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More Dematiaceous *Hyphomycetes* from Pantelleria Mediterranean maquis litter

Abstract

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This is the second contribution to the knowledge of Dematiaceous Hyphomycetes found on different plant litters and collected from Pantelleria mediterranean maquis. Four new species are proposed while others are identified only as genera because of the scanty material found.

Key words: saprotrophic Dematiaceous Hyphomycetes, Mediterranean maquis, Pantelleria.

Introduction

The results of a second investigation carried out on litter samples belonging to Mediterranean maquis of Pantelleria island are here reported. The material examined was collected on September 2008, after a dry summer, in the area of Montagna Grande and Santa Teresa, both characterized by a high vegetation, exposed to moist atmospheric conditions on the top of Montagna Grande and to dryer conditions in the surroundings of Santa Teresa. Sixteen specimens were described, four of which as new species and four as genera because of the poor material examined.

Materials and methods

In this paper we employed the same techniques described in a previous contribution (cfr. Rambelli & al. 2008). All the specimens were documented by photographs and drawings just to respect the proportions of the different mycological structures. The morphological descriptions concern all the specimens investigated including the most common species in order to point out small differences when compared to the original descriptions and presumably determined by substratum compositions or environmental conditions.

Taxonomy

Pleurophragmium tricolor Rambelli sp.nov. (Fig. 1)

Type species: *Pleurophragmium simplex* (Berk & Br.) Hughes, 1958.

Etym.: Conidia composed by three cells of different colour.

Coloniae parvae, inconspicuae. Mycelium fere immersum. Conidiophora macronematoso, mononematoso, solitaria, erecta, simplicia, septata, infra atro-brunnea, apicem versus pallide brunnea, 196-200x5-7 μm . Cellula conidiogena integrata, polyblastica, sympodialiter prolifera, denticulis praedita. Conidia clavata, apice rotundata basi peranguste acuminata, 2-septata, non constricta ad septa, cellula apicalis hyalina, centralis brunnea, terminalis dilute brunnea, 17-18x4-5 μm .

