

Studies on Foliicolous fungi—XXII : Microfungi of Silent Valley National Park, Palghat District in Kerala State

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This paper gives an account of 25 species fungal parasites. Of which, seven are new species, namely, *Asteridiella oreocnidecola*, *Asterina chukrasiae*, *A. oreocnidegen*, *Meliola anodendricola*, *M. dolichi*, *M. silentvalleyensis* and *Sarcinella oreocnidecola* are the new species and *Meliola daviesii* Hansf. var. *longiseta* is the new variety, which are described and illustrated in detail.

Key words : Western Ghats, fungi, Silent valley, Kerala, India

INTRODUCTION

Silent Valley, located in the Palghat district in Kerala State, is believed to be more than fifty million years old (Swaminathan, 1999), having an area of 8952 hectares. It is located at an altitude ranging from 750 to 2383 m, having high ridges and valleys, receives more than 5000 mm rain fall annually, temperature ranges from 8-29 °C. It harbours evergreen forests. Manilal (1988) has given account of 966 species belonging to 559 genera distributed among 134 families of flowering plants. An account of microfungi from water and litter has been studied by Subramanian (1986). However, very little is known about the foliar fungal species. Hence, a preliminary account of the fungi collected from this area is presented here.

ENUMERATION OF THE SPECIES

Armatella cryptocaryae Hosag., *J. Econ. Taxon. Bot.* 15 : 198, 1991.

Material examined : On leaves of *Litsea* sp. (Lauraceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45759, TBGT 1611; HClO 45774, TBGT 1626.

Armatella katumotoi Hosag., *Sydowia* 40 : 113, 1987; *J. Econ. Taxon. Bot.* 15 : 199, 1991, Hu *et al.*, *Flora Fungorum Sinicorum* 4 : 47, 1996.

Material examined : On leaves of *Litsea* sp. (Lauraceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45759, TBGT 1611; HClO 45774, TBGT 1626; HClO 45773, TBGT 1625.

Armatella neolitsiicola Hosag., C. K. Biju & Abraham (*in ed.*)

Material examined : On leaves of *Neolitsia* sp. (Lauraceae), Sairandhri, Dec. 12, 2003, V. B. Hosagoudar & al. HClO 45758, TBGT 1610.

Asteridiella formosensis (Yamam.) Hansf., *Sydowia* 10 : 48, 1957; *Sydowia Beih.* 2 : 686, 1961; Hosag. & Goos, *Mycotaxon* 36 : 240, 1989; 42 : 128, 1991; Hosag., Kaveriappa, Raghu & Goos, *Mycotaxon* 51 : 109, 1994; Hosag., *Meliolales of India*, p 90, 1996. *Irene formosensis* Yamam., *Trans. Nat. Hist. Soc. Taiwan* 31 : 15, 1941.

Meliola formosehsis (Yamam.) Cif., *Mycopathologia* 7 : 87, 1954 (*non* Yamam., 1941).

Material examined : On leaves of *Callicarpa* sp. (Verbanaceae), Champatty, Dec. 14, 2003, V. B. Hosagoudar & al. HCIO 45763, TBGT 1512.

Asteridiella oreocnidecola V. B. Hosagoudar, *sp. nov.*

(Fig. 1)

Coloniae epiphyllae, tenues ad 2 mm diam., Hyphae rectae vel subrectae, oppositae vel alternatim acuteque ramosae, laxae vel dense reticulatae, cellulae $9-18 \times 7-9 \mu\text{m}$. Appressoria alternata vel unilateralis, arte posita, antrorsa vel arte antrorsa $17-23 \mu\text{m}$ longa; cellulae basilares cylindratae vel cuneatae, $3-7 \mu\text{m}$ longae; cellulae apicales globosae, integrae vel raro angularis, $14-16 \times 12-14 \mu\text{m}$. Phialides appressoriis mixtus, alternatae vel oppositae, ampullaceae, $16-18 \times 7-9 \mu\text{m}$. Perithecia arte ad centro posita vel dispersa, globosa, ad $160 \mu\text{m}$ diam., cellulae parietis peritheciales conoideae vel mammiformes, ad $15 \mu\text{m}$ longae; ascospores obovoideae, 4-septatae, constrictae, $33-40 \times 16-18 \mu\text{m}$.

