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ANOTHER PINK-SPORED AND BROWN-STALKED SPECIES OF STACHYBOTRYS

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SUMMARY

The new species *Stachybotrys palmijunci* Rifai is described and illustrated based on a collection on a decaying stem of the rattan *Daemonorhops melanochaetes* from West Java. It is compared with the closely related Javanese species *Stachybotrys bambusicola* Rifai.

Stachybotrys palmijunci Rifai, *spec. nov.* — Fig. 1.

Coloniae effusae, conspicuae, hirsutae, atro-brunneae. Mycelium immersum, ex hyphis septatis, ramosis, subhyalinis vel pallide brunneis, 1 — 6 µm crassis compositum. Stromata parva, superficialia vel partim immersa, ex cellulis brunneis, globosis vel subglobosis, 6 — 9 µm diam composita. Conidiophora solitaria vel rariter aggregata, ex stromata oriunda, simplicia, recta vel flexuosa, usque ad 275 µm longa, multiseptata, interdum perproliferationes elongascentia, laevia vel verrucosa, basi saepe inflata, brunnea, 7.2 — 10 µm diam., apice hyalina vel subhyalina, 3.3 — 5 µm diam. crassa. Phialides 5 — 7, terminales, laeves, hyalina, obovato-cylindratae vel musiformes, 9 — 12.5 µm longae et 4.5 — 5.5 µm crassae. Conidia in muco accumulata, hyalina vel salmonicoloria, laevia, ellipsoidea vel subfusoidea, 13.8 —18.4 × 4.5 — 5.5 µm.

As the general habit and the pigmentation of *Stachybotrys palmijunci* are very similar to those of *Stachybotrys bambusicola* Rifai described previously from Java (Rifai, 1964) it seems to be safe to suggest that the two species are closely related. However there are marked dissimilarities which qualify their separation as two distinct species. For example the shape of their respective phialides and conidia (phialospores) is different; their size also differs in such a way that the ratio of the length of the conidia and their subtending phialides is much longer in *Stachybotrys palmijunci.* Moreover the present species forms conspicuous blackish brown effuse colonies which are irregularly hirsute and similar in appearance to some species of *Colletotrichum.* In contrast the colonies of *Stachybotrys bambusicola* are mostly invisible to the unaided eye.

