



Studies on Foliicolous Fungi – XXVI - a new species and three new records

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1. *Balladyna indica* sp. nov. (Image 1)

Coloniae hypophyllae, tenues vel subdensae, patentiae, ad 10 mm diam., confluentes. Hyphae rectae vel subrectae, alternatim vel irregulariter acuteque vel laxe ramosae, laxae vel arte reticulatae, cellulae 19–36 x 6–8 µm. Appressoria dispersa, alternata vel unilateralis, concoloura, ovata, oblonga, cylindracea, integra, recta, curvula vel uncinata, 11–20 x 6–8 µm. Setae myceliales nigrae, simplices, rectae, ad apicem acutae vel obtusae, ad 144 µm longae. Perithecia dispersa, globosa, ad initio stipitatis, sessilis ad maturitatem, ad 100 µm diam. Asci non visa. Ascospores oblongae, conglobatae, nigrae vel brunneae, uniseptatae, fortiter constrictae ad septatae, 30–32 x 15–17 µm, parietus glabrus.

Colonies hypophyllous, thin to subdense, spreading, up to 10 mm in diam., confluent. Hyphae straight to substraight, branching alternate to irregular at acute to wide angles, loosely to closely reticulate, cells 19–36 x 6–8 µm. Appressoria scattered, alternate to unilateral, concolourous, ovate, oblong, cylindrical, entire, straight, curved to uncinata, 11–20 x 6–8 µm. Mycelial setae dark, simple, straight, acute to obtuse at the tip, up to 144 µm long. Perithecia scattered, globose, initially stipitate, later sessile, up to 100 µm in diameter. Asci not seen. Ascospores oblong, conglobate, dark brown, uniseptate, strongly constricted at the septum, 30–32 x 15–17 µm, wall smooth.

Etymology: Named after the country, India

Material examined

Type: 13.xii.2003, On leaves of Rubiaceae member, Sairandhri, Silent Valley, Palghat, Kerala, India, coll. V.B. Hosagoudar et al. HCIO 46695 (type), TBGT 2036 (isotype)

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(MycoBank # MB 513421).

This species is close to *Balladyna deightonii* Hansf. (Hosagoudar 2004) in having more than 100 µm long mycelial setae and 25 µm long ascospores. However, *Balladyna indica* differs from it in having entire appressoria (Hosagoudar 2004). It also differs from *B. rubiacearum* Hosag. in having oblong and entire appressoria (Hosagoudar 2002).

2. *Eupelte amicta* Syd., Ann. Mycol. 22:426, 1924. (Image 2)

Colonies epiphyllous, dense, crustose, smooth, up to 10 mm in diameter, often cause yellow haloes around the colonies and also yellowing on the corresponding lower surface of the leaves. Hyphae partly superficial and partly immersed, superficial hyphae brown, septate, flexuous, irregularly branched at acute to wide angles, cells 12–35 x 3–4 µm. External mycelium enters the host through stomata extended up to palisade tissues. Conidiophores arise from the external mycelium, mostly deep brown to rarely dark, 0–1-septate, erect, often curved, simple, solitary, smooth, 25–32 µm long; conidiogenous cells terminal, integrated, monoblastic, determinate; conidia brown, 0–3-septate, not constricted, straight to curved, cylindrical, obclavate, broadly rounded at the apex, truncate at the base,