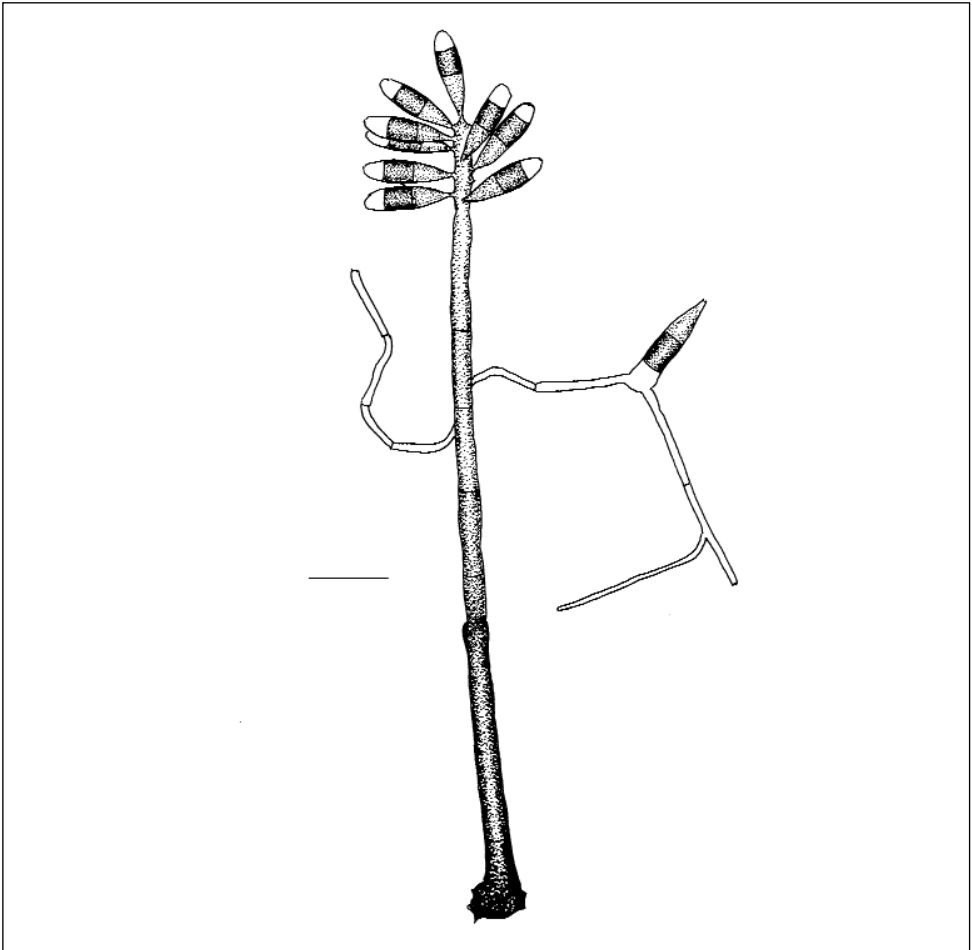


Fig. 1. *Pleurophragmium tricolor* sp.nov. conidiophore and a germinating conidium. Bar 20 μm .

Colonies not crowded, composed by isolated conidiophores. Conidiophores macronematous, mononematous, unbranched, straight or slightly flexuous, brown, dark-brown at the base and clearer towards the conidiogenous cell, smooth, 196-200x5-7 µm conidiogenous cell included. Conidiogenous cell polyblastic, integrated, terminal, sympodial, with short cylindrical denticles tapered to a point. Conidia solitary, dry acropleurogenous, ellipsoidal with rounded apex and pointed base, 2-septate, with hyaline apical cell, brown central cell and clear brown basal cell, smooth, 17-18x4-5 µm .

On dead leaves of *Arbutus unedo* (a7). Montagna Grande, Pantelleria.

Holotype kept in the *Herbarium Mediterraneum Panormitanum* (PAL).

Some morphological characters, like the three celled conidia with different pigmentation, are not present in the descriptions of the well-known taxa of the genus. The new species *Pleurophragmium tricolor* is here proposed.

Material examined

ROHB 483 *P. cylindrosporum* on *A.unedo*, Montagna Grande, Pantelleria; ROHB 438 *Cordana pauciseptata* on *Caloncoba brevipes*, Tai-Ivory Coast Forest; ROHB 460 *Pseudospiropes simplex* on *Diospyros sanza-minika*, Tai-Ivory Coast Forest; ROHB 428 *P. nodosus* on *Drypetes aylmeri*, ROHB 460 on *D. sanza-minika*, ROHB 464 on *Homalium aylmeri*, Tai-Ivory Coast Forest; ROHB 405 *Dactylaria* sp. on *Anthonotha fragrans*, Tai-Ivory Coast Forest; ROHB 435 *Anungitopsis triseptata* on *Newtonia duparquetiana*, ROHB 456 on *Corynanthe pachyceras*, Tai-Ivory Coast Forest; ROHB 508 *Dactylaria* sp. on indeterminate dead leaves, Rincon Forestry Area, Costa Rica.

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Polyscytalum fecundissimum Riess, 1853. (Fig. 2)

Type species: *Polyscytalum fecundissimum* Riess, 1853.

Colonies very clear brown, composed by very crowded conidiophores. Conidiophores macronematous, mononematous, apically repeatedly branched, straight or gently flexuous, brown at the base and clearer at the apices, 66-110x4-6 µm conidiogenous cell included. Conidiogenous cells polyblastic, integrated, terminal on branches of two or three level, rarely on conidiophores, determinate, with short and pretty wide pegs. Branches of first level can produce conidia as the branches of second and successive levels. Conidia in acropetal and very long chains, fragmenting and developing on short pegs, cylindrical, with rounded apices, hyaline, smooth, sometimes 1-septate, 13-23x3 µm. On dead leaves of *Pistacia lentiscus* (a10). Montagna Grande, Pantelleria. The herbarium specimen is kept in PAL.

Sutton and Hodges (1977) described *P. truncatum* from *Eucalyptus* litter as a different taxon if compared with *P. fecundissimum*. The differences could be summarized as terminal or intercalary, determinate, conidiogenous cells on the conidiophores main axis and more frequently discrete arranged on the first branches of the conidiophores. *P. fecundissimum* and our strain are characterized by very long conidial chains originating from conidiogenous cells on branches of different level, not discrete and, in our strain, very rarely integrated on conidiophores.

