

REVISION ON THE GENUS *CERCOSPORA* FRESA.,—II

BY

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Cercospora alangii Mandal, *C. symploci* Sawada and *C. epicoccoides* Cooke and Massee are transferred to *Pseudocercospora* Speg., and *Cercoseptoria* Petrak respectively,

Key Words ; Revision, *Cercospora*

INTRODUCTION

During the taxonomic studies of the dematiaceous hyphomycetes (1977-1988) it is observed that many species are already included under genus *Cercospora* Fres. are to be transferred to more appropriate genus like *Pseudocercospora* Speg., characterised by board conical denticles and unthickened conidial scars on conidiogenous cells, coloured conidia tapered abruptly to basal cell with unthickened to indistinct hilum (Ellis, 1971 ; & Deighton, 1973a, 1973b, 1974, 1976, 1979, 1983 and 1987) and to the genus *Cercoseptoria* Petrak having unthickened indistinct conidial scar, narrow acicular conidia with slightly narrowed basal cell and being tapered gradually and slightly from very near the base towards obtuse apex (Deighton, 1976, 1983 ; Yen, 1979, 1981 ; and Arx, 1981).

1. *Pseudocercospora alangii* (Mandal) Ray, Comb. Nov. *Cercospora alangii* Mandal, Indian J. mycol Res. 16 (2) : 311-316 (1978).

Spots amphigenous, circular to semicircular, sometime irregular, a few, scattered, dark brown (sometime with pale grey centre) surrounded by yellow halo on upper surface but blackish brown on lower surface of the corresponding area ; 3-6 mm in diam. ; caespituli amphigenous, chiefly hypophyllous, very poorly stromatic ; mycelium both internal and external ; external mycelial hyphae superficial, very light olivaceous brown, thin walled, closely multiseptate, branched, producing conidiophores laterally and terminally, conidiophore solitary or fasciculate, emerging through stomata, usually in fascicles of 2-5 or sometimes more, olivaceous brown, paler and narrower towards the tip, simple or sometime branched, septate (1-5), straight, thin to slightly thick walled, sinuous, short denticulate, very slightly geniculate, apex obtuse to slightly rounded, 15.00—42.5 μm x 8.00—4.5 μm ; scar very minute (deeper in colour), upto 1 μm in diam., conidia obclavate to obclavate cylindric, olivaceous brown, smooth, thin walled,

pluriseptate (1-12), basal cell tapers abruptly to the hilum, tip obtuse, $9.00-91.00 \times 1.5-300 \mu\text{m}$ (Fig. 1).

