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QUALITATIVE AND QUANTITATIVE ANALYSIS OF LIGNICOLOUS MACROMYCETES IN DIFFERENT FOREST ASSOCIATIONS ON THE GALIČICA MOUNTAIN

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ABSTRACT

Karadelev, M. (1994). Qualitative and quantitative analysis of lignicolous macromycetes in different forest associations on the Galičica Mountain. Ekol.Zašt.Živ.Sred., Vol. 2, No. 1, Skopje.

The occurrence and frequency of lignicolous macromycetes in the most important forest associations and on various hosts in the Galičica Mountain are presented on tables. Most species were collected on *Quercus* (84) and *Fagus* (50), since those trees are the most numerous ones in the area investigated. The distribution of fungi in particular forests and on particular tree genera is discussed. Many species are hitherto known in Macedonia only from this area.

Key words: fungi, lignicolous, Galičica, Macedonia

ИЗВОД

Караделев, М. (1994). Квалитативно-квантитативна анализа на лигниколните макромиицети во различни шумски заедници на планината Галичица. Екол.Зашт.Жив.Сред., Том 2, Бр. 1, Скопје.

Припадноста и честотата на лигниколните макромиицети во најважните шумски заедници и на различни домаќини на планината Галичица е претставена на табели. Најголем дел од видовите биле собрани на *Quercus* (84) и *Fagus* (50) кои претставуваат и најзастапени супстрати во истражуваното подрачје. Дистрибуцијата на габите во разни типови шуми и на разни супстрати е дискутирана. Многу видови досега се познати во Македонија само од ова подрачје.

Клучни зборови: габии, лигниколни, Галичица, Македонија

INTRODUCTION

The lignicolous macrofungi on Galičica Mountain were practically unknown until recently, except the publications by Pilat & Lindtner (1938), Грујоска (1970) and Tortić (1980), where 14 species are discussed. The investigations are continued by the present author and the results were presented at several Yugoslav Congresses, The Tenth Congress of European Mycologists in Tallin (Estonia)

and The Fourth International Mycological Congress in Regensburg (Germany). The area was visited regularly, from 1986 to 1990, several times in year and 142 species of lignicolous macromycetes have been established up to now. A part of them, 29 species which grow on Macedonian oak (*Quercus trojana* Webb.) were published (Karadelev 1989).

REGION INVESTIGATED

Galičica Mountain is situated in the south-west of the Republic of Macedonia, between Lakes Prespa (850) and Ohrid (700) and has a position ac-

cording to the UTM grid DL84, DL94, DL83 and DL93. It stretches from north to south. Its height increases in the same direction, and the highest point,

2275 m, is in the extreme south. In the west part of Prespa Lake, like a small calcareous reef, lies Golem Grad Island.

From a geological point of view the mountain is mostly composed of limestone and is of craggy type. This and the unfavourable weather conditions have made this region poor in surface water flows. It is believed that Ohrid Lake receives the waters from Prespa Lake through underground passages and caves in the limestone of Galičica Mountain.

Climate (measured at 1000 m alt.) is continental with average annual temperature of 11,07°C. The average January temperature is 1,8°C and the average July temperature reaches 21,7°C. Annual precipitations are about 700-800 mm, but the summers are dry, due to irregular rainfalls. During the 1980 the summer average daily temperature ranged between 15,1-19,0°C including September (Mulevisor. 1984). According to Gračanin's classifications (1950) the climate in these months is arid to per arid.

GENERAL DATA ABOUT THE MOST IMPORTANT FOREST ASSOCIATIONS

According to the climazonal distribution of vegetation, Galičica Mountain can be divided into 4 phytogeographic areas: submediterranean, subcontinental, subhumid and subalpine.

The submediterranean area is characterized by the alliance of *Ostryo-Carpinion orientalis* Ht. including the associations: *Querco-Carpinetum orientalis macedonicum*, *Quercetum trojanae macedonicum*, *Ostryo-Quercetum cerris*, *Pruno webbii-Juniperetum excelsae* and others.

The subcontinental vegetation area belongs to the alliance of *Quercionfarnetto* Ht. which includes associations of *Quercetum frainetto-cerridis macedonicum* and *Orno-Quercetumpetraeae*. In subhumid area are developed beech (*Festuco heterophyllae-Fagetum* and *Calamintho grandiflorae-Fagetum*) and beech-and-fir (*Abieti-Fagetum macedonicum*) forests. In the subalpine area, occurs the association *Fagetum subalpinum scardo-pindicum*. Along with the climazonal associations in the vegetation cover of Galičica Mountain there are also important azonal associations like *Salicetum albae-fragilis* and others.

The association of *Querco-Carpinetum orientalis macedonicum* (Rud.)Ht. 46 is spread over the Ohrid side of Galičica Mountain to 1000 m alt. Dominant species are *Quercus pubescens* and *Carpinus orientalis*, whereas *Quercus trojana* occurs singly and rarely.

The forest of *Quercetum trojanae macedonicum* (Em) Hdrv.(50)59 has a relic origin and disjunctive areal. Main trees besides *Quercus trojana* are *Q. pubescens*, *Q. cerris* and *Ostrya carpinifolia*, while on the Ohrid slope of the mountain there is

Carpinus orientalis. One of the most xerothermic, relic association *Pruno webbii-Juniperetum excelsae* Em(57) 62 is to be found. On the islet Golem Grad and the lower parts of Galičica (Prečna Mt.) *Juniperus excelsa* dominates, there *Prunus webbii* is increasing in number, and *Celtis glabrata* is restricted to the islet Golem Grad. In the vicinity of Leskoec, on calcareous ground with quite developed compost layer grows ass. *Ostryo-Quercetum cerris* Em 64. Dominating tree is *Quercus cerris*, to which are joined in lesser numbers *Q. pubescens*, *Q. frainetto* and *Ostrya carpinifolia*. Ass. *Quercetum frainetto-cerridis macedonicum* (Oberd.) Horv.59 is developed best on the Prespa side of Galičica up to 1100 m alt. In the tree layer, *Quercus frainetto* and *Q. cerris* are dominating.

Among oak-forests *Orno-Quercetumpetraeae* Em 68 occupies the highest altitude, it covers very little area on the Prespa side between 1100 and 1300 m. *Quercus petraea* is dominant and *Q. cerris*, *Acer obtusatum*, *Sorbus torminalis* are admixed. Lower than that, i.e. under 1300 m alt. grows *Festuco heterophyllae-Fagetum* Em 66 which belongs to beech forest, where *Fagus sylvatica* is dominant and *Acer obtusatum*, *Quercus petraea* and *Fraxinus ornus* are occurring individually. *Calamintho grandiflorae-Fagetum* is distributed higher in the mountain. *Fagus sylvatica* is dominating there, just as in the subalpine association (*Fagetum subalpinum scardo-pindicum* (Horv.)Treg.57. Beech-and-fir association (*Abieti-Fagetum macedonicum* Em 62) is situated in sheltered exposition between 1300 and 1550 m alt. where the fir (*Abies borisii regis*) generally appears singly (after Rizovski *).

MATERIALS AND METHODS

The fungi were studied in the following localities and forest associations (Fig. 1).

1. Gradište and v. Konjsko, alt.750-900 m, *Querco-Carpinetum orientalis*.

2. Vicinity of the villages: Trpejca, Carina and Oteševo, and Prečna Mt., alt. 750-1000 m, *Quercetum trojanae macedonicum*.

* R.Rizovski - Excursion flora for X Congress of Yugoslavian Ecologists, Ohrid 1988.

3. Vicinity of v.Konjsko, islet Golem Grad and on Kale, alt.900-1200 m, *Pruno webbii-Juniperetum excelsae*.

4. Pljuska, Dolovi, Prečna Mt. and the vicinity of the villages: Stenje, Carina and Oteševo, alt. 900-1000 m, *Quercetumfrainetto-cerridismacedonicum*.

