

Contribution to the Knowledge of Rust-fungi (Uredinales) from the East Slovakian Lowland and the Surroundings of Košice

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One of the basic research projects drafted for the present and next five-year plans is aimed at „Ecological Optimation of Exploiting the Lowlands of Slovak Socialist Republic.“ Contrary to the previous basic research project oriented only at East Slovakian Lowland it extends the scope of interest to the Danubian Lowland. Thus it comprises all Lowlands of South Slovakia, the centre of agricultural production, which support very considerably the nutrition of the nation and in certain crops full production for all Czechoslovakia. Among the main objectives of the project is obtaining knowledge of ecological interrelationships in an agricultural area and revision of the sofar human interventions into the area from this point of view. This must inevitably be preceded by the primary, main aim, viz. comprehensive basic exploration of abiotic and biotic factors. The paper submitted is only a small contribution to this aim.

The vegetation in the East Slovakian Lowland was generally outlined in the collective publication edited by Špániková (red.) 1985. A. o. the publication defines more accurately the geographical extent of the investigated area and contains the first comprehensive contribution to the knowledge of powdery mildews (*Erysiphales*) by Paulech (1985). The third chapter of this publication deals with the present state of botanical investigation, yet unfortunately, it does not give any information about the history of mycological investigation. With the help of C. Paulech and P. Lizoň the authors of this paper tried to discover older studies in which the rust-fungi collections from the area of interest would be published. The studies by Hazslinszky (1878, 1885) reporting a. o. also the rust collections from the former Hungarian districts Zemplén and Ung partly concern the given area. There are, however, difficulties with identifying the former toponyms with the present ones and to determine their recent topography.

The submitted paper is the result of a cryptogamological excursion of students and staff members of the Department of Botany, Faculty of Natural Sciences, Charles University to the East Slovakian Lowland in June 1986. It includes also collections from an excursion to the environments of Košice. If not mentioned otherwise, the material was collected by J. Marková. The given size of the spores is the mean of

measuring 10 spores. Scientific names of the hosts are given according to Dostál (1950).

TREBIŠOV DISTRICT

Slanske pohorie Mts - S part: Slanec village:

Puccinia chaerophylli Purt. on *Anthriscus sylvestris* (L.) Hoffm., June 23, II+III

Puccinia bromina Eriks. var. **paucipora** Urban on *Symphytum officinale* L., June 23, I

Uromyces geranii (DC.) Fr. on *Geranium pratense* L., June 23, leg. J. Váňa, II(III)

Byšta village - on the tourist pathway to Izra lake:

Puccinia chondrillae Cda. - see *P. opizii*

Puccinia coronata Cda. var. **coronata** on *Festuca pratensis* Huds., June 24, II, uredospores 20-23, 8 x 16,3 - 18,8 μm

Puccinia galii-vernii Ces. on *Galium vernum* Scop., June 24, leg. V. Skalický, III

Puccinia glechomatis DC. on *Glechoma hederacea* L., June 24, leg. J. Horáková, III

Puccinia menthae Pers. on *Calamintha clinopodium* Moris, June 24, II; - on *Mentha arvensis* L., June 24, II+III

Puccinia opizii Bub. on *Mycelis muralis* (L.) Dum., June 24, (0)+I; together with *Puccinia chondrillae* Cda., II

Puccinia poae-nemoralis Otth on *Poa nemoralis* L., June 24, II

Puccinia poarum Niels. var. **poarum** (see Urban et Marková, 1987) on *Tussilago farfara* L., June 24, 0+I

Puccinia cf. **praecox** Bub. on *Crepis biennis* L., June 24, II

Puccinia violae (Schum.) DC. on *Viola silvatica* Fries, June 24, II(III)

Xenodochus carbonarius Schlecht. on *Sanguisorba officinalis* L., June 24, I+III

Uromyces ambiguus (DC.) Lév. on *Allium scorodoprasum* L., June 24, (II)III

Uromyces dactylidis Otth on *Dactylis glomerata* L., June 24, II+III, uredospores 26,3 - 28,8 x 22,5 - 25 μm , 8 - 9(10) pores; teliospores 23,8 - 31,3 x (15) 17,5 - 20 μm

Uromyces flectens Lagh. on *Trifolium alpestre* L., June 24, III

Uromyces trifolii-repentis (Cast.) Liro on *Trifolium repens* L., June 24, (II)III

Zemplínske vrchy hills: Viničky village and the way to SE:

Puccinia calcitrapae DC. on *Centaurea jacea* L., June 25, II

Puccinia coronata Cda. on *Arrhenatherum elatius* P. Beauv., June 25, (II); - var. **coronata** on *Festuca pratensis* Huds., June 25, II, uredospores 20 - 22,5 x 16,3 - 18,8 μm

Puccinia cf. **graminis** Pers. on *Berberis vulgaris* L. June 25, I

Puccinia graminis Pers. subsp. **graminis** on *Agropyrum intermedium* P. Beauv., June 25, II+III; - on *Agropyrum repens* P. Beauv., June 25, II+III

Puccinia graminis Pers. subsp. **graminicola** Urban on *Lolium perenne* L., June 25, II(III), uredospores 23,8 - 31,3 x 17,5 - 21,3 μm , ca. 3-4 pores