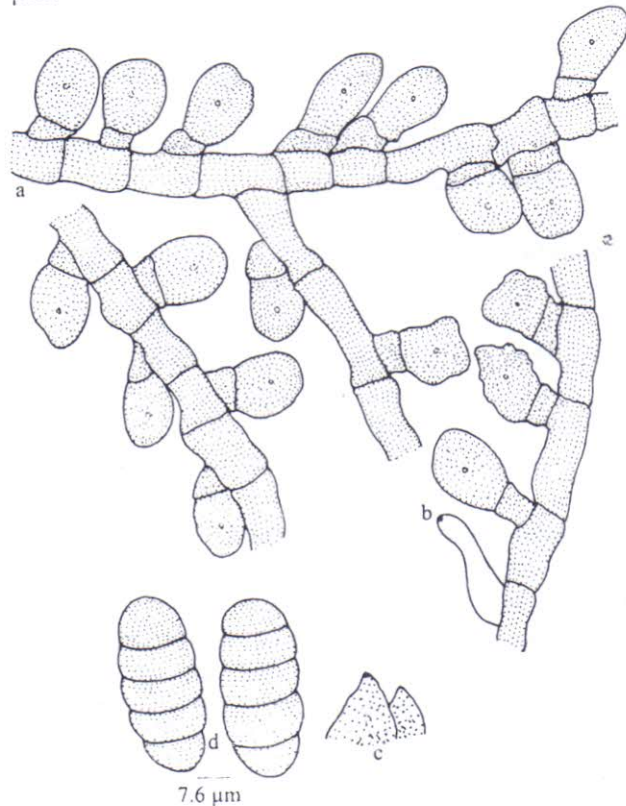


Fig. 1 : *Asteridiella oreocnidecola* *sp. nov.*

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

Colonies epiphyllous, thin, up to 2 mm in diameter. Hyphae straight to substraight, branching opposite to alternate at acute angles, loosely to closely reticulate, cells $9-18 \times 7-9 \mu\text{m}$. Appressoria alternate to unilateral, closely placed, antrorse to closely antrorse, $17-23 \mu\text{m}$ long; stalk cells cylindrical to cuneate, $3-7 \mu\text{m}$ long; head cells ovate to globose, entire to angular, $14-16 \times 12-14 \mu\text{m}$. Phialides mixed with appressoria, alternate to opposite, ampulliform, $16-18 \times 7-9 \mu\text{m}$. Perithecia loosely grouped at the centre, globose, up to $160 \mu\text{m}$ in diam., perithecial wall cells conoid to mammiform, up to $15 \mu\text{m}$ long; ascospores obovoidal, 4-septate, constricted at the septa, $33-40 \times 16-18 \mu\text{m}$.

Material examined : On leaves of *Oreocnide integrifolia* (Gaud. Ex Wedd.) Miq. (Urticaceae), Sairandhri, Silent valley, Palghat, Kerala, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45771 (type), TBGT (isotype).

Asteridiella villebrunee Hansf. is known on *Villebrunea scabra* from Java. The genus *Villebrunea* has been synonymised with *Oreocnide* (Mohanani & Henry, 1994). *Asteridiella oreocnidecola* differs from it in having closely arranged shorter appressoria and smaller ascospores (Hansford, 1961).

Asteridiella scolopiae Hosag., *Meliolales* of India, p104, 1996.

Material examined : On leaves of Flacourtiaceae member, Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45761, TBGT 1510.

Asterina chukrasiae V. B. Hosagoudar, *sp. nov.* (Fig. 2)

Coloniae epiphyllae, tenues vel subdensae, ad 2 mm diam., raro confluentes. Hyphae subrectae, irregulariter acuteque vel laxae ramosae, laxae reticulatae, cellulae $19-23 \times 3-5 \mu\text{m}$. Appressoria alternata vel unilateralis, leniter stipitata vel crassa posita, globosae, 2-3 sublobata vel lobata, $4-6 \times 6-7 \mu\text{m}$. Thyriothecia laxae aggregatae vel dense

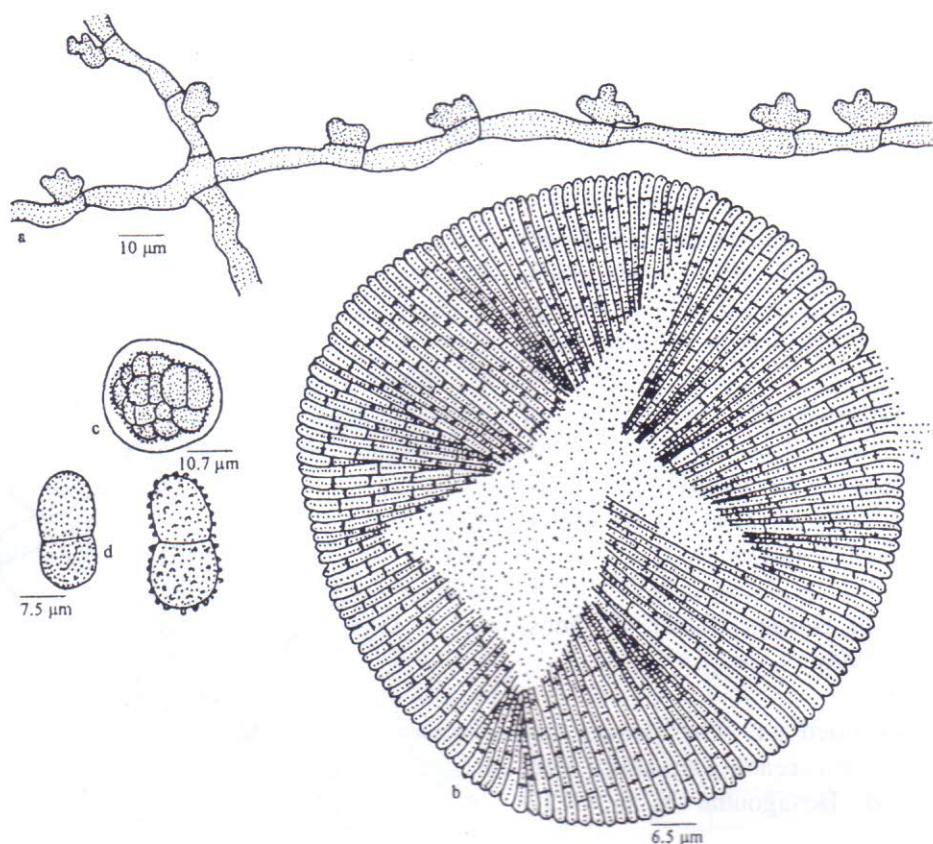


Fig. 2 : *Asterina chukrasiae* sp. nov.

