

A black mildew fungus, *Schiffnerula azadiractae* sp. nov. (Ascomycota: Englerulaceae) from Kerala, India

V.B. Hosagoudar¹ & A. Sabeena²

^{1,2}Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram, Kerala 695562, India
Email: ¹vbhosagoudar@rediffmail.com (corresponding author)

The backyard medicinal plant of Deccan region, *Azadirachta indica* A. Juss., extensively planted in Kerala State harbours several fungal parasites. During our study on foliicolous fungi of the region, we collected black mildew fungus on this plant. Critical microscopic examination of the fungus revealed that it is hitherto unrecorded species of the genus *Schiffnerula*.

Schiffnerula azadiractae sp. nov. (Fig. 1)

Material examined: 10.viii.2010, on leaves of *Azadirachta indica* A. Juss. (Meliaceae), Kallara, Thiruvananthapuram, Kerala, India, coll. A. Sabeena, TBGT 4323 (holotype), part of the collection has been deposited in HCIO (Mycobank # 561024).

Anamorph: *Sarcinella azadiractae* Meenu, Sanjay K. Singh & R.K. Chaudhary, J. Living World 1:107,



1994.

Coloniae amphigenae, tenues, ad 2mm diam., confluentes. Hyphae brunneae, flexuosae, oppositae, alternate vel unilateralis acuteque vel laxe ramosae, laxe reticulatae, cellulae 12–35 x 4–6 µm. Appressoria alternata vel unilateralis, globosa, integra, 7–10 x 7–10 µm. Conidia *Questieriella* dispersa in coloniis, curvula, 3-septata, leniter constrictus ad septata, attenuatus ad ambi apicem, 27–40 x 7–10 µm. *Sarcinella* conidiophora producentes hyphis lateralis, solitaris, recta, flexuosa, mononemata; cellulae conidiogenae terminalis, monoblasticae, integratae, cylindraceae. Conidia *Sarcinella* blastica, terminalis, plerumque sessilis, solitaria, ovata vel globosa, sarciniformes, 2–7 cellula, constrictus ad septatus, 27–42 µm diam., parietus glabrus. Thyriothechia dispersa, ovata, orbicularis, cellulae peridiales radiatus ad initio, dissolutus ad centre ad maturitatatus et asci visa, ad 70µm diam., cellulae marginales radiatae; asci 2–4 per thyriothechiis, globosi, octospori, 12–20 µm diam.; ascospores oblongae, conglobatae, uniseptatae, constrictus ad septatae, 15–20 x 7–10 µm, parietus glabrus.

Colonies amphigenous, thin, up to 2mm in diameter, confluent. Hyphae brown, flexuous, branching opposite, alternate to unilateral at acute to wide angles, loosely reticulate, cells 12–35 x 4–6 µm. Appressoria alternate to unilateral, globose, entire, 7–10 x 7–10 µm. Conidia of *Questieriella* scattered in the colonies, curved, 3-septate, slightly constricted at the septa, taper towards both ends, 27–40 x 7–10 µm. *Sarcinella* conidiophores produced lateral to the hyphae, single, straight, flexuous, mononematous; conidiogenous cells terminal, monoblastic, integrated, cylindrical. *Sarcinella* conidia blastic, terminal, mostly sessile, solitary, ovate to globose, sarciniform, 2–7 celled, constricted at the septa, 27–42 µm in diameter, wall smooth. Thyriothechia scattered, globose, ovate, orbicular, peridial cells initially radiating, later the central portion dissolved by exposing asci, up to 70µm in diameter, marginal cells radiating; asci 2–4 per thyriothechia, octosporous, 12–20 µm in diameter; ascospores oblong, conglobate, uniseptate, constricted at the septum, 15–20 x 7–10 µm, wall smooth.

Meenu et al. (1994) have described *Sarcinella azadiractae* on *Azadirachta indica* from Nepal.

