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Discomycetes of the Kazimierz Landscape Park

Discomycetes Kazimierskiego Parku Krajobrazowego

In 1979 the Kazimierz Landscape Park was established. The area between Puławy, Janowiec and Nałęczów covering 136.7 km² was included under protection. The area around it of 250 km² became a protective zone. The Park included a ravined valley of the Vistula River, the Bystra Valley, the edge of the Chodel Dale and a net of the ravines in the region of Parchatka, Stok and Rzęczyca. The gorges are formed in the loess formations and the slopes of the Vistula valley are formed from carbonate rocks (8).

Cup-fungi have been poorly studied in the area of the Park so far. The works coming from the beginning of the century quote 21 species of these fungi (1, 10, 11, 12, 14).

The studies were conducted in the area of Parchatka, Bochoznica and Kazimierz Dolny mainly in hornbeam communities and xerothermic shrubs and grasslands. They gave very interesting results, which encourages further explorations. 76 *discomycetes* species of three orders were collected: *Pezizales* — 32 species, *Helotiales* 42 and *Rhytismatales* — 2. These are the fungi growing mostly on bare loess soil, on dead herbaceous stems or on twigs lying on the litter.

While identifying the fungi, the studies enumerated in the references were made use of (2, 3, 5–7, 9, 13) and the terminology was followed after Cannon and others (4). The described collections were placed in the herbarium of the Chair of General Botany at the Institute of Biology, Maria Curie-Skłodowska University in Lublin.

The collected fungi include a number of species poorly known in Poland and so far noted only on individual sites. The most interesting ones include: *Ascobolus foliicola*, *Crocicreas culmicola*, *Crocicreas dolosellum*, *Dasyscyphus grevillei*, *Dasyscyphus pygmeus*, *Geopora arenosa*, *Heterosphaeria patella*, *Marcellinia persoonii*, *Mollisia erigerontis*, *Peziza michelli*, *Psilachnum inquilium*, *Pulvinula convexella*, *Trichophaea woolhopeia* and *Unguicularia millepunctata*. One should expect that the studies on other plant communities of the Park will bring further interesting data.

THE SPECIFICATION OF THE COLLECTED FUNGI AND THEIR SITES

Pezizales

Aleuria aurantia (Pers.) Fuck. — on moist soil at the road in a gorge, Oct. 7, 1984, Parchatka.

Ascobolus carbonarius P. Karst. — on the burnt grounds at the bottom of a loess gorge, June 29, 1986 Parchatka.

Ascobolus foliicola Berk. et Br. — on plant organic debris lying at the bottom of a loess gorge, June 8, 1988, Parchatka.

Ascobolus furfuraceus Pers. — on horse dung on the road in a loess gorge, June 29, 1986, Parchatka.

Ascobolus immersus Pers. — on horse dung on the road of a loess gorge, Aug. 11, 1985, June 29, 1986, Parchatka.

Coprotus lacteus (Cooke et Phill.) Kimbr. — on horse dung on the road in a loess gorge, June 29, 1986, Parchatka.

Geopora arenosa (Fuck.) Ahmad [= *Sepultaria arenosa* (Fuck.) Bound.] — on the loess soil, on the gorge's steep slope, June 8, 1988, Parchatka.

Helvella lacunosa Afz. — on moist soil, on the slope of a loess gorge in hornbeam shrubs, July 16, 1980, Chruszczów, June 29, 1986, Parchatka.

Humaria hemisphaerica (Wigg.: Fr.) Fuck. — on the soil, at the roads and hornbeam shrubs, July 16, 1980, Kazimierz Dolny, July 16, 1980, Aug. 11, 1985, July 15, 1988, Parchatka, July 16, 1980, Bochothnica.

Iodophanus carneus (Pers.) Korf — on cow dung, on the road in a loess gorge, Aug. 11, 1985, June 29, 1986, Parchatka.

Marcelleinia persoonii (Crouan) von Brumm. [= *Barleina amethystina* (Quél.) Sacc. et Trav.] — on bare loess soil, on the gorge's steep slope, July 15, 1988, Parchatka.

Melastiza chateri (Smith) Boud. — on moist soil at the road on the bottom of a loess gorge, June 28, 1986, Parchatka.

Morchella elata Fr. — on the soil on the slope of a loess gorge, May 29, 1980, Parchatka.