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

aggregata, orbicularis, ad 100 µm diam., margine crenatae vel ad centro stellatim dehiscentes; asci globose, octospori, ad 30 µm diam.; ascosporae oblongae, conglobatae, uniseptatae, constrictae, brunneae, 20-24 × 11-13 µm, parietus glabrus vel tuberculatus.

Colonies epiphyllous, thin to subdense, up to 2 mm in diameter, rarely confluent. Hyphae substraight, branching irregular at acute to wide angles, loosely reticulate, cells 19-23 × 3-5 µm. Appressoria alternate to unilateral, minutely stipitate to mostly broad based, globose, 2-3-times sublobate to lobate, 4-6 × 6-7 µm. Thyriothecia loosely aggregated to closely aggregated, orbicular, up to 100 µm in diameter, margin crenate, stellately dehiscid at the centre; asci globose, octosporous, up to 30 µm in diameter; ascospores oblong, conglobate, uniseptate, constricted, brown, 20-24 × 11-13 µm, wall smooth to tubercled.

Material examined : On leaves of *Chukrasia*

tabularis (Meliaceae), Sairandhri, Silent Valley, Palghat, Kerala, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45760 (type), TBGT 1509 (isotype).

Based on the alternate appressoria, *A. chukrasiae* is similar to *A. turraeae* Hansf. known on *Turraea floribunda* from Uganda (Hansford, 1944, Hosagoudar & Abraham, 2000). However, differs from it in having 2-3-times sublobate to lobate appressoria.

Asterina elaeocarpi Sydow var. *ovalis* Kar & Maity, Indian Phytopathol. 39 : 218, 1986; Hosag., Balakr. & Goos, Mycotaxon 60 : 175, 1996.

Material examined : On leaves of *Elaeocarpus tuberculatus* Roxb. (Elaeocarpaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45772, TBGT 1521.

Asterina gamsii Hosag., & C. K. Biju (in ed.)

Material examined : On leaves of *Elaeocarpus tectorius* (Lour.) Poir. (*Elaeocarpus oblongus* auct. non Gaertn.) (Elaeocarpaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45753, TBGT 1502.

Asterina lepianthedis (Hosag., Balakr. & Goos) Hosag., Indian Phytopathol. 55 : 498, 2002. Anamorph. *Asterostomella lepianthedis* Hosag., Balakr. Balakr. & Goos, Mycotaxon 58 : 492, 1996.

Material examined : On leaves of *Lepianthes umbellata* (L.) Raf. (Menispermaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45804; HClO 45698, TBGT 1445.

Asterina oreocnidecola Hosag., Balakr. & Goos, Mycotaxon 59 : 183, 1996.

Material examined : On leaves of *Oreocnide* sp. (Urticaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO TBGT 1516.

Asterina oreocnidegena V. B. Hosagoudar, sp. nov. (Fig. 3)

Coloniae epiphyllae, tenuēs vel subdensae, ad 3 mm diam. Hyphae rectae, plerumque opposita acuteque ramosae, laxe reticulatae, cellulae 19-28 × 4-7 μm. Appressoria plerumque opposita, ad 3% alternata vel solitaria, unicellularis, ovata, conoidea, ad apicem late rotundata, integra, 9-12 × 4-7 μm. Thyriothečia dispersa vel connata, orbicularis, ad 180 μm diam., ad centro stellatim dehiscentes, margine fimbriatae, hyphae fringiorum compactae; asci globosi, octospori, 30-40 μm diam.; ascosporeae conglobatae, brunneae, uniseptatae, constrictae, 25-30 × 14-16 μm, parietus glabrus.

Colonies epiphyllous, thin to subdense, up to 3 mm in diameter. Hyphae straight, branching mostly opposite at acute angles, loosely reticulate, cells 19-28 × 4-7 μm. Appressoria mostly opposite, about 3% alternate to solitary, unicellular, ovate, conoid, broadly rounded at the apex, entire, 9-12 × 4-7 μm. Thyriothechia scattered to connate, orbicular, up to

180 μm in diameter, stellately dehiscid at the centre, margin crenate to fimbriate, fringed hyphae compact; asci globose, octosporous, 30-40 μm in diam.; ascospores conglobate, brown, uniseptate, constricted at the septa, 25-30 × 14-16 μm, wall smooth.

