

Meliolaster aporusae, a new species and a new generic record from Kerala, India

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Abstract: The fungus *Meliolaster aporusae* infected leaves of *Aporusa* sp. is described as a new species.

Meliolaster forms a new generic report to India.

Keywords: Fungus, *Meliolaster*, new record, India

Introduction

The genus *Asterina* of the family Asterinaceae is characterized by the appressoriolate brown mycelium, orbicular thyriothecia split stellately at maturity, having oval to globose asci possessing brown uniseptate ascospores. Certain species having two septate ascospores, tapering at one end were placed under the genus *Patouillardina*, with the type *P. clavispora* (Pat.) Arn. Arx and Muller (1975) synonymised *Meliolaster* Hohnel to *Patouillardina*. Since the genus *Patouillardina* Arn. is the later homonym of *Patouillardina* Bres. of Exidiaceae (Kirk *et al.* 2001), the genus *Meliolaster* Hohnel becomes a valid name. This appears to be a monotypic genus infected the species of *Eugenia* and *Ficus*. Since these are host specific and their host range is narrow, the genus *Meliolaster* is not known on the members of the family Euphorbiaceae, it is proposed here as a new species. This species is common in the Western Ghats region of peninsular India and mostly associated with *Asterina aporusae* Hansf., which can be distinguished by its sparsely arranged appressoria and having uniseptate ascospores. The genus *Meliolaster* is reported here for the first time from India (Bilgrami *et al.*, 1991). Part of the material has been deposited in HCIO, New Delhi.

Taxonomy

***Meliolaster aporusae* sp. nov.** (Fig.1, Plate 1)

Coloniae epiphyllae, tenues, crustosae, ad 4 mm diam., confluentes. Hyphae rectae, raro leniter undulatae, oppositae vel irregulariter acuteque vel laxe ramosae, laxae reticulatae, cellulae 12-22 x 5-7 µm. Appressoria alternata, unilateralis, unicellularis, sessilis, cylindracea, recta vel curvula, antrorsa, subantrorsa, integra, rotundata ad apicem, 9-11 x 4-7 µm. Thyriothecia unique dispersa, orbicularis, ad 250 µm diam., margine crenatae vel fimbriatae, hyphae fringiorae rectae vel undulatae et non-appressoriatae, thyriothecia stellatim

vel irregulariter dehiscentes ad centro; asci globosi vel ovati, octospori, 54-61 x 49-55 µm; ascospores brunneae, oblongae, 2-septatae, cellulae superiorae globosae, cellulae inferiorae angustatus et attenuatus ad basim, solus ad septa superiorae constrictae, 41-45 x 12-14 µm, parietus glabrus.

Pycnothyriospores brunneae, oblongae, unicellularis, 9-13 x 4-7 µm.

Colonies epiphyllous, thin, crustose, up to 4 mm in diameter, confluent. Hyphae straight, rarely slightly undulate, branching opposite to irregular at acute to wide angles, loosely reticulate, cells 12-22 x 5-7 µm.

Appressoria alternate, unilateral, unicellular, sessile, cylindrical, straight to curved, antrorse, subantrorse, entire, rounded at the apex, 9-11 x 4-7 µm. Thyriothecia uniformly scattered, orbicular, up to 250 µm in diameter, margin crenate to fimbriate, fringed hyphae straight to slightly undulate and devoid of appressoria, thyriothecia stellately to irregularly dehiscent at the centre; asci globose to ovate, octosporous, 54-61 x 49-55 µm; ascospores brown, oblong, 2-septate, upper cell globose, the lower two cells narrowed and tapering at base, constricted only at the upper septum, 41-45 x 12-14 µm, wall smooth. Pycnothyriospores brown, oblong, unicellular, 9-13 x 4-7 µm.

Material examined: On leaves of *Aporusa lindleyana* (Wight) Baill. (Euphorbiaceae), Kunkichira, Periyar, Wayanad, Kerala, India, Dec. 6, 2006, M. Harish & al HCIO 48296 (type); TBGT 3015 (isotype); TBGRI Campus, Palode, Thiruvananthapuram, Kerala, India, May 06, 2006, G.R.Archana HCIO 48297, TBGT 3016.

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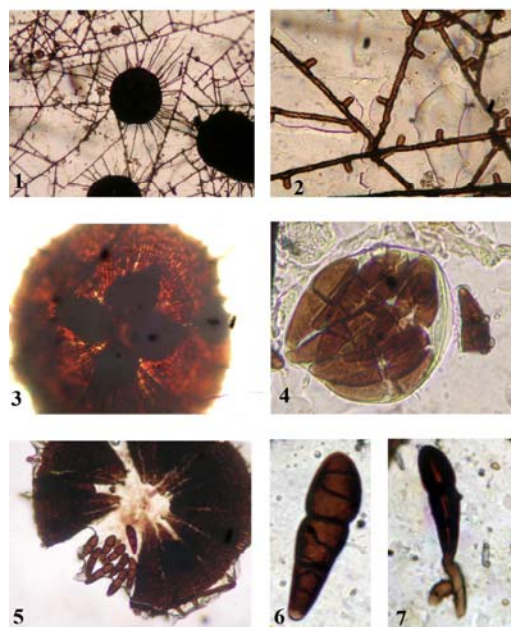


Plate.1. *Meliolaster aporusae* sp. nov.

1. Fungal colony with thyriothecia, 2. Appressoriolate mycelium, 3. Thyriothecium with asci, 4. Ascus, 5. Dehiscent thyriothecium, 6. Ascospore, 7. Germinating ascospore

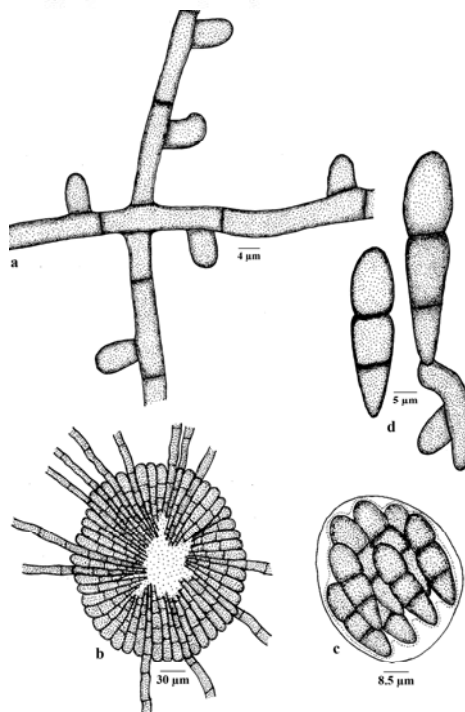


Fig. 1. *Meliolaster aporusae* sp. nov.

a. Appressoriolate mycelium, b. Thyriothecium, c. Ascus, d. Ascospores (one germinating)