

## Two interesting black mildews from Kannur, Kerala

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### Abstract

This paper deals with an account of two interesting fungi, namely, *Asterina kannurensis* and *Meliola caesalpinicola*. Of these, former species found to be new to science and the latter species is a new record to India. Both of these species are described and illustrated in detail.

**Keywords:** *Asterina*, black mildews, fungi, *Meliola*, new species

### INTRODUCTION

During a study of foliicolous fungal flora on coastal vegetation of Kannur, Kerala State, the authors have made several collections. Of these, *Asterina kannurensis* infected the leaves of *Clerodendrum viscosum* and *Meliola caesalpinicola* infected the leaves of *Caesalpinia banduc* were collected. Of these, the former species found to be new to science and the latter found to be a new record to India. Both the species are described and illustrated in detail in this paper.

### TAXONOMY

*Asterina kannurensis* V.B. Hosagoudar, G.R. Archana, K.M. Khaleel and P. Ramya, sp.nov. (Fig.-1)

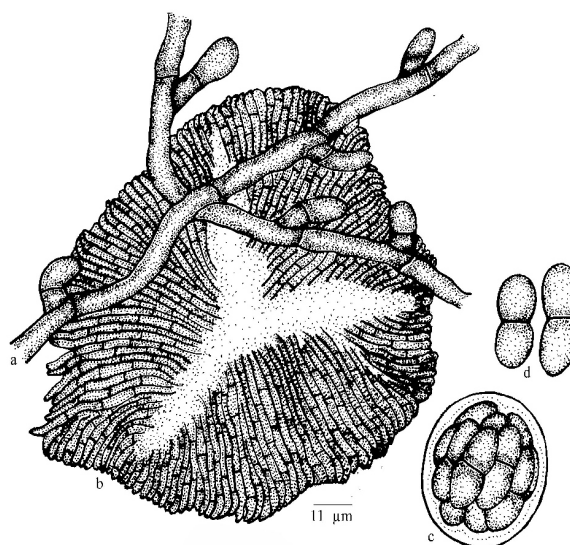
Colonies epiphyllous, thin, up to 3 mm in diameter., confluent. Hyphae flexuous, branching opposite to irregular at acute to wide angles, loosely to closely reticulate, cells 11-30 x 2-4 µm. Appressoria alternate, unilateral to 2% opposite, antrorse to subantrorse, 7-15 µm long; stalk cells cylindrical to cuneate, 3-7 µm long; head cells ovate, oblong, entire to angular, 4-8 x 4-7 µm. Thyriothecia scattered to grouped, orbicular, up to 125 µm in diameter, stellately dehiscent at the centre, margin fimbriate, fringed hyphae flexuous; asci globose to ovate, octosporous, 20-26 x 16-22 µm; ascospores conglobate, uniseptate, slightly constricted at the septum, 14-20 x 6-12 µm, wall smooth.

**Material examined:** On leaves of *Clerodendrum viscosum* Vent. (Verbanaceae), Edat, Payyannur, Kannur, Jan.21, 2011, P. Ramya, TBGT 4935 (holotype). Part of the collection has been deposited in HCIO, New Delhi.

*Asterin pusilla* Sydow & Sydow was described on *Premna nauseosa* from Philippines (Sydow & Sydow, 1915) and Hosagoudar & Sabeena (2007) on *Premna corymbosa* from Malabar Botanic Garden, Kozhikode, Kerala, India. However, *Asterina kannurensis* differs from it in having two celled appressoria.

*Meliola caesalpinicola* Deight., Sydowia 11:40, 1958; Hansf., Sydowia Beih. 2: 253, 1961. (Fig.-2).

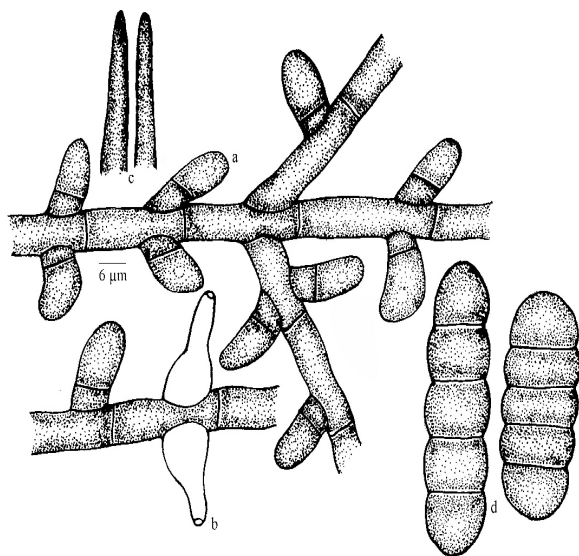
Colonies amphigenous, subdense to dense, up to 4 mm in diameter, confluent. Hyphae straight to substraight, branching opposite at acute to wide angles, loosely reticulate, cells 13-23 x 6-8 µm. Appressoria opposite,



**Figure 1.** *Asterina kannurensis* sp.nov.

a-Appressoriolate mycelium, b-Thyriothecium, c-Ascus, d-Ascospores

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**Figure 2.** *Meliola caesalpiniiicola* Deight.

a-Appressorium, b- Phialide, c-Apical portion of the mycelial setae, d-Ascospores

unilateral, 2% alternate, antrorse to subantrorse, 16-18 µm long; stalk cells cylindrical to cuneate, 3-5 µm long; head cells ovate, globose, oblong, entire, 11-13 x 7-10 µm. Phialides mixed with appressoria, opposite, ampulliform, 16-27 x 3-6 µm. Mycelial setae numerous, simple, straight to uncinuate, acute at the tip, up to 294 µm long. Perithecia numerous, scattered, up to 182 µm in diameter; ascospores cylindrical to obovoidal, 4-septate, constricted at the septa, 38-52 x 14-16 µm.

**Materials examined:** On leaves of *Caesalpinia banduc* (L.) Roxb. (Caesalpinaceae), Edat, Payyannur, Kannur, Jan.21, 2011, P.Ramya TBGT 4933. Part of the collection has been deposited in HCIO, New Delhi.

This species was known on *Caesalpinia nuga* from Philippines and is reported here for the first time from India on a hitherto unrecorded host (Hansford, 1961).

#### ACKNOWLEDGEMENT

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