

## ***A leading forest science journal evolves***

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*Chairman of SNS, Nordic Forestry Research Co-operation Committee, and Secretary General of The Swedish Council for Forestry and Agricultural Research, SJFR*

### **Dear reader,**

The Nordic Forest Research Co-operation Committee (or SNS to use the Scandinavian abbreviation) welcomes you to a new Scandinavian Journal of Forest Research. A new journal because it contains additional and valuable information about diverse forestry matters. We have added a whole new section of news about Nordic forestry and forest research and SNS has appointed a new editor for this section, Carl Henrik Palmér. Anders Ericsson remains the scientific editor of the journal.

We also have other good news: each issue of the new Scandinavian Journal

of Forest Research will contain more pages and it will be issued more often. Scandinavian Journal of Forest Research will come to you, or a library near you, every second month and, hence, six times per year instead of four. This step has been taken in order to shorten the time between submission and publication of manuscripts. In the past, there has been far too long a time between receiving manuscripts and printing them. We can now guarantee that your research findings will be published much quicker than before.

The journal will of course also be available on the Internet.

### **New organisation**

SNS has taken over the responsibility for Scandinavian Journal of Forest Research from The Royal Swedish Academy of Agriculture and Forestry. This will lead to several administrative changes in the managing board and we are in the process of appointing a new editorial board, which will be presented in the coming issues of this volume. A new and extended editorial board will also help us to shorten the review time and, hence, the delay before publication. Whether or not your paper is accepted will depend on you: we will publish all papers we receive of high scientific quality within the forestry field. We heartily welcome papers with new and interesting results.

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### ***The new Scandinavian Journal of Forest Research in brief***

#### ***faster publication***

- more pages per issue
- six issues per year instead of four

#### ***news and communication***

- a new section with News & Views from the Nordic forestry and forestry research

Nordic Research Cooperation. p 3

Forest condition in Norway. p 4

European forest grow better. p 5

Pine Weevil Task-Force. p 6



### Boreal and temperate regions

Communication of results from research in the Nordic countries has been the major focus of the journal. However, the new Scandinavian Journal of Forest Research welcomes papers from *all* countries of the world focusing on research relevant to forests and forestry of boreal and temperate regions.

### The whole forestry sector

The aim of the journal is to cover subjects within the whole forestry sector including the forestry-to-wood processing chain. Our ambition is high: the journal aims to serve as an advanced periodical, publishing

scientific articles at the forefront of forest science (see Aims and Scope on the cover page for details).

### The News & View section

The *new* section within the journal will give you news and views concerning R&D in the forest and forest industry sector. The News columns will inform readers about and comment upon research and research programmes and communicate major political, ecological and commercial developments affecting the forestry sector. SNS welcomes comments and we wish to increase our interaction with the readers. We will publish items on current affairs, reports, perspectiv-

es, letters, and topical information. The anticipated scope of these pages, and the types of material to be included, are also explained in Aims and Scope of the Journal

### Your contribution important

Scandinavian Journal of Forest Research welcomes information from the readers. Contributions and reports of general interest from academies, universities, institutes, state and private organisations within the Nordic countries and other relevant national and international organisations are also welcomed.

