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Data to the knowledge of microscopic fungi of the Ócsa Nature Conservation Area

By

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Abstract: A total of 82 species of microfungi are listed collected from 47 host plants occurring on marshland "Ócsa égerláp". Four of these are new data to Hungary.

The authors present of their mycological research of the nature conservation of the "Ócsa égerláp" marshland. The data originate from the territory named "Nagyerdő" near Ócsa village as well as the fields nearby, comprising 10 km^2. The main part of the samples was collected in a marshy-woodland (Fraxino pannonicae-Alnetum) KOMLÓDI (1958) and in marshy meadows (Molinetum coerulae) KOVÁCS (1956). This territory is a small part of the marshland of "Ócsa-Dabasi turjánvidék" lying on the Great Hungarian Plain, between the Danube and the Tisza rivers.

The mycoflora of this area has not been studied until now. Apart from some previous sporadic collections, the data are based on the collection trips which were made from 1978 till 1980. This paper is the first part of the research of microfungi of the marshland "Ócsa-Dabasi turjánvidék".

All of 82 species of micrcfungi on 47 host plants are listed. From these the following are new fungus data to Hungary:

Cytosporopsis umbrinus (Bon.) Höhnel on Alnus glutinosa (L.) Gaertn.;
Entyloma fergussonii (Berk.et Br.) Plowr. on Myosotis palustris (L.) Nath;
Libertella fraxinea Oganova on Fraxinus angustifolia Vahl subsp.pannonica Soó et Simon;
Puccinia trabuti (Thuem.) Winter on Lamium galeobdolon (L.) Cv.

The specimens listed below are deposited in the Herbarium of Botanical Department of the Hungarian Natural History Museum, Budapest.

Myxomycetes

1. Hemitrichia clavata (Pers.) Rost. - On dead wood, 17.10.1980. (spores: 8-10 µm).
2. Lycogala epidendrum (L.) Fries - On dead wood, 17.10.1980. (spores: 4-7 µm diam.).
3. Metatrichia vesparium (Batsch) Nann.-Brem. - On dead wood, 17.10.1980. (spores: 10-11,5 µm).
4. Physarum nutans Persoon - On decaying trunk, 17.10.1980. (spores: 8,8-10 µm diam.).
5. Stemonitis splendens Rost. - On decaying trunk, 17.10.1980. (spores: 7-9 µm diam.).
6. Trichia varia (Pers.) Pers. - On dead wood, 17.10.1980. (spores: 11-15 µm diam.).