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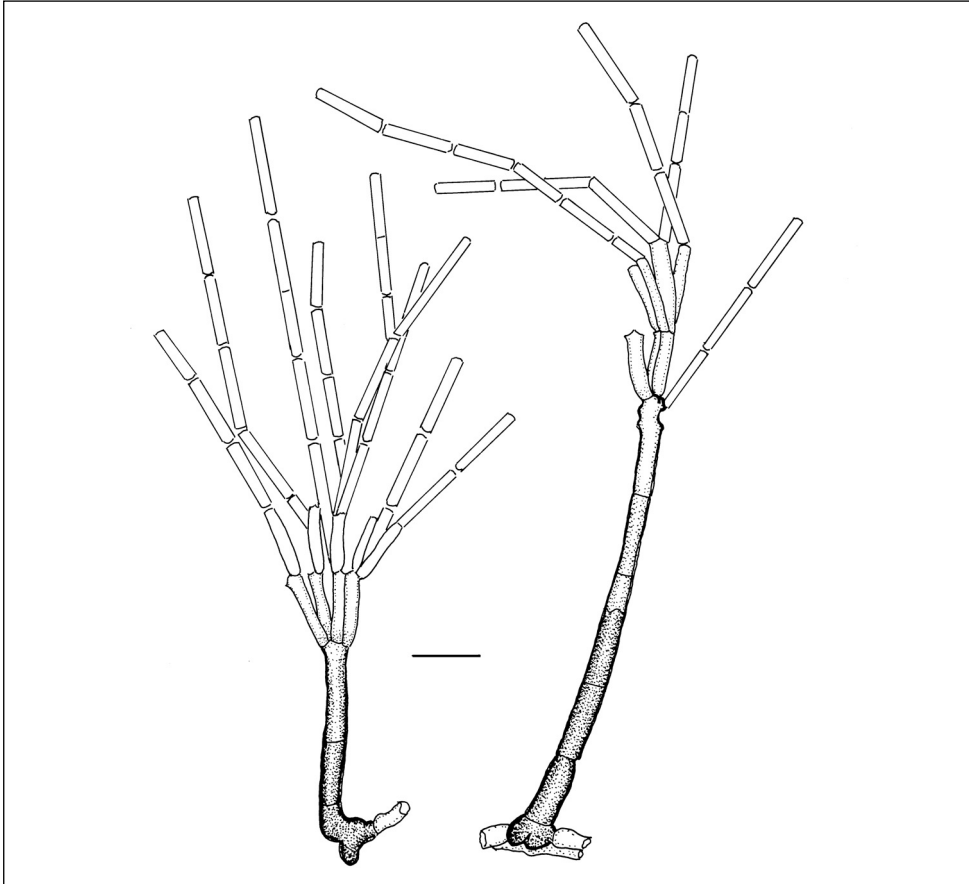


Fig. 2. *Polyscytalum fecundissimum* Riess, conidiophores with acropetal chains of conidia. Bar 14 μ m.

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Anungitea fragilis Sutton, 1973. (Fig. 3)

Type species: *Anungitea fragilis* Sutton, 1973.

Colonies not crowded, composed by solitary conidiophores. Conidiophores macronematous, mononematous, solitary, erect or slightly sinuous, brown, olive-brown, clearer towards the apices, smooth, septate, 51-106x4 µm conidiogenous cell included. Conidiogenous cell growing sympodially, denticulate, denticles prominent and cylindrical. Conidia in acropetal chains, cylindrical, hyaliner, smooth, truncated and cicatrized at the ends, 0-1-septate, 12-21x3 µm.

On dead leaves of *Pistacia lentiscus*. Montagna Grande, Pantelleria

The herbarium specimen is kept in PAL.

