



# METSO Newsletter

FOREST BIODIVERSITY PROGRAMME FOR SOUTHERN FINLAND (METSO) 2003-2007  
Published by the Finnish Ministry of Agriculture and Forestry and Ministry of the Environment

6/2006

28 Sept 2006

## NEW RESEARCH FINDINGS ON BIODIVERSITY IN FINNISH FORESTS

The research report of the Forest Biodiversity Programme for Southern Finland, METSO, has now been published. An English summary of the nearly 400 page book is available on the web site of the METSO Programme at [www.mmm.fi/metso/international](http://www.mmm.fi/metso/international).

The book 'METSO on jäljillä' (On the trail of METSO) is a compilation of the findings of over 140 researchers from Finnish research institutes and universities, containing eight chapters and 75 summaries from the research teams. Topics are focused on the ecological, economic and social impacts of various means of protection, including the new voluntary protection schemes introduced in METSO.

**METSO on jäljillä is a compendium of the most recent Finnish research findings on forest biodiversity.**

The research report was published at the concluding seminar of the Biodiversity and Monitoring Programme (MOSSE), held at Hanasaari in Espoo on 6 September 2006. The report supports the monitoring and evaluation of the METSO Programme, which will be completed later this year.

### Valuable habitats in commercial forests useful for some threatened species

The research findings show that so called 'valuable habitats' (small areas that must be left unmanaged according to the Finnish Forest Act) differ in significance to species biodiversity, both by habitat types and by species groups. Preserving valuable habitats is the most efficient way to sustaining biodiversity in habitats that are by definition of a small size, such as natural springs.

### Retention trees important

Mature 'retention trees', left standing during final clear-cut felling according to 'Good silvicultural practice', as defined in Finland's Forest Act, provide important habitat for a number of species that have adapted to forest fires and other natural disruptions in natural forests. These mature retention trees become even more important when they eventually turn into decaying wood, if for instance they fall down after the logging.

However, the number of retention trees should be increased to ensure enough habitat remains for the threatened insects and plants that depend on them.



ARHTI KOTISAARI

Rita Nisula making an inventory of epiphytic lichen at a site involved in natural values trading, one of METSO's new voluntary schemes to protect biodiversity in Southern Finland's forests.

### Successes with voluntary METSO protection schemes and restoration

The ecological impact of the new protection schemes piloted in the METSO Programme depends on the quality and quantity of sites protected in this way. Research findings on the ecological impact of natural values trading - one of the voluntary schemes - show that METSO's new voluntary schemes effectively enable ecologically valuable areas to be brought under protection. However, natural values trading, there was wide variation in the ecological values of the areas that ended up under protection. Forest owners have been very willing to participate in forest protection through the

new voluntary schemes. Significant forest areas could be obtained under protection in this way.

The quality of forest nature reserves could be improved by restoring some of their habitats. Research shows, for instance that controlled burning of forests with high biomass is an efficient way to restore natural forest habitats. Burning immediately increases the number of insect species present, present, and also benefits plant species whose seeds have been lying dormant in the forest soil. Deliberately damaging trees to promote wood decay is another important restoration method, although its full impacts only become evident years later.

### Are small protected areas enough?

On the basis on theoretical evidence, some researchers claimed that small protected areas do not provide enough protection. However, even in critical views it is believed that a network of small protected areas can preserve viable populations of certain species in a larger area if the network is dense enough. They argued that the key biotopes outlined according to current principles are one magnitude too small and form a network one magnitude too sparse.

### Protection can have a significant impact on the regional economy

Although the eventual increase of protection is not expected to have major economic impacts at the national level, the situation may be quite different at the regional level. It is therefore important to take the views of local residents and stakeholders into



MIRKO KUUSINEN

The rare Spring Anemone grows in dry, sunlit coniferous esker forests in southern Finland. Any observations of this species should be reported to the nearest Regional Environment Centre.

account, and to get them involved in the protection process.

**An English SUMMARY of the research report** and more information on the METSO Programme are available on the English METSO website at [www.mmm.fi/metso/international](http://www.mmm.fi/metso/international)

For more information:

Senior Research Scientist Paula Horne, Finnish Forest Research Institute, tel. +358 10 211 2220

Research Scientist Terhi Koskela, Finnish Forest Research Institute, tel. +358 10 211 2124

Senior Research Scientist Kimmo Syrjänen, Finnish Environment Institute, tel. +358 40 583 5747

Project leader Mikko Kuusinen, Ministry of the Environment, tel. +358 9 160 39350

### Coming soon:

Nov 2006: Final evaluation report of the METSO Programme

### METSO AND FINLAND'S INTERNATIONAL AGREEMENTS

The METSO Programme is an integral part of Finland's implementation of various international agreements. METSO makes significant contributions to meeting the objectives for sustainable development set out by the Convention on Biological Diversity (CBD), the United Nations Forum on Forests (UNFF), and the Ministerial Conferences on the Protection of Forests in Europe (MCPFE). Maintaining and enhancing the biological diversity of forests is one of the resolutions of the MCPFE Vienna Conference (April 2003).

### METSO IN BRIEF

METSO - the Forest Biodiversity Programme for Southern Finland 2003-2007 - is part of Finland's National Forest Programme 2010. METSO contains 17 sub-programmes, including pilot projects designed to test innovative voluntary means for landowners to promote biodiversity in the forests of southern Finland. The METSO Programme aims to design and test cost-effective measures to acquire the most ecologically valuable forest sites in southern Finland for temporary conservation or permanent protection.

Forestry is typically practiced on a small scale in southern Finland, where average cutting areas are only 1-2 ha. METSO is piloting new ways to increase biodiversity under such conditions, complementing the work done through several other programmes since the 1997 Forest Act.

The METSO Programme was carefully prepared through processes involving many stakeholders such as forest industry associations, forest owners' organisations, the Finnish Association for Nature Conservation and WWF Finland, as well as the two ministries responsible for the Programme, so as to complement and supplement Finland's National Forest Programme 2010. Like the rest of the National Forest Programme, METSO is backed up by intensive research and survey work and will be evaluated.

English pages of the METSO Programme: [www.mmm.fi/metso/international](http://www.mmm.fi/metso/international)



YMPÄRISTÖMINISTERIÖ  
MILJÖMINISTERIET  
MINISTRY OF THE ENVIRONMENT  
PO Box 35, 00023 Government, Finland



mmm.fi

MINISTRY OF AGRICULTURE AND FORESTRY  
PO Box 30, 00023 Government, Finland