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BIPOLARIS HAWAIIENSIS (BUGNICOURT EX M.B. Ellis) UCHIDA & ARAGAKI - A NEW RECORD OF HUMAN PATHOGENIC SPECIES OF *BIPOLARIS* IN BANGLADESH

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Bipolaris hawaiiensis (Bugnicourt ex M.B. Ellis) Uchida & Aragaki is a human pathogenic fungus under the class Hyphomycetes. It is usually found in plants and soil. The fungus is responsible for allergic bronchopulmunary mycoses. It has been reported to cause subcutaneous infections, nasal pheohyphomycoses, corneal ulcers and allergic fungal sinusitis[1-3]. Occurrence of *B. hawaiiensis* in Bangladesh has not yet been reported. However, several phytopathogenic species of *Bipolaris* occur in the country. *Bipolaris spicefera* (Bainier) Subrum. was reported on rice, *Bipolaris austailiensis* (M. B. Ellis) Tsuda & Ueyama was isolated from painted wood[4,5]. *Bipolaris oryzae* (Breda de Haan) Shoemaker causes brown spot of rice[6] and *B. sorokiniana* (Sacc.) Shoem causes Bipolaris leaf blight of wheat[7] in Bangladesh.

A study was conducted to identify the fungi associated with phylloplane of *Gerbera* spp. belongs to the family Asteraceae. During the period of this study *B. hawaiiensis* was isolated from healthy leaves of *Gerbera aurantiaca* (red flower). Leaf samples of *G. aurantiaca* were collected from Botanic garden, University of Dhaka during the month of February 2012. "Tissue Planting" method was followed for isolation of fungi using PDA medium[8]. *Alternaria citrii* Ellis & Pierce. Apud Pierce, *Aspergillus flavus* Link, *Aspergillus niger* van Teighem, *Aspergillus terreus* Thom, *Cladosporium cladosporioides* (Fresen). De Vries, *Colletotrichum dematium* (Pers. Ex Fr.) Grove, *Colletotrichum dematium* (Pers. Ex Fr.) Grove, and *Pestalotia* de Not were found to be associated with the healthy leaf samples of *G. aurantiaca*. Along with the above fungi an unknown species of *Bipolaris* was isolated from the *Gerbera* leaves. Morphological characters of the fungus were recorded on PDA .

Colonies of the fungus was black velvety. Hyphae pale to mid brown, smooth septate, 1 - 3 μm diameters. Conidiophore was solitary, flexous, septate, pale to mid brown, up to 120 μm long, but usually much shorter, 2 - 7 μm diameter. Conidia straight, ellipsoidal, oblong, or cylindrical, rounded at the ends, pale to mid brown, 2 - 7 (mostly 5) pseudoseptate, 12 - 37 (24.5) × 5 - 11 (8.2) μm. Conidia germinate from both poles (bipolar). A flattened hilum or point of attachment is seen on the basal cell of conidia (Figs 1. a-h and 2a-b)).