Phycomycetes

7. Albugo candida (Pers.) Kuntze - On Capsella bursa-pastoris (L.) Medic., 12.10.1978.

Ascomycetes

8. Claviceps purpurea (Fries) Tul. - On Molinia coerulea (L.) Mnch. 11.9.1978.
9. Diatrypella verrucaeformis (Ehrh.) Nke. - On Alnus glutinosa (L.) Gaertn., on dead twigs, 17. 9.1980. (ascus: 100-140 x 8 µm, spores: 6.5-8 x 1-1.5 µm).
10. Erysiphe lamprocarpa (Wallr.) Duby - On Plantago major L., 17.9.1980. (spores: 20-25 x 12-14 µm).
11. Erysiphe martii Lév. - On Trifolium dubium Sibth., 17.9.1980. (spores: 25-31 x 11-12 µm).
12. Fabraea ranunculi (Fries) Karsten - On Ranunculus repens L., 12.10.1978. (asci: 96-100 x 12-13 µm, spores: 15-16 x 4 µm).
13. Hypoxylon rubiginosum Pers. ex Fries - On decorticated dead wood, 17.10.1980. (asci: 60-80 x 5-7 µm, spores: 9-12 x 4.5-5.5 µm).
14. Leptosphaeria coniothyrium Sacc. - Rubus caesius L., on living twigs, 17.10.1980. (asci: 56-68 x 5-6.4 µm, spores: 12.8-14 x 4-4.8 µm).
15. Leveillula taurica (Lév.) Arn. - On Verbascum phlomoides L., 30.9.1980. (spores: 27-29 x 17-20 µm).
16. Nectria peziza (Tode ex Fries) Fries - On dead wood, 26.9.1971. (asci: 60-80 x 7.5-9 µm, spores: 12-14 x 4.8-6.5 µm).
17. Ophiobolus acuminatus (Sow. ex Fries) Duby - Cirsium canum (L.) All., on dry stalks, 16.4. 1979. (asci: 150-200 x 11.3 µm, spores: 69.3-75.6 x 2.5-3 µm).
18. Paxina acetabulum (Linnaeus ex St.Amans) Kuntze - 21.5.1972. (asci: 300-320 x 16-17 µm, spores: 20-22 x 14-16 µm).
19. Phaeosphaeria eustoma (Fuck.) L.Holm - Iris pseudacorus L., on dry leaves, 12.10.1978. (asci: 85-90 x 13.5-15 µm, spores: 27-31.5 x 6.5 µm, 3 sept.).
20. Phyllachora trifolii (Persoon) Fuckel - Trifolium fragiferum L., on living leaves, 17.9.1980. (asci: 58-63 x 10-11.3 µm, spores: 9.5-10.1 x 5-5.5 µm).
21. Pleospora herbarum (Fries) Rabh. - Cirsium canum (L.) All., on dry stalks, 16.4.1979. (asci: 98-230 x 20-48 µm, spores: 28-47 x 10-18 µm).
22. Pleospora laricina Rehm var. laricina - Salix alba L., on dead twigs, 17.9.1980. (asci: 160-170 x 17.6-18.9 µm, spores: 22.6-28.9 x 11.3-12.5 µm).
23. Valsa auerswaldii Nke. syn: Leucostoma auerswaldii (Nit.) Höhnel - Frangula alnus Mill., on dead twigs, 17.9.1980. (asci: 40-48 x 6.5-7.5 µm, spores: 15-16 x 3-3.2 µm).
24. Zignoella ovoidea (Fries) Sacc. - On dead wood, 18.10.1980. (asci: 90-120 x 6.4-8 µm, spores: 17-22 x 3.6-4 µm).

Basidiomycetes
Uredinales

25. Phragmidium bulbosum (Strauss) Schlecht. - On Rubus caesius L. 17.9.1980. (teliospores: 78.1-83.5 x 27.7-30.2 µm).
26. Puccinia absinthii De Cand. - On artemisia vulgaris L., 17.10.1980. (teliospores: 40-54.1 x 15-21.4 µm).
27. Puccinia arrhenatheri (Klebahn) Eriksson - On Arrhenatherum elatius (L.) J.et C.Presl, 22.6. 1978. (teliospores: 37.8-56.7 x 16.3-22.6 µm).
28. Puccinia bardanae Corda - On Arctium tomentosum Mill., 17.10.1980. (teliospores: 32.2-36.8 x 24-25.6 µm).
29. Puccinia centaureae De Cand - On Centaurea pannonica (Heuff.) Simk., 17.9.1980. (teliospores: 25.2-37.8 x 20.1-23.9 µm).