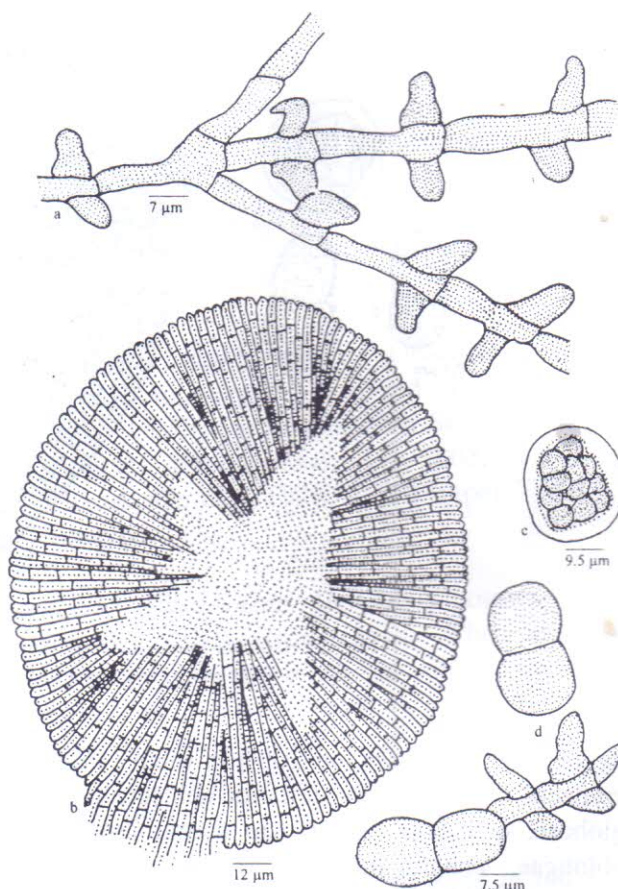


Fig. 3 : *Asterina oreocnidegena* sp. nov. a - Appressoriolate mycelium, b - Thyriothecium, c - Ascus, d - Ascospores

Material examined : On leaves of *Oreocnide integrifolia* (Gaud. Ex Wedd.) Miq. (Urticaceae), Sairandhri, Silent Valley, Palghat, Kerala, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45771 (type), TBGT 1520 (isotype).

Asterina oreocnidecola Hosag. et al. is known on the same host from the Western Ghats (Hosagoudar et al. 1996). However, *A. oreocnidegena* differs from it in having opposite appressoria and larger ascospores.

Asterina sp.

Material examined : On leaves of *Syzygium* sp. (Myrtaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45757, TBGT 1506.

Asterostomella scolopiae-crenatae Hosag. & Abraham, New Botanist 24 : 111, 1997.

Material examined : On leaves of Flacourtiaceae member, Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45761, TBGT 1510.

Meliola allophyli-concanici Hosag. in Hosag., Raghu & Pillai, Nova Hedwigia 58 : 535, 1994; Hosag., Meliolales of India, p. 126, 1996.

Material examined : On leaves of *Allophyllus concanicus* Radlk. (Sapindaceae), Champatty, Dec. 14, 2003, V. B. Hosagoudar & al. HCIO 45768, TBGT 1517.

Meliola anodendricola V. B. Hosagoudar, sp. nov. (Fig. 4)

Coloniae amphigenae, densae, velutinae, ad 6 mm diam., Hyphae rectae vel subrectae, irregulariter acuteque ramosae, laxe vel arcte reticulatae, cellulae 24-28 × 8-10 μm. Appressoria alternata, antrorsa, 20-30 μm longae cellulae basiliares cylindratae vel cuneatae, 8-12 μm longae, cellulae apicales ovatae, clavatae, plerumque integrae, angulares, sublobatae vel lobatae, 16-21 × 11-15 μm. Phialides appressoriis mixtus, alternatae vel oppositae, ampulliformes, 16-25 × 6-8 μm. Setae myceliales numerosae, simplices, rectae, curvulae, at 2% uncinatae, ad apicem acutae, ad 450 μm longae. Perithecia dispersa, globosa, ad 200 μm diam.; ascospores oblongae, 4-septatae, constrictae ad septatae, 48-52 × 19-21 μm.

Colonies amphigenous, dense, velvety, up to 6 mm diam., Hyphae straight to substraight, branching irregular at acute angles, loosely to closely reticulate, cells 24-28 × 8-10 μm. Appressoria alternate, antrorse, 20-30 μm long; stalk cells cylindrical to cuneate, 8-12 μm long; head cells

ovate, clavatae, mostly entire, angular, sublobate to lobate, 16-21 × 11-15 μm. Phialides mixed with appressoria, alternate to opposite, ampulliform, 16-25 × 6-8 μm. Mycelial setae numerous, simple, straight, curved, about 2% uncinatae, acute at the tip, up to 450 μm long. Perithecia scattered globose, up to 200 μm diameter; ascospores oblong, 4-septate, constricted, 48-52 × 19-21 μm.