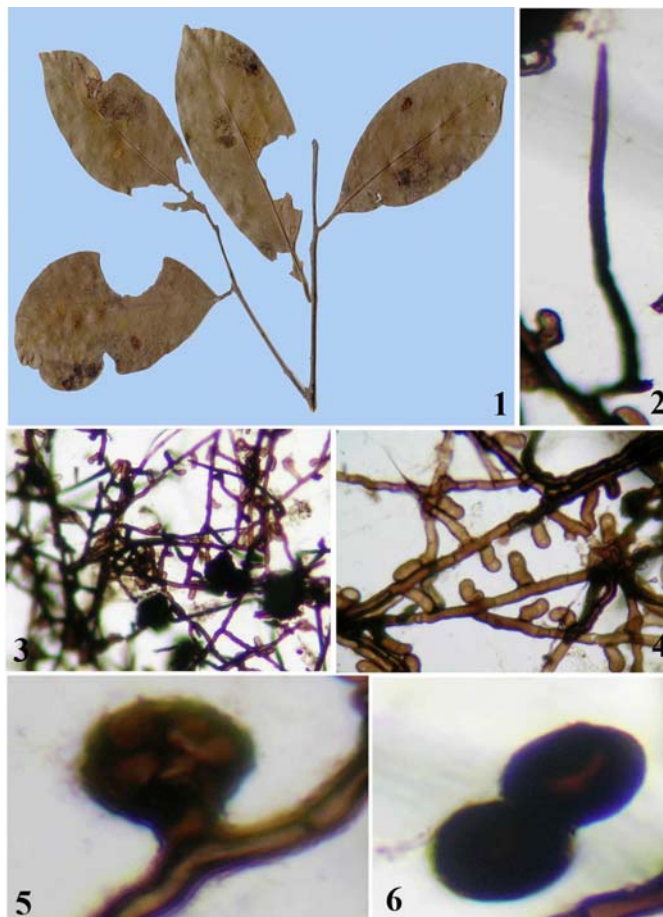


Image 1. *Balladyna indica* sp. nov. on Rubiaceae member
1 - Infected leaves; 2 - Mycelial seta; 3 - Mycelial colony with black perithecia; 4 - Appressoria with hyaline spots; 5 - Developing stipitate perithecium; 6 - Ascospore

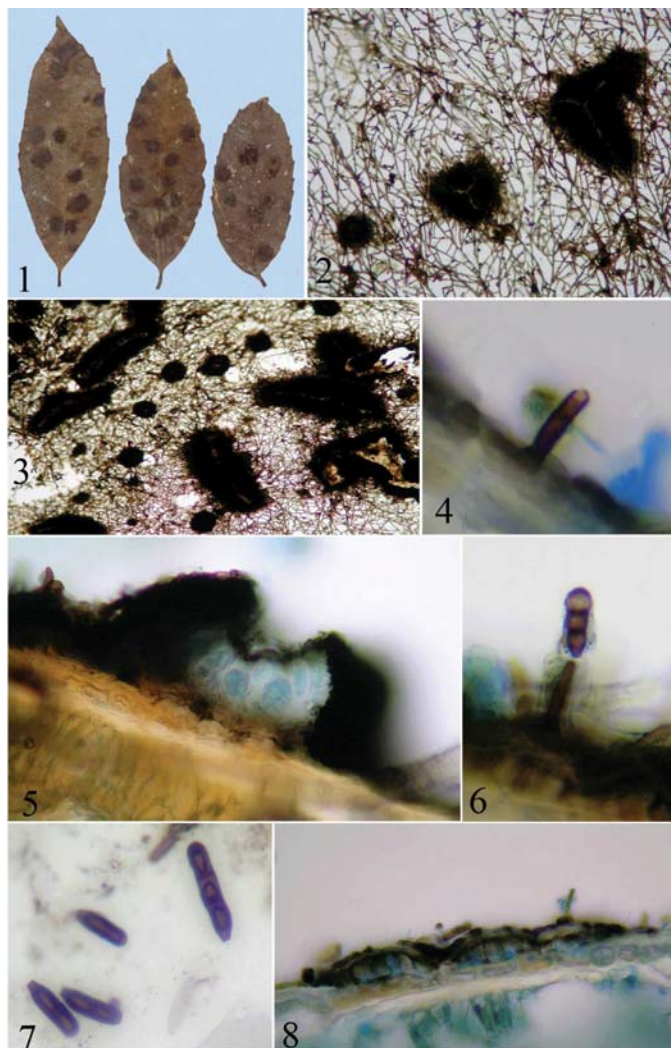


Image 2. *Eupelte emicta* H. Sydow on *Olea dioica*

1 - Infected leaves; 2-3 Thyriothechia; 4-6 Conidiophores and releasing conidium; 5 - Thyriothechium with asci; 7 - Conidia; 8 - Fungal mycelium in epidermal cells