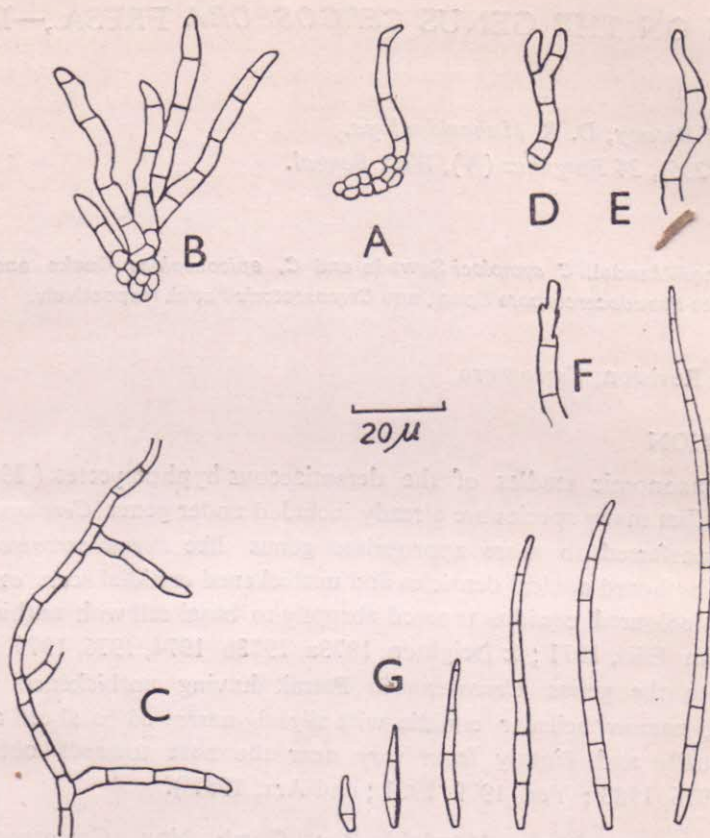


Fig. 1. *Pseudocercospora alangii*, A, a single conidiophore; B, a conidiophore fascicle; C, an external mycelial hypha bearing conidiophores; D-F, conidiophores; G, conidia.

Specimen studied: On the living leaves of *Alangium lamarckii* Thw (fam. Cornaceae), Santipur, Nadia, West Bengal IMI 237389, leg. J. B. Ray, Dec, 12, 1978.

2. *Pseudocercospora symploci* Com. Nov. (Sawada) Ray = *Cercospora symploci* Sawada, Tiwan (Formosa) Agr. Res. Inst. Rept 85: 122 1943.

Spots amphigenous, circular to sub-circular, a few, scattered, slightly reddish brown on upper surface but brownish on lower surface, 1-8 mm. in diam., caespituli amphigenous, chiefly epiphyllous, punctiform, evenly distributed over the spot; mycelium superficial, creeping, septate, much branched, forming net work, composed of rectangular cells of $1.4-4.5 \mu\text{m}$ in diam., olivaceous to light olivaceous

brownish, septation varies from $3.00-12\ \mu\text{m}$, aggregated loosely around the stomata forming stomatal knot; stroma present, well developed, blackish mass, globose to irregular; conidiophores arising from stomata, usually fasciculate, sometimes solitary, emerging through stomata, upto 12, divergent, straight to bent, thin-walled simple. septate (0-4), dilated, denticulate, tip conic or narrowly rounded $6.00-39.03 \times 3.00-4.5\ \mu\text{m}$; conidia obclavate, pale olivaceous to light brownish (paler towards the tip), smooth, thick-walled (thinner towards the apex), pluriseptate, septa indistinct to distinct) at least 1-2 septa thick and black in colour). constricted at the septa, sometimes spore with beak like structures, base tapers to hilum, apex obtuse, $36.5-97.00 \times 3.00-60\ \mu\text{m}$ (Fig 2).