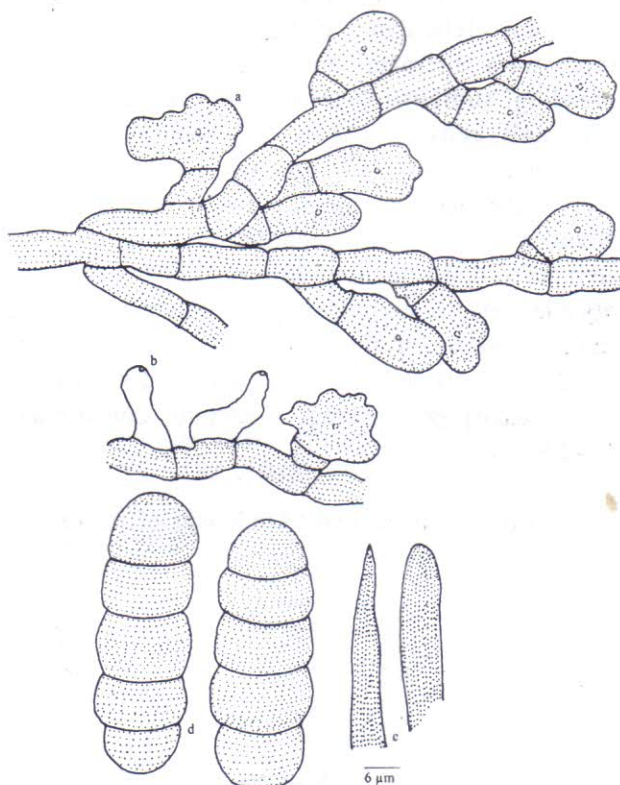


Fig. 4 : *Meliola anodendricola* sp. nov.

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

Material examined : On leaves of *Anodendron paniculatum* (Roxb.) DC. (Apocynaceae), Sairandhri, Silent valley, Palghat, Kerala, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45776 (type), TBGT 1525 (isotype).

Meliola anodendri Sawada is known on *Anodendron affine* from Taiwan (Sawada, 1959). *M. anodendricola* differs from it in having sublobate to lobate head cells of appressoria and distinctly larger ascospores (Hansford, 1961).

Meliola daviesii Hansf. var. *longiseta* V. B. Hosagoudar, var. nov.
(Fig. 5)

Affinis *Meliola daviesii* sed differt coloniae hypophyllae, densae et setae myceliorum longioribus.

Colonies hypophyllous, dense, velvety, up to 5 mm in diameter. Hyphae substraight to flexuous, branching irregular at acute to wide angles, loosely to closely reticulate, cells $24-28 \times 6-8 \mu\text{m}$. Appressoria alternate, antrorse to retrorse, often spreading, straight to variously curved, $24-36 \mu\text{m}$ long; stalk cells cylindrical to cuneate, $9-16 \mu\text{m}$ long; head cells ovate, oblong, entire, angular, rarely sublobate to lobate, $14-20 \times 9-13 \mu\text{m}$. Phialides borne on a separate mycelial branch, alternate to opposite, ampulliform, $12-16 \times 6-8 \mu\text{m}$. Mycelial setae scattered, simple, straight to curved, acute to obtuse at the tip, up to $850 \mu\text{m}$ long. Perithecia globose, scattered, up to $130 \mu\text{m}$ in diam.; ascospores oblong, 4-septate, constricted, $38-42 \times 11-16 \mu\text{m}$.

Material examined : On leaves of *Jasminum*

rottlerianum Wall. ex A. DC. (Oleaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HCIO 45775 (type), TBGT 1524 (isotype).

Based on the morphology of the appressoria, present collection is close to *M. daviesii* Hansf. but the variety differs from the var. in having hypophyllous dense colonies and longer mycelial setae (Hansford, 1961).

Meliola dolichi V. B. Hosagoudar, *sp. nov.*
(Fig. 6)

Coloniae epiphyllae, densae, ad 2 mm diam. saepe confluentes. Hyphae rectae, subrectae, flexuosae vel anfractuae, opposite vel irregulariter acuteque vel laxe ramosae, laxae vel densae reticulatae, cellulae $16-24 \times 5-7 \mu\text{m}$. Appressoria alternata, unilateralis, ad 3% opposita, recta vel curvula, antrorsa, subantrorsa vel retrorsa, $14-21 \mu\text{m}$ longa; cellulae basilares cylindratae vel cuneatae, $4-8 \mu\text{m}$ longae; cellulae apicales ovatae, globosae, rectae vel curvulae, saepe ad apicem attenuatae, integrae, $9-15 \times 11-13 \mu\text{m}$. Phialides appressoriis mixtus, alternata

