



## NEW FUNGI FROM KERALA, INDIA

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### *Armatella apollonigena* sp. nov. Hosag. & A. Sabeena (Fig.1; MB No. 805631)

Colonies amphigenous, thin to subdense, up to 3mm in diameter, confluent. Hyphae flexuous to crooked, branching irregular at acute to wide angles, form loosely and irregularly reticulated net, cells 35–45 × 5–7 μm. Appressoria alternate, rarely opposite, straight to variously curved, antrorse to subantrorse, 12–32 μm long; stalk cells cylindrical, often gibbous, 5–12 μm long; head cells ovate, oblong, straight to curved, mostly entire but rarely sinuately lobate, 7–20 × 7–12 μm. Perithecia scattered, up to 350 μm in diam.; perithecial wall cells mammiform, up to 17 μm long; ascospores oblong, uniseptate, slightly constricted at the septum, 32–37 × 12 μm, wall smooth.

**Material examined:** TBGT 6536 (holotype), PBL 129 (isotype), 20.ix.2007, on leaves of *Apollonias* sp. (Lauraceae), Padinharathara, Wayanad, Kerala, coll. M.C. Riju.

There are 16 species of the genus *Armatella* known to

occur on the members of the family Lauraceae. Of these, *Armatella apolloniadis* (Biju et al. 2005) is known to occur on this host genus from the Western Ghats region of Kerala State. However, *Armatella apollonigena* differs from it in

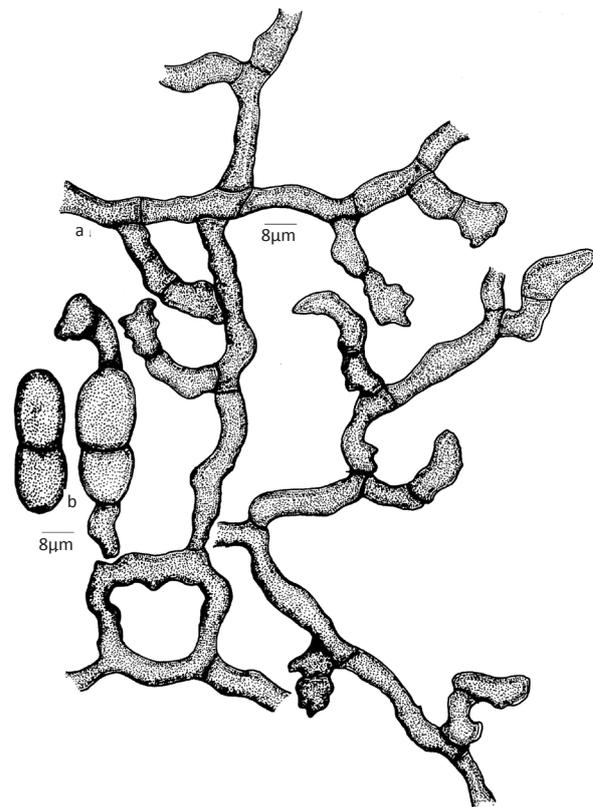


Figure 1. *Armatella apollonigena* sp. nov. a - Appressariate mycelium; b - Ascospores

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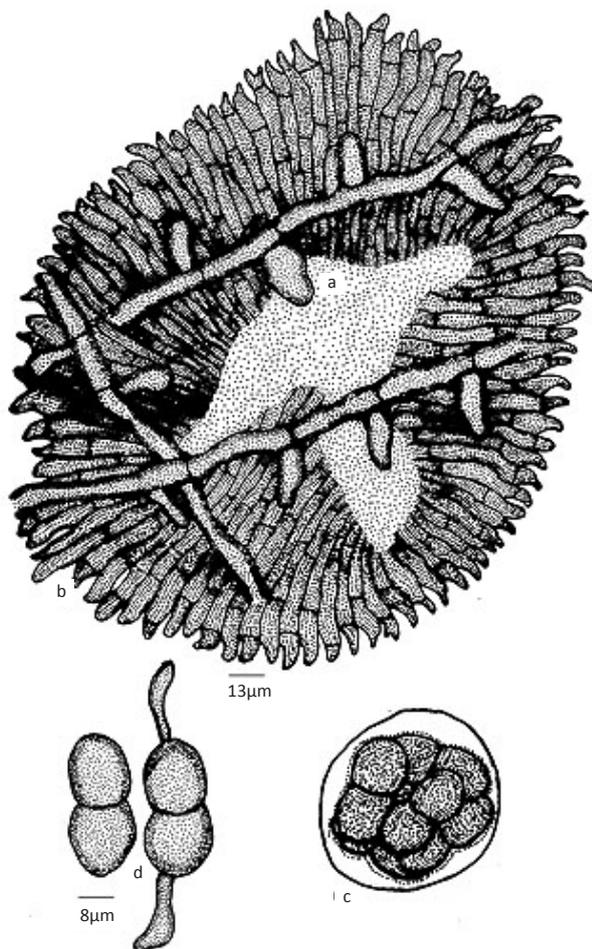
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having unicellular basal cells of the appressoria, entire to sublobate and globose to oblong head cells in contrast to globose, angular to sublobate ones (Hosagoudar 2008). Ascospores germinated by producing appressoria from the apical portion of each cells but with no symptom of collapsing cells.

