

Two new *Meliola* species from Kerala, India

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Asteridiella millettiae and *Meliola desmodii-pulchelli*, the two new species collected from Kerala are described and illustrated.

Key words: *Asteridiella*, *Meliola*, new species, Kerala

INTRODUCTION

During a survey of meliolaceous fungi in Peppara and Neyyar wildlife sanctuaries, located in Thiruvananthapuram district of Kerala state, authors have made several collections. Of those, the present paper gives an account of two new species.

Asteridiella millettiae sp. nov. (Fig. 1)

Coloniae hypophyllae, tenues vel subdensae, ad 5 mm diam., raro confluentes. Hyphae subrectae vel anfractuae, oppositae vel irregulariter acuteque vel laxae ramosae, laxae vel dense reticulatae, cellulae 17-38 x 5-7.5 μ m. Appressoria alternata, antrorsa vel varia curvula, 0-3 septata, 17-88 μ m longa; cellula basali aseptata vel ad 0-3 septata, recta flexuosa, curvula, 3-70 μ m longa; cellula apicali plerumque globosa, ovata, navicula, truncata, hamata, integra vel angularia, recta vel curvula, attenuata et late rotundata ad apicem, 12-20 x 7.5-12.5 μ m. Phialides illis appressoris commixtis, alternatis vel oppositis, ampullaceis, 13-21 x 7-10 μ m. Perithecia dispersa, globosa, plerumque immatura; ascosporae oblongae, cylindratae vel leniter fusiformiae, 4-septatae, 37-48 x 15-16 μ m.

Colonies hypophyllous, thin to subdense, up to 5 mm in diameter, rarely confluent. Hyphae substraight to crooked branching opposite to irregular at acute to wide angles, loosely to closely reticulate, cells 17-38 x 5-7.5 μ m. Appressoria alternate, antrorse to variously curved, 0-3 septate, 17-88 μ m long; stalk cells aseptate

to 3-septate, straight, flexuous, curved bent, 3-70 μ m long; head cells predominantly globose, ovate, boat shaped, often truncate and hamate, entire to angular, straight to curved, often pointed and broadly rounded towards the apex, 12-20 x 7.5-12.5 μ m. Phialides mixed with appressoria, alternate to opposite, ampulliform, 13-21 x 7-10 μ m. Perithecia scattered globose, predominantly immature; ascospores oblong, cylindrical to slightly fusiform, 4-septate, slightly constricted at the septa, 37-48 x 15-16 μ m.

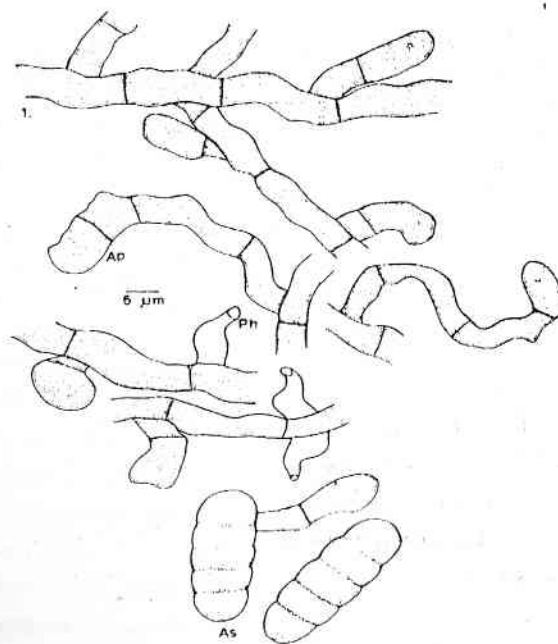


Fig. 1. *Asteridiella millettiae* sp. nov: Ap- Appressoria, As- Ascospores, Ph- Phialides

Holotype: On leaves of *Millettia rubiginosa* Wight & Arn. (Fabaceae), Athirumala, Neyyar wildlife sanctuary, Thiruvananthapuram, Kerala, India, March 25, 1996, V. B. Hosagoudar HCIO. *Isotype*: TBGT 202.

