Institut für Biologie, Institutsbereich Geobotanik und Botanischer Garten der Martin-Luther-Universität Halle-Wittenbe

Notes on some type collections of *Ascochyta* spp.

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Abstract: MEL'NIK, V.A. & BRAUN, U. 1999: Notes on some type collections of *Ascochyta* spp. Schlechtendalia **3**: 43-47.
Type collections of six *Ascochyta* spp. have been re-examined. The species concerned are described, illustrated, and discussed.

Zusammenfassung: MEL'NIK, V.A. & BRAUN, U. 1999: Notes on some type collections of *Ascochyta* spp. Schlechtendalia **3**: 43-47.
Es wurden Typuskollektionen von 6 *Ascochyta*-Arten untersucht. Diese Arten werden beschrieben, abgebildet und diskutiert.

Introduction

In the course of two scientific stays of V.A. Mel'nik at the Martin-Luther-University, Halle, Germany, in 1997 and 1998, re-examinations of numerous type collections of *Ascochyta* spp. were carried out, which formed part of a project, supported by Volkswagen-Stiftung (Germany), that aimed at a translation of MEL'NIK's (1977) monograph of this fungus genus into English. Some results of these examinations are represented in this paper. Herbarium acronyms are based on HOLMGREN et al. (1990), and the nomenclature and taxonomy of host plant families, genera, and species agree with those in CZEREPANOV (1995).

List of species treated

1. *Ascochyta juelii* Bubak, Ann. Mycol. 7: 61 (1909) Fig. 1

Leaf spots solitary, circular, subcircular or elliptic, yellowish or ochraceous, 2-4(-5) µm diam., diffuse, margin indefinite. Conidiomata pycnidial, aphigenous, pale brown, solitary, scattered, immersed, globose-depressed, 90-120 µm diam., with a circular pore, 15-20 µm diam., surrounded by a ring of small dark cells, conidiomatal wall thin, membranaceous, consisting of pale brown textura angularis. Conidiogenous cells ampulliform, phialidic, hyaline, lining the conidiomatal cavity. Conidia subcylindric-fusiform, with rounded, somewhat attenuated ends, straight, rarely slightly curved, medianly 1-septate, not constricted at the septum, hyaline, 10-14 x 2.2-2.5(-3) µm.

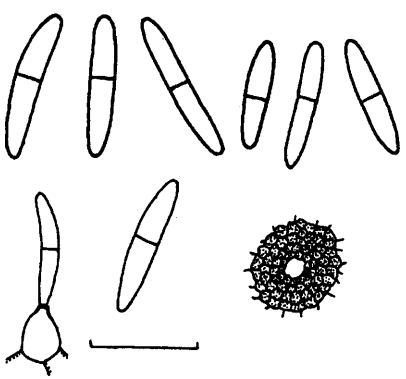


Fig. 1: *Ascochyta juelii*, conidia, conidiogenous cell, pycnidial pore; scale = 10 µm; V.A. Mel'nik del.

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Holotypus: on living leaves of *Colchicum autumnale* L. (Melanthiaceae), Austria, Purkersdorf, 14 July 1905, F. Bubák (BPI).

Notes: In most details, the results of the re-examination of the holotype collection coincide with the original diagnosis. BUBÁK (l.c.) described somewhat larger conidia, 8-16 x 2-3.5 µm, and leaf spots surrounded by a brown halo, which could not be observed in the present re-examination.

2. *Ascochyta versicolor* Bubák, Oesterr. Bot. Z. 54: 182 (1905) Fig. 2

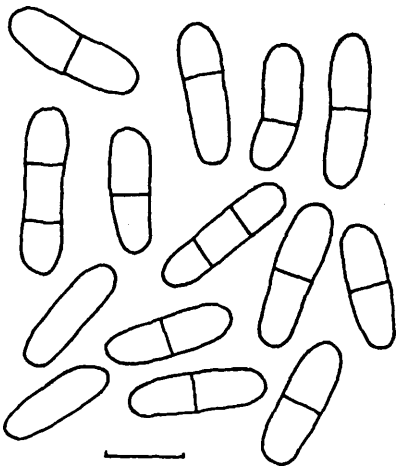


Fig. 2: *Ascochyta versicolor*, conidia; scale = 10 µm; V.A. Mel'nik del.

