



"Our environment is our future"

## RESEARCH COLLOQUIUM SERIES



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**MONDAY**

**Oct. 31, 2011**

**3:30 - 4:30**

**LECTURE THEATRE**

**7 - 158**

### MANAGING FORESTS UNDER THE THREAT OF ABIOTIC AND BIOTIC AGENTS: IMPACT ON FOREST MANAGEMENT REGULATIONS IN FINLAND

Finland is located between the Arctic, central European and northern European provinces of the Circumboreal Region within the Boreal Kingdom. Three fourths of the Finnish land area is covered by forests (23 million hectares), representing about 11% of the forest area in Europe. The main commercial conifer species are Scots pine and Norway spruce. The main hardwood species are birches and poplars. The annual growth of Finnish forests is about 100 million m<sup>3</sup>, logging 60 million m<sup>3</sup> and the value of global exports of the forest industry over 11 billion CAD (2009). Over the last 50 years the volume of growing stock has increased by more than 40% to 2,200 million m<sup>3</sup> in 2010. Meanwhile the Finnish forest area has remained almost unchanged.

There are a number of abiotic and biotic factors threatening these boreal forests in Finland. For example in 2010 wind storms alone felled over 8 million m<sup>3</sup> (over 13% of annual logging) of trees, and root rots cause annual losses of nearly 60 million CAD. In my presentation, I will highlight some of the most important insect pests (e.g., European spruce bark beetle on Norway spruce, and pine shoot beetles and European pine sawfly on Scots pine) and diseases (e.g., *Heterobasidion* root rot on spruce and pine, stem rusts and resin-top disease, and Scleroderris canker on pine) affecting Finnish forests and discuss their impact on forest resources and recreation. Due to several reasons - e.g. the increased pest and disease risks in a changing environment, the rapid changes in forest management practices and EU Directives - the Ministry of Agriculture and Forestry is currently revising the legislation on forest insect and fungi damage prevention. The Forest Damage Prevention Act restricts for example the storage of coniferous timber in forests in the summer. The damaged coniferous trees must also be removed from the forest whenever their amount exceeds a certain minimum. The new draft law will be presented to the Finnish Government at the end of this year.