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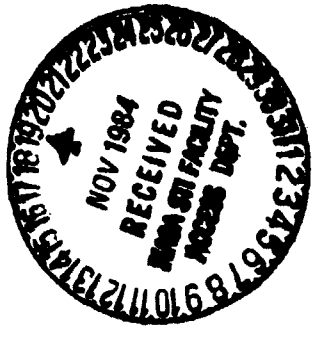
FUNGI OF MT. BABIA GORA
I. MYCOFLORA OF FORESTS

Anna Bujakiewicz

Translation of "Grzyby Babiej Gory, I. Mikoflora lasow," Acta Mycologica, Vol. 15, No. 2, 1979, pp. 213-294



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16. Abstract

The author gives a list of 617 taxons of fungi (macromycetes) recorded in the forests of Mt. Babią Gora in the Western Carpathians.

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THE F NGI OF MT. BABIA GORA /*213

1. The Mycoflora of Forests

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Introduction

The mycological literature of Poland has several studies of the fungus flora of mountain regions. These include, for example Bieszczfungus flora of the (Domanski and others 1960, 1963, 1967, 1970), Pienin (Guminska 1969, 1972, 1976), the Tatras (Nespiak 1960, 1962a and b; Frejlak 1973; Rudnicka-Jezierska 1965), Beskidi (Guminska 1962a and b, 1966; Wojewoda 1964, 1965, 1973; Domanski 1965; Lisiewska, Tortic, Szmid 1977), Karkonosza (Nespiak 1971; Domanski 1963) and Gore Shwietokrzyske (Lisiewska 1978, 1979). Despite this, the fungus flora of the mountain regions of our country is still insufficiently studied. One of the least known areas with regard to the mycoflora of the Polish Carpathians is the the Mt. Babia Gora massif.

Mt. Babia Gora is distinguished among the mountains in the bend of the Polish Carpathians by its special natural wonders. It is, after the Tatras, the highest massif in Poland. It is distinguished by a pronounced configuration of floristic levels, from the lower subalpine forests up to the alpine level. One of the most intersting traits of Mt. Babia Gora is the asymmetry in the incline of its slopes: the steep northern slope and the mild southern one, which within the scope of our country is a unique configuration. The plant life of Mt.

*Numbers in the margin indicate pagination in the foreign text

Babia Gora has been relatively little affected by man, and a large part of the massif lies protected inside of the Mt. Babia Gora National Park, created in 1954. /214

The natural wonders of Mt. Babia Gora have for a long time attracted naturalists from various specialities and fields. The monographic study of Mt. Babia Gora National Park (Szafer 1963) deserves special stress. The plant life of this massif has been the subject of many floristic and phytosociological studies (Zapalowicz 1880; Walas 1933; Celinski, Wojterski 1961, 1963, 1976, 1978 and others). Good botanical studies, and above all, accurate color maps of the distribution of the plant life of Mt. Babia Gora have allowed the development and become the basis of special studies on the occurrence and role of fungi in the distribution of the plant life of this massif.

The purpose of this paper is to present the results of a several year study on fungi, performed in 1968-1969 and 1972-1977 in permanent observation plots located on both slopes of the massif, in patches of 7 forest associations distinguished in this area and in highmoor (peat) patches. The study also encompassed forests on the southwest lopes of Mt. Babia Gora located inside of Czechoslovakia.

The results of the study will be presented in two successive papers. The first will encompass the floristic part, together with an analysis of the mycoflora, the second will contain a sociological-ecological discussion (the study was partially funded by the Ecological Committee of the Polish Academy of Sciences).

I wish here to express my deep appreciation to all those individuals who aided me during my field research and in processing the material. To Professor Dr. T. Wojterski go my fervid thanks for encouraging me to undertake the study on Mt. Babia Gora and for his scientific direction in the work. I thank Dr. W. Wojewod for his

valuable opinions, for his help in distinguishing and evaluating a series of fungi species and for the use of his catelog of the location of fungi in the Polish Capathians.

All of the following rendered me help in distinguishing and verifying a series of difficult fungi species: Dr. R. Agerer, Dr. V. Demoulin, Prof. Dr. S. Domanski, Dr. W.D. Graddon, Dr. G. Gulden, Doc. Dr. B. Guminska, Dr. M. Lawrynowicz, Pof. Dr. A. Nespiak, Dr. D.A. Reid and Dr. M. Svrchek. I wish to express my sincere thanks to all of these mentioned individuals. I also wish to thank Dr. A. Rusinski for distinguishing some species of mosses and peat and Mgr. B. Kupczyk for the careful sketching of fungi.

For important aid rendered me during my field research I wish to sincerely thank Mgr. W. Butowski and Dr. K. Rybnichki and Eng. J. Kuthan--workers of the Mt. Babia Gora National Park's Directorate. Special thanks go to the rangers of Mt. Babia Gora, of whose helpfulness and hospitality I availed myself many times during my field research. /215

A Sketch of the Physiography of Mt. Babia Gora

Mt. Babia Gora is the culmination of the High Beskid, which lies in the Western Carpathians. The massif height is 1725 meters above sea level.

The Orawska Valley separates Mt. Babia Gora in the south from the Tatra chain, on the east Mt. Babia Gora neighbors the Polici chain (1324 meters) and the Pilska massif (1557 meters) on the west. In the Beskid range the Mt. Babia Gora massif is bordered by markedly lower areas: from the east by the Krowiarki Pass (997 meters), and from the

west by the Jalowiecka Pass (990 meters). The main ridge of the massif has several pronounced rises and passes: these are beginning from the west: Cyl or Little Mt. Babia Gora (1517 m), the Brona Pass (1407 m), the Diablak peak (1725) and several ridge culminations: Glowniak (1619 m), Kepa (1525 m) and Sokolica (1367 m).

The geographical position of Mt. Babia Gora is $49^{0}30'$ north and $19^{o}25'$ west.

The Mt. Babia Gora massif is a ridge approximately ten kilometers long, running evenly with the latitude. The nothern slopes are steep, are characterized by a sharp sculpture and are covered with rock clefts, glacial ice and deep ravines. The less precipitous southern slopes fall to the Orawska Valley. The elevation difference for Mt. Babia Gora from the Zawoja side is 1100 meters, and 850 meters from the Stancowa side. The reason for the asymmetry of the slopes of Mt. Babia Gora is the special configuration of the layers of sandstone, making up the heart of the massif. These layers, lying obliquely, indicate a marked dip to the south. The erosion of the sandstone layers has started from the head and then on to the northern slopes, where numerous landslides and rock rubble have been caused in connection with this.

A thin interbedding of powdery-loam slate occurs among the layers of sandstone. The substratum has been strongly weathered and has been completely divested of calcium. In connection with this, the majority of soils found on Mt. Babia Gora have an acidic reaction. The differentiation of the soils here is considerable, depending on the elevation above sea level, exposure and sculpure of the terrain.

The main ridge of Mt. Babia Gora is part of the European Baltic-Black Sea Watershed. The waters of the northern slopes, mainly the

Jaworzyna and Jalowec Streams flow into the Baltic through the Skawica, Skawa and Wisla, while the waters from the southern slopes flow into the Black Sea through the Orawa, Wag and Danube. Fast mountain streams, beginning at numerous sources on both slopes of Mt. Babia Gora, carve deep ravines into the slopes. /216

Mt. Babia Gora is an isolated high mountain massif. These factors cause severe climatic conditions to predominate here. Strong winds, mainly from the west, which bring a good deal of humidity, have a special significance here. Winds from the southwest and south predominate.

The average yearly temperature on the northern slopes at the borders of the subalpine forests is only 4°C, around 2.5°C at the upper borders of the forest, 6.4°C at Zawoja, 3.7°C at Markowe Szczawiny, and 5.7°C at the base of the southern slopes, at Stancowa (Obrebska-Starklow 1963).

The vegetation period, connected narrowly with the thermal conditions, lasts for six months at the foot of massif, and only 3 months under its peak. The climate of Mt. Babia Gora is characterized by a thermal inversion, which occurs on the nothern slope of the massif for around 60 days during the year.

The amount of precipitation, conditioned by the relative altitude and exposure of the slope, amounts to the following: the average annual precipitation at the base of the northern slope of Mt. Babia Gora at Zawaya (700 m) is 1259 mm, 1474 mm at the borders of the subalpine forests at Markowe Szczawiny (1180 m) and only 1190 at the base of the southern slopes, at Stancowa (850 m) (data from climatic observations between 1957 and 1973, obtained in the Mt. Babia Gora National Park Directorate in Zawoja). The maximum precipitation in

the studied area occurs in summer (June-August). The summer precipitation is three times greater than in winter. The snow cover on all parts of the massive, the upper boundries of the forests, lasts over six months.

A Short Discription of the Floristic Levels on Mt. Babia Gora

Thanks to a significant elevation and the pronounced level variability of the climate, a floristic leveling has been created on Mt. Babia Gora, characteristic for high mountains. The forest level occupies an especially large area of the massive. The lower forests, in which 4 forest associations are distinguished, ranges from the base to 1150 meters high. Patches of Carpathian beech (Dentario glandulosae-Fagetum), which grow on the northern and southwestern slopes of the massive dominate here. Moreover, patches of mixed lower subalpine stands (Abieti-Piceetum montanum) and fir forests (Galio-Abietetum) also are numerous. Patches of the azonal association of alder (Caltho-Alnetum incanae) occupy a smaller area. /217
Constructed of regular spruce stands (Piceetum excelsae carpaticum), the lower subalpine forests range from 1150 m to 1390 m above sea level. On the edge of the forest appear patches of an azonal association of Carpathian sycamore (Sorbo aucupariae-Aceretum). The higher forests, from 1390 to 1650 meters form the dwarf pine layer dominated by the Pinetum mughi carpaticum association, and above this, up to 1725 meters, the alpine level with lichenaceous areas, fields of rock and boulders.

In connection with the mild incline of the southern and southwestern slopes of Mt. Babia Gora, and the slower flow of water tied to this, small patches of highmoors (peat) with Sphagnum magellanicum (=Sph. medium) have been formed at the base of these slopes, similar to patches of the Sphagnetum magellanici association (Malc. 1929) of Schwick (1933), whose description and geographical

differentiations in Europe have been given by Neuhaeusl (1972). Damp, mossy spruce stands, presently included in the Bazzanio-Piceetum association Br. Bl et Siss. and described in 1939 for Europe as the Matigobryeto-Piceetum association Br. Bl. et Siss. 1939, also appear here. Oberdorfer (1957) and Mykyshka et. al. (1968) have given the charateristics of the Bazzanio-Piceetum association.

The History of the Studies on Fungi on the Mt. Babia Gora Massive

The first references to the fungi of Mt. Babia Gora were made by Namyslowski (1911), who mentioned a series of species of rusts and Stec-Rouppertowa (1936), who provided several species of microscopic fungi. Boullard and Dominik (1960) performed research on Mt. Babia Gora on the mycotrophisms of beech forests.

The data concering the occurrence on Mt. Babia Gora of all the fungi is very sparse. The first data about these fungi was given by Wojewoda (1965), making a list of 118 species collected in the course of several hikes on Mt. Babia Gora between 1960 and 1963. Another source are the papers of the author (Bujakiewicz 1974, 1978 a and b), which present the results of multiyear mycosociological observations performed in the forests of the nothern slopes of Mt. Babia Gora. 99 species of fungi were mentioned in these works.

Besides the mentioned works, references to the occurrence of very interesting species of fungi on Mt. Babia Gora are found in the works of Wojewoda (1974 a, b, 1977), Heinrich, Wojewoda (1974) and Guminski (1976). The work of Kotlaba (1972) and Kuthan (1973), in which the sites of two rarer species of montane fungi on the Slovak side of the Mt. Babia Gora massif are given, also concern this.

The locations on Mt. Babia Gora of some species of fungi were also considered during the preparation of a map of the geographical distribution of montane fungi in Poland (Skirgiello 1970, 1972).

This paper makes up the first part of a broader discussion of the /218
fungal flora of Mt. Babia Gora. The subject of the research was montane fungi of the Basidiomycetes and Ascomycetes classes, which develop macroscopic fructifications. These fungi have often been described as macromycetes in mycological works.

The systematic mycological study was begun in 1968 on the nothern slope of Mt. Babia Gora in the most representative patches of 6 forest associations, mainly within the confines of the Mt. Babia Gora National Park. Research on the southern slope was begun in 1973, in patches of 5 forest associations, the majority of which were outside the Park's boundries.

The research was performed in permanent observation plots over a period of several years (3-5), predominately 3 times a year, in spring, summer and fall.

In order to obtain the most complete picture possible of the distribution of fungi over the entire expanse of the massive, observations covering the southwestern slopes of Mt. Babia Gora, lying within the borders of Czechoslovakia, were performed in September 1974 and 1976.

Simultaneously with the systematic studies in the permanent observation plots, field expeditions were made to note the occurrence of fungi on the entire expanse of Mt. Babia Gora.

Field work was aided by detailed maps, especially color maps of the plant communities of Mt. Babia Gora National Park (Celinski, Wojterski 1961), made in a scale of 1:12, 500, the Nowy Targ Authority map (1:25,000) and the tourist map of the Orava, Oravska Region (1:100,000).

In every area, the collection site was localized, the slope's exposure described and the elevation noted. The Paulina altimeter with a smallest division of 2 meters was used for measuring the elevation. The plant associations were defined accurately during the field work with regard to the plant communities, in which species of fungi appeared, the substratum was determined, as were the number of fructifications and their manner of growth.

On the map of the distribution of fungi sites on Mt. Babia Gora (Fig. 1), special sites correspond to points in the field at least 200 meters apart. Each site occupies a surface area of around 1 ha.

The list of fungi species placed in the paper contains for the most part collections from the permanent observation plots, and hence, fungi appearinng in the lower and upper subalpine forests of Mt. Babia Gora. Only an insignificant percentage is comprised of fungi species noted on the plateau, at the dwarf-pine and alpine levels.

Considering that earlier mycological research on Mt. Babia Gora /219
was limited to forest levels, the collected mycofloristic materials and elevation data for individual fungi species only provide an initial orientation about their perpendicular distribution on this massif. They still do not warrent the listing of the configuration of the elevation extremes for the fungi appearing on Mt. Babia Gora. /220
Since the absolute elevation range between the lowest site (700 m) and the highest (1660 m) in which fungi were gathered is rather large, the entire band of really 1000 meters was not all investigated. The sites in the dwarf-pine and alpine levels have a sporadic and occasional characater.

The purpose of this present paper is to provide material for understanding the vertical and horizontal distribution of species of fungi on Mt. Babia Gora and to perform an initial analysis of the mycoflora of the forests of this massif.

Considerations Concerning the Systematizations, Nomenclature and Lists of the Occurence of Species of Fungi

In the list of species, the division into the higher systematic units (classes and orders) is fundamentally based on the system of Gaeuman (1964). Within the confines of order, the species are listed alphabetically. The nomenclature of the majority of species is based on the newest monographic work accessible. The monograph of Dennis (1968) is used for representatives of the Ascomycetes class, and the works of Singer (1975), Corner (1966), Domanski (1974, 1975), Moser (1967), Nespiak (1975), Reid (1974), Schaeffer (1952) and Wojewoda (1977) are used for the representatives of the Basidiomycetes class.

The description of the occurrence of the species begins each time with the noting of the substratum and settlement in question, in which

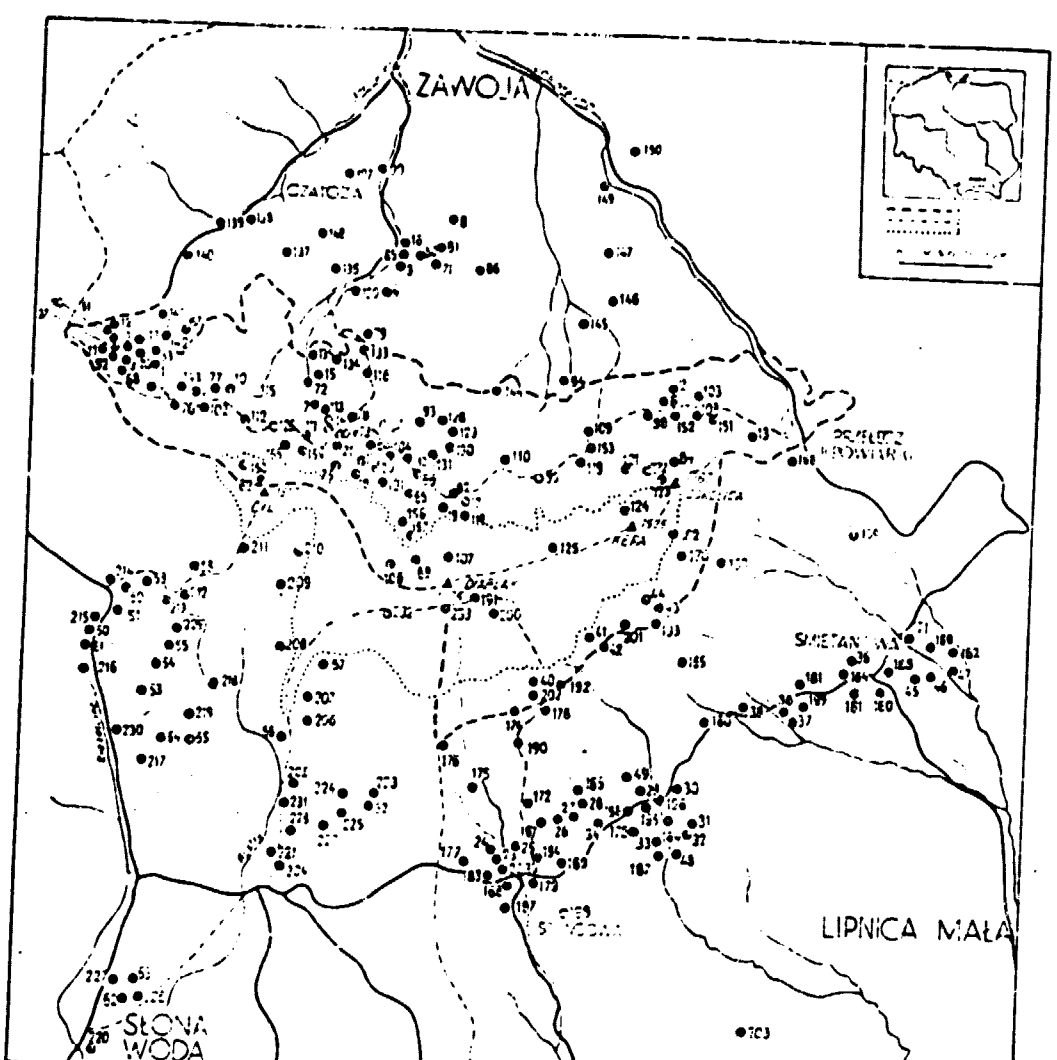

Fig. 1. Rozmieszczenie stanowisk grzybów na Babiej Górze

1 — granice Babiogórskiego Parku Narodowego; *2* — szlaki turystyczne i ścieżki; *3* — górna granica lasu

Distribution of localities of fungi on Babia Góra

1 — boundaries of the Babia Góra National Park; *2* — touristic trails and paths; *3* — upper forest limit

a given species occurs, and the estimation of the number of fructifications. The earlier noting of a species in the literature is designated by parentheses giving the author's name.

Other data is given for each slope separately. With the sign designating the slope's exposure (north, south) is mentioned the forest association (if the species appears in the studied area outside of the forest, it is designated at the beginning of the species' description), in which the given species of fungus occurs, relating the sequence to the decreasing frequency of the appearance of the fungus in them. Next, the elevation range encompassing measurements coming from all of the sites of fungi species is given. Furthermore, the time period is noted (the month), in which the fungus's fructification was collected, and the number of sites is defined by the numeral placed in brackets. The number of the sites is arranged according to increasing elevation in meters. All of the numbers of the sites are given for the rare or very interesting species, the number of the sites for the rest of the species is limited to 10, which is done so in order to provide a picture of the vertical and horizontal distribution of the species in the studied area. /221

A List of the Sites

The list encompasses 233 sites, from which comes data concerning the appearance of species of fungi on Mt. Babia Gora. The number of the sites at certain elevation ranges is given in table 1. Numbers from 1-65 designate on the map (Fig. 1) the location of permanent observation plots. For every site number is given: the slope's exposure, the name of the administrative unit, the closest locale and the elevation in meters.

An Explanation of the Abbreviations

N--the north slope
S--the south slope
W--the west slope
E--the east slope
BPN--Mt. Babia Gora National Park
Ndl. Sucha B.--the Sucha Beskidzka Authority
Ndl. N. Targ--the Nowy Targ Authority
L.G. Lipnica M.--the forests of the Mala Lipnica district
L.G. Lipnica W.--the forests of the Wielka Lipnca district
L.G. Zubrzyca G.--the forests of the Zubrzyca Gorna district
L.--the forest district

1. N, BPN, Knieja Czatozhanska, below Czarna Hala, 960.
2. N, BPN, Mokry Stawek, NW of the the little pond, 975.
3. N, BPN, Knieja Czatozhanska, NW of Czarna Hala, 970.
4. N, Ndl. Sucha B., L. Babia Gora, Suchy Gron, 820.
5. N, BPN, Knieja Czatozhanska, NW of Czarna Hala, 1000.
6. N, BPN, Mokry Stawek, W of the little pond, by Gorny Plaj, 1030.
7. N, BPN, Suchy Gron, W of Markowe Szczawiny, 1010.
8. N, Ndl. Sucha B., L. Babia Gora, Ryzowana, 730.
9. N, Ndl. Sucha B., L. Babia Gora, Suchy Gron, 730.
10. N, BPN, ski trail on Fitaky Gron, at Gorny Plaj, 1070.
11. N, BPN, Knieja Czatozhanska, E of the Jalowiecka Pass, 960.
12. N, BPN, Knieja Czatozhanska, above the Jalowiec stream, 880.
13. N, BPN, W of the Krowiarki Pass at Gorny Plaj, 1100.
14. N, BPN, Suchy Gron, W of Markowe Szczawiny, 1100.
15. N, BPN, Suchy Gron, in the valley of the Markowy stream, 935.
16. N, Ndl. Sucha B., L. Babia Gora, S of Zawoja Markowa, 710.
17. N, BPN, E of the Akademicka Perca at Gorny Plaj, 1225.
18. N, BPN, below the Brona Pass, 1310.
19. N, BPN, E. of the Akademicka Perca at Gorny Plaj, 1210.
20. N, BPN, S of Markowe Szczawiny, 1285.
21. N, BPN, W of Markowe Szczawiny, at Gorny Plaj, 1185.

22. 22. S, Ndl. N. Targ, L. Stancowa, 150 m N of the ranger's lodge, 880.
23. S, Ndl. N. Targ, L. Stancowa, above the Prywarowka stream, 888.
24. S, Ndl. N. Targ, L. Stancowa, N of the ranger's lodge, 898.
25. S, Ndl. N. Targ, L. Stancowa, 350 m NE of the ranger's lodge, 910.
26. S, Ndl. N. Targ, L. Stancowa, around 800 m NE of the ranger's lodge, 928.
27. S, Ndl. N. Targ, L. Stancowa, around 1 km NE of the ranger's lodge, 931. /222
28. S, Ndl. N. Targ, L. Stancowa, around 1.2 km NE of the ranger's lodge, 931.
29. S, Ndl. N. Targ, L. Stancowa, NW of Bartoszowa Polana, 860.
30. S, Ndl. N. Targ, L. Stancowa, NE of Bartoszowa Polana, 880.
31. S, L. G. Lipnica M., SE of Bartoszowa Polana, 832.
32. S, L. G. Lipnica M., SE of Bartoszowa Polana, 830.
33. S, Ndl. N. Targ, L. Stancowa, SE of Bartoszowa Polana, 815.
34. S, Ndl. N. Targ, L. Stancowa, SW of Bartoszowa Polana, 890
35. S, Ndl. N. Targ, L. Stancowa, Polana Meshkow, 875.
36. S, Ndl. N. Targ, L. Shmietanowa, E of the ranger's lodge, 830.
37. S, L. G. Lipnica M., S of Polana Gubernasowka, 860.
38. S, L. G. Lipnica M., S of Polana Gubernasowka, 870.
39. S, Ndl. N. Targ, L. Shmietanowa, W of Polana Gubernasowka, 890.
40. S, BPN, at the path from Lipnica to Babia Gora, 1305
41. S, BPN, the slope beneath Glowniak, 1290.
42. S, BPN, the slope beneath Glowniak at the layr path, 1220.
43. S, BPN, between and Glowniak and Kepa, 1300.
44. S, BPN, the slope between Glowniak and Kepa, 1305.
45. S, L. G. Lipnica M., above the village of Lipnica Mala, 790.
46. S, L. G. Lipnica M., above the village of Lipnica Mala, 788.
47. S, L. G. Lipnica M., below the Shmietanowa groves, 780.
48. S, Ndl. N. Targ, L. Stancowa, SW of Bartoszowa Polana, 810.
49. S, Ndl. N. Targ, L. Stancowa, W of Bartoszowa Polana, 870.
50. SW, Mala Babia Gora, at the path to Slona Woda, 1040.
51. SW, Mala Babia Gora, at the path to Slona Woda, 1010.
52. SW, Jodla, 1030.
53. SW, Bukowy Gron, 910.

54. SW, Bukowy Gron, 1030.
55. SW, Bukowy Gron, 1060.
56. SW, Jodla, at the Slona Woda-Babia Gora path, 1085.
57. SW, Kotlina under Babia Gora, 1330.
58. SW, Mala Babia Gora, at the Mala Babia G.-Slona-Woda path, 1345.
59. SW, Mala Babia Gora, at the Mala Babia G.-Slona-Woda path, 1140.
60. 60. SW, Zadni Wazhowiec, at the Mala Babia G.-Slona Woda path, 925.
61. SW, Zadni Wazhowiec, at the Mala Babia G.-Slona Woda path, 910.
62. SW, Slona Woda, NE of the settlement, 750.
63. SW, Slona Woda, NE of the settlement, 752.
64. SW, Wazhowiec, 935.
65. SW, Wazhowiec, 1015.
66. N, BPN, Akademicka Perch, 1250.
67. N. Ndl. Sucha B., L. Babia Gora, near Gruba Jodla, 800.
68. N, BPN, Knieja Czatozhanska, NW of Czrna Hala, 1030.
69. N, BPN, Mala Babia Gora, 1500.
70. N, BPN, Knieja Czatozhanska, in the Jalowec river basin, 900.
71. N, Ndl. Sucha B., L. Babia Gora, Ryzowana, 760.
72. N, BPN, Suchy Gron, in the Markowy Potok valley, 950.
73. N, BPN, W of Markowe Szczawiny, 1180.
74. N, BPN, Czarna Hala, 1080.
75. N, BPN, Maly Stawk, below Brona Pass, 1320.
76. N, BPN, E of Czarna Hala at the Urwicko Stream, 1080.
77. N, BPN, W of the ski trail to Fitaki Gron, 1075.
78. N, BPN, NW of Markowe Szczawiny, at the trail to Zawoja, 1100. / 223
79. N, Ndl. Sucha B., L. Babia Gora, Suchy Gron, 880.
80. N, Ndl. Sucha B., L. Babia Gora, SE of Zawoja Markowa, 750.
81. N, Ndl. Sucha B., L. Babia Gora, Ryzowana, 740.
82. N, BPN, E of Adademicka Perch at Gorny Plaj, 1200.
83. N, BPN, Knieja Czatozhanska, below Czrna Hala, 930.
84. N, BPN, the slope below Sokolica, 1300.
85. N, Ndl. Sucha B., L. Babia Gora, Zawoja Markowa, 725.
86. N, Ndl. Sucha B., L. Babia Gora, NW of Cyrhla, 850.
87. N, BPN, NE of Markowe Szczawiny, 1150.
88. N, BPN, SW of Markowe Szczawiny, 1200.

