News and Views

from Nordic Forest Research SNS

1 2018

100 years of Norwegian forest research – a great-tasting piece of cake. Photo: Mats Hannerz and Pixabay (flag)

Congratulations Norway! 100 years of forest research

One hundred years of forest research has been accompanied by a threefold increase in standing stock and growth in the Norwegian forests, and also tremendous technical developments, increased knowledge about forest ecology and political shifts in the view of how to use the forest.

The anniversary, commemorating the establishment of *Det norske skogforsøksvesen* in 1917, was celebrated with a jubilee seminar in October 2017 at Vitenparken in Ås, Norway.

The about 200 people in the audience were treated to presentations about the history, the present situation and the future of Norwegian forest research. They heard how Norway's forest landscape changed from its depleted state in the early 1900s to the fully stocked and rapidly growing stands of today.

The history of the forest, forestry and research can be told from different perspectives. One of them tells how southern Norway was once a prosperous region, taking full advantage of the timber resources close to the markets in Europe. The timber export from the coastal part of southern Norway was a source of wealth, for example, making Arendal, with its timber exporting harbour, the richest town in Norway. This was in the mid-1800s. But, timber resources were exploited without any active reforestation. Felling over the period 1500-1900 had almost depleted the forests in the coastal areas. Witnesses from the 1800s talked about deserted land and growing poverty.

This was the situation in the late 1800s. The need for regrowth and sustainable stand management were already known, inspired by German forestry and ideas in neighbouring countries. The problem was lack of knowledge about forest growth and reforestation, and here research was one solution.

Sweden and Denmark had already established forest research institutes. Norway followed with a regional institute (*Vestlandets forstlige skogforsøksstasjon*) in 1916 and a national one (*Det norske skogforsøksvesen*) in 1917.

The initial research body consisted of just three people located in Ås. Det norske skogforsøksvesen has grown organically and as a result of mergers to eventually become a part of the current NIBIO – Norwegian research institute of bioeconomy. With its staff of 700, it takes care not only of traditional growth and yield research, but also the multitude of tasks a forest can deliver: biodiversity, social values, climate mitigation, clean water and raw materials for a growing bioeconomy.

More about the history ⟶

Norwegian forest research 1917-2017

The formal foundation of national forest research in Norway was laid in 1917. The history, however, started earlier than that. In the late 1800s, forest resources in southern Norway were becoming progressively more depleted and ideas about forest regrowth and sustainable management started to take shape.

Denmark and Sweden had both established research institutes, *Det Forstlige Forsøgsvesen* in Denmark (1901) and *Forstliga Försöksanstalten* in Sweden (1902). Professor A.K. Myhrwold at the Norwegian Agricultural college was one of those inspired by these neighbouring countries and, in 1901, authored a plan for a Norwegian effort in the same direction.

The baton was taken over by Agnar Barth, arguing in 1912 for a forest research institution at a national level. Private initiatives on the west coast, however, got off the ground more quickly, and in 1916 *Vestlandets forstlige forsøksstasjon* (the Forest Research Institute of West Norway) was established by the forest owners federation in Bergen and Stavanger.

In the next year, 1917, the national institute *Det norske skogforsøksvesen* (DnS, the Norwegian Forest Research Institute) was launched. The task of DnS was to explore and elucidate the conditions for the existence of the Norwegian forests, their development and regrowth, as well as the preconditions for a rational and economically viable forestry. The institute became independent of the existing agricultural college, and was located in Ås, south of the capital Christiania (later renamed Oslo).

Grew from a staff of 3

The first chief of the institute was Erling Ramsay Archer, and he worked together with the assistant Erling Eide and a secretary – that was the entire initial staff. Erling Eide took over leadership in 1920, and became the leading voice of Norwegian forest research during the early decades. Erling Eide also became a spokesperson for the use of even-aged sustainable clearcut forestry, which became standard.

