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**Title:** Mycorrhizal status of *Molinia caerulea* on heavy metal contaminated and non-contaminated sites in Upper Silesia : [streszczenie]

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## Mycorrhizal status of *Molinia caerulea* on heavy metal contaminated and non-contaminated sites in Upper Silesia

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Wastes connected with zinc and lead industry are extremely harsh substratums for plant growth. They contain high levels of heavy metals, lack organic matter and are characterized by low porosity resulting

in unfavourable air-water conditions. One plant that successfully colonizes these sites is *Molinia caerulea*, a diagnostic species of moist meadows (the *Molinion* alliance) and wet coniferous forests (the *Molinio-*

*Pinetum*). Successful survival and growth of plants on heavy metal contaminated sites is greatly dependent not only on the abiotic properties of the soil but also on the activity of microbial populations. Symbiotic fungi are often suggested to improve plant establishment under harsh conditions as mycorrhizal symbiosis reduces negative effects of stresses caused by unfavourable edaphic conditions.

The aim of the study was to determine and compare the mycorrhizal status of *Molinia caerulea* in chosen areas connected with zinc and lead industry and in moist grasslands. The results revealed differences in the level of mycorrhizal colonization depending on the type of the habitat which was lower on heavy metal contaminated sites.