IUFRO Symposium "Scots pine Breeding and Genetics", Kaunas-Girionys (Lithuania)

The IUFRO Working Party S2.02-18 Symposium, "Scots pine Breeding and Genetics" was organized by the Lithuanian Forest Research Institute in Girionys near Kaunas, on September 13–17, 1994. This was the fourth meeting of the working party since its creation after the 15th IUFRO World Congress in Gainesville, USA in 1971. The first three meetings took place in Kórnik, Poland (1973 and 1980) and Voronezh, Russia (1989).

The major objectives of the Symposium were to present the latest results of studies on Scots pine (*Pinus sylvestris* L.) breeding and genetics as well as to tight the connections between the members of the working party. The Symposium drew ca. 60 attenders from 12 countries: Belarus, Czech Republic, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Spain, Sweden and the USA. The scientific program was held at the Kaunas Technical University and included a plenary (September 13) and two working sessions (September 15) entitled: (i) **Population genetics and provenance tests**; and (ii) **Breeding: theory and methods**.

During the plenary session several papers were presented, covering the topics:

i) **Evolutionary forces influencing among population variation in *Pinus sylvestris* - theory and practice** (G. Eriksson, Sweden).

ii) **Analysis of yield components in provenance trials of *Pinus sylvestris*** (V. Koski, Finland).

iii) **Adaptation and acclimation to changing environmental conditions in European Scots pine (*Pinus sylvestris* L.) populations across a latitudinal gradient** (J. Oleksyn, Poland; M. G. Tjoelker and P. B. Reich, USA).

iv) **Changes in wood and stem properties of *Pinus sylvestris* caused by provenance transfer** (E. G. Ståhl, Sweden).

v) **Breeding of Scots pine in Lithuania** (J. Danusevičius and R. Gabrilavičius, Lithuania).

In most plenary presentations an attempt was made to utilize existing Scots pine provenance experiments to obtain information on: adaptation and acclimation to changing environmental conditions, yield components, phenotypic plasticity, growth phenology or species' adaptive potential. Provenance experiments in the past were primarily established to obtain practical information on the best seed sources for commercial plantations, to test the influence of seed origin on the growth of stands, or to study species' geographical variation. Only recently researchers have turned toward provenance experiments to assess possible consequences of global climatic changes on forests. study biogeographical variation, etc.

In the two working sessions 50 technical papers covered various topics related to genetic components of growth and phenotypic variability, cytogenetics, selection and breeding, gene resource preservation, genetic differentiation, seed orchards, and others In several papers new results of the SP-IUFRO-1982 Scots pine provenance experiment established by this Working Party were presented.

After the plenary session on September 13 Symposium participants visited the Lithuanian Center of Seed Selection, arboretum and the experimental nursery in Girionys and met scientists from the Lithuanian Forest Research Institute. This Institute initiated, and has since 1956 coordinated all studies in forest genetics in Lithuania. Over the years they have selected more than 1,300 ha of seed reserves and over 2,000 plus trees for all major species. Since 1960 the Lithuanian Forest Research Institute has established several provenance experiments with Scots pine in which more than 140 different populations from central and eastern Europe are studied.

On September 14 the participants visited two sites with various Scots pine experiments:

i) **Dubrava Experimental Forest Enterprise**, an experimental seed orchard with broad geographical ecotypes, a clonal archive with more than 130 Lithuanian Scots pine clones, and a plantation of various pine species, provenances and hybrids.

ii) **Kazlu Ruda State Forest Enterprise** with a seed orchard established in 1967, a provenance experiment established in 1975 with 44 Scots pine populations from central and eastern Europe (from 62 to 48 °N latitude and from 22 to 55 °E longitude).

On September 16 three State Forest Enterprises in southern Lithuania were toured. In the Prenial and Alytus State Forests several Scots pine seed and genetic reserves were visited including the old-growth Punia Forest (total area 2,719 ha) which was declare as a national reserve in 1938.

During each tour Lithuanian participants presented their findings, and local foresters treated the group with traditional Lithuanian food.

Symposium was very well organized by Dr. J. Danusevičius (Chairman of the Lithuanian Organizing Committee) and his colleagues from the Lithuanian Forest Research Institute (R. Gabrilavičius, A. Pliura, K. Česnavičius, D. Danusevičius, and others). Additional financial support was provided by the Lithuanian Forest Husbandry Minister Dr. Albertas Vasiliauskas and by the Dr. S. Karazija, Director of the Lithuanian Forest Research Institute. Without this support, the participation of almost all scientists from the former Soviet Union would not have been possible, since the total cost was equal or higher than their annual salaries.

In general the Symposium met its objectives, providing a good forum for presentation of the latest results and the exchange of ideas and information. Due to support from the Council of the Society of Forestry in Finland, papers presented in the Symposium will be published as a special issue in the Finnish forestry journal "Silva Fennica".

Jacek Oleksyn, Chairman of IUFRO S2.02-18 Working Party, Kórnik, Poland