

CHRONICLE AND INFORMATION

IN MEMORIAM: OLEG MIRONOV
(09.03.1933 – 16.03.2022)



On 16 March, 2022, at the age of 89, Prof., D. Sc. Oleg Mironov passed away. He organized the first marine sanitary hydrobiology laboratory in the USSR (1964) which was transformed in 1971 into the department.

Almost all his scientific activities were connected with the Sevastopol Biological Station and IBSS. He worked here as a librarian even *prior* to going to university. In 1952, he entered Kirov Military Medical Academy in Leningrad and began specializing in marine sanitary ecology. In 1963, after defending his PhD thesis in medical science, he started working at IBSS of the Academy of Sciences of the Ukrainian SSR as a junior researcher. In 1964, IBSS scientific council decided to develop research on marine sanitary biology at the institute, and O. Mironov was instructed to organize the laboratory. In 1971 on the base of this laboratory, the marine sanitary hydrobiology department was formed. In 1970, he defended D. Sc. dissertation in biology and launched experimental and field research which is still of great scientific and practical interest.

He was the first to study on a large scale the effect of oil and oil products in various concentration ranges on mass hydrobiont species. The investigation carried out allowed to make recommendations on biotesting of polluted seawater and to provide material for the establishment of maximum permissible concentrations for seafloor sediments. Oleg Mironov obtained new data on the patterns of distribution, abundance, biochemical peculiarities, and species composition of oil-oxidizing microorganisms in the Black, Red, and Mediterranean seas, as well as in some areas of the Pacific, Indian, and Atlantic oceans. He was the first to carry out such studies, and those reflected a new stage in the development of marine and oceanic microbiology. Based on the investigation of destructive activity of hydrocarbon-oxidizing microorganisms, he calculated the potential ability of the Black Sea to self-purify from oil pollution.

By the mid-1970s, he substantiated the fundamental concept of interaction of hydrobionts and their communities with pollution as a part of the general natural process of matter transformation and energy transfer in the marine environment. This concept both determined the main directions of the department's research for decades and became the basis of the international program on oil pollution biomonitoring in the Mediterranean basin. O. Mironov developed the scientific directions of great relevance.

This was confirmed by the fact that the staff of the marine sanitary hydrobiology department was involved in the key state programs and projects – “World Ocean”, “GIZM”, “Environment”, GESAMP (Joint group of experts on the scientific aspects of marine environmental protection), *etc.* The research covered waters of the Black, Caspian, and Barents seas, *inter alia* several areas of the Pacific coast.

Oleg Mironov created the basic concept of the purposeful use of hydrobionts and their communities for purification and sanitation of polluted (oil-containing) seawater in coastal areas.

The concept was implemented: technical hydrobiological systems were located in several anthropogenically stressed coastal water areas of Sevastopol. This repeatedly confirmed the applied significance of fundamental research of the marine sanitary hydrobiology department.

His contribution to the formation of a system of long-term monitoring studies in Sevastopol coastal and marine areas is invaluable. In 1973, he was the first to organize complex chemical and biological surveys of practically all the city bays, and the investigations are carried out till now.

O. Mironov published more than 400 scientific papers. The results of the studies are summarized in several monographs edited by him: “Interaction between sea organisms and oil hydrocarbons” (1985), “Sanitary-biological aspects of the Sevastopol bays ecology in XX century” (2003), “Sanitary-biological investigations in coastal area of Sevastopol region” (2009), *etc.* Those present a unique and scientifically based “anthropogenic history” of the area.

A talented scientist and an excellent organizer, Oleg Mironov created a school of marine sanitary hydrobiologists–ecologists. Under his supervision, more than 20 PhD theses were defended, as well as 1 D. Sc. dissertation. He was an active science communicator – he repeatedly appeared on television and gave comments in other media on actual environmental problems of the city and the country.

O. Mironov was born by the sea, truly loved it, and devoted his whole life to it. The bright memory of an outstanding scientist and amazing person will forever remain in our hearts.



O. Mironov and V. Tyninika, captain of the RV “Professor Vodyanitsky”

Students, colleagues, and friends

**ПАМЯТИ ОЛЕГА ГЛЕБОВИЧА МИРОНОВА
(09.03.1933 – 16.03.2022)**

16 марта 2022 г. ушёл из жизни Олег Глебович Миронов — профессор, доктор биологических и кандидат медицинских наук, организатор первой в СССР лаборатории морской санитарной гидробиологии. Олег Глебович внёс огромный вклад в становление системы долгосрочных мониторинговых исследований прибрежно-морских зон Севастополя и стал автором более чем 400 научных работ.