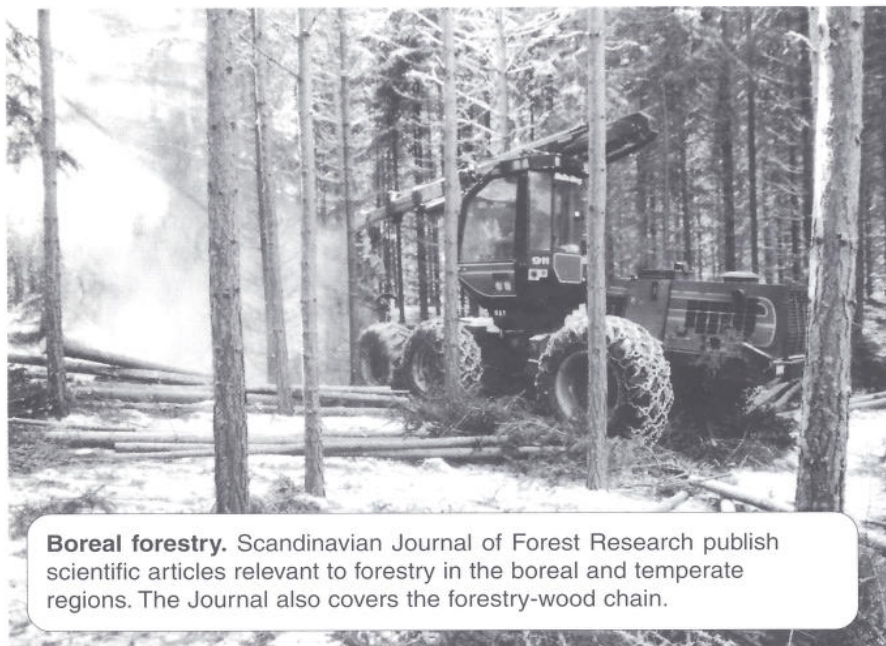
### A journal for a new millennium

You hold in your hand a new Scandinavian Journal of Forest Research and it is our hope that you will find it an exiting, interesting and valuable journal. We will do our best to improve the journal scientifically and as a vehicle for conveying general information about forest research in the next millennium. Please let us know your thoughts and ideas, we are here for you.

Welcome to the "new" Scandinavian Journal of Forest Research. We hope that it will be your journal of choice in coming issues.

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**Boreal forestry.** Scandinavian Journal of Forest Research publish scientific articles relevant to forestry in the boreal and temperate regions. The Journal also covers the forestry-wood chain.

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## ***The Nordic Forest Research Co-operation Committee:***

# ***Promoting international research collaboration***

The Nordic Forest Research Co-operation Committee, SNS, is a Nordic institution financed by the Nordic Council of Ministers. Thus, SNS is governed by the five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden.

### **Synergistic effects**

The main objectives of SNS are to foster collaboration and promote synergistic effects within Nordic forest research. The similar geographical conditions and common cultural basis make collaboration between the Nordic countries advantageous in many ways. However, joint Nordic initiative often develops into broader collaborations, involving researchers from many other parts of Europe, and other continents. SNS endeavours to encourage Nordic forest researchers to take part in international collaboration, e.g. in EU framework programs, COST and IUFRO.

### **Supporting research activities**

The wide-ranging research supported by SNS includes fundamental forest science, such as forest-soil-atmosphere interactions, ecophysiology and forest history, as well as many aspects of forest management and the commercial utilisation of forests and forest products.

Research grants are given by SNS in order either to initiate research into new fields, or to strengthen and co-ordinate ongoing projects in the member countries. Each year, funds are allocated to 10–12 projects. These projects normally include participants from three to five countries. In addition to Nordic participants, researchers from the Baltic countries

(Estonia, Latvia and Lithuania) and Northwest Russia may participate on an equal basis.

In 1998, the total funding to research projects was appr. €550.000.

### **Promoting networks**

Furthermore, SNS is keen to promote general exchange of information through networking activities. This is accomplished by providing financial assistance to conferences, workshops and other types of meetings. Such activities often involve invited lecturers from countries outside the Nordic area. A number of formal network groups in different areas have been established, with SNS as the umbrella organisation.

### **Knowledge transfer**

An important goal for SNS is to promote the dissemination of research results in relevant fora, enabling rapid knowledge transfer to users and to the scientific community.

As one of the founders, SNS has supported Scandinavian Journal of Forest Research since the birth of the journal in 1986. In the new "News" section, SNS will inform about current projects and other Nordic research activities that may be of general interest for readers world-wide.

### **Order strategic plan**

The aims and activities of the SNS are described in more detail in our **Strategic plan 1998–2000**. It can be ordered from the SNS secretariat (e-mail: [sns@sjfr.se](mailto:sns@sjfr.se)).



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## ***Applications***

### **The project ...**

- must include researchers from at least three Nordic countries (or two Nordic plus one or more from Estonia, Latvia, Lithuania and Northwest Russia).
- must have substantial national funding (60–70%).
- must lead to synergistic Nordic effects.
- must fall within areas that SNS has given high priority.

### **Application deadline**

1 June (only once a year).

## Ongoing SNS-funded research projects in 1998

- Sowing versus planting broad-leaved trees in forest and landscape.
- Increasing resistance against pathogenic fungi in Nordic forest trees with gene technology.
- Measurable objectives for nature conservation.
- Physiological and molecular studies of climate adaptation of forest trees.
- Effects of climate change and air pollution on carbon and nitrogen content and forest yield potential in Nordic forests.
- Public participation as a means to sustainable forest management.
- Genetic diversity for adaptation, stability and growth in Norway-spruce plantations under different climate conditions.
- Wood quality in mixed-species stands.
- Abiotic stress on trees. Molecular, biochemical, physiological and developmental aspects on adaptation of trees to low temperature.
- Urban forestry in the Nordic and Baltic Countries.
- Nutrient supplies to forest ecosystems – what have we learned?
- Stability and turnover of nitrogen and phosphorus in afforestation.
- Industrial use of broad-leaved trees.

