Bull. Soc. Nat. luxemb., 96 (1995) p. 95-98

# New or Interesting Lichenicolous Fungi. 7. *Nectria brutia* sp. nov. (Ascomycotina, Hypocreales)

by

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**Abstract**: *Nectria brutia* Diederich & Puntillo sp. nov. is a lichenicolous fungus collected on *Collema* sp. in Italy. It has brown, subglobose perithecia lacking hairs and 1-septate, smooth-walled ascospores.

## Introduction

The genus *Nectria* Fr. is a heterogenous assemblage of numerous species, most of them not closely related with the type species, *N. cinnabarina* (Tode) Fr. Many species are growing on other fungi (Samuels 1988), and ca. 8 are known to be lichenicolous (Clauzade & al. 1989). Samuels (1988) accepted the segregate genus *Nectriopsis* Maire in which he included many fungicolous (incl. two new lichenicolous) species with small perithecia (< 200 µm in diam.) and a thin perithecial wall (< 20 µm thick) consisting of one region of cells.

The second author discovered a new nectrioid fungus in southern Italy growing on corticolous thalli of *Collema*. The new species has perithecia larger than 200 µm and a thick perithecial wall and cannot be described in *Nectriopsis*. Although it does not belong to the *Nectria cinnabarina* group, we describe it nevertheless in *Nectria* s. l.

## Material and methods

Material of the new fungus is kept in CLU and in the private herbarium of P. Diederich. It has been studied using a Zeiss Stereomikroskop DR (magnification of x 10-40) and a Zeiss Photomikroskop (magnification of x 150-1500). Drawings have been prepared using a drawing tube. Drawings and measurements have been done with material prepared in water.

## Results

***Nectria brutia* Diederich & Puntillo sp. nov.** (Figs 1-2)

Perithecia subglobosa, 200-320 µm, non papillata, laevia, brunnea; perithecii paries 40-70 µm latus, e cellulis subglobosis compositus. Asci clavati, 50-55 x 9.5-11 µm,

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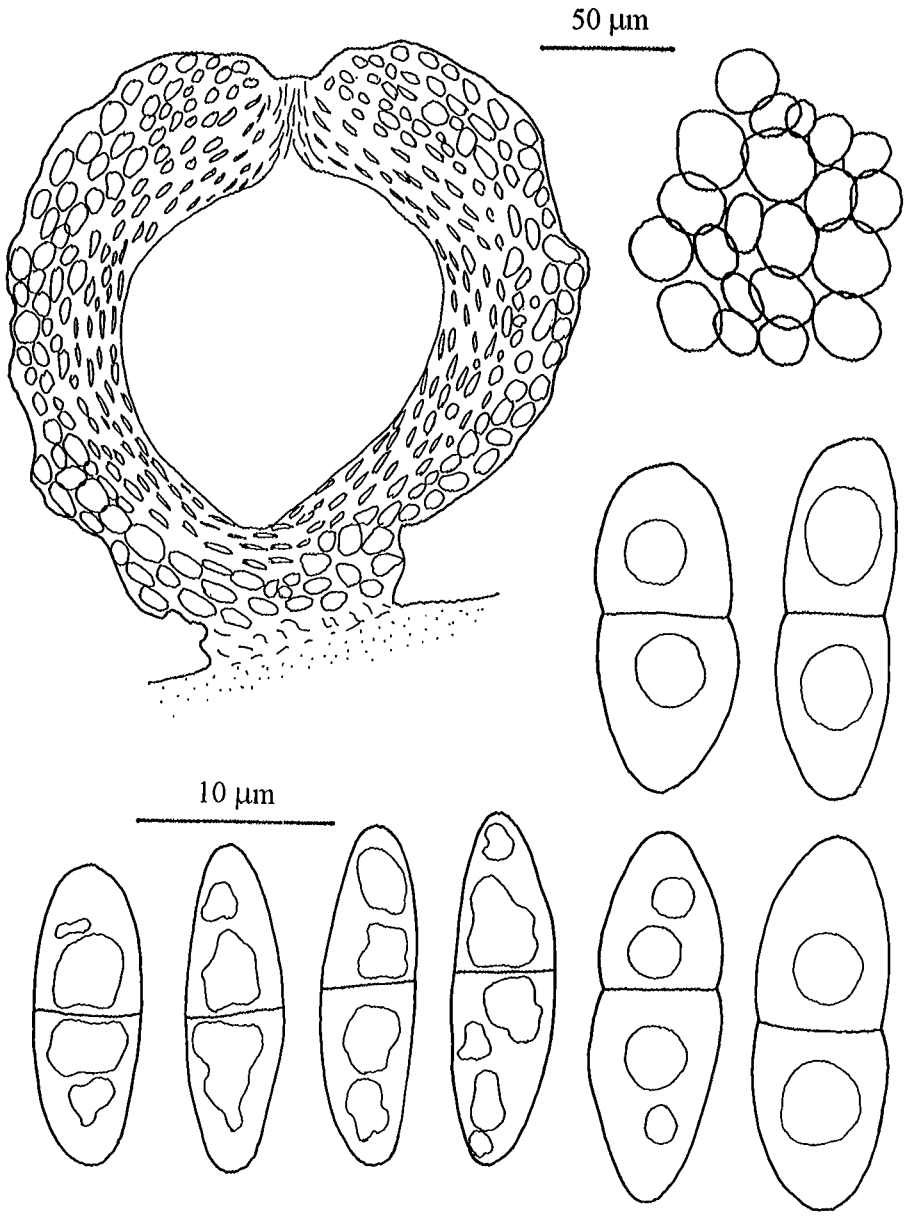


Fig. 1: *Nectria brutia* (holotype: CLU). Section through a perithecium (hamathecium not figured), surface view on perithecial wall, four living ascospores (right), four dead ascospores (bottom left).

apice simplices. Ascosporae fusiformes, laeves, hyalinae, 1-septatae, 16-20 x 5.5-7 µm.

