

A NEW GENUS OF PHRAGMOSPOROUS PHAEOSTILBEAE FROM A RUBBER ESTATE IN KERALA

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Received July 7, 1971

ABSTRACT

Dendrographiella podosporioides Gen. et sp. nov. collected on dried latex of rubber, *Hevea brasiliensis* Muell from Kerala State is described. The fungus forms septate porospores on synnemata.

ON dried latex drippings of *Hevea brasiliensis* Muell. a stilbaceous fungus was collected from Gokul Estate, near Trivandrum in Kerala State, India. In this paper the fungus is described.

In the classical Saccardo's system the fungus belongs to phragmosporous phaeostilbeae. It produces compact cylindrical synnemata which are mostly simple, rarely forked and the sporulating part is distributed all over the synnema. The conidiophores are slightly diverging apices of the individual hyphae comprising the synnema. They are cylindrical below, somewhat clavate above producing acropleurogenously phaeophragmous porospores in short basipetal chains that easily break away. The conidia are produced in true chains as in *Diplococcium* Grove or *Dendryphion vinosum* (Berk. et Curt.) Hughes.

The apex of the conidiophore is nearly round and the outer and inner walls come to an end abruptly thus delimiting a more or less cylindrical pore. The base of the conidium is obtuse.

The fungus collected by me is allied to *Dendrographium* Masee (1892) and *Podosporium* Schweinitz (1834). It is similar to *Dendrographium* in having catenulate conidia but differs from it in having the sporogenous part not restricted to the apex only and in this character, the fungus from Kerala is similar to *Podosporium* but in the latter the conidia are produced singly and not catenulately. *Podosporiella* Ellis and Everhart (1895) is different

from all the above fungi in having a pseudoparenchymatous stalk. As the fungus collected by me has characters common to *Dendrographium* and *Podosporium* I propose a new genus *Dendrographiella* with the new species *Dendrographiella podosporioides*.

Dendrographiella Gen. nov. Agnihothrudu

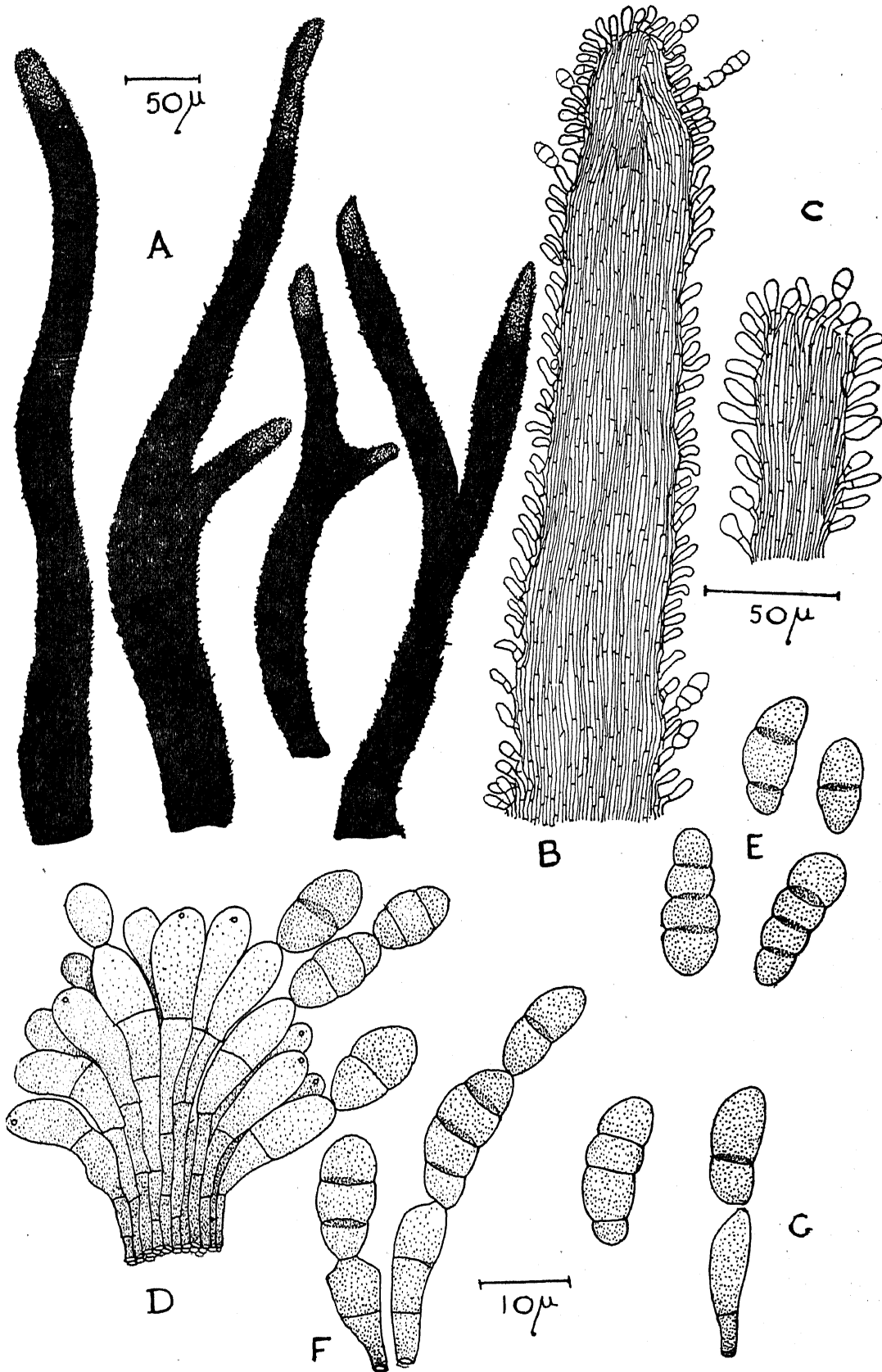
Synnemata gregarious erect or slightly curved, Conic, cylindric or subcapitate, 1-4 mm long, mostly simple, but occasionally forked with a slightly swollen base, composed of closely aggregated simple dark brown septate parallel hyphae. Fertile part all over the synnema, individual hyphae of synnema progressively becoming forked slightly diverging from the main body to form conidiophores, dark below, pale brown above, septate, cylindrical below, somewhat clavate above, mostly simple, rarely sparsely branched with an apical pore conidia dry, porospores typically phragmosporous, acropleurogenous formed in easily seceding basipetal chains, pale brown, cylindrical to oblong to elliptical with obtuse ends, thick smooth-walled, 2-3 septate.