Puccinia hordei-murini Buchw. on *Hordeum murinum* L., June 25, II, uredospores 25 - 28,8 x 21,3 - 25 μm , (9)10 - 11(12) pores

Puccinia pygmaea Eriks. on *Calamagrostis epigeios* (L.) Roth., June 25, II, uredospores 31,3 – 35 x 28,8 – 31,3 μm , ca. 8–11(14) pores; numerous paraphyses clavate to capitate, wall apically to 5 μm thick but usually thin like at side, ca. 2 μm

Puccinia violae (Schum.) DC. on *Viola hirta* L., June 25, II

Pucciniastrum agrimoniae (Diet.) Tranz. on *Agrimonia eupatoria* L., June 25, II

Ladmovce village: Šomoš hill (Kašvár State Natural Reserve):

Melampsora lini (Ehrenb.) Lév. on *Linum catharticum* L., June 25, II+III

Puccinia allii (DC.) Rud. on *Allium flavum* L., June 25, II+III

Puccinia brachypodii Otth on *Brachypodium pinnatum* (L.) P. Beauv., June 25, II, uredospores 23,8 – 28,8 x 21,3 – 23,8 μm , ca. 8–10 pores, paraphyse wall apically to 9 μm thick

Puccinia coronata Cda. on *Calamagrostis epigeios* (L.) Roth., June 25, II(III), uredospores 25 – 28,8 x 21,3 – 22,5 μm , (8)9 – 11 pores, teliospores with ca. 6 short blunt projections

Puccinia graminis Pers. subsp. **graminis** on *Agropyrum intermedium* P. Beauv., June 25, II+III

Puccinia pulsatillae Kalchb. on *Anemone silvestris* L., June 25, III

Uromyces anthyllidis (Grev.) Schroet. on *Anthyllis vulneraria* L., June 25, II

Latorica river, near the bridge on the road from Veľké Kapušany to Kráľovský Chlmec:

Puccinia coronata Cda. var. **coronata** on *Agropyrum repens* P. Beauv. – see *Puccinia persistens*; – on *Agrostis alba* L., June 27, II(III), uredospores 22,5 – 25 x 18,8 – 20 μm ; – on *Festuca pratensis* Huds., June 27, (II), uredospores 20 – 25 x 17,5 – 18,8 μm , occasionally rare short, clavate, thin-walled paraphyses 25 – 42,5 x 7,5 – 12,5 μm

Puccinia crepidis Schroet. on *Crepis tectorum* L., June 27, II+III

Puccinia dioicae Magn. on *Taraxacum officinale* Web., June 27, 0+I; – on *Carex* cf. *bri-zoides* L., June 27, 1986, II+III, uredospores with 2(3) supraequatorial pores, spines 2,5 – 3,5 μm apart

Puccinia perplexans Plow. on *Alopecurus pratensis* L., June 27, II(III)

Puccinia persistens Plow. var. **persistens** on *Agropyrum repens* P. Beauv., June 27, II+III; together with *Puccinia coronata* Cda. var. *coronata*, III; – on the same host, June 27, II(III), uredospores 25 – 27,5 x 22,5 – 23,8 μm , coloured part of the wall (1,3) 1,5 μm thick, 8–9 pores

Uromyces ambiguus (DC.) Lév. on *Allium scorodoprasum* L., June 27, III

Uromyces pisi (Pers.) Wint. on *Lathyrus pratensis* L., June 27, II+III

Vihorlat Mts – W part: Krivošťany village – on the tourist pathway to Jasenov castle and Jasenov village:

Puccinia asarina Kze. on *Asarum europaem* L., June III

Puccinia brachypodii Otth on *Brachypodium sylvaticum* (Huds.) P. Beauv., June II, uredospores 23,8 – 28,8 x 21,3 – 22,5 μm , ca. 8–11 pores, paraphyse wall apically to 10 μm thick; on the same place aecia and spermogonia on *Berberis vulgaris* L., obsolete, on circular necrotic brownish spots in small (1–2) groups. Aeciospore wall regularly thick.

Puccinia convolvuli (Pers.) Cast. on *Calystegia sepium* R. Br., June 26, I

Puccinia magelhaenica Peyr. ex Magn. on *Arrhenatherum elatius* Presl. June 26, II+III

Puccinia persistens Plow. var. **triticina** Urban et Marková on *Triticum aestivum* L., June 26, II(III), uredospores 26,3 – 30 x 22,5 – 23,8 μm , coloured part of wall (1,8) 2 μm thick

Puccinia prenanthis-purpureae (DC.) Lindr. on *Prenanthes purpurea* L., June 26, II+III

Cronartium asclepiadeum (Willd.) Fr. on *Vincetoxicum officinale* Moench, June 26, II

KOŠICE DISTRICT

Košice town - Črmeľská dolina valley:

Puccinia arrhenathericola E. Fisch. on *Arrhenatherum elatius* Presl, June 28, II

Puccinia komarovii Tranz. on *Impatiens parviflora* DC., June 28, II+III

Puccinia prenanthis-purpureae (DC.) Lindr. on *Prenanthes purpurea* L., June 28, (I),+II+III

Puccinia punctata Link on *Galium schultesii* Vest, June 28, (I)II

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