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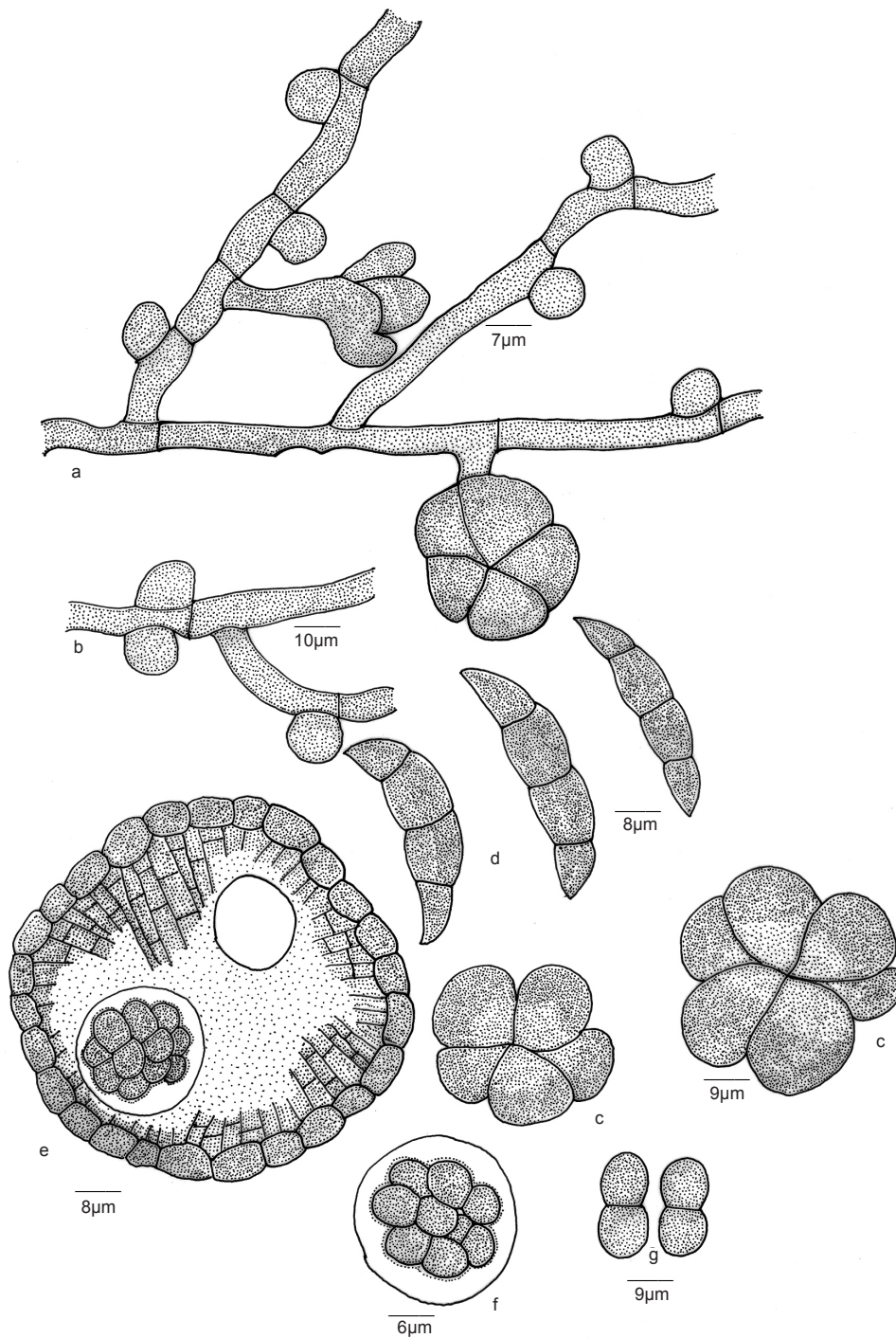


Figure 1. *Schiffnerula azadirachtae* sp. nov.

a - Appressorate mycelium with developing and developed *Sarcinella* conidia; b - Opposite appressoria; c - Conidia of the form genus *Sarcinella*; d - Conidia of the form genus *Questieriella*; e - Thyriothecium with exposed asci; f - Ascus; g - Ascospores

However, the teleomorph supersedes anamorph. Hence, it has been accommodated in a new species.

REFERENCE

Meenu, S.K. Singh & R.K. Chaudhary (1994). New species and new records of *Sarcinella* from Nepal Himalayas. *Journal of Living World* 1(2): 106–111.

