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Notes on *Veronaea* including *V. compacta* sp. nov.

M. C. PAPENDORF*

ABSTRACT

The genus *Veronaea* is discussed and a new species, *V.* **compacta** Papendorf described.

Résumé

NOTES SUR VERONAEA *INCLUANT* V. COMPACTA *SP. NOV.*

Le genre Veronaea *est discuté et une nouvelle espèce* V. **compacta** *Papendorf est décrite.*

The genus *Veronaea* was erected by Cifferi & Montemartini (1958) with type species *V. botryosa* and characterized as follows:

Dematiaceus, Didymosporeus, Macronemeus. Mycelium brunneum, dense ramosum, ex hyphis brunneis, parce irregulariterque septatis, compositum; conidiophora reptantia vel sub-assurgentia, consuete ramosa, brunnea, septata, apicaliter fertilia, sursum leviter incrassata aut clavata; conidia ex sterigmata oriunda, hyalina, elliptica vel mediocriter elongata, transverse 1-septata, dense botryoidea disposita; sterigmata minuta, typice in cochlam retorta, etiam irregulariter disposita.

Subramanian & Lodha (1964) described *Sympodina* (Type: *S. coprophila*), a Hyphomycete producing brown, two-celled, solitary, dry conidia at the tips and successively at the sympodially produced growing points of a simple or branched, brown, septate conidiophore. It has since been established (Papendorf, 1969; Ellis, 1971; De Hoog & Von Arx, 1973) that *S. coprophila* is identical with *V. botryosa*. Subramanian & Lodha (*l.c.*) found that *Sympodina* is similar to *Pleurophragmium* in its conidium ontogeny, but different in being didymosporous and not phragmosporous like the latter. Furthermore, that *Sympodina* appears to be congeneric with the *Cladosporium* sp. illustrated by Barron & Busch (1962, Fig. 20–22) and distinct from *Scolecobasidium* where the conidia are borne on definite denticles.

In a revision of *Scolecobasidium* and *Pleurophragmium* De Hoog & Von Arx (*l.c.*) compared a number of genera characterized by conidia borne on denticles and flat scars found on short ampulliform or more or less elongated conidiogenous cells. According to these authors *Scolecobasidium* is typified by ampulliform conidiogenous cells bearing a limited number (1–3) of two- to many-celled Y- or T-shaped conidia apically on cylindrical denticles. It closely resembles *Arxiella* which is characterized by reniform conidia with cornute ends.

As a result of this delimitation they found it necessary to transfer a number of *Scolecobasidium* species as well as *Veronaea simplex* (Papendorf, *l.c.*) to a new genus *Ochroconis* on the grounds that they all have more or less elongated conidiogenous cells with cylindrical denticles bearing 1–4-celled conidia apically and laterally and often forming a distinct rachis. The conidia are typical in having rounded ends with a conspicuous flat basal hilum. *Ochroconis* comes close to *Dactylaria* but in the latter the conidia are fusiform with gradually tapering ends and the denticles short and flattened. De Hoog & Von Arx (l.c.) considers *Pleurophragmium* to be congeneric with *Dactylaria*. In *Phaeoisaria* the conidia are also more or less fusiform but not pigmented and mostly 1-celled. *Veronaea* closely resembles *Ochroconis*, but differs in bearing its conidia on flattened scars which are often pigmented.

Veronaea compacta *Papendorf*, sp. nov.
Figure 1,2.

Coloniae in agaro malti tarde crescentes ad diam. 1,5 cm quattuordecim diebus apud 25 °C attingentes, effusae, gossypinae, ad partem mediam subelevatae, subgriseae ad subfusce griseas, retrorsum fusco-griseae; exudatum absens. *Hyphae* partim immersae, ramosae, septatae, pallide sive dilute olivaceum brunneae, 1,5–3,0 μm diam. *Conidiophora* lateralia sive raro terminalia in hyphis, saepe latiora quam hypha fulciens atque usque ad 4 μm diam., macronematoidea, mononematoidea, simplicia vel ramosa, unicellularia sive multicellularia cellis saepe inflatis et ampullaceis sive doliformibus, pallide ad olivaceum brunnea, rare 50 μm longitudine excedentia; regio fertilis definita rare amplius quam 10 μm in longitudinem. *Cellae conidiogeneae* integrae, terminales vel aliquando intercalares, polyblasticae, sympodicae, cylindraceae ad doliformes sive ampullaceas, cicatricatae inconspicuis planisque cicatribus. *Conidia* in racemulis nascentia, solitaria, arida, acropleurogena, elliptica ad ovoidea sive oblonga ad subcylindracea, apicaliter rotundata atque ad hilum latum truncatumque basaliter attenuata, glabra, obscure colorata ad pallide brunea, continua vel uno septo medio praedita, rare biseptata, saepe ad septum colligata, (4) 5–9 × 2,5–3,5 (4) μm, quoad rationes longitudinis latitudinisque 2: 1–3: 1.