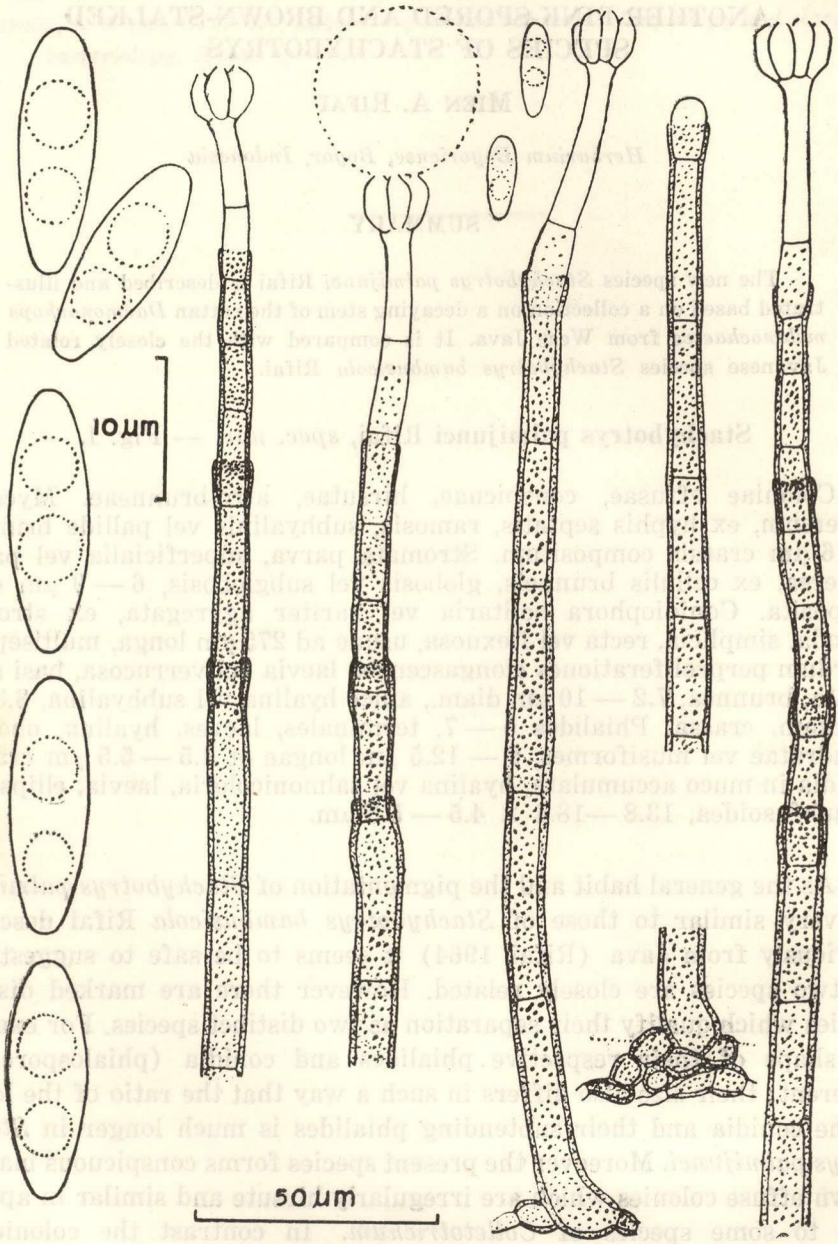


Fig. 1. *Stachybotrys palmijunci* Rifai. Conidia and conidiophores (from type specimen).

The mycelium is mostly immersed in the substrate. It consists of subhyaline to pale brown hyphae which are branched, septate and measure 1 — 9 μm diam. These hyphae aggregate irregularly to form poorly developed stromata which are partly superficial; their cells are smooth walled, brown, subglobose to globose, 6 — 9 μm diam.

The conidiophores arise from the stromata which are irregularly scattered on the surface of the substrate. These conidiophores usually arise singly from each stroma, but occasionally also arise in groups of two's or three's. They are erect and simple, straight or sometimes flexuous, many septate and may be up to 275 μm high. As in *Stachybotrys bambusicola*, the coniodiophores are capable of elongating by proliferations. They are dark reddish brown below, their walls thick and appearing slightly rough, becoming paler and thinner walled towards their apex, while the ultimate cell usually remains colourless and smooth walled. The conidiophores occasionally appear nodulose, but generally they taper gradually from 7.2 — 10 μm wide near the slightly swollen base to about 3.3 — 5 μm wide below the apex.

A whorled group of 5 — 7 phialides terminates each conidiophore. These phialides are hyaline, smooth walled, obovate-cylindrical to banana-shaped. They are 9 —12.5 × 4.5 — 5.5 μm, which is about half the length of phialides of *Stachybotrys bambusicola* which are 17 — 23 μm long by 4.5 — 7 μm wide.

As might be expected for a species of *Stachybotrys* the conidia are produced singly and successively from the apex of each phialide and accumulate in slime to form a common globose conidial head which appears shining pink when fresh. When viewed singly under the microscope these conidia are colourless, ellipsoidal to almost subfusoidal, smooth walled and containing two large oil globules. The size of these conidia are 13.8 — 18.4 × 4 — 5.8 μm and consequently appreciably longer but narrower than the mostly obovoidal conidia of *Stachybotrys bambusicola* which measure 10 — 15.5 × 6.5 — 8 μm.

The specific epithet "palmijunci" is derived from the Rumphian generic name *Palmijuncus* which covers several rattan genera. I should like to thank Dr. J. Dransfield (Bogor) for drawing my attention to this almost forgotten name.

JAVA. On decaying stem of the rattan *Daemonorhops melanochaetes* Bl., Cireungas, South of Sukaraja (Sukabumi), West Java, 17 October 1971, *M.A. Rifai* (typus, BO).

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RIFAI, M.A. (1964). *Stachybotrys bambusicola* sp. nov. *In* Trans. Br. mycol. Soc. 47: 269 - 272.

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