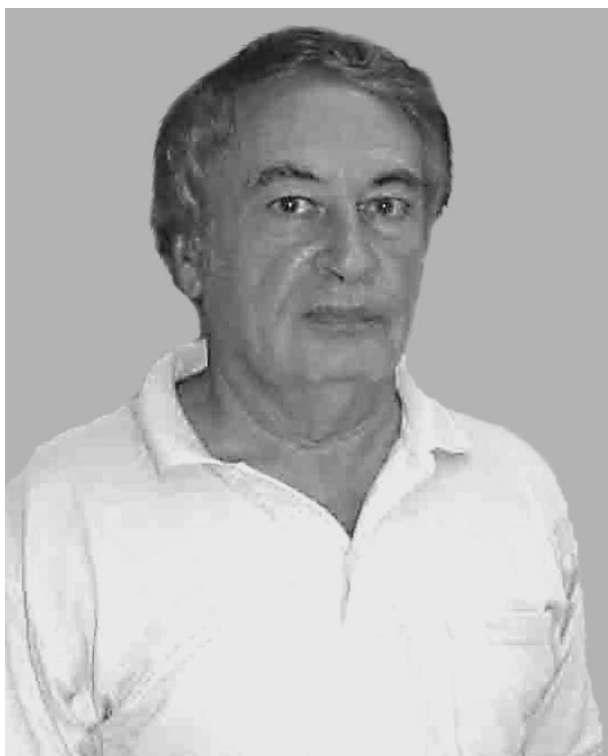


The Seventieth Birthday of Valentin Krassilov

DOI: 10.1134/S0031030107060159



In the early 1960s, a young scientist, Valentin Krassilov, came to the distant city of Vladivostok after graduating from Kharkov State University. The region was intensively developed during those years, and many graduates from central high schools formed a bright scientific community having joined the Far Eastern Division of the Academy of Sciences of the USSR.

In January 1961, V.A. Krassilov was accepted as a junior scientific researcher on the staff of the laboratory of stratigraphy and paleontology of the Far Eastern Geological Institute, where he defended in four years a Ph.D. thesis entitled “Early Cretaceous Flora of Southern Primorye and Its Stratigraphic Significance,” upon which his first monograph was based. During this short period several features of the young scientists showed up, such as prodigious industry, remarkable capacity for work, great erudition, thorough knowledge, and a fanatical enthusiasm for paleontology.

Since his first steps in science, Valentin had planned studies and looked ahead. He understood the necessity to biologize paleontology and used this approach as the basis of his further scientific activity. In the spring of

1972, N.N. Vorontsov, who was the director of the Institute of Biology and Soil Science (IBSS) in Vladivostok, organized a paleobotanical laboratory at IBSS, which was headed by Krassilov. Soon, Valentin defended his DSc thesis in Novosibirsk, entitled “Paleoecology of Terrestrial Plants,” yielded from his combined geological-biological approach. In 1972, a book was issued on the basis of this thesis, which was among few monographs of Soviet scientists translated into English and published in the United States. Consequently, the priority of Krassilov in the area of plant paleoecology became universally recognized.

One of the basic works written by Krassilov, “Evolution and Biostratigraphy,” came out in 1977. There were some people among the interested readers who reproached the author for the intricate presentation of his ideas: biologists did not understand the terminology of geologists and vice versa. Krassilov’s papers were always characterized by extended analysis and wide generalizations, which exceeded the frames of particular specialties. As a result, an enchanting world view appeared, reconstructed by the geologist and paleontologist.

With the arrival of Krassilov in Soviet paleobotany, microstructural methods of study of fossil plants became commonly used. He was the first among Soviet paleobotanists to use a scanning electron microscope in paleobotanical practice, which brought his studies to the highest international level.