5. Vicinity of v.Carina and v.Stenje (along the streams and dry vales) alt. 950-1000 m, *Salicetum albae-fragilis*.

6. Vicinity of v.Leskoes, 1200malt., *Ostryo-Quercetum cerris*.

7. Volko Legalo, 1100m alt., *Orno-Quercetumpetraeae*.

8. On slopes exposed to sun of Stara Galičica (Volko Legalo), 1200-1300 m alt., *Festuco heterophyllae-Fagetwn* and over 1500 m alt., *Abieti-Fagetum*.

9. At sunny slopes of Stara Galičica (Volko Legalo, KarovKamen, Magaro), 1300-1700m alt., *Calamintho grandiflorae-Fagetum* and over 1700 m alt., *Fagetum subalpinum scardo-pindicum*.

10. In the park of St.Naum Monastery, alt. 700 m, on cultivated trees.

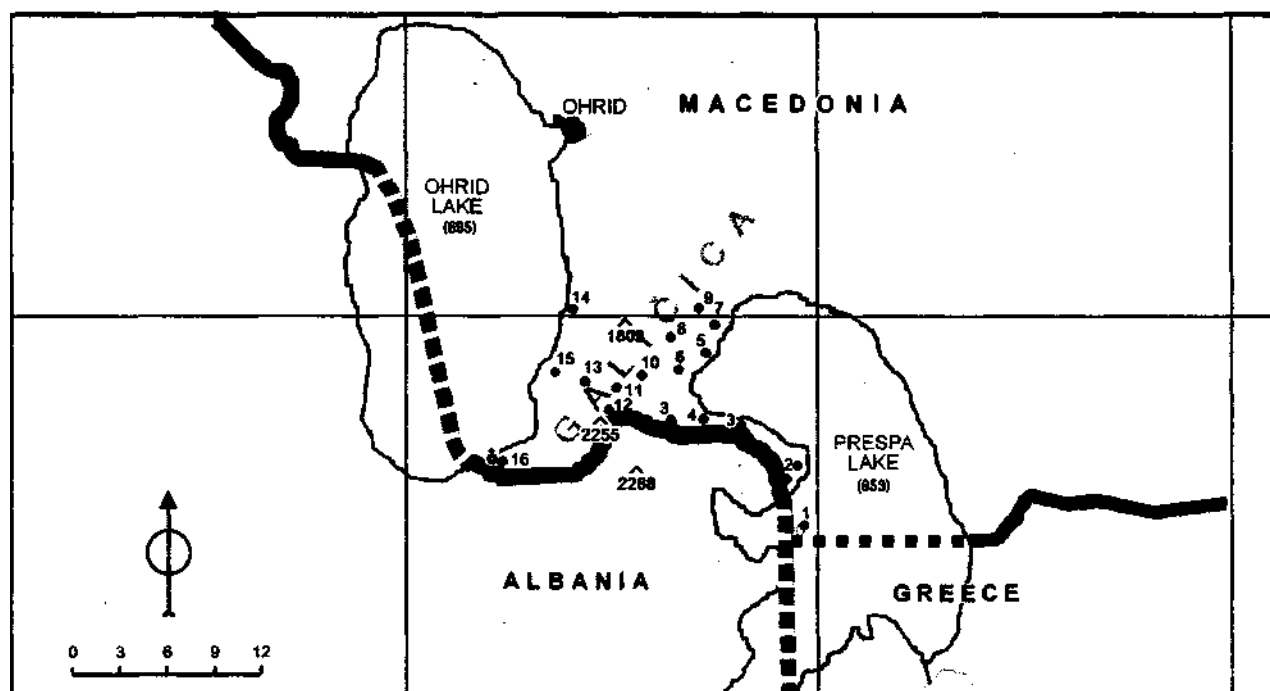


Fig.: Map of investigated localities: 1-Golem Grad, 2-Konjsko, 3-Prečna Mt., 4-Stenje, 5-Carina, 6-Pljuska, 7-Oteševo, 8-Dolovi, 9-Kale, 10-Leskoes, 11-vbiko Legalo, 12-Magaro, 13-Karov Kamen, 14-Gradište, 15-Trpejca and 16-Sveti Naum.

Сл.1. Карта на истражуваните локалитети: 1-Голем Град, 2-Коњско, 3-Пречна Планина, 4-Стење, 5-Царина, 6-Плјуска, 7-Отешево, 8-Долови, 9-Кале, 10-Лескоец, 11-Волко Легало, 12-Магаро, 13-Каров Камен, 14-Градиште, 15-Трпејца и 16-Свети Наум.

The material was collected from over than 18 more or less distant localities, mostly on Prespa side, from 700 to 1750 m alt. Investigations were made during almost all the months of the year, especially in July, in the period of 1986-1990.

All the species established are arranged in two tables: according to the substrate (host) and according to the forest associations. The abundance is indicated by r (rarus) = one or few specimens or a small group, n (numerosus) = several groups or a greater number of specimens and a (abundans) = occurring in many places singly or in groups (after Jahn et al. 1967). To show that the abundance was not every time the same n-a or r-n is used; for a few

species found only once it is also rated as r-n since it was difficult to estimate. The exponent gives the number of times the species was noted.

The variation of the number of lignicolous macromycetes in different forests, in different types of forests and on different substrates (hosts) is given in separate histograms (Graph 1, 2 and 3).

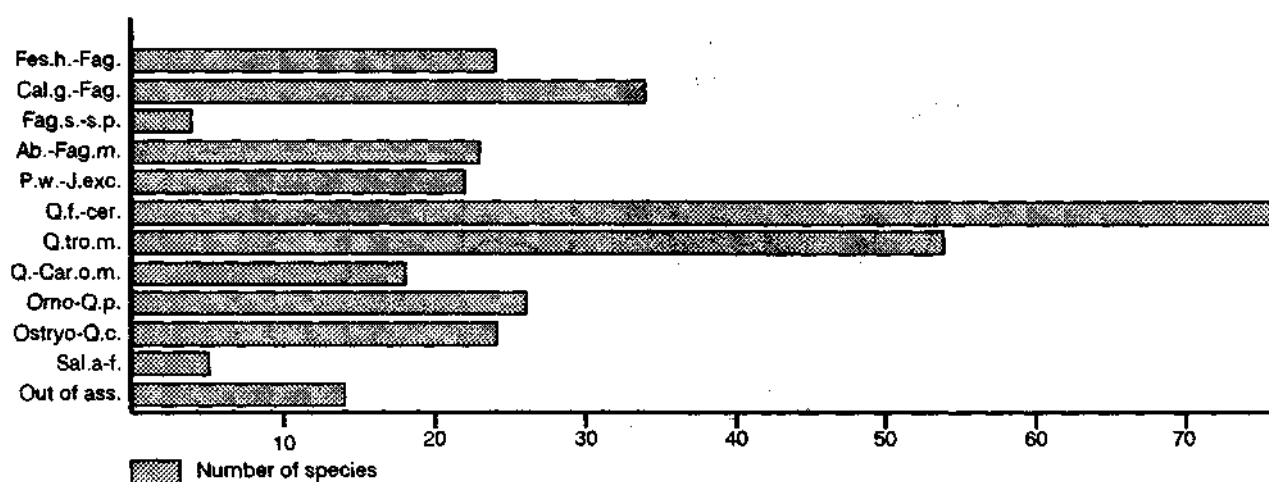
The nomenclature is mostly after Julich (1984), Ryvar den(1976, 1978), Eriksson, (Hjortstam) and Ryvar den (1973-1984) and Moser (1983). Voucher specimens of all species are preserved at the private herbarium of the author.

