

Title Long-term storage and seed source versus fungi communities on *Pinus sylvestris* seeds
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Abstract

Scots pine (*Pinus sylvestris*) is one of the main tree species in Polish forests (regenerated mainly artificially). Production of healthy seedlings from stored seeds is a priority but pathogenic fungi on seeds and seedlings contribute to losses in forest nursery production. Thus, it is of utmost importance to produce clean, healthy seeds and store them free of pathogens. The effects of storage time and location of stands from which seeds were collected, on seed inhabiting-fungi were investigated. The number of fungal pathogens on seeds increased with storage time. The fungal communities varied depending on storage time and seed source. After a few years their structure in seed lots depended more on storage time than on seed source. With increasing storage time, the structure of fungal communities became more and more similar. The method of seed extraction from cones was of no importance to the structure of the fungal communities. The most common seed lot inhabiting fungi in 2003-2006 were the following non-specific species/genera: *Alternaria* spp., *Aspergillus* spp., *Cladosporium cladosporioides*, *Fusarium* spp., *Penicillium* spp., *Sclerotinia sclerotiorum*, *Trichoderma* spp., with prevalence of the following: *S. sclerotiorum*, *C. cladosporioides*, *Aspergillus niger*, *Alternaria alternata*, *Fusarium solani*, *Penicillium commune* and *P. expansum*.