## Forest damage in Norway. Status in 1997

Reduced canopy density and increasing numbers of dis-coloured trees, especially Norway spruce. Those were the general trends of vitality indicators in the Norwegian forests in 1997, according to a report from the Norwegian Monitoring Programme for Forest Damage. The tree mortality rate was, however, not higher than normal. The final conclusion was that most Norwegian forests are still in a satisfactory condition.

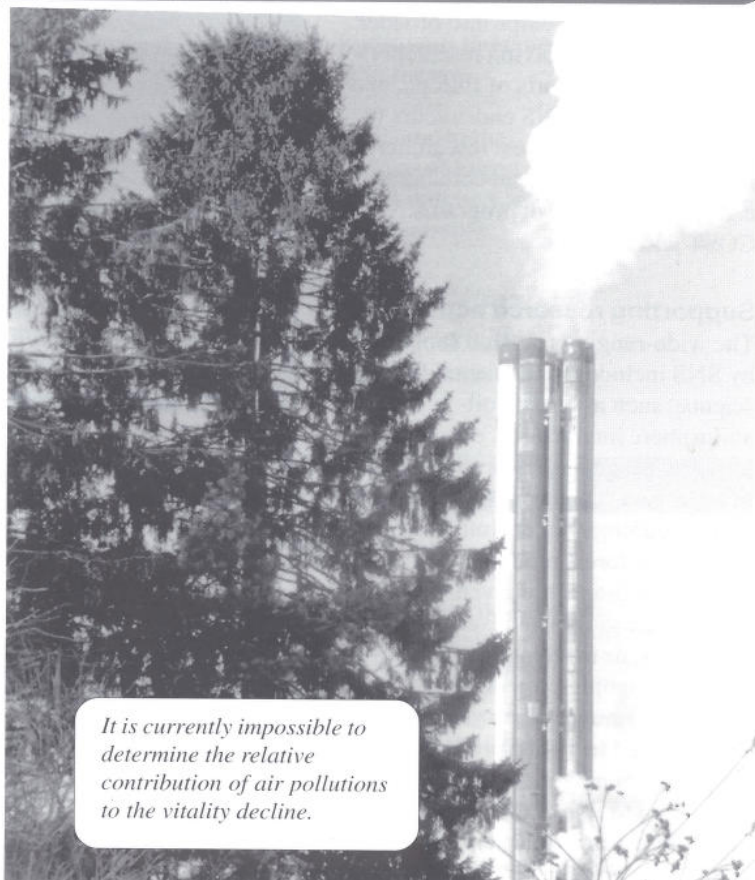
The monitoring programme comprises performed as a survey in a network of plots and the results from 1997 are similar to findings in other Scandinavian countries and correspond to the general trend in Europe.

The monitoring gives no

explanation to the decline in vitality. Vitality is a combined effect of soil, tree age, climate, pests and diseases and other natural stress factors, the report says.

Air pollutions is believed to be an agent, in combination with various natural factors, but it is currently impossible to determine their relative contributions to the vitality decline.

*Source:* Forest damage and forest monitoring in Norway – Annual report of The Norwegian Monitoring Programme for Forest Damage 1997. Report 14/98 from NISK/NLH, Norway.



*It is currently impossible to determine the relative contribution of air pollutions to the vitality decline.*



## European forests grow 25–50% faster

"The forests in Europe are growing 25–50% faster today than they were just a few decades ago. There are stands that have more than doubled their increment", says Ian Hunter, director of the European Forest Institute, EFI, in Joensuu, Finland.

"Many researchers and politicians believe that our forests are under serious threat from air pollution. But a couple of years ago, EFI put began examining the combined evidence from a range of stand studies from different parts of Europe. 22 different papers in all, written by 45 scientists from 12 European countries. This gave us a new perspective. The growth of European forests has changed considerably in recent years. Although the methods applied in the 22 studies varied, most studies showed the same general trend: site productivity has increased on many sites. This was most obvious in studies from Central Europe. Further in the north, the picture was less clear".

