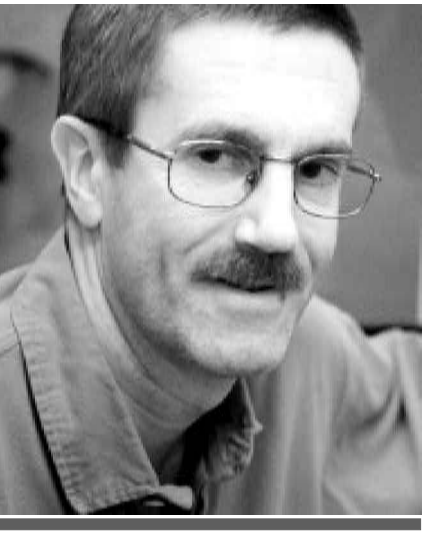
Scientific editor moves on to new challenge

Ass. prof. Hans-Örjan Nohrstedt has left his position as scientific editor of Scandinavian Journal of Forest Research. In April he was appointed Director of Research at the newly established FORMAS, The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning.

The council handles some Skr400 million (US$40 million) in government research funding. Dr Nohrstedt will lead the section that administers the evaluation of applications with the aid of external groups.

"I am sorry to leave the journal after only one year. I have really enjoyed the work, all the new contacts it has given me, and all the new things I have learned by reading the manuscripts! But it is impossible to combine the editorship with my new position. During the start-up process, it is more than a full-time job. Believe me.

I wish my successor, Dr Mats Hannerz, the best possible luck. I have had the privilege to work with him at SkogForsk, The Forestry Research Institute of Sweden. I know he will do an excellent job".



New scientific editor

"I am very happy and honoured by this appointment", says Dr Mats Hannerz, the new editor, appointed in April 2001. "Reading, writing and editing have always been my favourite parts of the research process. In this new position I can concentrate on these tasks. But it's also a great responsibility. Scandinavian Journal of Forest Research is one of the major international journals for general forestry research. A position it must maintain, and strengthen".

Will the authors and readers notice any changes?

"First, due to the time lag between editorial work and printing, I will not influence the content of the journal until volume 4 or 5, 2001.

I will essentially follow the good routines established by my predecessors", says Mats Hannerz. "But naturally, some changes will be made. For example, the *Instructions to authors* must be modernised, and focus more on the value of the information provided, rather than on format rules. The *News and Views section* could give room for scientific debate, and I think that we must actively approach researchers to start the debates. The journal could also include book reviews. But, before embarking on any significant rearrangements, I need to discuss possible changes with the new editorial board (will be presented in next issue)."

Cont. on next page

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What is your role for the journal's finances?

"Well, as an editor I am not responsible for financial matters, they are issues for Taylor & Francis, the publishing house that owns the journal.

Still it should be emphasised that ScJFR does not receive any governmental or other subsidies. In the long run, the costs of editing, printing, and distribution must be covered by the only sources of income available: subscriptions and charges for excess pages and off-prints.

In order to keep the costs down for the authors, the number of subscriptions must increase. And this is a challenge for me as an editor too, because quality, scientific impact and informative value are such important prerequisites for selling subscriptions".

How do we ensure quality?

"High scientific value is ensured by attracting the best manuscripts", Mats Hannerz continues. "I think that the speed of the process is important here. I really will try to trim the processing time down to the target time outlined by the former editor in volume 6, 2000*."

Has the job been what you expected?

"So far I am very happy about it. The workload is far too high for a part-time position at the moment, but it will become much better when the work that accumulated during the interregnum between myself and the former editor has been cleared".

** The objective stated in Scandinavian Journal of Forest Research No. 6, 2000, was to reduce the processing time to four months; one month for the review by referees, two months on average for the authors' revisions and finally one month for the editor to handle the paper-work, thoroughly read the manuscript and evaluate the referees' comments.*

A pile of unprocessed manuscripts has accumulated recently. But in the near future it will be back to a more normal level.

About Mats Hannerz

- Mats Hannerz joined SkogForsk in 1988 after two years at the Swedish University of Agricultural Sciences.
- His research has mainly focused on tree breeding and silviculture.
- Between 1994 and 2000 he was responsible for the research program "Regeneration material", involving seed and plant production, seed orchards, vegetative propagation and early testing.
- He is presently one of the two editors of the newsletter PLANT-aktuellt, reporting results from plant production and regeneration research.
- In 1997–98 he spent a year as a visiting scientist in forest genetics at the University of British Columbia in Vancouver.
- His PhD in forest genetics, awarded in 1999, dealt with genetic testing of frost resistance in Norway spruce.
- He also holds a licentiate in ecology from 1996, awarded for a thesis on the impact of silviculture on flora in its vicinity.

