

## POPULATION AND EVOLUTION GENETICS OF PINES

**Goncharenko, G. G. & Silin, A. E., 1997: Populyatsionnaya i evolyutsionnaya genetika sosen Vostochnoj Evropy i Sibiri.** [Population and Evolution Genetics of Pines of Eastern Europe and Siberia]. Tekhnologiya, Minsk, 191 pp., ISBN 985-6234-41-7.

Presented monograph gives the results of the extensive population genetics investigations of two-needle and five needle pines. The authors covered six pines belonging to the Section Sylvestre (*P. sylvestris*, *P. nigra*, *P. pithyusa*, *P. stankewiczii*, *P. mugo* and *P. funebris*) and four five-needle pines belonging to the Section Cembrae (*P. sibirica*, *P. pumila*, *P. cembra*, *P. koraiensis*) occurring in the European part of the former USSR and Siberia. The investigations are based on 44 populations of the two-needle pines and 17 populations of the five-needle pines, rather heterogenous in number for some species are represented only with a small number of populations which also corresponds in some cases to the size of their natural range e.g. *P. pithyusa* and *P. stankewiczii*. In other cases the distribution of sampled populations of pine species covering broader ranges included more accessible sites mostly. For processing of experimental data a large set (20-21) of isozyme loci has been used. Investigations were based on endosperm analyses of individual trees. Mean number of trees per population in individual species ranged from 10 to 33 individuals in two-needle pines and 8-13 individuals in five-needle pines.

The first part of the monograph (43 pages) is aimed at the description of the isozyme procedures. This part is similar to

the manual published earlier by the senior author and became a standard manual recommended for all laboratories on the territory of the former USSR. Since this manual is no longer available this was a good idea to include it also in this monograph.

Each of the main chapters is devoted to the individual species being investigated and for all of them the inheritance of isozyme patterns was tested. For statistical procedures the standard methods have been used. The dendrograms constructed on Nei's genetic distances served also to the investigation of phylogeny of relative taxa.

The monograph, although not very large in size, represents a significant contribution to the knowledge of intraspecific and interspecific relations between pines from the rather unknown territory of the former USSR. Although it is published in Russian it should be recommended to those interested in pines as the source of basic information.

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