DISCUSSION AND CONCLUSIONS

In the investigated area were established 141 species of lignicolous macromycetes belonging to class Basidiomycetes. Species are systematized into 17 families mostly belonging to Corticiaceae (56), Polyporaceae (35), Stereaceae and Hymenochaetaeaceae (10) and Tricholomataceae (9).

The analysis of the investigation results shows that the majority of the species (94,3 percent) was collected in 11 forest phytocenoses. The greatest number of species was collected from ass. *Quercetum frainetto-cerridis macedonicum*, 76 species or 54%, 54 species (38,3%) were collected in

ass. *Quercetum trojanae macedonicum*, 34 species in a.ss. *Calamintho grandiflorae-fagetum*, 26 species in a.ss. *Omo-Quercetumpetraeae*, 24 species each in ass. *Festuco heterophyllae-Fagetum* and *Ostryo-Quercetum cerris*, 23 species in ass. *Abieti-Fagetum macedonicum*, 22 species in a.ss. *Pruno webbii-Juniperetum excelsae*, 18 species in ass. *Quercu-Carpinetum orientalis macedonicum*, 5 species in ass. *Salicetum albae-fragilis*, 4 species in ass. *Fagetum subalpinum scardo-pindicum* and outside of the associations, on cultivated trees and shrubs, 14 species.



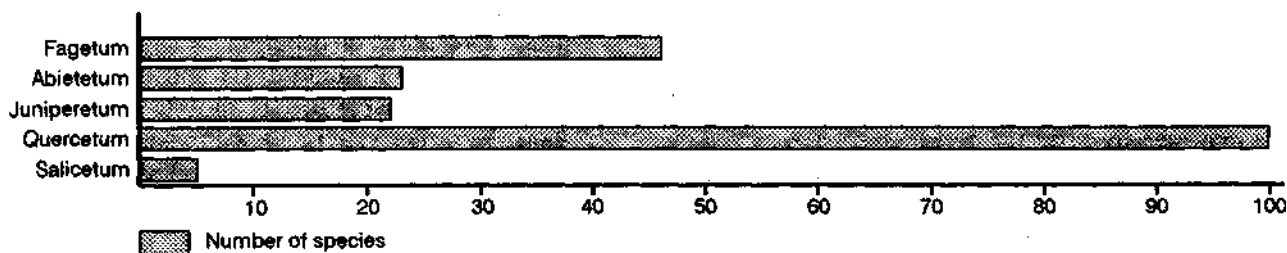
Graph 1. Variation of the number of species lignicolous macromycetes in different forest associations on Galičica Mt.

Граф. 1. Варијација на бројот на видовите лигницилни макромикети во различни шумски заедници на планината Галичица.

In this area investigations were mostly made in oak forests (*Quercetum*) where 100 species (70,9 %) were established. In beech forests (*Fagetum*) 46 species were collected, in beech-and-fir forests (*Abietetum*) 23 species, in juniper forests (*Juniperetum*) 22 species and in willow thicket (*Salicetum*) 5 species.

About 50% of the registered species are common for two or more phytocenoses. The most frequent species is *Stereum hirsutum*. It was established in 9 different forest associations. *Cerrena*

unicolor was established in 8, *Fomesfomentarius*, *Gloeocystidiellum luridum*, *Schizopora paradoxa* s.l. and *Trametes versicolor* in 7, *Hymenochaete subfuliginosa*, *Polyporus varius*, *Steccherinum fimbriatum* and *Vuilleminia comedens* s.l. in 6, *Hyphoderma praetermissum*, *Panellus stypticus*, *Peniophora quercina*, *Phanerochaete velutina*, *Phlebia rufa* and *Scopuloides hydroides* in 5, and the rest in 4 or fewer forests.



Graph 2. Variation of the number of species lignicolous macromycetes in different type of forests on Galičica Mt.

Граф. 2. Варијација на бројот на видовите лигницилни макромикети во различни типови шуми на планината Галичица.

When weather conditions are favorable (wet autumns and winters) there is a mass growth of certain species lignicolous fungi in some forests in Galičica Mt. For instance, in *Quercetumfrainetto - cerridis macedonicum* there is sometimes large scale development of *Armillariamellea* s.l., *Collybiafusipes*, *Exidia truncata* (in *Quercetumtrojanae macedonicum* too) and only once of *Pycnoporus cinnabarinus* which also grows in beech forests.

Besides these species the following ones are most frequently present in oak forests: *Daedalea quercina*, *Hapalopilus rutilans* (it grows in *Abieti-Fagetum* too, even though it has not been collected in Galičica yet), *Hymenochaete rubiginosa*, *Peniophora quercina*, *Radulomyces molaris*, *Vuilleminia comedens* s.l. and *Vuilleminiamegalospora* (only in *Quercetum trojanae macedonicum*).

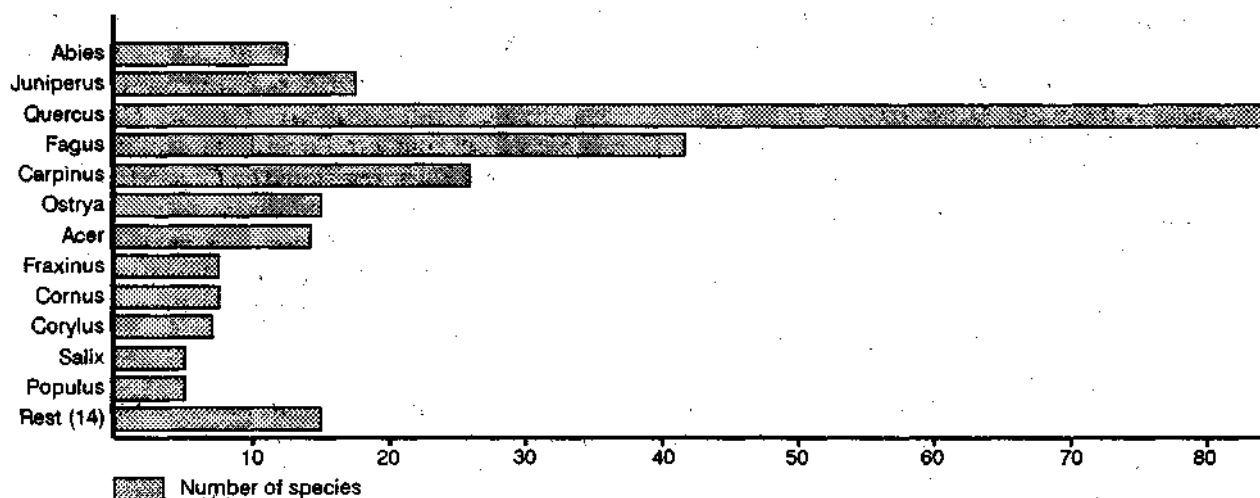
In beech forests there is often an abundance of: *Marasmius alliaceus*, *Mycena renati*, *Oudemansiella mucida*, *O.radicata* etc. Other frequently occurring species are: *Fomesfomentarius*, *Schizopora paradoxa* s.l., *Trametes versicolor*, *Trechispqra vaga* (grows in *Abieti-Fagetum* too). Beech-and-fir forest is characterized by species connected with *Fagus* and *Abies* like *Ganoderma lipsiense* and *Fomitopsis pinicola* (Tortić 1988); In Galičica Mt., the first species is established only in beech forests, while in beech-and-fir forests, species which occurs most frequently are *Trichaptum abietinum*, *Amylo-stereum chailletii* etc.

In xerophyte association of the greek juniper the dominant species are bound to *Juniperus excelsa* (*Antrodia juniperina*, *Hyphodontia junipericola*, *Pyrofomes demidoffii*) but there are also other species which grow on other hosts such as: *Meruliopsis hirtellus*, *Peniophora meridionalis*, *Phellinus tu-*

berculosus, *Radulomyces rickii*, *Scytinostroma aluta* etc., (Tab. 1).