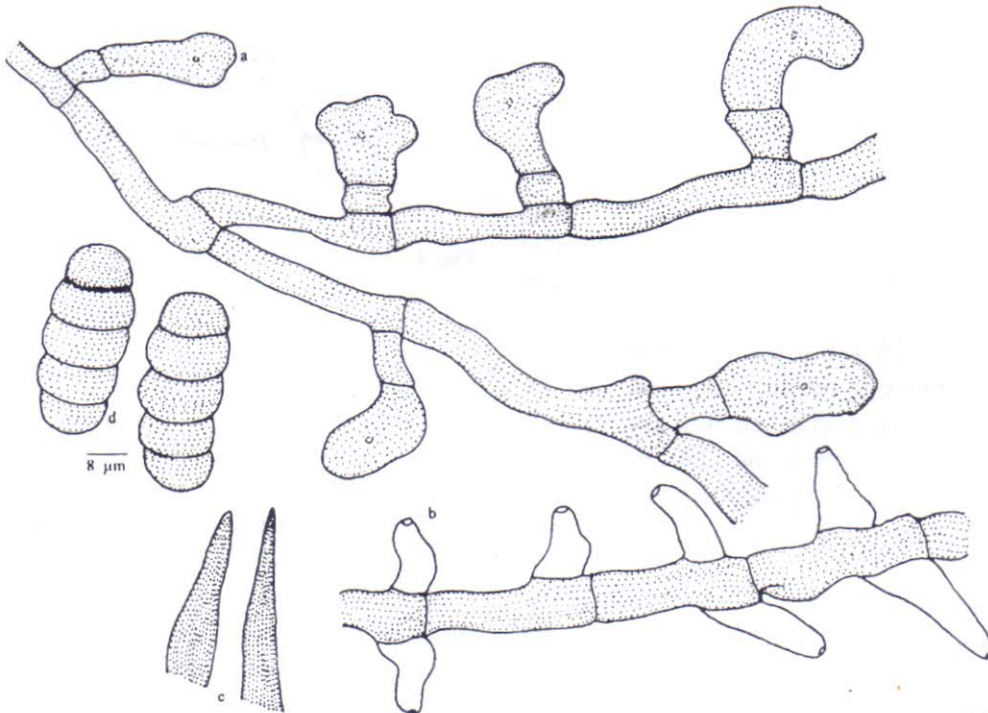


Fig. 5 : *Meliola daviesii* Hansf. var. *longiseta* var. nov.

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

vel opposita, ampullaceus, $14-16 \times 8-12 \mu\text{m}$. Setae myceliales disperse vel juxta perithecia aggregatae, simplices, rectae, curvulae vel paucae uncinatae, ad apicem acutae vel obtusae, ad $400 \mu\text{m}$ longae. Perithecia dispersa vel laxe aggregata, ad $152 \mu\text{m}$ diam.; ascospores leniter ellipsoideae, 4-septatae, constrictae, $36-40 \times 13-15 \mu\text{m}$.

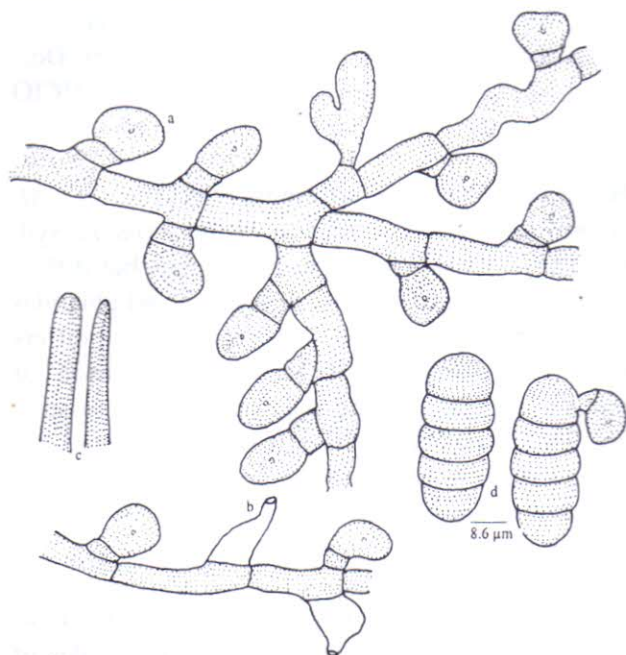


Fig. 6 : *Meliola dolichi* sp. nov.

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

Colonies epiphyllous, dense, up to 2 mm in diameter, often confluent. Hyphae straight, substraight, flexuous to crooked, branching opposite to irregular at acute to wide angles, loosely to closely reticulate, cells $16-24 \times 5-7 \mu\text{m}$. Appressoria alternate, unilateral, about 3% opposite, straight to curved, antrorse, subantrorse to retrorse, $14-21 \mu\text{m}$ long; stalk cells cylindrical to cuneate, $4-8 \mu\text{m}$ long; head cells ovate, globose, straight to curved, often attenuated at the apex, entire, $9-15 \times 11-13 \mu\text{m}$. Phialides mixed with appressoria, alternate to opposite, ampulliform, $14-16 \times 8-12 \mu\text{m}$. Mycelial setae scattered to grouped around perithecia, simple, straight, curved to few uncinata, acute to obtuse at the tip, up to $400 \mu\text{m}$ long. Perithecia scattered to loosely grouped, up to $152 \mu\text{m}$ in diam.; ascospores slightly ellipsoidal, 4-septate, constricted at the septa, $36-40 \times 13-15 \mu\text{m}$.

Material examined : On leaves of *Dolichus*

trilobus (Fabaceae), Sairandhri, Silent Valley, Palghat, Kerala, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45754 (type), TBGT 1503 (isotype).

Based on the Beeli formula 3113.3222 and acute to obtuse tip of the mycelial setae, *M. dolichi* is similar to *M. nyanzae* Hansf. reported on *Indigofera* sp. from Uganda. However, differs from it in not producing pathogenic effect on the host (Hansford, 1961).

Meliola lepianthedis Hosag. & Kamar. in Hosag., C. K. Biju & Abraham, J. Econ. Taxon. Bot. 25 : 72, 2001.

Material examined : On leaves of *Lepianthes umbellata* (L.), Raf. (Meni-spermaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45804; HClO 45698, TBGT 1445.