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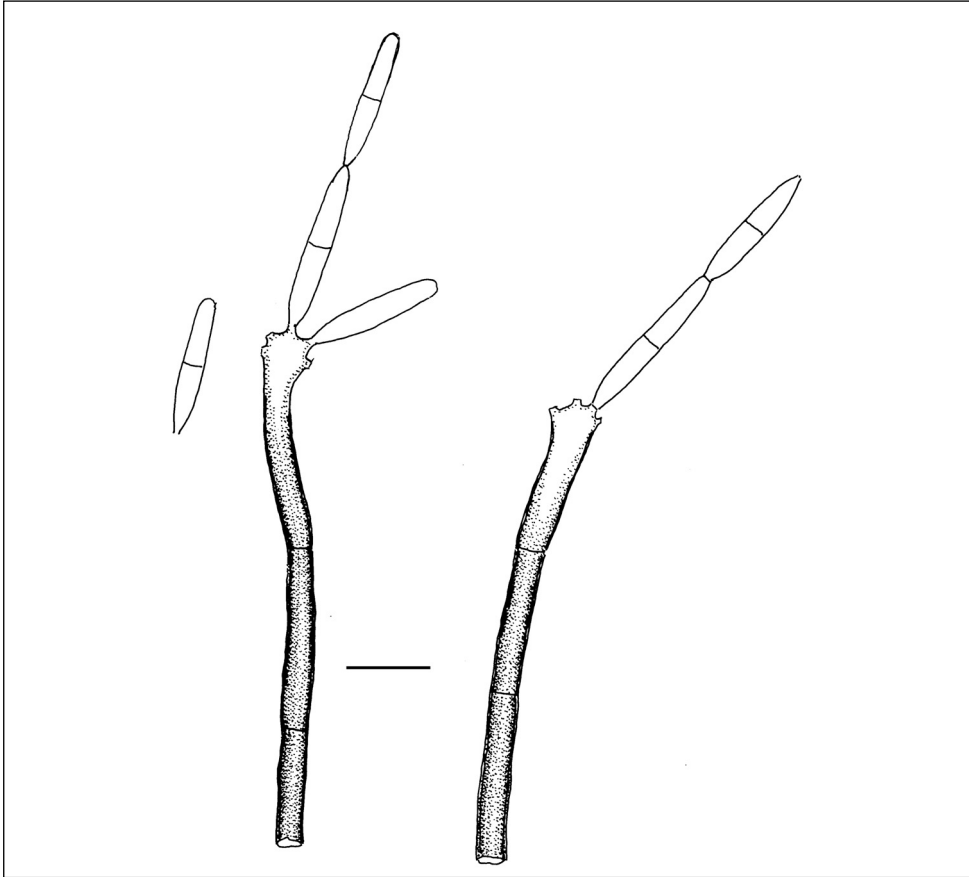


Fig. 3. *Anungitea fragilis* Sutton, conidiophores and conidia. Bar 10 μm .

Anungitea riessi Rambelli & Ciccarone sp. nov. (Fig. 4)

Type species: *Anungitea fragilis* Sutton 1973.

Etym. dedicated to Dr. S. Riess, mycologist.

Conidiophora macronematosa, mononematosa, solitaria, simplicia, erecta, septata, brunnea; apicem versus modice brunnea, 165-170x5 μm . Cellula conidiogena modice brunnea, prominenter denticulata per proliferationes sympodiales; denticula cylindracea acutis angulis disposita. Conidia cylindracea, fusiformia, in catenas acropetas disposita, hyalina, 1-septata, 10-16x3-4 μm .

Colonies not crowded, composed by conidiophores solitary. Conidiophores macronematous, mononematous, unbranched, straight, smooth, brown, dark-brown, clear brown towards the apex, septate, 165-170x5 μm conidiogenous cell included. Conidiogenous cells clear brown, growing sympodially with production of cylindrical and not crowded

denticles disposed at acute angle on the conidiogenous cell. Conidia in acropetal chains, cylindrical-fusiform, pointed at the ends when into the chain and with rounded apex when at the apex of the chain, hyaline, smooth, 1-septate, 10-16x3-4 μm .

On dead leaves of *Arbutus unedo* (a7-1). Montagna Grande, Pantelleria

The holotype is kept in PAL.

The species described is characterized by very different conidiogenous cells if compared to *A. fragilis* and *A. raimondoi* (Rambelli & al. 2008) both with cylindrical denticles disposed at right angles, crowded and covering the entire conidiogenous cell. In our strain the sympodial denticles are cylindrical but not crowded and are disposed at acute angles on the conidiogenous cell. Because of this character we propose *A. riessi* as a new species.

