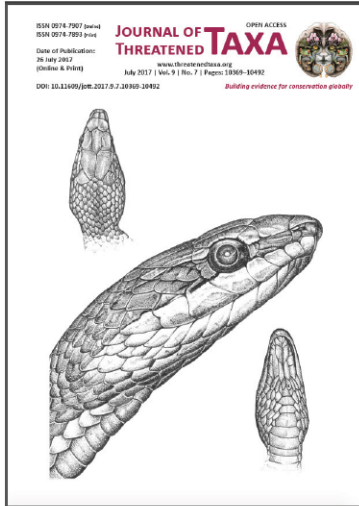


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NOTE

A NEW SPECIES OF SARCINELLA (ASCOMYCETES) FROM ETURNAGARAM WILDLIFE SANCTUARY, WARANGAL DISTRICT, TELANGANA, INDIA

Khaja Moinuddin Mohammad, Bagyanarayana Gaddam & Rana Kausar

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A NEW SPECIES OF SARCINELLA (ASCOMYCETES) FROM ETURNAGARAM WILDLIFE SANCTUARY, WARANGAL DISTRICT, TELANGANA, INDIA

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Black mildew fungi are the group of black colony forming parasitic fungi commonly found as superficial parasites on the leaves of angiosperms. Black mildews belong to several groups, namely, *Asterinacious*, *Schiffnerula*, and *Sarcinella*. The schiffnerulaceous fungi are known for their synanamorphs, i.e., they produce more than one anamorph, namely, *Sarcinella*, *Questieriella*, *Digitosarcinella* and *Mitteriella* states (Hughes 1983, 1984a,b, 1987). The present fungus on *Hardwickia binata* Roxb. (Fabaceae) differs from other species known on Fabaceae.

Materials and Methods

Infected plant leaves were carefully collected from Eturnagaram Wildlife Sanctuary, in a separate polythene bags. For microscopic study, in the laboratory, the standard method of nail polish technique (Hosagoudar & Kapoor 1985) was used to study the entire colony in its natural condition and different manuals like Hosagoudar (2003, 2011) and Hosagoudar et. al (2002) were used for

the identification of the new species. Microscopic studies were carried with the compound microscope with Scopeimage-9 image analyzer software and microphotographs were taken by inbuilt CMOS camera of 1.3 megapixels. Material was deposited at Jawaharlal Nehru Tropical Botanic Garden Research Institute (JNTBGRI), Palode, Kerala, India.

Results

Sarcinella hardwickiae sp. nov.
Khaja Moinuddin Mohammad, Rana Kausar,
Bagyanarayana Gaddam
(Images 1–4)
Mycobank # MB821420

Colonies amphigenous, subdense to dense up to 2mm in diameter. Hyphae flexuous, branching opposite to unilateral at acute to wide angles, loosely to closely cells 16–31 × 7–9 μm. Appressoria alternate to unilateral, globose, broad based, entire, 6–11 × 6–13 μm. Questieriella conidia few, scattered, ellipsoidal, straight to sigmoid, 3-septate, slightly constricted at the septa, 35–43 × 8–12 μm. Sarcinella conidiophores simple, micronematous, mononematous, unicellular to septate, 4–24 × 3–6 μm; conidiogenous cells monoblastic, terminal. Conidia solitary, subspherical to oval, sarciniform, 3–5-celled, constricted at the septa, 14–30 × 16–32 μm.

Material examined: Holotype: TBGT 6920, 21.xi.2014, on living leaves of *Hardwickia binata* Roxb.(Fabaceae),



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Competing interests: The authors declare no competing interests.

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Images 1 & 2. *Sarcinella hardwickiae* sp. nov. infected leaves of *Hardwickia binata*.

