**Vermiculariopsiella papayae sp. nov.- A New Species of Vermiculariopsiella from Western Ghats, India**

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**ABSTRACT**  
During a survey of microfungi associated to plant debris in a fragment of BSI garden, Pune (MH) in Post Monsoon season, a conspicuous fungus from the genus Vermiculariopsiella Bender (1932) was found on leaf and stem debris of *Carica papaya* L. The specimen showed differences from previously described taxa. Descriptions and illustrations of morphological characteristics of the species, as well as the taxonomic key for all known species of *Vermiculariopsiella* are provided.

**INTRODUCTION**  
In 1855 Desmazieres described the new species *Excipula immersa* on the base of some exsiccate distributed in Plantes Cryptogames de Frances No. 268. Von Hohnel (1918) transferred *Excipula* immersa to the new genus *Vermiculariopsis* v. Hohnel. Successively Bender (1932) invalidated the genus *Vermiculariopsis* Torrend and proposed the new name *Vermiculariopsiella* Bender for the species *V. immersa* (Desm.) Bender. The setose stromatic conidiomata, phialidic conidium on-the base, smooth, 6.61 – 9.5 x 3.57 – 4.5μm. Conidia cylindrical, 20-25 x 2.5 - 4μm with a slightly narrow apices and solitary, aseptate, hyaline, rounded at the tip, slightly narrow at the base, smooth, 55.25 – 260 x 8-8.5 μm; Conidophores slightly erect, straight or slightly flexuos, smooth, septate, brown to dark brown progressively thin walled 40 – 60 x 3 x 4-μm. Conidiogenous cells monophialidic, discrete, determinate, narrow, cylindrical, 20-25 x 2.5 - 4μm with a slightly narrow apices and a distinct flared collarette having a channel of 0.5-1 µm. Conidiogenous cells monophialidic, discrete, determinate, narrow, cylindrical, 20-25 x 2.5 - 4μm with a slightly narrow apices and a distinct flared collarette having a channel of 0.5-1 µm.

**MATERIAL AND METHODS**  
Stems of *papaya* with circular, tiny greyish, symptoms were collected and brought to the laboratory in aluminium packets. Fungal material from leaf spots were carefully scraped with a fine tipped needle and mounted on a slide containing a drop of lactophenol and examined under microscope. The material was air dried and placed in a labeled paper bags as herbarium specimen.

**TAXONOMY**  
*Vermiculariopsiella papayae* Dubey sp. nov. (MB808590).  
(Fig.1).

**Etyymology**  
Species named after the name of Host plant on which it is reported.

**RESULTS & DISCUSSION**  

Till date *Vermiculariopsiella* accommodates sixteen species and three varieties (Anonymous, 2014). Of these four species viz. *V. cornuta* (Rao & de Hoog) Nawawi, Kuthub. & Sutton 1990; *V.

The newly reported species shows its close resemblance with V. falcata, V. parvula, V. arcuila and V. immersa having distinct flared collarette. But Varicula and V. immersa differs from newly reported species in having conidiogenous cells with curved apices, while the reported taxon possess straight apex of conidiogenous cells. The proposed species differs from V. falcatea dimensions of setae, which are longer, in the shape and dimensions of conidia and in neck of conidiogenous cell. At last it differs from V. parvula in the shape of conidia and in the absence of narrow neck at the apex of conidiogenous cells, whereas V. parvula possess long straight neck at the apex of conidiogenous cells and conidia are hyaline, aseptate, 8-13 x 2-2.5 µm cylindrical with apex slightly curved and pointed and base rounded and obtuse with a slight protuberance on one side, whereas in newly reported species the apex of conidiogenous cells is slightly narrow and straight with a distinct flared collarante and moreover the conidia are aseptate, 6.61 - 9.5 x 3.57 - 4.5µm and cylindrical with rounded apex and narrow base. For the above mentioned reasons we propose V. papayae as a new species.

### Dichotomous key to the species of Vermiculariopsiella

1. Setae branched .................................................................11
2. Setae spiral with tapered or rounded apex .......... V. spiralis
3. Setae erect, straight or flexuous .........................3
4. Conidiogenous cells with straight apex .................4
5. Conidiogenous cells with recurved apex ...............10
6. Conidiogenous cells with distinct collarettes ..........5
7. Conidiogenous cells with inconspicuous collarettes ........7
8. Conidiogenous cells lacking straight neck at the apex, conidia cylindrical, aseptate with rounded apex and narrow base ................. V. papayae sp. nov.
9. Conidiogenous cells having straight neck at the apex ........6
10. Fusiform conidia, usually curved, 15 to 19.5 x 2.5 to 38 µm .......... V. arcuila
11. Setae with primary and secondary branches short; terminal cells with an appendix Filiforme ................. V. cubensis
12. Setae with dichotomous branching, branches coiled, whip like and curved ........................................... V. pediculata
13. Setae straight with a dichotomous branching .......... V. ramosa
14. Setae straight with three dichotomous branching ...... V. cornuta

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### REFERENCE