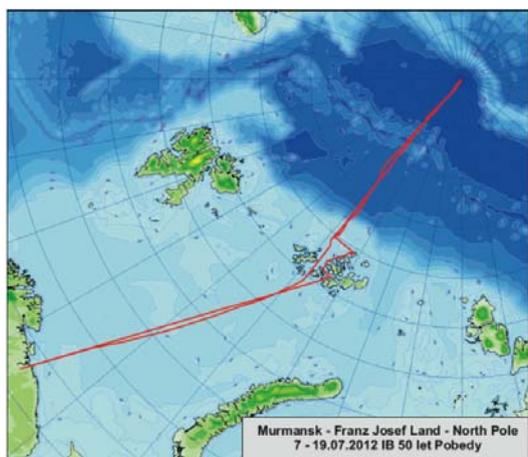


Figure 1. Map of trip of the nuclear-powered ice-breaker «50 let Pobedy» in July 2012

The second expedition started at the end of August in Salekchard, from here we went to the Kara sea on the research vessel "Professor Molchanov". Afterwards, we moved to Vize island, then to Franz Josef Land and after to Archangelsk. (Fig. 2.). I was working in an oceanographic group, which performed the measurements at the oceanographic stations located at the zonal direction in the Kara Sea and in Bajdara Bay. It gave me a good opportunity to learn how to work with the different devises and to analyze the real oceanographic data. The expedition lasted 3 weeks

and I was very happy that on board I could meet so many intelligent and inventive people. These people gave me new knowledge and encouragement to work and increase my understanding of the nature and climate.



Figure 2. Map of trip of the RV «Professor Molchanov» in August-September 2012

The third semester I spent at the Hamburg University. Indeed, this is a place where you can gather as much comprehensive information and get as much knowledge as you wish. I think that the greatest advantage of this study program is that having obtained your basic understanding of the nature; you can then focus on a special subject of your interest. And as one of my professor from the university said: a researcher needs to have "self-motivation, persistent interest and enthusiasm". This is what I really like about scientific research, the fact that nobody will give you the right answers. Instead, they can show you the way to get it, but you should have the desire and motivation to find it on your own. Sometimes it is not easy but if I can turn back the time and I was asked to choose POMOR, I would say yes without any doubts and hesitations.

If you are a person, who wants to expand his world-view, desires to do something special and important in his life, then POMOR program definitely can give you a powerful incentive to make your first steps into the scientific world. ■



EXPEDITION TRANSDRIFT XX IN SPRING 2012 by Bennet Juhls

My name is Bennet Juhls and I am studying Marine Geosciences in Kiel. Since two years I am working at the GEOMAR Institute in Kiel where I was able to gather a lot of scientific experience. Outstanding experiences were expeditions to the Arctic.

In 2012 I got the opportunity to participate in the expedition TRANSDRIFT XX, which took place from the 19.03.2012 to the 26.04.2012. The base point for this expedition was the small city Tiksi at the Siberian coast. From there we started our daily expeditions to the ice of the Laptev Sea. This expedition was already my second experience with the Russian arctic, but the first time during winter time.

Tiksi is strongly affected by the cold arctic climate, which brings nine months of strong winter in a year with temperatures of down to -50°C . This condition lets Tiksi become an unreal and hostile place to live for me.



Fig. 1 A view of Tiksi

The trip to Tiksi took a course from Hamburg through Moscow and Yakutsk to Tiksi. The first days in Tiksi were used for preparing all devices which we were going to use for the research in this area. Especially the flight from Yakutsk to Tiksi was "kind of amazing" because of the—let's say "special" plane. The plane was not in a very good condition, the seats were broken and all the cargo was in front of your feet and in the back of the plane. So, some people were very afraid to go on this flight.



Fig. 2 View into the back of the helicopter)

After a bit more than a week in Tiksi I finally experienced my first day on the ice. We flew from Tiksi with a helicopter to our planned station on the ice. The trip in the helicopter took approximately 2 hours. After arriving at the planned location, the first task is to unload all the cargo and all devices which are needed. After 2 minutes on the ice my fingers were completely frozen and I couldn't feel them anymore and I was not even able to change to warmer gloves because it was impossible for me to get my fingers into the fingers of the gloves. This forced me to go back into the helicopter to warm them up. It was very important, because otherwise it is possible to break your fingers without noticing it at all.

After warming up my hands and keeping them warm I started to help with different tasks as drilling holes into the ice, taking ice cores and taking measurements of different parameters of the water under the ice cover.

Beside our research on the ice of the Laptev Sea we also made a kind of cultural program as visiting a museum and watching a show of the school of Tiksi. A special cultural event was the visiting of an indigenous town on the Lena Delta. In this town there are living so-called Evenks, who are indigenous people. They showed us how their forefathers lived in clay huts in this hostile region. ■



Fig. 3 Drilling a hole into the 2 meter thick ice

IMPRESSUM

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