Time went on, the institute grew, and many people became part of its history. Just to mention a few, Alf Langsaeter, who joined in 1925, introduced modern mathematics and forest economics. He also introduced site index calculations and yield tables. Many more researchers contributed to the development of forest research over time. There were many questions to be answered: How much can different tree species produce under different growing conditions? Do different stands have to be managed differently? What is the relationship between thinning strategy and wood quality? How can regrowth of the forest be secured?

The start of mechanisation

All sorts of technical developments flourished after World War II and these spilled over into the forest sector. Ivar Samseth, legendary leader of the forest operations department, joined in 1947. The coming decades were to deliver the challenges associated with an enormous increase in productivity.

The first steps involved changing from using axes and crosscut saws to chainsaws. In 1948, the government started to subsidise 30 % of the cost of motorised chain saws. Later, tractors replaced horses, and finally specialised processors and harvesters took over. The tasks of maybe 50,000-100,000 forest workers that

Voices from the jubilee seminar

Leif Forsell, Ministry of Agriculture and Food: "A green shift in society requires profitability in the forest sector."

Ellen Hambroe, director of the Norwegian Environment Agency: "The forest is a pillar in the fight against climate change."

Olav Veum, the Norwegian Forest Owners' Federation: "The stop for debarking and floating timber was a great technological leap."

Sjur Bardsen, Dean at Norwegian University of Life Sciences: "The forest sector is pragmatic and solution-oriented."

were needed in the old days, are now covered by some 1,000 machine operators. The productivity per worker's day has increased more than ten-fold in the last 50 years.

The first ecologist

Besides the mechanisation and production research, ecology has been an important aspect of forest research. Elias Mork can be considered the "first ecologist". He joined in 1933 and became a Professor in 1946. Among his many interests were studies of mountain forest ecology and of forest regeneration. DnS established an experimental area in Hirkjølen where Elias Mork undertook many studies on the ecology and regeneration of the subalpine forest. The area is still active as a demonstration site for forest research.

Environmental movement and climate

In the decades from the 1970s, new problems and topics for research have been encountered. Environmental issues associated with forestry, particularly clear cuts, were of increasing concern. Air pollution, acidification and bark beetle attacks increased the need for more advanced research. The institute strengthened its competence in ecology over time, and is now a leading actor responsible for *Miljøregistrering i skog* (MiS, Environmental inventories in forest).

The multipurpose use of the forests puts more and more pressure on research. Social values, ecology and timber production need to be squeezed into the research portfolio together with the new bioeconomy and combating climate change. Forest research will definitely continue to be needed in the future.

Sources

Presentations at the jubilee seminar by Per Holm Nygaard (researcher NIBIO), Victor Norman (chair of NIBIO), Leif Forsell (Ministry of Agriculture and Food), Sjur Baardsen (Norwegian University of Life Sciences) and Olav Veum (Norwegian Forest Owners Association).

NISK, 1992. 75 år, Jubileumsberetning 1992. Norsk institutt for skogforskning.

Woxholt, S. (ed.), 2009. Skogforskningens historie 1967-2006. Norsk institutt for skog og landskap.

Read more: www.nibio.no

Text and photos: Mats Hannerz

From DnS to NIBIO

1916
Vestlandets forstlige forsøksstasjon established.
1917
Det norske skogforsøksvesen, DnS established.
1919
Landsskogtakseringen initiated (the National Forest Inventory).
1972
The three components combined in *Norsk institutt for skogforskning*, NISK (Norwegian Forest Research Institute), shortened to Skogforsk from 2000.
2006
NISK merges with Norsk institutt for jord og skogkartlegging (NIJOS) and becomes *Norsk institutt for skog og landskap.*
2015
Merges with Bioforsk and Norsk institutt for landbruksøkonomisk forskning (NILF) to become NIBIO, *Norsk institutt for bioøkonomi* (Norwegian Institute of Bioeconomy Research).

Voices from the jubilee seminar

Lone Ross Gobakken, NIBIO: "50 shades of grey - unpainted wood is a trendy design element."

Ken Olaf Storaunet, NIBIO: "Forest fires in Trillemarka peaked in the 1600s and 1700s due to man."

Svein Solberg, NIBIO: "Climate change will give more wind felling, snow damage and beetle attacks."