Leaf spots more or less scattered, two to three per leaf, subcircular to somewhat angular, rarely linear, hazelnut-brown, surrounded by a dark brown line, centre finally dry, crumbling. Conidiomata pycnidial, epiphyllous, yellowish-brown, more or less scattered, not confluent, immersed, globose-depressed to lenticular, sometimes strongly depressed in the centre, 250-300 µm diam., with a small, raised, papillate ostiolum and circular pore, 25 µm diam., conidiomatal wall thin, membranaceous, consisting of textura angularis, slightly darker around the pore. Conidiogenous cells ampulliform, phialidic, hyaline, lining the conidiomatal cavity. Conidia cylindric, ellipsoid or ellipsoid-obclavate, rarely ovate, with rounded or slightly tapered ends, predominantly 1(-2)-septate, rarely continuous, usually medianly septate, but sometimes with slightly eccentric septum, not constricted or sometimes slightly constricted at the septum, hyaline, 14-20 x 4-5 µm.

Holotypus: on living leaves of *Aristolochia clematitis* L. (Aristolochiaceae), Austria, Tirol, Meran, 21 July 1904, F. Bubák (BPI).

Notes: BUBÁK (l.c.) described the conidia of this species as follows: 10-25 x 4-6.5 µm, 2-3-celled. The formation of aseptate conidia was, however, not mentioned.

3. *Ascochyta aphyllantis* Henn., Hedwigia 41: 137 (1902) Fig. 3

Leaf spots solitary, brown, surrounded by a dark border. Conidiomata pycnidial, epiphyllous, dark brown or almost black, numerous, scattered, sometimes aggregated in linear groups of two to three pycnidia, immersed, black, globose with somewhat conic upper half, 100-120 µm diam., with circular pore, 15 µm diam., conidiomatal wall 5-15 µm wide, consisting of two to

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three layers of textura angularis cells. Conidiogenous cells ampulliform, phialidic, hyaline, lining the conidiomatal cavity. Conidia oblong-fusiform, with rounded ends, medianly 1-septate, not or only slightly constricted at the septum, hyaline, 12-14 x 3-3.5 µm.

Holotypus: on petioles of *Aphyllanthes monspeliensis* L. (Liliaceae), Germany, „Hort. Berl." (Botanic Garden, Berlin-Dahlem), August 1901, P. Hennings (B).

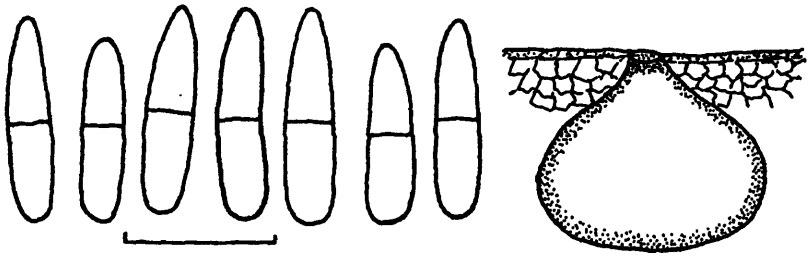


Fig. 3: *Ascochyta aphyllanthis*, conidia, pycnidium; scale = 10 µm; V.A. Mel'nik del.

Notes: The results of our re-examination of type material of this species agree well with the original diagnosis published by HENNINGS (l.c.) as well as PUNITHALINGAM's (1988) description. The latter author described this species as follows: 10-13(-14) x 2.5-3 µm, rarely with two septa.

4. *Ascochyta phellodendri* Kabát et Bubák, Hedwigia 46: 291 (1907) Fig. 4

Leaf spots solitary, scattered, often marginal and confluent, more or less circular, 1-2 mm diam., zonate, hazelnut-brown, with castaneous border. Conidiomata pycnidial, epiphyllous, pale brown, scattered, sometimes aggregated, immersed, globose, 80-120 µm diam., with papillate ostiolum and circular pore, up to 20 µm diam., conidiomatal wall thin, membranaceous, consisting of textura angularis. Conidiogenous cells ampulliform, phialidic, hyaline, lining the conidiomatal cavity. Conidia short-cylindric, with rounded ends, sometimes with somewhat tapered basal end, straight, rarely slightly bent, predominantly (up to 95%) with 1 median septum, but occasionally continuous, slightly constricted at the septum, hyaline, 7-14 x 3.5-4 µm.

