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First report of *Cercospora apii s. lat.* on *Ceiba pentendra* from northeastern Uttar Pradesh, India

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ABSTRACT

The paper shows the description and illustration of first report of *Cercospora apii s. lat.* on *Ceiba pentendra* (Bombacaceae) from northeastern Uttar Pradesh.

Key Words: Fungi, Foliicolous hyphomycete, Morphotaxonomy, *Cercospora,* New report.

INTRODUCTION

During our survey (2006–2009) from forest and wetland areas of north-eastern Uttar Pradesh, a large number of collections showing foliar disease have been encountered. Of these, upon critical examination and literature survey *Cercospora apii* s. lat. was found to be hitherto unreported. Description and illustration of this taxon of *Cercospora* is presented in the communication.

METHODOLOGY

Surface scrapping and free hand cut sections of infected leaf samples, collected from north-eastern terai forests of Uttar Pradesh, were taken through infection spots and mounted in lactophenol cotton-blue mixture for microscopic examination, camera lucida drawing and micrometry. The specimens have been deposited in Herbarium Cryptogamiae Indiae Orientalis (HCIO), Indian Agriculture Research Institute (IARI), New Delhi and their duplicates have been retained in the departmental herbarium for further reference. Morphotaxonomic determinations have been done by comparing with the allied taxa in question and by consulting the current literature pertaining to taxonomy of *Cercospora.*

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RESULTS AND DISCUSSION

Description of species

Cercospora apii s. lat. (Fig. 1)
= *Cercospora ceibae* Chupp & Viegas (1952)
Infection spots amphigenous, circular to irregular, brown, 2–10 mm. Colonies amphiphyllous, effuse. Mycelium internal. Stromata well developed, subepidermal, pseudoparenchymatous, olivaceous brown, 10 µm wide. Conidiophores macronematous, fasciculatous (4–7), erect to procumbent, straight to flexuous, geniculate, smooth, thin walled, unbranched, 3–5 euseptate, brown, 140–230 × 3–5 µm in diam. Conidiogenous cells integrated, terminal to intercalary, polyblastic, loci subcircular, planate, thickened and darkened, (1.5–)2–3.5(–4.5) µm wide. Conidia solitary, simple, dry, acropleurogenous, smooth, thin walled, 4–19 septate, straight to slightly curved, cylindrical and acicular, apex truncate, base rounded, hyaline, 40–224 × 2–5 µm, hilum thickened and darkened., (1.5–) 2–3(– 4.5) µm wide.

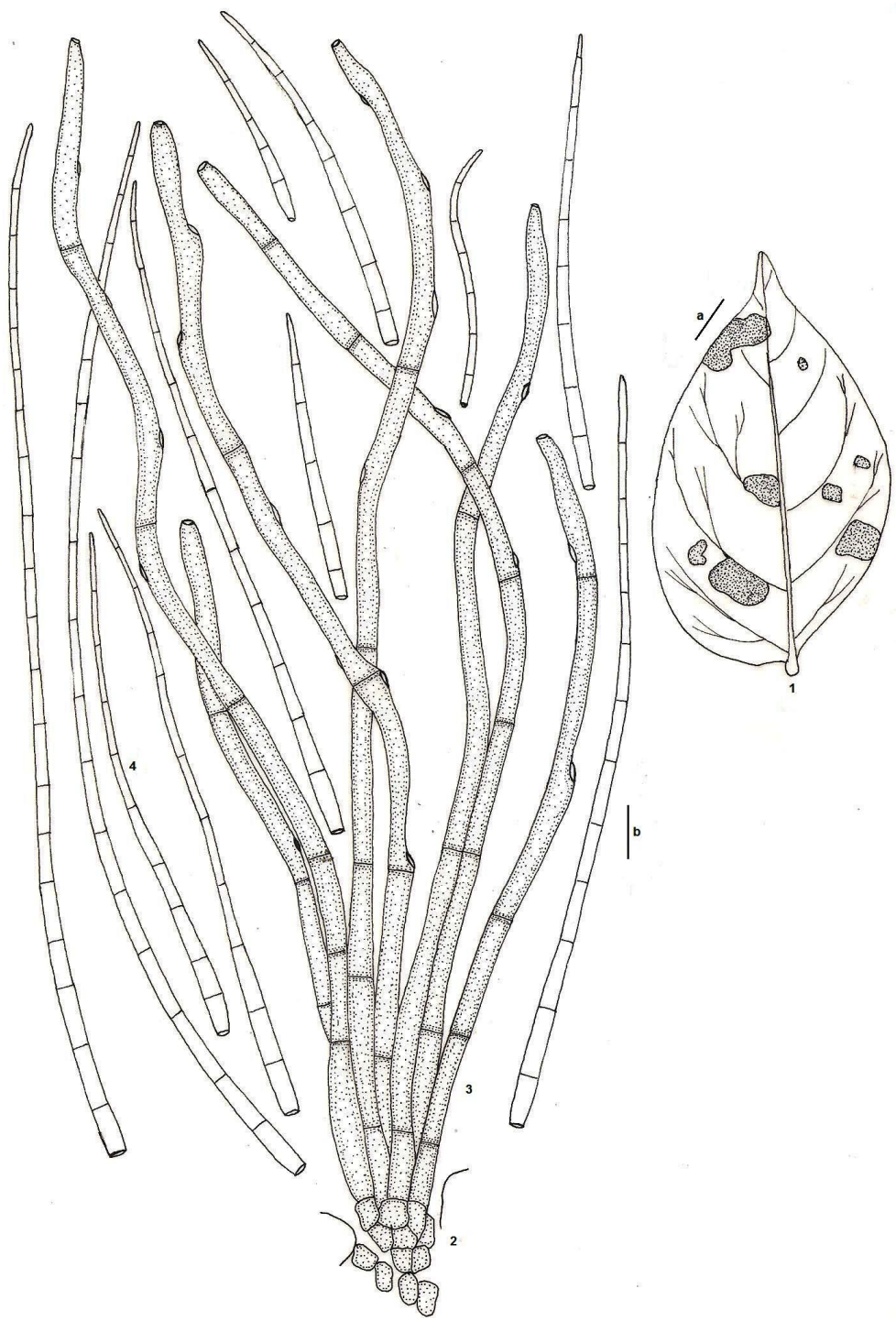

Fig. 1 – ***Cercospora apii s. lat.*** **1. Infection spots. 2. Stromata. 3. Conidiophores. 4. Conidia. Bars a = 20 mm, b = 20 µm.**

Material Examined

On living leaves of *Ceiba pentendra* (L.) Gaerth. (Bombcaceae), University Campus, Gorakhpur, (U.P.), India, 3rd December 2007, coll., Shambhu Kumar, GPU Herb. No. KSR– 153, HCIO 48609.

DISCUSSION

From surveyed of literature, it is clear that *Cercospora ceibae* Chupp & Viegas (1952) in Chupp (1954) has been earlier reported on the host. Crous & Braun (2003), indicated distribution of the species in India as *Cercospora s. str.* which could not be confirmed by published records. Therefore the collection was treated as new record for India and the present morphological study (shape, size and orientation of conidiophores, conidia, stroma and hila on conidiogenous loci and conidia) proved that this species should be transferred to *C. apii s. lat.* complex contrary to *Cercospora apii s. str.*

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