Colonies on malt agar slow growing reaching a diam. of 1,5 cm in 14 days at 25 °C, effuse, cottony, slightly raised in the centre, light grey to pale brownish grey, reverse dark grey, exudate absent. *Hyphae* partly immersed, branched, septate, pale to light olivaceous brown, 1,5–3,0 μm diam. *Conidiophores* lateral or occasionally terminal on hyphae, often wider than supporting hypha and up to 4 μm diam., macronematous, mononematous, simple or branched, one- to many-celled with the cells often inflated and flask-shaped or doliform, pale to olivaceous brown, rarely exceeding 50 μm in length, fertile region limited and seldom more than 10 μm long. *Conidiogenous cells* integrated, terminal or occasionally intercalary, polyblastic, sympodial, cylindrical to doliform or flask-shaped, cicatrized with scars inconspicuous and flat. *Conidia* produced in small clusters, solitary, dry, acropleurogenous, ellipsoidal to ovoid or oblong to subcylindrical, rounded apically and tapering to a wide truncate hilum basally, smooth, faintly coloured to pale brown, continuous or with a single median septum, rarely 2-septate, often constricted at the septum, (4) 5–9 × 2,5–3,5 (4) μm, length/width ratio 2:1–3:1.

* Institute for Botanical Research, Potchefstroom University, Potchefstroom.

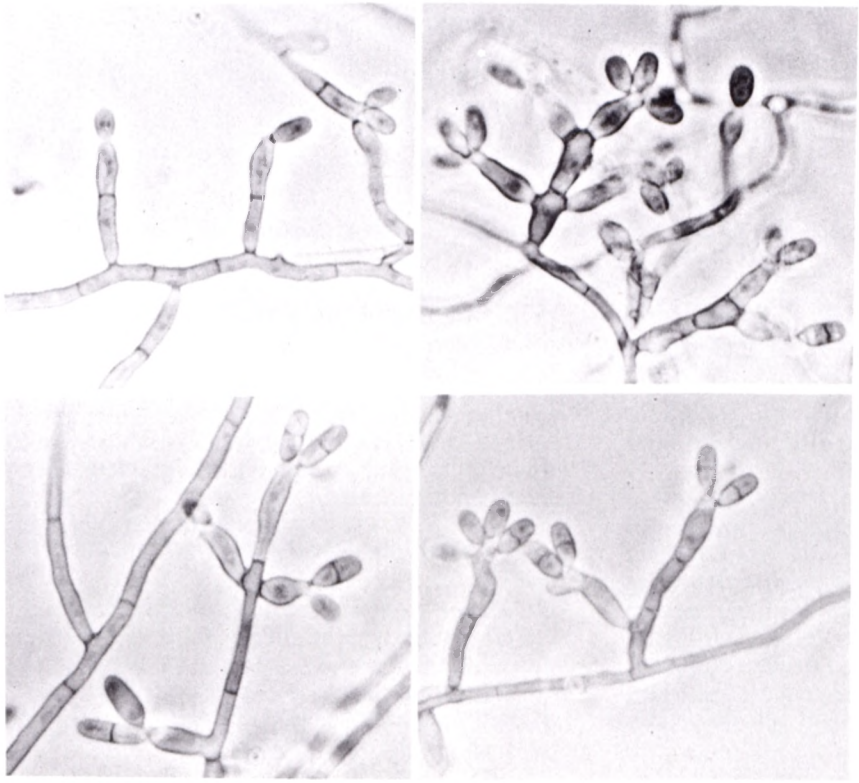

FIG. 1.—Conidia and conidiophores of *Veronaea compacta*, x2000.