**Typus**: Italy, Calabria, Cosenza, Montalto Uffugo in loco Albisano dicto, alt. 250 m, on *Quercus virgiliana*, on *Collema* sp., 3 iii 1994, *D. Puntillo* 8755 (CLU - holotypus; herb. Diederich - isotypus); *ibid.*, on *Quercus pubescens*, 14 vii 1994, *D. Puntillo* s. n. (topotypus - to be distributed in Santesson *Fungi lichenicoli exsiccati*).

*Mycelium* immersed in the host thallus, not evident. *Perithecia* superficial or partly immersed between host lobules, dispersed, subglobose, 200-320 µm in diam., non-papillate, smooth, without hairs, becoming cupulate when dry, pale to dark reddish brown, not changing colour in 5% KOH; cells at the surface of the perithecial wall nearly circular in outline, 9-20 µm in diam. *Perithecial wall* in section 40-70 µm thick, outer region yellowish brown, of elliptic to circular cells, 10-17 µm in diam., inner region hyaline, of flattened, elongate cells; perithecial apex of nondescript small cells, ostiolar canal periphysate. *Paraphyses* gelatinized at maturity. *Asci* clavate, ca. 50-55 x 9.5-11 µm, apex simple, 8-spored, ascospores mostly biseriate, completely filling each ascus. *Ascospores* fusiform, 16-20 x 5.5-7 µm, equally 2-celled with 1-2 guttules in each cell, distinctly constricted at the septum, smooth-walled, more or less colourless; dead ascospores generally narrower, 4.5-6 µm broad, not constricted at the septum. *Anamorph* unknown.

**Etymology**: From Brutium (= old name of Calabria), the region where the new fungus has been collected.

**Host and ecology**: The new species grows on the thallus of *Collema* sp. on isolated trees exposed to the sun, together with *Physcia* spp. and *Xanthoria parietina*.

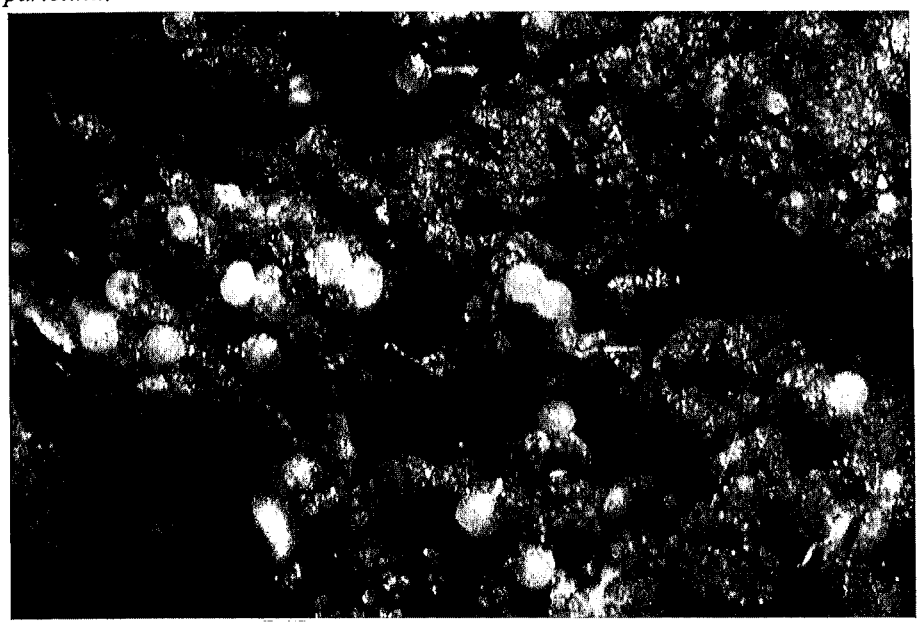

Fig. 2: *Nectria brutia* (holotype: CLU). Thallus of *Collema* with numerous perithecia. Magnification: x 20.

**Distribution**: Known only from the type locality in Italy.

**Discussion**: The new fungus is easily distinguished from the other lichenicolous species of *Nectria* s. l. with 1-septate ascospores by the lack of perithecial hairs. All fungicolous species recognized by Samuels (1988) have ascospores which are either much smaller or ornamented.

## Literature

Clauzade, G, P. Diederich & C. Roux, 1989. - Nelikenigintaj Fungoj Likenlogaj. Ilustrita determinlibro. - Bull. Soc. linn. Provence, num. spéc. 1: 1-142.

Samuels, G. J., 1988. - Fungicolous, Lichenicolous, and Myxomyceticolous Species of Hypocreopsis, Nectriopsis, Nectria, Peristomialis, and Trichonectria. - Memoirs of the New York Botanical Garden 48: 1-78.