

## A NEW SPECIES OF *SEPTORIA*

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### Abstract

*Septoria oleandriicola* sp.nov., is described and illustrated from leaves of *Nerium oleander*, collected in Turkey.

During studies on the phyllostrophs mycobiota of trees and shrubs in Turkey, we observed a new species of *Septoria* which is described here. It's identification was ascertained with the help of Terevnikova-Bababyan's (1987) monograph on *Septoria*. The holotype have been deposited in the Herbarium Gazi University, Kirsehir, Turkey.

***Septoria oleandriicola* E. Hüsein & F. Selcuk sp. nov. (Fig. 1)**

**Etym.:** The specific epithet is based on the species name of the host plant *Nerium oleander* L.

Foliicola. *Mycelium* immersum, intracellulare vel intercellulare, hyaline, septatum, ramosum, laeve, tenui-vel crassitunicatum, 3-5µm latum. *Maculae* amphigenae, irregulares, angulares vel elongates, 0.5-2.5 (-3) cm latae, sparsae, non coalescentes, primo castaneus deinde fuscescens, superne distincte latus convexus castaneus marginatus, inferne pallide brunneae diffusae marginatus. *Conidiomata* pycnidialia, subimmersa, dispersa, epihylla, numerosa, globosa, subglobosa vel cupulariae, unilocularia, 125-175 µm lata; paries 10-12.5µm latus et 4-5 cellulis crassus, versus exteriorem ex textura prismatica ex cellulis brunneis crassi-tunicatis et versus interiorem ex textura globulosa ex cellulis subhyaline crassi-tunicatis; porus latirimiformis vel circulare, 25-30 µm diam. *Conidiophora* absentia. *Cellulae conidiogenae* enterogenices et stationaracis, ampulliformes vel lageniformes, 7.5-8.5x3-3.5µm, ex cellulis interioribus conidiomatum formata. *Conidia*, primovo formaneli hologenitica ceroenterogenitica, hyalina, plerumque 1-3-euseptata, raro 4-euseptata, cylindrica, eguttulata, utrinque rotundata, utrinque vel apice subattenuata, recta vel curvata, (12.5-) 22.5-37.5 (-40) x 2.5-3 (-4.5) µm.

In foliis vivis *Nerium oleandri* L. (Apocynaceae). Istanbul, Turcei, Viridarium Durusu, in Viridario Restaurantio, 16 Majus 2000, E.Hüseyin. Holotypus (EH 0505) in herbario Universitatis Gazi (Kirsehir, Turcei) conservatur.

Foliicolous. *Mycelium* immersed, intracellular or intercellular, hyaline, septate, branched, smooth, thin or slightly thickened, 3-5 µm wide. *Conidiomata* pycnidial, subimmersed, scattered, on the upper surface of lesions, numerous, globose to subglobose or cupulate, unilocular, 125-175 µm wide, black, shiny; wall 10-12.5 µm wide and 4 - 5 cells thick, of brown thicker-walled textura prismatica on the outside and subhyaline textura globulosa inside; pore broad chink or circular, 25-30µm diam. *Conidiophores* absent. *Conidiogenous cells*, discrete, conidia formed enterogenis hyaline, with thin and smooth wall, ampulliform or lageniform, 7.5-8.5x3-3.5µm, formed from the inner cells of the conidiomatal wall proliferate enterogenous and stationary with minute periclinal thickening. *Conidia* first formed hogenous later enterogenous, hyaline, mostly 1-3-euseptate, occasionally 4-euseptate, cylindrical with rounded ends, slightly tapering towards apex or towards each end, straight or irregularly curved, eguttulate, (12.5-) 22.5-37.5 (-40) x 2.5-3 (-4.5) µm.

