

CHRONICLE AND INFORMATION

ON THE 85th ANNIVERSARY OF VICTOR EGOROV, ACADEMICIAN OF RAS



On 21 May, 2025, the outstanding scientist Victor Egorov turns 85: Academician of the Russian Academy of Sciences, D. Sc., Professor, chief researcher of department of radiation and chemical biology, and IBSS supervisor.

Career. V. Egorov was born in 1940 in Sevastopol. He is a fourth-generation Sevastopol resident. He is a graduate of the Sevastopol Shipbuilding College (1955–1959), the Sevastopol Instrument Engineering Institute (1962–1967) as an electrical engineer (mathematical computing devices and units, diploma with honors), and Sevastopol Higher Naval Engineering School (1967–1968) as a senior engineer of the laboratory of electrical training equipment.

Since 1968, Victor Egorov works at IBSS. In 1968–1970, he was senior engineer of the radiobiology department; in 1970–1980, junior researcher; in 1980–1983, senior researcher; in 1983–1990, head of the laboratory; in 1989–1994, deputy director for scientific affairs; and in 1991–2010, head of the department of radiation and chemical biology. Since 2010, V. Egorov works as chief researcher, and since 2018, he is IBSS supervisor.

Scientific career and awards:

- 1975, PhD in marine physics;
- 1984, Veteran of Labor medal;
- 1988, D. Sc. in radiobiology;
- 1995, Corresponding Member of the Crimean Academy of Sciences;
- 2000, senior researcher in hydrobiology;
- 2005, Professor in hydrobiology;
- 2006, a badge of the National Academy of Sciences of Ukraine “For the Training of Qualified Personnel”;
- 2006, Corresponding Member of the NAS of Ukraine in marine biophysics;
- 2007, the State Prize of Ukraine in Science and Technology;
- 2008, an honorary title “Honored Science and Technology Figure of the Autonomous Republic of Crimea”;
- 2010, a badge of the NAS of Ukraine “For Professional Achievements”;
- 2011, Order of Ukraine “For Merit” of the III class;

- 2012–2022, Academician of the NAS of Ukraine in ecosystemology (in June 2022, he was expelled from the membership of the NAS of Ukraine at his own request);
- 2016, Academician of the Department of Agricultural Sciences of the RAS;
- 2022, honored figure of new technologies of the Russian Federation;
- 2023, the Medal of the Order “For Merit to the Fatherland” of the II class;
- 2023, member of the bureau of the Coordinating Council of the Southern Association of Scientific Organizations under the scientific and methodological guidance of the RAS;
- 2024, a jubilee medal “300 Years of the Russian Academy of Sciences.”

Marine practice. Victor Egorov is yacht helmsman, motorman, radio operator of the 1st class, and skipper of small vessels. Participated in a round-the-world cruise and researches in 27 seas of the Atlantic, Indian, and Pacific oceans. Worked in more than 45 cruises on research vessels. Headed more than 20 cruises. Out of them, 15 were international ones, with scientists from 16 countries (Belgium, Bulgaria, France, Georgia, Germany, Greece, Holland, Italy, Portugal, Romania, Russia, Spain, Sweden, Turkey, UK, and USA).



