

**A new species of *Cylindrosporium***

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**Abstract**—The anamorphic fungus *Cylindrosporium crataeginum* sp. nov. is described and illustrated from living leaves of *Crataegus tanacetifolia*, *C. monogyna* subsp. *monogyna* and *C. pentagyna* collected in Turkey.

**Key words**—coelomycetes, *Melanconiales*

**Introduction**

During studies on the micromycetes of trees and shrubs in Turkey, we observed a species of *Cylindrosporium* that is described here as new. Its identification was ascertained by reference to Vassiljevsky & Karakulin (1950), Švarcman et al. (1971), Sutton (1980), Treigienė & Ignatavičiūtė (1993) and Ignatavičiūtė & Treigienė (1998). The holotype is deposited in the Herbarium of Ahi Evran University, Kırşehir, Turkey.

**Material and methods**

The plant material was collected from the Küre Mountain National Park in Kastamonu province (Black Sea Region) and Kızılcahamam in Ankara province of Turkey. Specimens of the fungus were taken to the laboratory and microscopically examined with a Leica compound microscope. Sections were hand cut using a razor blade. Host plants were identified using the “Flora of Turkey and East Aegean Islands” (Davis 1982). The author abbreviations of fungi are according to Kirk & Ansell (2004). All examined specimens are deposited in the Ahi Evran University, Arts and Sciences Faculty, Department of Biology, in Kırşehir province of Turkey.

**Results**

*Cylindrosporium crataeginum* Erdogdu & Hüseyin, sp. nov.

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Figs. 1–2

*Ab Cylindrosporitis ceteris in Rosaceis differt in conidiophoris simplicibus vel ad basin ramosis, 2-septatis, et conidiis (2-)4-8(-11) septatis.*

Holotypus—TURKEY, Ankara, Kızılcahamam, in foliis vivis *Crataegi tanacetifoliae* (Lam.) Pers. (*Rosaceae*), 40°36'15"B, 32°31'28"O, alt. 1385 m.s.m, 26-VIII-2005, leg. HÜSEYİN (EH 1569). In Herbario Universitatis Ahi Evran (Kırşehir, Turcei) conservatur.

Etymology: The specific epithet is based on the genus name of the host plant *Crataegus*.

Foliicolous. Mycelium immersed, branched, septate, hyaline, 2–2.5 µm wide. Leaf lesions amphigenous, yellow, dark brown when dry, deliquescent, elongate, irregular or irregular circular, 1–3 mm across, scattered, confluent (Fig. 1A). Conidiomata acervulate, on the lower surface, subcuticular, scattered, solitary, pale brown, amber coloured, circular, 160–200 µm diam. (Fig. 1B); conidiomata wall 10–15 µm wide and 3–4 cells thick of pale brownish textura elliptica. Conidiophores hyaline, wall smooth, simple or branched at the base, parallel, 2-septate, erect, straight, formed from the upper pseudoparenchyma, cylindrical, 10–15 × 4.5–5.5 µm. Conidiogenous cells enteroblastic, integrated, smooth, hyaline, cylindrical, 5–6 × 4.5–6 µm. Conidia hyaline, (2–) 4–8 (–11)-euseptate, not constricted, eguttulate, straight or curved, cylindrical, sometimes slightly tapering towards the apex, angust-obclavate, rounded at the ends or obtuse at the base, (55–) 77–105 × 4–5.5 µm, frequently issuing in small whitish, gelatinous tendrils (Fig. 2A–2B).

Other specimen examined—TURKEY, Kastamonu Prov., Küre Dağları, Pınarbashy, on living leaves of *C. monogyna* Jacq. subsp. *monogyna*, 41°42'8.0"N, 33°09'2.3"E, 1100 m, 26-VIII-2005, Co. ERDOĞDU M (ME 1609) and ibid, on living leaves of *C. pentagyna* Waldst. & Kit. ex Willd., 40°42'9.5"N, 33°08'8.1"E, 1035 m, 26-VIII-2005, Co. ERDOĞDU M (ME 1573). Deposited in Herbarium of the Ahi Evran University, Kırşehir, Turkey.

### Discussion

The new species differs from twenty-five other *Cylindrosporium* species recorded on rosaceous trees and shrubs (Vassiljevsky & Karakulin 1950, Sutton 1980, Treigienė & Ignatavičiūtė 1993, Ignatavičiūtė & Treigienė 1998) appearing most closely related to *Cylindrosporium brevispinum* Dearn., *C. canadense* Vassiljevsky, *C. gei* Farl., *C. kerriae* V.B. Stewart, *C. pruni-tomentosae* Miura and *C. spiraeicola* Ellis & Everh. in structure and morphology of conidiomata, conidiophores, and conidia.