Dendrographiella Gen. nov. Agnihothrudu

Pertinet ad Hyphomycetes porosporas producentes. Synnemata dense aggregata, erecta vel tenuiter curvata, conica cylindrica vel subcapitata, 1-4 mm longa, ut pleurumque simplicis sed nonnunquam furcata, ad basim tumescens. Basis consistit densis vel simplicibus brunneis hyphis septatis parallisque. Pars fertilis tota in synnema singulae hyphae gradatim bifurcatis et a stipes principalis divergentes ut conidiophoris efficient, quae subter nigrescant, supra clavatae generaliter simplices raro leviter truncatae poro singulo apicale praedita; conidia sicca producta in successione basi petali, typice phragmospora, acropleurogena, facile secedentibus catenis efformata pallide brunnea cylindrica, non raro oblonga vel elliptica utrumque apicem obtusa parietibus crassibus et laevibus, duo vel tres septata.

Dendrographiella podosporioides sp. nov. Agnihothrudu

The colonies are composed of gregarious synnemata, dark brown. The synnemata are straight or slightly curved, conic, cylindric or sub-capitate upto 4 μ long, upto 60 μ at the base and 30 μ at the top, simple, but occasionally forked once, composed of compactly packed parallel hyphae 2-4 μ in diameter. Fertile part distributed all over the surface of the synnema. The conidiophores are free ends of the individual hyphae which somewhat diverge from the main body to form conidiophores, dark brown, cylindrical,



septate pale brown clavate above, mostly simple, rarely sparsely branched, the free ends measuring 12–18 (–20) \times 4–5 (–6) μ with an apical pore. Conidia dry, acropleurogenous, single or in short basipetal chains of 3 or 4, which easily separate into individual conidia; conidia typically phragmosporous, 2–3 septate, pale brown, mostly cylindrical or oblong, sometimes elliptic with obtuse ends thick and smooth-walled, constricted at the septa 17–20 (–22) \times 5–6.5 (–8) μ .

Type collected on dried rubber trees (*Hevea brasiliensis* L.) in Gokul Estate, near Trivandrum, Kerala State, on 28–7–1970 by V. Agnihothrudu, deposited in Herbarium of Rallis India Limited, under No. 14.

SPECIES TYPICUS

Dendrographiella podosporioides sp. nov. Agnihothrudu

Coloniae consistunt synnematis gregaria et fuscae brunnea. Synnemata sunt erecta vel pauci curvata, conica cylindrical vel subcapitata usque 4 mm longa ad basim 60 μ ad apicem 30 μ latae simplicia sed occasionaliter unice furcata, composita densis et parallelis hyphae 2–4 μ lata, pars fertilis in tota superficie synnematae, conidiophoris efformant quae sunt brunneae cylindricae, septata fuscae brunnea, clavata vel subclavata generaliter simplicis nonnunquam furcata ferentes extremae liberae sunt 12–18 (–2) + 4–5 (–6) μ poro singulo apicali praedita. Conidia sicca, acropleurogena, singula vel catenulas factae brevissimus tribus aut quatuor quae facile conidiae fiunt. Conidia producta in successione basi petali typice phragmospora, 2–3 septata, pallide brunnea, cylindrica vel oblonga aliquando ellipticae cum extremis obtusis, parietibus crassibus et laevibus ad septatum sunt constrictae 17–20 (–22) \times 5–6 (–8) μ .

Typus lectus ex arboribus 'rubber' sicatis *Heveae brasiliensis* in agris Gokul, prope Trivandrum, Kerala, die 28–7–1970 a V. Agnihothrudu et positus in Herbario Rallis India Limited, Bangalore et positus sub numero 14.

ACKNOWLEDGEMENT

The author is grateful to Mr. D. K. Ghandhi, Director, Rallis India Limited, for permission to publish this paper and to Father C. E. George, Pastor, St. Joseph's Cathedral, Allahabad, U.P., for kindly rendering the Latin diagnosis.

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EXPLANATION OF FIGURE

Dendrographiella podosporioides Gen nov. Agnihotrudu. A, Synnemata. B and C, Synnemata enlarged showing conidiophores. D, E, F and G, Conidiophores bearing catenulate conidia (Porospores).