



## **2005 BALTIC FLOATING UNIVERSITY CRUISE**

### **IOC UNESCO – RSHU**

In summer 2005 a usual annual scientific-educational expedition was carried out by RSHU in the Baltic Sea. It was held within the framework of BFU international project and Federal Target Programme “Investigations of the nature of the World Ocean”. Apart from professors, teachers and students from RSHU and specialists from scientific-research institutes of St.-Petersburg, the students from the Baltic countries, such as Latvia, Lithuania, and also from Slovakia, Ukraine, Spain and United Kingdom took part in this expedition. This interdisciplinary expedition was carried out in the Gulf of Finland and the Baltic Sea with the objective of providing education and training in the fields of oceanography & ecology through lectures, data collection, data analysis & interpretation. This cruise created a unique opportunity for a healthy exchange of ideas between the youth of different nations.

Several days before the start of cruise foreign students have had a possibility to go sightseeing around St.-Petersburg, visiting RSHU, theatres and museums. Students of RSHU have held several excursions to the most beautiful places of the city, entered on the UNESCO World heritage list. By this, through the intercultural exchange, BFU project contributes to the UNESCO programme “World culture”.

Marine expedition has been held onboard the Russian hydrographic vessel “Sibiryakov”, investigating four areas: Gulf of Finland, Baltic Proper (HELCOM stations) and Gotland deep. There was a storm of 6 points that summer in south-eastern part of Baltic Sea (Kaliningrad zone). Marine expedition confirms that in spite of difficulties students and crew passed sea examinations successfully.

Under supervision of the specialists students have taken direct part in taking the samples, have worked in onboard laboratories, getting the experience and practical skills in methods and technique of the marine research, they also have taken part in processing and preliminary analysis of the data. During the lectures onboard “Sibiryakov” professors have

told the students about the main problems of the Baltic Sea and the ways of their solution to reach sustainable development and conservation of the environment of the sea.

The important element in the BFU work is holding the annual Mid-cruise scientific seminars, which were carried out in those cities of the Baltic region, which the vessel had called, including Stockholm, Tallinn and Helsinki. This time the seminar took place on August, 12 onboard research vessel “Sibiryakov” during the stay in Stockholm. On the basis of the collected material students have made several reports. The researchers from Stockholm University Dr.Savchuk and A. Sokolov made their presentations, after which there was an excursion along the institute’s laboratories and departments. Moreover the visit to Vasa museum and Aquaria was organized. Foreign students that had left the vessel in Stockholm were saying their good-byes warmly and with tears to “Sibiryakov”, to those, going again to the sea.

The expedition has started in St.-Petersburg on August, 3 and has finished the same place on August, 16. The scientific-educational programme has been completely fulfilled. The students participated in the cruise have taken with them the unique materials, which will serve as a basis for their articles for the usual issue of the annual research bulletin “Baltic Floating University”.

At the same time, in the strong co-operation and accordance with the “Sibiryakov” BFU cruise, the new research Project LEARN COAST started onboard the sailing catamaran “Centaurus II”. LEARN COAST means the “Learning network on coastal sustainable living in Baltic Sea region”, and is supported by Nordic Council of Ministers and the Research Council of Norway. The main objective of this Project is to organize and to carry out an Innovative Marine Summer School focused on coastal sustainable living for students from Russia, Poland, Estonia, Sweden and Denmark. As a result of the Project, educational modules should be prepared with focus on coastal sustainable living for students from partner countries. During the summer trip, 5 educational modules were proposed: Coastal communities and Lifestyles, Marine Environment, Sustainable Tourism, Coastal Zone Management, Learning and Awareness Raising Approach and Networking. Proposed modules were discussed on Mid-cruise seminars. First seminar took place in Hiiumaa (Estonia), the next — in Visby University (Gotland, Sweden), and the last one — during the visit to Nykobing (Denmark).

Before cruise on LEARN COAST project another expedition was carried out on the catamaran in the framework of the Baltic Floating University project. In the course of the

cruise the students took part in oceanographic surveying of the Luga and Koporye bights with measurements of temperature, salinity, pH, concentration of oxygen and nutrients, (19 stations) and hydrobiological surveying in the open part of the Gulf of Finland and the Vyborg Bay with plankton and benthos sampling together with hydrological measurements (16 stations). The students also participated in the sub-satellite (sea surface-truth) measurements of sea surface and air temperature together with cloudiness observations needed for the development of remote sensing methodology in the Eastern Gulf of Finland and fulfilled at the request of the St. Petersburg Centre on Hydrometeorology and Environmental Monitoring. In the cruise three lectures have been read for the students:

1. General oceanography of the Baltic Sea and the Gulf of Finland (Prof. A. V. Nekrasov).

2. Intensity of eutrophication processes in different parts of the Neva Estuary (Dr. S. M. Golubkov).

3. Upwelling phenomenon in the Gulf of Finland and relevant effects (Prof. A. V. Nekrasov).

The power-point presentation "Biology of the Baltic Sea" was prepared by the student X. Kuligovsky (Denmark) with the help of Dr. S. M. Golubkov. The participants of the BFU expedition think about the sailing catamaran Centaurus-II as about the "little brother" of "Sibiryakov". The cooperation between a big research vessel and small catamaran helps to organize complex expeditions, in the open and shallow parts of the Baltic Sea at the same time. During the expedition on the catamaran — 5 foreign and 4 Russians have been involved. Before the cruises, the meeting of the students with the Program Specialist of the UNESCO Moscow Office Mrs. Marie Prchalova and rector RSHU Professor Lev Karlin took place onboard RV "Sibiryakov" and the catamaran. The scientific plans of the expeditions and the future UNESCO activities in the coastal zones and open part of the Baltic Sea were discussed. The importance of the BFU Program for the capacity building in ocean science was postulated.

For the distribution the information about the BFU Program, the contact with mass-media was organized. The journalists from St.-Petersburg TV visited RV "Sibiryakov" in the harbor of Lomonosov not far from St.-Petersburg, and the representatives of the Russian Radio visited the research vessel in Stockholm.

We hope that you have enjoyed this cruise and that you have found new friends among the participants and that you will keep the memory of this cruise fresh in your heart and mind for many years to come.

On behalf of the project organisers and managers, the crew of the R/V “SIBIRYAKOV”, the scientific team and all cruise participants, we thank you for your interest and kind assistance in making this cruise a great success.

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