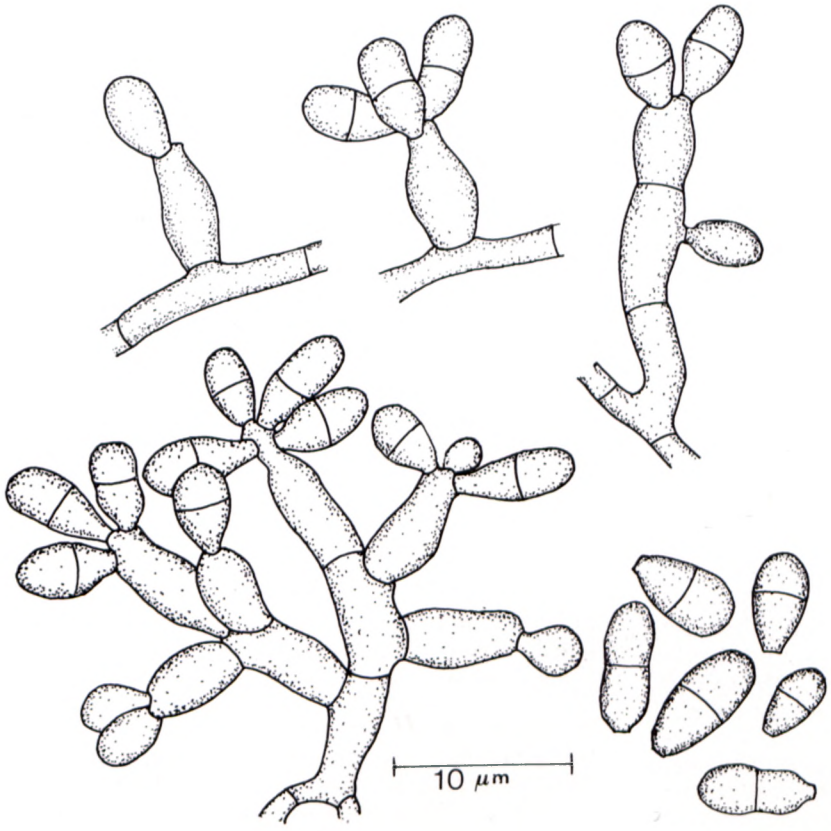

FIG. 2.—Conidia and conidiophores of *Veronaea compacta*.

Isolated from soil, Kosi Bay, Republic of South, Africa, April 1974, M. C. Papendorf. PREM 44958, dried culture on 1,5% malt agar, National Herbarium Pretoria, Holotype. Transfers of the holotype have been deposited in the Potchefstroom University Culture Collection (No. 1222) and in the Centraalbureau voor Schimmelcultures, Baarn, Netherlands.

In this study *Veronaea compacta* was compared with various isolates of *V. botryosa*, i.e. live subcultures of the types of Cifferi & Montemartini (C.B.S. 360.65), Subramanian & Lodha (C.B.S. 254.57) and an isolate from decomposed cellulose (Papendorf & Jooste, 1974; C.B.S. 474.71). It was established that *V. compacta* differs from *V. botryosa* mainly in the characters of the colonies, conidiophores and conidia. On malt agar the growth rate of the colony is considerably slower than in *V. botryosa*, the colony diameter for the two species being 1,6 and 2,8 cm respectively after 14 days at 25 °C. The conidiophores are not as long and flexuous as in *V. botryosa* but usually short and aften compactly branched. The cells of the main axis and its branches are mostly relatively short and often inflated and wider than the supporting hypha. The terminal conidiiferous region is limited and produces only limited numbers of conidia in loose, terminal clusters and never forms a long, conspicuous, rachis-like structure of up to 200 μm as in *V. botryosa*. On the whole the conidia of *V. compacta* are shorter than those of *V. botryosa* and very rarely over 9 μm long. The length/width ratio is 2:1–3:1 while in *V. botryosa* it reaches 4:1 or even 5:1.

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UITTREKSEL

Die genus Veronaea *word bespreek en 'n nuwe species,* V. **compacta** *Papendorf beskryf.*

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