



Editorial

Afrikan Kuzmich Makhnyov

1926–2020

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Dr. A.K. Makhnyov, a prominent scientist and veteran of World War II passed away at the age of 94 on March 11, 2020.

Afrikan Kuzmich Makhnyov was born on October 26, 1926 in Smirnikha (Verkhoshizhensky District, Kirov Region) into a family of a mill worker. As a participant in the defence of the Far East Russian border, Afrikan Kuzmich fought against the Kwantung Army in Manchuria from 1943 to 1949. He was awarded the Order of the Great Patriotic War, Second Class and the medals ‘For the Victory over Japan,’ ‘For the Liberation of North Korea,’ ‘Georgy Zhukov Medal’ as well as



other government awards. After demobilization in 1950, he entered the Ural Polytechnic Institute and in 1953 transferred to the Ural Forestry Institute, from which he graduated in 1956 with a diploma in Forestry Engineering. For the next ten years he worked as a forester at the Pyshma Forest Enterprise (Sverdlovsk Region). Until 1964, Afrikan Kuzmich was a distance-learning postgraduate student at the Dept. of Forestry, Ural Forestry Institute. In March 1966, he defended his PhD thesis on the topic *Structure of birch populations (Betula Sect. Albae and Nanae): genetic and practical aspects*. From 1966 to 1989, he worked at the Institute of Plant and Animal Ecology, the Ural Branch USSR Acad. Sci. and from 1988 to 2018 carried out research at the Botanical Garden, the Ural Branch of the Russian Acad. Sci. (UB RAS), working his way up from Junior Researcher to Deputy Director for Science. Over 19 years he led the Laboratory of Ecology of Technogenic Plant Communities. In 1982, A.K. Makhnyov defended his Doctor of Sciences dissertation devoted to the ecology of birches. In 2008 he was awarded the title of professor.

Afrikan Kuzmich organized and took an active part in numerous scientific expeditions across the Urals, Siberia, the Far East, Altai, Tajikistan and other USSR territories—as a leader of grant-supported and contract research work. He authored a monograph and co-authored more than a hundred scientific publications.

Afrikan Kuzmich paid much attention to the training of young specialists and scientific personnel, taught at the Ural Forestry University, supervised coursework and diploma work of undergraduate as well as research of graduate students and PhD candidates, consulted doctoral candidates. Seven PhD theses and one doctor of science dissertation were defended under his leadership. He was a member of the Commission for Nature Conservation of the UB RAS and also member of the Council for Problems in the Forest Genetics, Breeding, Seed Production and Introduction, member of the dissertation councils at the Institute of Plant and Animal Ecology UB RAS and Ural State Forest-Technical University.

A.K. Makhnyov made a tremendous contribution to the development of Environmental Science in the Urals. He was one of the leading specialists in the field of forest genetics, biosystematics, population ecology of woody plants and industrial botany. He studied in detail intraspecific variability of birch species in the Urals and West Siberia and revealed patterns in population dynamics; he resolved fundamental questions in the taxonomy of birches. Cultivated birch populations were for the first time created in the Urals under the leadership of Afrikan Kuzmich; important suggestions were made for the improvement of selection and seed production of woody plants. He oversaw and directly participated in the creation of a unique integral system of forest genetic reservations in the Urals, which includes 350 sites.

Together with his colleagues, Afrikan Kuzmich developed original methods of integrated agriculture/forest reclamation of ash dumps at thermal power plants, including creation of a unique system of forest genetic reserves along with a network of experimental plots. Together with the Sverdlovsk Forestry Department, Afrikan Kuzmich participated in the creation of a seed source system and industrial plantations of valuable technical forms of birch.

A.K. Makhnyov was awarded the honorary ‘Veteran of Labour’ title in 1985 and ‘Honoured Scientist of the Russian Federation’ title in 2007. He was a recipient of three medals at the USSR Exhibition of Economic Achievements, a number of certificates of honour and diplomas.

Afrikan Kuzmich was an honest and principled person, modest and open when dealing with colleagues, unpretentious in everyday life. He loved life, appreciated friendship. He was a loving father of eight children and grandfather of seven grandchildren.

His colleagues and friends at the Botanical Garden UB RAS deeply grieve over the death of Afrikan Kuzmich Makhnyov and express their sincere condolences to his family and relatives. The bright memory of him will remain in our hearts.