

Problems of scientific coordination and the Council of the Ural-Volga Region Botanical Gardens (CUVRBG)

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Scientific coordination is very important for the system of botanical gardens. Institutions engaged in plant introduction and acclimatization – botanical gardens, arboreta, experiment stations – are faced with many common problems which can be effectively solved only by mutual efforts. Such problems are of land use and law, of the interaction with the local and regional authorities and educational establishments – problems which require decision making on a national level.

Our institutions frequently lack the necessary laboratory facilities or qualified specialists to carry out research by modern methods of genetics, physiology, biochemistry, mathematical biology. Coordination through mutual research, training of specialists, consulting, mutual work on plant systematics, species identification and reidentification is very helpful.

Another problem to be mutually solved is plant material and seed exchange. Gardens and arboreta were created in different years and conditions, their capacities are different, their collections are diverse and frequently unique, so genetic material exchange is very useful.

The benefits of coordination are evident. In the 50-s the USSR Academy of Sciences began to create a system of councils for scientific coordination in various fields. One of them, the Council of the USSR Botanical Gardens, was to solve problems of plant introduction and acclimatization. There were about 70 botanical gardens and arboreta in the USSR at that time. Direction from a single center, Moscow, was difficult in our large country with a great variety of nature – climatic and ecological conditions. Therefore, in 1960 the direction was reorganized: 10 regional councils in large economic- geographic areas were created - in Middle Asia - Kazakhstan, the Ukraine - Moldavia, Byelorussia, the Baltic region, Trans Caucasus, Far East - Siberia. This reorganization was not enough though, and the councils were divided further. In 1964 the Far East-Siberian council, which coordinated the work of botanical gardens scattered in an area 5 000 km long, was divided and the council of the Ural-Volga Region Botanical Gardens was organized (fig. 1).

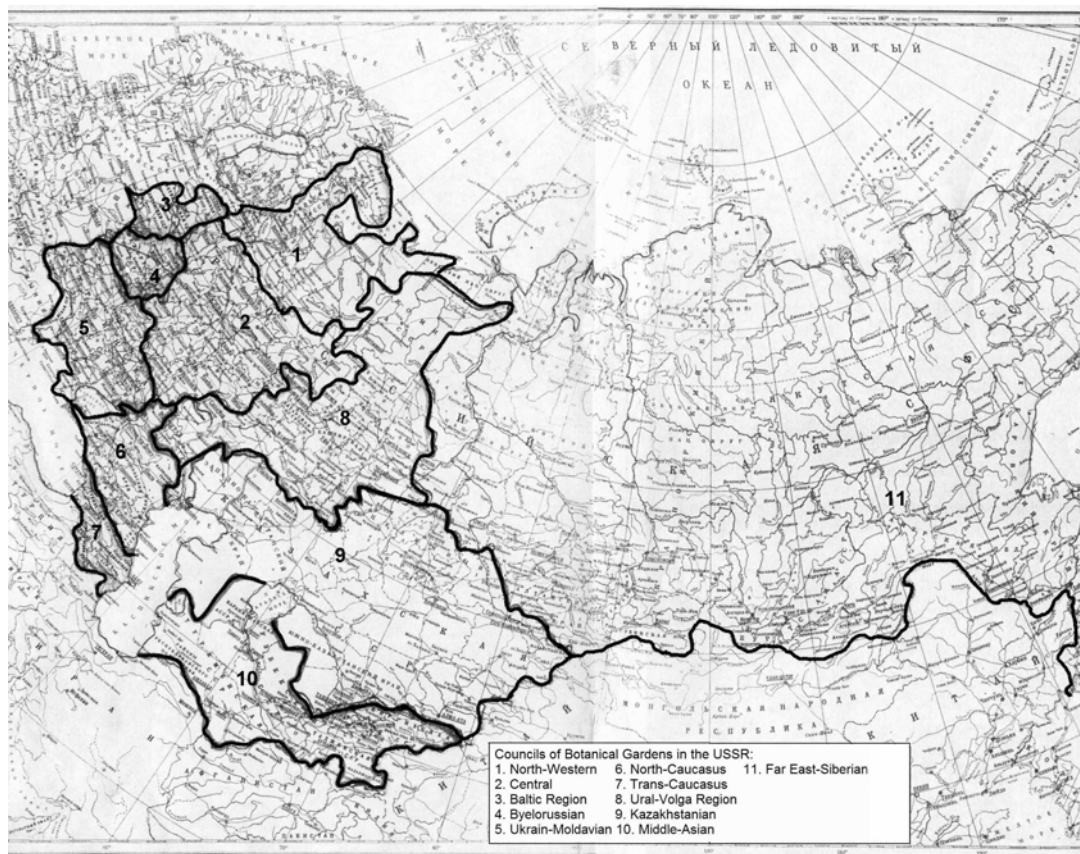


Fig. 1. Councils of botanical gardens in the USSR.

