

7. Diversity of macromycete communities

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Forty-six species of macromycetes were identified in the analysed abandoned lands. Communities of macromycetes show a diversity related to the development stage of the communities in the abandoned lands.

The community with lichen and the community with *Anthoxanthum aristatum* and *Corynephorus canescens* are the poorest in macrofungi species. There, mostly saprotrophic species of the *Bovista*, *Conocybe*, *Lycoperdon*, *Marasmius*, *Panaeolus*, and *Psilocybe* genera occur, individually or in small groups (Tab. 7.1). In study plots with trees, some mycorrhizal species appear, e.g. *Amanita muscaria* (Photo 7.3), *Inocybe corydalina*, and *Paxillus involutus* (Photo 7.1).

Equally poor in macromycete species are the few communities with *Calamagrostis epigejos*. Sporocarps of saprotrophic species were found there, e.g. *Conocybe tenera*, *Psilocybe semiglobata*, and *P. semilanceata*.

In patches of the phytocoenosis with *Agrostis capillaris*, *Hieracium pilosella*, and *Achillea millefolium*, macrofungi form larger and more abundant communities (7–19 species). In study plots where trees grow, there are some mycorrhizal species, which often produce numerous sporocarps. In patches, where the moss layer is present, species associated with mosses were observed, such as *Arrhenia lobata*, *Rickenella fibula* (Photo 7.2). In the community with *Agrostis capillaris*, *Hieracium pilosella*, and *Achillea millefolium*, the Glinnik A plot was the most abundant with macrofungi species.

The floristically abundant community with *Cirsium arvense*, *Galium mollugo*, and *Gnaphalium sylvaticum*, features fungi which are richer in macromycete species (10–19 species). It is charac-

terised by fairly numerous saprotrophic species, e.g. *Clitocybe vibecina*, *Conocybe tenera*, *Macrolepiota procera* and a large share of mycorrhizal species, e.g. *Amanita muscaria*, *Boletus edulis*, *Inocybe maculata*, *Suillus bovinus* and *Xerocomus badius*. Only in this community, the occurrence of fruiting bodies of *Hemimycena lactea* on pine needles was observed.

Patches of the community with *Elymus repens* or *Poa pratensis*, which occurred at study plots Sulejów A and Sulejów C, feature a quite rich and diverse composition of macrofungi species. Among saprotrophic fungi, species of gasteroid fungi prevail, such as *Calvatia excipuliformis*, *Scleroderma citrina*, and *Vascellum pratense*. Mycorrhizal species also grow here, e.g. *Amanita muscaria*, *Inocybe asterospora*, and *I. maculata*. There are many fungi growing on special substrates – *Arrhenia lobata* on mosses and *Crinipellis scabella* on grasses.

One patch included in the community with *Cirsium arvense* and *Solidago canadensis* is very poor in macromycete species (3). Only *Marasmius oreades* occurs here frequently and abundantly.

The community with *Betula pendula* also has poor fungi (Tab. 7.1). Only saprotrophic species which form small sporocarps, such as *Panaeolus foemiseii*, occur here, infrequently.

The vast majority of macromycetes identified in the abandoned lands are saprotrophic terrestrial and mycorrhizal fungi. There is a small group of species which grow on grasses, mosses, pine needles and cones. Only two species of lignicolous fungi were observed in several study plots: *Schizophyllum commune* and *Trichaptum abietinum*, which grew on branches or twigs of *Pinus sylvestris* (Tab. 7.1).

Table 7.1. Frequency of occurrence of macrofungi species in the abandonment study plots in the Łódź Voivodeship (continued)

Site/Species	Glinnik A	Glinnik B	Glinnik C	Celestynów A	Celestynów B	Celestynów C	Sulejów A	Sulejów B	Sulejów C	Krzęte A	Krzęte B	Krzęte C	Raciszyn A	Raciszyn B	Raciszyn C	Weronika A	Weronika B	Weronika C	Wola Pszczółka A	Wola Pszczółka B	Wola Pszczółka C	Piskorzeniec A	Piskorzeniec B	Piskorzeniec C	Wola Życińska A	Wola Życińska B	Wola Makowska A	Wola Makowska B	Wola Makowska C	Polesie A	Polesie B	Polesie C	Szymański A	Szymański B	Szymański C	Lagiewniki A	Lagiewniki B	Lagiewniki C				
<i>Schizophyllum commune</i> Fr.: Fr.	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	1	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Scleroderma citrinum</i> Pers.	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Suillus bovinus</i> (L.: Fr.) Roussel	0	0	0	0	0	2	0	0	0	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Suillus luteus</i> (L.: Fr.) Roussel	0	0	0	0	3	3	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Trichaptum abietinum</i> (Dick.: Fr.) Ryvarden	0	0	2	0	0	1	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Xerocomus badius</i> (Fr.: Fr.) Kühner ex Gilbert	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: own elaboration.