Peziza badia Pers. — on moist soil in hornbeam shrubs, July 16, 1980, Kazimierz Dolny, July 16, 1980, June 28, 1986, Parchatka.

Peziza echinospora P. Karst. — on the burnt ground in xerothermic grassland, July 16, 1980, Bochothnica.

Peziza emileia Cooke — on the soil in hornbeam shrubs, June 29, 1986, Parchatka

Peziza michelii (Boud.) Dennis — on moist soil at the road on the bottom of a loess gorge, July 16, 1980, July 15, 1988, Parchatka, June 6, 1988, Zbądowice, July 15, 1988, Męcierz.

Peziza sepiatra Cooke — one loess soil in hornbeam shrubs, June 29, 1986 Parchatka.

Peziza varia (Hedw.) Fr. — on a log at the road of a loess gorge, Oct. 7, 1984, Parchatka.

Peziza vesiculosa Bull. — on horse dung on the road of a loess gorge, June 29, 1986, Parchatka.

Peziza violacea Pers. — on the soil in hornbeam shrubs, June 8, 1988, Parchatka.

Pulvinula convexella (P. Karst.) Pfister [= *Pulvinula constellatio* (Berk. et Br.) Boud.] — on bare loess soil on the gorge's steep slope and on moist soil in xerothermic grassland, Aug. 11, 1985, June 8, 1988, July 15, 1988, Parchatka, Sept. 12, 1987, Męcimierz.

Rhizina undulata Fr. — on the old burnt ground in a pine forest, Aug. 10, 1985, Puławy.

Saccobolus citrinus Boud. et Torrend — on horse dung on the road of a loess gorge, Aug. 11, 1985, Parchatka.

Sarcoscypha coccinea (Scop.) Lamb. — on twigs in hornbeam shrubs, April 20, 1986, Bochothnica.

Scutellinia kerguelensis (Berk.) Kuntze — on bare soil in hornbeam shrubs, July 15, 1988, Parchatka.

Scutellinia scutellata (L.) Lamb. — on the burnt ground in a pine forest, Aug. 11, 1985, Puławy.

Scutellinia umbrarum (Fr.) Lamb. — on moist soil at the roads on the bottom of the gorges, July 16, 1980, Bochothnica, June 29, 1986, Parchatka, July 1987, Zbędowice.

Tarzetta cupularis (L.) Lamb. — on loess soil in hornbeam shrubs, July 16, 1980, June 29, 1986, July 15, 1988, Parchatka.

Thecotheus holmskjoldii (Hans.) Eckbl. — on cow dung on the road in a loess gorge, Aug. 11, 1985, Parchatka.

Thelebolus microsporus (Berk. et Br.) Kimbr. — on horse dung on the road in a loess gorge, June 29, 1986, Parchatka.

Trichophaea woolhopeia (Cooke et Phill.) Boud. — on moist soil on the steep slopes of the gorges and in hornbeam shrubs, July 16, 1980, Kazimierz Dolny, Aug. 11, 1985, July 15, 1988, Parchatka.

Helotiales

Calloria neglecta (Lib.) Hein [= *Callorina fusarioides* (Berk.) Korf.] — on dead stems of common nettle at the road, April 21, 1985, Parchatka.

Calycellina punctiformis (Grev.) Höhnelt [= *Phialina puberula* (Lasch) Höhnelt] — on fallen leaves of oak in hornbeam shrubs, Oct. 7, 1984, Aug. 11, 1985, Parchatka.

Crocicreas coronatum (Bull.) S. Carp. [= *Cyathicula coronata* (Bull.: Mérat) do Not.] — on dead stems of a herbaceous plant in hornbeam shrubs, Oct. 7, 1984, Parchatka.

Crocicreas culmicola (Desm.) S. Carp. [= *Belonioscypha culmicola* (Desm.) Dennis] — on dead stems of grasses in xerothermic grassland, May 29, 1980, Męcierz, July 16, 1980, Chruszczów, Aug. 11, 1985, Parchatka.

Crocicreas cyathoideum (Bull.) S. Carp. [= *Cyathicula cyathoidea* (Bull.) Thüm.] — on dead stems of herbaceous plants in xerothermic grassland and hornbeam shrubs, July 16, 1980, Bochothnica, July 16, 1980, Chruszczów, May 29, 1980, Męcierz, Aug. 11, 1985, Parchatka.