The fungi were recorded on 26 hosts. Analyzing the occurrence of certain species on different hosts resulted in the following conclusions. The majority of the species grew on *Quercus* (*Q.cerris*, *Q.frainetto*, *Q.trojana*, *Q.petraea* and *Q.pubescens*), in all 84 species or 59,6%. 50 species were collected on *Fagus* (35,4%), 31 species (22%) on *Carpinus* (*Corientalis* and *C.pubescens*), 18 species on *Ostrya*, 17 species on *Acer* (*A.campestre*, *A.monspensulanum* and *A.obtusatum*), 21 species on *Juniperus* *U.excelsa* and *I. oxycedrus*), 15 species on *Abies borisii regis*, on *Fraxinus ornus* and *Cornus mas* are collected 9 species each, on *Corylus avellana* 8 species, on *Salix* (*Salix* sp., *S.alba*, *S.babilonica*, *S.caprea*, *S.triandra*) and *Populus* (*P.nigra* and *P.tremula*) 6 species each, on *Amygdalus webbii* and *Celtis glabrata* 3 species each, on *Juglans regia* and *Pinus* (cultivated) 2 species each, on *Castanea sativa*, *Clematis* sp., *Crataegus* sp., *Hedera helix*, *Prunus* (*P.cerasifera*, *P.jahaleb*), *Pyrus* sp., *Robiniapseudacacid*, *Rosmarinus officinalis*, *Sorbus torminalis* and *Tilia platiphyllos* only 1 species on each, while 2 species were collected on unfamiliar hosts.

Over 38 % of the species are equally common for two or more hosts. The most characteristic ones are: *Cerrena unicolor*, *Dichomitus campestris*, *Fomes fomentarius*, *Gloeocystidiellum luridum*, *Peniophora incamata*, *P. quercina*, *Phanerochaete velutina*, *Schizopraparadoxa* s.l., *Steccherinum fimbriatum*, *S.ochraceum*, *Stereum hirsutum*, *Trametes versicolor* etc. Other species, on the other hand, give priority to certain hosts such as *Peniophora quercina* on *Quercus* spp. although it also



Graph 3. Variation of the number of species lignicolous macromycetes on different hosts (substrates) on Galičica Mt.
Граф. 3. Варијација на бројот на видовите лигниколни макромицети на различни домаќини на планината Галичица.

grows here on *Acer*, *Carpinus*, *Cornus*, *Corylus*, *Fagus* and *Ostrya* but very rarely. Except on the main host *Quercus* spp. *Hymenochaete subfuliginosa* grows also on *Carpinus*, *Fagus* and *Ostrya* and *Dichomitus campestris* which prefers *Quercus* spp. and *Corylus* spp., here was also collected on *Carpinus*, *Crataegus*, *Fagus* and *Ostrya*. *Vuilleminia comedens* s.l. behaves similarly. It is one of the commonest species in this area which grows like saprophyte on prostrate branches of broadleaved *Quercus* spp. and *Corylus* spp. The species is recorded only in broad sense, because the specimens of *Corylus* probably belong at least partly to the recently separated species *Vuilleminia coryli* Bold. Lanquet Gilles. In Galičica Mt., except on original substrate, this species occurs on *Castanea*, *Carpinus* and *Ostrya* too, although much more rarely.

Unlike these fungi, there are also some exceptions about the occurrence of some species, as well as about the host or substrates on which they grow. For instance, *Auricularia mesenterica*, *Lenzites betulina*, *Tremellajnesenterica* and *Trametes gibbosa*, which are elsewhere common species occurring in abundance, here were collected only once on *Quercus* spp. (the last one also on *Populus* - once). *Datronia mollis* which prefers *Fagus*, here was collected only once on *Quercus*, *Peniophora laeta* which grows exclusively on *Carpinus* spp., here was collected on *Ostrya*, while *Resinicium bicolor* which usually grows on conifers, was collected once on *Fagus*.

The rest of the species is more or less specific for certain hosts. Such species for *Quercus* spp. are: *Xylobolus subpileatus* (especially on *Q. cerris*), *Hexagonia nitida* and *Vuilleminia megalospora* (both especially on *Q. trojana*), *Daedalea quercina*, *Exidia truncata*, *Hapalopilus rutilans*, *Hymenochaete rubiginosa*, *Radulomyces molaris*, *Stereum gausapatum* and others. Characteristic species for *Fagus* are: *Marasmius alliaceus*, *Mycena renati*, *Oudemansiella mucida*, *O. radicata*, *Stereum insignitum* etc, and for *Abies*: *Amylostereum chailletii*, *Hymenochaete cruenta*, *Phlebia queletii*, *Trichaptum abietinum* etc. For *Juniperus*, such species are: *Amylostereum laevigatum*, *Hyphodontia juniperi*, *Peniophora junipericola*, while *Antrrodia juniperina* and *Pyrofomes demidoffii* grow exclusively on *J. excelsa*. On *Salix* grows *Phellinus igniarius*, and on *Prunus* (*Amygdalus*) *Phellinus tuberculosus*.

The majority of the established species are saprophytes; only few parasites were recorded, of which *Fomes fomentarius* is the commonest in this area. It usually grows on *Fagus*, sometimes on *Quercus*, while on *Acer*, *Carpinus*, *Juglans*, *Ostrya*

and *Populus* it occurs rarely and in single finds. *Phellinus torulosus* is a parasite able to develop on many different hosts and its fruitbody usually grows at the base of infected trunks. It is rare in Galičica, occurring in single finds on *Acer*, *Celtis* and *Quercus*. *Fistulina hepatica* and *Laetiporus sulphureus* are well known parasites and saprophytes on *Quercus* and *Castanea*, the second also *Fagus* and *Salix*. The fact that there are only single finds is probably due to the short lived fruitbodies. The former species was found on *Quercus*, and the latter on *Amugdalus* and *Salix*. *Ganoderma lipsienst* and *Fomitopsis pinicola* grow on broadleaved trees and conifers. In Galičica both species grow on stumps and logs as saprophytes. Less frequently, the former occurs on *Fagus* and the latter on *Abies*. *Heterobasidium annosum* is a parasite that prefers conifers. Nevertheless here it was found on *Fagus* several times. As for the other species, *Pyrofomes demidoffii*, *Phellinus igniarius* and *Phellinus tuberculosus* are of special importance. They are already mentioned above, (Tab. 2).

As it is visible from the results of the investigations presented in the tables, there are differences between the occurrence of particular species of fungi in Galičica and their distribution and frequency as reported in the available literature. Some of the most interesting ones are discussed here, particularly those considered as rare elsewhere.

Meruliopsis hirtellus is rare species in Europe. It was noted for the first time in Macedonia, in vicinity of Katlanovo, near Skopje (Pilšt & Lindner 1938). Later, it was published by Tortić & Karadelev (1986) on *Quercus coccifera* from southern Povardarje and Tortić (1988) from Skopska Crna Gora (Northern Macedonia) on *Quercus petraea*. In the investigated area it has been collected on Golem Grad Islet on *Juniperus excelsa*.

Peniophora meridionalis has a Mediterranean distribution. Tortić & Karadelev (1986) have published it on *Carpinus*, *Punica*, *Quercus* and *Ulmus* from southern Povardarje, and in the investigated area it was registered on Golem Grad Islet on a dead branch of *Celtis glabrata*.

Dichostereum durum is a rare species in Europe. It was noted in a few localities where it grew on *Carpinus*, *Castanea* and *Pyrus* (Boidin & Lanquetin 1980). In Galičica Mt. it was registered only once on a dead branch of *Quercus frainetto*.