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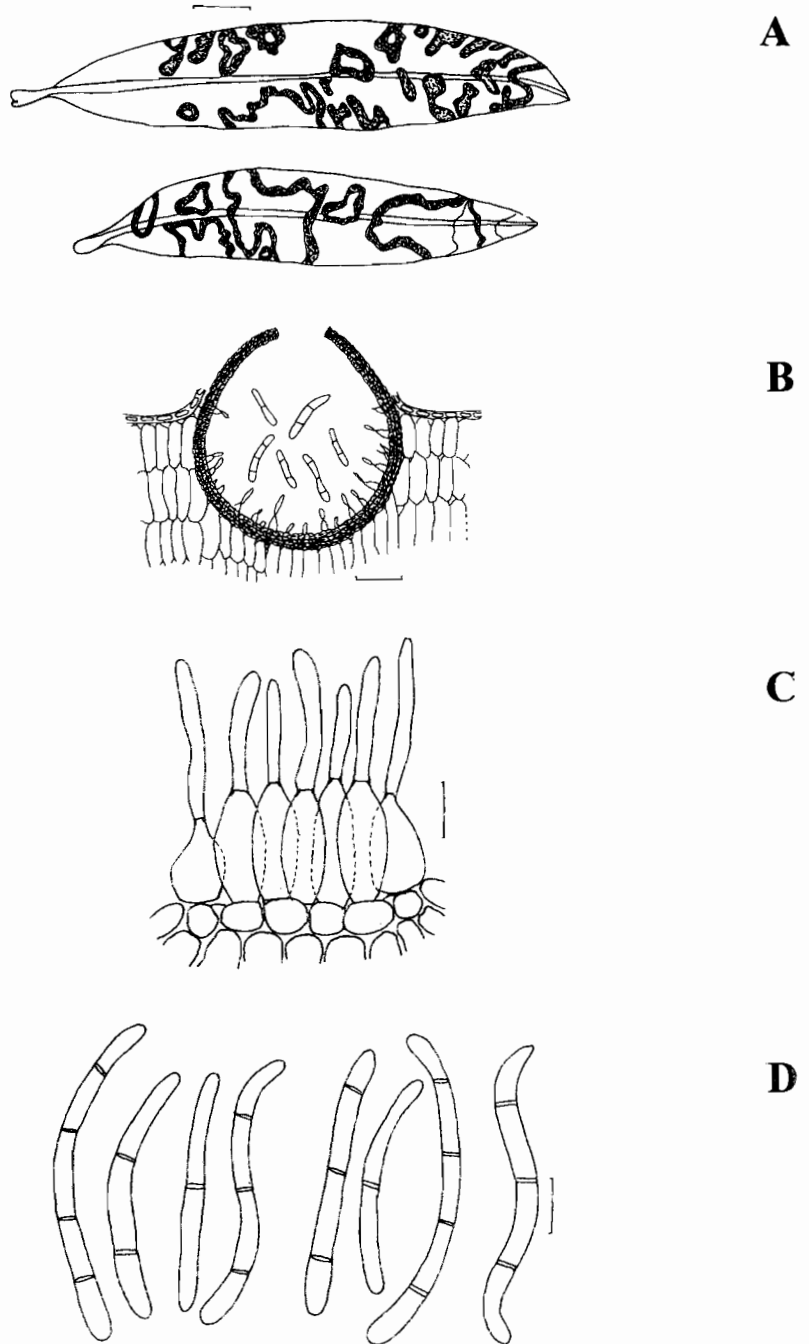


Fig. 1. *Septoria oleandriicola* on *Nerium oleander* (A) Leaf spots, (B) Vertical median section of a conidioma, (C) Conidiogenous cells and developing conidia and (D) Conidia. Bars: 1= 14 mm; 2= 35  $\mu$ m; 3= 4  $\mu$ m ; 4= 6  $\mu$ m.

*Lesions* amphigenous, angular, irregular or elongate, 0.5-2.5 (-3) cm in across dimension, scattered, non confluent, in the beginning they are castaneous then the colour of the centre changes to light brown, distinct limited, epigenous lesions surrounded by a distinct converse broad castaneous margin, hypogenous lesions surrounded by diffuse outward light-brown margin.

**Distribution.** Trakya, Turkey.

**Specimens examined:** On living leaves of *Nerium oleander* L. (Apocynaceae). Istanbul, Turkey, Durusu Park, Park Restaurant, 16 May 2000, E. Hüseyin (Holotype – Gazi University, EH 0505, Kirsehir, Turkey).

Two species of *Septoria* have been recorded on *Nerium* (Teterevnikova-Babayan, 1987) the fungus described here from living leaves of *Nerium oleander* is most like *Septoria oleandrina* Sacc., and *S. neriicola* Pass. *Septoria oleandricola* sp.nov., clearly differs from *S. oleandrina* and *S. neriicola* in having cylindrical, wider, longer, distinctly 1-3-euseptate, occasionally 4-euseptate, eguttulate conidia and in having different leaf spots. *S. oleandrina* produce filiformia, guttulate, indistincte septate conidia, 15-25x1-1.5 µm. *S. neriicola* produce thin-filiformia, guttulate, non septate or 1-septate conidia, 30-40x0.7-1 µm (Table 1).

**Table 1.** Comparison of morphological features of *Septoria oleandrina*, *S. neriicola* and *S. oleandricola*.

	Lesions	Conidiomata	Conidiophores	Conidia
<i>S. oleandrina</i>	Epiphyllous, subround or subangular.	Epiphyllous, 150-200 µm diam., pore irregular, broad.	Absent	Filiform, indistincte septate, guttulate, 15-25x1-1.5µm
<i>S. neriicola</i>	Absent	Hypophyllous, 70-90 µm diam., pore mammiformes	Absent	Thin-filiform, non septate or 1-septate, guttulate, 30-40 x 0.7-1 µm
<i>S. oleandricola</i>	Amphigenous angular irregular elongate	Epiphyllous, 125-175 µm diam., pore broad chink or circular, 25-30 µm diam.	Absent	Cylindrical, mostly 1-3-euseptate, occasionally 4-euseptate, eguttulate, (12.5-) 22.5-37.5 (-40)x2.5-3(-4)µm

#### Reference

Teterevnikova-Babayan D.N. 1987. Fungi of the genus *Septoria* in U.S.S.R. Yerevan, Armenian SSR.

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