30. Puccinia cirsii Lasch - On Cirsium canum (L.) All., 16.5.1979. (teliospores: 36.5-40.3 x 23.9-25.2 µm).
31. Puccinia coronata Corda - On Glyceria maxima (Hartm.) Holmberg, 6.6.1979. (teliospores: 66.7-73.1 x 13.8-18.9 µm) - on Calamagrostis epigeios (L.) Roth., 17.10.1980. (teliospores: 42.8-60.4 x 10.1-12.5 µm).
32. Puccinia cynodontis Desm. - On Cynodon dactylon (L.) Pers., 6.10.1978. (teliospores: 40.3-56.7 x 17.6-22.6 µm).
33. Puccinia glechomatis De Cand. - On Glechoma hederaceium L., 17.10.1980. (teliospores: 32.7-46.6 x 15.1-20.1 µm).
34. Puccinia graminis Persoon - On Phragmites australis (Cav.) Trin. et Stengel, 16.4.1979. (teliospores: 40.3-60.4 x 15.1-21.4 µm).
35. Puccinia menthae Persoon - On Mentha aquatica L., 12.10.1978. (teliospores: 25.2-26.4 x 21.4-23.9 µm).
36. Puccinia moliniae (Tul.) Rostrup - On Molinia coerulea Moench., 17.9.1980. (teliospores: 35.2-44 x 22.6-26.4 µm).
37. Puccinia poarum Nielsen - On Tussilago farfara L., 11.9.1978. (aecidiospores: 19-25 x 14-20 µm).
38. Puccinia polygoni-amphibii Persoon - On Polygonum mite Schrk., 12.10.1978. (teliospores: 45.1-50 x 17.6-20 µm).
39. Puccinia punctata Link - On Galium uliginosum L., 17.9.1980. (teliospores: 35.8-50.4 x 17.6-21.4 µm).
40. Puccinia symphyti-bromorum F.Müller - On Symphytum officinale L., 19.6.1978. (aecidiospores: 19-27.4 x 17-22.6 µm).
41. Puccinia trabuti (Thuem.) Winter - On Lamium galeobdolon (L.) Cv., 15.6.1979. (aecidiospores: 18.9-23 x 15-20 µm).
42. Puccinia trailii Plowr. - On Phragmites austrialis (Cav.) Trin. et Stendel, 11.9.1978. (teliospores: 50.4-56.7 x 20.1-22.6 µm).
43. Uromyces ambiguus (De Cand.) Lév. - On Allium scorodoprasum L., 13.6.1980. (teliospores: 25.2-28.9 x 18.9-20.1 µm).
44. Uromyces junci (Desm.) Tul. - On Juncus subnodulosus Schrk., 17.9.1980. (teliospores: 25.2-39.1 x 15.2-18 µm).
45. Uromyces orobi (Persoon) Lév. - On Lathyrus paluster L., 17.9.1980. (teliospores: 27.7-38 x 20.1-22 µm).
46. Uromyces rumicis (Schumacher) Winter - On Rumex hydrolapathum Huds., 17.10.1980. (teliospores: 25-27.7 x 21.4-23 µm).
47. Uromyces verruculosus Schroeter - On Silene alba (Mill.) Krause, 17.10.1980. (teliospores: 23.9-28 x 15.1-17 µm).

Ustilaginales

48. Entyloma fergussoni (Berk. et Br.) Plowr. - On Myosotis palustris (L.) Nath., 17.10.1980. (chlamydospores: 10-12 µm).
49. Entyloma serotinum Schröter - On Symphytum officinale L., 17.10.1980. (chlamydospores: 11-14 µm, conidia: 40-60 x 1.2-1.6 µm).
50. Farysia thumenii (Fisher v.Waldheim) Nannfeld - On Carex riparia Curt., 6.6. 1979. (spores: 6.3-13.8 x 3.7-6 µm).
51. Ustilago longissima (Schlect.) Meyen - On Glyceria maxima (Hartm.) Holmberg, 22.6.1978. (spores: 3.7-5.1 µm).
52. Ustilago violacea (Persoon) Roussel - On Silene vulgaris (Mnch.) Garcke., 22.6.1978. - On Myosoton aquaticum (L.) Mönch., 12.10.1978. (spores: 8-9.6 µm).
53. Tracya hydrocharidis Lagerh. - On Hydrocharis morsus-ranae L., 17.10.1980.

