

The International Training-through-Research Cruise of the Baltic Floating University Onboard the Sailing Catamaran Centaurus-II in Summer 2006

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The cruise of the sailing catamaran "Centaurus II" was mainly dedicated to field training for students studying oceanography at the RSHU and University of Cadiz (Spain). The cruise consisted of two stages: stage 1 – in the Vyborg Bay, and stage 2 - in the eastern Gulf of Finland ("Luga - Koporye region"). The scientific program of the cruise followed the program of the field training developed and accepted at the RSHU, the general BFU program, and the special biological program developed by the Zoological Institute of Russian Academy of Sciences (ZIN RAN). Ground-truth observations were also made in a number of stations in the Gulf of Finland, particularly in the Vyborg Bay.

Stages of the cruise

First stage of the cruise was in the Vyborg Bay and included ground-truth observations. Students from RSHU and Cadiz University also got experience in hydrochemical analysis of water samples. Second stage was held in Luga and Koporye Bights and consisted of:

- study of thermochaline structure and spatial distribution of the main characteristics of water masses (concentration of dissolved oxygen, pH, nutrients) through carrying out the multidisciplinary oceanographic survey on the standard network of the BFU stations with spatial resolution 2.5 miles and further estimation of inter-annual changes comparing new data with data obtained in 1993-2001;
- collecting samples of plankton, benthos and sediments;
- study of spatial distribution of hydrological and hydrochemical parameters in deepwater sections in the Eastern Baltic and the Western Gulf of Finland;
- taking water and sediments samples for analysis of oil hydrocarbons and heavy metals.

Hydrobiological works were performed under the direction of scientists from the Zoological Institute of Russian Academy of Sciences.

Education onboard the catamaran

Field work

According to the program of the field training all the students performed all kinds of the field work onboard the catamaran including measurements of oceanographic and meteorological characteristics, sampling, processing materials of observations. The guiding principle of all the expeditions onboard the catamaran “Centaurus-II” is 'training-through-research' as students and young scientists are always together involved in work.

Seminars and lectures

Seminars on main environmental problems of the Gulf of Finland took place onboard the catamaran. All students prepared original reports for these seminars based on the scientific results they had got during the practice. Three lectures were presented for students by Dr. Vitalij Sychev, Prof. Dr. Alexej Nekrasov (both from RSHU), and Prof. Dr. Sergej Golubkov (ZIN RAN)

Expedition members

The leaders of the expedition were Prof. Dr. A. Nekrasov and Dr. Vitalij Sychev (RSHU). Dr. V. Sychev was the scientific head of the expedition. The manager of catamaran was G. Bashkina (RSHU). In addition, scientist S. Vinogradov and engineer D. Babaev took part at the cruise. From the ZIN RAN there were two participants: Prof. Dr. S. Golubkov and scientist M. Golubkov.

In total 14 Russian students from the RSHU took part in the cruise (K. Bulanov, P. Deviatkin, K. Zdanovskiy, I. Nasirov, S. Vartinov, V. Nadeliaev, A. Smetanin, E. Kovaleva, N. Groznova, V. Fedotova, O. Chuiko, M. Yachmenova, D. Chernov, I. Shestakov), and 4 students - from Cadiz University (Alejandro Cab. Hernandez, Cristina Garcia Munoz, Victoria Lopez Cabaco, Pilar Lopez Fernandez).