In the 1970s Vorontsov organized a philosophical-methodological workshop at IBSS, where many prominent biologists reported on natural philosophy, theoretical and topical problems in biology, evolution of life, scientific ethics, etc. These meetings were very popular in Vladivostok and attracted a broad audience. As eyewitnesses nostalgically recall, the auditorium was too small to seat all people who wanted to listen to Krassilov. Both the reports and vivid informal discussions were interesting.

Everybody remembers political controversy of the 1980s. At this time, Valentin founded the Vladivostok intellectual club, which soon became very fashionable. The city authorities provided one of the largest halls of the House for political education. Valentin succeeded in attracting virtually all the aristocracy of science and talent of Vladivostok to the discussion of topical and eternal problems. Various subjects were discussed. Naturally, many events have been already forgotten, but many listeners were impressed by the discussion with a

local priest: Valentin showed a thorough knowledge of the Bible, theology, and mythology.

The wide scientific interests and high civil responsibility of Krassilov were expressed in his study of sustainability of modern ecosystems. In 1988–1989, a Program of ecological studies in Primorye was compiled under his leadership; for the first time, the necessity was substantiated to provide zones of ethical exploitation of natural resources to small ethnic groups of Siberia and the Far East.

Although nearly 20 years passed, Vladivostok people still recollect the name of Valentin Krassilov with gratitude and respect and wait for new meetings. The paleobotanical laboratory that he founded 35 years ago continues its active work.

A new period in the scientific life of Krassilov started in 1989. He moved to Moscow, where he soon became the director of All-Russia Institute for Nature Conservation, Ministry for Ecology. Members of the institute know Krassilov as a democratic person and enthusiast of science, who added unique traits to the image of the director of a scientific institution. He was elected by the general vote of all members of the institute, having won experienced functionaries. In this period, his main goal was to bring environment protection up to a modern level combining experience with theory. In 1992, his *Nature Conservation: Principles, Problems, and Priorities* appeared. The book is a manual for both laymen and professionals working on theory and methodology of nature conservation. Reasoning from the basis that environment protection is mankind's key priority, Krassilov analyzed principal ecological problems (climatic change, ozone depletion, lost biodiversity, etc.), developed the philosophy of environment protection in agreement with evolution of life, in its turn conforming to general laws of system development.

Years of work at the Institute for Nature Conservation did not separate Valentin from his beloved paleobotany. He continued working on the problems of floristic changes at the Cretaceous/Paleocene boundary, the origin of angiosperms, and ecosystem evolution. At the beginning of 1994, A.Yu. Rosanov, director of the Paleontological Institute of the Russian Academy of Sciences (PIN), decided to create a laboratory of paleobotany in the institute and invited Krassilov to head it. The foundation of a laboratory of paleobotany ended a longstanding imbalance between two scientific branches: zoology that reigned supreme and botany that was represented by solitary scientists.

The installation of the new laboratory was virtually started from zero. High-tech equipment, numerous chemicals and tools were necessary for the modern paleobotanical techniques used by Krassilov. Besides, the staff of the newly founded laboratory was scanty and rather middle-aged. In short time, the painstaking work and devotion to paleobotany rewarded Krassilov with the formation of paleobotanical branch of scien-

tific work at PIN. Students of biological and geological faculties of Moscow State University appeared in the lab, where they accomplished their master and diploma papers, joined the staff, and defended Ph.D. theses under the leadership of Valentin. Nowadays, collaboration with paleobotanists of other Russian and foreign institutes is actively developed.

Krassilov has brought the paleobotany of PIN to a fundamentally different level. The current members of the laboratory, who are all his students, use light and scanning and transmission electron microscopy in their studies; microstructural analysis became a conventional method for study of macrofossil plant remains. Valentin both taught his students to the craft of paleobotanical study and inculcate in them interest and passion to their work. Often, the young researchers spend their weekends and holidays working; they find exciting pleasure in studying mysteries of the world of ancient plants. That nowadays Krassilov's laboratory is one family is an indisputable merit of Krassilov, and members of the lab are proud of him and highly esteem his name.