54. Aegerita candida Persoon - On decaying leaves, 8.3.1979.
55. Alatospora acuminata Ingold - Quercus sp., on submerged decaying leaf, 8.3.1979.
56. Alternaria tenuissima (Kuntze ex Pers.) Wiltshire - Iris pseudacorus L., on living leaves, 10.8.1980. (spores: 75-80 x 15-16 µm).
57. Botrytis cinerea Pers. ex Fr. - Veratrum album L., 22.6.1978. - Polygonatum latifolium (Jacqu.) Desf., 22.6.1978.
58. Cladosporium macrocarpum Preuss - On Glyceria fluitans (L.) R.Br., 16.4.1979. (conidia: 16-20 x 5-8 µm).
59. Colletotrichum dematium (Pers. ex Fr.) Grove - On Iris pseudacorus L., 17.9.1980. (conidia: 19-22 x 3.2-4 µm).
60. Cytophoma pulchella (Sacc.) Gutner - On Fraxinus angustifolia Vahl subsp. pannonica Soó et Simon, 17.9.1980. (conidia: 3-4 x 1-1.3 µm).
61. Cytospora personata Fr. syn: Leucocytospora personata (Fr.) Höhnel - On Frangula alnus Mill., 17.9.1980. (conidia: 8-9 x 1.5-2 µm).
62. Cytospora translucens Sacc. - On Salix alba L., 17.9.1980. (conidia: 4.5-6 x 1-1.5 µm).
63. Cytosporopsis umbrinus (Bon.) Höhnel - On Alnus glutinosa (L.) Gaertn., 17.9.1980. (conidia: 4.5-5 x 1.6-2.5 µm).
64. Deightoniella arundinacea (Corda) Hughes - Phragmites australis (Cav.) Trin. et Stendel, on drying leaves, 17.9.1980.
65. Diplodia frangulae Fuckel - Frangula alnus Mill., on dead twigs, 17.9.1980. (conidia: 22-24 x 7-12 µm).
66. Diplodia inquinans West. - Fraxinus angustifolia Vahl subsp. pannonica Soó et Simon, on dead twigs, 17.9.1980. (conidia:22-24 x 9-12 µm).
67. Diplodia rubicola Sacc. - Rubus caesius L., on dead twigs, 17.10-1980. (conidia: 25.2-27.7 x 11.3-12 µm).
68. Epicoccum purpurascens Ehrenb. - Urtica dioica L., on dry stalks, 16.4.1979. (conidia: 16-27 µm).
69. Libertella fraxinea Oganova - Fraxinus angustifolia Vahl subsp. pannonica Soó et Simon, on dry twigs, 17.9.1980. (conidia: 35-55 x 1.6 µm).
70. Margaritispora aquatica Ingold - Quercus sp., on submerged decaying leaf, 8.3.1979.
71. Monodictys paradoxa (Corda) Hughes - Quercus robur L., on drying branches, 17.10.1980. (conidia: 25-40 x 16-25 µm).
72. Ovularia obliqua (Cooke) Oudem. - Rumex hydrolapathum Huds., on drying leaves, 17.10. 1980. (conidia: 20-27.7 x 10-11.3 µm).
73. Papularia arundinis (Corda) Fries - Phragmites australis (Cav.) Trin. et Stendel, on dry stalks, 17.10.1980. (conidia: 8.8-11 x 5.2-8.5 µm).
74. Periconia cookei Mason et M.B.Ellis - Urtica dioica L., on dry stalks, 17.9.1980. (conidiophora: 600-700 x 11-14 um, conidia: 16 µm diam.).
75. Phoma divergens Oudem. - Fraxinus angustifolia Vahl subsp. pannonica Soó et Simon, on drying branches, 17.9.1980. (conidia: 8-10 x 3-3.4 µm).
76. Phoma urticae Schultz. et Sacc. - Urtica dioica L., on dry stalks, 16.4.1979. (conidia: 5-6 x 2 µm).
77. Phomopsis pseudacaciae (Nke.) v.Hoehn. - Robinia pseudacacia L., on dead twigs, 17.10.1980. (conidia: 10-16 x 3-3.2 µm).
78. Ramularia alismatis Fautrey - Alisma plantago-aquatica L., on dry leaves, 11.9.1978. (conidia: 12.5-22 x 2-3 µm).
79. Ramularia lampsanae (Desm.) Sacc. - Lapsana communis L., on dry leaves, 21.6.1978. (conidia: 6.5-18.5 x 2-3 µm).
80. Rhabdospora cirsii Karst. - Cirsium canum (L.) All., on dry stalks, 16.4.1979. (conidia: 37.5-41 x 1-1.2 µm).
81. Tetracladium setigerum (Grove) Ingold - Quercus sp., on submerged decaying leaf, 8.3. 1979.
82. Vargamyces aquaticus (Dudka) Tóth - Carex sp., on submerged utriculi, 17.9.1980.

Table 1. The distribution of microfungi according to host plant species on the "Ócsai égerláp" marshland

Host plants	Microfungi (No.)
Alisma plantago-aquatica	78
Allium scorodoprasum	43
Alnus glutinosa	9, 63
Arctium tomentosum	28
Arrhenatherum elatius	27
Artemisia vulgaris	26
Calamagrostis epigeios	31
Capsella bursa-pastoris	7
Carex riparia	50
Centaurea pannonica	29
Cirsium canum	17, 21, 30, 80
Cynodon dactylon	32
Frangula alnus	23, 61, 65
Fraxinus angustifolia subsp. pannonica	60, 66, 75, 69
Galium uliginosum	39
Glechoma hederacea	33
Glyceria fluitans	58
Glyceria maxima	31, 51
Hydrocharis morsus-ranae	53
Iris pseudacorus	19, 56, 59
Juncus subnodulosus	44
Lamium glaeobdolon	41
Lapsana communis	79