The most significant differences are septate conidiophores that are branched at the base and conidia that are wider, longer and form more septa, 2–11 but predominantly 4–8 (TABLE 1).

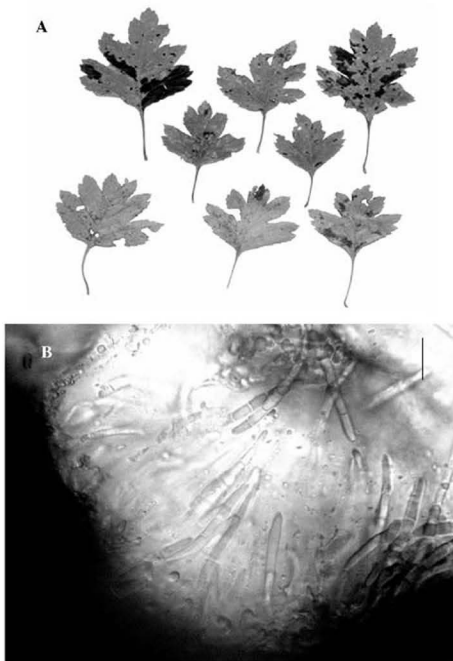


Fig.1. *Cylindrosporium crataeginum*.  
A.-leaf spots; B.- vertical section of a conidiomata. Scale bar= 15  $\mu$ m

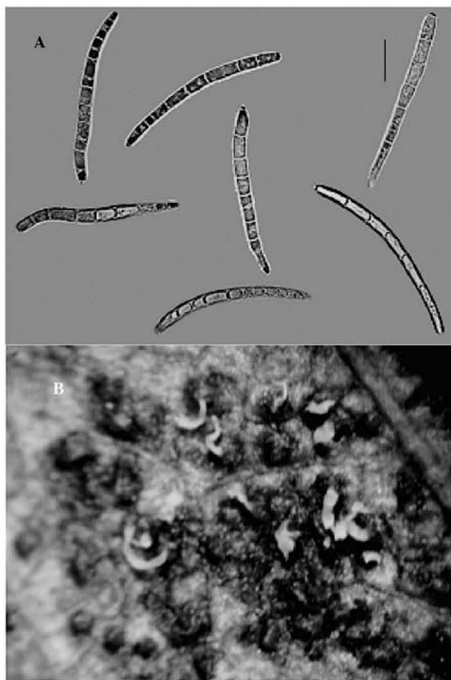


Fig.2. *Cylindrosporium crataeginum*:  
A.- natural conidia. Scale bar= 20  $\mu$ m; B.-gelatinous tendrils. x 25.

Table 1. Comparative analysis of *Cylindrosporium crataeginum* and other *Cylindrosporium* spp. from *Rosaceae*

SPECIES	CONIDIOMATA	CONIDIOPHORES	CONIDIA
<i>C. brevispinum</i>	Hypophyllous, 80–220 µm diam	Filiform, unicellular, 18–30 × 2–2.5 µm	Almost clavate, unicellular or 1–2 septate, 30–90 × 3–4 µm, mostly 45–50 µm long
<i>C. canadense</i>	Hypophyllous, 60–100 µm diam	Hyaline, cylindrical, unicellular, 20–30 × 2.5–3 µm	Filiform, 3-euseptate, up to 120 µm × 3–4 µm
<i>C. gei</i>	Amphigenous	—	Filiform, unicellular, 38–110 µm long
<i>C. kerriae</i>	Amphigenous	—	Filiform, 1–2-euseptate, 40–76 × 3.2–4.8 µm
<i>C. prunifomentosae</i>	Epiphyllous	Simple, unicellular, 10 × 4 µm	Filiform, 3-euseptate, 80–100 × 4 µm
<i>C. spiraeicola</i>	Epiphyllous, 200–500 µm diam	Hyalinae, conical or rod-like, unicellular, 8–16 × 3–4 µm	Broadly obclavate or cylindrical, 1–5 (often 2)-euseptate, 40–90 × 3–4 µm
<i>C. crataeginum</i>	Hypophyllous, 160–200 µm diam	Hyaline, simple or basally branched, 2-septate, 10–15 × 4.5–5.5 µm	Cylindrical, broadly obclavate, 2–11 (predom. 4–8)-euseptate, (55–)77–105 × 4–4.5 µm

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