



Asteridiella ficicola sp. nov. (Meliolaceae) from Kerala, India

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During a survey of the foliicolous fungi in Kerala State, *Ficus microcarpa* L. (Moraceae), an endemic large evergreen tree planted in the garden of Tropical Botanic Garden and Research Institute, Palode, for the conservation purposes, was found infected with a black mildew fungus. Critical examination of the fungus revealed that it is an undescribed species of the genus *Asteridiella*. Hence, it is described and illustrated in detail.

Asteridiella ficicola sp. nov. (Fig. 1)

Coloniae epiphyllae, densae, ad 2mm diam., confluentes. Hyphae subrectae vel flexuosae, plerumque oppositae vel alternatim acuteque vel laxe ramosae, laxae vel arte reticulatae, cellulae 9–24 x 6–8 µm. Appressoria alternata vel unilateralis, recta vel leniter curvula, antrorsa vel subantrorsa, raro retrorsa, 12–21 µm longa; cellulae basiales cylindratae vel cuneatae, 3–8 µm longae; cellulae apicales rectae vel leniter curvulae, globosae, ovatae, oblongae, integrae vel raro angularis, 8–13 x 6–10 µm. Phialides mixtae appressoriis, oppositae, alternatae vel unilateralis, ampulliformes, 12–19 x 6–10 µm. Perithecia dispersa vel aggregata, ad 160µm diam.; cellulae peritheciales mammiformes, ad 16µm longae; ascospores obovoideae, 4-septatae, constrictae ad septatae, 33–38 x 17–19 µm.

Colonies epiphyllous, dense, up to 2mm in diameter, confluent. Hyphae straight, substraight to flexuous, branching mostly opposite to alternate at acute to wide angles, loosely to closely reticulate, cells 9–24 x 6–8 µm. Appressoria alternate to unilateral, straight to slightly curved, antrorse to subantrorse, rarely retrorse, 12–21 µm long; stalk cells cylindrical to cuneate, 3–8 µm long; head cells straight to slightly curved, globose,

ovate, oblong, entire to rarely angular, 8–13 x 6–10 µm. Phialides mixed with appressoria, opposite, alternate to unilateral, ampulliform, 12–19 x 6–10 µm. Perithecia scattered to grouped, up to 160µm in diam., perithecial wall cells mammiform, up to 16µm long; ascospores obovoidal, 4-septate, constricted at the septa, 33–38 x 17–19 µm.

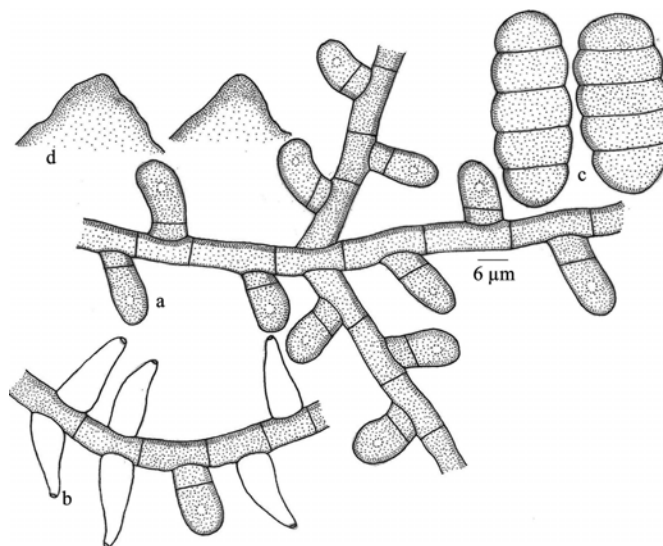


Figure 1. *Asteridiella ficicola* sp. nov.

a - Appressorium; b - Phialide; c - Ascospores; d - Perithecial wall cells

Material examined

Types: 4.i.2006, on leaves of *Ficus microcarpa* L. (Moraceae), Arboretum, TBGRI Campus, Palode, Thiruvananthapuram, Kerala, India, coll. T. Sabu, HCIO 46806 (type), TBGT 2147 (isotype) (Myc Bank # MB513420).

Remarks

Based on the Beeli formula 3101.3220, this species is similar to *Asteridiella olmediae* Hansf. reported on *Olmedia aspera* from Panama. However, *Asteridiella ficicola* differs from it in having only epiphyllous and confluent colonies, shorter appressoria with mostly ovate to oblong head cells (Hansford 1961; Hosagoudar 1996).

In some perithecia, marginal cells were radiating and reminding of the genus *Amazonia*. However, most of the perithecia were globose so as to accommodate it in the genus *Asteridiella*.

References

- Hansford, C.G. (1961). The Meliolineae. A Monograph. *Sydowia Beih.* 2: 1–806.
Hosagoudar, V.B. (1996). *Meliolales of India*. BSI, Calcutta, 363pp.

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