Crocicreas dolosellum (P. Karst.) S. Carp. [= *Cyathicula dolosella* (P. Karst.) Dennis] — on dead stems of a herbaceous plant in xerothermic grassland, May 29, 1980, Męcierz.

Dasyscyphus bicolor (Bull.) Fuck. — on the fallen twigs of oak in hornbeam shrubs, May 29, 1980, Parchatka.

Dasyscyphus crystalinus (Fuck.) Sacc. — on the fallen twigs of oak in hornbeam shrubs, May 29, 1985, Parchatka.

Dasyscyphus fascicularis (Vel.) Le Gal — on small twigs lying in the litter in hornbeam shrubs, June 29, 1986, Parchatka.

Dasyscyphus fuscescens (Pers.) Rehm. — on the fallen leaves of hornbeam in hornbeam shrubs, May 25, 1985, Parchatka.

Dasyscyphus grevillei (Berk.) Massee — on dead stems of herbaceous plants in xerothermic grassland, May 29, 1980, Męcierz.

Dasyscyphus niveus (Hedw.) Sacc. — on oak wood in hornbeam shrubs, April 24, 1986, Parchatka.

Dasyscyphus pelearum (Desm.) Massee — on dead stems of a herbaceous plant in xerothermic grassland, May 29, 1980, Męcierz.

Dasyscyphus pygmeus (Fr.) Sacc. — on small twigs covered with loess soil on the gorge's steep slope, June 8, 1988, Parchatka.

Dasyscyphus tenuissimus (Quél.) Dennis [= *Dasyscyphus pudicellus* (Quél.) Sacc.] — on dead stem of a herbaceous plant in xerothermic grassland, July 16, 1980, Bochothnica.

Dasyscyphus virgineus (Batsch) Gray — on the fallen twigs in hornbeam shrubs, May 29, 1980, May 25, 1985, Parchatka.

Dumontinia tuberosa (Hedw.) Kohn [= *Sclerotinia tuberosa* (Hedw.) Fuck.] — among *Anemone nemorosa* in hornbeam shrubs, April 21, 1985, Parchatka.

Heterosphaeria patella (Tode) Grev. — on dead stems of herbaceous plants in hornbeam shrubs, July 16, 1980, Chruszczów.

Hymenoscyphus calyculus (Sow. Phill.) — on a fallen twig in hornbeam shrubs, July 16, 1980, August 11, 1985, Parchatka.

Hymenoscyphus caudatus (P. Karst.) Dennis — on a decayed leaf in the shrubs on the backwater in the park, Aug. 4, 1985, Puławy.

Hymenoscyphus fructigenus (Bull.) S. F. Gray — on hornbeam and hazel nuts in hornbeam shrubs, Sept. 8, 1971, Bochothnica, Oct. 7, 1984, Aug. 11, 1985, Parchatka, Oct. 6, 1985, Kazimierz Dolny, Sept. 12, 1987, Męcierz.

Hymenoscyphus herbarum (Pers.) Dennis — on dead stems of herbaceous plants in hornbeam shrubs, Oct. 7, 1984, Parchatka, Oct. 6, 1985, Kazimierz Dolny.

Hymenoscyphus scutula (Pers.) Phill. — on dead stems of herbaceous plants in hornbeam shrubs, July 15, 1980, Chruszczów, Oct. 6, 1985, Kazimierz Dolny, Oct. 7, 1984, Parchatka.

Hymenoscyphus separabilis (P. Karst.) Dennis — on dead canes of raspberry at the road in a loess gorge, Oct. 7, 1984, Parchatka.

Mollisia atrata (Pers.) P. Karst. — on dead stems of a herbaceous plant in xerothermic shrubs, May 29, 1980, Męcierz.

Mollisia discolor (Mont.) Phill. — on the fallen twigs in hornbeam shrubs, June 25, 1984, Aug. 11, 1985, Parchatka.

Mollisia erigerontis (Cooke) Sacc. — on dead stems of *Solidago serotina* at the road in a loess gorge, July 16, 1980, Bochońnica.

Mollisia melaleuca (Fr.) Sacc. — on the fallen twigs in hornbeam and xerothermic shrubs, July 16, 1980, Bochońnica, April 21, 1985, May 25, 1985, Parchatka, May 29, 1980, Męcierz.

