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Doctoral Thesis No. 2013:18

Ash dieback is an emerging disease on ash trees in Europe. This thesis presents a phytotoxin, viridiol to be produced by the causative pathogen, *Hymenoscyphus pseudoalbidus*, and show its harmful effect to ash cotyledons. A molecular detection tool for the fungus was described. Molecular study of the fungal population revealed a high gene-flow, signs of a founder effect and indicated sexual recombination to occur. Disease symptoms emerged and developed throughout the year, with most lesion activity during summer.

Stina Bengtsson, the author of this thesis received her graduate education at the Department of Forest Mycology and Plant Pathology, SLU, Uppsala. Her undergraduate degree is from Swedish University of Agricultural Sciences.

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Dieback of *Fraxinus excelsior*

Biology of Ash Dieback and Genetic Variation of the Fungus *Hymenoscyphus pseudoalbidus*

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