### No simple explanation

The scientists can't explain this increase in increment, but there are several hypotheses. "Some say it is due to nitrogen deposition, while others claim today's somewhat warmer climate is the cause, or the higher concentration of CO<sub>2</sub>".

Mr Hunter believes that all of this influences may be

contributory factors, but, he says. "We do not know to what extent. When we test these factors in our growth-models, we can't explain the whole increment in growth.

### Change in land-use

"I believe there must be something else. And I am getting more and more convinced that this "something else" might be the change in land-use in European forests", says Ian Hunter.

"Before W.W.II, the forest in Europe were under heavy pressure from pasture, prescribed burning, intensive charcoal burning, tar-production and litter-gathering. The organic material produced by the trees and the vegetation was removed from the stands to

a much higher degree than today.

After W.W.II, the land-use has been much less intense. This has allowed a build-up of organic material in the forests. And the organic material in the soil is of the outmost significance for the nitrogen supply which, in turn, regulates the growth in most European forests".

### EU project

EFI is now co-ordinating a research project on this "new" increment. The project is financed by the EU, and it is named "Recognition". Universities in Germany, UK and Sweden are co-operating. The budget is €1.6 million, and it is a multidisciplinary project, involving scientists working with plant nutri-

tion, soil, climate, air chemistry, modelling and other important aspects.

### Two approaches

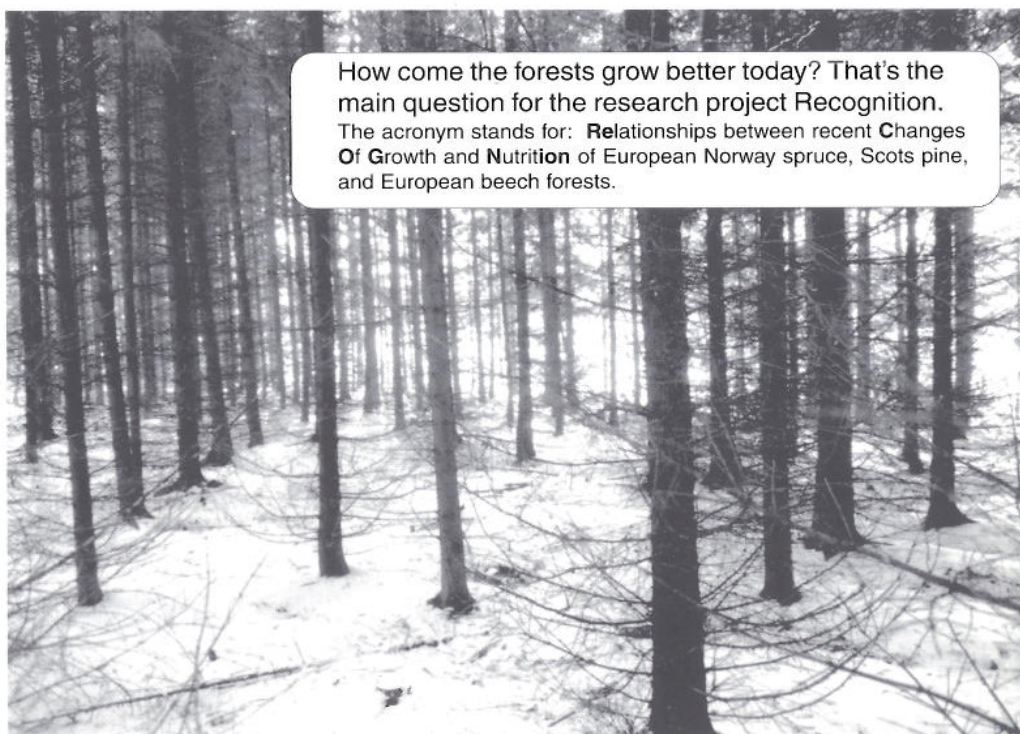
The project is relaying on two different approaches:

**1. Correlative** Using all existing data regarding forest growth, stand nutrition, soil chemistry, climate and other variables for a great variety of European forest sites.

**2. Modelling** Utilising existing models integrating ecosystem levels.

Source: EFI-News No. 2 1998.

Contact: Ian.Hunter@efi.fi



How come the forests grow better today? That's the main question for the research project Recognition. The acronym stands for: **R**elationships between recent **C**hanges **O**f **G**rowth and **N**utrition of European Norway spruce, Scots pine, and European beech forests.