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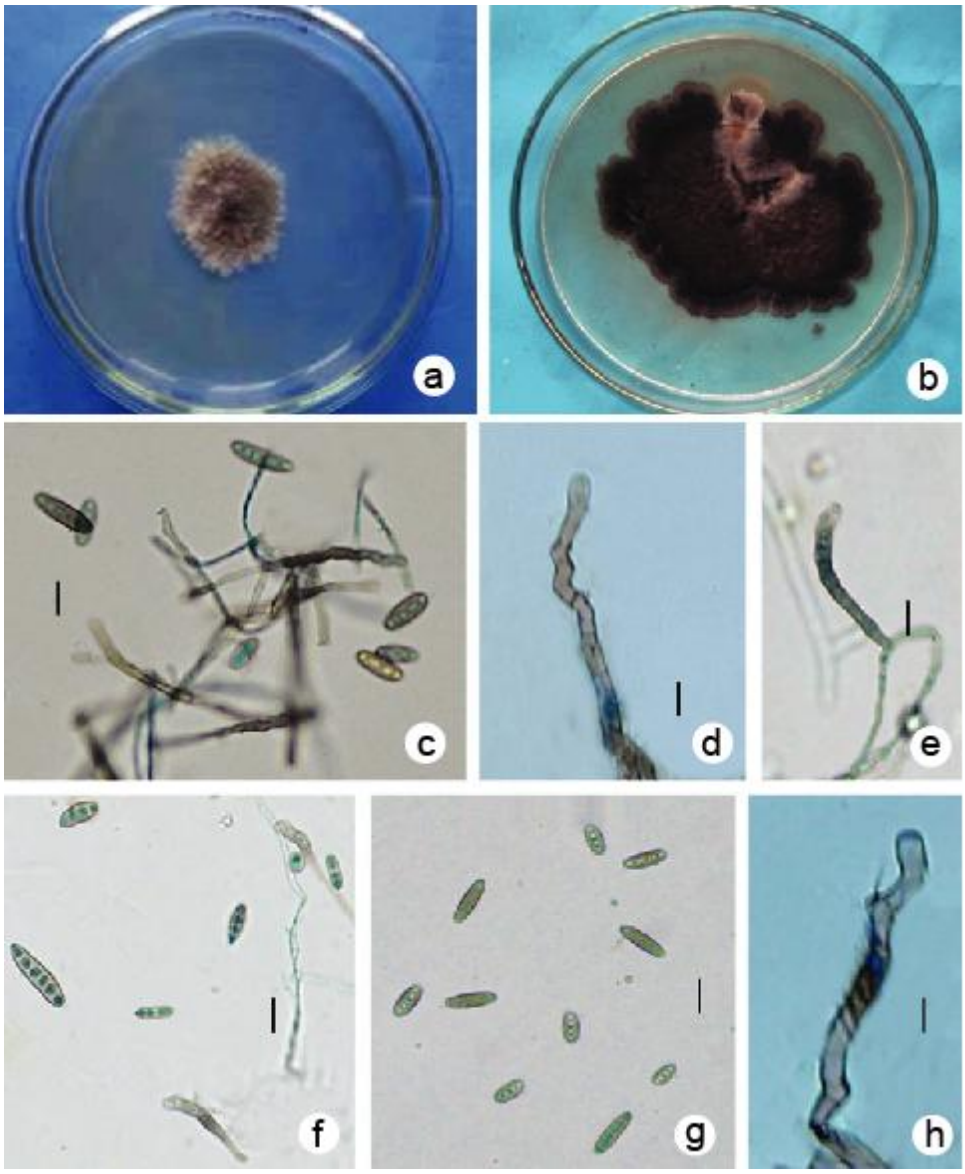

Fig. 1. *Bipolaris hawaiiensis*: A. 7 days PDA colony. B. 10 days PDA colony. C-H. Conidiophore and conidia. (Bar = 50 μm).

The morphological characters recorded in the present study were compared with those reported[9,10] and the fungus was identified as *Bipolaris hawaiiensis*. This is the first report on the association of fungi with *Gerbera* plant and occurrence of a human pathogenic species of *Bipolaris* in Bangladesh.

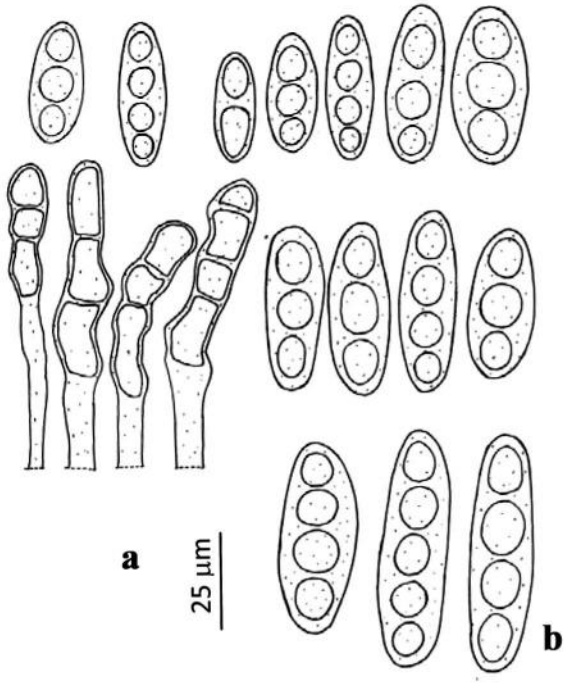

Fig. 2. *Bipolaris hawaiiensis* on *Gerbera auratiaca* (red flower) plant: a. conidiophore and b. Conidia (× 2500)

Bipolaris hawaiiensis (Bugnicourt ex M.B. Ellis) Uchida & Aragaki com. nov. *Specimen examined*: Isolated from healthy leaves of *Gerbera aurantiaca*, Botanic Garden, University of Dhaka, Dhaka, S. Shamsi 3061, 10 February 2012.

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