Photo 7.1. *Paxillus involutus* in Weronika C (E. Papińska)

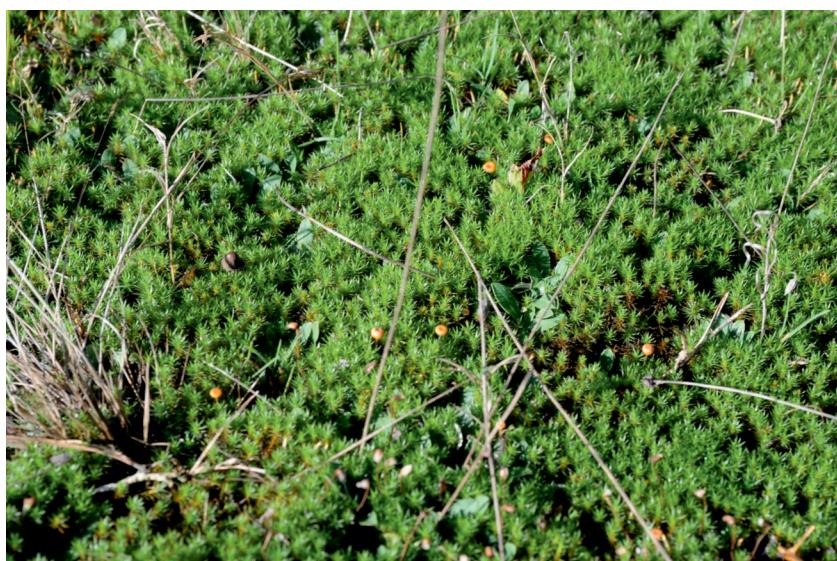


Photo 7.2. *Rickenella fibula* in Wola Pszczołecka A (E. Papińska)

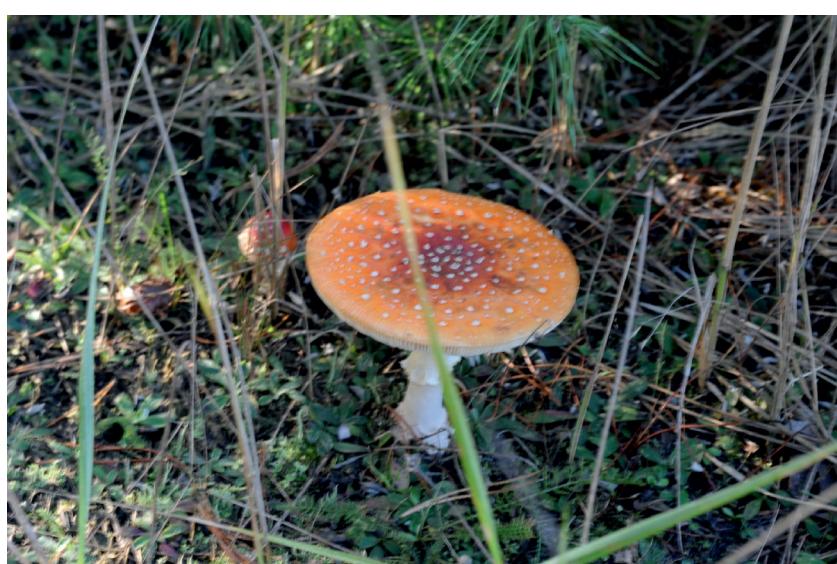


Photo 7.3. *Amanita muscaria* in Krzętle A (E. Papińska)



Photo 7.4. *Laccaria laccata* in Raciszyn A (E. Papińska)



Photo 7.5. *Suillus luteus* in Raciszyn C (E. Papińska)



Photo 7.6. *Cladonia strepsilis f. coralloides* in Polesie A (A. Majchrowska)