

Meliola exacigena sp. nov. from Kodaikanal, Tamil Nadu, India

V.B. Hosagoudar^{1*}, G.R. Archana¹ and K. Kandavel²

¹Tropical Botanic Garden and Research Institute, Palode-- 695 562, Thiruvananthapuram, Kerala, India

² PG and Research Department of Microbiology, Sengamala Thayaar Educational Trust Women's College, Sundarakkottai, Mannargudi-614 001, Thiruvavur district, Tamil Nadu, India

Abstract

During a survey of the leaf infecting microfungi in Kodaikanal shola forests, we located a black mildew fungus on *Exacum* sp. Microscopic examination of the fungus revealed that it is a hitherto undescribed species of the genus *Meliola*.

Keywords: black mildew, foliicolous fungus, *Meliola*, new species

The leaves of *Exacum* sp. collected by the third author from Mathikettan Shola, Kodaikanal, Tamil Nadu, India, were examined for the occurrence of black mildew fungus, *Meliola* sp. The perusal of the literature proved that *Meliola exaci* Hosag. is the only species reported from *Exacum tetragonum* (Hosagoudar, 1996; Hosagoudar *et al.*, 1997; Hu *et al.*, 1996, 1999; Mibey and Hawksworth, 1997; Mibey and Cannon, 1999). The present species differs from *M. exaci* by having straight mycelium, entire to angular head cells of the appressoria, longer mycelial setae and larger ascospores :

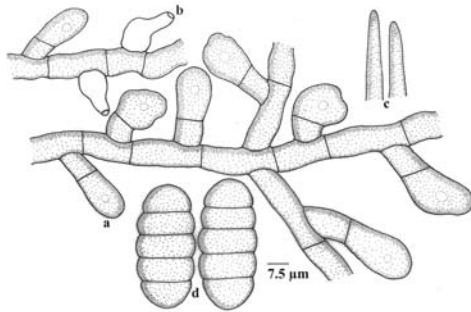


Figure 1. *Meliola exacigena* sp. nov. a, Appressorium; b, Phialide; c, Apical portion of mycelium; d, Ascospores.

Meliola exacigena sp. nov.

Coloniae hypophyllae, densae, ad 2 mm diameter, confluentes. Hyphae rectae vel subrectae, plerumque oppositae, saepe alternate acuteque vel laxe ramosae, laxae vel arte reticulatae, cellulae 12-26 x 6-10 μm. Appressoria alternata vel unilateralia, antrorsa, subantrorsa vel retrorsa, recta vel curvula, 16-29 μm longa; cellulae basillares cylindraceae vel cuneatae, 6-10 μm longae; cellulae apicales ovatae, oblongae, integrae vel angularis, 9-19 x 9-16 μm. Phialides appressoriis intermixtae, alternatae, ampulliformes, 12-19 x 6-10 μm. Setae myceliales simplices, rectae, ad apicem acutae, ad 530 μm longae. Perithecia dispersa vel aggregata, globosa, ad 235 μm in diameter; ascospores obovoideae, 4-septatae, constrictae ad septatae, 38-42 x 14-18 μm.

Colonies hypophyllous, dense, up to 2 mm in diameter, confluent. Hyphae straight to substraight, branching mostly opposite, alternate at acute to wide angles, loosely to closely reticulate, cells 12-26 x 6-10 μm. Appressoria alternate to unilateral, antrorse, subantrorse to retrorse, straight to curved, 16-29 x 6-10 μm long; stalk cells cylindrical to cuneate, 6-10 μm long; head cells ovate, oblong, entire to angular 9-19 x 9-16 μm. Phialides mixed with appressoria, alternate, ampulliform 12-19 x 6-10 μm. Mycelial setae simple, straight, acute at the tip, up to 530 μm long. Perithecia scattered to grouped, globose, up to 235 μm in diameter; ascospores obovoidal, 4-septate, constricted at the septa, 38-42 x 14-18 μm.

MATERIAL EXAMINED

On leaves of *Exacum* sp. (Gentianaceae), Mathikettan Shola, Kodaikanal, Tamil Nadu, India, July 18, 2006, K. Kandavel and all, HClO (type), TBGT 2721 (Isotype).

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*Corresponding author
vbhosagoudar@rediffmail.com