**Etymology:** specific epithet based on the host plant genus.

***Asterina persigena* sp. nov. Hosag. & B. Divya**  
(Fig. 2; MB No. 805632)

Colonies epiphyllous, dense, spreading, up to 4mm in diameter, confluent. Hyphae straight to substraight, branching opposite to irregular at acute to wide angles, loosely reticulate, cells 20–35 × 4–6 μm. Appressoria alternate to unilateral, unicellular, ovate, oblong, tubular, antrorse to subantrorse, entire, slightly attenuated at the



**Figure 2.** *Asterina persigena* sp. nov. a - Appressariate mycelium; b - Thyriothecium; c - Ascus; d - Ascospores

tip, 12–17 × 5–6 μm. Thyriothecia scattered, orbicular, up to 250 μm in diam., stellately dehiscid at the centre; asci few, globose, up to 32 μm in diam.; ascospores oblong, 1-septate, constricted at the septum, 28–32 × 10–14 μm, upper cell larger than the lower, wall smooth.

**Materials examined:** TBGT 6560 (holotype), 13.xii.2003, on leaves of *Persea* sp. (Lauraceae), Silent Valley National Park, Palghat, Kerala, coll. V.B. Hosagoudar et al.

Based on the morphology of appressoria, *Asterina persigena* is similar to *Asterina machili* Katumoto known on *Machilius thumbergius* from Japan (Katumoto, 1979) but differs from it in having larger appressoria (12–17 × 5–6 μm vs 9–12 × 3–4 μm) and distinctly larger ascospores (15–18 × 7–8 μm vs 28–32 × 14–18 μm).

**Etymology:** Specific epithet based on the host genus.

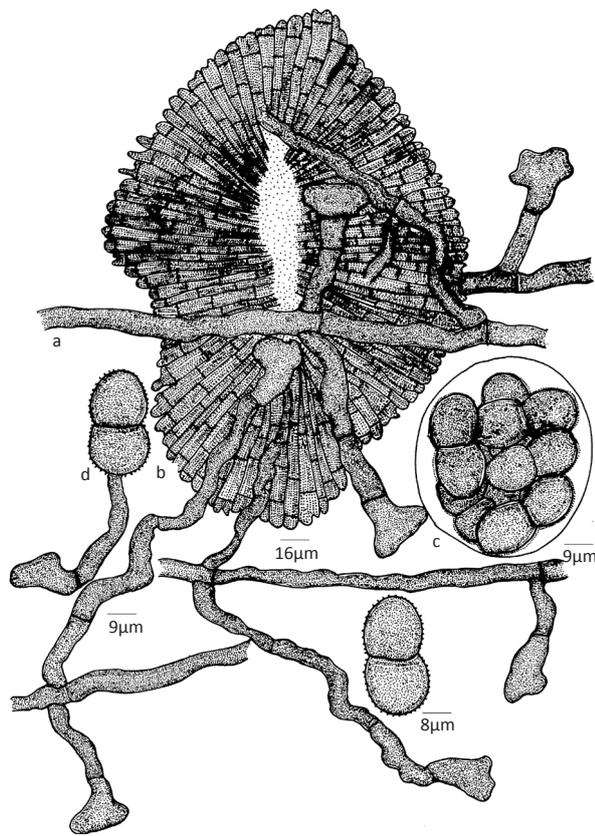
***Lembosia hopiigena* sp. nov. Hosag. & A. Sabeena**  
(Fig. 3; MB No. 805633)

Colonies hypophyllous, subdense to dense, crustose, up to 4mm in diameter, confluent. Hyphae substraight to flexuous, branching opposite to unilateral at acute to wide angles, loosely reticulate, cells 50–87 × 4–5 μm. Appressoria opposite, alternate to unilateral, 1–4 celled, straight to curved, flexuous to crooked, 17–120 μm long; stalk cells 1–3 septate, straight, flexuous to crooked, 2–100 μm long; head cells ovate, globose, entire, angular, sublobate to deeply lobate, 12–27 × 7–20 μm. Thyriothecia scattered, grouped to connate, orbicular at initial stage but later become elliptic to elongated, longitudinally fissured at the centre or dissolved at the central portion in case of orbicular ones, 500–900 × 200–600 μm, margin mostly crenate, rarely fimbriate, fringed hyphae straight, flexuous to crooked; asci globose, octosporous, up to 50 μm in diameter; ascospores brown, conglobate, uniseptate, constricted at the septum, 25–35 × 15–17 μm, wall slightly echinulate.

**Material examined:** TBGT 6537, PBL 130 (isotype), 27.vi.2012, on leaves of *Hopea* sp. (Dipterocarpaceae), Malabar Botanical Garden, Kozhikode, Kerala, coll. A. Sabeena et al.

*Morenoella anisocarpa* Sydow is known on *Hopea plagatae* from the Philippines (Sydow & Sydow 1914). Since *Morenoella* is synonymous to *Lembosia*, Song & Hosagoudar (2003) brought it under the genus *Lembosia* as *L. anisocarpa* (Syd.) Hosag. & Song. However, *L. hopiigena* differs from it in having multicellular appressoria.

**Etymology:** Specific epithet based on the host genus.



**Figure 3. *Lembosia hopiigena* sp. nov.**

a - Appressoriate mycelium; b - Thyriothecium; c - Ascus; d - Ascospores

***Palawaniella jasmini* (Doidge) Arx & Müller**

Stud. Mycol. 9: 37, 1975; Hosag. & A. Sabeena, Plant Pathology & Quarantine 3(1): 12, 2012.

*Ferrarisia jasmini* Doidge, Bothalia 4(2): 278, 1942.

*Cyclopeltis jasmini* (Doidge) Bat., Nascim. & A.F. Vital, Publicações do Instituto de Micologia da Universidade do Recife 1:367, 1960.

**Material examined:** TBGT 6563 (holotype), 12.viii.1998, on leaves of *Ligustrum perrottetti* DC. (Oleaceae), Thirunelli Shola, Wayanad, Kerala, coll. C.K. Biju.

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