89. N, BPN, the slope of Diablak, at Akademicka Perch, 1450.
90. N, BPN, Knieja Czatozhanska, in the Jalowec valley, 955.
91. N, BPN, Knieja Czatozhanska, E of Jalowecka Pass, 900.
92. N, BPN, Knieja Czatozhanska, E of Jalowecka Pass, 965.
93. N, BPN, Dejakowe Szczawiny, 1080.
94. N, Ndl. Sucha B., L. Babia Gora, NW of Polana Zharnowka, 900.
95. N, BPN, SE o Sulowa, at Gorny Plaj, 1145.
96. N, BPN, at the mouth of Akademicka Perch at Gorny Plaj, 1180.
97. N, BPN, Knieja Czatozhanska, in the Jalowec river basin, 940.
98. N, BPN, at the head of trail to Sokolica at Gorny Plaj, 1040.
99. N, Ndl. Sucha B., L. Babia Gora, Zawoja Barancowa, 700.
100. N, BPN, W of Markowe Szczawiny, 1175.
101. N, BPN, NE of Izdebczsk, 1290.
102. N, BPN, E of Czrna Hala at Gorny Plat, 1090.
103. N, BPN, below Mokry Stawek, 1030.
104. N, BPN, NE of Markowe Szczawiny, at Gorny Plat, 1150.
105. N, BPN, below Izdebczysk, 1390.
106. N, BPN, between Koshciolky and Diablak, 1540.
107. N, BPN, Wielki Kamienisty Zhleb, below Diablak, 1560.
108. N, BPN, Mokry Stawek at Gorny Plat, 1050.
109. N, BPN, below Polana Zharnowka at Gorny Plat, 1060.
110. N, BPN, below Sulowa at Gorny Plat, 1145.
111. N, BPN, Markowy Stream at Gorny Plat, 1115.
112. N, BPN, Cylow Stream, at Gorny Plat, 1120.
113. N, BPN, Suchy Gron NW of Markowe Szczawiny, 1060.
114. N, BPN, SW of Markowe Szczawiny, below Brona Pass, 1240.
115. N, BPN, E of Czarna Hala at Gorny Plat, 1070.
116. N, BPN, Suchy Gron at the Markowe Szczawiny-Zawoja trail, 960.
117. N, BPN, Knieja Czatozhanska, in the Jalowec river basin, 930.
118. N, BPN, beneath Wiekly Kamienisty Zhleb, 1300.
119. N, BPN, SW of Polana Zharnowka, at Gorny Plat, 1100.
120. N, Ndl. Sucha B., L. Babia Gora, Shredni Bor, 740.
121. N, BPN, the slope between Kepa and Sokolica, 1230.
122. N, BPN, the slope of Sokolica, 1245.
123. N, BPN, the slope of Sokolica, 1280.
124. N, BPN, Kepa, 1500.

125. N, BPN, Glowniak, 1620.

126. N, BPN, Markow Stawek, 1150.

127. N, Zawoja Barancowa, SW of the building of the BPN Directorate, 740. /224

128. N, BPN, Dejakowe Szczawiny, 1010.

129. N, BPN, E of Dejakowe Szczawiny, 1020.

130. N, BPN, SE of Dejakowe Szczawiny, 1060.

131. N, BPN, SE of Dejakowe Szczawiny, at the ski trail, 1090.

132. N, BPN, SE of Markowe Szczawiny, at Gorny Plaj, 1170.

133. N, BPN, Suchy Gron, at the trail from Markowe Szczawiny to Zawoj, 950.

134. N, BPN, above Shredny Bor at Dolny Plaj, 900.

135. N, BPN, W of Shredny Bor at Dolny Plaj, 870.

136. N, Ndl. Sucha B., L. Babia Gora, above the village of Czatozha, 800.

137. N, Ndl. Sucha B., L. Babia Gora, above the village of Czatozha, 780.

138. N, Ndl. Sucha B., L. Babia Gora, at the Czatozha-Markowa road, 720.

139. N, Ndl. Sucha B., L. Babia Gora, at the Czatozha-Markowa road, 745.

140. N, Ndl. Sucha B., L. Babia Gora, Knieja Czatozhanska, N of Gruba Jodla, 770.

141. N, BPN, Knieja Czatozhanka, NW of Gruba Jodla, 870.

142. N, BPN, Knieja Czatozhanka, N of Czarna Hala, 930.

143. N, BPN, in the Urwisko stream valley, at Gorny Plaj, 955.

144. N, BPN, the Stonowy stream valley at Dolny Plaj, 925.

145. N, Ndl. Sucha B., L. Babia Gora, SE of the Stonow groves, 850.

146. N, Ndl. Sucha B., L. Babia Gora, S of the Norczak field, 845.

147. N, Ndl. Sucha B., L. Babia Gora, E of the Norczak field, 800.

148. N, Ndl. Sucha B., L. Babia Gora, Fitakowy Gron, 800.

149. N, Ndl. Sucha B., L. Babia Gora, Zawoja-Policzne, 710.

150. N, Ndl. Sucha B., L. Babia Gora, Zawoja-Policzne, 795.

151. N, BPN, E of Mokry Stawek at Gorny Plaj, 1025.

152. N, BPN, W of Mokry Stawek, at Gorny Plaj, 1030.

153. N, BPN, SW of Polana Zharnowka at Gorny Plaj, 1100.

154. N, BPN, NE of Borsucze Skaly, 1200.
155. N, BPN, E of Borsucze Skay, 1200.
156. N, BPN, Akademicka Perch, 1340.
157. N, BPN, Akademicka Perch, 1410.
158. N, BPN, Mala Babia Gora, 1480.
159. S, L. G. Zubrzyca G., SW of Krowiarki Pass, 850.
160. S, L. G. Lipnica M., below the Shmietanowa ranger's house, 800.
161. S, L. G. Lipnica M., the field at the Shmietanowa ranger's house, 820.
162. S, BPN, the lower slope of Kepa, 1450.
163. S, BPN, the Slope beneath Kepa, 1200.
164. S, Ndl. N. Targ, L. Shmietanowa, above the ranger's house, 830.
165. S, Ndl. N. Targ, L. Shmietanowa, W of Hala Kralowa, 1100.
166. S, L. G. Zubrzyca G., Krowiarki Pass, 950.
167. S, Ndl. N. Targ, L. Stancowa, at the Lipnica-Babia Gora trail, 930.
168. S, Ndl. N. Targ, L. Stancowa, at the Stancowa ranger house, 850.
169. S, Ndl. N. Targ, L. Stancowa, E of Stancowa, at the Orawska road, 880.
170. S, BPN, the lower slope of Kepa, 1360.
171. S, Ndl. N. Targ, L. Shmietanowa, the Shmietanowa groves, 825.
172. S, Ndl. N. Targ, L. Stancowa, at the Lipnica-Babia Gora trail, 980.
173. S, Ndl. N. Targ, L. Stancowa, around the shelter at the Lipnica-Babia Gora trail, 1180.
174. S, BPN, W of the rain shelter at the trail, 1150.
175. S, Ndl. N. Targ, L. Stancowa, the right bank of the Przywarowka stream, 980. /225
176. S, Ndl. N. Targ, L. Stancowa, above Stancowa, 1200.
177. S, Ndl. N. Targ, L. Stancowa, W of the ranger's hourse, 860.
178. S, Ndl. N. Targ, L. Stancowa, SW of Bartoszowa Polana, 850.
179. S, L. G. Lipnica W., Polana Meskow, at the guard house, 870.
180. S, Ndl. N. Targ, L. Shmietanowa, "hill 935", 910.
181. S, Ndl. N. Targ, L. Shmietanowa, Gubernasowka field, 890.
182. S, Ndl. N. Targ, L. Shmietanowa, SW of the Shmietanowa groves, 780.

183. S, Ndl. N. Targ, L. Stancowa, W of the ranger house at Stancowa, 860.
184. S, Ndl. N. Targ, L. Stancowa, N of Polana Meskow, 875.
185. S, Ndl. N. Targ, L. Stancowa, around 1 km NW of Bartoszowa, 935.
186. S, Ndl. N. Targ, L. Stancowa, Krzywy Potok at the Orawska Road, 870.
187. S, Ndl. N. Targ, L. Stancowa, below Bartoszowa Polana, 810.
188. S, L. G. Lipnica M., E of the Shmietanowa ranger house, 805.
189. S, Ndl. N. Targ, L. Shmietanowa, below the Shmietanowa groves, 800.
190. S, Ndl. N. Targ, L. Stancowa, in the Krzywy Potok valley, 1100.
191. S, BPN, under Diablak, 1650.
192. S, BPN, E of the BPN rain shelter, 1240.
193. S, BPN, the slope between Glowniak and Kepa, 1250.
194. S, Ndl. N. Targ, L. Stancowa, Bartoszowa Polana, 815.
195. S, Ndl. N. Targ, L. Stancowa, W of Bartoszowa Polana, at the Orawska Road, 850.
196. S, Ndl. N. Targ, L. Stancowa, Bartoszowa Polana, at the road to Kiczor, 855.
197. S, L. G. Lipnica M., W, below the Stancowa ranger house, 840.
198. S, L. G. Lipnica M., SE of the Stancowa ranger house, 830.
199. S, L. G. Lipnica M., Polana Gubernasowka, 860.
200. S, BPN, the slope of Diablak, beneath the ruins of the old shelter, 1600.
201. S, BPN, the slope between Glowniak and Kepa, 1280.
202. S, BPN, above the BPN rain shelter, 1260.
203. S, L. G. Lipnica M., Gora Kiczory, 750.
204. SW, Rowen, above the groves, 870.
205. SW, Jodla, at the Slona Woda-Babia Gora trail, 1130.
206. SW, Jodla, 1160.
207. SW, Kotlina, under Babia Gora, 1200.
208. SW, the slope between Babia Gora and the Brona Pass, 1330.
209. SW, beneath Brona Pass, 1360.
210. SW, the slope under Brona Pass.
211. SW, the slope of Mala Babia Gora, 1360.
212. SW, Zadni Wazhowiec, 1250.

213. SW, Zadni Wazhowiec, 1150.
215. SW, Zadni Wazhowiec, on the Borsucz-Slona Woda trail, 980.
216. SW, Zadni Wazhowiec, on the Borsucz-Slona Woda trail, 870.
217. SW, Wazhowiec, 850.
218. SW, Bukowy Gron, 1100.
219. SW, Wazhowiec, 1000.
220. SW, Slona Woda, E of the settlement, 760.
221. SW, Rowen, on the Slona Woda-Babia Gora trail, 950.
222. SW, Jodla, 980.
223. SW, Jodla, 1050.
224. SW, Jodla, 1100. /226
225. SW, Jodla, 1070.
226. SW, NE of the settlement of Slona Woda, on the trail to Babia Gora, 745.
227. SW, N of the settlement of Slona Woda, on the road to Borsucza, 750.
228. SW, Jodla, N of the Rowen groves, 980.
229. SW, Bukowy Gron, 1140.
230. SW of Bukowy Gron, on the road to Bursucza, 840.
231. SW, Jodla, the Bystry stream at the Slona Woda-Babia Gora trail, 1030.
232. SW, Babia Gora, on the Slona Woda-Babia Gora trail, 1570.
233. SW, Babia Gora, beneath the peak, 1660.

A List of Fungi

An Explanation of Abbreviations and Symbols

*--new species for the Polish Carpathians
n.--in small numbers
dl.--rather numerous
l.--numerous
bl.--quite numerous

+--species given by Wojewoda (1965)
++--species given by Bujakiewicz (1974, 1978 a, b)
+++--species given by Skirgiello (1970, 1972)
N--northern slopes
S--southern slopes
Af--Aconitetum firmii
APm--Abieti-Piceetum montanum
Ath--Athyrietum alpestris
BP--Bazzanio-Piceetum
CA--Catho-Alnet um
DgF--Dentario glandulosae-Fagetum
EV--Empetro-Vaccinietum
GA--Galio-Abietetum
Pec--Piceetum excelsae carpaticum
Pmc--Pinetum mughi carpaticum
SA--Sorbo-Aceretum
Sph--communities of Sphagnum magellanicum (=Sph. medium)
Vm--Vaccinietum myrtillii

ASCOMYCETES

Aleuria aurantia (Fr.) Fuckel--In compacted earth on roads, escarpment roads, forest meadows, on fireplace areas, always outside of the forest.
S: 870-1000, IX-X, (4): 181, 39, 167, 214.

Geopyxis carbonaria (Alb. et Schw. ex Fr.) Sacc.--On fireplaces, on carbonized soil and wood, among Marchantia polymorpha thalluses and the sod of Funaria hygrometerica, l.
N: GA, 730-840, VIII, X, (3): 8, 80, 147;--S: GA, APm, 815-935, V-X (14): 33, 32, 31, 178, 179, 204, 34, 39, 24, 185.

Gyromitra gigas (Krombh.) Cooke--In forest meadows in loamy soil (the sides of channels), under Betula sp., n.

S: 850,V, (1): 196.

G. infula (Schaeffer ex Fr.) Quel.--In loamy soil, among the sod of Dicranum scoparium, on escarpment roads and gulleys, n.
S: GA, 855-920, X, (3): 196, 39, 167.

Helvella lacunosa Afz. ex Fr.--In soil among mosses on the edges of forest paths, n.
S: 860, IX, (1): 177.

Humaria hemisphaerica (Wigg. ex Fr.) Nannf.--In soil covering Picea stumps, n.
N: APm, 950, VIII, (1):72.

Lasiobolus ciliatus (Schmidt x Fr.) Boud.--In deer excrement (?), n.
S: APm, 931, VII, (1): 28.

Leptopodia elastica (Bull. ex St. Amans) Boud.--In damp soil, n.
N: Af, 1125, X, (1): 154;--S: GA, 832-870, VIII-IX, (2): 31, 179.

*Melastiza chateri (W.G. Smith) Boud.--In compacted soil on roads and trails, outside of the forest, n.
N: 1200, VII, (1): 88;--S: 900-925, IX, (2): 204, 60.

M. scotica Graddon, Trans. Br. Myc. Soc. 44: 60?, 1961.--On the fallen needles of Picea, connected individually by other fungi, n. A new species for the flora of Poland (rev. W.D. Graddon).
N: Pec, 1185-1285, X, (3): 21, 19, 20;--S: Pec, 1305, X, (1): 44.

The apothecia with dimensions of 0.6 to 1.7 centimeters, sit, rather fleshy, initially in the form of deep cupules, the older fructifications lie half open, taking on the form of disks with elevated edges. The color of the tectum is bright orange, the surface smooth. The excipulum is cream orange, covered by small, bronze

hairs, which create a marked bristly edge on the end of the cupule. The hairs on the excipullllum are 360 to 480 by 12, hyaline or bronze, thinly membraned, stiff, rounded on the top (Fig. 2). They grow from spherical base cells and have a transverse membrane. The hairs on the edge of the cupule are longer than those covering the excipulum. The orange flesh has a sharp "musty" taste. The 8 spore producing asci, cylindrical-clavate, 360 by 18 to 21 μm, are not blued by iodine. The elipsoidal spores are 22.4 to 27.2 by 12.8 to 14.4 μm (measured with appendices 32 to 36.6 by 14.6 to 16 μm) and strongly ornamented (illustration 2). Their surface is verrucated, and transparent layered appendices occur on the ends. The spores contain 1 to 2 drops of fat. The paraphyses are 180 by 6 μm, the clavate tip thickens to 8 μm, filled by a granular shaft (in the fresh orange fructifications). /228

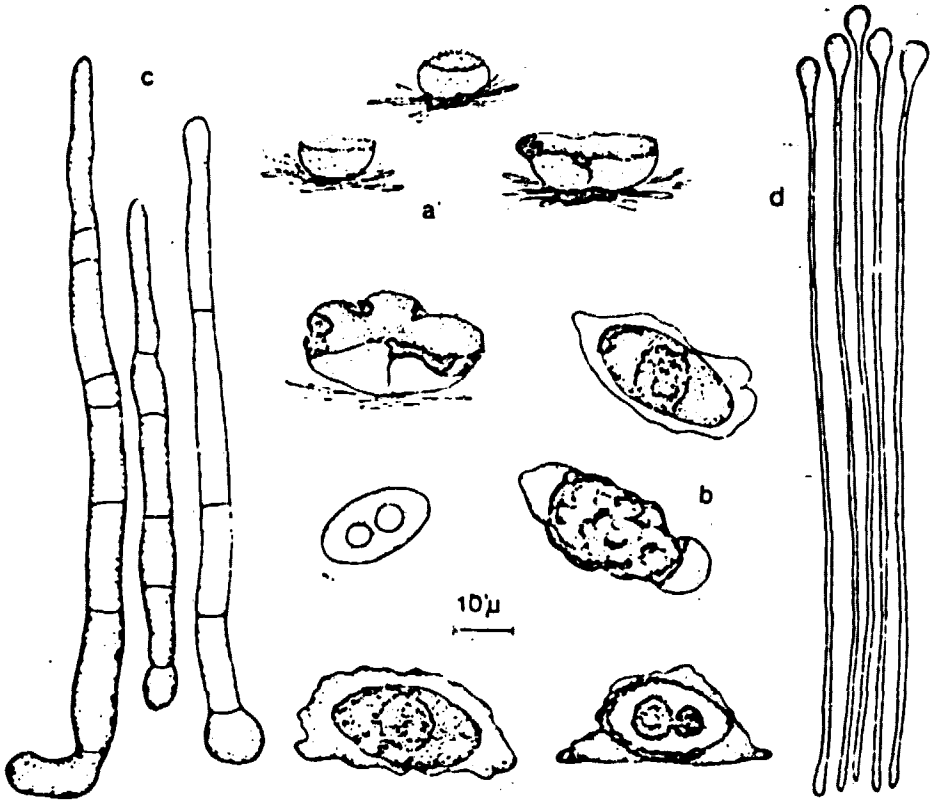

Fig. 2. *Melastiza scotica*

a — apotecja, (1:1); b — zarodniki; c — włoski z excipulum; d — wstawki
a — apothecia; b — spores; c — hairs from excipulum; d — paraphyses

The species was described on the basis of material gathered by R. Watling near Canninch and Inverness in Great Britain and is known from several sites in that country. According to Graddon (1961), the fructifications of Melastiza scotica occur from August to November in pine forests, in peaty soil, aong the needles or among moss, usually in compact groups. Graddon (l.c.) gives somewhat larger dimensions for the apothecium (10 to 25 mm).

Melastiza scotica has some traits similar to Melastiza boudieri (Hohn.) Le Gal.

Morchella elata Fr.--In soil among the needles and chips of Picea, n.
S: Apn, 750-925, IV-V, (4): 198, 35, 34, 26.

Octospora carbonigena (Berk.) Dennis--In the excrement of roes (?), n. /229
S: GA, 832, V, (1): 32.

Otidea leporina (Batsch) Fuckel--In soils among the roots of Picea, n.
S: APm, 880, IX, (1): 23.

Peziza badia Pers. ex Merat--In compacted loamy soil, on roads, escarpment roads and gulleys, predominately outside of forests, dl.
N: Pec, 730-1175, VIII-IX, (2): 80, 100;--S: GA, APm, 810-1150, VII-IX, (8): 187, 36, 230, 217, 34, 204, 173, 213.

P. emileia Cooke (=Peziza howsei Boud.)--In loamy soil in areas trod upon by deer, n. The first site in Poland; (det. M. Svrchek).
N: DgF, 965, VIII, (1): 92.

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The fructification is in the form of a long, deep cup (illustration 3), 6 to 6.5 cm thick and 5 cm tall (together with the shaft). The tectum is a milky violet-beige color and is smooth. The

edge of the apothecium is uneven and is an intense milky violet in color. The excipulum has a clearer cream color, with violet segments and is covered by delicate white papillae. The shaft is pronounced, creased, cream colored with rose segments and 1.5 by 1 cm. The spores are 16 by 6.4 to 8 μ m, markedly verrucated and contain 2 drops of fat each. The 8 spore asci are 240 by 11.2 μ m and are spindle-shaped. Their tips are blued by iodine. The paraphyses are simple, rod-shaped and longer than the asci. This discription is in agreement with that of Dennis (1968) with the exception that the Mt. Babia Gora version has somewhat shorter spores and lacks the yellow color of the tectum and excipulum.

*P. flavida Phill.--On the rotting wet wood of the Fagus (?) in streams, n.
N: DgF, 960, VIII, (1): 90.

P. micropus Pers. ex Pers.--On Fagus logs, n.
N: DgF, 970, X, (1): 117.

*P. saniosa Schrad. ex Fr.--In damp soild under the Abies. n.
S: GA, 832, IX, S: GA, 832, IX, (1): 31.

P. violacea Pers.--In fresh fireplaces in soil, rarely among the sod of Funaria hygrometrica and thalluses of Marchantia polymorpha and in mulch with slack lime, n.
S: GA, APm, 7800-931, IV_VI, IX-X, (11): 182, 33, 32, 31, 177, 34, 172, 25-28.

*Pustularia cupularis (L. ex Fr.) Fuckel--In soil, n.
S: DgF, 860, VI, (1): 183.

Rhizina undulata Fr.--On protruding roots of stumps and rotted stumps of Picea and in fireplaces, dl.
N: GA, 845, VIII, (1): 146;--S: APm, GA, 750-980, VII, IX, (4): 203, 25, 28, 172.

Scutellinia asperior (Nyl.) Dennis--In damp soil among needles, moss and thalluses of liverworts (Pellia sp.), in escarpment gulleys, predominately outside of forests, n. /230
S: GA, 870-890, IX-X, (3): 38, 179, 34.

*S. carneo-sanguinea (Fuckel) (=Humaria carneo-sanguinea Fuckel)--In damp soild and on rotted wet wood, dl.
N: CA, SA, DgF, GA, 743-1100, VII-VIII, X, (7): 9, 16, 15, 72, 90, 13, 14.
S. scutellata (L. ex St. Amans) Lambotte--On the very rotted wood of Fagus, Picea, in damp soil, l.
N: DgF, SA, GA, APm, CA, Pec, Af, 710-1240, VI-X, (17): 16, 12, 1, 7, 10, 14, 119, 111, 154, 114;--S: GA, APm, DgF, 830-1040, VII, IX, (6): 36, 159, 29, 34, 25, 50.

S. setosa (Nees)--In damp soil, n.
N: CA, 935, X, (1): 15.

S. trechispora (Berk. et Br.) Lambotte--In boggy soil, in springs among the thalluses of Pellia jabroniana, n.
N: DgF, SA, 900-1220, VIII, X, (4): 91, 90, 14, 155.

*Trichophaea abundans (Karst.) Boud.--On fireplaces, n.
S: APm, 888, IX, (1): 23.

*T. amphicoxa (Rehm)--On rotted wood, outside of the forest, n.
S: 910, IX, (1): 180.

*T. gregaria (Rehm) Boud.--On fireplaces, dl.
S: APm, GA, 910-931, IX-X, (3): 25, 26, 28.

Helotiales

Bulgaria inquinans Fr.--On Fagus logs, l.
N: DgF, 930-1080, IX-X, (4): 70, 92, 76, 77.

Calycella citrina (Hedw. ex Fr.) Boud.--On fallen twigs and logs of Fagus, twigs of Alnus incana, Sorbus aucuparia, l.
N: DgF, APm, CA, GA, Pec, 730-1310, VIII-X, (11): 8, 16, 12, 15, 1, 11, 5, 7, 6, 18;--S: DgF, GA, APm, 910-1100, IX, (7): 53, 60, 222, 228, 55, 218, 224.

Chlorosplenium versiforme (Pers. ex Fr.) de Not.--On rotted twigs of Sorbus aucuparia, n.
N: SA, Pec, 1120-1200, VIII, (2): 119, 155.

*Ciboria rufofusca (Weberb.) Sacc.--On fallen Abies cones, n.
S: GA, APm, 830-880, V, (3): 36, 31, 22.

Coryne cylichnium (Tul.) Boud--On the wood of stumps and logs of /231
Fagus, Acer pseudoplatanus, Picea, n.
N: SA, GA, Pec, 730-1230, IX-X, (4): 8, 13, 14, 82.

An interesting species, probably undistinguished from the Coryne sarcoides. It is differentiated by the length and appearance of the axospore. The asci's spores of the Coryne cylichnium are 16 to 24 by 4.8 µm in dimension, have several transverse membranes (3-4 in the studied specimens) and each carry several small, spherical secondary spores on their surface (Fig. 3). The fructifications of Coryne cylichnium appear on both the wood of deciduous and coniferous species (Jahn 1967; Salata, Bednarczyk 1977).

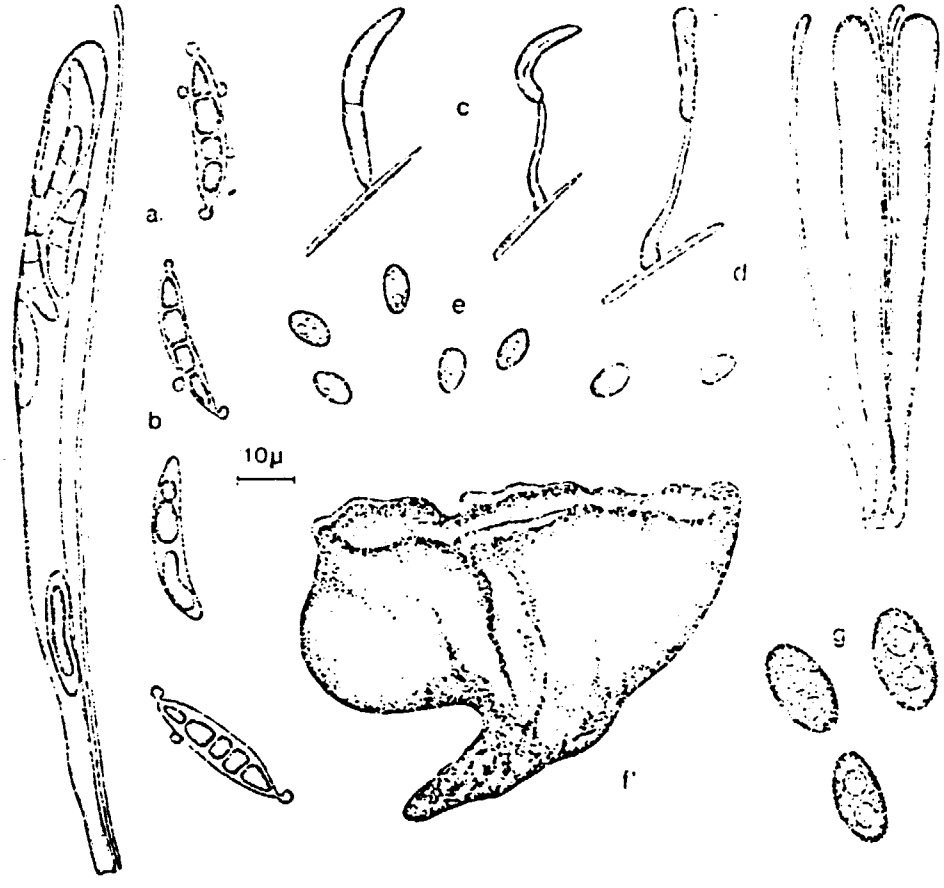

Fig. 3. *Coryne cylichnium (a-b), Mitrula vitellina (c-e), Peziza emilcia (f-g)*

a — worki z zarodnikami i wstawki; b, c, g — zarodniki; c, f — owocniki, (1:1); d — worki i wstawki

a — asci with spores and paraphyses; b, c, g — spores; c, f — fruit bodies; d — asci and paraphyses

C. sarcoides (Jacq. ex S.F. Gray) Tul.--On the rotted wood of Fagus, Alnus incana, Abies, n.+ /232
N: DgF. APm, CA, 710-1070, IX-X, (3): 16, 70, 10;--S: DgF, GA, 815-1090, IX-X, (3): 33, 50, 224.

Cuonia circinans (Pers.) Fr.--In needle mulch, n.
S: GA, 870-880, VII-VIII, (2): 38, 30.

Cyathicula coronata (Bull. ex Merat) e Not. ap. Karst.--on the rotten stems of green plants, n.
N: CA, 935, VIII, (1): 15;--S: CA, 970, IX, (1): 65.

Dasyscyphus bicolor (Bull. ex Merat) Fuckel var. rubi (Bres.) Dennis--On dry stems of the Rubus idaeus, l. (Bujakiewicz 1974: sub Dasyscyphus patulus (Pers. ex Fr.) Sacc.).
N: SAl, CA, DgF, APm, Pec, Pmc, Af, 710-1320, V-VIII, X, (11): 16, 15, 3, 6, 13, 10, 14, 119, 154, 75;--S: APm GA, Pec, 815-1220, IV-VIII, (14): 33, 178, 177, 35, 22, 34, 39, 24, 167, 42.

*D. crystallinus (Fuckel) Sacc.--On the fallen small twigs of Fagus, Lonicera nigra, on the fallen cupules of Fagus, n.
N: DgF, GA, Af, 743-1165k V, VII-VIII, (5): 9, 4, 1, 2, 154.

D. virgineus S.F. Gray--On the fallen cupules of Fagus, l.
N: DgF, GA, APm, 743-970, V, VII, X, (5): 9, 4, 1, 11, 3----S: DgF, CA, 860-870, V-VI, (2): 183, 49.

Discinella livido-purpurea Boud.--In damp soil covered by a layer of alga, outside of the forest, n. S: ;870, IX, (1): 186.

Hymenoscyphus calyculus (Sow. ex Fr.) Phill.--On the fallen twigs of Fagus, Alnus incana, Sorbus aucuparia, Ribes petraeum , Acer pseudoplatanus, Salix silesiaca, dl. ++
N: DgF, SA, CA, Pmc, Pec, Af, 710-1485, VII-X, (12): 16, 15, 1, 2, 13, 14, 111, 119, 154, 18, 157, 89;--S: DgF, CA, 810-1060, IX-X, (3): 48, 64, 55.

*H. caudatus (Karst.) Dennis--On the tails and veins of the fallen leaves of Acer pseudoplatanus, Fagus, Alnus incana, on the torus of Sorbus aucuparia leaves, dl.
N: DgF, Pec, SA, Af, 960-1310, VIII-X, (7): 1,3, 14, 111, 154, 20, 18;--S: CA, 810, X, (1): 48.

*H. fagineus (Pers. ex Fr.) Dennis--On the fallen cupules of Fagus, n.
N: DgF, GA, APm, 730-1070, VIII, IX, (3): 8, 1, 10;--S: DgF, 935, IX, (1): 64.

*Hymenoscyphus herbarum (Pers.) Dennis--On rotted stems of herbs, for ex. Adenostyles alliariae, n.
N: Pmc, 1320, VII, (1): 75.

* H. phyllophilus (Desm.) O. Kuntze--On the fallen leaves of Fagus, n.
N: GA, 730, VIII, (1): 8.

*H. rhodoleucus (Fr.) Phill.--On rotted shoots of Equisetum sp., n. /233
S: CA, 870, V(1): 49.

*H. rokebyensis Svrchek (=Ombrophila faginea s. Boud.)--On the fallen cupules of Fagus, n.
N: APm, 1070, X, (1): 10;--S: DgF, 1040, IX, (1): 50.

H. scutula (Pers. ex Fr.) Phill.--On the rotted shoots of Rubus idaeus, Senecio Fuchsii, Mulgedium (?), Chaerophyllum (?), mentha (?), dl.,
++
N: SA, CA, 710-1100, V, X, (3): 16, 13, 14:--S: CA, DgF, GA, APm, 815-970, IX, X, (4): 33, 34, 935, 970.

H. serotinus (Peers. ex Fr.) Fr.--On the fallen twigs of Fagus, l., +.
N: DgF, GA, APm, SA, 730-1070, VIII-X, (10): 8, 9, 4, 11, 1, 3, 5, 6, 13, 10.

*Lachnellula subtilissima (Cooke) Dennis (=Trichoscyphella calycina (Schum. ex Fr.) Nannf.)--On the fallen twigs of Abies, Picea, on the dry seedlings of Abies, bl.
N: DgF, APm, Pec, CA, SA, 800-1310, V VI, VIII, X, (12): 4, 12, 14, 11, 7, 6, 10, 14, 126, 18;--S: GA, APm Pec, BP, 780-1305, IV-X, (25): 47, 33, 32, 168, 178, 181, 39, 180, 40.

L. suecica (Fuckel) Nannf.--On the fallen cones of Pinus mughus Picea, n.
N: SA, 1100, IX, (1): 14;--S: Pmc, 1450-1605, VIII-IX, (2): 162, 232.

L. willkommii (Hartig) Dennis--On the fallen twigs of Larix sp., dl.
S: GA, DgF, 830-890, V-VII, IX, (5): 36, 30, 183, 181, 39.

Mitrula abietis Fr.--On the fallen needles of Picea, n.
N: Pec, 1245, VIII, (1): 122;--S: GA, 815, IX X, (1): 33.

M. vitellina (Bres.) Sacc.--On the fallen needles of Picea hidden among the stems of Sphagnum girgensohnii, n. The first site in Poland.
S: BP, 780, VII, (1): 47.

The head is 0.7 to 1.5 cm long and .02 mm in diameter, lanceolate, smooth, weekly delineated from the shaft, bright yellow. The stem is 0.9 to 1.5 cm long and 1.5 mm wide, smooth, spreading somewhat to the ground and white in color. The spores are (6.4)-7.2 to 8 by 3.2 to 4.0 µm, elipsoidal, colorless and single celled. The asci are fusiform, 8 spored, 64 to 73.4 by 6.4 µm. The paraphyses are rod-shaped, longer than the asci, and are a bit thicker on top (Fig. 3).

The description of the collected specimens is derived from a diagnosis of the species given by Rehn (1896). Mitrula vitellina

occurs in subalpine coniferous forests (Rehm l.c., Moser 1963).

*Monilinia oxycocci (Woronin) Honey--On the rotted fruit of Oxycoccus quadrietalus, n.
S: S ph, 788-799, V, (2): 46, 45.

Neobulgaria pura (Fr.) Petrak--On the fallen twigs and logs of Fagus, n. 234
N: DgF, GA, 850-1130, VIII-X, (5): 135, 1, 11, 70, 131;--S: GA, 910, IX, (1): 53.

Ombrophila violacea Fr.--On the fallen cones of Picea, twigs of Salix caprea, n.
N: CA, 935, V, (1): 15;--S: GA, 815, II, IX, (1): 33.

Orbilia luteorubella (Nyl.) Karst--On the wood of stumps of Picea (?), n.
S: APm, 928, IX, (1): 26.

*Pezizella alniella (Nyl.) Dennis--On the fallen rotten fructifications of Alnus incana, L. ++
N: CA, 710-935, V, VIII-X, (2): 16, 15;--S: CA, 810-870, V, VII, (2): 48, 49.

*P. chionea (Fr.) Dennis--On the rotted cones of Picea, n.
N: Pec, DgF, 1010-1310, V, (2): 7, 18;--S: GA, APm, 830-880, VII, X, (2): 36, 22.

P. vulgaris (Fr.) von Hoehnel--On the rotted shoots of Equisetum sp., n.
N: CA, 935, V, (1): 15.

Phialea cyathoidea (Bull. ex Merat) Gill-On the rotted stems of Senecio fuchsii, Urtica dioica, Adenostyles alliariae, Chaerophyllum sp., l. ++

N: SA, CA, 750-1100, VII, IX, (3): 16, 13, 14;--S: CA, APm, GA, 832-910, V, VII, IX, (4): 31, 49, 34, 180.

*Ph. subhyalina Rehm--On the ends of fallen leaves of Acer pseudoplatanus, l. N: DgF, 970, X, (1): 3.

*Piceomphale bulgarioides (Rabenh. in Kalchbr.) Svrchek (=Ombrophila strobilina Rehm)--On the rotted cones of Picea buried in mulch, bl. N: Pec, APm, DgF, GA, 743-1310, V, (9): 9, 11, 108, 10, 21, 19, 17, 20, 18;--S: APm, GA, Pec, BP, 780-1305, IV-VI, (25): 47, 33, 29, 159, 26-28, 192, 40, 44.

Rutsroemia luteovirescens (Rob. in Desm.) White--On the ends of rotted leaves of Acer pseudoplatanus, n. ++
N: SA, 1040, IX-X, (1): 13.

Phacidiales

*Colpoma degenerans (Fr.) de Notaris--On the dead shoots of Vaccinium myrtillus, dl.
N: Pec, 1310, X, (1): 18;--S: Pec, 1290, X, (1): 41.

Clavicipitales

Cordyceps capitata (Holmsk. ex Fr.) Link--On the fructifications of Elaphomyces granulatus, n. /235
N: APm, 1060, VIII, (1): 109;--S: APm, 898, VII, (1): 24.

C. militaris (L. ex St. Amans) Link--On pupa buried in mulch, n.
N: DgF, 900-960, VIII-IX, (2): 91, 1.

C.. ophiogossoides (Ehrenb, ex Fr.) Link--On the fructifications of

Elaphomyces granulatus hidden in the earth at depths of around 3 to 10 cm, dl.
N: GA, 805, VIII, (1): 136;--S: APm, 850-880, IX-X, (2): 29, 22.

Sphaeriales

Diatrype disciformis (Hoffm. ex Fr.) Fr.--On the fallen twigs of Fagus, l. ++
N: DgF, GA, APm, SA, 730-1070, V-X, (15): 8, 140, 134, 12, 1, 3, 2, 4, 5, 10;--S: DgF, GA, 810-1150, IX, (5): 53, 222, 50, 218, 213.

Hypoxylon fragiforme (Pers. ex Fr.) Kickx--On the bark of logs and fallen twigs of Fagus, l. ++
N: DgF, GA, APm, 743-1030, V-X, (9): 9, 8, 12, 1, 11, 3, 2, 7, 6;--S: DgF, GA, APm, 900-1100, IX, (6): 61, 53, 222, 224, 55, 218.

Nectria cinnabarina (Tode ex Fr.) Fr.--On the fallen twigs of Fagus
N: DgF, 1000, X, (1): 5.

Ustulina deusta (Fr.O Petrak--At the base of stumps of Fagus, in cracks of stumps of Acer pseudoplatanus, n. +
N: DgF, 960-970, IX-X, (2): 1, 3.

Xylosphaera carpophila (Pers.) Dumortier--On the fallen cupuules, branches of Fagus, n. ++
N: DgF, 935-975, V, VIII-X, (2): 70, 2.

X. hypoxylon (L.) Dumortier--On the stumps, logs, fallen twigs of Fagus, Alnus sp., l. +
N: DgF, SA, GA, APm, CA, 730-1115, VII-X, (17): 8, 94, 144, 15, 11, 1-3, 111;--S: DgF, 920-1060, IX, (4): 60, 61, 50, 55.

*X. longipes (Nitschke) Dennis--On the logs, fallen twigs of Fagus, n.
N: SA, APm, 960-1040, VII, (2): 11, 13.

Eurotiales

Elaphomyces granulatus Fr.--In soil at depths around 3 to 10 cm, n.
N: GA, APm, 805-1060, VIII, (2): 136, 109;--S: Pec, GA, APm, 815-1360, IV-V, VIII-IX, (8): 33, 29, 22, 30, 24, 25, 41, 170.

Albatrellus ovinus (Schaeff. ex Fr.) Kotl. et Pouz.--In soil among /236
mosses, needles, on very rotted stumps, dl.
S: APm, BP, 750-1020, VII-IX, (7): 203, 182, 29, 179, 23, 24, 190.

Aleurodiscus amorphus (Pers. ex Fr.) Schroet.--On the fallen twigs of Abies, Picea, dl.+
N: Pec, 1210, X, (1): 19;--S: GA, APm, Pec, 830-1240, V-VII, IX, (11): 32, 37, 38, 35, 22, 34, 24, 27, 228, 192.

Amylostereum chailletii (Pers. ex Fr.) Boid.--On the stumps and logs of Picea, dl. ++
N: Pec, SA, 1040-1210, VII-VIII, (2): 13, 19;--S: GA, APm, 830-1945, IV-VII, (8): 36, 177, 37, 22, 24, 175, 224.

Basidioradulum radula (Fr. ex Fr.) Nobles--On the fallen twigs of Abies, n.
S: GA, 832, V, (1): 31.

Bjerkandera adusta (Wilid. ex Fr.) P. Karst.--On the stumps, logs of Fagus, Abies, n.+
N: DgF, 740-1000, IV, VII, X, (3): 127, 1, 5;--S: APm, 800-930, VI, IX, (2): 160, 167.

Cantharellus cibarius Fr.--In soil among mosses on escarpments, often on young spruces, dl. +
N: 710-750, VII-IX, (2): 16, 80;--S: GA, APm, BP, 780-931, VII-X, (8): 182, 194, 32, 178, 217, 169, 24, 28.

C. lutescens Fr.--On soil among mosses (for example Dicranum scoparium, Hylocomnium splendens, Polytrichum attenuatum, Nmium affine), among the roots of Picea, Abies, more rarely on very rotted wood, dl.
N: DgF, GA, APm, Pec, 745-1225, VIII-X, (59): 139, 136, 134, 10, 17;--S: GA, APm, Pec, BA, 800-1220, IX-X, (9): 180, 33, 36, 31, 29, 217, 23, 24, 42.

*C. tubaeformis Fr. sensu Corner--Among peat and moss, in the vicinity of Picea, n.
S: Sph, 780-790, IX-X, (3): 45-47.

*Ceriporia rhodella (Fr.) Donk (=C. excelsa (Lundell) Parmasto)--On the logs of Fagus, n.
N: DgF, 960, X, (1): 1.

Cerrena unicolor (Bull. ex Fr.) Murr.--on the branches of Fagus, outside of the forest, n. +
N: 720, VII, (1): 139.

*Clavariadelphus fistulosus (Fr.) Corner--On the fallen twigs of Alnus sp., n. 237
N: CA, 800-935, X, (2): 134, 15.

C. ligula (Fr.) Donk--Among the needles in spruce stands, n.
S: 750-780, IX-X, (2): 203, 160.

C. truncatus (Quel.) Donk--Among the needles in spruce stands, n.
S: 750-830, IX-X, (2): 203, 164.

Clavulina cinerea (Fr.) Schroet.--In soil among needles and mosses (for ex. Atrichum undulatum), less frequently on the rotted wood of Picea, bl. +
N: Pec, DgF, GA, 740-1225, VIII-X, (14): 81, 136, 140, 2, 129, 6, 87, 82, 110, 98;--S: GA, APm, Pec, 815-1250, VIII-X, (18): 33, 29,

38, 29, 24, 25, 213, 42, 212, 41.

C. cristata (Fr.) Schroet.--In soil, covered with the decayed wood of Picea, on young spruces, n.
N: DgF, APm, 880-1010, VII, (2): 12, 7;--S: Pec, GA, 869-1290, VII-IX, (4): 37, 24, 165, 41.

C. rugosa (Fr.) Schroet. var. rugosa--In damp soil, among needles and grass, often outside of the forest, n.
S: GA, 830-1300, IX-X, (5): 32, 36, 31, 177, 40.
--var. alovonaria Corner--In damp soil among Mnium affine and Eurhynchium sp., n.
S: GA, 880, X, (1): 30.

Climacocystis borealis (Fr.) Kotl. et Pouz.--On the stumps and logs of Picea, dl. ++
N: Pec, 1165-1198, VIII, (3): 1041 1001 88;--S: Pec, APm, 1000-1345, VIII-IX, (6): 214, 193, 44, 207, 208, 58.

Coltricia perennis (L. x Fr.) Murill--In soil in spruce stands and on the edges of forests by roads, dl.
S: 780-870, IX, (3): 182, 189, 216.

Columnocystis abietina (Pers. ex Fr.) Peuz.--On the logs, stumps of Picea, dl., Henirich, Wojewoda (1974), ++
S: Pec, GA, 860-1305, V, VII, IX-X, (5): 37, 25, 193, 43, 44.

Coriolellus serialis (Fr.) Murrill f. serialis--On the logs and stumps of Picea, dl.
S: GA, Pec, 815-1305, V, VII, IX-X, (5): 33, 31, 37, 41, 44.

--f. callosus (Fr.) Domanski--On the logs and stumps of Picea, dl. +
S: Pec, GA, 870-1300, V, VII, (3): 38, 42, 43.

Craterellus cornucopioides Pers.--In soil covering logs of Fagus, n.
N: DgF, 970, X, (1): 3.

Cylindrobasidium evolvens (Fr. ex Fr.) Juelich--On logs of Fagus, /238
fallen wigs of Populus tremula, dl.
N: DgF, 933-1000, X, (2): 70, 5;--S: APm, 850, X, (1): 29.

Cytidia salicina (Fr.) burt--On the bark of fallen twigs of Salix caprea, n.
S: APm, 1150, IX, (1): 213.

Daedaleopsis congragosa (Bolt. ex Fr.) Schroet.--On the fallen twigs of Fagus, Salix caprea, n. +
N: CA, APm, DgF, 1010-1156, VIII, X, (3): 128, 7, 126;--S: GA, 960, IX, (1): 221.

Datronia mollis (Sommerf.) Donk--On the logs of Fagus, n.
N: DgF, 1010, VIII, (1): 7.

Dentipellis fragilis (Pers. x Fr.) Donk (=Hericium fragile (Pers. x Fr.) Nikol.)--On the logs of Fagus, dl. ++
N: DgF, 960-1100, VIII-X, (3): 1, 153, 76.

Exobasidium vaccinii Wor.--On the leaves of Vaccinium vitis-idaea, l.
N: Vm, 1540, VII, (1): 106.

Fomes fomentarius (L. ex Fr.) Kickx--On the logs of Fagus, l, +++
N: DgF, APm, 880-1075, V-X, (10): 12, 83, 143, 1, 3, 5, 7, 6, 10, 115;--S: DgF, 900-1100, IX, (3): 222, 224, 218.

Fomitopsis pinicola (Sw. ex Fr.) P. Karst.--On the logs, stumps of Picea, Fagus, Abies, bl. +++
N: DgF, GA, APm, Pec, SA, 980-1310, V-X, (15): 12, 141, 11, 3, 2, 143, 5, 6, 131, 18;--S: DgF, GA, APm, Pec, BP, 752-1345, V-X, (23): 63, 33, 30, 26, 54, 59, 206, 192, 40, 58.

Ganoderma applanatum (Pers. ex Wallr.) Pat.--On the logs of Fagus, dl.
+++

N: DgF, 955-1100, VIII-X, (6): 70, 143, 1, 3, 5, 153;--S: DgF, 1100, IX, (1): 218.

Gloeophyllum abietinum (?Bull. ex Fr.) P. Karst.--On the logs of Picea, Abies, n. +
S: APm, Pec, 825-1200, V, IX, (3): 171, 34, 176.

G. odoratum (Wulf. ex Fr.) Imaz. (=Anisomyces odoratus (Wulf. ex Fr.) Pilat--On logs, stumps of Abies, Picea, l. +, ++
N: DgF, GA, APm, 700-1095, IV-X, (8): 127, 81, 9, 79, 12, 83, 11,131;--S: DgF, GA, APm, GA, BP, 750-1100, V-X, (11): 227, 47, 189, 31, 29, 167, 222, 214, 218, 174.

G. sepiariium (Wulf. ex Fr.) P. Karst.--On logs of Picea, branches of Pinus mughus, on beams of fences and bridges, often outside of forests, dl. +
N: Pec, Pmc, 740-1390, VII-VIII, X, (3): 137, 18, 105;--S: APm, BP, Pec, 750-1290, V-IX, (8): 226, 63, 48, 36, 168, 186, 61, 41.

Hapalopilus nidulans (Fr.) P. Karst.--On logs of Fagus, n.
S: DgF, 980, IX, (1): 222.

Hericium coralloides (Scop. ex Fr.) S.F. Gray (=Dryodon coralloides /239
(Scop. ex Fr.) P. Karst. (=Hericium alpestre Pers.)--On logs of Abies, less frequently Picea, Fagus, dl. ++
N: DgF, SA, APm, 900-1120, VIII-X, (9): 70, 117, 83, 5, 7, 6, 98, 14, 112;--S: DgF, GA, APm, 830-1120, IX-X, (4): 164, 204, 219, 224.

H. ramosum (Bull. ex Merat) Leteiller--On the logs of Fagus, VIII.
N: DgF, 1040, VIII, (1): 143.

Heterobasidion annosus (Fr.) Bref.--On logs, stumps of Picea, Abies, dl. +
N: Pec, 1180-1210, VIII, (2): 1001 19;--S: DgF, GA, APm, Pec, 815-1220, V-X, (14): 33, 31, 37, 38, 23, 26, 64, 219, 206, 42.

Hirschioporus abietinus (Dicks, ex Fr.) Donk--On the logs of Abies, Picea, dl. +
N: DgF, 960-1030, VII-X, (4): 1, 3, 2, 6;--S: DgF, BP, 750-1000, IX, (2): 227, 219.

H. fusco-violaceus (Ehrenb. ex Fr.) Donk--On logs and fallen twigs of Picea, Abies, n.
N: DgF, 1000, V, VIII, X, (1): 5;--S: Pec, APm, 855-1360, VI, VIII, X, (4): 195, 185, 43, 170

Hydnum repandum L. ex Fr.--In soil among needles and mosses, n.--
N: GA, 745-805, VIII, (2): 139, 135;--S: GA, APm, BP, 780-931, VII-X, (11): 182, 32, 29, 38, 179, 30, 23, 24, 204, 167, 27.

*H. rufescens Fr. (=H. repandum L. ex Fr. var. rufescens :(Fr.) Baria)--On loamy soil on escarpments by roads and trails, less frequently among mosses and needles, n.
N: DgF, Pec, 1000-1200, VIII-X, (5): 77, 98, 108, 115, 82;--S: GA, APm, 850-880, IX, (2): 29, 30.

Hymenochaete cruenta (Pers. ex Fr.) Doṅk (=H. mougeotii (Fr.) Cke)--on the bark of dry standing Abies (at heights of 2 to 3 m) among the thalluses of Parmelia physodes, less frequently on stumps and fallen twigs of Abies, Picea, n. ++, +++
N: APm, 960, V,VII, (1): 11;--S: DgF, BP, GA, 780-1060, V, VII, IX, (3): 47, 32, 55.

Hyphodontia aspera (Fr.) Erikss.--On rotted stumps and standing dry spruces (Picea), n.
S: Pec, 1305, IX, (1): 40.

H. breviseta (P. Karst.) Erikss.--On the bark of the roots of Abies, n.
N: DgF, 975, X, (1): 143.

H. quercina (Fr.) Erikss.--On the bark of fallen twigs of Alnus sp., n.
S: CA, 810, X, (1): 48.

Inonotus nodulosus (Fr.) Pilat [=I. radiatus (Sow. ex Fr.) Quel. var. nodulosus (Fr.) Quel.]--On the logs of Fagus, n. + /240
N: DgF, 1010, X, (1): 7;--S: DgF, 1070, IX, (1): 225.

Ischnoderma benzoinum (Wahl ex Fr.) P. Karst. [=I. resinosum (Fr.) P. Karst.]--On logs of Picea, Fagus, dl.
N: DgF, 930-1030, VIII, X, (2): 83, 113;--S: Pec, GA, 815-1305, V, VIII-X, (4): 194, 179, 41, 40.

*Peniophorra erikssonii Boid.--On fallen twigs of Alnus sp., n.
S: CA, 810, X, (1): 48.

Phellinus chrysoloma (Fr.) Donk [=Ph. pini (Thore ex Fr.) Pilat var. abietis (P. Karst.) Pilat]--On fallen twigs of Abies, n. +
N: APm, 1080, V, (1): 77.

Ph. ferreus (Pers.) Bourd. et Galz.--On logs and stumps of Picea, n. The first site in Poland (det. S. Domanski)
S: Pec, 1290, IX, (1): 41.

In the description of Phellinus ferreus (Domanski 1965) only "the dead twigs of deciduous trees" were mentioned. Only in the latest work (Domanski 1975) has it been stated that the wood of coniferous trees is also the substratum of this species. The Mt. Babia Gora site verifies this view.

Ph. hartigii (Allesch. et Schnabl) Bond.--On the stumps of Abies, n.
S: GA, 830, VII, (1): 32.

Ph. nigrolimitatus (Romell) Bourd. et Galz.--On the logs of Picea, dl. Kotlaba (1972).
N: DgF, APm, 960-1090, VIII, (2): 11, 131;--S: Pec, 1220-1300, VII-IX, (2): 42, 43.

Ph. viticola (Schw. ex Fr.) Donk [=Ph. isabellinus (Fr.) Bourd. et Galz.]--On logs, stumps, branches and standing dry spruces (Picea), dl. ++
N: Pec, 1235-1310, IX-X, (2): 20, 18;--S: Pec, APm, 888-1305, V-X, (7): 28, 24, 224, 41, 43, 40, 44.

Phellodon tomeniosus (L. ex Fr.) Banker--In soil among moss, n.
S: APm, 998, VIII, (1): 24.

*Pistillaria epiphyila (Quel.) Corner--On the veins of rotten leaves of Alnus incana, n.
N: CA, 935, VIII, (1): 15.

*P. pusilla Fr.--On the ends and veins of rotted leaves of Alnus incana, n.
S: CA, 810, X, (1): 48.

*P. todei (Fr.) Corner (=Typhula todei Fr.)--On the torus of rotted leaves of dryopteris austriaca, D. filix-mas, Athyrium filixpfemina, A. alpestre, 1.
N: DgF, Pec, SA, 930-1310, X, (4): 70, 3, 13, 18;--S: Pec, 1290-1305, IX-X, (3): 41, 43, 44.

P. typhuloides (Peck) Burt--On rotted ends of the leaves of Petasites sp., n. 241
N: CA, 750, VIII, (1): 16.

Plicatura crispa (Pers. ex Fr.) Quel.--On logs and fallen twigs of Fagus, n. +, ++
N: DgF, APm, 1005-1070, VIII, X, (4): 5, 7. 10, 76;--S: DgF, 1100, IX, (1): 218.

Polyporus alveolarius (Bosc) ex Fr. [=P. arcularius (Batsch) ex Fr.]--On fallen twigs of Fagus, Alnus sp., Sorbus aucuparia, on dry willows (Salix caprea), on logs of Picea, n.

N: DgF, CA, Pec, 700-1340, VIII-X, (6): 99, 80, 15, 130, 111, 156;--S: Ath, 920-1280, IX, (2): 60, 41.

P. badius (Pers. ex S. F. Gray) Schw. (=P. picipes Fr.)--On wood chips, n.
N: Pec, 1300, VIII, (1): 118.

P. brumalis (Pers. ex Fr.) Fr.--On fallen twigs of Fagus, n. +
S: DgF, 1100, IX, (1): 218.

P. squamosus (Huds.) ex Fr.--On logs, stumps and trunk of Fagus, dl. ++
N: DgF, 965-1030, V, VII-VIII, X, (5): 92, 3, 5, 76, 6.

P. varius (Peers. ex) Fr. var. varius--On stumps, less frequently on logs, Fagus, dl. ++
N: DgF, 920-1030, V, VIII, X, (5): 91, 83, 143, 5, 6;--S: DgF, 1100, IX, (1): 218.
--var. elegans (Fr.) Gillot et Lucand--On fallen twigs and logs of Fagus, n.
N: DgF, 960-1030, VII-VIII, (2): 1, 6;--S: DgF, GA, 830-1080, IX, (2): 32, 225.
--var. nummularius Bull. ex Fr.--On fallen twigs, logs of Fagus, Alnus sp., n.
N: DgF, CA, 730-975, VII-IX, (4): 120, 15, 1, 2;--S: DgF, 860, V, (1): 183.

Ramaria aurea (Fr.) Quel.--In soil among needles, n.
S: GA, 850, X, '1): 164.

R. botrytis (Fr.) Ricken--In soil among needles, n.
S: GA, 850, IX, (1): 217.

R. invalii (Cott. et Wakef.) Donk--In soil among needles, n.
S: GA, 1000, IX, (1): 65.

R. mairei Donk--In soil among needles in spruce stands, n.

S: 750, IX, (1): 203.

*R. obtusissima (Pk.) Corner--In oil among needles in spruce stands, /242
n.
S: 750, IX, (1): 203.

Rigidoporus sanguinolentus (Alb. et Schw. ex Fr.) Donk--On bark of logs and stumps of Picea, n.
S: Pec, 1300, IX, (1): 43.

Sarcodon imbricatus (L. ex Fr.) P. Karst.--In soil, n.
S: APm, 815, VIII, (1): 194.

Schizophyllum commune Fr.--On logs of Fagus, Alnus incana, on young spruces, dl. +
N: CA, 750, IX, (1): 80;--S: DgF, 870-1100, IX, (2): 216, 218.

Skeletocutis amorpha (Fr.) Kotl. et Puz.--On stumps and logs of Picea, Abies, n. +
N: APm, 880, VIII, X, (1): 12;--S: APm, 869-960, IX, (3): 177, 26, 228.

Stereum hirsutum (Willd. x Fr.) S.F. Gray--On fallen wigs and on logs of Fagus, less frequently on Alnus sp., l. +
N: DgF, GA, APm, CA, 743-1070, VII-X, (10): 9, 12, 15, 1, 11, 2, 5, 7, 10, 77;--S: DgF, 935-1100, IX, (3): 64, 222, 218.

S. rugosum (Pers. ex Fr.) Fr.--On stumps, logs, trunks of Fagus, stumps of Sorbus aucuparia, dl. +
N: DgF, 740-1010, IV, X, (4): 127, 1, 3, 7;--S: DgF, APm, 860-1180, VI-VII, IX, (5): 183, 61, 50, 224, 173.

S. sanguinolentum (Alb. et Schw.) Fr.--On stumps, logs, trunks of Picea, Abies, l. +
N: Pec, DgF, 800-1310, VII-VIII, X, (5): 4, 77, 88, 101, 18;--S: GA, Pec, APm, BP, 780-1330, V-X, (13): 47, 33, 38, 186, 22, 39, 59,

41, 40, 57.

Thelephora palmata Fr.--In soil among fallen twigs, needles, n.
S: GA, APm, BP, 825-900, VII-IX, (7): 171, 36, 37, 30, 23, 39, 64.

T. terrestris Fr.--In soil, on very rotted stumps of Picea, in peat soil, dl.
N: DgF, 935, VIII, (1): 144;--S: GA, APm, BP, 752-928, VIII-X, (4): 63, 182, 36, 26.

Trametes gibbosa (Pers. ex Pers.) Fr.--On logs of Fagus, n.
N: DgF, 960, VIII, (1): 1.

T. hirsuta (Wulf. ex Fr.) Pilat--On logs of Fagus, on the inside of Acer pseudoplatanus trunks, often on young spruces, n.+
N: DgF, CA, 900-980, V, IX, (3): 91, 15, 103;--S: 870-1050, IX, (2): 216, 214.

T. hoehnelii (Bres. in Hoehn.) Bourd. et Galz.--On thin logs and fallen branches of Fagus, dl.
N: DgF, 930-1070, VII-VIII, (6): 83, 143, 5, 7, 6, 10;--S: DgF, 95, IX, (1): 219.

T. versicolor (L. ex Fr.) Quel.--On logs, stumps, trunks of Fagus, on the fallen twigs of Alnus incana, Sorbus aucuparia, branches of Salix caprea, on stumps o Betula sp., dl. + /243
N: DgF, CA, GA, Pec, 730-1210, V, VIII-X, (5): 8, 15, 83, 2, 19;--S: DgF, GA, APm, 830-1100, V, VII, IX, (3): 36, 29, 212.

Typhula corallina Quel.--On rotted shoots of Rubus idaeus, Mentha sp. (?), n.
S: CA, 970, IX, (1): 65.

T. erythropus Fr.--On the ends of rotted leaves of Acer pseudoplatanus, dl.
N: SA, DgF, 970-1100, IX-X, (3): 3, 13, 14.

T. sclerotioides (Pers.) Fr.--On rotted shoots of Senecio fuchsii and ends of leaves of Petasites sp., dl., ++
N: GA, CA, 743-750, VIII, X, (2): 9, 16;--S: Pec, 1290, IX, (1): 41.

T. ariabilis Riess.--On rotted remains of leaves of Alnus and stems of chaerophyllam cicutarium, n.
S: CA, 810, X, (1): 48.

Tyromyces caesius (Schrad. ex Fr.) Murrill--On logs, stumps, fallen twigs of Picea, Abies, Fagus, l., ++
N: DgF, Pes, SA, GA, APm, 780-1305, VIII-X, (8): 146, 144, 7, 6, 10, 14, 87, 18;--S: Pec, DgF, GA, APm, 780-1305, VII, IX-X, (10): 47, 217, 61, 214, 50, 42, 41, 40, 44, 43.

*T. fragilis (Fr.) Donk.--On the wood of logs of Picea, n.
S: Pec, 1260, IX, (1): 201.

T. stipticus (Pers. ex Fr.) Kotl. et Pouz.--On stumps, logs of Picea, n.
S: GA, APm, 870-1050, IX, (4): 36, 216, 204, 190.

Agaricales

Agaricus abruptibulbus Peck (=Psalliota silvicola ss. Lge.)--In soil, not numerous, ++
N: DgF, GA, 760-1000, VI-VIII, (2): 8, 5.

Amanita fulva (Schff. ex) Pers.--In soil among needles, less frequently among peat, dl.
N: DgF, GA, Pec, 720-1100, VII-IX, (8): 138, 8, 80, 145, 3, 7, 68, 87;--S: GA, APm, BP, 780-890, VII-X, (9): 47, 36, 33, 31, 37, 38, 204, 30, 39.

A. inaurata Secr.--In soil among needles and grass (Nardus stricta),

dl. ++
N: Pec, DgF, 880-1285, VII-VIII, X, (4): 79, 114, 155, 20;--S: GA, Pec, APm, Pmc, 830-1660, VII-X, (11): 36, 30, 39, 25, 204, 228, 214, 190, 2;02, 212, 233.

A. muscaria (L. ex Fr.) Pers. ex S.F. Gray--In soil among needles and grass, n. + /244
S: GA, APm, Pec, 800-1230, VI-IX, (6): 189, 194, 216, 179, 217, 42.

A. pantherina (DC ex Fr.) Secr. var. abietinum (Gilb.) Ves.--In soil among moss, n.
S: APm, 815-890, VII, IX, (2): 194, 36.

A. porphyria (Alb. et Schw. ex Fr.) Secr.--In soil among needles, n.
S: GA, APm, BP, 815-880, VIII-IX, (4): 194, 36, 35, 22.

A. regalis (Frr.) R. Mre (=A. muscaria var. umbrina Fr.)--In soil among needles and grass, on the edges of forests and on young spruces, n.
S: GA, 810-855, VII-IX, (3): 48, 32, 195.

A. rubescens (Pers. ex Fr.) S.F. Gray--In soil among needles, dl.
N: DgF, 870-1085, VIII, (3): 134, 70, 131;--S: GA, APm, BP, 752-1060, VII-X, (16): 63, 33, 32, 36, 217, 37, 204, 184, 228, 223.

A. spissa (Fr.) Kummer--In soil, n.
N: GA, 740-805, VIII, (2): 120, 136;--S: GA, APm, 805-860, VII-IX, (3): 188, 32, 37.

A. vaginata (Bull. ex Fr.) Vitt.--In soil, l. ++
N: DgF, GA, Pec, APm, 730-1285, VIII-X, (6): 8, 131, 137, 145, 10, 155;--S: DgF, GA, APm, BP, Pec, 780-1230, VII-X, (18): 47, 33, 38, 30, 34, 64, 60, 51, 205, 42.

Armillariella mellea (Vahl in Fl. Dan. ex Fr.) Karst.--On logs, stumps and trunks of Fagus, Picea, Abies, Alnus sp., Sorbus aucuparia, bl. +,

+++

N: DgF, CA, Pec, APm, GA, 730-1285, VIII-X, (25): 8, 12, 70, 142, 128, 6, 13, 14, 100, 155;--S: DgF, GA, APm, Pec, BP, 750-1300, IX-X, (19): 226, 33, 37, 25, 60, 228, 54, 173, 43.

Boletus edulis Bull. ex Fr.--In soil, n.
N: GA, APm, 730-880, VIII-IX, (2): 120, 12;--S: APm, 880, IX, (1): 216.

B. erythropus Fr.--In soil, n.
S: APm, 880, IX, (1): 216.

*Calocybe onychina (Fr.) Donk--On logs of Fagus sylvatica, among the sod of mosses and liverworts, for ex. Tetraphis pellucida, Pareleucobryum longifolium and Lepidozia reptans, n.
N: DgF, 970, IX, (1): 3.

This is a rare and interesting species in Poland. The fructifications of Calocybe onychina are somewhat similar to those of Gymnopilus picreus (ill. 4). The basic distinguishing trait is a pronounced white color in the spores' eruption.

Calyptella capula (Holmsk. ex Pers.) Quel.--On rotted plant remains, n. The first site i Poland (det. R. Agerer). /245
N: CA, 710, VIII, (1): 16.

C. cf. flos-alba (Vel.0) W.B. Cooke--On the rotting remains of leaves of Petasites albus, dl. The first site in Poland (det. R. Agerer).
N: CA, 710, VIII, (1): 16.

The fructifications are horn or glass shaped, 1 to 4 mm long, .5 to 1 mm in diameter, cream white in color with yellow or milky white sections. The fructifications on the external surface are smooth or

covered with short hyaline hairs, the internal surface is also smooth. The stalk is rather pronounced, 1 mm in length, light grey in color, with a broad base and covered there with rather long white hairs. The spores are colorless, 8 to 8.8 by 3.2 μm (Fig.4).

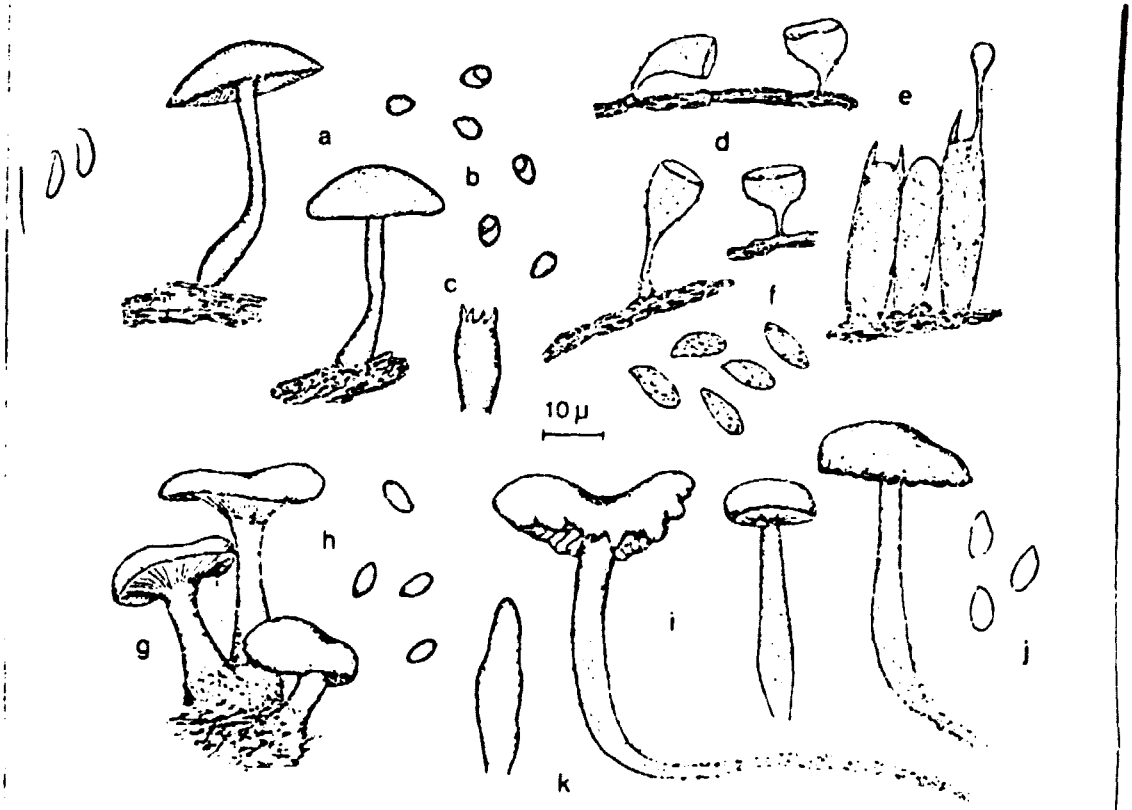

Fig. 4. *Calocybe onychina (a-c), Calyptella flos-alba (d-f), Clitocybe dilatata (g-h), Collybia inodora (i-k)*

a, g, i — owocniki, (1:1); *b, f, h, j* — zarodniki; *c* — podstawka; *d* — owoceniki (powiększone); *e* — podstawki; *k* — cystyda

a, g, i — fruit bodies, (1:1); *b, f, h, j* — spores; *c* — basidium; *d* — fruit bodies (magnified); *e* — basidia; *k* — cystide

Camarophyllus pratensis (Pers. ex Fr.) Kummer--Among grasses in 246
pastures with Calluna vulgaris, n.
S: 840, X, (1): 197.

Chalciporus piperatus (Bull. ex Fr.) Sing.--In achlamydous, loamy soil, on the edges of roads, among the sod of Rhytidiadelphus squarrosus, n.--
N: Pec, APm, 960-1180, VIII, (2): 116, 96;--S: 805-900, IX, (2): 18, 204.

Chroogomphus helveticus (Sing.) Moser sp. tatrensis (Pilat_ Kuthan et Singer--In soil among mosses, n. Kuthan (1973).
N: Pec, 1285, VIII, (1): 155;--S: GA, 920, IX, (1): 64.

According to Singer, Kuthan (1976), two very ecologically differentiated strains of Chroogomphus helveticus exist within the range of subspecies. The Ch. helveticus ssp. helveticus subspecies occurs under 5-needle pines, while the Ch. helveticus ssp. tatrensis grows mainly under the Picea abies.

Clitocybe candicans (Pers. ex Fr.) Kummer--Among needles, n.
S: GA, 870, IX, (1): 38.

*C. cerussata (Fr.) Kummer--In oil among fallen leaves, on the "Devil's rib", n.
N: DgF, 965, IX, (1): 92.

C. clavipes (Fr.) Kummer--Among needles, n.
S: GA, 815, IX, (1): 33.

*C. costata Kuehn. et Romagn.--In soil, under the Picea, n.
S: GA, 910, VI, (1): 172.

*C. ditopa (Fr.) Gill.--among needles and rotted twigs of Picea, dl.

(ill. 4).
N: Pec, 1210-1310, IX-X, (2): 19, 18;--S: DgF, GA, APm, Pec, 815-1330, IX-X, (7): 33, 36, 228, 50, 59, 40, 57.

C. fragrans (Sow. ex Fr.) Kummer--Among rotted leaves of Fagus, n.
N: DgF, 750, X, (1): 80;--S: CA, 810, X, (1): 48.

C. gibba (Pers. ex Fr.) Kummer--In soil among needles and leaves, n.
N: DgF, GA, 820-960, VIII, (5): 4, 141, 144, 133, 1;--S: GA, 830-880, VIII-IX, (4): 31, 32, 38, 30.

*C. incilis (Fr.) Quel. sensu Favre--In soil, n.
S: Pec, 1290, IX, (1): 41.

C. ornata (Sow. ex Fr.) Gill.--In sil among needles, n.
S: GA, 832, IX-X, (1): 31.

C. langei Sing. ex Hora--In oil among needles and leaves, dl.
N: DgF, Pec, APm, 1000-1310, IX-X, (5): 5, 7, 10, 20, 18;--S: GA, 880, IX-X, (2): 32, 36.

C. lignatilis (Pers. ex Fr.) Karst.--On trunks (at around 2 m in height) and logs of Fagus, among the sod of Anomodon viticulosus and Leskea polycarpa, n.
N: DgF, 930-1080, IX-X, (2): 83, 76.

C. odora (Bull. ex Fr.) Kummer var. odora--Among fallen leaves of Fagus, n. /247
N: DgF, GA, 925-1115, VIII, (3): 144, 142, 111.
--var alba ss. Lange--Among leafy mulch, n.
N: DgF, GA, 730-945, VIII, X, (2): 8, 142.

C. radicellata God. in Gillet--Among needles, n.
S: GA, 830-880, V, (3): 32, 31, 30.

*C. vibecina (Fr.) Quel.--Among needles and mosses, for ex.

Polytrichum attenuatum, n.
S: GA, Pec, 815-1305, VI-VII, IX, (5): 33, 36, 38, 43, 44.

Collybia acervata (Fr.) Kummer--On very rotted stumps of Picea, n.
S: BP, 780, X, (1): 47.

*C. asema (Fr.) Kummer--Among needles, dl.
S: GA, APm, Pec, 830-1300, VIII-X, (7): 32, 37, 38, 35, 34, 25, 211.

C. butyracea (Bull. ex Fr.) Quel.--Among leaves, needles and mosses, dl. +, ++
N: DgF, GA, 743-1010, VII, X, (5): 9, 80, 4, 3, 7;--S: GA, APm, 805-1050, VII-IX, (12): 188, 32, 36, 37, 179, 30, 39, 26, 214, 223.

C. confluens (Pers. ex Fr.) Kummer--Among mulch and on the rotted wood of Picea, n. +
N: DgF, SA, APm, 820-1100, V, VIII-IX, (6): 4, 70, 72, 7, 113, 14;--
S: Pec, 1300, VIII-IX, (2): 43, 44.

C. cookei (Bres.) J.D. Arnold--among mulch, on old fructifications of Armillarielia mella, on fireplaces, usually in groups numbering tens of fructifications, l.
N: DgF, 700-1040, IX-X, (7): 99, 80, 15, 83, 1, 6, 13;--S: DgF, GA, APm, BP, Sph, 750-1040, IX, (5): 62, 63, 30, 28, 50.

C. dryophila (Bull. ex Fr.) Kummer--Among mulch, dl.
N: DgF, GA, Pec, APm, EV, 740-1500, VI-VIII, (8): 81, 79, 70, 12, 83, 72, 95, 69;--S: Pec, DgF, GA, APm, 860-1305, VI-VII, IX-X, (6): 183, 30 228, 59, 173, 40.

C. inodora (Pat.) P.D. Orton [=Micromphale inodora (Pat.) Svrchek]--On rotted tumps of Picea, on wood chips buried among needles, n. This species has heretofore not been noted in Poland.
S: Pec, 1300, IX, (2): 40, 44.

The cap is 1 to 3.7 cm in diameter, pulvinaced or concave, the edge is very rippled and notched, hygrophanous, slippery, smooth, beige-rose in color. It is light rose colored after drying with a dark center, covered by delicate cream white scales. The blades grow /248 straight or not to the stem, are rather rough, narrow, long, sometimes connected by anastomosis or occuring in the form of creases, with a light rose color. The stem is 3.5 to 5 by 0.5 to 0.7cm, flattened, hollow, covered with bristly hairs, and at the base is a white felt like spawn, often rooty and excentric, with a beige-rose color (Fig. 4). The spores are ellipsoidal, 6.4 to 7 by 2.4 μm, not amyloidal. The cystides: 27.2 by 7.2 μ m. The species's description is contained in the work of Orton (1969).

C. maculata (Alb. et Schw. ex Fr.) Quel.--In soil and on rotted wood of Picea, Abies, n.
N: DgF, APm, 745-1005, VIII, (2): 137, 143.

C. peronata (Bolt. ex Fr.) Kummer--On young spruces among needles, n.
S: 855, VIII, (1): 196.

*C. putilla (Fr.) Sing.--Among needles, n.
S: GA, 880, VII, (1): 30.

C. tuberosa (Bull. ex Fr.) Quel.--Among mulch, on old fructifications of russula cf. ochroleuca, among Sphagnum sp. div. and Polytrichum attenuatum, dl., ++
N: DgF, Pec, 1030-1310, VIII-X, (5): 6, 21, 19, 20, 18;--S: Pec, APm, Sph, 790-1305, IX-X, (5): 45, 29, 35, 42, 44.

*Conocybe ambigua (Kuehn. ex) Sing.--Among mulch.n.
N: SA, 1040, IX, (1): 13.

C. brunnea J.E. Lge. Kuehn. ex Watling [=Pholiotina spetentrionalis (A.H. Smith) Singer s. Moser]--On rotted wood, n.
N: SA, 1040, IX, (1): 13.

*C. pilosella (Pers. ex Fr.) Kuehn.--Among leavy mulch, n.
N: SA, 1100, X, (1): 14.

*C. pubescens (Gill.) Kuehn.--In the excrement of horses in potato fields, n.
N: 800, VIII, (1): 148.

C. rickeniana Sing. (=Galera teneroides ss. Lge.)--In damp soil, n., ++
N: SA, 1100, IX, (1): 14;--S: APm, 870, X, (1): 22.

C. siliginea (Fr. ex Fr.) Kuehn.--In damp soil, n.
N: SA, 1100, VII, (1): 14.

*C. subovalis (Kuehn.) Kuehn. et Romagn.--In damp soil, often outside of forests by roads, n.
N: CA, 725, VIII, (1): 85;--S: GA, 830-890, V-VI, (4): 32, 29, 179, 39, 167, 30.

C. tenera (Schff. ex Fr.) Kuehn.--In damp soil, n.
S: GA, CA, 810-890, V-VI, X, (5): 48, 31, 177, 49, 39.

Coprinus angulatus Peck--On fireplaces, n.
S: APm, 890, VII, (1): 37.

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C. atramentarius (Bull. ex Fr.) Fr.--On rotted wood, n. +
N: DgF, CA, 935-1070, VIII, (2): 15, 115.

C. micaceus (Bull. ex Fr.) Fr.--On the rotted wood of Fagus, n.
N: DgF, SA, 960-1100, VII-VIII, (2): 1, 14;--S: DgF, 1060, IX, (1): 55.

C. patouillardii Quel. apud Pt.--In the excrement of deer (?), n.
S: Sph, 750, IX, (1): 62.

C. plicatilis (Curt. ex Fr.) Fr.--Among mulch, n. ++
N: DgF, 960, VII-VIII, (1): 1.

C. silvaticus Peck--In soil among mulch, n.
N: DgF, 930-1000, X, (2): 70, 5.

*C. truncorum (Schff.) Fr.--On fireplaces, n.
N: APm, 1030, VII, (1): 103.

*Cortinarius acutus (Pers. ex Fr.) Fr.--Among mulch, n.
S: GA, 830, VI, (1): 36.

C. allutus Fr.--In soil, n.
S: BP, 800, IX, (1): 189.

*C. alnetorum (Vel.) Mos.--In boggy soil, among Climacium dendroides, Mnium affine, and Cirriphyllum piliferum, dl.
N: CA, 700-935, IX, (2): 99, 15;--S: CA, 810-1015, IX-X, (2): 48, 65.

*C. arenatus (Fr.) Fr.--Among needles and moss, n.
S: APm, 931, IX, (1): 28.

C. atrocoeruleus (Mos.) Mos.--among clumps of Sphagnum sp. div., n.
S: BP, 752, IX, (1): 63.

*C. aureofulvus Mos.--Among the sod of Rhytidiadelphus triquetrus, n.
S: APm, 828, IX, (1): 32.

*C. bataillei Fav.--In soil among moss and needles, n., Bujakiewicz (174), sub. Dermocybe semisanguinea (Fr.).
N: Pec, 1145-1225, VIII, X, (2): 95, 17;--S: Pec, 1305, IX, (1): 44.

Cortinarius bataillei occurs in spruce stands in decalcified

substratum (Favre 1960; Nespiak 1975). The site of Cortinarius bataillei on Mt. Babia Gora is the first of this rare species in the Polish Carpathians. Moreover, only one site near Kamienia na Mazurach is known (Skirgiello 1968). Specimens of Cortinarius bataillei from Mt. Babia Gora have been taken by A. Nespiak. The dimensions of the fructifications in the Mt. Babia Gora specimens are somewhat smaller than in the description (a cap with a diameter of 1.5 to 2.5 cm).

C. bibulus Quel. (=C. pulchellus Lge.)--In boggy soil among thalluses of Conocephalum conicum and sod of Mnium undulatum, n. ++
N: CA, 710-935, VII-X, (2): 16, 15;--S: CA, 970, IX, (1): 65.

C. bolaris (Pers. x Fr.) Fr.--In packed damp soil, n.
N: SA, 1100, IX, (1): 14.

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C. brunneus Fr.--Among clumps of Sphagnum sp. div., Polytrichum attenuatum, Dicranum scoparium, n.
N: Pec, 1200, X, (1): 82;--S: BP, Sph, 780-790, IX-X, (3): 47, 46, 45.

C. callisteus (Fr.) Fr.--Among moss, n.
S: APm, Sph, 788-850, VII, IX, (2): 46, 29.

C. camphoratus (Fr.) Fr.--In soil among Dicranum scoparium, n.
S: APm, 898, X, (1): 24.

C. cinnamomeoluteeus Orton--Among needles and moss, for ex. Polytrichum attenuatum, Hylocomnium splendens, on forest roads, in peaty soil, n.
N: Pec, 1150, VIII, (1): 104;--S: Pec, 805-1240, IX, (2): 188, 192.

C. collinitus (Fr.) Fr.--Among needles, moss and peat, n.
S: APm, BP, Sph, 752-898, VII-X, (8): 63, 45, 33, 29, 35, 22-24,.

*C. decipiens Fr.--In soil among needles, n.
S: GA, 880, IX, (1): 30.

C. erythrinus (Fr.) Fr.--Among needles, n.
S: GA, 870, X, (1): 38.

*C. fistularis Britz.--In soil, n.
S: Pec, 1220, IX, (1): 42.

C. flexipes Fr. ss. Kuehner--In soil, n.
N: DgF, GA, APm, SA, 730-1100, IX-X, (6): 8, 9, 1, 3, 0, 14.

*C. fulvescens Fr. s. Favre--Among peat (for ex. Sphagnum girgensohnii, S. medium), n.
S: Sph, BP, 750-790, VI, IX-X, (5): 62, 63, 47, 46, 45.

C. helvelloides (Fr.) Fr.--In boggy soil among thalluses of Conocephalum conicum and sod of Mnium spiiinosum, dl. ++
N: CA, 700-1010, VII-X, (4): 99, 16, 15, 128;--S: CA, 810, X, (1): 48.

*C. hemitrichus Fr.--Among needles and moss, on the very rotted wood of Picea, n.
S: APm, Pec, 880-1290, VIII-X, (4): 22, 23, 42, 41.

C. hinnuleus (Sow. ex Fr.) Fr.--In soil among needles, n.
S: APm, 1105, X, (1): 190.

*C. laetissimus R. Hry.--Among needles, n.
S: GA, 840, IX, (1): 178.

C. malicorius Fr.--In soil among moss, n.
N: Pec, 1225, IX, (1): 17.

This is a rare species which appears in the northern part of the country and in the mountains, (Nespiak 1975). It was taken from Gorec (Domanski 1965) and from Gore Shwietokrzyke (Lisiewska 1979). The Mt. Babia Gora specimens of C. malicorius have weakly recognizable olive color flesh and do not have a raddishy aroma (det. A. Nespiak). /251

C. mucosus (Bull. ex Fr.) Fr.--Among peat, n.
S: Sph, 788, IX, (1): 46.

*C. multicolor (Mos.) Mos.--In soil among needles, n.
S: GA, 830, IX, (1): 36.

C. paleaceus (Fr.) Fr.--In soil among the sod of Entodon schreberi, Polytrichum commune, Dicranum scoparium, Bazzania trilobata and clumps of Sphagnum girgensohnii, dl.
S: GA, APm, BP, Sph, 750-850, VI-X, (9): 227, 63, 47, 45, 160, 36, 31, 29.

C. pulchripes Favre--In boggy soil, n. ++
N: CA, 935, X, (1): 15.

*C. rigens (Pers. ex Fr.) Fr.--Among mulch, n.
S: APm, 875, VIII, (1): 35.

C. sanguineus (Wulf.) Fr.--Among needles and Dicranum scoparium, n.
S: GA, APm, 815-888, VIII-X, (4): 194, 36, 22, 23.

C. subtortus (Pers. ex Fr.) Fr.--In soil, n.
S: Pec, 1305, VIII, (1): 40.

C. traganus (Fr.) Fr.--At the edge of peat bogs among Nardus stricta, n.
S: 780, IX, (1): 182.

C. uliginosus Berk.--Among Sphagnum medium, Polytricum ommune and Carex puciflora, l.
S: Sph, BP, 750-790, VIII-X, (6): 62, 227, 63, 47, 46, 45.

*C. umidicola (Kauffm.)--Among needles, n.
S: GA, 840, IX, (1): 178.

*C. validus Fav.--Among needles, moss and Nardus stricta, n.
S: BP, Sph, 752-800, IX, (3): 63, 45, 189.

Crepidotus applanatus (Pers. ex Pers.) Kummer.--On logs of Fagus, at the base of trunks of Picea, n.
N: DgF, 900, IX, (1): 70;--S: APm, 1060, IX, (1): 223.

C. cesatti Rab.--On logs of Picea, n. +
N: SA, Pec, 1100-1210, VII, (2): 14, 19;--S: Pec, 1290-1305, IX-X, (3): 41, 43, 40.

C. variabilis (Pers. ex Fr.) Kummer.--On fallen twigs of Picea, n.
N: SA, 1100, X, (1): 14.

Cystoderma amiantinum (Scop. ex Fr.) Fay.--Among needles and moss, l. +, ++
N: DgF, GA, APm, Pec, 753-1310, VIII-X, (10): 137, 146, 7, 103, 6, 10, 100, 21, 17, 18;--S: DgF, GA, Pec, APm, BP, Sph, 790-1370, VIII-X, (16): 45, 189, 64, 61, 222, 8, 218, 207, 43, 210.

C. carcharias (Pes. ex Secr.) Fay.--Among needles and moss, l. +, ++
N: DgF, GA, APm, Pec, 730-1185, VIII-X, (9): 8, 9, 145, 2, 5, 7, 6, 10, 21;--S: GA, APm, 815-910, VI-X, (9): 33, 32, 31, 37, 38, 22, 30, /252
39, 25.

C. fallax Smith. et Sing.--Among needles, n.
N: GA, 730, X, (8): 8;--S: GA, 870-880, IX-X, (2): 38, 30.

Cystoderma fallax appearing in subalpine forests of the Alps (Favre 1960; Moser 1967) is known in the Tatras (Nespiak 1962). The fructifications of this species, somewhat similar to those of Cystoderma amiantinum, are larger and possess filmy rings on the stem. Spores of the C. fallax are spherical (Fig. 5).

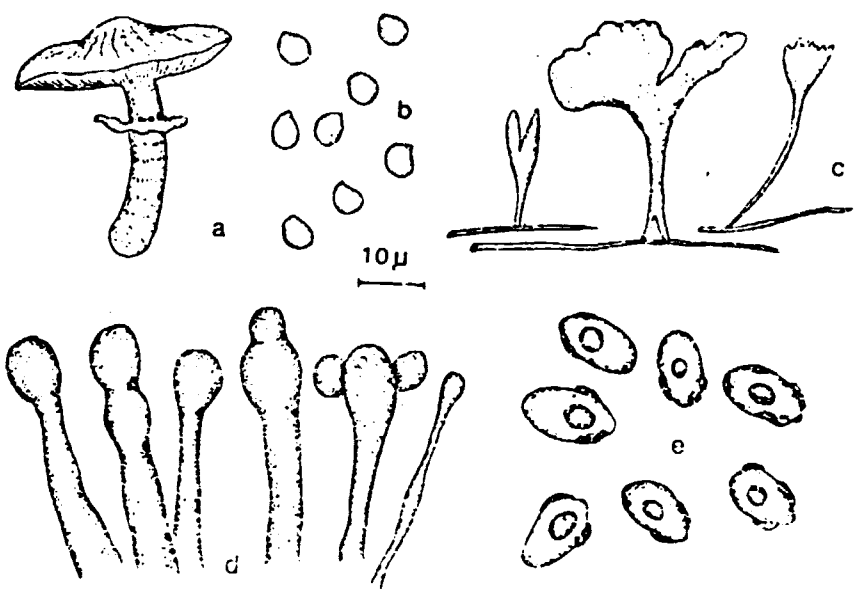

Fig. 5. *Cystoderma fallax (a-b), Anthina flammea (c), Galerina sahleri (d, e)*
a — owocnik, (1:1); b, c — zarodniki; d — cystydy
a — fruit body; b, e — spores; d — cystidia

C. sublongisporum (Sing.) Sing. [=C. amiantinum (Scop. ex Fr.) Fay. var. sublongisporum Sing.]--Among needles, moss, in alpine meadows, l.
N: APm, Pec, 1050-1620, IX-X, (5): 108, 10, 20, 18, 125;--S: GA, Pec, APm, BP, Sph, 752-1305, VIII-X, (16): 63, 46, 33, 37, 22, 8, 42, 41, 40, 44.

*Galerina badipes (Fr.) Kuehn.--On rotten twigs and pieces of Picea, n.
N: Pec, 1185-1310, VII-VIII, X, (3): 21, 20, 18;--S: GA, Pec, 830-1345, VII- X, (7): 36, 165, 41, 43, 40, 44, 58.

*G. heterocystis (Atk.) Sm. et Sing. [=G. clavata (Vel.) Kuehn.]-- /253
Among grass in marshes, n.
S: 850, V, (1): 168.

G. hypnorum (Schrank ex Fr.) Kuehn.--Among moss on logs, stumps and trunks of Picea, Abies, Fagus, l., ++
N: DgF, GA, APm, SA, 720-1070, VII-X, (10): 138, 9, 1-3, 5, 7, 6, 13, 10;--S: APm, Pec, GA, 815-1305, VII-X, (19): 33, 159, 29, 28, 42, 212, 41, 43, 40, 44.

G. mniophila (Lasch) Kuehn.--Among moss (for ex. Polytrichum attenuatum, P. strictum, Dicranum scoparium, Plagiothecium undulatum) and peat bogs (Sphagnum girgensohnii), n. ++
N: Pec, APm, EV, 960-1500, VI-X, (7): 11, 14, 21, 17, 20, 18, 69;--S: APm, BP, 780-931, VI, VIII, IX, (3): 47, 27, 28.

G. mycenoides (Fr.) Kuehn.--Among Sphagnum girgensohnii and Plagiothecium undulatum, dl.
S: BP, 780, IX-X, (1): 47.

G. paludosa (Fr.) Kuehn.--Among peat bogs, l.
S: Sph, BP, 750-800, VI-VII, IX, (6): 62, 63, 47, 46, 45, 160.

G. pseudobadipes Joss.--On the rotted wood of Picea, n.

N: DgF, 1030, X, (1): 6.

G. pseudocamerina Sing.--On the rotted wood of Picea, on fallen cones of Abies, on rotted stems of Dicranum scoparium, n.
S: GA, 815-890, VI, (5): 33, 32, 31, 37, 39.

*G. sahleri (Quel.) Kuehn.--Among moss (for ex. Dicranodontium denudatum, Dicranum scoparium, Plagiothecium undulatum) and liverworts (Mylia taylori), which grow on logs and stumps of Picea, Abies, on the root-stock of Homogyne alpina, 1.
N: Pec, DgF, APm, GA, 730-1310, VI-X, (1): 8, 9, 12, 91, 83, 1, 1, 19, 17, 20, 18;--S: Pec, APm, 850-1305, VIII-X, (6): 29, 42, 41, 43, 40, 44.

An interesting species, it is found, for example, in Switzerland (Favre 1948). In Poland it is noted in the upper subalpine spruce forests in Karkonoszy (Nespiak 1971). Characteristic papilla occur on the surface of the pores of Galerina sahleri (Fig. 5).

G. sideroides (Fr.) Kuehn.--On rotted twigs, pieces of bark, stumps and logs of Picea, Abies, n.
N: Pec, DgF, GA, 730-1210, X, (3): 8, 2, 19;--S: BP, GA, APm, 780-1030, IX-X, (5): 47, 189, 35, 30, 52.

G. sphagnorum (Fr.) Kuehn.--Among peat bogs, n.
S: Sph, 800, VII, (1): 160.

G. subbadipes Huijsm.--In soil, n.
S: APm, 890, V, (1): 34.

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G. tibiicystis (Atk.) Kuehn.--Among peat bogs (for ex. Sphagnum medium), n.
S: Sph, BP, 750-790, VII-IX, (4): 62, 47, 46, 45.

G. triscopa (Fr.) Kuehn.--Among moss (for. ex. Drepanocladus uncinatus, Brachythecium reflexum), on rotted stumps and logs of Picea, Abies, Fagus, n.
N: DgF, GA, Pec, CA, 730-1210, VIII-X, (6): 8, 9, 15, 6, 21, 19;--S: GA, APm, 860-890, VII, IX-X, (5): 37, 38, 22, 30, 39.

*G. uncialis (Britz.) Kuehn.--On rotted twigs, logs of Picea, n.
S: Pec, 1290-1305, X, (3): 41, 44, 40.

G. unicolor (Fr.) Sing.--On rotted logs, stumps of Picea, Abies, dl.
N: DgF, SA, APm, GA, 743-1100, VII, IX-X, (10): 9, 70, 1, 3, 2, 7, 6, 13, 0, 14;--S: GA, APm, 830-940, V-VI, IX-X, (9): 36-38, 35, 30, 34, 39, 185, 167.

*G. vittaeformis (Fr.) Sing.--In soil among mulch, on fireplaces, on logs of Picea, n.
N: GA, Pec, 730-1310, VII-VIII, X, (3): 8, 19, 18;--S: APm, 890, X, (1): 34.

Gerronema chrysophyllum (Fr.) Sing.--On logs of Abies, Picea, among sod of Orthodicranum montanum and Dicranum scoparium, n.
N: SA, 1100, VIII, (1): 14;--S: Pec, 1300, VII, (1): 43.

The spores of the fructifications of Gerrnema chrysophyllum collected in patches of the upper subalpine spruces forest have the dimensions: (11.2-) 12.8 to 14.4 (-16) by 4.8 to 6.4 μm.

G. fbula (Bull ex Fr.) Sing.--Among moss (for example Atrichum undulatum, Philonotis fontana, Mnium affine, Distichum capillaceum) in marshes, n.
N: CA, GA, 715-810, VII-VIII, (3): 137, 85, 140;--S: GA, 830-950, VII IX, (3): 32, 30, 166.

G. setipes (Fr.) Sing.--Among moss (for ex. Mnium affine, Plagiomnium

rostratum, Brachythecium starkei, Eurhynchium zetterstedtii), which grow on logs and rocks, n. - -
N: DgF, CA, SA, 710-1100, VI-VIII, X, (5): 16, 15, 6, 13, 14.

Gomphhidius glutinosus (Schff). Fr.--In soil among grass and peat, n.
S: APm, BP, 825-828, VII, IX, (2): 171, 32.

G. maculatus (Scop.) Fr.--In soil under Larix, n.
S: GA, 980, IX, (1): 65.

*Gymnopilus bellulus (Peck) Murr.--On rotted wood of Abies, n. /255
S: GA, 832, IX, (1): 31.

G. hybridus (Fr. ex Fr.) Sing.--On rotted logs, twigs of Abies, n.
N: DgF, 970, X, (1): 3;--S: APm, 850-1170, V, IX, (2): 29, 206.

G. liguritiae (Pers. ex Fr.) Karst.--On logs of Picea, n.
S: Pec, 1305, IX, (1): 40.

G. microsporus Sing.--On stumps of Picea, n.
S: GA, 830, VI[illegible], (1): 32.

G. penetrans (Fr. ex Fr.) Murr.--On logs, stumps, truncks of Abies, Picea, n.
N: DgF, GA, 730-1030, VII, IX-X, (5): 8, 70, 83, 7, 6;--S: APm, 850-880, X, (2): 29, 169.

*G. picreus (Pers. ex Fr.) Karst.--On logs, stumps of Picea, n.
N: SA, Pec, 1040-1285, VII-IX, (2): 13, 20;--S: GA, Pec, 830-1300, VII, IX, (2): 36, 43.

G. sapineus (Fr.) Mre.--On stumps, fallen twigs of Picea, n.
S: APm, 850-1045, IX, (3): 29, 190, 224.

*G. stabilis (Wienm.) Kuehn. et Romagn.--On the rotted wood of Picea, n.

N: Pec, 1240, IX, (1): 19.

*G. subsphaerosporus (Joss.) Kuehn. et Romagn.--On the rotted wood of Picea, n.
S: Pec, 1305, VIII, (1): 40.

*Hebeloma helodes Favre--Among peat and moss, dl.
S: BP, Sph, 752-788, VIII-X, (3): 63, 46, 47.

*H. mesophaeum (Pers.) Quel.--On fireplaces and on very rotted wood, n.
S: APm, BP, 780-931, IX, (3): 182, 23, 27.

H. pumilum Lge.--In damp soil, n.
N: CA, 700, IX, (1): 99.

*H. sibsaponaceum Karst.--In soil, n.
S: APm, 928, X, (1): 26.

*H. versipelle (Fr.) Gill.--In soil among Polytrichum attenuatum, n.
N: Pec, 1240, X, (1): 114.

*Hemimycena crispata (Kuehn.) Sing.--On the fallen needles of Abies, n.
S: GA, 832, VII, (1): 31.

H. delicatella (Peck) Sing.--Among needles, n.
S: GA, 860, VI, (1): 177.

H. gracilis (Quel. ss. Sacc.) Sing.--On the fallen needles and twigs of Picea, Abies, n.
N: DgF, SA, CA, GA, Af, 710-1165, VII-VIII, (6): 16, 9, 91, 14, 119, 154;--S: DgF, GA, APm, 832-931, VI, VIII-IX, (5): 31, 30, 25, 60, 28.

H. pseudogracilis (Kuehn. et Maire) Sing.--On the fallen needles of /256

Picea, n.
S: GA, 830-880, VII, IX, (2): 32, 30.

*Hygroaster asterosporus (Lange) Sing.--In soil among needles, n.
N: Pec, 1150, VII, (1): 87;--S: APm, 928, VI, (1): 26.

Hygrocybe chlorophana (Fr.) Karst.--Among the sod of Entodon schreberi and clumps of Nardus stricta in forest meadows, n.
S: 820, VII, (1): 161.

H. conica (Scop ex Fr.) Kummer--In soil among grass by a road, n.
S: 855, VII, (1). 196.

H. murinaceus (Fr.) Moser--In damp soil among grass in forest meadows, n.
S: 870, IX, (1): 179.

Hygrophoropsis aurantiaca (Wulf. et Fr.) R. Mre.--In soil among moss and peat, n.
N: GA, 720, VIII, (1): 139;--S: APm, BP, 790-850, IX, (2): 47, 29.

Hygrophorus chrysodon (Batsch ex Fr.) Fr.--In soil, n.
S: APm, 850, IX, (1): 179.

H. eburneus (Bull. ex Fr.) Sing.--In soil among leaves and twigs of Fagus, often on the "Devil's rib", dl., +, ++
N: DgF, GA, APm, 730-1010, VIII-X, (6): 8, 9, 137, 4, 134, 143.

*H. leucophaeus (Scop. ex Fr.) Fr.--In soil among leaves of Fagus, n.
N: DgF, 955, X, (1): 83.

H. lucorum Kalchbr.--Among grass in forest meadows, under Larix,
S: 855-870, X, (2): 196, 179.

H. olivaceoalbus (Fr.) Fr.--In soil among needles, moss (for example

Polytrichum attenuatum, Entodon schreberi, Leucobryum glaucum, Dicranum scoparium, Plagiothecium undulatum) and peat (Sphagnum girgensohnii), less frequently on very rotted wood and rotted remains of Picea, bl. ++

N: DgF, GA, APm, Pec, SA, 730-1310, VIII-X, (18): 8, 12, 11, 13, 21, 88, 17, 20, 155, 18;--S: DgF, GA, Pec, APm, BP, 750-1305, VIII-X, (30): 63, 217, 53, 228, 224, 59, 42, 41, 43, 44.

*H. pustulatus (Pers. ex Fr.) Fr.--In soil among moss (for ex. Plagiothecium undulatum, Polytrichum attenuatum, Mnium affine), less frequently on very rotted wood, l.

N: DgF, GA, APm, Pec, SA, 730-1310, IX-X, (12): 8, 2, 13, 10, 14, 21, 17, 114, 20, 18;--S: DgF, GA, Pec, APm, 830-1360, IX-X, (14): 36, 22, 30, 39, 25, 222, 173, 42, 40, 211.

H. tephroleucus (Fr.) Fr.--In soil among peat and moss, n. /257

S: Pec, BP, 780-1300, IX, (2): 47, 40.

*Inocybe boltonii Heim (=I. subcarpata Bours. et Kuehn.)--In soil among needles and moss (Polytrichum attenuatum), dl.

N: DgF, GA, APm, Pec, 745-1198, VIII-IX, (7): 139, 147, 145, 87, 104, 21, 88;--S: Pec, 1265-1360, IX, (3): 193, 40, 209.

I. bongardii (Wienm.) Quel.--In soil, n.

S: [illegible], 832, X, (1): 31.

I. brunneo-atra (Heim) P.D. Orton.[=I. descissa (Fr.) Quel. vr. brunneo-atra Heim]--In soil among needles, thalluses of Conocephalum conicum and sod of Mnium seligeri, n.

n.

N: DgF, Af, 800-1175, VIII, X, (2): 4, 154;--S: DgF, GA, 830-935, VII-IX, (3): 32, 31, 64.

I. calamistrata (Fr.) Quel.--In damp soil, n.

N: DgF, 960, IX, (1): 1.

I. cincinnata (Fr.) Quel.--In damp soil and in the cracks of rotted stumps of Abies, n.
N: CA, 710, X, (1): 16;--S: GA, 910-930, IX, (2): 25, 64.

*I. eutheles Bk. et Br.--In soil among needles, n.
S: GA, 870, VIII-X, (1): 38.

*I. friesii Heim--In soil, n.
S: GA, APm, 870-880, VII-VIII, X, (3): 38, 30, 23.

I. geophylla (Sow. ex Fr.) Kummer var. geophylla--In loamy escarpments by roads, in damp soil among needles, n.
N: CA, 750-760, IX-X, (2): 85, 80;--S: GA, 830-832, IX-X, (2): 32, 31.
--var. lateritia (Weinm.)--On loamy escarpments by roads, n.
N: 760, IX, (1): 80.

I. godeyi Gill.--In damp soil among thalluses of Pellia fabroniana, n., +
N: SA, 110, IX, (1): 14;--S: GA, 910, IX, (1): 25.

*I. grammata Quel. (=I, bresadikae Nass,)--In soil among needles and moss (Polytrichum attenuatum, Mnium affine), n.
N: Pec, 1230, VIII, (1): 121;--S: GA, Pec, 830-1290, IX-X, (5): 32, 36, 37, 39, 41.

Specimens were determined by A. Nespiak. The fructifications had a strong scent of carbide (?). No trace of rose color was observed on them.

*I. gymnocarpa Kuehn.--In damp soil, n.
S: CA, 832, X, (1): 31.

*I. hirtella Bres.--In soil, for ex. among thalluses of Marchantia

polymorpha, n.
N: DgF, APm, GA, 730-1035, IX-X, (4): 8, 80, 97, 103.

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*I. hystrix (Fr.) Karst.--In soil on escarpments near roads, among Atrichum undulatum, n.
N: GA, 770, VIII, (1): 140.

*I. inconcinna Karst.--In soil among needles, moss and grass, n.
N: GA, 710, VIII, (1): 16;--S: GA, APm, 830-880, VII-X, (4): 32, 35, 179, 30.

I. lacera (Fr.) Kummer--In loamy soil on escarpments near roads, n.
N: Pec, VII, (1): 104.

I. lanuginosa (Bull. ex Fr.) Kummer--In soil among moss, liverworts and peat, on very rotted wood, n.
S: BP, Sph, APm, 780-850, VII-IX, (3): 47, 46, 29.

I. mixtilis Britz--In soil among needles, on rotted stumps, n.
S: DgF, GA, APm, 830-1060, VIIIX, (6): 36, 31, 194, 29, 37, 55.

I. napipes Lge.--Among peat and clumps of Nardus stricta, n.
S: BP, 752-780, IX, (2): 63, 47.

*I. oblectabilis Britz.--In soil among needles and moss, less frequently on rotted stumps, n.
S: GA, APm, Sph, 788-931, VII-IX, (4): 46, 36, 29, 27.

*I. obscura (Pers. ex Pers.) Gill.--In soil by stumps of Abies, n.
S: GA, 832, IX, (1): 31.

*I. pallidipes Ell. et Ev. ss. Lange--In soil, n.
S: GA, 743, VIII, (1): 9.

I. paludinella Peck--In soil among moss, n.
S: APm, 850, VII-VIII, (1): 29.

I. praetervisa Quel.--In soil among moss and on rotted wood, n.
N: DgF, 900, VIII, (1): 94;--S: APm, 875, VII, (1): 35.

*I. tarda Kuehn.--In soil among needles, n.
S: GA, 830-832, VIII-IX, (2): 32, 31.

I. umbrina Bres.--In soil among moss, n.
N: APm, 880, IX, (1): 12;--S: GA, APm, 830-931, VII-X, (6): 164, 29, 178, 30, 24, 27.

*Kuehneromyces mutabilis (Schaeff. ex Fr.) Sing. et Smith--On rotted stumps of Fagus, Picea, n.
N: DgF, 930-980, VI, VIII, (2): 83, 1;--S: GA, 830-870, VI-VIII, (3): 36, 169, 179.

*K. vernalis (Peck) Sing. et Smith--On rotted stumps of Picea, n.
S: GA, 815, IX, (1): 33.

The species is rather rare, found for example in fir forests in Roztocz (Salata 1972).

Laccaria amethystina (Bolt. ex Hooker) Murr.--In soil among mulch, moss (Dicranum scoparium, Mnium affine) and peat, less frequently on rotted wood, dl., +, ++ /259
N: DgF, GA, APm, 730-1070, VIII-X, (13): 8, 9, 147, 134, 142, 1, 92, 129, 6, 10;--S: GA, Pec, APm, BP, 780-1300, IX-X, (12): 47, 33, 36-38, 22, 24, 26, 27, 43.

L. laccata (Scop. ex Fr.) Berk. Br.--In soil among leaves and needles, on rotted cupules of Fagus and remains of Picea, less frequently on escarpments by roads, bl., +, ++
N: DgF, GA, APm, CA, SA, Pec, 730-1200, VIII-X, (28): 8, 81, 140, 147, 12, 92, 129, 6, 93, 82;--S: DgF, GA, Pec, APm, CA, 805-1360, VII-

X, (27): 188, 36, 22, 27, 65, 225, 43, 208-210.

*L. proxima (Boud.) Pat.--Among peat and moss, dl.
S: Sph, Pec, BP, 752-1305, VIII-X, (5): 63, 47, 46, 188, 40.

Lactarius aurantiacus Fr.--In soil among mulch and on very rotted wood, l. ++
N: DgF, GA, 730-935, VIII, X, (2): 8, 144;--S: GA, Pec, APm, BP, 815-1250, VIII-X, (19): 33, 36, 39, 24, 64, 25, 26, 231, 193.

L. blennius Fr.--In soil among leaves of Fagus, dl. ++
N: DgF, GA, 743-1080, VIII-X, (8): 9, 4, 141, 79, 144, 133, 1, 93.

L. camphhoratus Bull. ex Fr.--In soil among moss and on the trunck of Picea, n.
S: APm, 850-931, VII-X, (4): 29, 24, 27, 28.

L. deliciosus L. ex Fr.--In soil among grass, on the edges of the forest, n.
S: GA, APm, CA, 81--900, VIII-X, (8): 48, 31, 29, 177, 179, 35, 23, 64.

L. fuliginosus Fr.--In soil among leaves of Fagus, n.
N: DgF, GA, 743-960, IX, (2): 9, 1.

L. glyciosmus Fr.--In soil among grass, by roads around Betula, n.
S: 840, X, (1): 196.

*L. helvus Fr.--Among peat and moss, dl.
S: Sph, GA, Pmc, APm, BP, 750-1600, IX-X, (9): 63, 47, 46, 45, 36, 29, 24, 26, 200.

L. lignyotus Fr.--In soil among moss (Polytrichum attenuatum, Rhytidiadelphus loreus), dl. ++
N: GA, APm, Pec, 775-1225, VIII-IX, (4): 1147, 146, 21, 17;--S: GA, Pec, APm, BP, 780-1300, VI-IX, (10): 47, 33, 36, 29, 30, 34, 24,

26, 193, 43.

L. mitissimus Fr.--In soil among grass at the edge of the forest, n. --
S: 810, X, (1): 188.

L. necator (Bull em Pers. ex Fr.) P. Karst.--In soil among Polytrichum attenuatum, n.
N: Pec, 1170, VIII, (1): 132;--S: Pec, 1220, IX, (1): 42.

L. obscuratus (Lasch) Fr.--In boggy soil among thalluses of /260
Conocephalum conicum and sod of Mnium sp. div., dl. ++
N: CA, 700-1010, VII-X, (4): 99, 16, 15, 128.

L. pallidus Pers. ex Fr.--In soil among the sod of Fagus, n.
N: DgF, 870, VIII, (1): 134.

L. picinus Fr.--In soil among moss, dl.
N: DgF, 900, X, (1): 70;--S: DgF, GA, APm, 832-980, VIII-X, (10): 31, 217, 29, 30, 23, 24, 167, 28, 172, 222.

L. piperatus Scop. ex Fr.--In soil, n. ++
N: GA, APm, 743-775, VIII, (2): 9, 147;--S: GA, APm, 830-931, VIII-X, (5): 32, 31, 197, 25, 28.

L. porninsis Roll.--In soil under Larix, in marshes, n.
S: 870, IX, (1): 179.

*L. pterosporus Romang.--In soil among leaves of Fagus, n.
N: DgF, GA, 743-870, VIII, (2): 9, 135.

*L. repreaesentaneus Britz.--In soil among needles under Picea and Salix caprea, n.
S: GA, APm, 850, IX, (2): 217, 179.

L. rufus Scop. ex Fr.--In soil among moss, in peaty soil, less frequently on stumps of Picea, l. +

N: Pec, GA, Pmc, 805-1500, VIII, (5): 136, 146, 87, 155, 124;--S: Sph, GA, Pec, APm, BP, 752-1360, VII-X, (14): 63, 45, 33, 36, 217, 22, 61, 228, 59, 211.

L. salmonicolor Heim et Lecl. (=L. subsalmoneus Pouz.)--In soil under Abies, n.
S: GA, 832, VIII-X, (1): 31.

L. scrobiculatus Scop. ex Fr.--In soil under Salix caprea, n. +
S: GA, 850-880, IX, (1): 217.

L. semisanguifluus Heim et Lecl.--In soil under Picea and Salix caprea, n.
S: GA, 920-950, IX, (2): 64, 221.

L. subdulcis Bull. ex Fr.--In soil among leaves of Fagus and needles, on very rotted wood, l. ++
N: DgF, GA, APm, 743-1070, VII-X, (20): 9, 137, 147, 4, 134, 1, 3, 7, 6, 113;--S: DgF, GA, Pec, APm, 830-1290, VII-X, (12): 36, 31, 29, 24, 26, 64, 219, 52, 218, 41.

L. theiogalus Bull ex Fr.--Among peat, dl.
S: BP, Sph, 780-788, VII-X, (2): 47, 46.

L. uvidus Fr.--In soil among moss, n.
S: GA, 832, IX, (1): 31.

L. vietus Fr.--In soil among moss, n.
S: APm, 875, IX, (1): 35.

L. volemus Fr.--In soil among moss, n.
S: GA, 830, IX, (1): 32. /261

Leccinum aurantiacum (Bull. ex Fr.) S.F. Gray--In soil among grass under Picea, on young spruces, n.
S: GA, 870-900, VIII-IX, (2): 186, 64.

L. scabrum (Bull. ex Fr.) S.F. Gray--In forest meadows among grass under Betula, n.
S: 850, VIII, (1): 194.
*Lentinellus castoreus (Fr.) Konr. et Maubl.--On the logs of Abies among the sod of Plagiothecium laetum and Mnium punctatum, n.
N: DgF, 970, X, (1): 3.

L. cochleatus (Pers. ex Fr.) P. Karst.--On stumps of Picea, Abies, Fagus, n., +
N: DgF, 75010450, VIII-X, (3): 80, 4, 143;--S: GA, APm, 830-931, IX-X, (5): 36, 37, 26-28.

Lentinus adhaerens (Alb. et Schw. ex Fr.) Fr.--On stumps and trunks of Abies among the sod of Drepanocladus uncinatus and Hypnum cupressiforme, n. +
S: GA, APm, 832-880, V, IX, (3): 31, 38, 49.

*Lepiota eriophora Peck sensu Dennis--In soil among needles, n.
S: GA, 880, VIII, (1): 30.

L. ventriosospora Reid--In soil among needles and moss, n.
S: GA, 832, IX, (1): 31.

A rather rare and interesting species, this has been seen in Poland in the Tatras and Pienin (Skirgiello 1968) and Gory Shwietokrzyske (Lisiewska 1979).

Lepista nuda (Bull. ex Fr.) Cooke--In forest meadows among grass under Larix and Picea, n., +
S: 870, X, (1): 179.

Lyophyllum athracophilum (Lasch) M. Lge et Sivertsen [=Tephrocybe carbonaria (Vel.) Donk]--On fireplaces among thalluses of Marchantia

polymorpha and sod of Funaria hygrometrica, dl.
N: GA, APm, 750-1060, VIII, X, (3): 16, 80, 109;--S: GA, APm, 815-931, V-X, (10): 33, 36, 30, 34, 39, 25-28, 167.

L. connatum (Schum ex Fr.) Sing.--In damp soil by roads, n. +
S: 815, VII, IX, (1): 187

L. fumosum (Pers. ex Fr.) Kuehn. et Rom. ex Orton--In damp soil by roads, n.
S: 880, X, (1): 169.

L. gibberosum (J. Schaeff.) M. Lange (=Collybia gibberosa J. Schaeff.)--On mold found on decomposing needles of Picea, piles, n. /262
A new species for the flora of Poland (rev. G. Gulden).
N: Pec, 1185-1285, X, (2): 21, 20.

The cap is (.8) to 1.5 to 2.3 in diameter, protuberant to flat, always with a markedly separate rounded bump, completely dark beige, hygrophanous, smooth and damp. Pronounced powder occurs on the edge of the cap and small silvery hairs on the surface of drying fructifications. The flesh is brown and has a meally flavor and aroma. The stem is 2 to 3.5 to 5 by .1 to .2 cm, black-brown in colored, waved, with internal channels. Older fructifications are thicker at the base and young ones thinner, and they are covered lengthwise with white hairs (somewhat compacted under the cap). The fructifications grow from brown-beige, bean-like or bulbous sclerotia with a diameter of .5 to .8 cm. The blades grow straight (rather free in some specimens), thinly placed, rather thick, being the widest at the center, sometimes connected by anastomoses, a sallow grey or grey-beige color with light rose segments. The spores' eruption is white, the spores themselves are colorless, 6.4 to 7.6 by 4.8 to 6.4 μ m, covered with long rounded papillae, which take the shape of stars or rosettes. The basidia are 4-spored and 25 to 30 by 8 to 10 μ m. There are no cystydae (Fig. 6). The species Lyophyllum gibberosum was described by Schaeffer (1942) under the name of

Collybia gibberosa, on the basis of specimens collected in pine forests in the vicinity of Poczdam. Lange collected a new combination under the name Lyophyllum gibberosum (1954). In Denmark it was noted in peat bogs and in spruce forests (Lange 1946, 1948) and in Norway in subalpine oligotrophic birch forests at an elevation of 780 m above sea level (Gro Gulden, oral information).

In Schaeffer's description (1942), there is no mention of the growth of fructifications from the sclerotia, although Lange (1946) admits that the sclerotium does not always occur, which is in agreement also with the observations performed at Mt. Babia Gora. The sclerotia, especially in young specimens, are connected to the stem by delicate spawn hairs and hence, it is probable that these forms are easily separated during the collecting of the fructifications.

*L. infumatum (Bres.) Kuehner.--In damp soil on young spruces with a share of Fagus and Salix caprea, n.
S: 882, Ix, (1): 217.

*L. inolens (Fr.) Sing. [=Tephrocybe inolens (Fr.) moser]--Among needles and rotted wood, n.
N: Pec, 1310, X, (1): 18.

L. palustre (Peck) Sing. [=Tephrocybe palustre (Peck) Donk]--Among peat bogs, dl. /263
S: Sph, BP, 750-800, VI-X, (5): 62, 63, 46, 45, 16;0.

*L. tequorum (Fr.) Sing. [=Tephrocybe tesquorum (Fr.) Moser]--In soil among needles, on fireplaces, n.
N: Pec, Af, 1165-1310, X, (2): 154, 18;--S: APm, 890, X, (1): 34.

*Macrocystidia cucumis (Pers. ex Fr.) Heim--In damp soil among moss (Mnium affine, M. undulatum, Atrichum undulatum) and fragments of the wood of Picea, in forest meadows, on the edge of roads, n. +

N: CA, 740, X, (1): 85;--S: 890-910, IX-X, (2): 39, 180.

Marasmiellus ramealis (Bull. ex Fr.) Sing.--On fallen small twigs of Alnus sp., n.
N: CA, 700, IX, (1): 99.

Marasmius alliaceus (Jacq. ex Fr.) Fr.--On fallen twigs of Fagus, l. ++, +++
N: DgF, GA, APm, CA, 730-1115, IX, (22): 8, 4, 12, 94, 1, 3, 2, 5, 10, 111;--S: DgF, GA, APm, 910-1150, IX, (14): 53, 222, 219, 50, 54, 225, 56, 218, 29, 213.
--var. subtilis Lange--Among leafy mulch, n. ++
N: DgF, APm, 930-1070, VI-X, (6): 83, 1, 11, 10, 5;--S: DgF, 1040, IX, (1): 50.

M. androsaceus (L. ex Fr.) Fr.--On fallen needles, twigs, bark fragments and remains of Picea, on rotted shoots and leaves of Vaccinium myrtillus and V. vitis-idaea, bl. +, ++
N: APm, Pec, Pmc, Vm, 743-1560, VI-X, (14): 9, 10, 78, 87, 21, 88, 19, 13, 106, 107;--S: GA, Pec, APm, BP, 752-1345, V-X, (41): 63, 38, 24, 6, 61, 228, 56, 207, 44, 58.

M. bulliardii Quel.--On fallen leaves of Fagus, needles of Picea, n. ++
N: DgF, 880-970, IX-X, (3): 79, 1, 3;--S: DgF, GA, APm, 830-925, VII, IX, (4): 32, 30, 22, 60.

M. oreades (Bolt. ex Fr.) Fr.--In forest meadows among grass, n.
S: 870, IX, (1): 179.

*M. recubans Quel.--On fallen leaves of Fagus, n. ++
N: DgF, SA, 750-1040, IX-X, (5): 80, 4, 97, 1, 13.

M. scorodonius (Fr.) Fr.--Among needles, n.
S: APm, 890, VII, (1): 34.

*M. splachnoides Fr.--Among needles, n.

Megacollybia platyphylla (Pers. ex Fr.) Kotl. et Pouz [=Oudemansiella platyphylla (Pers. ex Fr.) Mos.]--Near stumps and at the base of trunks of Fagus, Picea, n.
N: DgF, GA, APm, 740-1070, VII-VIII, (6): 81, 71, 4, 86, 92, 10;--S: DgF, GA, APm, 815-1150, VII-IX, (5): 33, 32, 37, 26, 213.

Melanoleuca cognata (Fr.) Konr. et Maubl.--In soil among grass and bark fragments of Picea, outside of the forest by roads, n. /264
S: 815-930, V, X, (3): 194, 22, 167.

*M. grammopodia (Bull. ex Fr.) Pat.--In damp soil among needles, in gravel heaps, n.
N: GA, 710-870, V-IX, (2): 149, 179.

*M. subbrevipes Metrod--On fireplaces among thalluses of Marchantia polymorpha, n.
S: GA, 815, IX, (1): 33.

Micromphale perforans (Hofm. ex Fr.) Sing.--On fallen needles of Picea, n.
N: SA, Pec, 1040-1200, VI-IX, (2): 13, 88;--S: GA, Pec, APm, 815-1360, VI-IX, (15): 33, 194, 31, 35, 23, 61, 59, 41, 44, 209.

Mycena acicula (Schaeff. ex Fr.) Kummer--On logs of Fagus, Alnus p., and Acer pseudoplatanus, n. ++
N: GA, SA, CA, 850-1100, VI-VIII, (3): 86, 15, 14.

M. aetites (Fr.) Quel.--On bark fragments of Picea, n.
S: GA, 815, X, (1): 33.

M. alcalina (Fr.) Kummer--On stumps, trunks and logs of Piicea, Abies, dl.
N: DgF, SA, CA, APm, Pec, 710-1285, V-VIII, X, (9): 16, 12, 1, 5, 7, 13, 100, 31, 20;--S: DgF, GA, Pec, APm, Sph, 788-1305, V-IX, (19):

46, 33, 29, 22, 25, 28, 55, 224, 59, 40.

M. amicta (Fr.) Quel.--Among mulch, on bark fragments, on clusters of fern leaves,n.
N: SA, DgF, GA, Pec, 730-1280, VII-VIII, (6): 8, 7, 13, 119, 114, 123;--S: GA, Pec, 810-1305, VI-VII, IX, (8): 48, 33, 36, 32, 29, 30, 39, 44.

M. amygdalina (Pers.) Sing.--On fallen twigs and leaves of Fagus, n. ++
N: DgF, SA, CA, APm, 935-1100, VI, VIII-X, (6): 15, 3, 2, 13, 1;0, 14.

M. aurantiomarginata (Fr.) Quel.--Among needles, n.
N: DgF, GA, 730-940, IX-X, (3): 8, 81, 97;--S: GA, APm, 815-931, IX-X, (7): 33, 31, 38, 30, 22, 34, 27.

M. capillaris (Schum ex Fr.) Kummer--On fallen leaves of Fagus, Acer pseudoplatanus, dl. ++
N: DgF, SA, CA, APm, 820-1070, VIII-X, (8): 4, 15, 1, 3, 2, 5, 13, 10.

M. capillaripes Peck--Among mulch, n.
N: DgF, 960, VIII, (1): 1;--S: DgF, 1040, IX, (1): 50.

M. chlorinella (Lge.) Sing.--Among mulch and on rotted stumps among moss, dl. ++
N: DgF, SA, GA, CA, Pec, 710-1310, VII-X, (11): 16, 9, 4, 15, 1, 2, 13, 14, 17, 18;--S: GA, Pec, APm, 810-1305, V-X, (21): 48, 36, 32, 22, 25, 28, 42, 41, 40, 44.

M. cinerella Karst.--On fallen leaves of Fagus, clumps of leaves of/265 Athyrium allpestre, on needles and remains of Picea, n. ++
N: DgF, APm, Pec, 1000-1310, IX-X, (3): 5, 10, 8;--S: GA, Pec, 815-1305, X, (5): 33, 36, 30, 42, 44.

M. citrinomarginata Gill.--Among needles, n.
N: GP, 743, VIII, (1): 9;--S: APm, 931, VII, (2): 159, 28.

M. crocata (Schrad. ex Fr.) Kummer--On fallen twigs of Fagus, Acer pseudoplatanus (?), among the root-stocks of Adenostyles alliariae, n. ++
N: DgF, SA, APm, 960-1100, VI-X, (7): 1, 3, 5, 13, 10, 102, 14.

*M. debilis (Fr.) Quel.--On fallen leaves of Fagus, n.
N: DgF, 960, IX, (1): 1.

M. epipterygia (Scop. ex Fr.) S.F. Gray--Among rotted leaves of Fagus, twigs and needles of Picea, blades of grass, shoots of Vaccinium myrtillus, dl. +
N: DgF, GA, CA, SA, APm, Pec, 700-1180, VIII-X, (14): 99, 9, 147, 70, 2, 3, 98, 13, 14, 100;--S: DgF, GA, Pec, APm, 830-1305, VII-X, (10): 36-38, 35, 30, 39, 64, 218, 207, 40.

M. erubescens Hoehnel--On the roots of the trunk of Fagus, Acer pseudoplatanus, among the od of Leskeella nervosa and Plagiothecium nemorale, less frequently on the logs of Fagus and stumps of Populus tremula, n. +--
N: DgF, SA, 960-1100, VIII, X, (5): 1, 3, 13, 77, 14;--S: GA, 830, X, (1): 36.

M. fagetorum (Fr.) Gill.--On fallen leaves of Fagus, n.
N: DgF, GA, 740-750, X, (2): 9, 80.

M. flavoalba (Fr.) Quel.--Among needles and moss, n.
S: GA, APm, 815-931, VI-VII, IX-X, (9): 33, 36, 38, 22, 30, 23, 167, 28, 27.

M. galericulata (Scop. ex Fr.) S.F. Gray--On stumps and logs of Fagus, Acer pseudoplatanus, Alnus sp., n. +
N: DgF, CA, APm, SA, 710-1100, VII-X, (12): 16, 4, 15, 1, 143, 123, 7, 6, 10, 14;--S: DgF, GA, 860-990, VII, IX, (4): 37, 30, 64, 222.

M. galopoda (Pers. ex Fr.) Quel.--On fallen twigs, leaves, cupules of Fagus, clumps of leaves of Dryopteris filix-mas, on needles among Polytrichum attenuatum, on twigs, bark fragments and remains of Picea, among peat bogs (Sphagnum girgensohnii) and grasses (Nardus stricta), bl. ++
N: DgF, GA, APm, Pec, SA, CA, Vm, 710-1540, V-X, (30): 16, 12, 1-3, 13, 10, 14, 62, 106;--S: DgF, GA, Pec, APm, Sph, Pmc, CA, BP, 780-1640, VI-X, (43): 47, 48, 38, 26, 167, 59, 207, 192, 43, 191.

M. haematoppoda (Pers. ex Fr.) Kummer--On stumps, logs and fallen twigs of Fagus, Alnus sp., n. ++
N: DgF, CA, GA, APm, 71 -1070, VI-X, (7): 16, 9, 4, 83, 7, 6, 10;--S: DgF, 1100, IX, (1): 218.

M. hiemalis (Osb. in Rets ex Fr. ss. Gill.) Quel.--On logs of Fagus among moss, n. /266
N: DgF, 970, X, (1): 3.

*M. laevigata (Lasch) Quel.--On rotted wood of Picea, Abies, n.
N: DgF, 1030, V, (1): 6;--S: Pec, 1220, VII, (1): 42.

*M. lineata (Bull.) Fr. ss. Lge.--Among needles, n.
S: GA, APm, 830-931, X, (2): 30, 27.

*M. longiseta Hoehnel--On rotted stems of Mnium affine and on stumps of Picea, n.
N: Pec 1310, VIII, (1): 18;--S: GA, 815, X, (1): 33.

M. luteoalcalina Sing.--On stumps, logs, fallen twigs of Picea, Abies, l.
N: DgF, GA, APm, Pec, CA, SA, 720-1310, V, VIII, X, (14): 138, 12, 15, 7, 6, 13, 10, 21, 19, 18;--S: GA, Pec, APm, 830-1305, VI-IX, (18): 36, 30, 39, 24, 25, 28, 42, 201, 43, 40.

M. maculata Karst.--On stumps, logs, Picea, Abies, Fagus, l.

N: DgF, GA, SA, CA, APm, Pec, 730-1310, VIII-X, (17): 8, 146, 97, 11, 3, 7, 14, 100, 21, 18;--S: DgF, GA, Pec, APm, BP, 780-1305, VI, IX-X, (11): 47, 37, 167, 65, 55, 224, 42, 41, 43, 44.

M. pelianthina (Fr.) Quel.--Among leaves of Fagus, n.
N: DgF, 870, VIII, (1): 141.

M. phyllogena (pers.) Sing. (=M. metata ss. Lange)--Among needles, dl.
N: GA, Pec, SA, 730-1225, VIII-X, (3): 8, 14, 17;--S: GA, Pec, APm, 815-1305, VI-X, (17): 33, 32, 36, 31, 38, 24, 25, 26, 28, 40.

M. pterigena (Fr.) Kummer--On rotted clumps of fern leaves (Athyrium filix-femina, Dryopteris austriaca, D. filix-mas, Polystichum lobatum), on stems of herbs and blades of grass, dl. ++
N: SA, DgF, 710-1040, IX-X, (3): 16, 70, 13;--S: 910, IX, (1): 180.

M. pura (Pers. ex Fr.) Kummer--Among mulch, n. ++
N: DgF, GA, SA, CA, 700-1000, VI-X, (11): 99, 16, 9, 4, 12, 70, 1, 2, 13, 14;--S: DgF, GA, CA, 810-1080, VI-X, (11): 48, 36, 32, 31, 183, 37, 3;8, 30, 39, 225.

*M. purpureofusca Peck--On the roots of Picea, n.
N: DgF, APm, 960-1010, VIII-IX, (2): 117.

M. renati Quel.--On rotted wood, n.
N: DgF, 960-1030, V-VI, (3): 1, 6, 68.

M. rorida (Scop. ex Fr.) Quel.--On fallen needles, twigs of Picea, Abies, Sambucus racemosa, on rotted stems of Vaccinium myrtillus, V. vitis-idaea, on fallen leaves of Fagus and clump of Athyrium alpestre, bl. ++
N: DgF, GA, APm, Pec, CA, SA, Vm, 710-1540, VI-X, (14): 16, 9, 12, 7, 10, 14, 88, 17. 20, 106;--S: GA, Pec, APm, BP, 752-1305, VI-X, (28): 63, 47, 33, 36, 37, 22, 4, 159, 167, 44.

M. rosella (Fr.) Kummer--Among needles, dl. /267
S: GA, APm, BP, 750-910, IX-X, (14): 227, 63, 33, 36, 37, 22, 23, 39, 24, 25.

M. rubromarginata (Fr.) Kummer--On fallen twigs, bark fragments and needles of Picea, Abies, less frequently on stumps and logs of Pica among thalluses of Cladonia squamosa and C. digitata and sod of Hypnum cupressiforme, l. ++
N: DgF, GA, APm, Pec, CA, SA, 730-1310, VI-X, (16): 8, 137, 4, 15, 3, 2, 10, 88, 121, 18;--S: GA, Pec, APm, BP, 780-1330, VI-IX, (27): 47, 36, 177, 159, 26, 27, 165, 40, 44, 208.

M. sanguinolenta (Alb. et Schw. ex Fr.) Kummer--Among needles, on fallen twigs and bark fragments of Picea, Abies on fallen cupules of Fagus, dl.
N: DgF, GA, APm, CA, SA, 730-1100, VII-X, (7): 8, 81, 15, 7, 6, 10, 14;--S: GA, APm, 815-1030, VII-X, (7): 33, 36, 31, 29, 23, 26, 52.

M. speirea (Fr. ex Fr.) Gill. ss. Kuehner--On fallen twigs of Alnus sp., n. ++
N: CA, 710-935, VI-VII, (3): 16, 149, 15;--S: CA, 870, VII, (1): 49.

*M. strobilicola Fav. et Kuehn.--On remains of Picea buried in mulch, n.
S: GA, 815-832, IV-V, (2): 33, 31.

M. stylobates (Pers. ex Fr.) Kummer--On rotted leaves of Fagus, Acer pseudoplatanus, clumps of fern leaves, needles of Picea, Abies, blades of grass and shoots of Vaccinium myrtillus, dl. ++
N: DgF, GA, APm, SA, 730-1120, VII-IX, (9): 8, 81, 137, 141, 12, 72, 5, 14, 119;--S: GA, APm, 815-931, VII-VIII, (8): 33, 29, 37, 38, 35, 23, 39, 28.

M. tintinnabulum (Fr.) Quel.--On the fallen twigs of Fagus, n.

N: DgF, 1010, X, (1): 7.

*M. urania (Fr.) Quel.--On rotted stems of Dicranum scoparium, n.
S: APm, 850, VIII, (1): 29.

M. viscosa (Secr.) R. Mre.--On stumps, trunks, and less frequently logs and fallen twigs of Picea, Abies, dl. +
N: DgF, GA, APm, Pec, 730-1310, VI-X, (8): 8, 12, 83, 7, 68, 10, 110, 21, 19, 18;--S: GA, APm, 815-931, V-VI, VIII-X, (13): 33, 31, 29, 37, 38, 30, 23, 24, 25, 27.

M. vitilis (Fr.) Quel.--On fallen twigs of Alnus sp., n. ++ /268
N: CA, 710-935, VII-X, (2): 16, 15.

M. vitrea (Fr.) Quel.--On fallen twigs of Alnus, Sorbus aucuparia, among needles, n.
N: SA, DgF, GA, 935-1100, VIII-X, (4): 15, 3, 13, 14;--S: CA, APm, 810-931, VII, X, (2): 48, 28.

M. vulgaris (Pers. ex Fr.) Kummer--Among needles, n.
N: GA, 730-743, X, (2): 8, 9;--S: GA, 832-880, IX-X, (2): 31, 30.

M. zephirus (Fr. ex Fr.) Kummer--On needles and fallen twigs of Picea and Abies, dl.
N: DgF, APm, 975-1030, IX-X, (2): 2, 103;--S: DgF, GA, APm, 815-980, IX-X, (12): 33, 32, 31, 29, 37-39, 25, 26, 222.

*Mycenella margaritispora (Lge.) Sing.--On rotted stumps of Salix caprea (?), n.
N: CA, 935, VIII, (1): 15.

Naematoloma capnoides (fr.) Karst.--On stumps, logs of Picea, Abies, bl.+
N: DgF, GA, APm, Pec, SA, 880-1305, IX-X, (12): 12, 15, 3, 10, 114, 21, 17, 114, 20, 18;--S: GA, Pec, APm, BP, 750-1305, VI, VIII-X, (26): 47, 38, 30, 27, 28, 228, 52, 173, 41, 44.

N. dispersum Karst. [=Hypholoma marginatum (Fr.) Schroeter in Cohn]--On stumps, logs, fallen twigs of Picea, l., ++
N: DgF, GA, APm, Pec, SA, 743-1310, VIII-X, (13): 9, 12, 3, 7, 6, 10, 131, 14, 17, 18;--S: GA, Pec, APm, BP, 780-1305, IX-X, (17): 47, 36, 35, 30, 61, 228, 52, 201, 40.

N. elongatipes (Peck) Sing.--Among clumps of Sphagnum medium, Sph. girgensohnii and Polytrichum commune, n.
S: Sph, BP, 750-800, VI-VII, IX-X, (5): 62, 63, 46, 45, 160.

N. fasciculare (Huds. ex Fr.) Karst.--On stumps and logs of Picea, Abies, Fagus, dl. +
N: DgF, GA, Pec, 730-1105, VIII, X, (5): 8, 4, 1, 7, 87;--S: GA, APm, BP, 750-1060, V-VII, IX-X, (9): 227, 63, 47, 32, 36, 30, 49, 52, 223.

N. radicosum (Lge.) Konr. et Maubl.--On stumps and logs of Picea, Abies, dl.
N: DgF, GA, APm, Pec, 745-1245, VIII, (5): 139, 143, 10, 87, 122;--S: DgF, GA, Pec, APm, 830-1370, VIII-IX, (8): 36, 24, 28, 52, 56, 59, 40, 210.

N. sublateritium (Fr.) Karst.--On stumps of Fagus, n. +
N: DgF, GA, 730-1010, X, (3): 8, 9, 7.

*N. udum (Prs. ex Fr.) Karst.--Among peat and moss, n.
S: Sph, 788-805, VII-VIII, (2): 46, 188.

*Naucoria bohemica Vel.--In boggy soil, n.
N: CA, 935, X, (1): 15. /269

N. escharoides (Fr. ex Fr.) Kummer--In boggy soil, dl.
N: CA, 700-1010, VIII-X, (4): 99, 16, 15, 128;--S: CA, 810-1015, IX-X, (3): 48, 49, 65.

N. langei Kuehn.--In damp soil, n. ++
N: CA, 700-935, IX-X, (3): 99, 16, 15.

N. pseudoamarescens (K.R.)--On fireplaces, n.
S: APm, 890, X, (1): 34.

N. scolecina (Fr.) Quel.--In damp soil among thalluses of Conocephalum conicum, dl. ++
N: CA, 710-935, VII-X, (2): 16, 15;--S: CA, 810-1015, VII, IX-X, (3): 48, 49, 65.

N. subconspersa Kuehn.--In damp soil, n. ++
CP, 710-935, IX, (2): 16, 15.

Notopanus porrigens (Pers. ex Fr.) Sing. [=Pleurocybella porrigens (Per.ex Fr.) Sing.]--On logs and stumps of Picea, Abies, dl. +, ++
N: DgF, GA, APm, Pec, 810-1310, VIII-X, (10): 140, 135, 12, 70, 83, 142, 7, 6, 10, 18;--S: DgF, GA, BP, 780-1150, IX-X, (4): 47, 33, 37, 213.

Nyctalis parasitica (Bull. ex Fr.) Fr.--On old fructifications Russula (?) delica, n.
N: GA, 743, VIII, (1): 9.

Omphalina epichysium (Pers. ex Fr.) Quel.--On logs and stumps of Picea, Abies, Fagus, dl.
N: DgF, GA, APm, 710-1070, VI-IX, (9): 16, 12, 15, 83, 1, 92, 3, 6, 10;--S: GA, 787-880, V, VII, (2): 179, 30.

O. ericetorum (Pers. ex Fr.) M. Lge. (=O. umbellifera L. ex Fr.)--On very rotted stumps and logs of Picea (among the thalluses of Cladonia digitata), among clumps of peat bogs (Sphagnum acutifolium) and mosses (Polytrichum strictum), n. ++
N: Pmc, Vm, DgF, CA, Pec, 710-1540, V, VII-VIII, (5): 16, 6, 89, 21, 106;--S: Pec, APm, 850-1300, VI-VII, IX-X, (2): 29, 43.

O. trossula (Pers.) Sing. [=O. abiegna (Bk. et. Br.) Sing.]--On stumps of Abies among Brachythecium starkei and Plagiothecium curvigolium, n.
S: GA, 850, X, (1): 178.

Oudermansiella mucida (Schrader ex Fr.) Hoehnel--On fresh logs and stumps of Fagus, dl. ++
N: DgF, 960-1130, VIII, X, (6): 1, 143, 7, 76, 77, 153;--S: DgF, 1030-1090, IX, (3): 54, 44, 224.

O. radicata (Relh. ex Fr.) Sing.--On stumps of Fagus and near stumps of Abies, Picea, n. ++ /270
N: DgF, GA, 730-1020, VII-IX, (4): 8, 1, 2, 129;--S: DgF, 860-1150, VI-VII, IX, (3): 183, 28, 213.

Panaelous sphinctrinus (Fr.) Quel.--In the excrement of horses in pastures, on roads and in meadows, n.
N: 742-1080, VI-VIII, (2): 137, 74;--S: GA, 850-910, V, IX-X, (3): 196, 177, 25.

Panellus mitis (Pers. ex Fr.) Sing.--On fallen twigs of Abies, Picea, n.+
S: GA, APm, 880-898, X, (2): 30, 24.

P. serotinus (Pers. in Hofm. ex Fr.) Kuehner.--On logs of Fagus, stumps of Picea, n. +
N: DgF, SA, APm, Pec, 960-1150, IX-X, (4): 1, 13, 10, 104.

P. stypticus (Bull. ex Fr.) Karst.--On logs of Fagus, Abies, dl. +
N: DgF, CA, APm, 710-1070, VIII-X, (6): 16, 70, 11, 1, 68, 10.

P. violaceofulvus (Batsch ex Fr.) Sing.--On logs, stumps, fallen branches of Picea, Abies, less frequently on fallen twigs of Fagus, n. +
N: DgF, APm, Pec, 975-1210, VIII, X, (3): 2, 68, 19;--S: GA, 860, V, (1): 37.

Paxillus filamentosus Fr.--In damp soil, n. (Bujakiewicz 1974, sub Paxillus involutus (Batsch) Fr.)
N: CA, 710, VIII-X, (1): 16.

P. involutus (Batsch) Fr.--In soil among needles, less frequently on rotted wood of Picea, n. +
N: Pec, 1285, VIII, (1): 20;--S: GA, APm, 830-1250, IX, (3): 36, 65, 212.

Phaeocollybia christinae (Fr.) Heim--Among needles, n.
S: GA, 855, VIII, (1): 196.

This is a rather rare species in Poland and in Europe (Fig. 6). In Poland it has been noted in Bieszczady (Domanski and others 1963) and in Beskid Sadecky (Guminska 1966).

Phaemarasmisu capophilus (Fr.) Sing.--On fallen cupules of Fagus, n.
N: CA, 710, VIII, (1): 16;--S: CA; 810, VII, (1): 48.

*Ph. ferrugineus (Mre. ex Kuehn.) Moser (=Naucoria siparia ss. Lge)--In soil, n.
N: GA, 743, VIII, (1): 9.

*Pholiota abstrusa (Fr.) Sing.--In forest meadows in damp soil among chips of wood, bark and among grass, n. /271
S: 890, X, (1): 39.

Ph. alnicola (Fr.) Sing.--On the rotted wood of Alnus sp., n.
N: CA, 710, IX, (1): 16.

Ph. astragalina (Fr.) Sing.--On stumps, logs of Picea, Abies, among sod of Dicranodontium denudatum and Dicranum undulatum, n.
N: DgF, 1030-1070, VIII-IX, (2): 6, 130;--S: Pec, BP, 780-1250,

IX, (2): 47, 212.

Ph. aurivella (Fr.) Kummer ar. aurivella--On logs and stumps of Abies, Fagus, Picea, dl. +
N: DgF, APm, SA, 760-1100, VIII-X, (14): 147, 11, 2, 143, 7, 151, 108, 10, 15, 14;--S: GA, 870, IX-X, (1): 38.
*--var. cerifera Lge.--On stumps of Abies, n.
S: APm, 890-1100, IX, (2): 34, 190.

Ph. carbonaria (Fr.) Sing.--In fireplaces among the sod of Funariahygrometrica, dl. +
N: GA, APm, 770-1060, VIII, X, (2): 80, 109;--S: GA, APm, 815-1020, V-X, (10): 33, 36, 39, 34, 24, 25, 28, 185, 172, 190.

Ph. flammans (Fr.) Kummer--On logs of Picea, Abies, n.
N: DgF, APm, 1010-1025, VIII, (2): 7, 151;--S: Pec, APm, 931-1305, IX, (3): 27, 202, 40.

Ph. lenta (Fr.) Sing.--Among mulch, less frequently on rotted twigs, n. +
N: DgF, GA, APm, 730-1010, IX-X, (4): 8, 79, 68;--S: DgF, GA, APm, 1030-1060, IX, (3): 52, 54, 228, 5.

Ph. scamba (Fr.) Moser--On very rotted stumps and logs of Picea, dl.
N: DgF, Pec, 970-1310, VIII-X, (5): 3. 6, 21, 17, 18;--S: GA, Pec, BP, 780-1305, VII-X, (4): 47, 178, 59, 44.

Ph. spumosa (Fr.) Sing.--In soil among wood chips of Picea, n. +
S: GA, Pec, 830-1305, VIII-IX, (2): 36, 44.

Ph. suarrosa (Fr.) Kummer--On logs and trunks of Fagus, less frequently on stumps of Picea, n.
N: DgF, 900-1010, IX, (4): 70, 3, 2, 7;--S: Pec, 1270, IX, (1): 202.

Pholictina blattaria (Fr.) Fay ex Sing.--In damp soil on the edges of

roads and trails, less frequently on fireplaces, n.
N: CA, SA, 740-1040, VII-VIII, X, (2): 85, 13;--S: CA, 810-910, IX-X, (3): 48, 30, 180.

*Ph. filaris (Fr.) Sing.--On fireplaces, n
N: APm, 1030, VII, (1): 103.

Ph. togularis (Bull. ex Fr.)Fay.--In soil, n. /272
S: GA, 832, VI, (1): 31.

Pluteus atricapillus (Secr.) Sing.--On logs, stumps of Fagus, Picea, Abies, dl. ++
N: DgF, APm, 770-1070, V-VI, VIII--X, (8): 80, 67, 1, 2, 5, 7, 10;--S: DgF, GA, APm, 752-1100, V-VII, IX-X, (13): 63, 32, 38, 22, 30, 167, 222, 219, 50, 218.

P. atromarginatus (Konr.) Kuehn.--On very rotted stumps, less frequently at the base of trunks of Picea, n.
N: GA, CA, Pec, 710-1245, VIII-IX, (3): 16, 80, 121;--S: GA, 830-880, VIII-IX, (3): 36, 184, 30.

P. danac Pilat--On rotted logs of Fagus (?), n. The first site in Poland
N: DgF, 970, VIII, (1): 3.

The cap is 4.5 cm in diameter, flat, beige-rose in color, hygrophanous, smooth, drying the tip makes it glittery. The stem is 4 by .5 cm, white-beige, the base is somewhat wider. The blades are beige-rose in color. The spores are 7.2 to 9.6 by 4.8 to 6.4 μ m, elipsoidal or spherical. The cystydia are 32 to 40 by 8 to 15 μm, lanceolate-clavated with outgrowths (Fig. 6). The hyphae from the cuticle of the cap is clavated and 64 to 80 by 14.4 μm. Pluteus dianae was described by Pilat (1968) from the Diana wilderness in western Czechy Bawarske. The fructifications are similar in appearance to those of P. pellitus, although the size of the spores and

form of the cystydia of the P. dianae are different.

P. phlebophorus (Ditmar ex Fr.) Kummer--On logs of Fagus, n.
N: DgF, 955, VIII, (1): 143.

P. salicinus (Pers. ex Fr.) Kummer--On rotten stumps of Fagus, n.
N: DgF, 880, X, (1): 79;--S: APm, 1050, IX, (1): 223.

Porphyrellus pseudoscaber Sing.--In soil among needles, n.
N: SA, APm, 1030-1100, VIII-IX, (2): 152, 14;--S: APm, 1060, IX, (1): 223.

Psathyrelia candolleana (Fr.) Mre.--On fragments of wood in gravel pits, n.
N: 710, VIII, (1): 149.

*P. fibrillosa (Pers. ex Fr.) Maire--In soil among mulch, n.
S: DgF, GA, Pec, 815-1270, IX-X, (4): 33, 54, 55, 41.

*P. fusca (Schum, ex Lge.) Pearson--On rotted wood among mulch, n.
N: DgF, SA, 1010-1100, IX-X, (4): 7, 6, 13, 14.

*P. hydrophila (Bull. ex Merat) R. Mre (=H. dependiculatum ss. Kuehn. et Romagn.)--On logs and stumps of Fagus, n.
N: DgF, APm, 880-1070, IX-X, (3): 12, 91, 77;--S: DgF, 950-1060, IX, (2): 219, 55.

*P. obtusata (Fr.) A.H. Smith--Among mulch, n. /273
N: SA, 1040, VIII, (1): 13.

*P. sarcocephala (Fr.) Sing.--On stumps of Fagusand Acer pseudoplatanus, n
N: DgF, 970-1070, IX-X, (2): 3, 77.

P. spadiceo-grisea (Schaerf. ex Fr.) Maire--On logs of Fagus, n.

N: DgF, 960, VIII, (1): 1.

*P. trepida (Fr.) Gill.--On the bark of fallen wigs of Alnus sp. buried in boggy soil, n.
N: CA, 710, V, (1): 16.

*Pseudoomphalina ompressipes (Peck) Sing.--In damp soil, n.
S: GA, APm, 832-980, VIII-X, (7): 31, 30, 69, 23, 39, 38, 65.

*Psilocybe atrobrunnea (Lasch) Gillet (=P. dichroa Karst)--In pastures in loam located in excrement, n.
N: 742-780, VIII, (2): 137, 136.

P. coprophila (Bull. ex Fr.) Kummer--In horse excrement, n.
S: GA, APm, 880-928, VI, (3): 30, 39, 26.

P. crobula (Fr.) M. Lge ex Sing.--On rotted lumps of fern leaves (Dryopteris filix-mas, Athyrium alpestre), n. ++
N: Pec, SA, 1040-1310, VII-VIII, X, (3): 13, 14, 18.

Rhodophyllus cetratus (Fr.) Quel.--In soil among needles, twigs and moss, less frequently on stumps of Picea, dl.
N: DgF, GA, Pec, 845-1200, VIII-X, (3): 146, 5, 82;--S: GA, APm, Pec, BP, 780-1300, V-X, (22): 47, 33, 32, 37, 49, 39, 24, 26, 163, 40.

Rh. clandestinus (Fr.) Quel.--In soil among mulch, n.
N: DgF, 1000, VIII, (2): 5, 7.

*Rh. cuspidifer Kuehn. et Romagn.--In boggy soil and among Sphagnum girgensohnii and Plagiothecium undulatum, n.
S: BP, 780-940, VI, X, (2): 47, 167.

Rh. griseorubellus (Lasch) Fr.--In damp soil, n.
N: DgF, 1030, X, (1): 6;--S: DgF, GA, 832-1040, VIII-IX, (2): 31, 50.

Rh. hirtipes (Schum ex Fr.) Quel.--Among needles, n.
S: GA, 910, VII, (1): 25.

Rh. juncinus Kuehn. et Romagn.--In damp soil among rotted leaves of Fagus, Acer pseudoplatanus and among moss, in damp meadows, n. ++
N: SA, DgF, 715-1100, VII-X, (4): 137, 3, 13, 14.

Rh. nidorosus (Fr.) Quel.--In soil among mulch, n.
N: DgF, 960, IX, (1): 1;--S: GA, 815, X, (1): 33.

Rh. placidus (Fr. ex Fr.) Quel.--In soil, n. /274
N: DgF, GA, 710-1930, VIII-IX, (2): 138, 6.

*Rh. radiatus Lange--In soil, n.
N: DgF, 975, X, (1): 2.

Rh. rhodopolius (Fr.) Quel.--In soil among leaves of Fagus, n.++
N: DgF, GA, 743-930, VIII-X, (5): 9, 80, 147, 134, 72;--S: DgF, GA, 935, IX, (1): 64.

Rh. sericeus (Bull. ex Fr.) Quel.--In soil among mulch, n.
S: GA, APm, 832-870, IX, (3): 31, 29, 28.

*Rh. sostitialis (Fr.) Quel.--In soil among moss and grass on the edges of roads, n.
S: BP, 780-805, IX, (2): 182, 188.

Rh. staurosporus (Bres.) Lge.--In soil among needles, moss and sod of grass, in alpine meadows, on the edges of roads and forest meadows, dl.
N: SA, Pec, 1100-1475, VIII-X, (3): 14, 19, 89;--S: GA, APm, Pec, Pmc, 850-1650, IV-X, (10): 29, 177, 38, 35, 180, 172, 228, 40, 200, 191.

*Rh. strigosissimus (Rea) E. Horak--In damp soil, n.
N: SA, 1040, IX, (1): 13.

Rozites caperata (Pers. ex Fr.) Karst.--In soil among moss and peat (Sphagnum girgensohnii), n.
S: APm, Sph, 788-931, VII, IX, (2): 46, 28.

Russula alutacea (Pers. ex Fr.) Melz et Zv.--In soil among mulch and moss, l. +, ++
N: DgF, GA, APm, Pec, 710-1230, VIII-X, (10): 137, 8, 9, 4, 70, 134, 144, 6, 10, 155;--S: DgF, GA, APm, 750-1030, VIII-X, (18): 226, 33, 36, 31, 29, 22, 24, 53, 60, 52.

R. cyanoxantha Schaeff. ex Fr.--In soil, dl. ++
N: DgF, GA, APm, 730-970, VII-IX, (6): 8, 9, 81, 147, 4, 3;--S: DgF, GA, APm, 832-1070, VIII-IX, (11): 31, 37, 38, 53, 226, 61, 27, 219.

R. decolorans Fr.--In soil among peat and moss, n.
S: GA, Pec, BP, 750-1240, VII-IX, (5): 227, 47, 36, 88, 192.

R. delica Fr.--In soil, dl. +, ++
N: DgF, GA, APm, 730-935, VIII, X, (6): 8, 9, 137, 146, 134, 144;--
S: GA, APm, 830-930, IX, (5): 32, 36, 38, 39, 61.

*R. densifolia Secr.--In soil, n.
S: GA, APm, 830-928, IX, (6): 36, 29, 33, 30, 64, 26.

R. emetica (Schaeff. ex Fr.) S.F. Gray--In soil among moss and peat, less frequently on rotted stumps of Picea, bl. ++
N: GA, APm, Pec, 743-1285, VIII-X, (7): 9, 146, 11, 103, 98, 19, 20;--S: GA, APm, Pec, BP, 750-1220, VII-X, (29): 63, 47, 189, 32, 204, 24, 28, 215, 204, 42.

R. foetens Fr.--In soil among leaves and moss, n. /275
N: DgF, 820-970, VIII-IX, (2): 4, 134;--S: GA, APm, BP, 752-890, VII, IX, (4): 63, 217, 34, 39.

R. fragilis Fr.--In soil and on rotted stumps of Picea, n.
S: GA, 850, IX, (1): 217.

R. integra L. ex Fr.--In soil among moss and grass, among the roots of Picea, l.
S: GA, APm, Pec, BP, 752-1300, VII-X, (19): 63, 194, 36-38, 35, 30, 34, 26, 43.

R. nigricans (Bull.:) Fr.--In soil, n.
N: GA, 743, X, (1): 9.

R. mustelina Fr.--In soil among needles, noss (Dicranum scoparium) and grass (Calamagrostis villosa), dl.
S: GA, APm, Pec, BP, 750-1240, IX-X, (19): 220, 189, 33, 32, 36, 217, 30, 25, 231, 192.

R. nigricans (Bull.) Fr.--In soil, dl.
N: GA, 845, VIII, (1): 146;--S: GA, APm, 830-931, V, VII, IX-IX, (10): 32, 36, 31, 37, 38, 179, 34, 23, 39, 28.

*R. obscura Rom.--In soil, less frequently on stumps of Picea, n.
S: APm, Sph, Pec, 788-1300, VIII-IX, (4): 46, 29, 26, 43.

R. ochroleuca (Pers.) Fr.--In soil, bl. ++
N: DgF, GA, APm, Pec, Pmc, 743-1480, VIII-X, (24): 9, 139, 146, 11, 2, 5, 7, 10, 87, 17, 18;--S: DgF, GA, APm, Pec, BP, 750-1370, IX-X, (32): 226, 47, 33, 36, 39, 222, 172, 218, 42, 210.

R. paludosa Britz.--In damp soil among peat, under Salix caprea, n.
S: GA, BP, 780-850, VIII-IX, (2): 47, 217.

*R. pseudodelica Lge.--In soil, n.
N: DgF, 820, VIII, (1): 4;--S: APm, 880, IX, (1): 22.

R. pumla Rouzeau and Massart--In boggy sil under Alnus sp. and Salix caprea, n. (Bujakiewicz 1974; sub Russula versicolor J. Schaeff.).
N: CA, 710, VIII-X, (1): 16;--S: GA, CA, 810-900, VII, IX, (2): 48, 64.

C-2

Russula pumila is a species which probably forms mycorrhiza from Alnus (Jahn 1976). The fructifications of this species are similar to Russula fragilis and R. puellaris. In Poland Russula pumila is found in Bieszczady (Jahn l.c.), where it occurs in thickets of Alnus incana at elevations of 700 to 800 m above sea level (leg. H. Kreisel). Moreover, it occurs in France, Holland, the GDR and the FRG usually in forests characterized by marshy meadows and bogs.

R. queletii Fr.--In soil, n. / 276
N: APm, Pec, 712-1185, VIII, (3): 137, 147, 21;--S: GA, 850, IX, (1): 217.

R. vesca Fr.--In soil, n.
N: GA, 805, VIII, (1): 135.

*R. viscida Kudr.--In soil covering the roots of Abies, n.
N: APm, 1070, X, (1): 155.

Strobilurus esculentus (Wulf. ap. Jacquin ex Fr.) Sing.--On rotting remains of Picea, buring in soil, l. +
N: DgF, APm, Pec, 796-1285, V, X, (5): 3, 126, 88, 19, 20;--S: GA, APm, Pec, 815-1305, IV-VI, X, (20): 33, 36, 22, 4, 27, 190, 173, 42, 41, 40.

S. stephanocystis (Hora) Sing.--On rotted reamins of Pinus buried in soil, in forest meadows, n.
S: 860, V, (1): 168.

S. tenacellus (Pers. ex Fr.) Sing.--On rotted remains of Pinus buried in soil in forest meadows, n.
S: GA, 870-890, V, VII, (3): 30, 179, 39.

Stropharia aeruginosa (Curt. ex Fr.) Quel.--In soil and rotted wood,

n. +
N: DgF, SA, GA, 743-1100, VIII-X, (7): 9, 2, 7, 93, 115, 14, 153;--
S: DgF, APm, Pec, 860-1305, IX-X, (4): 29, 49, 55, 40.

S. stercoraria (Bull. ex Fr.) Quel.--In excrement of horses on roads, forest meadows and pastures, dl.
N: DgF, Pec, 710-1185, VII-X, (6): 149, 80, 146, 134, 74, 21;--S: GA, APm, Pmc, 745-1450, V, VII-IX, (11): 226, 33, 31, 29, 177, 35, 34, 24, 172, 162.

Suill;s aeruginascens (Secr.) Snell--In grazed forest meadoes under Larix, n.
S: 855, IX, (1): 196.

This fairly rare species forms mycorrhiza from Larix (Horak 1963; Pouzar 1963). Retycke Alps they have been found at elevations of 2030 m (Horak l.c). They occur in Poland in the Tatras (Pilat 1926) and in Pieniny (Skirgiello 1959; Guminska 1966).

S. granulatus (L. ex Fr.) O. Kuntze--In forest meadows under Pinus, dl.
S: 870, IX, (1): 179.

S. grevillei (Klotzsch) Sing.--In forest meadows under Larix, dl.
S: GA, 860-890, VII-X, (6): 168, 186, 179, 30, 181, 39.

S. luteus (L. ex Fr.) S.F. Gray--On the edge of forest roads under Pinus, n.
S: 890, X, (1): 39.

Tricholoma imbricatum (Fr. ex Fr.) Kummer--In soil among moss, n.
S: APm, 870, IX, (1): 179.

T. orirubens Quel.--In soil among sod of Entodon schreberi, n. /277

S: GA, 870, IX, (1): 30.

T. psammopus (Kalchbr.) Quel.--In forest meadows under Larix, n.
S: 870, X, (1): 179.

T. sapornaceum (Fr.) Kummer--In soil among needles, n.
S: GA, APm, 830-893, IX-X, (3): 32, 217, 24.

Tricholomopsis decora (Fr.) Sing.--On logs and stumps of Picea, Abies, dl. ++
N: DgF, APm, 740-1085, VIII-IX, (4): 81, 94, 10, 131;--S: DgF, GA, Pec, 980-1290, IX, (3): 222, 215, 41.

T. rutilans (Schaeff. ex Fr.) Sing.--On very rotted stumps, less frequently on trunks of Picea, Abies, n.
N: GA, 740, VIII-IX, (2): 31, 9;--S: DgF, GA, APm, Pec, BP, 752-1305, VII-IX, (9): 63, 182, 31, 38, 30, 167, 222, 202, 40.

Tubaria conspersa (Pers. ex Fr.) Fay.--In damp soil and on twigs among sod of Campylium hispidulum and Plagiothecium roseanum, less frequently on rotted wood of Sorbus aucuparia, n. ++
N: SA, CA, 935-1100, VII-IX, (3): 15, 13, 14.

T. furfuracea (Pers. ex Fr.) Gill.--On fallen twigs of Alnus p., Acer pseudoplatanus, Populus tremula, n. ++
N: CA, SA, DgF, APm, 710-1060, VII-X, (5): 16, 15, 1, 13, 113;--S: GA, 830, IX, (1): 36.

T. pallidispora Lge.--On rotted wood among moss, n.
N: SA, DgF, 930-1040, VII, X, (2): 83, 13.

T. pellucida (Bull. ex Fr.) Gill.--In boggy soil, n.
N: CA, 710, VIII, (1): 16;--S: Pec, 1290, X, (1): 41.

Tylopilus felleus (Bull. ex Fr.) P. Karst.--In soil covering stumps of Picea, n.

S: GA, 830, IX, (1): 36.

Xerocomus badius (Fr.) Kuehn. ex Gilb.--In soil among moss and on rotted stumps (less frequently on trunks) of Picea, l.
N: DgF, GA, Pec, 845-1225, VIII-IX, (6): 146, 144, 129, 131, 82, 17;--S: GA, APm, BP, 800-1090, VII-X, (12): 189, 33, 36, 37, 30, 23, 204, 24, 61, 223.

X. chrysenteron (Bull. ex St. Am.) Quel.--In soil among moss, less frequently among peat, on rotted stumps of picea, dl. +
N: DgF, 1020-1100, VIII, X, (3): 129, 6, 119;--S: DgF, GA, APm, Pec, BP, 780-1300, IX-X, (12): 47, 36, 26, 167, 28, 222, 52, 225, 218, 43.

X. subtomentosus (L. ex Fr.) Quel.--In soil, dl.
N: DgF, GA, APm, Pece, SA, 730-1310, VII-X, (10): 8, 9, 91, 11, 1, 5, 6, 10, 14, 73, 18;--S: DgF, GA, APm, BP, 800-1010, IX, (7): 189, 194, 197, 37, 24, 64, 51.

Xeromphalina campanella (Batsch ex Fr.) Kuehn et Maire--On very rotted stumps and logs of Picea, Abies among sod of moss, for ex. Tetraphis pellucida, bl. +, ++ /278
N: DgF, CA, APm, Pec, SA, 750-1300, V-IX, (12): 81, 15, 11, 7, 13, 10, 21, 19, 66, 84;--S: GA, APm, Pec, BP, 752-1305, IV-IX, (31): 63, 47, 31, 30, 24, 167, 27, 173, 41, 40.

Gastrales

Bovista nigrescens Pers. ex Pers.--In forest meadows, in pastures, n. +
N: 742-795, VIII, (2): 137, 150;--S: 850-870, IX-X, (3): 196, 199, 179.

Calvatia utriformis (Bull. ex Pers.) Jaap--In forest meadows among

Nardus stricta, n.
S: 890, IX, (1): 181.

Crucibulum laeve (Huds. ex Relh.) Kambly--On wood chips and bark of Picea, n. +
S: APm, 880, X, (1): 22.

Lycoperdon echinatum Pers.--A fallen leaves of Fagus, n. ++
N: DgF, 820, IX, (1): 4.

L. foetidum bon.--In soil among needles, on rotted stumps, fallen remains of Picea, less frequently on fireplaces, bl.
N: GA, 743, X, (1): 9;--S: APm, GA, 880-931, IV-V, VII-X, (10): 31, 29, 177, 38, 30, 22, 34, 26-28.

L. perlatum Pers.--In soil and fallen twigs, n. +
N: DgF, GA, 770-1030, VIII-X, (2): 9, 68;--S: GA, 805-910, VI-VII, IX-X, (5): 188, 31, 22, 30, 180.

L. pyriforme Schaeff. ex Pers.--On ery rotted twigw, stumps, logs and trunks of Picea, Fagus, Alnus sp., Salix caprea, dl. +, ++.
N: DgF, CA, APm, Pec, GA, 743-1200, VIII-X, (8): 9, 15, 1, 143, 5, 109, 131, 88;--S: GA, APm, 815-1000, VIII-X, (8): 194, 31, 29, 37, 38, 22, 30, 219.

L. umbrinum Pers.--In soil, rotted stumps of Picea, on fireplaces, dl.
N: DgF, 1115, X, (1): 111;--S: GA, APm, 830-931, IX-X, (9): 32, 29, 30, 22, 34, 39, 64, 25, 28.

Nidularia farcta (Foth ex Pers.) Fr.--On the rotted wood of Picea, by roads and trails, n. +
S: Pec, 855-1270, VII, IX, (2): 196, 202.

This rare species in Poland is found for example in Gorce (Domanski 1965) and the Tatras (Frejlak 1973).

Spaerobolus stellatus Tode ex Pers.--On very rotted, damp wood of /279 Picea, on rotted shoots of Vaccinium myrtillus, dl.
N: Pec, DgF, 920-1310, VIII, X, (8): 91, 21, 19, 121, 20, 155, 66, 18;--S: DgF, GA, APm, Pec, 815-1400, VII-X, (7): 33, 61, 51, 41, 43, 44, 162.

Tremellales

Calocera cornea (Batsch ex Fr.) Fr.--On logs and fallen twigs of Fagus, Acer pseudoplatanus, dl.
N: DgF, SA, VIII, X, (5): 70, 83, 77, 14, 111;--S: APm, 1090-1250, IX, (2): 223, 212.

C. viscosa (Pers. ex Fr.) Fr.--On rotted branches, logs, stumps of Picea, Abies, bl. +, ++
N: DgF, CA, APm, Pec, 710-1480, VII-X, (15): 16, 4, 11, 5, 6, 21, 19, 17, 18, 158;--S: DgF, GA, APm, Pec, 815-1360, VII-X, (32): 33, 204, 24, 25, 172, 56, 59, 192, 41, 209.

*Dacrymyces microsporus P. Karst.--On rotted stumps of Picea, n.
S: APm, 850, V, (1): 29.

D. palmatus (Schw.) Bres. apud Hoehn.--On logs of Picea, n.
S: APm, Pec, 1240-1300, IX, (2): 212, 43.

This rare species is connected with the natural forests characterizing the wilderness. In Poland it is noted in thę Puszcza Bialowieska (Blonski 1889), in Beskid Sadecky (Guminska 1966) and in Roztocz (Salata 1972).

D. stillatus Nees ex Fr.--On fallen twigs, stumps and logs of Picea, Abies, bl. +
N: DgF, GA, APm, Pec, SA, 743-1310, V, VII-VIII, X, (14): 9, 12, 1, 2, 5, 7, 6, 10, 17, 18;--S: DgF, GA, APm, Pec, BP, 780-1305, IV-X, (28): 47, 36, 22, 26, 167, 228, 56, 224, 42, 44.

*Ditiola radicata (Alb. et Schw.) Fr.--On stumps of Abies, n.
S: APm, 850, V, (1): 29.

*Exidia recisa (Ditm. ex S.F. Gray) Fr.--On fallen twigs of Salix caprea, n.
S: GA, 900, IX, (1): 64.

Pseudohydnum gelatinosum (Scop. ex Fr.) P. Karst.--On rotted stumps, logs of Picea and Abies, l. +++
N: DgF, GA, Pec, CA, 720-1100, VIII-X, (9): 138, 80, 146, 15, 1, 2, 78;--S: DgF, GA, APm, 830-1120, V, VII-X, (14): 36, 31, 64, 204, 40, 24, 26, 28, 52, 224.

Tremella encephala Pers. ex Pers.--On the beams of fences, on logs and trunks of Picea, n.
N: 790, VIII, (1): 136;--S: DgF, GA, 890-950, VII, IX, (2): 39, 219.

T. foliacea (Pers. ex S.F. Gray) Pers. f. foliacea--On logs of Fagus, n. /280
N: DgF, 920, VIII, (1): 144;--S: DgF, 870-1100, IX, (2): 216, 218.
--f. succinea (Pers.) Neuh.--On logs of Abbies, Picea, n.
N: DgF, Pec, 1010-1180, X, (2): 7, 21.

Dueteomycetes

antina flammea Fr.--On the ends and veins of fallen leaves of Fagus,

Acer pseudoplatanus This species has not be seen hithertofor in Poland (det. D.
N: DgF, 1000-1020, , (2): 5, 6.

The spawns in the form of rose-red or orange-red fans are connected to the stem. The fans are flat, measuring 1.5 to 3 cm high, delicately pubescent, uneven on the surface, carboned (Fig. 6). Anthina flammea is known, for example, in Germany, Holland, Belgium, France, Italy, Switzerland and England (Lindau 1910).

Isaria farinosa (Dicks.)--On pupa buried among mulch and mooss, n.
N: GA, SA, Pec, 743-1310, VII, X, (3): 9, 13, 18;--S: Pec, 1220, IX, (1): 42.

I. sphecophila Ditmar--On dead wasps buried among moss, dl.
S: GA, APm, BP, 780-931, VII-IX, (10): 182, 36, 29, 37, 38, 35, 30, 26-28.

The conidial stage of cordyceps sphecocephala (Klotsch ex Berk.) Berk. et Curt. Currently, many sites of this rather rare species are known in Poland. These inlcud Gorce (Domanski 1965; Wojewoda 1973), Bieszczady (Domanski and others 1967) and the Dubny range (Guminska 1966).

Tubercularia vulgaris Tode ex Fr.--On fallen twigs of Fagus, dl.
N: DgF, SA, 970-1040, VIII, X, (4): 3, 5, 6, 13;--S: DgF, 1020, IX, (1): 50.

The Charateristics of the Mycoflora of Mt. Babia Gora

The natural character and great diversity of the forests of Mt. Babia Gora, the variety of settlements and exposures, as well as the huge amount of rotting wood, found in various stages of decomposition, are only some of the factors which decide about the wealth and diversity of the fungi of Mt. Babia Gora.

During the 8 years of research (1968-1969 and 1972-1977) a total of 627 taxons of fungi, including 598 species, 1 subspecies, 14 variations and 4 forms were noted on were noted on Mt. Babia Gora. Representatives of the class, Basidiomycetes, made up a significant percentage, up to 86 percent (520 species), of the fungi. The share of individual systematic groups in the mycoflora of the studied massif is presented as follows: / 282

ASCOMYCETES	78	species	*BASIDIOMYCETES*	520	species
Pezizales	29	„	*Aphyllophorales*	89	„
Helotiales	37	„	*Agaricales*	407	„
Phacidiales	1	„	*Gastrales*	10	„
Clavicipitales	3	„	*Tremellales*	10	„
Sphaeriales	7	„	*DEUTEROMYCETES*	4	„
Eurotiales	1	„			

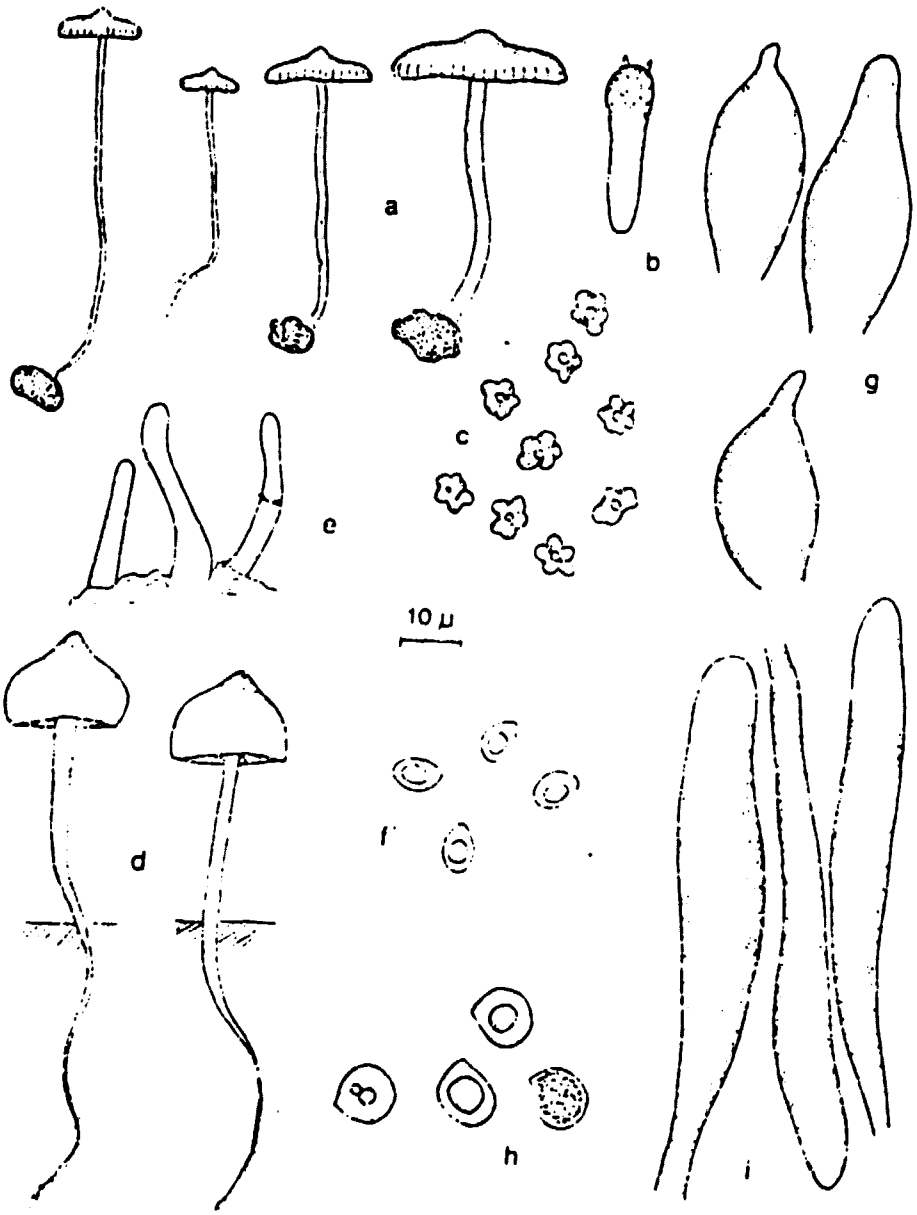

Fig. 6. *Lyophyllum gibberisum (a-c), Phaeocollybia christinae (d-f), Pluteus dianae (g-i)*

a, d — owocniki (1:1); *b* — podstawka; *c, f, h* — zarodniki; *e, g* — cystydy; *i* — strzępki skórki kapelusza

a, d — fruit bodies (1:1); *b* — basidium; *c, f, h* — spores; *e, g* — cystidia; *i* — hyphae from cuticule of cap

Numerically, the families in this species are as follows: Tricholomataceae (132), Cortinariaceae (97), Russulaceae (45), Polyporaceae (36), Strophariaceae (28), Coprinaceae (16) and Boletaceae (12). The riches families in the species are: Mycena (45), Corinarius (35), Inocybe (25), Lactarius (25), Russula (20), Galerina (17), Clitocybe (14) and rhodophyllus (14).

The share of the fungi species in the forests occurring on the two opposite slopes of Mt. Babia Gora is very different. On the southern slopes of this massif were collecte a total of 461 species of fungi 216 exclusive to this side), and on the northern slopes--369 species (124 exlusive to this side) The greater diversity of settlements, and above all, the presence of those settlements, whose origin was conditioned by human activity, has been decisive for the wealth of mycoflora on the southern slopes.

The share of fungi species at individual elevation regions on Mt. Babia Gora is shown in table 1.

The largest number of sites were noted for the following species:

Mycena galopoda — 73, *Russula ochroleuca* — 56, *Marasmius androsaceus* — 55, *Hygrophorus olivaceoalbus* — 48, *Calocera viscosa* — 47, *Armillariella mellea* — 44, *Xeromphalina campanella* — 43, *Mycena rubromarginata* — 43, *Dacrymyces stillatus* — 42, *Mycena rorida* — 42, *Marasmius alliaceus varalliaceus* — 36, *Russula emetica* — 36 and *Pseudohydnum gelatinosum* — 33.

In analyzing the mycoflora of Mt. Babia Gora special attention has been paid to montane species. On the basis of the studies by foreign authors (Doerfelt, 1969, 1970, 1973, 1974; Favre 1960; Horak

Tabela 1 — Table 1

Występowanie grzybów w poszczególnych zakresach wysokości na Babiej Górze
Occurrence of fungi in particular altitudinal limits on Mt. Babia Góra

Zakres wysokości n.p.m. w m Altitudinal limits m.s.m.	700	701-800	801-900	901-1000	1001-1100	1101-1200	1201-1300	1301-1400	1401-1500	1501-1600	1601-1700	1701-1725
Liczba stanowisk Number of localities	1	31	53	38	39	26	19	13	6	1	3	0
Liczba gatunków Number of species	9	240	387	290	224	105	131	87	11	8	5	0

1963; Jahn 1969, 1971; Kotlaba 1972) and on the basis of Polish works :(for ex. Domanski 1965, Heinrich and Wojewoda 1974; and Nespiak 1971), the occurrence of 25 montane fungi species have been claimed (table 2.). Since this is a high massif, this number is relative small, but is should be noted that this data concerns mainly the forest levels of Mt. Babia Gora. Further research and investigations performed in the dwarf-pine and alpine levels will certainly expand the list of montane and high montane species appearing on this massif.

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Tabela 2 — Table 2
Górskie gatunki macromycetes w lasach Babiej Góry na tle innych masywów górskich w Polsce
Montane species of macromycetes in the forests of Babia Góra on the background of other mountain ranges in Poland

Gatunek Species	Karpaty — Carpathians W				E	S	GŚ
	T	B		P	BE		
		BG	I				
Chroogomphus helveticus	○	●					
Climacocystis borealis	○	●					
Tricholomopsis decora	○	●					○
Phellinus viticola	○	●				○	
Columnocystis abietina	○	●	○			○	
Amanita regalis	○	●	○			○	
Hygrophorus olivaceoalbus	○	●	○		○	○	
Lactarius lignyotus	○	●	○		○	○	
Russula mustelina	○	●	○		○	○	
Lactarius scrobiculatus	○	●	○	○			
Porphyrellus pseudoscaber	○	●	○	○	○		
Amanita pantherina v. abietinum		●	○				
Hygrophorus tephroleucus		●	○				
Tyromyces fragilis		●	○				
Gymnopilus picreus		●				○	
Hygrophorus pustulatus		●				○	
Clitocybe ditopa		●					○
Tramctes hoehnelii		●	○		○		
Notopanus porrigens		●	○			○	
Gomphidius maculatus		●	○	○			
Polyporus varius		●	○	○			
Lactarius picinus		●	○	○			○
Amylostereum chailletii		●	○		○	○	○
Lactarius porninsis		●		○			○

Explanations:
B — Beskidy (Beskids Mts.), BE — Bieszczady (Bieszczady Mts.), BG — Babia Góra (Mt. Babia), E — Karpaty Wschodnie (Eastern Carpathians), GŚ — Góry Świętokrzyskie (Holy Cross Mts.), I — inne pasma Beskidów (other ranges of Beskids Mts.), P — Pieniny (Pieniny Mts.), S — Sudety (Sudetes Mts.), T — Tatry (Tatras), W — Karpaty Zachodnie (Western Carpathians).

The distribution of the boreal-montane type of species which /284
occur on Mt. Babia Gora is as follows: Climacocystis borealis, Lactarius lignyotus, Phellinus viticola and Porphyrellus pseudoscaber (Bujakiewicz 1978b). According to Doerfelt (l.c.) the alpine-montane species is Chroogomphus helveticus. Columnocystis abietina and Phellinus nigrolimitatus have a boreal-subalpin character (Jahn 1971; Kotlaba 1972). Also, such species as Amylostereum chailletii, Gymnopilus picreus, Notopanus porrigens and Tricholomopsis decora represent, according to Jahn (1969) a type of /285
boreal-subalpine range. Jahn (l.c.) even places Fomitopsis pinicola in this group.

In table 2 are taken the following works for a comparison of the distribution of montane species of fungi which occur in the forests of Mt. Babia Gora and on other Polish massifs: from the Tatras (Frejlak 1973; Nespiak 1960, 1962a), Beskidy (Domanski 1961, 1965; Guminska 1962a, 1966; Lisiewska, Torcich, Szmid 1977; Wojewoda 1964, 1965, 1973), Pienine (Guminska 1969, 1972, 1977; Skirgiello 1959), Bieszczady (Domanski and others 1960, 1963, 1967, 1970), Sudety (Domanski 1963; Nespiak 1971) and Gory Shwietokrzyske (Domanski 1962; Lisiewska 1979).

The fructifications on Mt. Babia Gora of such species as Chroogomphus helveticus and Climacocystis borealis, which occur in Poland, moreover, only in the Tatras, underline the high montane character of the studied massif. On the basis of current research it can be claimed that some of the montane fungi species are rare in the Polish mountains, for example Clitocybe ditopa, Gymnopilus picreus, Hygrophorus pustulatus, H. tephroleucus and Tyromyces fragilis. This can, however, be the result of the still weak level of the study of the mycoflora of the mountains of Poland.

The montane species on Mt. Babia Gora are gathered exlusively

(Climacocystis borealis, Clitocybe ditopa, Columnocystis abietina, Tyromyces frgilis) or chiefly (Gymnopilus picreus, Hygrophorus pustulatus, H. olivacecalbus, Phellinus nigrolimitatus, Ph. viticola) in the upper subalpine forests, which occur in a rather close connection with spruce stands. On the edges of the subalpine forests occur most frequently: Russula mustelina, Lactarius lignyotus and Amylostereum chailletii. Limited to the level of the lower subalpine forests are: Lactarius piciinus, L. scrobiculatus, Polyporus varius, Porphyrellus pseudoscaber and Trametes hoehnelii. Chiefly noted in this forest level are alsoNotopanus porrigens and Tricholomopsis decora.

Despite the acknowledged climatic and orographic differences on Mt. Babia Gora, the majority of montane species appear more or less evenly on both slopes of this massif. Limited exclusively to the southern slopes are: Amanita pantherina v. abietinum, A. regalis, Columnocystis abietina, Gomphidius maculatus, Hygrophorus tephroleucus, Lactarius proninsis, L. scrobiculatuus and Tyromyces fragilis. Some montane species occur on Mt. Babia Gora rarely and less abundantly, for example Chroogomphus helveticus, Gomphidius maculatus and Lactarius porninsis.

Within the confines of the list of the 598 fungi species /286
collected on Mt. Babia Gora, 143 new species for the Polish Carpathians were found. Especially interesting in this list was the rare species with a montane character--Cortinarius bataillei, as well as Clitocybe ditopa, Gymnoopilus picreus, Hygrophorus pustulatus, Lactarius repraesentaneus, Mycena laevigata and Tyromyces fragilis. Some of them appear in the Polish mountains bound the boundries of the Carpathians, for example, Clitocybe ditopa in the Gory Shwietokrzyske (Lisiewska 1979), and Hygrophorus pustulatus and Gymnopilus picreus in Karkonoszy (Domanski 1963, Nespiak 1971).

In analyzing the mycoflora of Mt. Babia Gora a group of 35 fungi

species was distinguished, which occur in the mountains considerably more frequently than down below and whose characteristic range, given the present state of research, is still difficult to define (comparisons). Considerations concerning the tendency of these species to appear in the mountains or in subalpine terrain are found in many studies (Domanski S. 1965; Domanski, Orlosh, Skirgiello 1967; Domanski Z. 1965; Gulden 1966; Guminska 1966, 1976; Jahn 1965, 1966, 1969; Kotlaba, Pouzar 1962; Lisiewska 1974; Moser 1963; Nspppak 1960, 1971; Pilat 1951, 1969; Poelt, Jahn 1965; Svrchek, Kubichka 1964 and Wojewoda 1964, 1965, 1975). A significant percent of this group of species is made up of fungi connected with fir, which appear in regions of the natural range of this tree, and hence, most commonly in the mountains.

Albatrellus ovinus
Aleurodiscus amorphus
Boletus erythropus
Cortinarius camphoratus
Crepidotus applanatus
Crepidotus cesatii
Datronia mollis
Dentipeellis fragilis
Fomitopsis pinicola
Gerronema chrysophyllum
Gloeophyllum odoratum
Hericium coralloides
Hymenochaete cruenta
Ischnoderma benzoinum
Lentinellus castoreus
Lentinellus cochleatus
Lentinus adhaerens
Marasmius alliaceus
Morchella elata
Mycena crocata
Mycena laevigata
Mycena strobilicola
Omphalina epichysium
Oudemansiella mucida
Panellus serotinus
Panellus violaceofulvus
Phaeocollybia christinae
Phellinus hartigii
Pholiota astragalina
Pholiota flammans
Pholiota scamba
Piceomphale bulgarioides
Plicatura crispa
Tyromyces caesius
Xeromphalina campanella

They are, for example Aleurodiscus amorphus, Humenochaete cruenta and Phellinus hartigii. In this group are also found species closely tied to the appearance of the beech and are found most frequently in natural forests with a wilderness character. Examples of these can be: Datronia mollis, Dentipellis fragilis, Marasmius alliaceus,

Mycena crocata, Oudemansiella mucida and Plicatura crispa. /287
According to Lisiewska (174), Hericium coralloides and Omphalina epichysium are species which distinguish montane beeches forests.

A result of the mycological studies performed in the forests of Mt. Babia Gora was the discovery of 10 interesting species, new to the mycoflora of Poland. These are: Anthina flammea, Calypetella capula, C. flos-alba, Collybia inodora, Lyophyllum gibberosum, Melastiza scotica, Mitrula vitellina, Peziza emileia, Phellinus ferreus and Pluteus dianae.

Very interesting with respect to geographical distribution are Lyophyllum gibbersum and Melastiza scotica. Current data concerning the occurrence of these species in Europe suggests that these fungi happen to represent the boreal-montane type of range. Lyophyllum gibberosum was collected, for example, in peat bogs and in spruce forests in Denmark (Lange 1946, 1948), and in subalpine birch forests in southern Norway. Melastiza scotica is known exclusively from the region of Great Britian, where it occurs in pine forests (Graddon 1961). The limiting of the occurrence of these fungi species on Mt. Babia Gora to the northern slopes of the massif and to the patches of upper subalpine spruce stands, which correspond to a boreal, coniferous forest, speaks to the validity of this claim.

In the region of Mt. Babia Gora around 40 interesting fungi species, which are rare for Poland, were gathered. These were, for example:

Calocybe onychina, Cantharellus tubaeformis, Ceriporia rhodella, Clavariadelphus ligula, C. truncatus, Clitocybe inornata, C. radicellata, Corprinus angulatus, Cortinarias malicorius, Dacrymyces palmatus, Ditola radicata, Gyromirra gigas, Hericium coralloides, Hygrophorus lucorum, Hymenochaete cruenta, Isaria sphecophila, Kuehneromyces vernalis, Lentinellus castoreus, Lepiota ventriosospora, Melanoleuca cognata, Morchella elata, Nidularia farcta, Nyctalis parasitica, Ombrophila violacea, Panellus violaceofulvus, Paxillus filamentosus, Peziza saniosa, Phaeocollybia christinae, Phaeomarasmius erinaceus, Pholiota astraglina, Pistillaria todei, P. typhuloides, Porphyrellus pseudoscaber, Psilocybe crobula, Suillus aeruginascens, Tricholoma orirubens and Tricholomopsis decora.

The group of species tied to natural settlements, pristine forests with a wilderness character, is also numerous on Mt. Babia Gora. These species are found currently most often in the nature reserves and national parks. The rather numerous fructifications of many species in the studied area attest to the natural character of the forests of Mt. Babia Gora. These species include Hericium coralioides, Amylostereum chailletii, Mycena crocata, Oudemansiella mucida, Columnocystis abietina, Plicatura crispa and Climacocystis /288
borealis.

A Summation of the Studies' Results

Mycofloristic studies on the above fungi were performed on the Babia Gora massif in the High Beskid in 1968-1969 and 1972-1977. These studies encompassed the upper and lower subalpine forests on the northern, southern and southwestern slopes of Mt. Babia Gora. Collections were made in patches of 7 forest associations, namely: Dentario glandulosae-Fagetum, Galio-Abietetum, Abieti-Piceetum

montanum, Piceetum excelsae carpaticum, Caltho-Alnetum, Sorbo-Aceretum, Bazzanio-Piceetum and in highmoors with Sphagnum magellanicum.

During the 8 years of research, 598 species, 1 subspecies, 14 variations ard 4 forms were collected. Together with 41 species, whose sites on Mt. Babia Gora were published by other authors (Wojewoda 1965, 1974, 1977; Heinrich, Wojewoda 1974; Guminska 1966), and were not found again, the above mycoflora of this massif presently numbers 639 species. Their vertical distribution on Mt. Babia Gora is presented by a map of the sites of the fungi noted on this massif (Fig. 2).

The share of fungi in individual elevation areas on Mt. Babia Gora is presented in table 1. The forests on the southern slopes of Mt. Babia Gora are mycofloristically much richer (461 species) than on the northern sopes (369).

On the basis of the studies, the occurrence of 25 montane fungi species (table 2) and 35 fungi species, which occur in mountains more frequently than below, has been verified. The montane species were gathered mainly in upper subalpine forests and on their edges and occurred more or less evenly on both slopes of Mt. Babia Gora.

During the studies performed on Mt. Babia Gora the sites of 10 species of fungi were verified for the first time in Poland. These are: Anthina flammea, Calyptella capula, C. flos-alba, Collybia inodora, Lyophyllum gibberosum, Melastiza scotica, Mitrula vitellina, Peziza emileia, Phellinus ferreus and Pluetus dianae. The occurrence of around 40 species, rare for Poland, was also noted here. These include Cantharellus tubae formis, Ceripporia rhodella,

Clitocybe radicellata, Corprinus angulatus, Dacrymyces palmatus, Ditiola radicata, Lentinellus castoreus, Lepiota ventriosospora, /289
Pistillaria todei and many others.

The rather numerous fructifications in the forests of Mt. Babia Gora of such species as: Climacocystis borealis, Columnocystis abietina, Hericium coralloides, Oudemansiella mucida and Plicatura crispa, found presently only in forests with a wilderness character, mainly in national parks and reserves, attest to the their natural character.

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SUMMARY

Mycofloristic investigations were carried out on the massif of Mt. Babia (Babia Gora) in the High Beskid (S. Poland) in 1968-1969, 1972-1977. Mt. Babia is next to the Tatras, the highest alpine range in Poland (Fig. 1), rising up to 1725 m.s.m. Since it runs parallel to the latitude, its slopes being of opposite exposures, northern and southern, differ much in orography and in vegetational zonation.

The flora of higher fungi was studied mainly in the forests developed in the lower and upper montaannne zones, covering both the slopes of that massif, on the average up to 1390 m.s.m. Fungi were collected in the patches of the following 7 forest associations: Dentario glandulosae-Fagetum, Galio-Abietetum, Abieti-Piceetum montanum, Piceetum excelsae carpaticum, Caltho-Alnetum, Sorbo--Aceretum, Bazzanio-Piceetum and on raised bogs with Sphagnum magellanicum.

The aim of this paper is to present data on vertical and horizontal distribution of fungi on Mt. Babia and to draw an analysis of the mycoflora of the studied forests.

In 8 year observation were recorded 598 species, 1 subspecies, 14 varieties and 4 forms were recorded.

A map of 233 localities of fungi collected on Mt. Babia is shown in Fig. 2 and the distribution of species in particular altitudinal limits, in Table 1.

Forests studied on the southern slopes of Mt. Babia are

mycofloristically far richer (461 species) than those on the northern slopes (369 species).

An analysis of the collected fungi has resulted in 25 montane species (Table 2). Chroogomphus helveticus is considered as an alpinemontane species (Deorfelt 1973). The boreal-montane type of distribution is represented by: Climacocystis borealis, Lactarius lignyotus, Phellinus viticola and Porphyrellus pseudoscaber (Doerfelt l.c.), and the boreal-subalpine one, by: Columnocystis abietina. Amylostereum chailletii, Gymnopilus picresu, Notopanus porrigens, Phellinus nigrolimitatus and Tricholomopsis decora (Jahn 1969, 1971; Kotlaba 1072). Montane species grow on Babia Gora exclusively (Climacocystis borealis, Clitocybe ditopa, Columnocystis abietina, Tyromyces fragilis) or mainly (Gymnopilus picreus, Hygrophorus olivaceoalbus, H. pustulatus, Phellinus nigrolimitatus, Ph. viticola) in the patches of the Piceetum excelsae carpaticum association. To the lower montane zone are confined Amanita pantherina v. abietinum, A. regalis, Gomphidius maculatus, Lactarius picinus, L. porninsis, L. scrobiculatus, Polyporus varius, Porphyrellus pseudoscaber and Trametes hoehnelii. Amylostereum chailletti, Lactarius lignyotus and Russula mustelina were recorded along the borderline between the lower and upper montane zones.

A group of 35 species which tend to occur in the mountains more often than in lowland areas (see list) has also been distinguished. Many species of that group are connected with the occurrence of Abies alba and Fagus sylvatica.

Of the 598 species collected on the Mt. Babia as much as 143 species have not been recorded till now in the area of the Polish Carpathians (species marked in the list with asterisks).

10 species of fungi found on Babia Gora are new for the flora of Poland, they are: Anthina flammea, Calyptella capula, C. flos-alba, Collybia inodora, Lyophyllum gibberosum, Melastiza scotico, Mitrula vitellina, Peziza emileia, Phellinus ferreus and Pluteus dianae.

In the estudied montane forests about 40 rare species have been found. The most interesting are Cantharellus tubaeformis, Ceripporia rhodella, Clitocybe radicellata, Coprinus angulatus, Dacrymyces palmatus, Ditiola radicata, Lentinellus castoreus, Lepiota ventriosospora, Pistillaria todei and others.

The occurrence of such species as: Climacocystis borealis, Columnocystis abietina, Hericium coralloides, Oudemansiella mucida and Plicatura crispa, that usually grow in primeval forests and are found at present almost only in national parks and reserves, attests to the natural character of forests of Mt. Babia.