

REVISION ON THE GENUS *CERCOSPORA* FRES

BY

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Three new combination into *Pseudocercospora* Speg., have been collected, redescribed and figured from West Bengal (1977-1982) : *Pseudocercospora callicarpae*, *Ps. evolvuli* and *Ps. ziziphi*.

INTRODUCTION

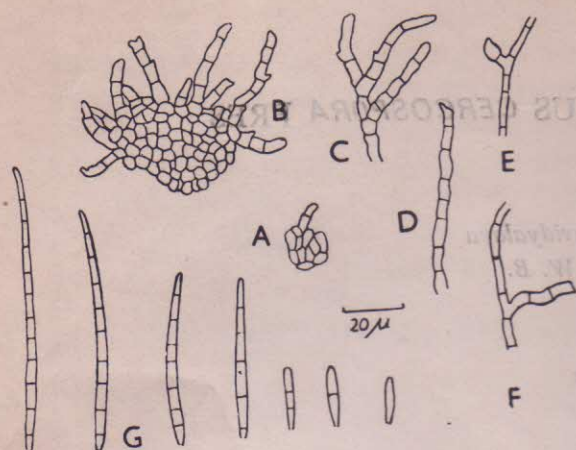
The taxonomic studies of the Dematiaceous hypomycetes reveal that many species already included in the genus *Cercospora* are to be transferred to more appropriate genus *Pseudocercospora* due to presence of broad conical denticle and unthickened conidial scar on the conidiogenous cells, coloured conidia, conidia with tapered to abruptly tapered basal cell to unthickened hilum (characteristics of *Pseudocercospora* Speg.)

On considering the above characteristics of *Pseudocercospora* Speg., (Ellis 1971 and Deighton 1973a, 1973b, 1974, 1976, 1979, 1983 and 1987), *Cercospora callicarpae* Cooke, *C. evolvuli* Chupp and *C. ziziphi* Petch are transferred to *Pseudocercospora* Speg., as new combinations.

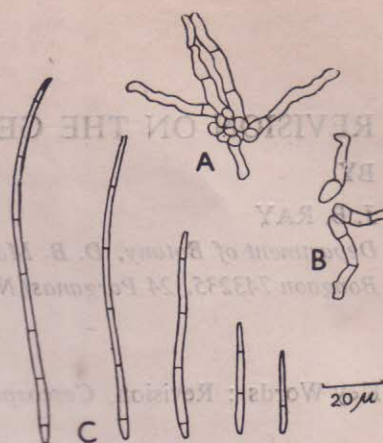
(1) *Pseudocercospora callicarpae* (Cooke) Ray, Comb. Nov.

= *Cercospora callicarpae* Cooke, Grevillea 6 : 140 (1875).

Spots amphigenous, circular to oval, pale brown with dark brown margin 1-5 mm in diam.; caespituli well developed on lower surface; mycelium both internal and external; external mycelial hyphae very pale olivaceous, thin-walled, septate, branched 1.5-2.00 μ m wide, producing conidiophores terminally and terminally from contiguous cells; stroma present; conidiophores arising from stroma, fasciculate (15), divergent, emerging through stomata, olivaceous brownish, simple or branched, smooth, thin-walled, straight to bent, sinuous, a few slightly geniculate, closely septate (0-7), denticulate, base slightly swollen, apex obtuse to rounded or wider with denticle, 21.5-63.5 x 3.00-4.5 μ m; scar lying flat against the side of the conidiophores; conidia obclavate-cylindric, pale olivaceous to light

Fig. 1. *Pseudocercospora callicarpae*

A-B, Conidiophore fascicles, C-D, Conidiophores,
E-F, Superficial hyphae bearing conidiophores;
G, Conidia.

Fig. 2. *Pseudocercospora evolvuli*

A-B, Conidiophores fascicles;
B, Conidiophores;
C, Conidia

brownish, smooth, thin-walled, pluriseptate (0-9), straight to mildly curved, basal cell tapers (some times abruptly) to hilum, obtuse at the tip, 9.00-89.00 x 2.00-3.00 μ m.

