NEW SPECIES OF *TRETOSPORA* (FUNGI IMPERFECTI: HYPHOMYCETES) FROM KERALA, INDIA

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Abstract

Tretospora ochreinaucleae is a new species described and illustrated on an endemic plant *Ochreinauclea missionis* from Kerala, India.

Keywords

Hyphomycetes, new description, Tretospora ochreinaucleae *sp. nov., Kerala, India*

Introduction

During the study of reproductive biology of *Ochreinauclea missionis*, an endemic plant of the Western Ghats of Peninsular India (Ahmedullah & Nair, 1986; Ahmedullah, 1990; Jose *et al.*, 2000), a severe fungal infection was noticed on the leaves. The fungus persisted round the year in its anamorph state and also produced perithecia without asci.

***Tretospora ochreinaucleae* sp. nov.**
(Fig.-1)

Material examined

Holotype: 10.x.2000, Tropical Botanic Garden and Research Institute Campus, Palode, Thiruvananthapuram, Kerala, India, coll. Jose, on leaves of *Ochreinauclea missionis* (Wallich ex G. Don) Ridsd. (Rubiaceae), HCIO 43978.
Isotype: TBGT 408

Etymology

Named after the host genus Ochreinaucleea

Diagnostic features

Coloniae foliicolae, amphigenae, plerumque hypophyllae, nigrae, densae, patentiae, ad 2mm diam., confluentes. Hyphae pallide brunneae, subrectae vel leniter sinuosae, irregulariter ramosae, ad angulum acutum vel latum patentes, laxe reticulatae, cellulae 19-28 x 3-4µm. Appressoria alternata, unilateralia, raro opposita, sessilia, globosa, fortiter brunnea, sublobata vel lentiter lobata, 7-9 x 6-7µm. Conidiophora ex hyphis lateraliter oriunda, numerosa, macronemata, mononemata, unicellularia, plerumque recta, raro leniter curvata et flexuosa, ad basim bulbosa, ad apicem nigra, 16-24 x 3-6µm, conidiophora idem est ac cellula conidiogena. Cellulae conidiogenae enteroblasticae, monotreticae, ad apicem nigrae. Conidia solitaria, ex poris terminalibus oriunda, sicca, recta vel curvula, simplices, obclavata, rostrata, pallide brunnea, glabra, 1-5- septata, raro constricta, truncata ad basim, hilum nigrum, ad apicem late rotundata, 32-72 x 3-5µm.

Colonies foliicolous, amphigenous, mostly hypophyllous, black, dense, spreading, up to 2mm in diameter, confluent. Hyphae pale brown, substraight to slightly sinuous, branching irregular at acute to wide angles, loosely reticulate, cells 19-28 x 3-4µm. Appressoria alternate, unilateral, rarely opposite, sessile, globose, deep brown, sublobate to deeply lobate, 7-9 x 6-7µm. Conidiophores produced laterally from the hyphae, numerous, macronematous, mononematous, unicellular, reduced to conidiogenous cells, mostly straight, rarely slightly curved to flexuous, bulbous at the base, black at the tip, 16-24 x 3-6µm. Conidiogenous cells enteroblastic, monotretic, apical rim black. Conidia solitary, produced from the apical pore, dry, straight to curved, simple, obclavate, rostrate, pale brown, smooth, 1-5- septate, rarely constricted at the septa, truncate at the base, hilum dark, broadly rounded at the apex, 32-72 x 3-5µm.

Numerous collections of this fungus revealed only conidia and the initials of perithecia. Sivanesan (1981) gave an account of twelve species of the genus *Balladynopsis* and categorised them into four groups. Of them, the species

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with entire appressoria have *Tretospora* anamorphs. Hence, the present species differs from them in having sublobate to lobate appressoria. *Tretospora himalayana* Chaudhary & S.K. Singh and *T. shoreae* M.K. Khan and Kamal are known on hosts of Thymelaeaceae and Dipterocarpaceae (Chaudhary & Singh, 1996; Khan *et al.*, 1993). *Tretospora indica* Narayan & Kamal and *T. theitei* Hosag. *et al*. are known on the members of the family Rubiaceae (Narayan & Kamal, 1986; Hosagoudar *et al*., 1998) but the present species differs from both in having sublobate to lobate appressoria.

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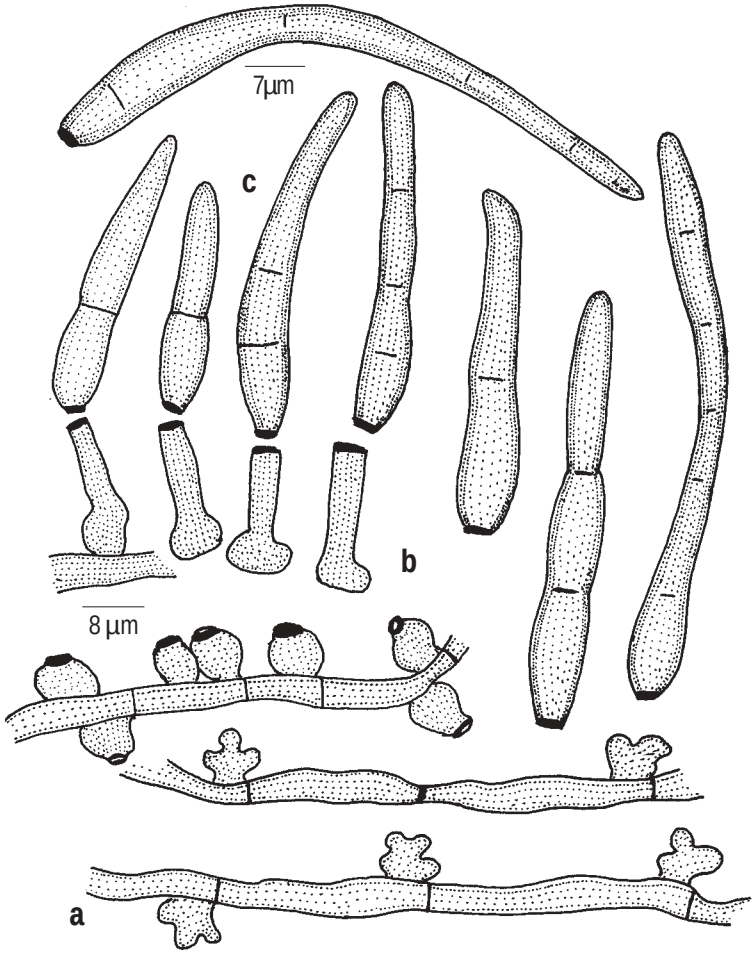

Figure 1. **Tretospora ochreinaucleae** ***sp. nov.***
a - Appressoriate mycelium; b - conidiophores; c - conidia