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Coniochaeta prunicola - first record for Slovakia and Europe

Research Article

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Abstract: This study reports the first record of *Coniochaeta* on *Laurocerasus officinalis* Roem. from the Nitra district. This is the first record of Coniochaeta for Slovakia and also for Europe. The fungus *Coniochaeta prunicola* Damm & Crous (Coniochaetales, Sordariomycetes, Ascomycota) was isolated from damaged leaves and twigs of host trees. Morphological analyses demonstrate that *Coniochaeta prunicola* and *Coniochaeta velutina* are distinct species.

Keywords: *Ascomycota* • *Laurocerasus officinalis* • *Morphological characteristic*

1. Introduction

The genus *Coniochaeta* (anamorph: *Lecythophora*) including ascomycetous fungi are known pathogens of woody plants, but some species can also cause human infections. *Coniochaeta* contains more than 80 species occurring mostly on wood and bark, leaves and leaf litter of different trees, in dung of various animals, and in soil and water.

Different genera of the family Coniochaetaceae were identified based on the differences in their ascomata (ostiolate in *Coniochaeta*, and non-ostiolate in *Coniochaetidium* and *Ephemeroascus*) [1,2]. Ornaments in ascospore walls are another useful criterion, and the presence of pitted ascospores indicates *Poroconiochaeta* [3]. Phialidic, verticillate conidiogenous cells enable differentiation *Ephemeroascus* from *Coniochaetidium* [2]. The most distinctive morphological features are germ-slits in ascospores, differentiating these fungi from Sordariaceae and its phialidic anamorphs belonging to *Lecythophora* [4]. Coniochaetaceae are characterized by dark brown to black ascocarps, ostiolate peridia with or without setae, and dark brown, discoid, nearly globose or ellipsoidal ascospores [5,6].

The *Coniochaeta* (Sacc.) Cooke genus is recognised as a large and highly diversified ascomycetous genus with non-stromatic, globose or subglobose short-necked perithecia with broad ostiole [6]. Species of the genus *Coniochaeta* and their *Lecythophora* anamorphs occur on various substrates and media: in plants (wood, bark, leaves leaf litter), animal faeces, soil and in a trongly acidic water with high heavy metal concentrations [7-10]. Some *Coniochaeta* species have significant biochemical properties. Species of *Coniochaeta* were isolated from various body parts of the representative genus *Prunus*. *C. ligniaria* (Grev.) Massee was isolated from decaying bark of *Prunus avium* L. in the Netherlands (CBS 178.75). [11] reported several species on fruit trees in Moldavia: on dry twigs of apricot and cherry *C. ambigua* (Sacc.) Cooke, on twigs of cherry and plum was *C. calva* Tode, on dry twigs and wood of plum trees *C. ligniaria* (Grev.) Massee. *C. velutina* (Fuckel) Munk was isolated from *Prunus* sp., *C. africana* Damm & Crous, sp. nov. from wood of *Prunus salicina* Lindl., *C. prunicola* Damm

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