Major scientific achievements. V. Egorov is a specialist in studying the interaction between living and inert matter with marine environment's radioactive and chemical components. A semi-empirical theory has been substantiated of mineral and radioisotope exchange of marine organisms and inert matter in the marine environment on the time scale of metabolic and sorption processes and trophic interactions. By parameters, this model is compatible with modern methods of describing the balance of matter and energy in marine ecosystems. The radioecological response of the Black Sea to the Chernobyl Nuclear Power Plant disaster of 1986 has been studied. As established, the radioecological signal from the Chernobyl disaster can be traced in the Black Sea on a half-century time scale. Radio-tracer methods have been developed for using post-Chernobyl radionuclides to assess the intensity of biogeochemical processes. A geographical discovery has been made. A previously unknown biogeochemical factor has been registered: methane seeps from the bottom in a depth range of 10–2,100 m. Its environment-forming, resource, and ecological roles have been investigated. Coral-like carbonate bacterial structures with linear dimensions up to 4 m have been discovered in the hydrogen sulfide layer of the Black Sea; those evidence for the existence of the phenomenon of life under anaerobic conditions. As established, the age of bacterial structures at different depths corresponds to trends of hydrogen sulfide contamination of waters during its late geological evolution. A theory of radioisotopic and chemical homeostasis of marine ecosystems has been developed. The term ‘ecological capacity’ has been proposed to assess the ability of the marine environment to self-purify. The concept of Academician V. Vernadsky on the unity of processes of reproduction of living matter and conditions of its habitat has been quantitatively implemented. Biogeochemical criteria have been substantiated for standardizing maximum permissible flows of marine pollution. Methods for implementing the concept of sustainable development of marine critical and recreational zones have been developed. These methods take into account the eco-centric approach to protecting the biosphere and the balance of anthropogenic consumption and natural reproduction of water quality resources.



Scientific and organizational activities. While participating in numerous research cruises and business trips, Victor Egorov has visited 53 countries in Asia, Africa, Europe, and North and South America, as well as Australia and Oceania. He supervised IBSS research within the framework of international projects as follows: IAEA (1992–1994 and 1997–2002); Volkswagen (Germany, 1993–1995); EROS 2000 and EROS 21 (European Union, 1994–1998); BIG-BLACK (EU, 1998–2000); INCO-COPERNICUS

(EU, 2001–2002); The Black Sea Gas Hydrates (EU, 2001–2002); Localization of Methane Seeps in the Black Sea (NATO, 2001–2003); METROL (EU, 2002–2004); CRIMEA (EU, 2003–2005); Mussel Watch (EU, 2004–2007). Moreover, he co-headed the projects Vanco Prikerchenskaya (USA, 2007–2008) and SESAME (EU, 2007–2009).

Scientific and educational work. V. Egorov supervised eight PhDs and one D. Sc. He presented reports at scientific forums in 13 countries (Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Luxembourg, Monaco, Turkey, and USA). He is the Editor-in-Chief of Marine Biological Journal. He serves on editorial boards of five scientific journals: Biodiversity and Sustainable Development (IBSS, Sevastopol); Civil Security Technologies (All-Russian Research Institute for Civil Defense of the EMERCOM of Russia, Moscow); Ecological Safety of Coastal and Shelf Zones of Sea (Marine Hydrophysical Institute of the RAS, Sevastopol); Ecosystems (V. I. Vernadsky Crimean Federal University, Simferopol); and Monitoring Systems of Environment (Institute of Natural and Technical Systems, Sevastopol). He is the member of the International Union of Radioecology. Member of qualification councils for awarding academic degrees in hydrobiology (biological sciences) and oceanology (geographical sciences). Author of more than 400 scientific papers (with more than 100 published abroad). His works include 15 monographs, with 1 of them published by Wiley and 1 by Springer.

In connection with the glorious anniversary of Academician Victor Egorov, we sincerely wish him consistently good health and further scientific and organizational achievements! We know that with his active work, Victor Egorov will contribute to new accomplishments for the benefit of economic and cultural development of Sevastopol, the Crimea, and Russia. He worthily continues the family tradition to leave a noticeable mark in the history of Sevastopol and the Fatherland glorifying it with discoveries important for science and people.

*With deep respect,
staff of IBSS department of radiation and chemical biology*

АКАДЕМИКУ РАН ВИКТОРУ НИКОЛАЕВИЧУ ЕГОРОВУ 85 ЛЕТ

21 мая 2025 г. исполняется 85 лет профессору Виктору Николаевичу Егорову — выдающемуся учёному, специалисту в области изучения взаимодействия живого и косного вещества с радиоактивными и химическими компонентами морской среды, главному редактору «Морского биологического журнала». В. Н. Егоров опубликовал 400 работ, принял участие в более чем 40 научных рейсах на океанографических судах, подготовил восемь кандидатов и одного доктора наук.