Original article

EDN MKRPPM
DOI 10.24419/LHI.2304-083.2026.2.10

Influence of the Composition of the Mycocomplex of Pine Forest Crops during Pathological Succession Changes

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Abstract. *The article presents the results of studies on the change in the composition of the mycocomplex in forest crops of Scots pine with pathological successional changes, as well as an assessment of the contribution of asco- and basidiomycetes to the formation of the infectious diseases risk in plantations of coniferous and broadleaf forests of the Moscow and Ryazan regions (2023–2025). According to the results of the work, it was found that ascomycetes make a dominant contribution to the formation of the infectious diseases risk of pine forest crops. At the same time, root pathogenic basidiomycetes additionally increase the infectious load due to the preservation of stumps from the previous planting in the aisles. Ascomycetes, capable of colonizing needles, bark, and trunk, act as pioneer organisms when trees shrink. They occupy an intermediate ecological niche between ascomycetes, biotrophs that infect needles, and basidial xylotrophs that decompose the wood of trunks and branches. Xylotrophic and saprotrophic basidiomycetes are widely represented in the pathogenic mycocomplex of forest crops. These groups of fungi provide rapid biodegradation of dead plants, which affects the dynamics of the infectious diseases risk. The conducted research has shown that maintaining an acceptable level of infection load in forest crops directly depends on compliance with phytosanitary conditions. To reduce risks, it is important to remove weakened and dying trees in a timely manner, as well as accelerate the biodegradation of stumps in the forested area.*

Key words: *dendrobiont fungi, mycocomplex, Scots pine, infectious diseases risk, Ascomycota, Basidiomycota*

For citation: *Neklyaev S., Gninenko Yu., Rysin S., Tkachenko O. Influence of the Composition of the Mycocomplex of Pine Forest Crops during Pathological Succession Changes. – Text : electronic // Forestry Information. 2026. № 2. P. 104–115. DOI 10.24419/LHI.2304-083.2026.2.10. https://elibrary.ru/mkrppm.*

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