Its activity zone covered many hundred thousand square kilometers in various conditions: dry steppes in the south, taiga and forest tundra in the north, endless plain in the Volga region, mountain chain in the Urals. The common features of this vast territory are unfavorable climatic factors and pronounced continental conditions. In all parts of the region plants suffer from cold winters and contrast temperatures in spring. A quite poor assortment of cultivated plant species (decorative especially) is explained by climate peculiarities and specific historic development of the area.

In 1964 the Council started with only six member institutions. They were poorly developed, with poor facilities and insufficient staff qualification, their collections accounting for some 200-500 species. The goal of the Council was to unite all institutions engaged in plant introduction and acclimatization under its aegis. It has managed to do this during the 40 years of its existence. From 1964 to 1985 12 new members joined (fig. 2).

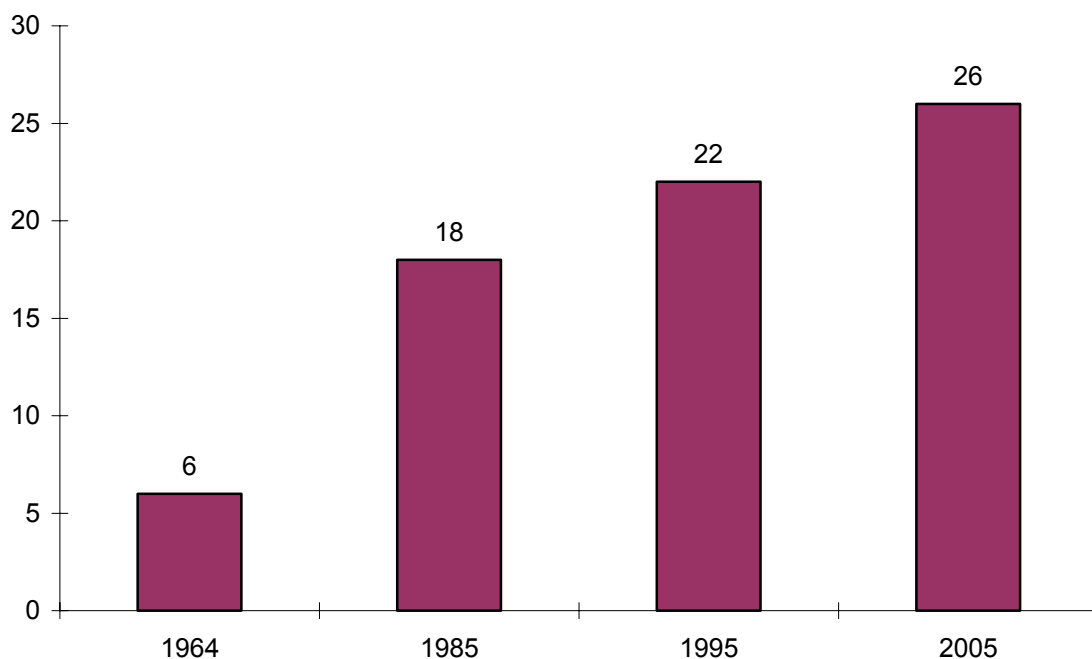


Fig. 2 Changes in the number of botanical institutions under the aegis of the Council of the Ural-Volga Region Botanical Garden.

The Council began to contribute to the introduction system development through inspection, consulting or appeals to regional authorities with requests and recommendations. It did much for the opening of new botanical gardens (e.g. the Kazan and the Marij botanical gardens and the Vigorov memorial garden in Sverdlovsk). Some botanical gardens became independent research institutions – such as our Botanical Garden of the RAS Ural Branch in Yekaterinburg, Ufa Scientific Center in Bashkortostan. Some gardens were upgraded (e.g. Komi Republic Botanical Garden, Marij Technological Institute Botanical Garden). Other gardens and arboreta successfully developed and joined the Council.

Presently 15 botanical gardens (3 academic and 12 university gardens), 9 arboreta and 2 ecological education centers are members of the Council. 26 members against 6 at the start – a four-fold increase (fig. 2, 3).