Water companies and forestry co-operate

In Denmark, more than 99% of the drinking water comes from groundwater basins. There is a growing concern about the groundwater quality from arable land, due to the intensive use of fertilizers and pesticides. The best groundwater comes from forested areas.

The two main water suppliers in Denmark have recently come to an agreement with the Danish Nature and Forest Board, the single biggest forest owner in Denmark. The ambition is to enhance the "groundwater profile" in afforestation projects. The Government has recently proclaimed an ambition to double the forest area in Denmark.

In the future, water companies may contribute economically to afforestation projects, to ensure that appropriate areas of protected "water-forests" are maintained.

Source: SKOVEN No. 3 2001

Norwegian Institute for Forest Research

New slimline organisation

After a turbulent year, NISK, the Norwegian Forest Research Institute, has been re-organised. The staff has been reduced, from 134 to 100 on a year-basis over the course of the year.

The research is now divided into two sections:

- One handles traditional forestry concerns, such as forest yield, technology and economy.
- The other considers ecological and environmental issues.

Source: Norsk Skogbruk 3 2001

Detection of root rot in standing trees

Soon, we may be able to determine whether a standing tree has rot or not. A Swedish group has developed a technique capable of detecting root rot in trees.

The principle is simple, involving measurement of the electrical conductivity between two points on a tree roughly 10 cm apart. Because rotten wood exhibits lower electrical resistance than sound wood, it is easy to determine whether a tree is rotten.

"If we know in advance that the trees in a stand are rotten, we can fell the stand sooner. It will also be easier to value stands more accurately if we know how many stems are affected by rot", says Lars-Göran Sundblad at SkogForsk.

Environmental benefits

"There are ecological benefits as well. Trees with extensive rot can be marked and retained as tall stubs on a logging site. Standing deadwood trees are in short supply in managed forests and rotten timber is of little value", says Sundblad.

Rotten wood is a good conductor

"We don't know why rotten trees are better conductors than sound ones," says Sundblad. "It might be because of the enriched concentrations of minerals, such as potassium and manganese, that are found in rotting wood. But it could also be because rotten wood has a higher moisture content—which also reduces its electrical resistance."

Source: SkogForsk News No. 1 2001.

Rotten spruce. Of little value as pulpwood but valuable for conservation if retained as tall stubs. The new method of rot detection will make it easy to identify trees to be retained.

New natural repellent may protect tomorrow's seedlings

A new substance extracted from pine weevil excrement might be the solution to a major problem.

The pine weevil (*Hylobius abietis*) is a serious threat to newly planted seedlings. Its feeding on stem bark of young seedlings kills millions and millions of plants every year.

Today, the seedlings are normally treated with an insecticide. But in a few years, this chemical treatment will no longer be allowed in Sweden.

The forestry sector is desperately looking for alternatives, since mortality due to the pine weevil can be as high as 80 to 90% in untreated plantings!

A repellent extracted from pine weevil excrement has been tested for some time in Sweden. The results are very promising. The taste of the repellent prevents the weevil from eating treated plants. The insect probably gets a signal that "someone else has been here before me".

Now, the big challenge is to find a "carrier" for the repellent, a substance capable of preserving its effect for at least a year, and preferably two. And that is not a simple task, since the climate is really tough in a clear-cut area. Field trials have been established, and in a couple of years, we will perhaps have a solution.

More info: www.entom.slu.se/snytbagge

Source: PLANTaktuellt No. 1, 2001.

Message from SNS seminar

Simple language is a necessity

"Researchers must use clear and simple language and avoid scientific jargon. But the politicians, on the other hand, also have a responsibility. They must tell the researchers when they do not understand the researcher. Use the journalist's favourite question: what do you mean?" This advice was given by the Norwegian scientific journalist Eiliv Flakne, in a Nordic seminar arranged in April.

Mr. Flaken is employed by the Norwegian Broadcasting Company in Trondheim, and makes popular science TV-programmes. He was invited to the seminar to speak about "How to transfer new scientific results into practical application, and how to improve the dialogue between researchers and politicians."

Eternal conflict

"It is an eternal conflict", he said. "Researchers and politicians are living in two different worlds. The researcher must be accurate. Everything has to be provable. The details are important. The politicians have opposite needs. They want the essence, the keywords. They have a lot to read before midnight!"

But the researcher and the politician need to communicate", he said. "The researcher is important, since he delivers the basic premises for the politician to consider."

Mass-media for good and bad

"Mass media–press, radio and TV–are, of course, important. They offer an efficient way to communicate to a lot of people at the same time. But many researchers are suspicious of journalists–and not without reason", he said. "Now and then mass media oversimplify research news and draw too far-reaching conclusions. And for a researcher, losing credibility is one of the worst thing that can happen to you.