Meliola malabarensis Hansf., Proc. Linn. Soc. London 157 : 182, 1946; Sydowia Beih. 2 : 531, 1961; Thite & Kulkarni, J. Shivaji Univ. 5 : 161, 1973; Hosag. & Goos, Mycotaxon 37 : 240, 1990, 42 : 135, 1991; Hosag., Dayal & Goos, Mycotaxon 46 : 206, 1993; Hosag., Meliolales of India, p. 246, 1996.

Material examined : On leaves of *Olea dioica* Roxb. (Oleaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45778, TBGT 1527.

Meliola paramignya Hosag., Indian Bot. Repr. 7 : 58, 1988; Hosag., Meliolales of India, p. 278, 1996.

Material examined : On leaves of *Paramignya* sp. (Rutaceae), Champatty, Dec. 14, 2003, V. B. Hosagoudar & al. HClO 45777, TBGT 1526.

Meliola silentvalleyensis V. B. Hosagoudar, sp. nov.

(Fig. 7)

Coloniae amphigenae, plerumque epiphyllae, densae, crustosae vel velutinae, ad 5 mm diam., maculae folia congruens aqua medefactae. Hyphae

rectae vel flexuosae, plerumque opposite acuteque ramosae, laxe vel densae reticulatae, cellulae 19-24 × 6-8 μm. Appressoria alternata, antrorsa vel arcte antrorsa, 22-26 μm longa; cellulae basillares cylindratae vel cuneatae, 4-8 μm longae; cellulae apicales ovatae, oblongae, ad apicem late rotundatae vel attenuatae, integrae, raro angularis vel sulobatae, 16-18 × 12-14 μm. Phialides in hyphis distinctes oriundae, alternatae vel oppositae, ampullaceae, 16-23 × 7-9 μm. Setae myceliales paucae, simplices, rectae, ad apicem acutae vel obtusae, ad 350 μm longae. Perithecia laxe aggregata, ad centro, ad 175 μm diam.; ascosporeae oblongae vel cylindratae, 4-septatae, constrictae, 40-44 × 18-20 μm.

Colonies amphigenous, mostly epiphyllous, dense, crustose to velvety, up to 5 mm in diameter, corresponding opposite surface of the showed water soaked lesion. Hyphae straight to flexuous, branching mostly opposite at acute angles, loosely to closely reticulate, cells 19-24 × 6-8 μm. Appressoria alternate, antrorse to closely antrorse, 22-26 μm long; stalk cells cylindrical to cuneate, 4-8 μm long; head cells ovate, oblong, broadly rounded to often attenuated at the apex, entire, rarely angular to sulcate, 16-18 × 12-14 μm. Phialides borne on a separate mycelial branch,

alternate to opposite, ampulliform, 16-23 × 7-9 μm. Mycelial setae few, simple, straight, acute to obtuse at the tip, up to 350 μm long. Perithecia loosely grouped at the centre of the colonies, up to 175 μm in diam.; ascospores oblong to cylindrical, 4-septate, constricted at the septa, 40-44 × 18-20 μm.

Material examined : On leaves of Meliaceae member, near Kunthipuzha, Sairandhri, Dec. 12, 2003, V. B. Hosagoudar & al. HCIO 45764 (type), TBGT 1513 (isotype).

Based on the Beeli formula (3111.4222), *M. silentvalleyensis* is similar to *M. leptochaeta* Syd. known on *Vavaea* sp. from Philippines but differs from it in absence of crooked hyphae and phialides borne on a separate mycelial branch. It also differs from *M. zamboangensis* Hansf. in absence of crooked hyphae, having only antrorse appressoria and longer mycelial setae. It differs from all the other species known on the members of Meliaceae in causing pathogenic effect on the host plant (Hansford, 1961).

Meliola wendlandiae Hosag. in Hosag. & Goos, Mycotaxon 37 : 251, 1990; Hosag., Meliolales of India, p. 340, 1996.

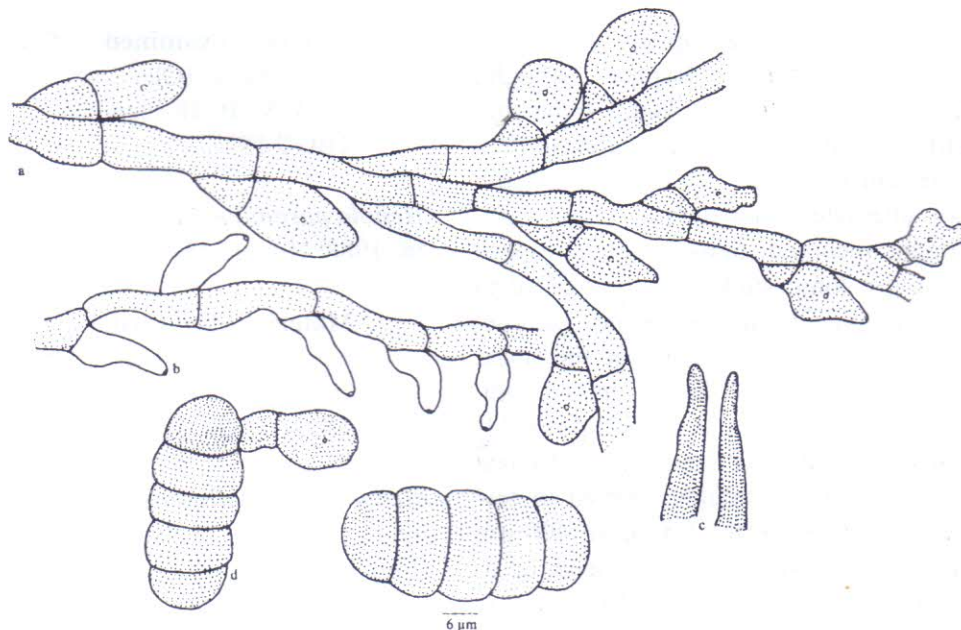


Fig. 7 : *Meliola silentvalleyensis* sp. nov.