Specimen studied: *Callicarpa macrophylla* Vahl. (Fam. Verbenaceae), Dattapukur, 24 Parganas (N), West Bengal (IMI 234125), leg. J.B. Ray, Nov. 19, 1978.

(2) *Pseudocercospora evolvuli* (Chupp) Ray, Comb Nov.
= *Cercospora evolvuli* Chupp, A Monograph of the Fungus *Cercospora*,
P. 171 (1953).

Spots amphigenous, circular to irregular, dull reddish brown to light rusty brown, 0.5-2 mm in diam.; caespituli epiphyllous; stroma present; conidiophores fasciculate, upto 10, emerging through stomata, divergent, pale olivaceous brown, paler and narrower towards the tip, unbranched, smooth, thick-walled; variously curved, a few geniculate, slightly denticulate, base swollen, apex roundish, 10.5-36.5 x 2.00-4.5 μ m; conidia obclavate to acicular, slightly curved, indistinctly pluriseptate (0-7), base tapers to hilum, apex sharply conic, 30.5-121.00 x 2.00-3.00 μ m.

Specimen studied: On *Evolvulus nummularius* L., (Fam. Convolvulaceae)
Diamond Harbour, 24-Parganas (S), West Bengal, (IMI 234131), leg. J. B. Ray,
Nov. 20, 1978.

- (3) *Pseudocercospora ziziphi* (Petch) Ray, Comb. Nov.
= *Cercospora ziziphi* Petch.

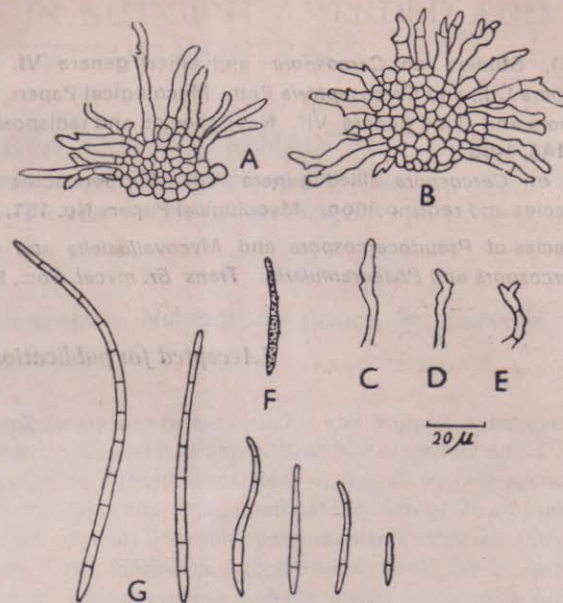


Fig. 3. *Pseudocercospora ziziphi*
A-B, Conidiophore fascicles; C-E, Conidiophores, F, Conidium showing globular structures on the surface, G, Conidia.

Spots amphigenous, circular to irregular, rusty brown surrounded by yellow halo, 0.5-5 mm extn.; caespituli punctiform, black pustules evenly distributed over the spot; mycelium internal; stroma present, well-developed; conidiophores arising from stroma, fasciculate, fascicles dense to very dense, in fascicles of 5-40, or sometimes more, emerging through stomata, divergent, light brownish, simple, smooth, thin-walled, continuous to septate, straight to bent, sinuous, dilated, geniculate, width not uniform, denticulate (denticle broad and blunt or short and conical), base swollen, apex bluntly rounded, scar dot-like (very small), $9.00-51.5 \times 3.00-4.5 \mu\text{m}$; conidia obclavate-cylindric, olivaceous, smooth, thin-walled, straight to curved, indistinctly pluriseptate, base tapers to hilum, apex obtuse, sometimes globular structures (larger and smaller) associated with spore wall, $7.5-104.5 \times 1.5-3.00 \mu\text{m}$.

Specimen studied: On *Ziziphus oenoplia* Mill (fam. Rhamnaceae), Gopal Nagar, Nadia, West Bengal (IMI 234120), leg. J. B. Ray, Nov. 17, 1978.

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