But, having more researchers in mass media would be a good thing", he said. "Research is of journalistic interest, and often researchers can tell us about our future lives. There are some 25,000 researchers in Norway. Perhaps a hundred of them appear in the media. That is far too few", he said.

Simple language

"The researcher's use of language is important", he repeated. "As a scientific journalist, I know that one single difficult word is enough to make the audience lose the thread–and their interest in the story.

So, when communicating with the public, you must leave behind the scientific jargon, the formulae and complicated theories", he said to the researchers participating in the seminar. "But remember: simple language is not necessarily a banal language!"

Environmental concern

The seminar was arranged by the SNS, the Nordic Forest Research Co-operative Committee and NKJ (The Joint Nordic Committee for Agricultural Research). It was based on the Nordic Environmental Research Initiative, which was carried out from 1993 to 1997. The background to the initiative was the growing environmental concern in the early 1990s about air pollution, forest decline, nutrient leakage etc.

The extensive research programme engaged more than one hundred researchers in four main projects (see facts).

The aim of the seminar, which attracted some 30 participants, was to inform politicians and decision-makers about the outcome of the project.

Besides Mr. Flakne's lecture, four other presentations were given at the seminar:

- Are the Nordic forests healthy?
  Prof. Folke Anderson, Sweden.
- Nordic forests and Global change
  Professor Sune Linder, Sweden
- Turnover of nitrogen and nitrogen leaching in forest and agricultural ecosystems
  Professor Per-Erik Jansson and Tryggve Persson, Sweden
- Leaching of phosphorus from arable land
  Research manager Lillian Øygarden, Norway

The projects covered by the Initiative

- **Project: VITALITET**
  Imbalanced forest nutrition - vitality measures
- **Project: KLIM**A
  The likely impact of rising CO_2 and temperature on Nordic forests at limiting and optimal nutrient supply
- **Project: NORN**
  Nitrogen Processes in Arable and Forest Soils in the Nordic Countries - Fieldscale modelling and experiments
- **Project: NORPHOS**
  Nordic research project on losses of dissolved and particulate phosphorus from agricultural land to the aquatic environment

New SNS-funded project

New thinking in pre-commercial thinning

In traditional pre-commercial thinning, we cut the stems close to the ground. But why not cut or break the trees at a higher point, say a metre up or so? It is probably cheaper than the traditional technique, and the remaining "living stump" can improve the quality of the main stems, by shading their lower parts. This, in turn, may accelerate the death of their lower limbs. These are the basic hypotheses being tested in a new Nordic research project.

Pre-commercial thinning is one of the most important operations in silviculture. The goal of young stand management is to improve the profitability of forestry, but productivity in pre-commercial thinning has not increased during the last 30 years.

In a recently initiated SNS-project, researchers from Denmark, Sweden and Finland will study this alternative method. The project synthesises biological, technological and financial considerations of forestry.

In the project the researchers are going to test the following hypotheses:

i) pre-commercial thinning by cutting or breaking the tops of secondary stems will give better future timber quality compared to conventional pre-commercial techniques;

ii) raising the cutting or breaking height will facilitate the development of new techniques for pre-commercial thinning;

iii) the costs of pre-commercial thinning using the new technique will be lower than those of conventional methods;

iv) the new method is applicable to both conifer and hardwood stands.

Field experiments

To test these hypotheses, ongoing field experiments will be revised, new field experiments will be established, and simulations and modelling work will be carried out.

New technology

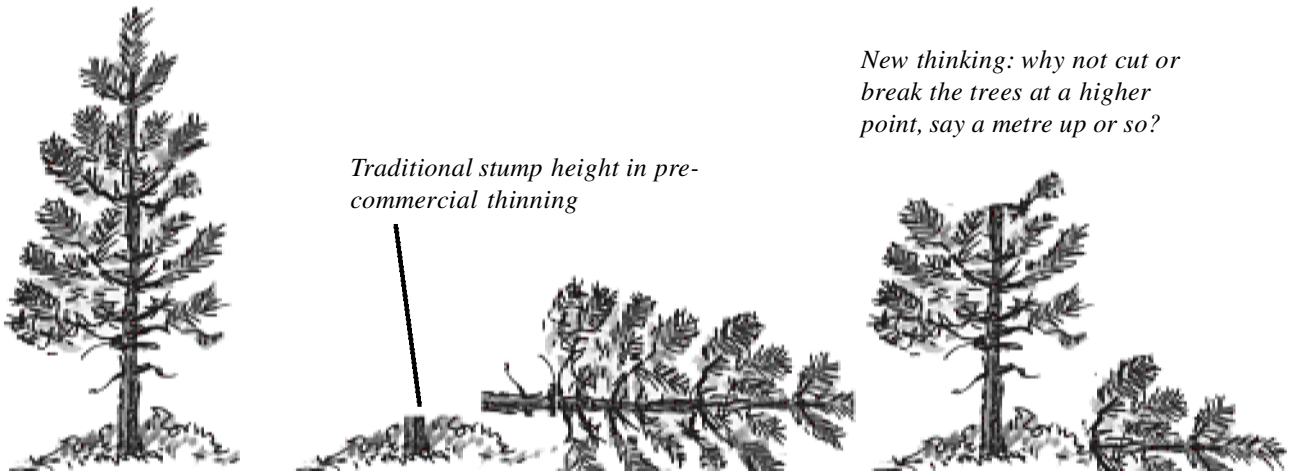
Some new cleaning machines and motor-manual tools will be compared with conventional pre-commercial thinning equipment.

