Nordic Forest Research

Network no: N2014-05

Send the report to SNS-secretarie Mimmi Blomquist (SNS@slu.se)

REPORT NETWORK ACTIVITY (meeting, conference etc.)

Please notice that the size of text sections in the form can be adjusted if needed.
The length of the final report should not exceed 3 pages. Supplementary information can be attached.

1. Aktivitetens titel	
2. Activity title	Network *Phytophthora*-diseases of forest trees in Northern Europe
3. Coordinator /contact person (name, address, telephone, telefax. e-mail)	Docent Johanna Witzell, SLU, Southern Swedish Forest Research Center, Box 49, 23053 Alnarp, Sweden. Tel. +46 40 415185
4. Duration	The activity started 25 /5 2015 and ended 25/5 2016
5. Cost	SNS-grant: 9,500 EUR Total activity cost (estimate): 4,000 EUR

6. Description of activity (incl. objectives, results, conclusions)	A one-day workshop was organized in Alnarp, Sweden, to inform about basic biology and spreading of *Phytophthora*-diseases in forest trees, to present the relevant ongoing research activities in Phytophthora research; and to gather information about research needs and knowledge gaps from practical forestry, including urban forestry. Twenty four participants from seven countries in the EFINORD-SNS region (Sweden, Norway, Finland, Denmark, Latvia, Lithuania and Estonia), and one guest participant from from USA gathered to discuss the issues. The participants represented universities, research institutes, public authorities, arborists, and park foresters and managers, providing the meeting with a broad science-society interface. The researcher presentations summarized the biology and special characters of *Phytophthora* as a forest pathogen. The complex life cycle of *Phytophthora*-species; their fundamental differences from fungi which makes funcides ineffective; their capacity to produce different spore types to survive long times in soil and spread effectively in water and soil; and their ability to hybridize were lifted up as explanations for the difficulties to manage these disease in natural settings. Symptoms of *Phytophthora* infections in trees, such as crown transparency, bleeding cankers and root damages, were illustrated with examples of infected trees, representing different species and growing in different geographic areas and settings. Global aspects of the problem and spreading routes for *Phytophthora* pathogens were discussed, emphasizing the critical role of international plant trade, and the difficulties in meaningful testing of plant materials. The country reports revealed *Phytophthora* damages as a current-day problem across the region, in different tree species and in urban and rural settings. Results for tests with phosphite treatments were presented and discussed. Future research needs were discussed in connection to presentations, and also during the visit to Alnarp laboratory where the participants were presented ongoing research activities. A walk in Alnarp's park where beech trees are heavily affected by *Phytophthora* concretized the topic further. Need of new research based information regarding sustainable management of *Phytophthora* was emphasized by the stakeholders. In addition, there is urgent need to provide alternatives for international plant trade. The participants were informed about the Swedish Citizen Science project that is starting at Southern Swedish Forest Research Center in 2016.
7. Evt. publication/ communication	The meeting was pictured at the homepage: http://www.nordicforestresearch.org/sns-research/networks/phythopthora/ and in social media (Facebook/Southern Swedish Forest Research Centre).

8. Activity summary (about 1/3 page) for possible use in the News & Views section of Scandinavian Journal of Forest Research	A one-day workshop was organized in Alnarp, Sweden, to inform about basic biology and spreading of *Phytophthora*-diseases in forest trees, to present the relevant ongoing research activities in *Phytophthora* research across the region; and to gather information about research needs and knowledge gaps from practical forestry, including urban forestry. Twenty five participants from seven countries in the EFINORD-SNS region (Sweden, Norway, Finland, Denmark, Latvia, Lithuania and Estonia), and one guest participant from from USA gathered to discuss the issues. The participants represented universities, research institutes, public authorities, arborists, and park foresters and managers, providing the meeting with a broad science-society interface. The researcher presentations summarized the biology and special characters of *Phytophthora* as a forest pathogen. Problems related to import of plant materials, need of management guidelines and future researcher needs were discussed. From 2016 onwards, the network continues its work within a new EFINORD-SNS research project "Assessing the role of climate factors in association with spread of invasive *Phytophthora* species in forests and from urban landscapes", coordinated by Dr. Michelle Cleary at SLU, Alnarp.
9. Date and signature	Date: 2016-09-14 Signature of project leader/coordinator: