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Data to the knowledge of ascomycetous fungi inhabiting forest debris in Hungary

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Abstract: Sixty-one species of Ascomycetes are listed from various forest debris in the Börzsöny Mts. in Hungary. From these six are new data for Hungary.

A wide variety of naturally occurring substrata, such as fallen leaves, rotting wood, animal dung, decaying herbaceous plants or various submerged organic debris, has been examined by numerous mycologists for many years (CHESTERS 1950, WEBSTER 1956, SAITO 1956, PUGH 1958, CALDWELL 1963, CARRÉ 1964, HERING 1965).

Since in Hungary these fungi are too incompletely known to obtain a picture of fungal decomposition of the organic debris of forests, in addition to decaying leaves of the litter, mainly rotting dead twigs and branches and in less quantity dead herbaceous plants as well as animal dung were collected.

This paper presents the ascomycetous fungus data obtained in the forests of the Börzsöny Mts. in 1981.

MATERIAL AND METHOD

Sites chosen for study were in the Börzsöny Mts. along the banks of mountain streams (Morgó-patak, Szén-patak), where the streams were bordered largely by alder (Alnus glutinosa [L.] Gaertn.) and only here and there mixed by willow (Salix spp.) and mapple (Acer spp.) (Aegopodium-Alnetum pannonicum Kárpáti I. et Jurkó). The further sites were the hill sides of the valleys (in the Morgó-hegy, Gálhegy, Somos-hegy, Fekete-hegy, Kelemen-hegy) where in the lower region Turkey oak forest (Quercetum petraeae-cerris Soó) and upper hornbeam-oak forest (Querco petraea-Carpinatum pannonicum Soó) dominated. Along the upper course of the mountain streams the forests mainly consisted of mixed beech forest (Melitti-Fagetum subcarpaticum Soó).

The samples - mainly twigs and branches - were picked up at random from the litter surface and brought to the laboratory. One part of the samples was examined immediately after collection, other part was put into petri dishes with some water, then incubated under moist-condition for at least one month at room temperature.

ENUMERATION OF SPECIES

Pezizales - Humariaceae

Chlorosplenium aeruginascens (Nylander) Karsten. Apothecia superficial with short stalk, blue-green; asci cylindric-clavate, 60-70 x 4-5 µm, 8 spored; spores fusiform, with an oil drop

at each end, non-septate, 3.3-10 x 1.5-2 µm. - Found on decaying wood, Verőcemaros, in mtn. Gálhegy, 12.VIII.1981.

Helotiales - Helotiaceae

Encoelia furfuracea (Roth, ex Pers.) Karsten. Syn. Cenangium furfuraceum (Roth.) de Not. Apothecia erumpent in groups, sessile, cinnamon-coloured; asci clavate, 100-120 x 6-7 µm, 8-spored; spores cylindrical, non-septate, slightly curved, 6-10 x 2-2.5 µm. - Found on branches of Alnus glutinosa (L.) Gaertn., Verőcemaros near the stream Morgó-patak, 24. III. 1981. - This species had not been found in Hungary previously.

Heterosphaeria patella (Tode ex Fries) Greville. Apothecia sessile, black; asci cylindric-clavate, 80-100 x 9.6-12 µm, 8-spored; spores cylindrical with rounded ends, non-septate, 13-18 x 3-5 µm. - Found in spring and summer, on dead stems of Umbelliferae, Verőcemaros and Királyrét, 8.V.1981, 2.VI.1981, 16.VII.1981.

Helotiales - Hyaloscyphaceae

Dasyscyphus fuscescens (Pers.) S.F.Grav. Apothecia scattered, short-stalked, dark brown with brown hairs; asci cylindric-clavate, 40-45 x 4-5 µm, 8-spored; spores fusiform, non-septate, 7-9 x 1.6-2.5 µm. - Found on dead leaves of Quercus sp., Verőcemaros in mtn. Morgó-hegy, 8.V.1981. - According to literature data, it is reported to be frequent on fallen leaves of Quercus and Fagus, but Hungarian findings not support this opinion.

Helotiales - Dermateaceae

Dermea prunastri (Pers.) Fries. Apothecia erumpent in small groups, dark brown to black; asci cylindric-clavate, 90-120 x 14-15 µm, 8-spored; spores elliptical, straight or slightly curved, non-septate, 14-20 x 5-7 µm. - Found on dead twigs of Prunus domestica L., Verőcemaros in mtn. Gálhegy, 12.VIII.1981.

Ocellaria ocellata (Pers) Schroeter. Apothecia sessile, scattered, golden-brown; asci clavate, 120-150 x 23-25 µm, 4- or 8-spored; spores elliptical, 20-36 x 9-12 µm. - Found on decaying branches of Salix sp., only one occasion. Verőcemaros in mtn. Somos-hegy, 19.VI.1981. - It is an uncommon species in Hungary.

Propolis versicolor (Fries) Fries. Apothecia scattered, immersed; asci cylindric-clavate, 100-120 x 8-9 µm, 8-spored; spores kidney-shaped, non-septate, 20-24 x 6-7 µm. - Found on dead branches of Fraxinus sp., Királyrét near the pond Büdös-tó, 8.V.1981. - It is a rather common species.

Pyrenopeziza arctii (Phillips) Nannfeldt. Apothecia scattered, erumpent, greyish-brown; asci cylindric-clavate, 80-90 x 10-11 µm, 8-spored; spores slightly clavate, 3-septate, 30-40 x 3-4 µm. - Found on dead stems of Arctium tomentosum Mill., one occasion, Verőcemaros near the stream Morgó-patak, 24.III.1981. - It is an uncommon species which had not been found in Hungary previously.

Phacidiales - Hypodermataceae

Colpoma quercinum (Pers.) Wallroth (Pl.I. Fig. 5). Apothecia gregarious, elongated; asci clavate, 100-150 x 9-10 µm, 8-spored; spores fasciculate, filiform, 75.6-100 x 1.5-2 µm. - Found on several occasions on dry twigs of Quercus spp., Verőcemaros and Királyrét, 8.V.1981, 18.VI.1981. - It is very common on twigs of Quercus spp.

Sphaeriales - Nectriaceae

Nectria coccinea (Pers. ex Fries) Fries. Perithecia scattered over bare wood without a stroma, bright red with a dark apical papilla; asci cylindrical, 80-100 x 7-10 µm, 8-spored; spores hyalin or yellowish, 12-14 x 5-6 µm. - Found on dead wood of Acer sp., Verőcemaros in mtn. Gálhegy, 7.IX.1981. - It is not a rare species.

Nectria peziza (Tode ex Fries) Fries. Perithecia gregarious, yellow; asci cylindrical, 75-90 x 9-10 µm, 8-spored; spores hyalin with longitudinal striations, 5-10 x 2.5-4 µm. - Found on

decaying wood, Verőcemaros in mtn. Gálhegy, 14.VIII.1981, in mtn. Morgó-hegy, 12.VIII.1981. - It is a rather frequent species.

Nectria sanguinea (Bolt.) Fries. Syn: Nectria episphaeria (Tode ex Fries) Fries. Perithecia scattered, bright red; asci cylindrical, 50-65 x 5-6 µm, 8-spored; spores 7-15 x 3-3.5 µm. - Found on several occasions on stromata of Diatrypaceae or Xylariaceae. On Diatrypella verruciformis (on Alnus glutinosa), Verőcemaros, 8.IV.1981, on Diatrype stigma and Diatrypella quercina (on Quercus spp.) Verőcemaros in mtn. Gálhegy, 12.VIII.1981, 7.IX.1981, on Hypoxylon sp. (on Fraxinus sp.) Királyrét, in mtn. Büdöstó-hegy, 8.V.1981, on Hypoxylon sp. (on Fagus silvatica) Királyrét, in mtn. Büdöstó-hegy, 12.VIII.1981.

Sphaeriales - Melanosporaceae

Chaetomium cochliodes Palliser (Pl.I. Fig. 2). Perithecia subglobose, terminal hairs spirally coiled olive-brown and always two types: a. 4-7 µm thick at the base, b. lighter than the other one 2.5-3 µm thick at the base, lateral hairs slightly straight; spores 9.6-10 x 8-9 µm. - Found on dead leaves of Quercus sp., Verőcemaros, in mtn. Gálhegy, 8.IV.1981, and on dead leaves of Poa nemoralis L., Verőcemaros, in mtn. Morgó-hegy 12.VIII.1981.

Chaetomium contortum Peck. Terminal hairs contorted into loops. Lateral hairs straight; spores 7-9.6 x 5-6.8 µm. - Found on decaying wood, Kóspallag in mtn. Fekete-hegy, 12.VIII.1981.

Chaetomium globosum Kunze ex Fries. Terminal and lateral hairs undulating and loosely intertwined; spores 9.5-10 x 7.5-8 µm. - Found on dead leaves of Poa nemoralis L., Verőcemaros, in mtn. Morgó-hegy, 8.IV.1981. - It is a rather common species.

Chaetomium indicum Corda. Terminal hairs black, dichotomously branched, lateral hairs straight; spores 7-8 x 4.5-5 µm. - Found on dead leaves of Quercus sp., Verőcemaros in mtn. Morgó-hegy, 8.IV.1981.

Chaetomium megalocarpum Bainier (Pl.I. Fig. 3). Terminal and lateral hairs both sinuous, grey; spores 14-16 x 11-12 µm. - Found on dead leaves of Poa nemoralis L., Verőcemaros in mtn. Morgó-hegy 8.IV.1981. - It is an uncommon species which had not been found in Hungary previously.

Chaetomium tortile Bainier. Terminal hairs brown and forming spiral coils, lateral hairs straight or sinuous; spores 6-7 x 4-5 µm. - Found on decaying leaves, Verőcemaros in mtn. Gálhegy 7.IX.1981. - It is an uncommon species.

Chaetomidium fimeti Fuckel (Pl.III. Fig. 2). Perithecia globose with long hairs (1.5-2 mm x 8-10 µm); spores 14-15 x 10-12 µm. - Found on dead leaves of Poa nemoralis L., Verőcemaros in mtn. Morgó-hegy 8.IV.1981. - It is a rare species.

Sphaeriales - Lasiosphaeriaceae

Arnium sudermanniae Lundq. Perithecia pear-shaped; asci clavate, 240-320 x 30-40 µm, 8-spored; spores 40-56 x 25-30 µm. - Found on dung, Királyrét near the pond Büdös-tó, 8.V.1981.

Coniochaeta pulveracea (Ehrh. ex Fries) Munk. Perithecia densely covered with short black hairs; asci cylindrical, 80-100 x 10-14 µm, 8-spored; spores non-septate, 11-16 x 7-8 µm. - Found on dead wood of Quercus sp., Verőcemaros in mtn. Gálhegy, 7.IX.1981.

Lasiosphaeria hirsuta (Fries) Cesati et de Not. Perithecia globose, covered with short black hairs; asci cylindric-clavate, 180-220 x 12-13 µm, 8-spored; spores cylindrical, 55-70 x 6-8 µm. - Found on decaying wood of Fagus silvatica L., Királyrét, in mtn. Büdöstó-hegy 9.IX.1981. - It is common on decaying wood.

Lasiosphaeria ovina (Pers.) Cesati et de Not. Perithecia globose, with white-coloured tomentum; asci cylindric-clavate, 120-150 x 12-14 µm, 8-spored; spores cylindrical, 45-48 x 3.8-4.3 µm. - Found on decaying wood, Királyrét in mtn. Büdöstó-hegy, 12.VIII.1981. - It is a rather frequent species on highly decaying wood.

Sphaeriales - Xylariaceae

Hypoxylon fragiforme (Pers. ex Fries) Kickx. Asci cylindrical, 130-150 x 6-8 µm, 8-spored; spores non-septate, dark-brown, 11-15 x 5-6.5 µm. - Found on dead branches of Fagus silvatica L., Királyrét in mtn. Büdöstó-hegy, 7.X.1981. - It is a very common species.

Hypoxylon fuscum (Pers. ex Fries) Fries. Asci cylindrical, 80-130 x 7-9 µm, 8-spored;

spores dark-brown, 13-16 x 4-5 µm. - Found on dead branches of Alnus glutinosa (L.) Gaertn., Kóspallag in mtn. Fekete-hegy, 12.VIII.1981, on dead branches of Corylus avellana L. Verőcemaros in mtn. Gálhegy 9.X.1981, 15.XII.1981. - It is a rather common species.

Hypoxylon howeianum Peck. Asci cylindrical, 50-60 x 4.8-5.5 um, 8-spored; spores brownish-black, 7-9 x 3-4 µm. - Found on dead branches of Quercus sp., Verőcemaros in mtn. Gálhegy, 7.IX.1981.

Hypoxylon serpens (Pers. ex Fries) Fries. Asci cylindrical, 130-150 x 6.4-8 um, 8-spored; spores dark-brown, 10-14 x 5-6 µm. - Found on decorticated wood, Verőcemaros in mtn. Gálhegy, 8.IX.1981.

Rosellinia mammiformis (Pers. ex Fries) Ces. et de Not. Asci cylindrical, 180-200 x 7-9 µm, 8-spored; spores dark-brown with hyalin projection on each end, 18-30 x 5-9 µm. - Found on dead wood of Quercus sp., Kóspallag in mtn. Kelemen-hegy, 7.IX.1981. - It is a rare species, found in Hungary only some occasions.

Sphaeriales - Diatrypaceae

Eutypella exigua Ell et Ev. Perithecia scattered; asci clavate, 14-19 x 5-7 um, 8-spored; spores 3.5-4 x 1-1.3 µm. - Found on dead branches of Robinia pseudacacia L., Kóspallag in mtn. Fekete-hegy, 12.VIII.1981.

Diatrype disciformis (Hoffmann ex Fries) Fries. Asci clavate, 25-40 x 4-5 µm, 8-spored; spores 5-8 x 1-2 µm. - Found on dead branches of Fagus silvatica L., Királyrét in mtn. Büdöstó-hegy, 8.V.1981, 8.IX.1981, 15.XII.1981. and on Acer sp. 8.V.1981.

Diatrype bullata (Hoffmann ex Fries) Fries. Asci clavate, 40-70 x 5-6 µm, 8-spored; spores 5-7 x 2-2.5 µm. - Found on dead branches of Salix sp., Kóspallag in mtn. Kelemen-hegy, 8. V. 1981.

Diatrype stigma (Hoffmann ex Fries) Fries. Asci clavate, 40-45 x 5-6 µm, 8-spored; spores 6.3-8 x 1.6-2.5 µm. - Found on dead branches of Fagus silvatica L., Királyrét 8.V.1981. and on dead branches of Quercus sp., Verőcemaros in mtn. Gálhegy, 7.IX.1981. - It is a rather common species.

Diatrypella quercina (Pers. ex Fries) Cooke. Asci cylindrical-clavate, 100-120 x 10-12 µm, many spored; spores 8-11 x 2.5-3 µm. - Found on dead branches of Quercus spp., Verőcemaros in mtn. Gálhegy, 8.IV.1981, 7.IX.1981, Kóspallag in mtn. Kelemen-hegy 7.IX.1981. - It is a common species.

Diatrypella verruciformis (Ehrh.) Nke. Asci clavate, 88-120 x 11-12.5 µm, many-spored; spores 5-7 x 1-1.5 µm. - Found on dead branches of Alnus glutinosa (L.) Gaertn., Verőcemaros 24.III.1981, 12.VIII.1981, Kóspallag in mtn. Fekete-hegy, 12.VIII.1981.

Cryptosphaeria eunomia (Fries) Fuckel. Asci clavate, 120-160 x 12-13 µm, 8-spored; spores 13-16 x 2-3.4 µm. - Found on dead branches of Fraxinus sp., Királyrét, in mtn. Büdöstó-hegy, 8.V.1981.

Valsa ambiens (Pers. ex Fries) Fries. Asci club-shaped, 44-54 x 8-10 µm, mainly 4-spored; spores 14-17.6 x 2.8-3.2 µm. - Found on dead branches of Fagus silvatica L., Királyrét in mtn. Büdöstó-hegy, 8.IX.1981.

Valsa cypri Tul. (Pl.III. Fig. 4). Asci 52-67 x 8-13 um, 8-spored; spores 14-20 x 3.2-5 µm. - Found on dead branches of Fraxinus sp., Verőcemaros in mtn. Gálhegy, 9.X.1981. - It is a very rare species of this genus.

Valsa salicina (Pers. ex Fries) Fries. Asci 50-67 x 9-12 µm, 4- or 6-spored; spores 13-16 x 3-4 µm. - Found on dead branches of Salix sp., Kóspallag in mtn. Kelemen-hegy, 7.IX. 1981.

Enchnoa infernalis (Kunze ex Fries) Fuckel (Pl.II. Fig. 3). Stroma reduced to a mat of loose dark-brown hyphae, perithecia developing under the outer layer of bark; asci clavate, 60-70 x 11-12.8 µm, 8-spored; spores 19-25 x 4-5 µm. - Found on dead branches of Quercus spp., Verőcemaros in mtn. Morgó-hegy, 8.IX.1981, in mtn. Gálhegy, 12.VIII.1981. - It is a rare species in Hungary.

Sphaeriales - Diaporthacea

Diaporthe leiphaemia (Fries) Sacc. Asci clavate, 60-76 x 8-11 µm, 8-spored; spores 16-21 x 4-6 µm 1-septate. - Found on dead branches of Quercus sp., Verőcemaros in mtn. Gálhegy, 8.X. 1981.

Diaporthe oncostoma (Duby) Fuckel. Asci cylindric-clavate, 75-85 x 8.5-10 µm, 8-spored; spores 20-24 x 4-5 µm, 1-septate with 4 oil drops. - Found on decaying branches of Robinia pseudacacia L., Kóspallag in mtn. Kelemen-hegy, 8.V.1981.

Caudospora taleola (Fries) Starback. Asci cylindrical, 140-150 x 12-16 µm, 4- or 8-spored; spores elliptical, 1-septate, with 2 terminal and lateral appendages, 17-26 x 6-9 µm. - Found on dead branches of Quercus sp., Verőcemaros in mtn. Gálhegy, 12.VIII.1981. - It was found in Hungary only some occasions.

Cryptospora suffusa (Fries) Tulasne. Asci cylindric-clavate, 80-90 x 12-20 µm, 8-spored; spores 50-60 x 4-5 µm. - Found on dead branches of Alnus glutinosa (L.) Gaertn., Verőcemaros, 12.VIII.1981.

Melanamphora spinifera (Wallr.) Laflamme (Pl.II. Fig. 4). Syn: Melogramma spiniferum (Wallr.) de Not. Asci clavate, 186-220 x 16-18 µm, 8-spored; spores cylindrical, 7-septate, the terminal cells hyalin the other brown, 57-72 x 7-8 µm. - Found on dead branches of Fagus silvatica L., Királyrét in mtn. Büdöstó-hegy, 16.VII.1981.

Ditopella ditopa (Fries) Schroeter (Pl.II. Fig. 1). Asci cylindric-clavate, 80-100 x 16-20 µm, polysporous; spores 21-33 x 4-5 µm. - Found on dead twigs of Alnus glutinosa (L.) Gaertn., Verőcemaros, near stream Morgó-patak, 24.III.1981, 15.XII.1981.

Hypospila pustula (Pers.) Karsten (Pl.II. Fig. 2). Asci clavate, 56-70 x 10-11 µm, 8-spored; spores 1-septate, 20-25.6 x 4-4.8 µm. - Found on dead leaves of Quercus spp., Verőcemaros in mtn. Gálhegy 2.VI.1981, 12.VIII.1981.

Gnomonia conformis (Berk. et Br.) Ferd. et Winge (Pl.IV. Fig. 3). Asci clavate, 70-80 x 15-20 µm, 8-spored; spores 3-septate, 19-25 x 7-8 um.- Found on dead twigs of Alnus glutinosa (L.) Gaertn., Verőcemaros near the stream Morgó-patak, 24. III. 1981. - It had not been reported in Hungary previously.

Gnomoniella fasciculata Fuckel. Asci clavate, 26-28 x 7-8 µm, 8-spored; spores non-septate, 11-12 x 1.5 µm. - Found on dead leaves of Quercus sp., Verőcemaros in mtn. Morgó-hegy, 8. IV. 1981.

Coronophorales - Nitschkiaceae

Coronophora gregaria (Libert) Fuckel. Asci clavate with a very long slender stalk, polyspored, 50-70 x 14-17 µm; spores non-septate 7-9 x 1-1.6 µm. - Found on dead branches of Alnus glutinosa (L.) Gaertn., Verőcemaros, at the stream Morgó-patak, 9.IX.1981, Királyrét, at the stream Szén-patak, 8.IX.1981.

Bertia moriformis (Tode ex Fries) de Not. (Pl.I. Fig. 4). Perithecia resembling blackberry or mulberry; asci clavate, 70-110 x 11-13 µm, 8-spored; spores 1-septate, 30-53 x 4-6 µm. - Found on dead wood of Fagus silvatica L., Verőcemaros, in mtn. Gálhegy, 9.X.1981.

Pleosporales - Lophiostomataceae

Platystomum compressum (Pers. ex Fries) Trev (Pl.III. Fig. 3). Asci cylindric-clavate, 80-110 x 14-16 µm, 8-spored; spores brown, usually 5-septate (7-9) and 1 longitudinal septum dividing the transverse segments, 20-30 x 7-10 µm. - Found on dead branches of Robinia pseudacacia L., Kóspallag in mtn. Kelemen-hegy, 7.IX.1981. - It is a rare species.

Pleosporales - Pleosporaceae

Leptosphaeria acuta (Fries) Karsten. Asci cylindric-clavate, 120-140 x 9-10 µm, 8-spored; spores 7-10-septate, 37-50 x 3.7-5 µm. - Found on dead stems of Urtica dioica L., Verőcemaros, 24.III.1981, 9.IX.1981, Kóspallag in mtn. Kelemen-hegy, 18.VI.1981. - It is a rather common fungus on Urtica dioica stems.

Leptosphaeria herpotrichoides de Not. Asci cylindric-clavate, 80-110 x 8-10 µm, 8-spored; spores 7-septate, the third cell larger then the other ones, 23-32 x 4-5 µm. - Found on dead leaves of Poa nemoralis L., Királyrét, 8.V.1981.

Leptosphaeria libanotis (Fuckel) Niessl ex Kunze (Pl.III. Fig.5). Asci cylindric-clavate, 120-128 x 9.2-9.6 µm, 8-spored; spores 3-septate, 17.6-24 x 6-9.6 µm. - Found on dead steam of Libanotis montana Cr., Verőcemaros, in mtn. Somos-hegy, 17.VI.1981.

Leptosphaeria suffulta (Nees ex Fries) Niessl (Pl.I. Fig. 1). Asci cylindric-clavate, 75-80 x

5-6 µm, 8-spored; spores 3-septate, 22-32 x 3-4 µm. - Found on dead stems of Melampyrum sp., Verőcemaros in mtn. Morgó-hegy, 8.IV.1981.

Rebentischia massalongi (Mont.) Sacc. (Pl.IV. Fig. 2). Asci cylindric-clavate, 75-100 x 18-21 µm, 8-spored; spores brown, 3-septate, clavate with a hyalin appendix on the basal end, 24-33 x 9-10 µm. - Found on dead wood of Acer sp., Verőcemaros in mtn. Morgó-hegy 15.XII.1981. - It is a rare fungus which had not been reported from Hungary previously.

Massaria anomia (Fries) Petrak (Pl.IV. Fig. 4). Asci cylindric-clavate, 170-210 x 20-24 µm, usually 4-spored; spores brown, 3-septate, with 4 large oildrops, 43-63 x 14-16 µm. - Found on dead branches of Robinia pseudacacia L., Kóspallag in mtn. Kelemen-hegy, 8.V.1981, Verőcemaros, 15.XII.1981. - It is very common on Robinia pseudacacia branchlets.

Sporormiella muskokensis (Cain) Ahmed et Cain (Pl.III. Fig.1). Asci cylindric-clavate, 100-140 x 10-14 µm, 8-spored; spores first hyalin and matured ones becoming black, 3-septate, 30-33 x 4.5-5.8 µm. - Found on dung, Királyrét, at the pond Büdös-tó, 8.V.1981.

Cucurbitaria elongata (Fries) Grev. Asci cylindrical, 190-210 x 13-14 µm, 8-spored; spores brown, with 5-7 transversal and 1-2 longitudinal septa, 22-30 x 8-10 µm. - Found on dead branches of Robinia pseudacacia L., Verőcemaros in mtn. Somos-hegy, 15.XII.1981.

Pleomassaria holoschista (B. et Br.) Tul. (Pl.IV. Fig 1). Asci clavate, 120-170 x 28-32 µm, 8-spored; spores brown, 7 transversal and some longitudinal septa may be seen in it, 40-54 x 13-17 µm. - Found on dead branches of Alnus glutinosa (L.) Gaertn., Verőcemaros at the stream Morgó-patak, 8.X.1981. - It is a rare species which had not been reported from Hungary previously.

Table 1. Occurrence of the fungi concerning the host plants or other substrata.

Substrata \ Fungi	Diatrype disciformis	Diatrype bullata	Eutypella exigua	Roselinia mammiformis	Hypoxylon serpens	Hypoxylon howeianum	Hypoxylon fuscum	Hypoxylon fragiforme	Coniochaeta pulveracea	Arnium sudermanniae	Lasiosphaeria ovina	Lasiosphaeria hirsuta	Chaetomidium fimeti	Chaetomium tortile	Chaetomium megalocarpum	Chaetomium indicum	Chaetomium globosum	Chaetomium contortum	Chaetomium cochliodes	Nectria sanguinea	Nectria peziza	Nectria coccinea	Colpoma quercinum	Pyrenopeziza arctii	Propolis versicolor	Ocellaria ocellata	Dermea prunastri	Dasyscyphus fuscescens	Heterosphaeria patella	Encoelia furfuracea	Clorosplenium aeruginascens
Acer sp.	x																					x									
Alnus glutinosa						x														x										x	
Arctium tomentosum																								x							
Corylus avellana						x																									
Fagus silvatica	x							x				x								x											
Fraxinus sp.																				x					x						
Libanotis montana																															
Melampyrum sp.																															
Poa nemoralis													x		x		x		x												
Prunus domestica																											x				
Quercus sp.					x	x			x							x			x	x		x						x			
Robinia pseudacacia			x																												
Salix sp.		x																													
Urtica dioica																															
Umbelliferae																													x		
dead wood					x						x							x			x										x
dead leaf														x																	
dung										x																					

Table 2. Occurrence of the fungi concerning the host plants or other substrata.

Substrata \ Fungi	Gloniopsis curvata	Pleomassaria holoschista	Cucurbitaria elongata	Sporormiella muskokensis	Massaria anomia	Rebentischia massalongi	Leptosphaeria suffulta	Leptosphaeria libanotis	Leptosphaeria acuta	Leptosphaeria herpotrichoides	Platystomum compressum	Bertia moriformis	Coronophora gregaria	Gnomoniella fasciculata	Gnomonia conformis	Hypospila pustula	Ditopella ditopa	Melanamphora spinifera	Cryptospora suffusa	Caudospora taleola	Diaporthe oncostoma	Diaporthe leiphaemia	Enchnoa infernalis	Valsa salicina	Valsa cypri	Valsa ambiens	Cryptosphaeria eunomia	Diatrypella verruciformis	Diatrypella quercina	Diatrype stigma
Acer sp.						x																								
Alnus glutinosa		x											x		x		x		x									x		
Arctium tomentosum																														
Corylus avellana																														
Fagus silvatica												x						x								x				x
Fraxinus sp.																									x					
Libanotis montana								x																						
Melampyrum sp.						x																								
Poa nemoralis										x																				
Prunus domestica																														
Quercus sp.														x		x				x		x							x	x
Robinia pseudacacia			x		x						x										x									
Salix sp.																								x						
Urtica dioica									x																					
Umbelliferae																														
dead wood	x																													
dead leaf																														
dung				x																										

Hysteriales - Hysteriaceae

Gloniopsis curvata (Fries) Sacc. Asci clavate, 80-110 x 14-16 µm, 8-spored; spores hyalin with 3-4 transversal and 1 longitudinal septa, 17-20 x 7-8 µm. - Found on decorticated wood, Királyrét in mtn. Büdöstó-hegy, 8.IX.1981.