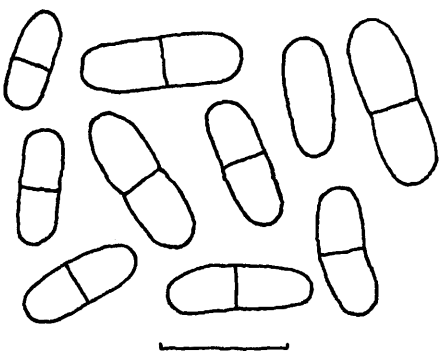


Fig. 4: *Ascochyta phellodendri*, conidia; scale = 10 µm; V.A. Mel'nik del.

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Holotypus: on living leaves of *Phellodendron amurense* Rupr. (Rutaceae), Bohemia, nursery near Turnau, 24 August 1905, J.E. Kabát (BPI).

Notes: In the original diagnosis, Kabát & Bubak (l.c.) described somewhat shorter conidia, 6-10 x 3.5 µm.

5. *Ascochyta lathyri* Trail, Scott. Naturalist, N.S., 3: 87 (1887) Fig. 5

Leaf spots rather inconspicuous, greyish-brown, occupying entire leaflets. Conidiomata epiphyllous, brownish, numerous, scattered, partly immersed or almost superficial, globose-depressed or lenticular, brownish, about 100 µm diam., with circular pore, 15 µm diam., with dark ring of small cells around the pore, conidiomatal wall thin, membranaceous, consisting of textura angularis. Conidiogenous cells almost ampulliform, phialidic, hyaline, lining the conidiomatal cavity. Conidia oblong-ellipsoid, with rounded to slightly attenuated ends, straight, medianly 1-septate, not constricted at the septum, hyaline, 12-14 x 2.5-3 µm.

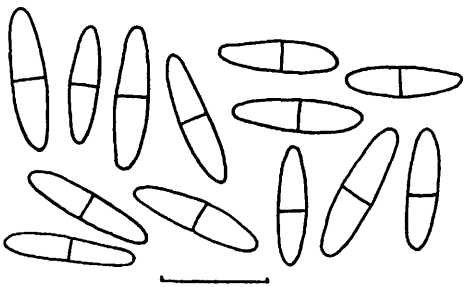


Fig. 5: *Ascochyta lathyri*, conidia; scale = 10 µm; V.A. Mel'nik del.

Authentic material (holotype?): on leaves of *Lathyrus sylvestris* L. (Fabaceae), UK, St. Cyrko, 8 October 1886, J.W.H. Trail (ABD).

Notes: The material examined is authentic for *A. lathyri* and represents possibly the holotype. TRAIL (l.c.) described much smaller conidia (6-10 x 2-2.5 µm). There is, however, an annotation, added by D.M. Henderson (Royal Botanic Garden, Edinburgh), that the conidia are much larger, viz. 12-14 x 2.5-3 µm, which could be confirmed.

6. *Ascochyta decipiens* Trail, Scott. Naturalist, N.S., 4: 71 (1889)

This species was described as follows: „On the same culms as *Coniothyrium scirpi*. Pycnidia innate, depressed, spherical, about 120 [µm] in diameter, thin, dark brown. Sporules abundant, elliptical, not constricted, 9-11 by 2 ½ –3 ½ [µm], hyaline, with a very delicate median septum. This is a true *Ascochyta*, and seems distinct from any described form, though without any very well-marked charateristic features."

Holotypus: from dead culms of *Scirpus palustris* L. (Cyperaceae), UK, shore of Loch Ashray, Pertshire, 15 September 1888, J.W.H. Trail (ABD).

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Notes: The type material from ABD contains a single microscopic slide with an attached annotation: „*Ascochyta decipiens* sp. n. Pycnidia like those of the *Coniothyrium scirpi*. Conidia [two celled, drawing], obtuse, 10 x 3 ½-4 µm, hyaline, contents separated into 2 masses by ? a septum, very delicate but distinct."

We could not find any conidia in this slide, but PUNITHALINGAM (1988), who also studied this material, mentioned the observation of some squashed pycnidia with pale yellowish, aseptate conidia, 8-10 x 3-3.5 µm. He stated that this pycnidial fungus did not belong in *Ascochyta*, but rather in *Coniothyrium* or *Microsphaeropsis*, which can be confirmed.

Acknowledgments:

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