Natural Disturbance Dynamics Analysis for Ecosystem Based Management (FORDISMAN)

Forest disturbances of managed areas
The natural disturbances are often imperious factor concerning the management expectations. The matching of natural and man-made processes is a key question for modern day nature resource managers.

Conservation
Conservation areas are planned for protection of rare communities or species. The setting of coals depends on the vegetation-environment relationships and is affected by climatic changes (which are hard to predict). One of the requirements with conservation planning is the historically changed vegetation patterns. The early settlement after Ice Age had little influence on the communities. However, later, with agricultural activity the composition and structure of the forests were changed. The altered species composition and hierarchical regulations of the ecosystem (e.g. herbivore and vegetation interactions) create often semi-natural communities which have importance for biodiversity and social interests.

Combined meeting of three networks
CCF, FORDISMAN and PRIFOR networks joint workshop "Forest ecosystem services – the role of old-growth forests and continuous cover forestry in the light of climate change" took place on 29 June – 1 July 2015 in Krakow.

Forest health
Artificial forest ecosystems are often sensitive to climatic or biotic factors which in an ordinary condition could appear as usual effects. Forest plantations are aiming at profit in economic terms. Norway spruce is a tree species of most widespread afforestation programs in Europe. However, the pure stands demonstrate high vulnerability in many cases. An example is the mountain forest at Gorce National Park (Poland) where massive dieback took place.

Photo: Gorce National Park – Kamienica valley. Bark beetle outbreak / Kalev Jõgiste

Photo: Bark beetle outbreak / Kalev Jõgiste
Ecosystem services encompass four major spheres of man and nature relationships: provisional, regulating, supporting and social questions. The research support to clarify the impact of supporting (primary production, ecosystem respiration costs, etc.) and social services is scarce.

Special symposium
The special symposium "Forest disturbance dynamics and landscape patterns" at the meeting "Sustaining Ecosystem Services in Forest Landscapes" was organized in Tartu. Symposium took place on 27 August. Scientists from Europe, Asia and North America presented the works on landscape aspects of forest disturbances. Palaeoecology as a methodological approach in vegetation history study was discussed by Shinya Sugita.

IALE meeting on Ecosystem Services
Conference "Sustaining Ecosystem Services in Forest Landscapes" was organized in Tartu, 23‒30 August 2015.

Cultural heritage forest
Artificial forest ecosystems are often sensitive to climatic or biotic factors which in an ordinary condition could appear as usual effects. Forest standing today as national monuments or cultural heritage items has been directly influenced by humans through history. It means that the landscape today is a result of many changes in history which includes also land use change.

NB Forest Policy and Research Briefs

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<th>Published September 2, 2016</th>
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<td>SNS Project name and number</td>
<td>Nordic Forest Research (SNS) [<a href="http://www.nordicforestresearch.org">www.nordicforestresearch.org</a>]</td>
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Photo: Presentation by Shinya Sugita / Kalev Jõgiste