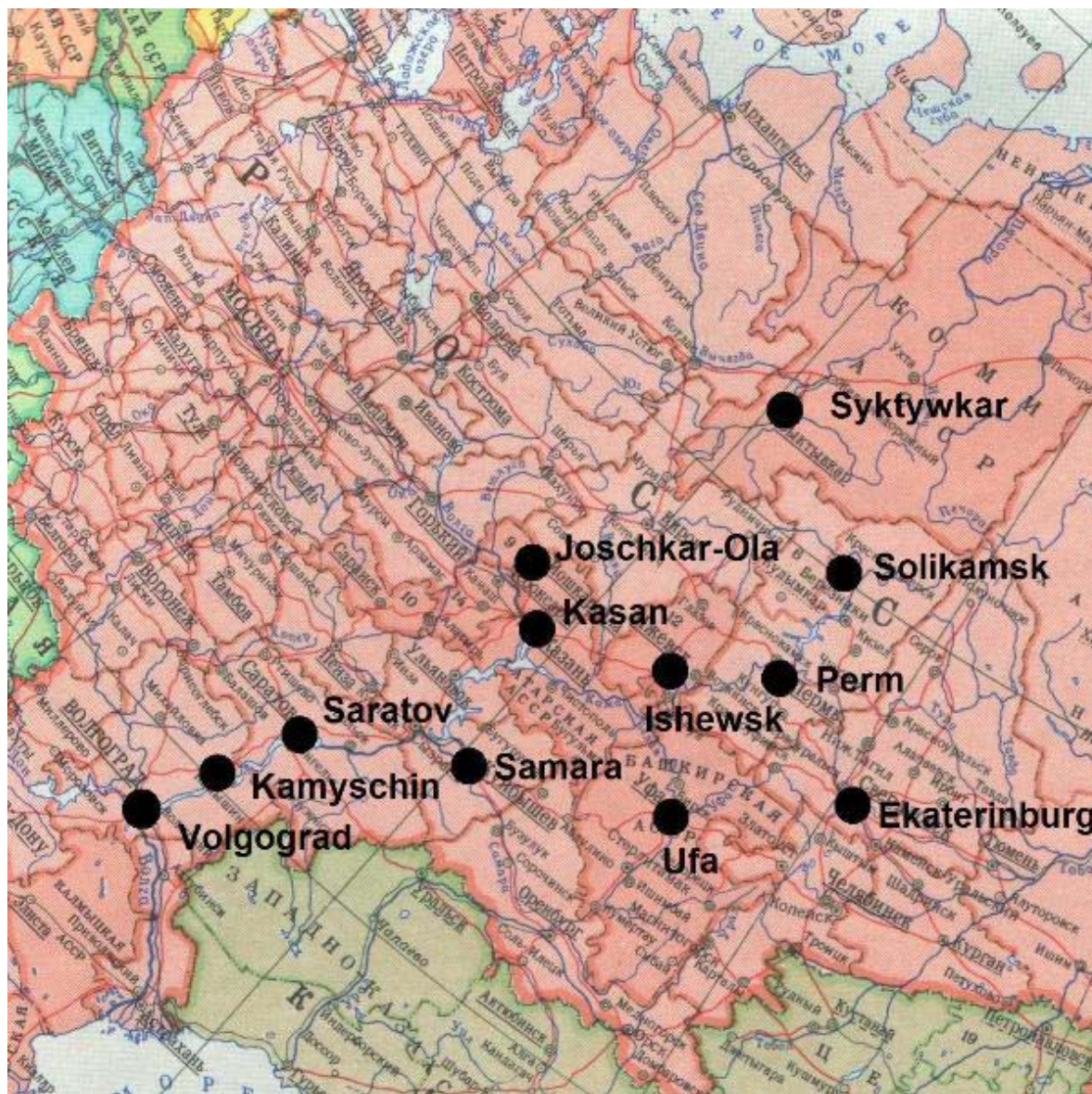


Fig. 3. Action zone of the Council of the Ural-Volga region botanical gardens.

Staff qualification has also been improved. In 1964 there were 10 candidates of sciences and no doctors in the system of botanical gardens and arboreta, presently there are 17 doctors of sciences, 1 corresponding member of the Russian Academy of Sciences and 70 candidates of sciences. The Council body includes leading researchers and big authorities in botany.

The Council faces many problems. Its target is to promote high research effectiveness, correct priority choice and master new research methods.

The Council facilitates botanical garden education programs, plant material and seed exchange by organizing business trips and advertising.

An actual problem is the defence of the area of botanical gardens and arboreta against encroachment by other organizations, since land price in cities has recently increased many times. Therefore, legal service should be developed to withstand the unfavorable tendency.

Finally, the Council actively supports institutions in their efforts to create new botanical gardens and arboreta.

The Council of the Ural-Volga Region Botanical Gardens has been working for 40 years, there have been some faults in its activities, but the collaboration of botanists usually overcomes such difficulties. The result is a significant enrichment of plant collections.