

Lecanosticta - Brown spot disease of pines- spread in European forest ecosystems: impact on pines, predisposing and contributing factors, control (BROWNSPOTRISK)



Mycosphaerella dearnessii (SCIRAC) - <https://doi.org/10.1007/s12249-017-0990-1>



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Research consortium

BFW (AT), INIAV (PT), UKFC (GB), SASA (GB), APHIS (US), Mendelu (CZ), SDU (TR)

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Goals

This project will focus on key questions on *Lecanosticta acicola* spread in Europe, its biology, its effects on the host in relation to climatic and site conditions and other biotic factors. The main goal is to provide research outputs to support contingency planning, impact and risk management of the pathogen.

Objectives

The specific outcomes that will be considered in the project include:

- Spread of the pest in forest ecosystems in Europe
- Efficient methodology to demarcate infestation areas
- Rates of natural spread and prediction of spread
- Abiotic and biotic factors favouring spread
- Preconditions for a tree decline
- Susceptibility of forest ecosystems and tree species
- Genetic differences among strains and pathogenicity
- Strategies to control disease (including biological measures) and prevent epidemics

Key outputs and results

The project will :

- develop knowledge on epidemiology and pathology of *Lecanosticta acicola* enabling risk prediction and development of management strategies
- improve tools and approaches to predict spread and impact and support decisions on policy and management options, including models, cost-benefit analysis, control methods and detection methods.
- provide decision tools for authorities and forest managers to manage spread of *Lecanosticta acicola* in bogs and other protected areas, replace declining trees in mountainous Alpine protection forests and prevent spread of the pest from existing outbreak sites to forests.