Bispora aeglei sp. nov. - a new Folicolous Hyphomycete from India

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Received: 06.04.2010

Accepted: 23.08.2011

Published: 24.10.2011

Descriptions and illustrations are provided for one hitherto undescribed species of the form genus *Bispora* sorda, a folicolous hyphomycete causing leaf spot disease. This is *B. aeglei* occurring on living leaves of *Aegle marmelos* L. in Madhya Pradesh.

Key words: Aegle marmelos, Bispora, Hyphomycete

During a survey, the authors have ovserved a leaf spot disease on Algle marmelos L. belonging to Family Rutaceae. The causal organism has been identified as a species of Bispora L. Corda has described this genus for the first time with B. moniloides as its type species. Sarbhoy et al., (1977) are the first to report this genus as B. antennata (Pers ex Pers) from India. B. antennata Pers, ex Pers, B. betulina, B. catenula (Leveille, 1845), B. donkii (Subramanian and Rao, 1976), B. moniliodes Corda (Munjal and Kapoor, 1969), B. verruculosa (Sharma, 1978), B. muchlenbeckiae (Chiplonkar, 1969), B. apocynacesporum (Shrivastava et al., 2003) are few species of Bispora reported from India. The genus is characterized by punctiform or effuse, usually fuscous or black colonies. Setae and hypopodia absent. Conidiophores usually inconspicuous and short on natural substrates, often longer in culture. Straight or flexous, unbranched or rarely branched, pale brown or brown, smooth. Conidia catenate, acrogenous, simple, doliiform or cylindrical rounded at the ends, brown or dark brown, usually I-septate with a dark band at the septum smooth.

TAXONOMY

Bispora aeglei sp. nov. Dubey and Pandey (Fig. 1)

Coloniae effusum, xylinum, nigra, brunni. Mycelium mergo, ramosus septatus, Conidiophorii brevis in naturalis substratum, brevis ad per longus in cultura, 5-44 x 2.2-4.4 µm; conidicus cella

cylindricus ad clavafiguro; conidii catenatum, acrogenus, simplex, pallidus brunnens ad medius brunneus, doliiformis an cylindricus, 0-2 septatus, raro 2 septatus, parce colligo ad septa, 13.2-27.6 x 6.6-8.8 μ m, secundarius conidiophorii frequenter productum apo apex cella ex catenatum conidii; secondarius conidiophorii hyalo, ad pallidus brunnens, 11-22 μ m ad produco catena ex secondarius conidii.

Colonies effuse, cottony, blackish brown; Mycelium immersed, branched septate; Conidiophores short on natural substrate short to very long in culture, 5-44 x 2.2-4.4 μ m; conidiogenous cell cylindrical to club shaped; Conidia catenate, acrogenous, simple, pale brown to mid brown, doliiform or cylindrical, 0-2 septate rarely 2 septate., slightly consricted at the septa, 13.2-27.6 x 6.6-8.8 μ m, secondly conidiophores are often produced from the apical cell of catenate conidia; secondary conidiophores hyaline to pale brown, 11-22 μ m and produce a chain of secondary conidia.

Host examined: On infected leaves of *Aegle marmelos* L. (Rutaceae) Madhav National Park, Shivpuri; August 2005, HCIO No. 48109 (Holotype), HDBJ # 198 (Isotype), FGCC # 204, Leg R. Dubey, Species epithet was given after the name of the host plant.

The present species when compared with earlier described species *B. antennata*, *B. catenula*, *B. donkii*, *B. moniliodes*, *B. verruculosa*, *B. muchlenbeckiae*, and *B apocynacesporum* showed

Table 1 : Comparative account of Bispora aegeli sp. nov. with related species

Fungal Characteristic	B. antennata	B. catenula	B. betulina	B. aegeli sp. nov.
Colonies	Effuse, black	Hypophyllous, black	Punctiform to effuse fuscous	Effuse, brownish black
Conidiophores	Conidiophores pale brown, 5-30 µm long 2-5 µm thick	Conidiophores very short pale olive brown	Conidiophores on natural substrate 5-15 x 3-4 μm much longer in culture	Conidiophores very short on natural substrate, much longer in culture, 5-44x2.2-4.4 µm
Secondary conidiophores	Not seen	Not seen	Not seen	Secondary conidiophore produced, hyaline to pale brown, 11-22 x 2.2-3.3 µm
Conidia	Conidia brown or dark brown almost black band at the septum 13-20 (17) x 7-8 (7.1)μm	Conidia in long simple or branched chains, fusiform to limoniform tapered at each end, 1 septate, pale to mid olivaceous brown 12-18x5-7 µm	Conidia occasionally 2 septate, brown or dark brown with very dark band or bands 9-14(11)x4-5(4.4) µm	Conidia simple, acrogenous fusiform or doliform or ellipsoidal, apical cell apiculate 0-2 septate, bands not very dark, 13.2-27.6x6.6-8.8 µm.

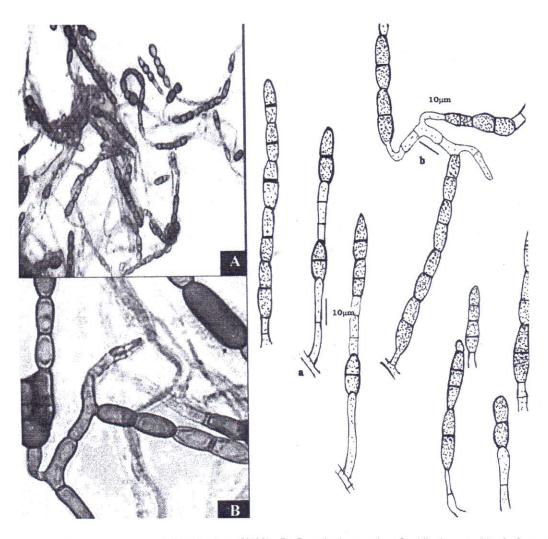


Fig. 1: Bispora aeglei sp. nov.: A. Conidia & Conidiophore (X100); B. Branched secondary Conidiophore (x400). C. Camera Lucida drawing (a. conidiophore b. secondary conidiophore e. conidia)

marked differences in various taxonomic characters. It is evident from the Table 1 that the present collection is different from existing species in production of secondary conidiophores and secondary conidia. Therefore, it is concluded that propsed species could't be conspecific to any one and deserves placement as a new species. So here it is described as a new taxon at species level namely *Bispora aeglei* sp. nov. It's a new host record for the country (Bilgrami et al., 1979, 1981, 1991; Jamaluddin et al., 2004) and a new taxon at species level.

ACKNOWLEDGEMENT

Authors are thankful to Head, Department of Biosciences, R.D. University, Jabalpur for providing laboratory facilities. They are also grateful to Prof. C. Manoharachary for his support. Financial assistance received from the Department of Environmental and Forests, Ministry of Environment and Forest, New Delhi is also thankfully acknowledged.

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