wall smooth, 20–48 x 8–10 µm. Thyriothechia scattered to grouped, initially orbicular, later elliptic to elongated, simple, straight, curved, often X or Y shaped, astomatous, dehiscence vertically at the centre, orbicular thyriothechia 100–120 x 90–100 µm, ellipsoidal thyriothechia 441–700 x 196–245 µm; asci born on the basal hymenium, clavate, bitunicate, become spherical at maturity, eight spored, 36–40 x 14–18 µm; ascospores conglobate, oblong, brown, uniseptate, constricted at the septa, 17–20 x 9–11 µm, wall smooth but becomes verrucose at maturity.

Material examined

14.xii.2003, On leaves of *Olea dioica* Roxb. (Oleaceae), Chempatty, Silent Valley National Park, Palghat, Kerala, coll. V.B.Hosagoudar et al. HClO 46291, TBGT 1937.

Arx & Müller (1975) have placed *Maurodothina* G. Arnaud ex Piroz. & Shoemaker as synonym to *Eupelte* Syd. Sivanesan (1984) has stated that the genus *Eupelte* is similar to *Maurodothina* but differs from it in absence of conidiogenous appressoria. Though this species was reported from India and South Africa (Sivanesan 1975), a detailed study was not made

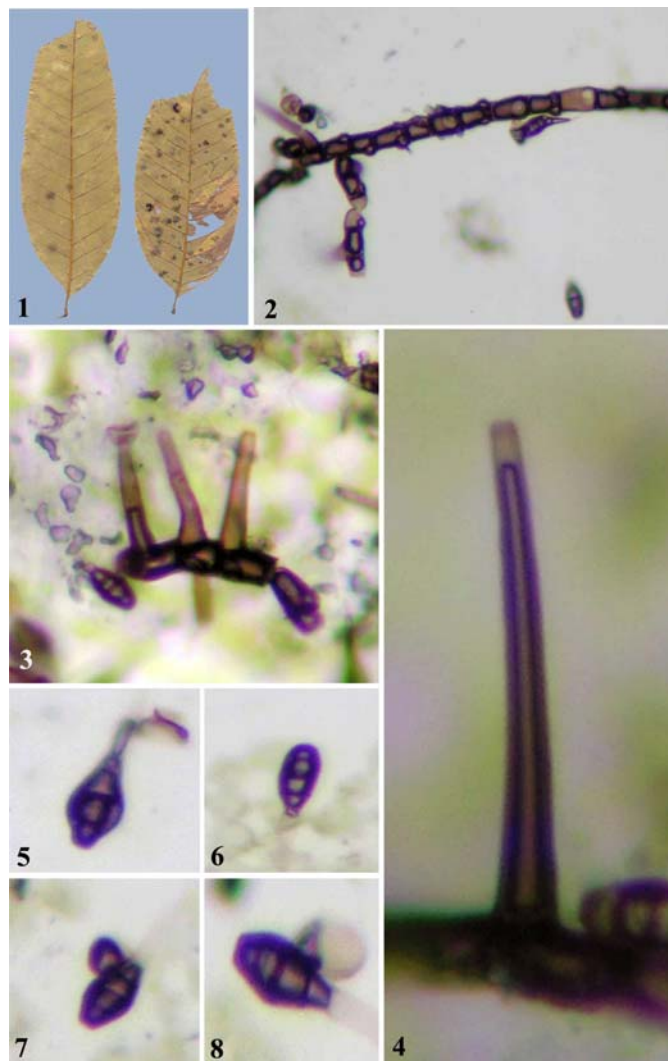


Image 3. *Hansfordiellopsis lichenicola* (Batista & Maia) Deighton on *Nepheilum* sp.

1 - Infected leaves; 2 - Septate mycelium; 3-4 Conidiophores; 5-8 Conidia

from the Indian collections and hence, the note.

3. *Hansfordiellopsis lichenicola* (Bat. & H. Maia) Deighton, Mycol. Pap. 78: 34, 1965; Ellis, Dematiaceous

Hyphomycetes, p. 128, 1971.

