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# Outline of the pyrenomycetes in Skrebys forest (Eastern Lithuania)

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In the Skrebys forest (*Tilio-Carpinetum* community), 186 herbarium specimens with studied fungi were collected and 44 species of pyrenomycetes belonging to 7 orders were identified. Most of the species belonged to the orders *Diaporthales*, *Diatrypales* and *Xylariales*. Of all material, 35% were inhabited by species of *Diatrypales*. The major part of material with pyrenomycetes was collected from *Carpinus betulus* and *Corylus avellana*. Species of *Diaporthales* were found only on twigs and branches with bark. The pyrenomycetes were found to inhabit substrates with the diameter 0.4 to 27.0 cm. The majority of branches with pyrenomycetes were 2.2 cm in diameter. Species of *Diaporthales* occupied twigs and branches of the smallest diameter, species of *Diatrypales* prevailed on branches of mediate diameter, and species of *Xylariales* preferred branches of the largest diameter.

**Key words:** pyrenomycetes, loculoascomycetes, Lithuania, woody substrate

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## INTRODUCTION

Traditionally, the name “pyrenomycetes” is used not only for true pyrenomycetes, but also for the related group of loculoascomycetes. These groups look similar by appearance and ecology [1]. More knowledge on their ecology can help in understanding their role in the ecosystems.

Research of this fungal group in Lithuania [2, 3] provided some data on the ecology of pyrenomycetes. As the pyrenomycetes inhabit mostly woody substrate, an attempt was made to study the habitat more thoroughly in order to elucidate relations between the systematic groups of the fungi and substrate.

## MATERIALS AND METHODS

Pyrenomycetes were studied in the Skrebys forest (*Tilio-Carpinetum* community). It is situated in the Aukštadvaris Regional Park, Aukštadvaris environs, Trakai district, eastern Lithuania. All fungi were collected during October 1996 and from April till July 1997 by map-sketching method. One twig, branch, stump is called a sample. The situation of a sample was indicated: on the ground, on stump, on dead attached twigs or branches. The diameter of sample was measured by sliding calipers [4].

## RESULTS

From 10 species of trees and shrubs 186 herbarium specimens were collected. The diameter of 192 samples of all material was measured. The greatest part of the samples was collected on the ground. More than half (59%) of all samples with pyrenomycetes belonged to *Carpinus betulus* and *Corylus avellana* (twigs and branches with unfallen bark). For the first time nearly half of samples were decorticated.

Forty-four species of pyrenomycetes and loculoascomycetes belonging to 7 orders were identified. Among them species of *Diaporthales* (13), *Diatrypales* (10) and *Xylariales* (9) dominated.

Species of *Diaporthales* have been registered only on twigs and branches with bark, meanwhile representatives of *Diatrypales* and *Xylariales* inhabited both decorticated wood and branches with bark. It should be noted that samples with the species of *Diatrypales* made 35% of all the samples.

Species of *Diaporthales* are found on the branches with the diameter up to 4.6 cm (Fig. 1). The most frequent diameter of the samples reached 0.7 cm.

Species of *Diatrypales* inhabit branches with the diameter from 0.9 to 5.1 cm, the dominating range being from 1.0 to 2.5 cm (Fig. 2). Most frequently samples with the representatives of *Diatrypales* have the diameter of 1.2 cm.

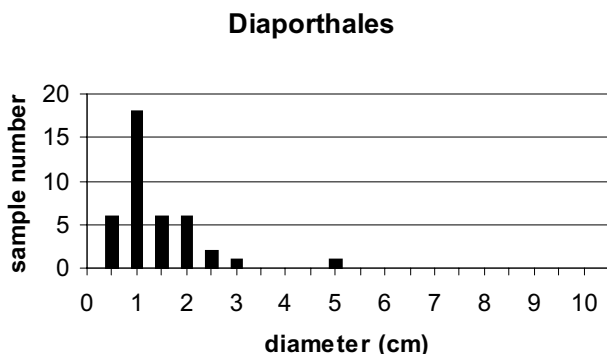


Fig. 1. Dependency of the number of samples with *Diaporthales* upon the diameter of substrate