SUMMARY

In addition to the aim of detecting fungi on various substrata, it was intended to look for relationships between substrata decayed to different degree and the groups of fungi inhabiting on them.

Approximately three stages of decay of twigs and branches were found to be characterised on the one hand, by different degrees of decomposition, on the other hand by different groups of the fungi inhabiting these substrata. 1) In the early stages of decomposition characterised by nearly intact tissues and bark, mainly Ascomycetes with closed fruitbody as well as Sphaeropsidales could be found; 2) The substrata were characterised in the second stage by rather loose tissues and incomplete bark. Fungi associated with this stage were Ascomycetes with fruitbody of apothecium as well as increasing number of Moniliales; 3) In the third stage the twigs usually had porous tissues and were not or hardly covered by bark. Generally in this stage appeared Myxomycetes, as well as most various groups of Hyphomycetes and scanty appearance of Ascomycetous fungi were observed.

In this paper are enumerated the Ascomycetes species belonging largely to the first degree of decomposition of twigs and branches.
The paper listed 88 data concerning 61 fungal species, of which the following are new data to Hungary: Encoelia furfuracea (Roth. ex Pers.) Karsten, Pyrenopeziza arctii (Phillips) Nannfeldt, Chaetomium megalocarpum Bainier, Gnomonia conformis (Berk. et Br.) Ferd. et Winge, Rebentischia massalongi (Mont.) Sacc. and Pleomassaria holoschista (B. et Br.) Tul.

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EXPLANATION OF PLATES

Plate I.

Fig. 1. Leptosphaeria suffulte (Nees ex Fries) Niessl - Perithecia X 20.
Fig. 2. Chaetomium cochliodes Palliser - Perithecium X 100.
Fig. 3. Chaetomium megalocarpum Bainier - Perithecium X 80.
Fig. 4. Bertia moriformis (Tode) de Not. - Perithecia X 20.
Fig. 5. Colpoma quercinum (Pers.) Wallroth - Perithecia X 4.

Plate II.

Fig. 1. Ditopella ditopa (Fries) Schroeter - Asci with spores X 700.
Fig. 2. Hypospila pustula (Pers.) Karsten - Asci with spores X 1000.
Fig. 3. Enchnoa infernalis (Kunze ex Fries) Fuckel - Asci with spores X 200.
Fig. 4. Melanamphora spinifera (Wallr.) Laflamme - Ascus and spores X 300.

Plate III.

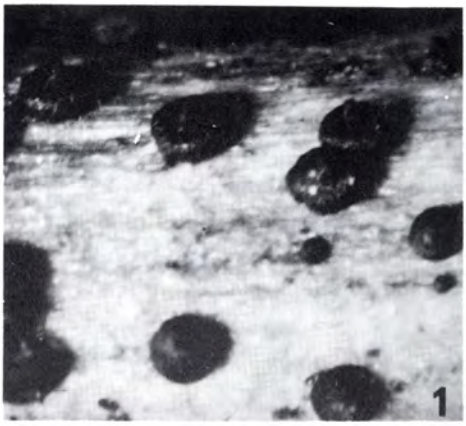
Fig. 1. Sporormiella muskokensis (Cain) Ahmed et Cain - Asci and spores X 300.
Fig. 2. Chaetomidium fimeti Fuckel - Spores X 700.
Fig. 3. Platystomum compressum (Pers. ex Fries) Trev. - Spores X 800.
Fig. 4. Valsa cypri Tul. - Spores X 1000.
Fig. 5. Leptosphaeria libanotis (Fuckel) Niessl ex Kunze - Spores X 1000.

Plate IV.

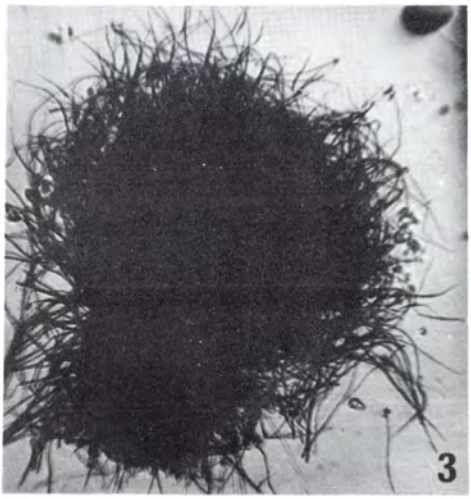
Fig. 1. Pleomassaria holoschista (B. et Br.) Tul. - Spores X 700.
Fig. 2. Rebentischia massalongi (Mont.) Sacc. - Spores X 700.
Fig. 3. Gnomonia conformis (Berk. et Br.) Ferd. et Winge - Ascus with spores X 1000.
Fig. 4. Massaria anomia (Fries) Petrak - Spores X 1000.

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Plate I.