Orbilina auricolor (Blox.: Berk.) Sacc. — on a decayed twig in hornbeam shrubs, July 6, 1987, Parchatka, August 4, 1985, Puławy.

Orbilina luteorubella (Nyl.) P. Karst. — on a branch in hornbeam shrubs, May 25, 1985, Parchatka.

Orbilina sarraziniana Boud. — on branches in hornbeam shrubs, Aug. 11, 1985, Parchatka, June 8, 1988, Zbądoń.

Pezicula livida (Berk. et Br.) Rehm — on the fallen twigs of larch at the road in the gorge, July 16, 1980, Chruszczów.

Pezizella alniella (Nyl.) Dennis — on the fallen fructifications of alder in the shrubs at the backwater, May 29, 1980, Parchatka.

Pezizella chrysostigma (Fr.) Sacc. — on dead petioles of fern frond in xerothermic shrubs on the calcareous slope and in hornbeam shrubs of the gorge, May 29, 1980, Męcierz, June 8, 1988, Aug. 11, 1985, Parchatka.

Poculum sydowianum (Rehm) Dumont [= *Rutstroemia sydowiana* (Rehm) White] — on the fallen leaves of oak in hornbeam shrubs, Aug. 11, 1985, Parchatka.

Propolomyces versicolor (Fr.) Dennis [= *Propolis versicolor* (Fr.) Fr.] — on the fallen twigs of oak in xerothermic shrubs on a calcareous slope, May 29, 1980, Męcierz.

Psilachnum inquilinum (P. Karst.) Dennis [= *Dasyscyphus inquilinus* (P. Karst.) Winter] — on the last year's stems of *Equisetum hyemale* in hornbeam shrubs, April 21, 1985, Parchatka.

Pyrenopeziza petiolaris (Alb. et Schw.) Nannf. — on the petioles of fallen leaves of maple in hornbeam shrubs, May 29, 1980, April 21, 1985, Parchatka.

Rutstroemia bolaris (Batsch.) Rehm — on the fallen twigs of hornbeam in hornbeam shrubs, April 21, 1985, Parchatka.

Sclerotinia sclerotiorum (Lib.) de Bary — on a mummified fruit lying in the soil in hornbeam shrubs, May, 29, 1980, Parchatka.

Tapesia rosae (Pers.) Fuck. — on the fallen twigs of a rose in xerothermic shrubs, May 29, 1980, Męcierz, July 16, 1980, Bochothnica.

Unguicularia millepunctata (Lib.) Dennis [= *Unguicularia scrupulosa* (P. Karst.) Höhnelt] — on the fallen twigs in xerothermic shrubs, May 29, 1980, Męcierz.

Rhytismatales

Lophodermium juniperinum (Fr.) de Not. — on the fallen needles of juniper in xerothermic grassland, May 29, 1980, June 8, 1988, Męcierz.

Lophodermium pinastri (Schr.) Chev. — on the fallen needles of pine in xerothermic and hornbeam shrubs, May 29, 1980, Męcierz, April 25, 1986, Parchatka.

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STRESZCZENIE

Podano wykaz 76 gatunków miseczniaków (*Discomycetes*) zebranych w Kazimierskim Parku Krajobrazowym, przedstawiając grzyby z 3 rzędów: *Pezizales* — 32 gatunki, *Helotiales* — 42 i *Rhytismatales* — 2. Grzyby zbierane były w okolicy Parchatki, Bochojnicy i Kazimierza Dolnego w zbiorowiskach łąkowych oraz zaroślach i murawach kserotermicznych. Większość z zebranych grzybów to gatunki wyrastające na nagiej, lessowej glebie, ubiegłorocznych pędach roślin zielnych lub drobnych gałązkach leżących w ściółce. Wiele z nich jest mało znanych w Polsce i notowanych dotychczas na pojedynczych stanowiskach. Są to: *Ascobolus follicola*, *Marcelleinia persooni*, *Peziza michelii*, *Pulvinula convexella*, *Geopora arenosa*, *Trichophaea woolhopeia*, *Crocicreas culmicola*, *C. dolosellum*, *Dasyscyphus grevillei*, *D. pygmeus*, *Mollisia erigerontis*, *Psilachnum inquilinum* i *Unguicularia millepunctata*.