Xylobolus frustulatus and *X. subpileatus* are new finds in Macedonia. The former has a sub-Mediterranean-subcontinental distribution and grows particularly on oak-trees (Kotlaba 1986). In Galičica Mt. it was collected on 2 localities on stumps and

logs of *Quercus cer ris* and *Q.frainetto*. The later is distributed submediterranealy and usually grows on fallen trunks of *Q. cerris* (Kotlaba 1985). It was collected only once on *Q.cerris*.

Antrodiajuniperina is widely known in East Africa (Niemela & Ryvarden 1975), in the USA (Gilbertson & Ryvarden 1986) and in Europe only in Spain (Garcia-Manjon & Moreno 1981). All the specimens were parasites and saprophytes *onluniperus* spp. In Galičica Mt. it is frequent on *J. excelsa*.

Pyrofomes demidoffii is a dangerous parasite on old trunks of *Juniperus* spp. The map of its distribution in the world was made by Ryvarden (1991). From Macedonia it was published by Pilat (1937, 1936-42) from the vicinity of Ohrid Lake on *Cupressus sempervirens*, and later also from Katlanovo (near Skopje) on *Juniperus excelsa* (Koleva - Šekutkovska 1959). Recently it was collected at lake Prespa, also on *J. excelsa* (Tonic 1987). In Galičica Mt. it is frequent in all the localities of *J. excelsa*.

REFERENCES

- Boidin.J. & Lanquetin,P. (1980). Contribution a 1 etude du genre *Dichostereum* Pilat (Basidiomycetes Lachnocladiaceae). Bull. Soc. Myc. France, Tome 96, No.4. Eriksson.J. & Ryvarden,L. (1973). The Corticiaceae of North Europe 2. Fungiflora, Oslo. Eriksson.J. & Ryvarden,L. (1975). The Corticiaceae of North Europe 3. Fungiflora, Oslo. Eriksson.J. & Ryvarden,L. (1976). The Corticiaceae of North Europe 4. Fungiflora, Oslo. Eriksson,J., Hjortstam,K. & Ryvarden,L. (1978). The Corticiaceae of North Europe 5. Fungiflora, Oslo. Eriksson,J., Hjortstam,K. & Ryvarden,L. (1981). The Corticiaceae of North Europe 6: Eriksson,J., Hjortstam,K. & Ryvarden,L. (1984). The Corticiaceae of North Europe 7. Fungiflora, Oslo. Garcia-Manjon,J. & Moreno,G. (1981). Estudios sobre Aphyllophorales I. Fructificationes sobre *Juniperus*. An.Jard.Bot.Madrid 37 (2): 407-416. Gilbertson, R. & Ryvarden,L. (1986). North American polypores 1. Fungiflora, Oslo. Gilbertson,R. & Ryvarden,L. (1987). North American polypores 2. Fungiflora, Oslo. Gračanin,M. (1950). Mjesečni kišni faktori i njihovo značenje u pedološkim istraživanjima. Polj. znanst. Smotra, 12, 51-67. Грџоска,М. (1970). Инвентаризација на штетните габи во некои региони на буката во СР Македонија. Годишен зборник на Зем.-Шум.фак., Скопје 23,117-135. Jahn,H., Nespiak,A. & Tuxen,R. (1967). Pilzokologishe Untersuchungen in Buchenwaldern des Wesergebirges. Mitt.flor.-soc. Arbeitsgem.N.F. 11/12, 159-197. Julich.W. (1984). Die Nichtblaterpilze, Gallertpilze und Bauchpilze. Kleine Kryptogamenflora Bd.II, b/1. Stuttgart. Karadelev,M. (1989). Lignicolous Aphyllophorales on *Quercus trojana* Web. in Macedonia, Biosistematika 24, 36-43. Koleva-Sekutkovska,M. (1959). Prilog poznavanju parazitne mikoflore Makedonije. Zaštita bilja 51, 107-115. Kotlaba,F. (1985). Pozoruhodny pevník *Stereum subpileatum* (Aphyllophorales), jeho ekologie a rozšireni se zvláštním zretelem k Československu. Česka mykologie 39 (4). Kotlaba,F. (1986). *Stereum frustulatum* - pevník rozpraskany, jeho ekologie a zemepisne rozšireni v Československu. Česka mykologie 40 (3). Mulev,M., Grupče,Lj. i Drenkovski,R.(1984). Sadržina ugljenih hidrata u listovima drvenastih vrsta makedonskog ekosistema sladima i cera (*Quercetum frainetto-cerridis macedonicum* Oberd. 1948, Em, Horvat 1959) u Nacionalnom parku Galičica. Ekologija, vol. 19, No.2, 101-109. Moser.M. (1983). Die Rohrlinge und Biatteerpilze. Kleine Kryptogamenflora Bd.II b/2. Stuttgart. Niemela,T. & Ryvarden,L. (1975). Studies in the Aphyllophorales of Africa IV: *Antrodia juniperina* new for East Africa. Trans.Br.Mycol.Soc. 65 (2): 427-432. Pilat,A. (1936-42). Polyporaceae. Atlas des champignons de 1 Evrope. Praha. Pilat.A. (1937). Contribution a la connaissance des Basidiomycetes de la peninsule des Balkans. Bull. Soc.mycol.France 53, 81-104. Pilat,A. & Lindtner,V. (1938). Ein Beitrag zur Kenntnis der Basidiomyceten von Siidserbien I. Гласник скопског научног друштва 18, 173-192. Ryvarden,L. (1976). The Polyporaceae of North Europe I. Fungiflora, Oslo. Ryvarden,L. (1978). The Polyporaceae of North Europe II. Fungiflora, Oslo. Ryvarden,L. (1991). Genera of Polypores. Nomenclature and taxonomy. Synopsis Fungorum 5. Fungiflora, Oslo. Tortic.M. (1980). Studies in the Corticiaceae (Mycophyta, Basidiomycetes) of Yugoslavia I. Biosistematika 6, 15-25. Tortic,M. (1987). Characteristic species of Aphyllophorales in the Mediterranean area of Yugoslavia. Biosistematika 13, 101-113. Tortic,M. (1988). Materials for the mycoflora of Macedonia (Yugoslavia). Макед.акад.на науките и уметностите, Скопје, 64 стр. Tortić.M. & Karadelev,M. (1986). Lignicolous macromycetes in the Submediterranean part of Macedonia (Yugoslavia). Acta Bot.Croat. 45, 109-117.

Tab. 1. Distribution of lignicolous macromycetes in different forests associations on Galicica Mountain

Таб. 1. Дистрибуција на лигниколните макромикети во различни шумски заедници на планината Галичица