(Image 3)

Colonies amphigenous, mostly hypophyllous, subdense to dense, associated with black colony forming fungi having unicellular appressoria. Hyphae ectophytic, brown, septate, slightly constricted at the septa, cells 8–10 x 4–7 µm, cells often supplemented with a pair of small, prominent, hemispherical lateral cells without haustorium. Conidiophores macronematous, mononematous, simple, brown, erect, mostly unicellular, 20–30 µm long, slightly taper towards the apex, 3–5 µm broad at the base, 1–3 µm broad at the apex; conidiogenous cells terminal, determinate, integrated. Conidia solitary, dry, simple, acrogenous, obclavate, rostrate, olivaceous brown, 11–18 µm long, 3–4 µm broad at the base, 4–6 µm broad at the broadest part, 1–2 µm broad at the tip of the beak, septa mostly 1–3 in number, horizontal, often oblique, wall smooth.

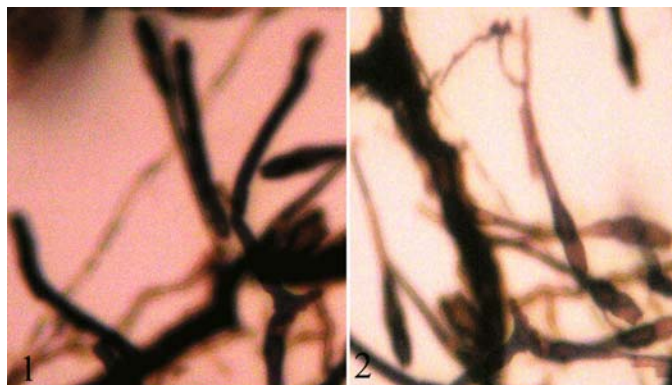


Image 4. *Sporidesmium aburiense* M.B. Ellis
1 - Conidiophore on the host mycelium; 2 - Conidia

Material examined

15.xii.2004, On leaves of *Nephelium* sp. (Sapindaceae), Kakki dam, Pathanamthitta, Kerala, coll. V.B. Hosagoudar et al. HCIO 46319, TBGT 1965.

The genus *Hansfordiellopsis* Deighton represents five species and all are associated with the foliicolous lichen. This is an anamorph of the genus *Koordersiella* Hohn. (Kirk et al. 2001). *H. lichenicola* (Bat. & Maia) Deighton was known from Brazil, Ghana, Malaysia, Nigeria, Porto Rico, Sarawak, Sierra Leone, Tanzania, Trinidad and Uganda (Ellis 1971) and is known here first time from India and also forms a new generic record to India (Bilgrami et al. 1991; Jamaluddin et al. 2004).

4. *Sporidesmium aburiense* M.B. Ellis, Mycol. Pap. 70: 73, 1958; More Diatomaceous Hyphomycetes, p. 82, 1976. (Image 4)

Colonies epiphyllous, brown, hyper parasite. Hyphae superficial, pale yellow, septate, branched, 2-4µm broad. Conidiophores arise from the sides of the hyphae, macronematous, mononematous, simple, straight to flexuous, septate, brown, up to 110µm long and 4-6µm broad. Conidiogenous cells monoblastic, terminal, integrated, percurrent, cylindrical. Conidia brown, solitary, dry, simple, straight to curved, obclavate, rostrate, truncate at the base, 1-3-septate, rarely slightly constricted at the septa, paler towards apex, 36-80µm long, 1-2µm broad at the base, 5-7µm broad at the middle, 3-4µm broad at the apex, often a germ tube produced either from the apex or from the base or rarely from both.

Material examined

12.xi.2003, Overgrowing on the colonies of *Cirsocia vateriae* on *Vateria indica* L. (Dipterocarpaceae), Jodupal, Madikeri, Coorg, Karnataka, India, coll. V.B. Hosagoudar HCIO 46380, TBGT 2026.

This species was known on *Asterolibertia* sp. from Ghana, Sabah and Sierra Leone and is reported here on different fungus for the first time from India (Ellis 1976; Bilgrami et al. 1991, Jamaluddin et al. 2004)

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