Per Holm Nygaard, NIBIO: "The 1990s put an increasing political pressure on forest science."

Tandem Forest Values strengthens Finnish–Swedish cooperation

A bilateral forest research project, Tandem Forest Values, was given to Finland by Sweden as an official gift to celebrate 100 years of forest research and independence. The project consists of 12 two-year postdoctoral positions with a total value of 26 Million SEK. It is intended that universities and research institutes in Finland and Sweden jointly formulate applications and invite qualified researchers to participate. The first call for applications will be in December 2017 and the second in autumn 2018.

Funding comes from the government through the research council Formas, and from the Marianne and Marcus Wallenberg foundation, Kempe foundations, Swedish Forest Industries Federation and the Royal Swedish Academy of Agriculture and Forestry.

Read more: www.projekttandem.se

Finland 100 years – SJFR releases 10 articles

In 2017, Finland celebrates 100 years of independence. It also celebrates 100 years of forest research since Metla was established. To mark this occasion, Scandinavian Journal of Forest Research offer free access to ten recent papers from Finnish researchers. The selection is a snapshot of the broad scope of today's Finnish forest research.

Download articles: http://explore.tandfonline.com/content/est/100-years-of-finnish-independence-and-forest-research

From sawdust to food

Finnish sawmills produce 3.3 milion cubic metres of sawdust each year. Researchers in the project MonoCell are now looking at methods to transform the sawdust to protein, to be used as fish food. The project is led from Luke.

Source: www.luke.fi

One step closer to IUFRO 2024

The Swedish University of Agricultural Sciences, SLU, is one of the candidates willing to organise the IUFRO World Congress in 2024. The final decision is made in September 2018. SLU reports that only two candidates remain on the shortlist besides Stockholm: Paris and Moscow. Representatives from IUFRO will visit Stockholm in March 2018 to evaluate the application on site, according to a news announcement from SLU.

Source: www.slu.se

Campaign website: https://www.slu.se/en/faculties/s/collaboration/iufro-2024/

New webpage for SNS

Nordic Forest Research SNS has modernised its webpage and made it more easily accessible and attractive on mobile platforms.

– It was time to change the structure and design to meet the standards of today and our customers' needs, says Katarina Ekegren, communicator at SNS.

Visitors to the webpage will now more quickly find what they are looking for. It is usually current calls, how to apply and report to SNS. Images are more intensively used compared to the old version, showing the identity of SNS.

– Information about current calls is one of the first things a visitor finds on the page, she says.

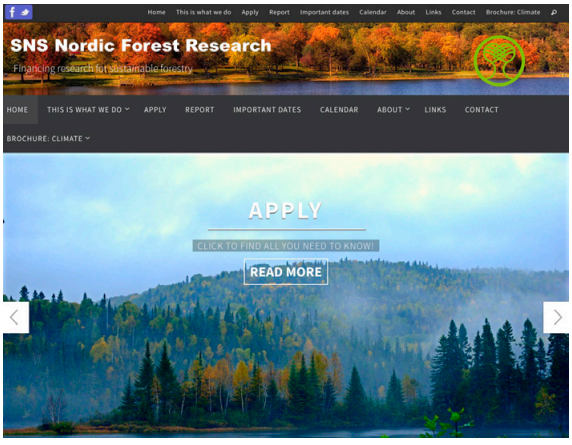
Other changes can be found in the news section and the calendar. Katarina Ekegren encourages people to contact the secretariat to add events to the calendar.

– Showing an event in our calendar can boost the marketing of the activity. We also use Facebook to spread the information to other target groups.

– We welcome all comments on the webpage from our visitors. Please contact me, she says.

Webpage: www.nordicforestresearch.org

Contact: katarina.ekegren@slu.se



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www.nordicforestresearch.org

News & Views is a newsletter from SNS containing short, popularized articles covering Nordic forest research and forestry. Articles presenting SNS-supported activities are prioritized. The newsletter is published eight times per year, and is available for download from the SNS and Scandinavian Journal of Forest Research websites.

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Nordic Forest Research (SNS)

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