Forests associations Шумски заедници	Q.fra.- cer.m.	Q.tro. mac.	Orno- Q.pet.	Ostryo- Q.cer.	Q.-Carp. o.mac.	Fes.h.- Fag	Cal.g.- Fag	Ab.- Fag.m.	Pr.web.- J.exc.	Out ass.
Number of observations Број на набљудувања	32	14	4	4	3	3	6	3	8	5
Number of species Број на видови	76	54	26	24	18	24	32	23	22	14
<i>Ganoderma lucidum</i>	4/n									
<i>Armillaria mellea</i> s.l.	3/n-a									
<i>Collybia fusipes</i>	3/n-a									
<i>Auricularia mesenterica</i>	3/n									
<i>Peniophora limitata</i>	2/n									
<i>Tremella mesenterica</i>	2/n									
<i>Polyporus mori</i>	2/r									
<i>Mycoacia uda</i>	2/r									
<i>Marasmius rotula</i>	1/n									
<i>Amphinema byssoides</i>	1/r									
<i>Junghuhnia nitida</i>	1/r									
<i>Hypochnicium punctulatum</i>	1/r									
<i>Polyporus brumalis</i>	1/r									
<i>Botryohypochnus isabelinus</i>	1/r									
<i>Polyporus ciliatus</i>	1/r									
<i>Amylostereum laevigatum</i>	1/r									
<i>Stromatoscypha fimbriata</i>	1/r									
<i>Hyphoderma sambuci</i>	1/r									
<i>Hyphodermella corrugata</i>	1/r									
<i>Dichostereum durum</i>	1/r									
<i>Gloeocystidiellum lactescens</i>	1/r									
<i>Fistulina hepatica</i>	1/r									
<i>Xylobolus frustulatus</i>	3/r			1/r						
<i>Coniophora arida</i>	2/n			1/r						
<i>Phlebiopsis roumeguerii</i>	1/r				1/r					
<i>Hyphoderma setigerum</i>	3/n					1/n				
<i>Phanerochaete laevis</i>	1/r					1/r				
<i>Pycnoporus cinnabarinus</i>	6/n					1/r				
<i>Trametes cervina</i>	1/r						1/r			
<i>Hypholoma fasciculare</i>	3/n						2/n			
<i>Hypholoma sublateritium</i>	2/n						1/n			
<i>Hiphodontia arguta</i>	1/r							1/r	2/r	
<i>Subulicistidium longisporum</i>	1/r								1/r	
<i>Polyporus arcularius</i>	2/n								1/r	
<i>Trametes gibbosa</i>	3/r									1/r
<i>Exidia truncata</i>	9/n-a		3/n							
<i>Aleurodiscus disciformis</i>	3/n	1/r								
<i>Mycoacia aurea</i>	2/r	1/r								
<i>Peniophora incamata</i>	6/n	3/n								
<i>Phanerochaete tuberculata</i>	2/r	1/r								
<i>Radulomyces molaris</i>	5/n	2/n								
<i>Stereum gausapatum</i>	2/n	2/n								
<i>Lenzites betulina</i>	2/r	1/r								
<i>Hymenochaete rubiginosa</i>	9/n	3/n		2/r						
<i>Steccherinum ochraceum</i>	3/n	1/n		1/r			1/r			
<i>Irpex lacteus</i>	2/r	2/r		1/r						
<i>Trametes hirsuta</i>	3/n	2/n		1/r						
<i>Daedalea quercina</i>	4/n	2/r		1/r	1/r					
<i>Lopharia spadicea</i>	4/n	2/n			1/r				1/r	
<i>Corticium polygonioides</i>	1/r	3/n			1/n	1/r				
<i>Gloeocystidiellum porosum</i>	2/n	2/n				1/n				

Forests associations Шумски заедници	Q.fra.- cer.m.	Q.tro. mac.	Orno- Q.pet.	Ostryo- Q.cer.	Q.-Carp. o.mac.	Fes.h.- Fag	Cal.g.- Fag	Ab.- Fag.m.	Pr.web.- J.exc.	Out ass.
<i>Peniophora cinerea</i>	1/r	2/n				1/r				1/r
<i>Phanerochaete sordida</i>	3/n	4/n				1/r				
<i>Hyphodontia crustosa</i>	2/n	3/n					2/n			
<i>Cylindrobasidium evolvens</i>	1/r	2/r	1/r							
<i>Hapalopilus rutilans</i>	14/n	1/r	2/r							
<i>Skeletocutis nivea</i>	3/n	2/n	2/n							
<i>Trechispora vage</i>	2/r		1/r			1/n	5/n	1/r		
<i>Stereum hirsutum</i>	24/n	11/n	2/n	3/n	2/n	2/n	5/n	1/n	1/r	
<i>Gloeocystidiellum luridum</i>	2/n	2/n	1/n	1/n	2/n	2/n			1/r	1/r
<i>Cerrena unicolor</i>	6/n	2/n	1/r	1/r	1/r	2/n	1/r			
<i>Fomes fomentarius</i>	5/n	1/r	2/r			2/n	5/n	1/n		4/n
<i>Trametes versicolor</i>	18/n	3/n	2/n	2/n		4/n	6/n			2/n
<i>Peniophora quercina</i>	14/n	5/n	1/n	1/n		1/r				
<i>Phanerochaete velutina</i>	8/n	3/n	1/r	1/r		2/n				
<i>Scopuloides hydroides</i>	3/n	1/r	1/r			1/r		1/r		
<i>Phlebia rufa</i>	5/n	2/n	1/r	1/r			1/r			
<i>Steccherinum fimbriatum</i>	11/n	3/n	1/r	1/n			3/n	1/r		
<i>Vuilleminia comedens s.l.</i>	24/n-a	5/n	4/n	4/n	3/n		1/r			
<i>Hyphoderma praetermissum</i>	4/n	2/n	1/r		1/n		1/r			
<i>Dichomitus campestris</i>	7/n	4/n	2/r	1/r	1/r					
<i>Polyporus varius</i>	8/n	1/r		1/r		2/n	4/n	1/n		1/r
<i>Schizopora paradoxa s.l.</i>	7/n	4/n		1/r	2/n	2/n	4/n			1/r
<i>Hymenochaete subfuliginosa</i>	4/n	3/n		1/r	1/r	1/r	1/r			
<i>Panellus stypticus</i>	15/n	3/n		2/n	2/n	3/n				
<i>Tubulicrinis gracilimus</i>	1/r								1/r	
<i>Scytinostroma aluta</i>		2/n							2/n	
<i>Phellinus torulosus</i>		2/r							1/r	
<i>Phellinus tuberculosus</i>		1/r							3/n	4/n
<i>Calocera cornea</i>		1/r								
<i>Peniophora junipericola</i>		2/r								
<i>Vuilleminia megalospora</i>		9/n-a								
<i>Hymenochaete tabacina</i>		1/r								
<i>Datronia mollis</i>		1/r								
<i>Eichleriella deglubens</i>		1/r	1/r							
<i>Gloeocystidiellum leucoanthum</i>		4/n	1/r							
<i>Scytinostroma hemidichophyticum</i>			1/r	1/r						
<i>Hexagonia nitida</i>		4/n	1/r							
<i>Phellinus ferruginosus</i>		2/r	1/r		1/r				2/r	
<i>Hymenochaete cinnamomea</i>			1/r		1/r					
<i>Corticium roseum</i>			1/r				1/r			
<i>Bjerkandera adusta</i>			1/r			2/n	3/n	1/n		
<i>Polyporus squamosus</i>				1/r			5/n	1/r		
<i>Peniophora laeta</i>				1/r						
<i>Xylobolus subpileatus</i>				1/r						
<i>Hyphodontia alutaria</i>					1/r					
<i>Merulioopsis corium</i>					1/r					
<i>Phellinus punctatus</i>					1/r					1/r
<i>Marasmius alliaceus</i>						3/n		1/n		
<i>Resinicium bicolor</i>						1/r				
<i>Hirneola auricula judae</i>						1/r	1/r			
<i>Trechispora farinacea</i>							1/r			
<i>Oudemansiella radicata</i>							2/n			
<i>Ganoderma lipsiense</i>							2/n			
<i>Stereum rugosum</i>							2/n			