## Pine Weevil Task-Force established in Sweden

In Sweden, a pine weevil task force has been recently established.

The background is a Swedish governmental decision not to allow the use of permethrin on seedlings after 2001.

Today, most seedlings planted in southern and central Sweden are treated with permethrin to protect them from attacks by the pine weevil.

Planting with untreated seedlings, can, in severe cases, lead to a 80–90% mortality rate.

The forestry sector has now declared total war against the weevil. The

nurseries in Sweden will contribute €2.5 million towards this struggle over a five-year period. The money will finance a number of new research projects.

The overall objective is to make forestry free of permethrin, but with an acceptably low level of damage.

The total war strategy includes funding several

research projects. The most important are:

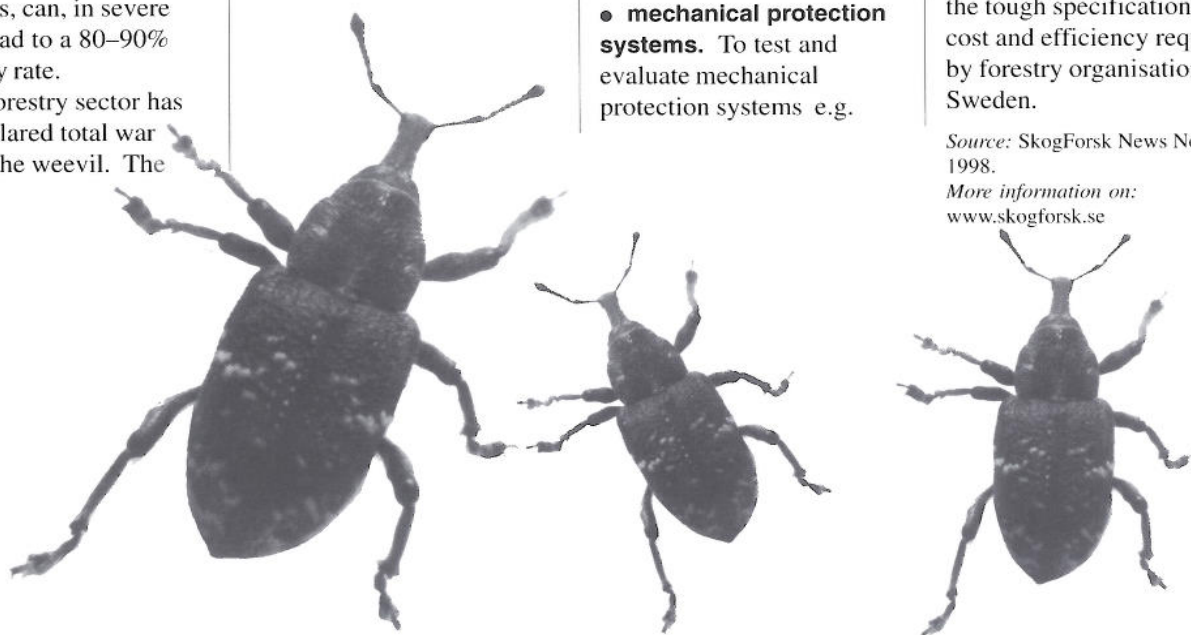
- **silviculture.** To study how combinations of scarification, summer cuttings and regeneration under shelterwood can reduce the numbers of seedlings damaged by the weevil.
- **repellents.** To identify and test chemicals which makes the seedlings unattractive to the weevil.
- **mechanical protection systems.** To test and evaluate mechanical protection systems e.g.

different types of plastic or paper shields around the seedlings and/or wax or glossy fibre around the stem.

A number of mechanical protection systems have already been tested. Most of them did a good job in the first year, but in the second year, the effectiveness of all these measures against the pine weevil was significantly reduced. None of the models were able to meet the tough specifications of cost and efficiency required by forestry organisations in Sweden.

Source: SkogForsk News No 2 1998.

More information on:  
[www.skogforsk.se](http://www.skogforsk.se)



## Letters to the editors



**Send your letter to**

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We strongly encourage our readers to contribute to a lively and interesting journal. Letters to the News & Views section will be published if they are:

- short
- relevant to the Journal
- interesting for the readers.

**Examples:** comments on papers published in the Journal, views on ongoing research, trends in research policy, opinion about forestry practice etc.