Material examined

ROHB n. *Anungitea fragilis* on *Pistacia lentiscus*, Pantelleria; ROHB n. 475 *Anungitea fragilis* on *Uapaca guineensis*, Tai-Ivory Coast Forest; ROHB n. 483 *A. raimondoi* on *Arbutus unedo*, Pantelleria; ROHB n. 435 *Anungitopsis triseptata* on *Newtonia duparquetiana*, ROHB n. 456 on *Corynante pachyceras*, Tai-Ivory Coast Forest.

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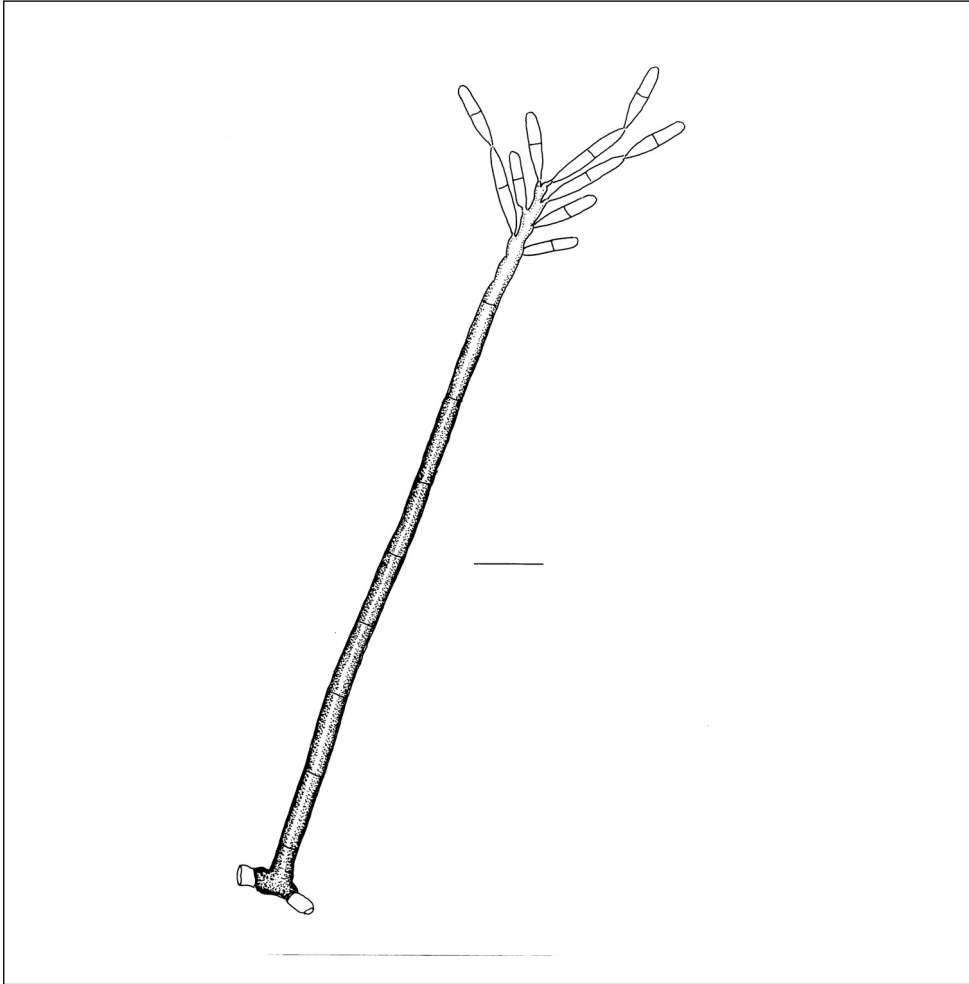


Fig.4. *Anungitea riessi* sp. nov. Conidiophore and conidiogenous cell with denticles disposed at acute angle. Bar 10 μ m.

Matsushima, T. 1975: *Icones Microfungorum a Matsushima Lectorum*. – Kobe.

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Anungitea sp. (Fig. 5)

Type species: *Anungitea fragilis* Sutton, 1973.

Colonies composed by solitary and rare conidiophores. Conidiophores macronematous, mononematous, erect, compact and columnar, septate, smooth, chestnut brown in colour,

clear brown towards the apices, not branched, 143-227x5-11 μm , conidiogenous cell included. Conidiogenous cells sympodial, with prominent and cylindrical denticles together collected at the apex, clear brown. Conidia in acropetal chains, cylindrical-fusiform, 3-septate, constricted at the septa, pointed at the apices, with rounded apex when at the end of the chain, hyaline, smooth, 25-33x4-5 μm .