Forests associations Шумски заедници	Q.fra.- cer.m.	Q.tro. mac.	Orno- Q.pet.	Ostryo- Q.cer.	Q.-Carp. o.mac.	Fes.h.- Fag.	Cal.g.- Fag.	Ab.- Fag.m.	Pr.web.- J.exc.	Out ass.
<i>Datronia stereoides</i>							2/r			
<i>Heterobasidion annosum</i>							2/n			
<i>Mycena renati</i>							3/n			
<i>Stereum insignitum</i>							3/n	1/n		
<i>Oudemansiella mucida</i>							2/n	1/n		
<i>Lycoperdon pyriforme</i>							1/r	1/n		
<i>Phlebia livida</i>							1/r	1/r		
<i>Formitopsis pinicola</i>								2/n		
<i>Trichaptum abietinum</i>								2/n		
<i>Aleurodiscus amorphus</i>								2/n		
<i>Peniophora piceae</i>								1/r		
<i>Phlebia queletii</i>								1/r		
<i>Vararia investiens</i>								1/r		
<i>Amylostereum chailletii</i>								2/n		
<i>Hymenochaete cruenta</i>								1/r		
<i>Hymenochaete fuliginosa</i>								1/r	2/r	
<i>Antrodia juniperina</i>									6/n	
<i>Gloeophyllum abietinum</i>									2/r	
<i>Laetiporus sulphureus</i>									1/r	
<i>Pyroformes demidoffii</i>									5/n	
<i>Vesiculomyces citrinus</i>									1/r	
<i>Hyphoderma pallidum</i>									1/r	
<i>Hyphodontia juniperi</i>									5/n	
<i>Meruliopsis hirtellus</i>									2/r	
<i>Peniophora meridionalis</i>									1/r	
<i>Radulomyces rickii</i>									2/r	
<i>Phellinus igniarius</i>										1/r
<i>Peniophora pini</i>										1/r
<i>Perenniporia fraxinea</i>										1/r
<i>Pleurotus ostreatus</i>										1/r
<i>Volvariella bombycina</i>										1/r

Faget.subalp.scard.-pind.: *Stereum hirsutum*, *Fomes fomentarius*, *Polyporus squamosus*, *Schizopora paradoxa* s.l.

Sal.a.-frag.: *Hyphoderma praetermissum*, *Phellinus igniarius*, *Cerrena unicolor*, *Laetiporus sulphureus*, *Trametes versicolor*

Abbreviations: Q.fra.-cer.m. = *Quercetum frainetto-cerridis macedonicum*, Q.tro.mac. = *Quercetum trojanae macedonicum*, Orno-Q.pet. = *Orno-Quercetum petraeae*, Ostryo-Q.cer. = *Ostryo-Quercetum cerris*, Q.-Carp.o.mac. = *Queroo-Carpinetum orientalis macedonicum*, Fes.h.-Fag. = *Festuco heterophyllae-Fagetum*, Cal.g.-Fag. = *Calamintho grandiflorae-Fagetum*, Ab.-Fag.m. = *Abieth Fagetum macedonicum*, Pr.web.-J.exc. = *Pruno webbii-Juniperetum excelsae*, Faget.subalp.-scard.pind. = *Fagetum subalpinum-scar-dopindicum*, Sal.a.-frag. = *Salicetum albae-fragilis*, Out ass. = Out of associations.

Tab. 2. Distribution of lignicolous macromycetes on different hosts in the mountain Galičica

Таб. 2. Дистрибуција на лигниколните макромикети на различни домаќини на планината Галичица

Hosts Домаќини	Quer- cus	Fagus	Car- pinus	Ostrya	Acer	Juni- perus	Abies	Fraxi- nus	Cornus	Cory- lus
Number of observations Број на набљудувања	43	13	7	5	5	8	3	4	3	4
Number of species Број на видови	84	44	31	18	17	21	15	9	9	8
<i>Gloeocystidiellum luridum</i>	2/n	2/n	2/n	1/n	1/r	1/r		1/r	1/r	
<i>Phanerochaete velutina</i>	7/n	2/n	1/n	1/n	1/n	1/r			1/n	1/n
<i>Peniophora quercina</i>	16/n	1/r	1/n	1/n	1/r				1/r	1/r
<i>Stereum hirsutum</i>	31/n	9/n	5/n	3/n	2/n			2/n		
<i>Fomes fomentarius</i>	5/r	9/n	2/r	1/r	1/r					
<i>Steccherinum ochraceum</i>	3/n	1/r	1/n	1/r						
<i>Hymenochaete subfuliginosa</i>	7/n	2/r	1/r	1/r						
<i>Panellus stypticus</i>	19/n	3/n	2/n	1/n						
<i>Dichomitus campestris</i>	11/n	1/r	1/r	1/r						2/n
<i>Phanerochaete sordida</i>	4/n	1/r	2/n					1/n		
<i>Cerrena unicolor</i>	5/n	3/n	1/r		3/n			1/r		
<i>Scopuloides hydroides</i>	4/n	1/r	1/r				1/r			
<i>Schizopora paradoxa</i> s.l.	8/n	7/n	3/n		1/r				1/r	1/r
<i>Trametes versicolor</i>	21/n	10/n	2/n							2/n
<i>Phlebia rufa</i>	8/n	1/r			1/r					
<i>Hyphodontia crustosa</i>	4/n	2/n			1/r					
<i>Trechispora vaga</i>	2/r	6/n			1/r		1/r			
<i>Crustomyces subabruptus</i>	4/n	2/n					1/n			
<i>Steccherinum fimbriatum</i>	14/n	3/n		1/n		1/r	1/r			
<i>Polyporus varius</i>	9/n	7/n		1/r						
<i>Pycnoporus cinnabarinus</i>	6/n	1/r								
<i>Hypholoma sublateritium</i>	2/n	1/n								
<i>Hypholoma fasciculare</i>	3/n	2/n								
<i>Hyphoderma setigerum</i>	3/n	1/n								
<i>Phanerochaete laevis</i>	1/r	1/r								
<i>Trametes cervina</i>	1/r	1/r								
<i>Gloeocystidiellum porosum</i>	2/n	1/n						1/r		1/n
<i>Armillaria mellea</i> s.l.	3/n-a	1/n								
<i>Phellinus torulosus</i>	1/r			1/r						
<i>Gloeocystidiellum leucoxanthum</i>	2/n			1/r	2/n					
<i>Coniophora arida</i>	2/n				1/r					
<i>Peniophora incamata</i>	4/n	2/n	1/n			1/n			1/r	
<i>Skeletocutis nivea</i>	4/n		1/r					1/r	1/r	
<i>Trametes hirsuta</i>	3/n		1/n		1/r	1/r				
<i>Phellinus ferruginosus</i>	2/r		1/r	1/r		2/r				
<i>Vuilleminia comedens</i> s.l.	32/n-a		3/n	2/n						4/n
<i>Hyphoderma praetermissum</i>	8/n		1/n							
<i>Corticium polygonioides</i>	2/n		1/n						1/r	
<i>Eichleriella deglubens</i>	1/r		1/r							
<i>Lopharia spadicea</i>	7/n		1/r							
<i>Phlebiopsis roumeguerii</i>	2/r		1/r							
<i>Hyphodontia arguta</i>	1/r					2/r	1/r			
<i>Tubulicrinis gracilimus</i>	1/r					1/r				
<i>Subulicystidium longisporum</i>	1/r					1/r				
<i>Hapalopilus rutilans</i>	17/n									
<i>Hymenochaete rubiginosa</i>	14/n									
<i>Exidia truncata</i>	12/n-a									
<i>Vuilleminia megalospora</i>	9/n-a									
<i>Daedalea quercina</i>	8/n									