1

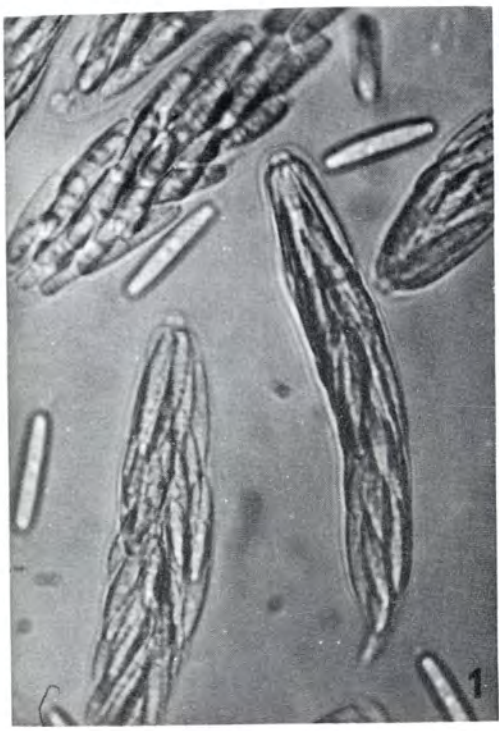

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3


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5

Plate II.





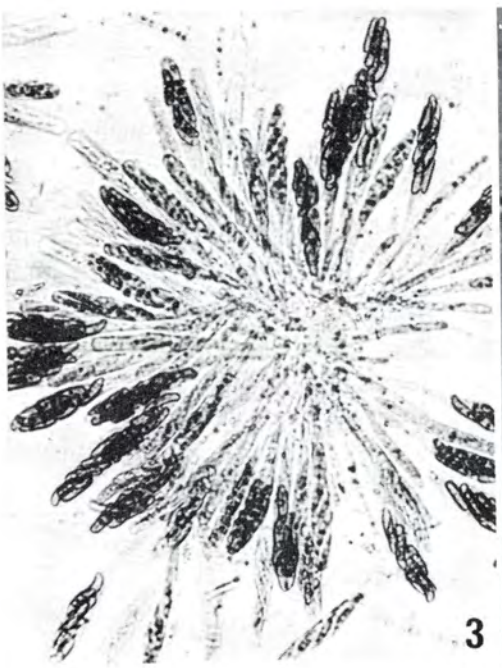
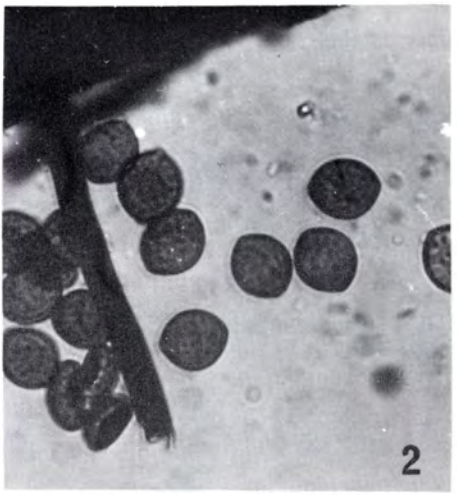


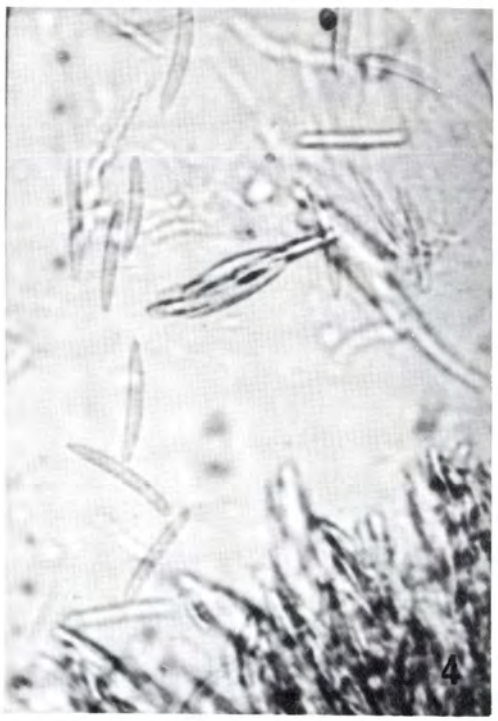


Plate III.









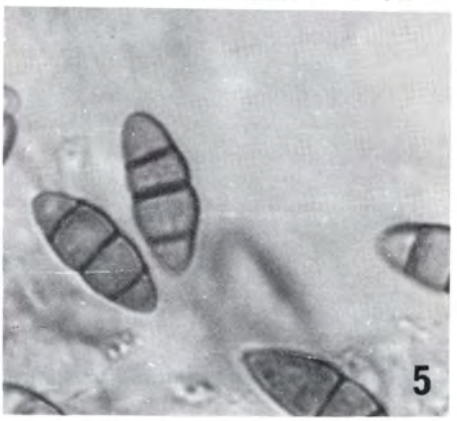


Plate IV.