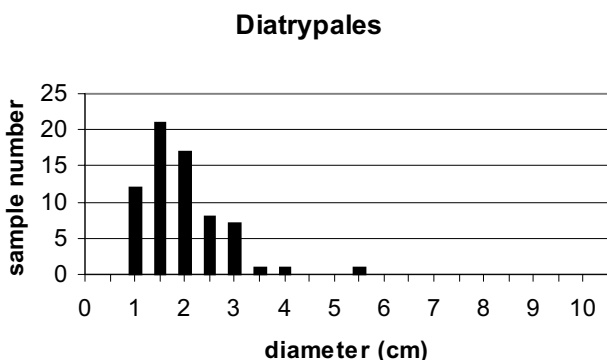


Fig. 2. Dependency of the number of samples with *Diatrypales* upon the diameter of substrate

Species of *Xylariales* were registered on samples with the diameter from 0.4 cm to 27.0 cm, dominating range – up to 7.2 cm (Fig. 3). The most frequent diameter of samples with these microfungi was 2.2 cm.

The rest species of pyrenomyces and loculoascomyces represent the orders *Dothideales*, *Hypocreales*, *Sordariales*, *Sphaeriales*. Samples of the above-mentioned orders make up 14% of all material. So, thus, analysis of the diameter and systematic groups would be incorrect statistically (Fig. 4).

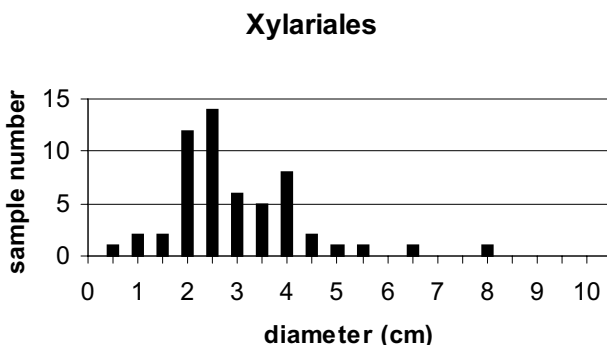


Fig. 3. Dependency of the number of samples with *Xylariales* upon the diameter of substrate



Fig. 4. Dependency of the number of samples with other pyrenomyces upon the diameter of substrate

Species of the fungi studied inhabit substrate with the diameter from 0.4 cm to 27.0 cm. The dominating range of the diameter was from 0.7 to 3.7 cm. The greatest number of pyrenomyces was found on substrates with the diameter 2.2 cm.

Summarizing the results, it is possible to say that species of *Diaporthales* according to the diameter of samples inhabit the smallest twigs. All twigs with *Diaporthales* had unfallen bark. This finding supports the results of our previous works [2, 3]. Species of *Diatrypales* according to the diameter come next. Representatives of *Xylariales* occupy substrate with the largest diameter. Species of *Diatrypales* and *Xylariales* inhabit both decorticated wood and branches with unfallen bark.

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#### SKREBIO MIŠKO (RYTŲ LIETUVOJE) PIRENOMICETŲ APŽVALGA

##### S a n t r a u k a

Skrebio miške, *Tilio-Carpinetum* bendrijoje, surinkti 186 tiriamų grybų herbariniai egzemplioriai. Apibūdintos 44 pirenomicetų rūšys, priklausančios 7 eilėms. Daugiausia rūšių yra iš *Diaporthales*, *Diatrypales* ir *Xylariales* eilių. *Diatrypales* eilės atstovai buvo nustatyti 35% surinktos medžiagos. Ant *Carpinus betulus* ir *Corylus avellana* šakelių ir šakų nustatyta daugiausia pirenomicetų. *Diaporthales* rūšys aptiktos tik ant šakų su žieve. Tirti pirenomicetai gyvena ant substrato, kurio skersmuo kinta nuo 0,4 iki 27,0 cm. Dažniausiai pirenomicetai užregistruoti ant 2,2 cm skersmens šakų. *Diaporthales* rūšys užima mažiausio, *Diatrypales* eilės rūšys – vidutinio, o *Xylariales* eilės rūšys – didžiausio skersmens šakas.