Hosts Домаќини	Quer- cus	Fagus	Car- pinus	Ostrya	Acer	Juni- perus	Abies	Fraxi- nus	Cornus	Cory- lus
<i>Radulomyces molaris</i>	7/n									
<i>Hexagonia nitida</i>	5/n									
<i>Irpex lacteus</i>	5/r									
<i>Stereum gausapatum</i>	4/n									
<i>Ganoderma lucidum</i>	4/n									
<i>Aleurodiscus disciformis</i>	4/n									
<i>Xylobolus frustulatus</i>	4/r									
<i>Collybia fusipes</i>	3/n-a									
<i>Polyporus arcularius</i>	3/n									
<i>Auricularia mesenterica</i>	3/n									
<i>Trametes gibbosa</i>	3/r									
<i>Phanerochaete tuberculata</i>	3/r									
<i>Mycoacia aurea</i>	3/r									
<i>Lenzites betulina</i>	3/r									
<i>Tremella mesenterica</i>	2/n									
<i>Polyporus mori</i>	2/r									
<i>Mycoacia uda</i>	2/r									
<i>Marasmius rotula</i>	1/n									
<i>Xylobolus subpileatus</i>	1/r									
<i>Tremella foliacea</i>	1/r									
<i>Trametes pubescens</i>	1/r									
<i>Stromatoscypha fimbriata</i>	1/r									
<i>Scytinostroma hemidichophyticum</i>	1/r									
<i>Polyporus ciliatus</i>	1/r									
<i>Polyporus brumalis</i>	1/r									
<i>Junghuhnia nitida</i>	1/r									
<i>Hypochnicium punctulatum</i>	1/r									
<i>Hyphodermella corrugata</i>	1/r									
<i>Gloeocystidiellum lactescens</i>	1/r									
<i>Fistulina hepatica</i>	1/r									
<i>Dichostereum durum</i>	1/r									
<i>Datronia mollis</i>	1/r									
<i>Botryohypochnus isabelinus</i>	1/r									
<i>Amphinema byssoides</i>	1/r									
<i>Peniophora cinerea</i>	3/n									1/r
<i>Stereum insignitum</i>		4/n								
<i>Marasmius alliaceus</i>		4/n								
<i>Oudemansiella mucida</i>		3/n								
<i>Mycena renati</i>		3/n								
<i>Lycoperdon pyriforme</i>		2/r-n								
<i>Datronia stereoides</i>		2/r								
<i>Stereum rugosum</i>		2/n								
<i>Oudemansiella radicata</i>		2/n								
<i>Heterobasidion annosum</i>		2/n								
<i>Trechispora farinacea</i>		1/r								
<i>Resinicium bicolor</i>		1/r								
<i>Phlebia livida</i>		1/r					1/r			
<i>Ganoderma lipsiense</i>		2/n								
<i>Himeola auricula judae</i>		2/r								
<i>Bjerkandera adusta</i>		5/n	1/r							
<i>Polyporus squamosus</i>		7/n	1/r							
<i>Hymenochaete cinnamomea</i>			1/r						1/r	
<i>Phellinus punctatus</i>			1/r							
<i>Calocera comea</i>			1/r							
<i>Hyphodontia alutaria</i>			1/r							
<i>Scytinostroma aluta</i>			1/n	1/r		1/r			1/r	
<i>Peniophora laeta</i>				1/r						

Hosts Домакини	Quer- cus	Fagus	Car- pinus	Ostrya	Acer	Juni- perus	Abies	Fraxi- nus	Cornus	Cory- lus
<i>Cylindrobasidium evolvens</i>				3/r	1/r					
<i>Meruliopsis corium</i>					1/r					
<i>Peniophora limitata</i>					1/n			1/n		
<i>Antrodia juniperina</i>						6/n				
<i>Pyrofomes demidoffii</i>						5/n				
<i>Hyphodontia juniperi</i>						5/n				
<i>Radulomyces rickii</i>						2/r				
<i>Peniophora junipericola</i>						2/r				
<i>Meruliopsis hirtellus</i>						2/r				
<i>Gloeophyllum abietinum</i>						2/r				
<i>Vesiculomyces citrinus</i>						1/r				
<i>Hyphoderma pallidum</i>						1/r				
<i>Hymenochaete tabacina</i>						1/r				
<i>Amylostereum laevigatum</i>						1/r				
<i>Hymenochaete fuliginosa</i>						2/r	1/r			
<i>Trichaptum abietinum</i>							2/n			
<i>Fomitopsis pinicola</i>							2/n			
<i>Amylostereum chailletii</i>							2/n			
<i>Aleurodiscus amorphus</i>							2/n			
<i>Vararia investiens</i>							1/r			
<i>Phlebia queletii</i>							1/r			
<i>Peniophora piceae</i>							1/r			
<i>Hymenochaete cruenta</i>							1/r			
<i>Corticium roseum</i>								1/r		

Amygdalus: *Scytinostroma aluta*, *Phellinus tuberculosus*, *Laetiporus sulphureus*

Castanea: *Vuilleminia comedens* s.l.

Celtis: *Peniophora meridionalis*, *Scytinostroma aluta*, *Phellinus torulosus*

Clematis: *Hyphoderma sambuci*

Crataegus: *Dichomitus campestris*

Hedera: *Cerrena unicolor*

Juglans: *Fomes fomentarius*, *Polyporus varius*

Ріпніс(култ.): *Peniophora pini*, *Pleurotus ostreatus*

Populus: *Bjerkandera adusta*, *Fomes fomentarius*, *Perenniporia fraxinea*, *Trametes gibbosa*, *T. versicolor*, *Volvariella bombycina*

Prunus: *Phellinus tuberculosus*

Pirus: *Trametes versicolor*

КВАЛИТАТИВНО-КВАНТИТАТИВНА АНАЛИЗА НА ЛИГНИКОЛНИТЕ МАКРОМИЦЕТИ ВО РАЗЛИЧНИ ШУМСКИ ЗАЕДНИЦИ НА ПЛАНИНАТА ГАЛИЧИЦА

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РЕЗИМЕ

Во истражуваното подрачје собрани се 141 вид на лигниколни габи од класата Basidiomycetes. Габите се систематизирани во 17 фамилии од кои најбројни со видови се Corticiaceae (56) и Polyporaceae (35).

Материјалот е собиран во текот на 4 години (1986-1990) на 18 локалитети, главно на Преспанската страна на планината Галичица, на терен со висинска разлика од 700-1750 т.

Истражувањата се вршени во 11 шумски фитоценози, со максимум на видови во дабовите заедници (5).

Во однос на супстратот габите се собрани на 26 разни родови дрвја и грмушки. Најмногу видови се собрани на *Quercus* spp. и *Fagus sylvatica*. Најголемиот дел од регистрираните видови не се карак-теризираат со супстратна специфичност иако доаѓаат и такви кои растат специјално на еден род па и вид домаќин. За *Quercus* spp. такви се: *Xylobolus subpiletaus* (специјално на *Q. cerris*), *Hexagonia nitida* и *Vuil-lemnia megalospora* (обата специјално на *Q. trojana*), *Daedalea quercina*, *Exidia trunacata*, *Hapalopilus rutilans*, *Hymenochaete rubiginosa*, *Radulomyces molaris* и др. За *Fagus* карактеристични видови се: *Marasmius alliaceus*, *Mycena renati*, *Oudemansiellamucida*, *O. radicata*, *Stereum insignitum* tnp., а за *Abies*: *Amylostereum chailletii*, *Hymenochaete cruenta*, *Phlebia quelletii*, *Trichaptum abietinum* и др. За *Juniperus* такви се: *Amylostereum laevigatum*, *Hyphodontia juniperi*, *Peniophora junipericola*, *Antrodia juniperina* и *Pyrofomes demidoffii* растат специјално на *Juniperus excelsa*. На *Salix* специјално се развива *Phellinus igniarius*, а на *Prunus* (*Amygdalus*) *Phellinus tuberculosus*.

Бројноста на видовите лигниколни габи во разни шумски заедници, во разни типови шуми и на разни супстрати е дадена на посебни хистограми, а квалитативно-квантитативниот состав во разни шумски заедници и на разни супстрати е прикажан во две табели.

Некои од ретките и посебно занимливи видови како: *Meruliopsis hirtellus*, *Peniophora meridionalis*, *Dichostereum durum*, *Xylobolus frustulatus*, *Xsubpiletaus*, *Antrodia juniperina* и *Pyrofomes demidoffii* се посебно дискутирани.