

## A new variety of *Asteridiella winteri* (Speg.) Hansf. (Meliolaceae) from Coochbehar district of West Bengal

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One new variety of *Asteridiella winteri* (Speg.) Hansf. namely *A. winteri* (Speg.) Hansf. var. *macrospora* var. nov. collected from Cooch Behar district of West Bengal (India) causing leaf spot on *Solanum verbascifolium* Linn. is described and illustrated in this paper. The type specimen has been deposited in the Herbarium, CAB, International Mycological Institute (IMI 233927), UK.

**Key words:** Fungal taxonomy, *Asteridiella*, biodiversity, new variety, West Bengal.

### INTRODUCTION

Leaf inhabiting fungi are the most fascinating ones, which attracted attention of many workers all over the World since a long time. They cover a wide range of fungi. During mycological survey in some areas of West Bengal in 1984–1989, several interesting foliicolous meliolaceous fungi were collected. This paper deals with description of one new variety of meliolaceous fungus.

### MATERIALS AND METHODS

One plant species viz. *Solanum verbascifolium* Linn. (Family-Solanaceae) collected from Chilapata forest of Cooch Behar district of West Bengal (India) was found infected with meliolaceous fungus. Critical microscopic study of this fungus revealed that it is hitherto undescribed variety of the species *Asteridiella winteri* (Speg.) Hansf. The fungus was studied from fresh and preserved material and preparation was stained in lactophenol-cotton blue.

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### OBSERVATION

*Asteridiella winteri* (Speg.) Hansf. var.

### *macrospora* T. K. Jana et. S. N. Ghosh var. nov. (Fig. 1)

Differt a var. *winteri* colonis epiphyllis, appressoriis alternatis, ascosporis longioribus, medius cellulis magnus.

Colonies epiphyllous, thin, up to 6mm diameter, confluent. Hyphae flexuous, branching alternate, opposite or one sided at wide angles, closely reticulate, cells 19.04–50 × 6–11µm. Appressoria alternate, one sided arranged (very rarely opposite), 2-celled, antrorse, straight or bent, 17–36µm long; stalk cells cylindrical, 5–16 × 5–9µm, head cells ovate to cylindrical, sometimes reniform, entire, 12–20 × 10–15 µm. Phialides borne on a separate mycelial branch, alternate, rarely one sided, unicellular, ampulliform, 18–27 × 7–11µm. Perithecia scattered or in groups, seated in the centre of the mycelial colony, 47–202µm in diam., surface wall uneven due to dark coloured small projections. (verrucose). Asci oval to elliptical, 2-spored, 55.2–64.4 × 39.5–51.5µm. Ascospores cylindrical, straight, broad, 4 septate, constricted at the septa, middle cell larger than the other cells, 60.3–80.4 × 32–38µm.

**Material examined :** On living leaves of *Solanum verbascifolium* Linn. (Family-Solanaceae), Chilapata forest, Cooch Behar, West Bengal, India, Coll. S. N. Ghosh, August 20, 1984, IMI 233927 (Holotype).

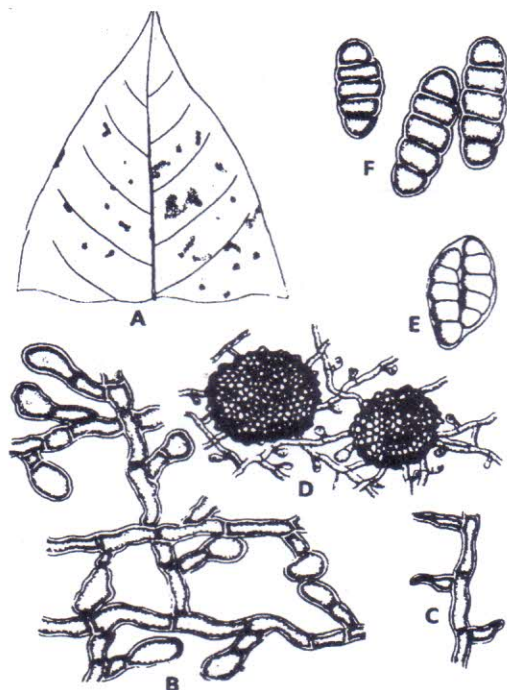


Fig. 1 : *Asteridiella winteri* var. *macrospora* var. nov.  
 A. Portion of a leaf showing patches of infection,  $\times 1/2$ ;  
 B. Hyphae with appressoria,  $\times 525$ ;  
 C. Phialides,  $\times 525$ ;  
 D. Perithecia associated with mycelium,  $\times 110$ ;  
 E. Ascus,  $\times 525$ ;  
 F. Ascospores,  $\times 525$

**Etymology** : From the size of the ascospores.

A review of literature (Bilgrami *et al.*, 1979, 1981; Crane and Jones, 2001; Hansford, 1961; Hosagoudar, 1996; Jana *et al.*, 2005; Kar and Maity, 1970; Sanchez and Carrion, 1992; Sarbhoy *et al.*, 1996, 1997) shows that *Asteridiella winteri* (Speg.) Hansf. was reported on *Solanum verbascifolium* from Paraguay in 1957.

The present new variety namely *A. winteri* (Speg.) Hansf. var. *macrospora* T. K. Jana et. S. N. Ghosh var. nov. is similar to *A. winteri* (Speg.) Hansf., but

differs from it in having epiphyllous colonies, alternately arranges appressoria, longer ascospores ( $45-52 \times 15-19\mu\text{m}$  in *A. winteri*) with larger middle cell.

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