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

Material examined : On leaves of *Wendlandia thyrsoides* (Schultes), Steud (Rubiaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45805, TBGT 1554.

Prataprajella turpiniicola (Hosag.) Hosag., Nova Hedwigia 55 : 225, 1992; Hosag., Meliolales of India, p. 343, 1996.

Asteridiella turpinnicola Hosag. in Hosag. & Goos, Mycotaxon 36 : 341, 1989.

Material examined : On leaves of *Turpinia malabarica* Gamble (Staphyleaceae) Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45639, TBGT 1384; HClO 45770, TBGT 1519.

Colonies were hyperparasitised by *Isthmospora* sp.

Sarcinella oreocnidecola V. B. Hosagoudar, sp. nov.

(Fig. 8)

Coloniae epiphyllae, tenues ad 3 mm diam. Hyphae rectae vel subrectae, alternata vel opposita acuteque vel laxe ramosae, laxe vel densae reticulatae, cellulae 9-16 × 8-10 µm diam. Appressoria dispersa, alternata vel unilateralis, globosae, integra, 8-10 µm diam. Conidiophora micronemata, mononemata, concolorous, plerumque simplices, plerumque unicellularis, raro 1-2-septata, recta, pallide brunnea, 18-22 × 5-7 µm; cellulae conidiogena monoblasticae, integratae, plerumque terminalis, determinatae, cylindraceae; conidia solitaria, sicca, acrogena, simplices, subspherica, sarciniformes, brunnea ad initio, nigra ad maturitatem, sarciniformes septata, constricta ad septata, glabra, 19-30 µm diam.

Colonies epiphyllous, thin, up to 3 mm in diameter. Hyphae straight to substraight, branching alternate to opposite at acute to wide angles, loosely to closely reticulate, cells 9-16 × 4-6 µm. Appressoria scattered, alternate to unilaterate, globose, entire, 8-10 µm in diameter. Conidiophores micronematous, mononematous, concolorous, mostly simple, mostly unicellular, rarely 1-2-septate, straight, pale brown, 18-22 × 5-7 µm; conidiogenous cells monoblastic, integrated, mostly terminal, determinate, cylindrical; conidia solitary, dry, acrogenous, simple,

subspherical, sarciniform, brown when young, charcoal black at maturity, sarcinately septate, constricted at the septa, smooth, 19-30 µm in diameter.

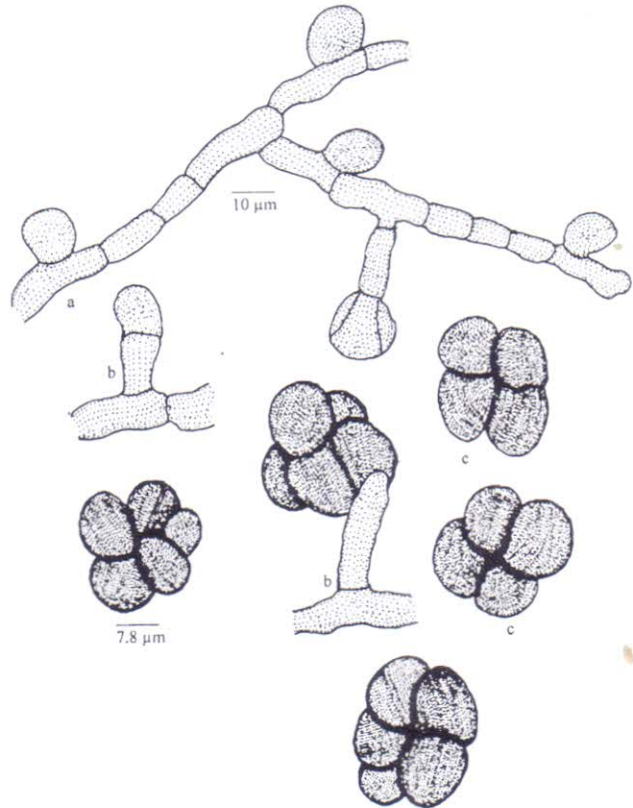


Fig. 8 : *Sarcinella oreocnidecola* sp. nov.

a - Appressoriolate mycelium, b - Developing conidiophore and conidia, c - Sarciniform conidia

Material examined : On leaves of *Oreocnide integrifolia* (Gaud. ex Wedd.) Miq. (Urticaceae), Sairandhri, Dec. 13, 2003, V. B. Hosagoudar & al. HClO 45771 (type), TBGT 1520 (isotype).

Sarcinella pouzolziae known on *Pouzolzia* sp. from the Western Ghats. *Sarcinella oreocnidecola* differs from it in having shorter conidiophores and smaller conidia. However, host specificity has been considered here as criteria for the segregation of the species.

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