Economic analyses

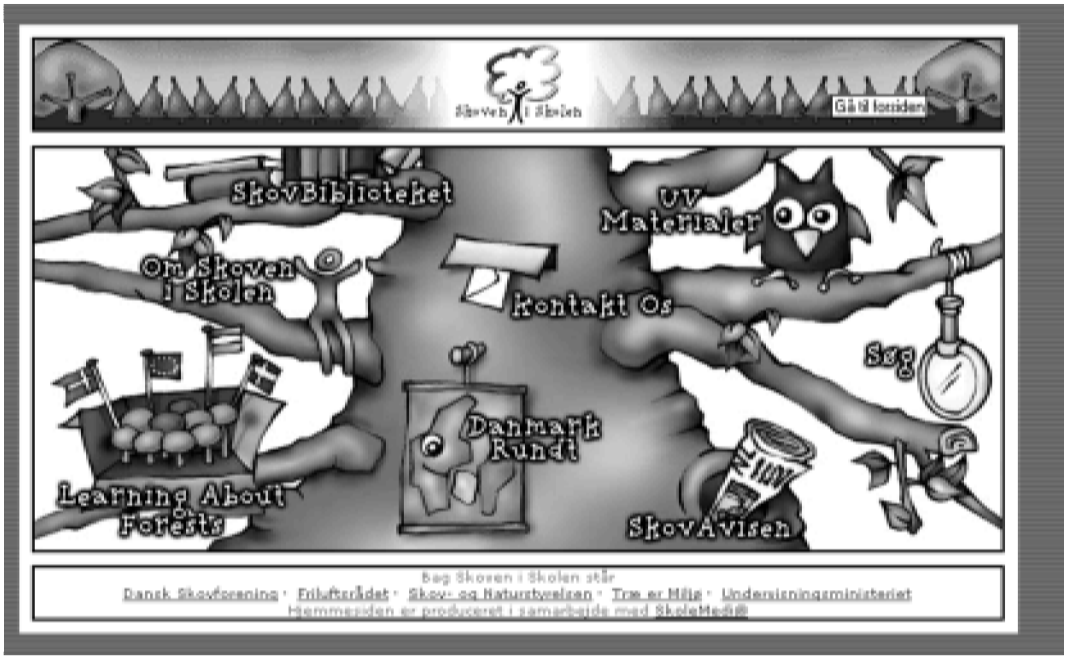
The study period for economic evaluation is the time from the first pre-commercial thinning to the first commercial thinning. During this period, all costs and revenues of stand treatment will be discounted to time zero by using net present value.

Six to seven researchers in each of the participating countries will be engaged in the project. The research is to be mainly financed by national funding, and SNS is supporting the co-operation between the Nordic countries.

Project co-ordinator is Prof. P.O. Bäckström, Sweden.



New thinking: why not cut or break the trees at a higher point, say a metre up or so?



New Danish "Forest-in-School" website

The Danish Forest-in-School-project has launched a new website, presenting information on forests, forestry and the forest industry. The target groups are teachers and pupils. The web-site is divided into several main "chapters", such as:

The forest library

Here you find

- a forest lexicon
- a gallery with photos of forests and wood-products
- suggestions for woodwork; ideas on what young carpenters can do with wood.
- forest food; what you can find to eat in the forest
- rules. Written and unwritten rules to follow when out in the forest
- books. A review of the forest literature available
- links to other sites

Educational material

Ideas for teachers on how to use the forest as a class-room.

All around Denmark

- school forests: Points to consider for forest owner and teachers when planning a school forest.
- visit a forestry company. A list of companies willing to host study-visits etc.
- contacts: An overview of organisations and people working with forestry and outdoor activities.
- equipment: A list of organisations that can provide classes with equipment for outdoor activities and woodwork.

The address to the website is
www.skoven-i-skolen.dk

Contact News & Views

Write to the seceretariat of SNS, The Nordic Forest Research Cooperation Committee:
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- 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.