

International Scientific IUFRO Conference –Units 4.00.00

65th Anniversary of the Institute of Forestry Belgrade

FORESTS IN THE FUTURE-SUSTAINABLE USE, RISKS AND CHALLENGES

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IN COOPERATION WITH

- IUFRO
- EFI
- ECFI
- Minister of Education, Science and Technological Development, Republic of Serbia
- Ministry of Agriculture, Forestry and Water Management , Republic of Serbia
- Minister of Energy, Development and Environmental Protection, Republic of Serbia
- Public Enterprise “Srbijašume“, Republic of Serbia
- Society of Forestry Engineers and Technicians of Serbia, Republic of Serbia
- National Tourism Organization of Serbia

Summary

The aim and intention of the Conference organisers is to examine scientifically all aspects of the current state of forest ecosystems, expected course of further ecological changes in the light of 'greenhouse' gases reduction, necessity for expansion of forest systems and their sustainable use in future.

The Conference should make contribution to resolution of numerous unresolved issues arising on daily basis in our profession. This conference marks the 65th work anniversary of the Institute of Forestry.

Exchange of experience of domestic and foreign scientists in the domain of forestry, environment protection and other related fields presented in the course of the conference work, enables defining values, issues, risks and challenges and proposing measures for an integral sustainable use of those, most important terrestrial ecosystems on the Planet, as well as preventing adverse anthropogenic impact and climatic changes.

The conference was held on October 6- 4th.2012 in Belgrade at the Institute of Forestry. Participants came from 20 countries: Austria, Australia, Alabanija, Bosnia and Herzegovina, Bulgaria, Greece, Estonia, Macedonia, the Czech Republic, as Croatia, Japan, Lithuania, Hungary, Germany, Poland, Russia, Slovakia, Spain and Switzerland Turkey.

The book of Abstract was published before the conference. The proceedings will be publish after the reviews of presented papers during the conference.

Nearly 200 participants took part in the conference and in total 177 papers were presented as poster or oral in the following sessions:

SCIENTIFIC SESSIONS

SESSIONS I - Forest Assessment, Modelling and Management Forest management planning

Main conclusion about the future of forests would be to preserve the naturalness of existing forests, by improving their condition constantly and plant new forest. It should be in the planning and execution of forest management tend towards preservation and creation of uneven aged and mixed forests

SESSION II- Biodiversity of forest ecosystems

The participants of this session became acquainted with role and importance of some secondary methabolits, floristic diversity of beech and fir forests with spruce and Balkan beech and Turkish hazel plant community, survey of macrofungal diversity, and morpho-anatomical properties of Serbian spruce, Bosnian pine, pyramidal fir and Swiss pine trees needles.

SESSIONS -III - Climate changes

It was concluded that the intensity changes of climatic parameters is much higher than the natural potential of many species to adapt to new conditions. One of the issues related to forest fires as a result of global warming and proposed measures to mitigate the adverse effects of changes in species composition and cycling of carbon in forests, and silvicultural measures to increase the storage capacity of different types of carbon in forest ecosystems

SESSIONS - IV Forest genetics, nursery production and plant breeding

Presentations were included a number of different fields of research, such as the study of the : heterovegetative reproduction, phenological observations, the analysis of the quantitative and qualitative characteristics of flowering, physiology analyses of needles, germination tests were carried out to determine the best treatment to use in order to overcome dormancy and to maximize germination of *Pyrus pyraeaster* and *Malus dasycphylla* seeds, grafting methods of different tree species as one of the most efficient methods of vegetative reproduction as widely developed from the moment of foundation

of seed plantations, somatic embryogenesis is a powerful technique widely used for propagation of elite genotypes, especially mature, difficult to propagate woody species, like ornamental species of the genus *Aesculus*. Investigation of genetic structure of the provenances in Serbia. In presentation was point out that : Austrian pine Scots pine and Norway spruce, are the most important indigenous conifer species, in Serbia and Douglas-fir is the most important introduced one.

SESSIONS –V Afforestation, silviculture and forest ecology

Main conclusion about the future of forests would be that the attention should be paid to studies of habitat factors, state of forest ecosystems and barren lands by choosing of appropriate species for reforestation and reclamation, as well as the selection of appropriate techniques of renewal in accordance with site conditions.

SESSIONS –VI Forest protection

Two invited papers about biological control in forest. protection and development of major pathogens and pests influenced by the abiotic and biotic factors were presented. Two presentations were about biological efficacy of pesticides which are used in the process of forest protection and two were about wood preservation at the forest storages. Entomopathogenic and phytopathogenic fungi were surveyed in eight presentations. Four presentations were about the predatory and forests harmful insects. Scientific problems from integrated forest protection were presented in three papers

SESSIONS - VII Forest policy Forestry Institute, Belgrade

The topics of presentations were focused on protected areas, nature conservation, sustainable management and use of forests and their goods and ecosystem services with the overall aim of showing how forest science impacts livelihoods, environmental management and entrepreneurship.

The governance principles with a special emphasis on participation that is involved in nature protection or in spatial planning were presented for the Balkans countries.

SESSIONS – VIII Environmental protection

The topics of presentations were focused on very different areas - from protected areas and nature conservation, sustainable management and use of forests, modern approach to environmental protection, monitoring of different pollutants and bioremediation, revitalization of landscapes degraded by open pit mines...

Participation of researchers from several countries pointed out that multidisciplinary approach to environmental protection is very important.

This Conference provided an opportunity for scientists to exchange information and experiences on different topic issues.

SESSIONS – IX Biomass and carbon of forest ecosystems

Topic is very wide but we managed to touch almost all problems and topics related to biomass production and utilization. Discussion in the end of the section was reach with opinions about way how the forest sector has to deal with the problems. Also we agree that a future is full of challenges, but also it is a chance for forest sector to take a strong leadership, and strong role in processes of production, and utilization of biomass.

SESSIONS - X Wildlife management

In invited paper presented different topics in hunting and wildlife management. It provided possibility for participants to get familiar with characteristics of Serbian hunting sector that was analyzed through three basic parameters: habitats, hunters and game. Republic of Serbia has suitable natural characteristics and habitat conditions for management most of European game, but due to negative anthropogenic influence game abundance is on unsatisfactory level. Trend of hunters' decrease is still present while its negative influence is combined with irregular distribution



Participants – (photo Suzana Mitrović)



Opening ceremony– (photo Suzana Mitrović)