Host plants	Microfungi (No.)
Lathyrus paluster	45
Mentha aquatica	35
Molinia coerulea	8, 36
Myosotis palustris	48
Myosoton aquaticum	52
Phragmites australis	34, 42, 64, 73
Plantago major	10
Polygonatum latifolium	57
Polygonum mite	38
Quercus robur	71
Ranunculus repens	12
Robinia pseudacacia	77
Rumex hydrolapathum	46, 72
Rubus caesius	14, 25, 67
Salix alba	22, 62
Silene alba	47
Silene vulgaris	52
Symphytum officinale	40, 49
Trifolium dubium	11
Trifolium fragiferum	20
Tussilago farfara	37
Urtica dioica	68, 74, 76
Veratrum album	57
Verbascum phlomoides	15

All of the 82 microfungi occured on different determined and undetermined host plants. There were: 10 undetermined, 7 determined trees, and 40 determined herbs.

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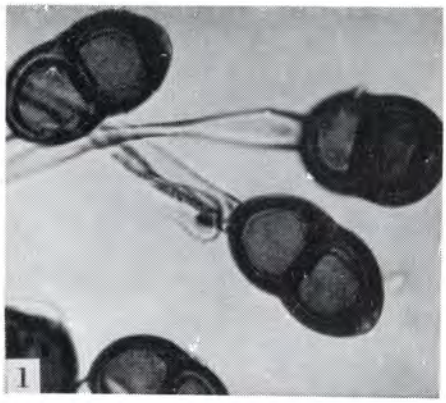
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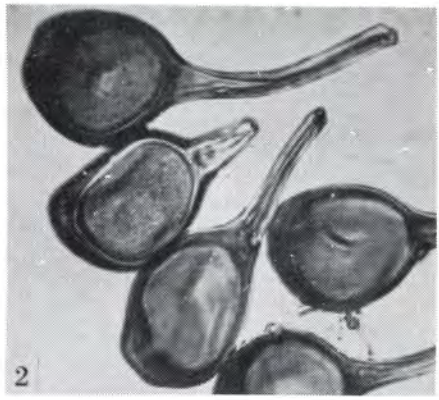
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EXPLANATION OF FIGURES

Fig. 1. Puccinia moliniae (Tul.) Rostrup - Teliospores x 800.
Fig. 2. Uromyces orobi (Persoon) Lév. - Teliospores x 1000.
Fig. 3. Ophiobolus acuminatus (Sow. ex Fries) Duby - Asci with ascospores x 200.
Fig. 4. Pleospora laricina Rehm var. laricina - Ascospores x 1000.
Fig. 5. Periconia cookei Mason et M.B.Ellis - Conidiophora with conidia x 800.
Fig. 6. Libertella fraxinea Oganova - Conidia x 600.

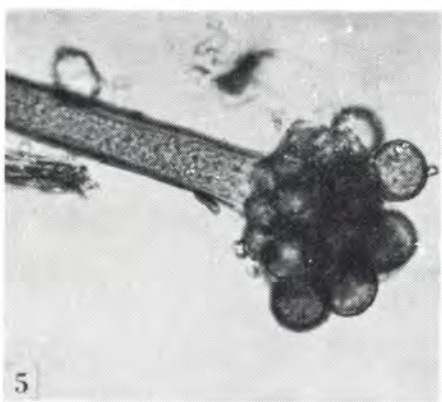
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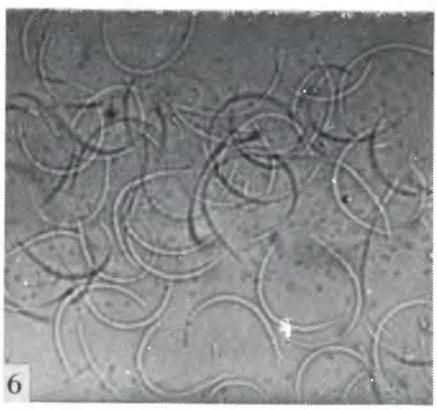

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