On dead leaves of *Myrtus communis*. Montagna Grande, Pantelleria.

The holotype is kept in PAL.

The specimen described show very peculiar morphological characters like the structure of the columnar conidiophore, the conidia constricted at the septa and produced only at the apex of the conidiogenous cells. These characters, very different from those of the species actually described, could justify the proposal of a new species. The scanty examined material and the possibility to collect and study new samples of *Myrtus* litter in future time obliged us to consider it as undetermined.

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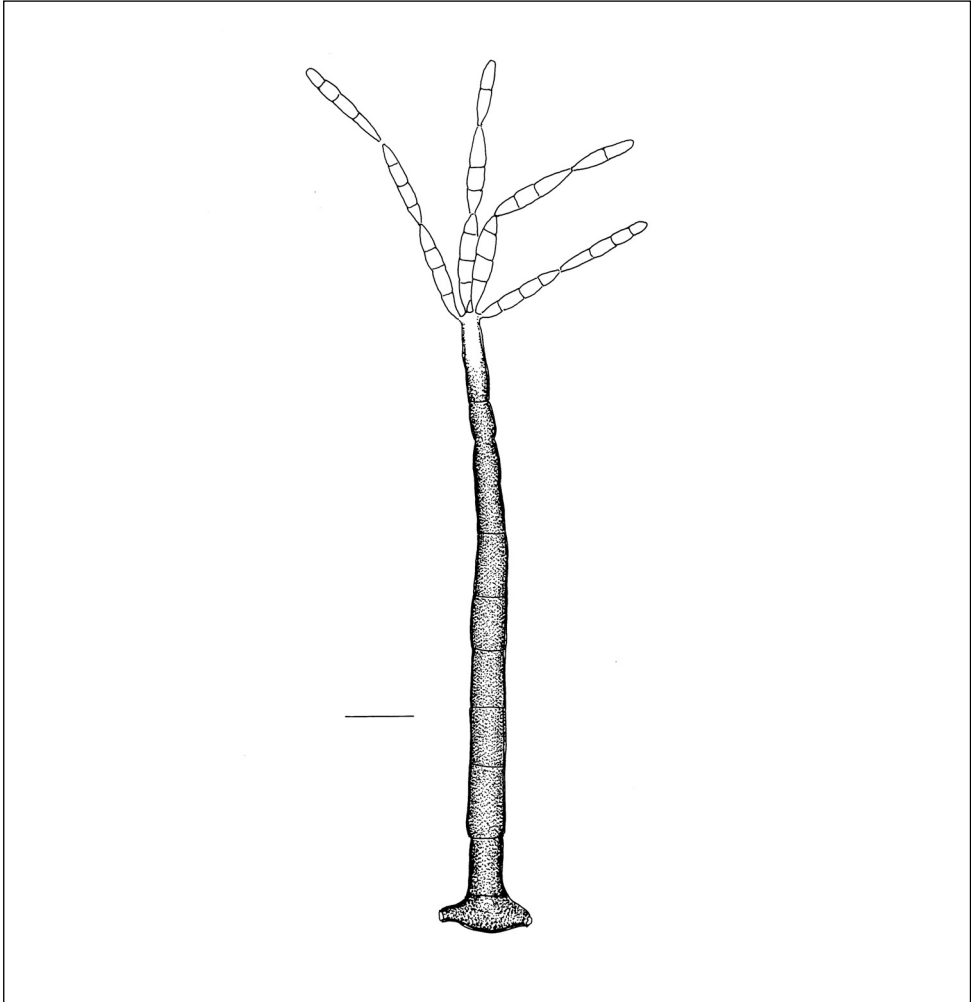


Fig. 5. *Anungitea* sp. columnar conidiophore, conidia constricted at the septa. Bar 20 μ m.

Anungitopsis triseptata (Matsushima) Castaneda & Kendrick, 1991. (Fig. 6)

Type species: *Anungitopsis speciosa* Castaneda Ruiz & Kendrick, 1990.