There are four taxa of the genus *Asteridiella* on the members of the family Fabaceae (Hansford, 1961; Hosagoudar *et al.* 1997). The present collection is close to *Asteridiella meibimiae* (Stev.) Hansf. and *A. meibomiae* (Stev.) Hansf. var. *mucumae* (Cif.) Hansf. in having only alternate appressoria. However, the new species differs from both the taxa in having only hypophyllous colonies, aseptate to septate basal cells of the appressoria and longer ascospores.

Meliola desmodii-pulchelli sp. nov. (Fig. 2)

Coloniae epiphyllae, tenues, effusae, ad 5 mm diam., confluentes. Hyphae subrectae, plerumque opposite laxe ramosae, laxe reticulatae, cellulae 16-30 x 5-6.5 μ m. Appressoria plerumque unilateralia vel alternata, raro opposita, antrorsa, recta vel curvula, 10-18 μ m longa; cellula basali cylindracea vel cuneata, 2-6.5 μ m longa; cellula apicali ovata, oblonga vel cylindracea, integra, 7-12.5 x 7-9 μ m. Phialides mixtus appressoria, alternata vel opposita, ampullacea, 12-25 x 7-8 μ m. Setae myceliales numerosae, dispersae, rectae, ad 40 μ m longae; sursum acutae vel obtusae. Perithecia dispersa, verrucosa, ad 113 μ m diam.; ascospores oblongae vel cylindraceae, 4-septatae, leniter constrictae, 32-38 x 11-13 μ m.

Colonies epiphyllous, thin, effuse, up to 5 mm in diameter, confluent. Hyphae substraight branching mostly opposite to wide angles, loosely reticulate, cells 16-30 x 5-6.5 μ m. Appressoria unilateral to alternate, rarely opposite, antrorse, straight to slightly curved, 10-18 μ m long; stalk cells cylindrical to cuneate, 2-6.5 μ m long; head cells ovate, oblong to cylindrical, entire, 7-12.5 x 7-9 μ m. Phialides mixed with appressoria, alternate to opposite, ampulliform, 12-25 x 7-8 μ m. Mycelial setae moderately numerous, scattered, straight, up to 40 μ m long, acute to obtuse at the apex.

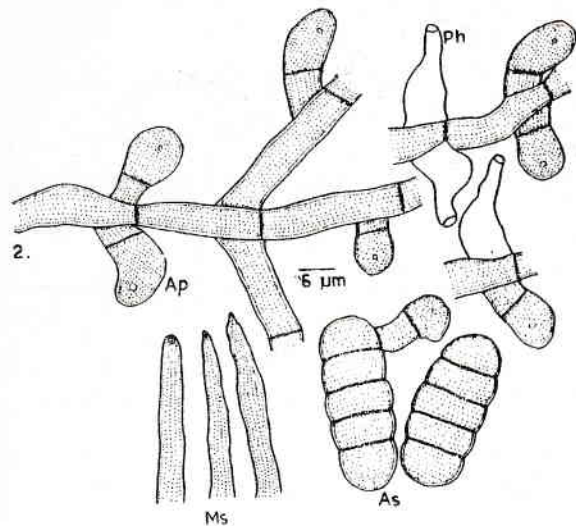


Fig. 2. *Meliola desmodii-pulchelli* sp. nov: Ap- Appressoria, As- Ascospores, Ms- Mycelial setae, Ph- Phialides

Perithecia scattered, verrucose, up to 113 μ m in diameter, ascospores oblong to cylindrical, 4-septate, slightly constricted at the septa, 32-38 x 11-13 μ m.

Holotype: On leaves of *Desmodium pulchellum* (L.) Benth. (Fabaceae), Kombe, Neyyar wildlife sanctuary, Thiruvananthapuram, Kerala, India, March 11, 1996, V. B. Hosagoudar HCIO. *Isotype*: TBGT 204.

According to Beeli formula 3113. 3222, the present collection is close to *Meliola nyanzae* Hansf. known on *Indigofera* sp. from Uganda. However, the present new species differs from it in having no-parasitic effect on the host and do not cause defoliation in the host plant. Further, phialides are mixed with appressoria in the present species (Hansford, 1961).

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