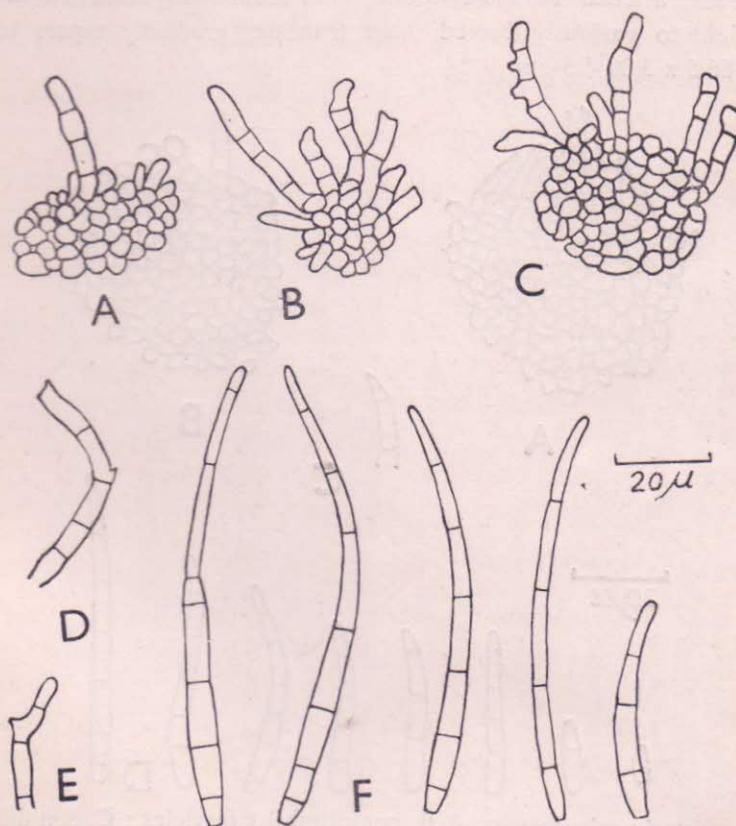


Fig. 2. *Pseudocercospora symploci*, A-C, conidiophore fascicles; D-E, conidiophores; F, conidia.

Specimen studied: On *Symplocos theaeifolia* Ham., (fam. Styraceae), Lataguri, Jalpaiguri, West Bengal, IMI 231249, leg. J. B. Ray, Jan. 20, 1978.

3. *Cercoseptoria epicoccoides* (Cooke and Massee) Ray, Comb. Nov. = *Cercospora epicoccoides* Cooke and Massee Grevillea 19 : 91 (1981).

Spots epiphyllous, sometimes hypophyllous, blackish brown to black, finally visible dark blackish pustules covering major portion of the leaf; caespituli ephiphyllous, effuse, punctiform; stroma present, prominently large, globose to slightly irregular, pseudoparenchymatous, emerging stomata, upto 120 mm in diam.; conidiophore stromatic, fasciculate, fascicles very dense, divergent, brownish to dark brown, paler and narrower towards the tip, width not uniform, unbranched, smooth, thick-walled indistinctly septate, acute, $9.00-33.00 \times 3.00-5.5 \mu\text{m}$; Conidia pale olivaceous, acicular to sub-cylindric, wall prominently thick, 1-6 indistinctly septate, straight to variously curved, base truncate, gradually tapers to obtuse apex, $21.00-66.5 \times 3.00-4.5 \mu\text{m}$.

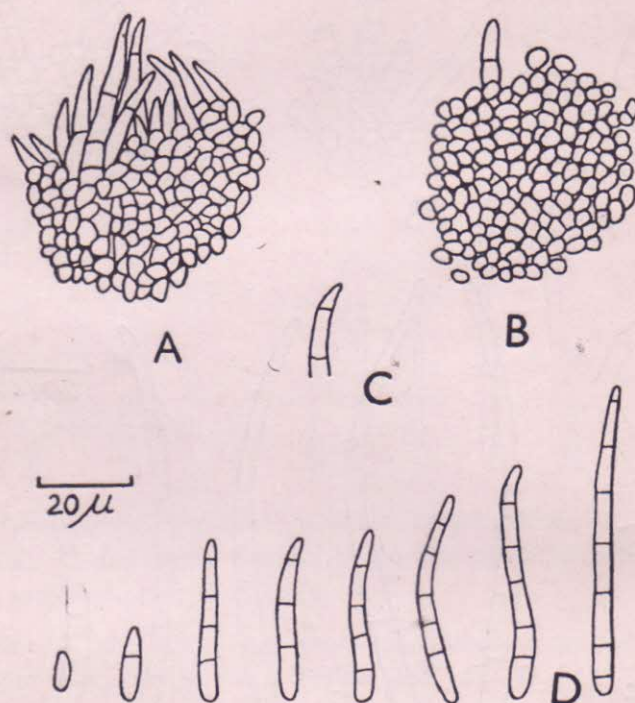


Fig. 3. *Cercoseptoria epicoccoides*, A-B, conidiophore fascicles; C, conidiophores; D, conidia.

Specimen studied: On living leaves of *Eucalyptus globosus* Lab. (fam. Myrtaceae), Jhargram, Midnapore, West Bengal, IMI 252968, leg. J. B. Ray, Nov. 24, 1979.

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