During his work at PIN, Krassilov published several monographs, among those the most important is *Angiosperm Origins: Morphological and Ecological Aspects* (1997). This fundamental review considers one of the most mysterious problems of botany from the position of a scientist who studied fossil predecessors of angiosperms and generalized an enormous bulk of paleobotanical data. Similarly to other papers by Krassilov, this interesting and unpredictable monograph shows a broad analysis of the problem and non-standard approaches and conclusions. Not all paleobotanists supported the concept presented in the paper: it does not much coincide with generally held views, which, in our opinion, is particularly valuable, as it disturbs the prevailing like-mindedness, which does not promote fruitful search for the truth. We believe that many of the works of Krassilov are written for the future. Many cases are known when a rebellious idea once expressed by Krassilov became in time universally acknowledged.

Valentin attaches particular importance to philosophy. According to his mother Tamara, this passion appeared in childhood. The main philosophical ideas of Krassilov are expressed in several articles and books published in Russian and English. All the copies of his book *Unsolved Problems of Evolution Theory* (1986) were sold almost immediately. Its logical continuance is the *Metaecology. Evolution Rules in Natural and Spirit Systems* (1997), written already at PIN. The monograph uses the earlier developed general model of biological evolution, mostly drawn from paleontological data, as a theoretical basis for the analysis of regularities in the evolution of the inner world and personality. Ideas expressed in the book aroused considerable interest among people of different occupations and views.

In recent years, paleobotanical research is developed with the active participation of Krassilov at the Institute of Evolution of Haifa (Israel). On the basis of his collections of Cretaceous plants from the Negev Desert, he with coauthors published *Turonian Flora of Southern Negev, Israel* (2005).

It is a difficult task to describe and estimate the level of Krassilov as a scientist in a short communication. Summarizing, we point out that Krassilov has studied fossil floras of Sakhalin Island, Kuril Islands, northeast of the former USSR, Primorye, Amur River Region, Transbaikalia, Crimean Peninsula, Ukraine, Lebanon, Israel, and others. He has contributed enormously to the development of Mesozoic stratigraphy and paleofloristics; developed foundations of plant paleoecology, ecostratigraphy, evolution of the earth's crust and biosphere; proposed ecosystem model of macroevolution, and considered general problems of evolution study.

This year is the seventieth birthday of the professor and full member of the Russian Academy of Natural Sciences Valentin Krassilov. Over 350 papers and 20 monographs, numerous paleontological field trips, participation in international and Russian scientific conferences, founding and leadership of paleobotanical laboratories in Vladivostok and Moscow, scientific supervision over postgraduate students, consultations for Russian and foreign paleobotanists represent but an incomplete list of Krassilov's accomplishments.

For us, his students, Valentin is not only a prominent scientist, with whom we are happy to work, but an interesting personality. Each of us, who has met him during the march of life, remembers his or her own aspect of Krassilov. Here is he working on one more cuticle specimen (Valentin always makes all slides and stubs for his studies himself); here is he enthusiastically holding a report at a meeting and having a grip on the audience; here is he sharing his ideas for a new philosophical book, while returning home after working day or presenting an album of his favorite painter Modigliani, or reciting, at a convivial table, a poem of greeting for his collaborators, or leading a field team and making fun of the tired young people. In any situation Krassilov remains Krassilov.

Although he devoted his entire life to discovering of mysteries of Time and its influence on all living things, due to his unique personality, he has escaped its influence himself. At 70 years old, Valentin is as completely committed to his profession as during any other year of his life.

We congratulate him on his birthday and hope for many further years of fruitful scientific collaboration.

*V.S. Markevich, E.V. Bugdaeva, N.I. Blokhina,
K.P. Novikova, M.V. Cherepanova, L.D. Volkova,
N.V. Gordenko, M.V. Tekleva, N.E. Zaviyalova,
E.V. Karasev, and N.P. Maslova*