

The Nordic NEFOM network

Fungi perform crucial ecosystem services in forests by releasing nutrients from soil and decaying wood and by providing trees with improved nutrition. Other fungi may be detrimental for forests as important pests. The aim of the NEFOM network is to bring scientist together who studies fungi in Nordic forests with special emphasis on emerging techniques to identify and name fungi from complex samples e.g. soil and



Photo: Field trip at PhD course in Uppsala / Karina Clemmensen

PhD course in Uppsala June 2014

In June 2014, 20 students from 8 Nordic countries including Estonia and Russia participated in the PhD course *Preparing samples for fungal community sequencing* organized by the Forest Pathology and Mycology unit at SLU. The course was a combination of lectures by local and international experts but ample time for field sampling and molecular lab work with actual samples were also included. The course highlighted crucial steps in DNA extraction, quantification and quality control necessary for obtaining unbiased description of fungal communities within complex samples. Many of

the methods taught have been developed locally by the team in Uppsala led by Björn Lindahl and Karina Clemmensen.

Conference in Riga November 2014

At the network's annual conference, about 40 scientists from all Nordic countries as well as all three Baltic States were represented. The meeting focused on giving early stage researchers within the network a platform for presenting their PhD or post doc work for a broader audience. World known experts, Professors Petr Baldrian from the Czech Republic and Martin Zobel from Tartu, Estonia, were also invited. The conference highlighted the gigantic methodological leap that we are experiencing in these years propelled by high throughput sequencing of fungal communities from soil etc. The next important step will be to assign identified species with functional traits. This will be a gigantic task for the coming years and will rely on both classical culture-based studies as well as various "omics" technologies.

Networking benefits

The NEFOM network is the current installation of a long lasting collaboration between the most influential forest mycological research groups in the Nordic countries. Over the years the network has produced dozens of high profiled joint publications and also initiated the build-up of the fungal specific sequence database UNITE (www.unite.ut.ee) which today is the most recognized database for fungal barcodes. Also, NEFOM provides a platform for emerging young scientist enabling these with a long-lasting professional network.



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Taking samples for later lab work at the PhD Course in Uppsala/ Karina Clemmensen

Sannaskajsa Velmala presenting her work at the conference at Riga. / Ieva Druva-Lūsīte



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