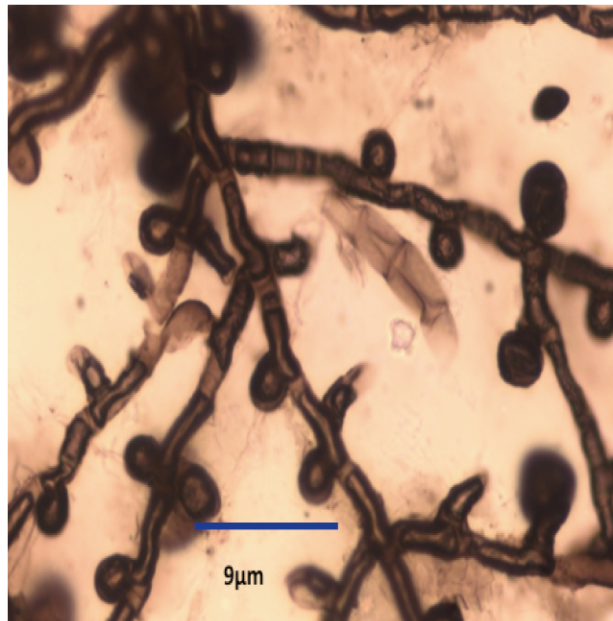
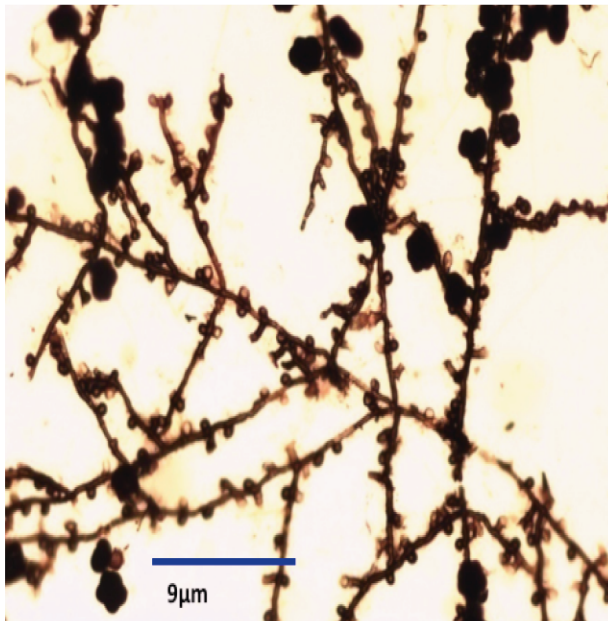


Image 3. *Sarcinella hardwickiae* sp. nov. Mycelium with attached conidia, mycelium with appressoria.

Pasra forest, Eturnagaram Wildlife Sanctuary, Warangal District, Telangana State, India, coll. Khaja Moinuddin Mohammad.

Discussion

There are two species of the genus *Sarcinella*, namely, *S. dalbergiae* Hosag. & Agarwal and *S. indigoferae* Khaja & Bagyan., reported on the members of Fabaceae.

The present species differs from them in possessing amphigenous colonies and it further differs in having distinctly larger *Questieriella* conidia ($35\text{--}43 \times 8\text{--}12 \mu\text{m}$) than *Sarcinella indigoferae* *Questieriella* conidia ($7\text{--}17 \times 2\text{--}7 \mu\text{m}$). Hence, it is reported as a new species.

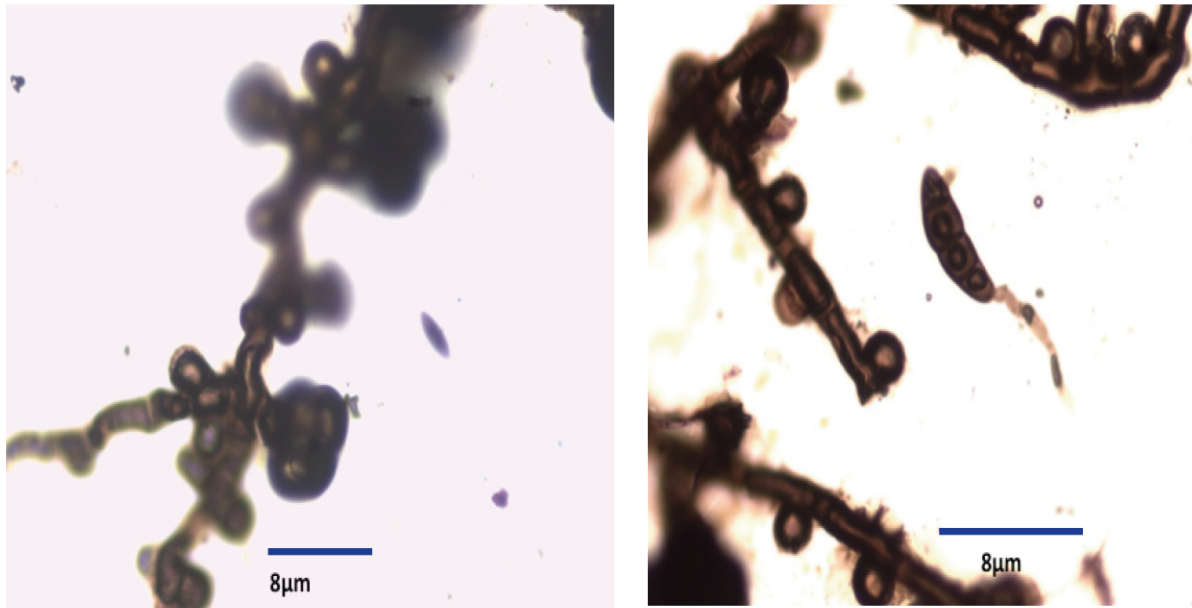


Image 4. Attached *Sarciniform conidia* on conidiophore and detached *Questieriella conidia*.

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