Colonies not crowded, composed by solitary conidiophores. Conidiophores macronematous, mononematous, erect, straight or sometimes flexuous, not branched, dark-brown at the base and clearer towards the apices, 270-300x6-10 μ m. Conidiogenous cells developing sympodially, with cylindrical denticles becoming flattened with the development of the conidiogenous cell, clear brown, 19-42x5-6 μ m. Conidia in acropetal chains, cylindrical, pointed at the apices, but with rounded apex when at the end of the chain, 3-septate, with brown central cells and hyaline extremities, 22-30x4-5 μ m.

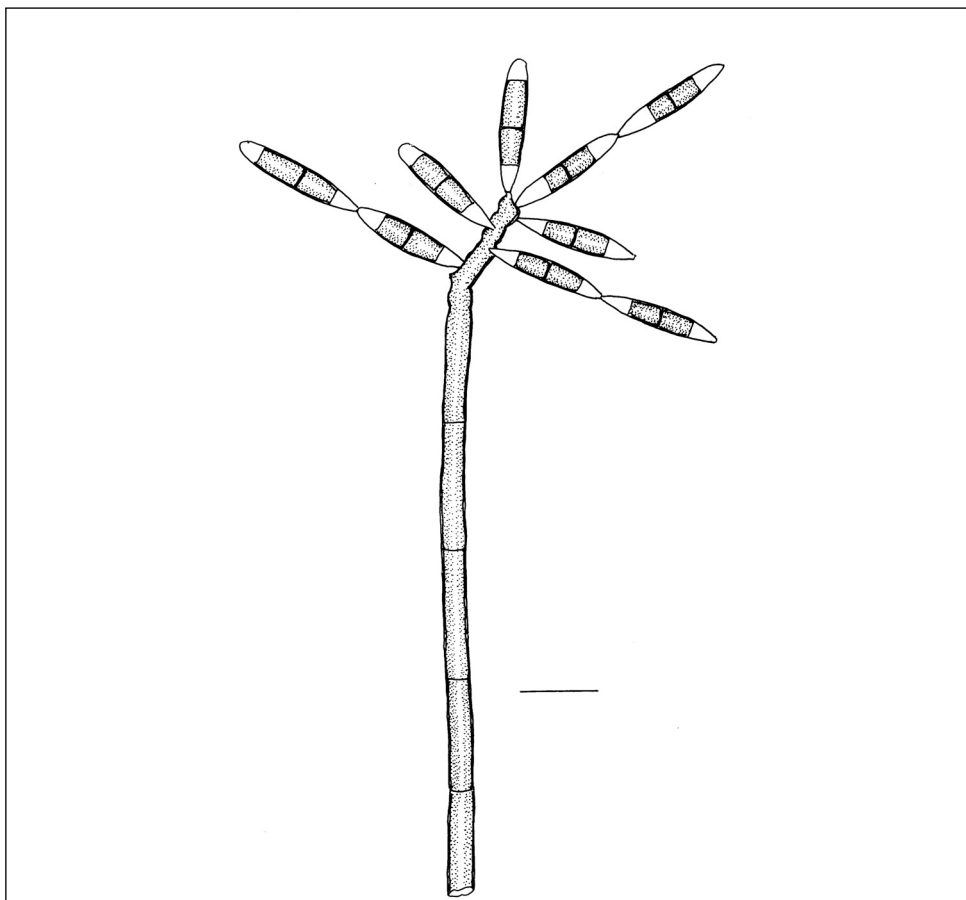


Fig. 6. *Anungitopsis triseptata* (Matsushima) Castaneda Ruiz & Kendrick, conidiophore and conidia in acropetal chain. Bar 18 μm .

On dead leaves of *Quercus ilex* (c1). Montagna Grande, Pantelleria.
The herbarium specimen is kept in PAL.

Matsushima (1975) described this species as *Anungitea triseptata*, in fact it presents conidiogenous cells with cylindrical denticles, however becoming flattened with successive sympodial development of the fertile part. On the basis of this character Castaneda Ruiz and Kendrick (1991) proposed a new combination named *Anungitopsis triseptata*.

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Anungitopsis pantelleriae Rambelli & Ciccarone sp. nov. (Fig. 7)

Type species: *Anungitopsis speciosa* Castaneda Ruiz & Kendrick, 1990

Etym.: dedicated to Pantelleria island.

Coloniae effusae, sparsae, conidiophoris solitaria constituta. Conidiophora macronemata, mononemata, numquam ramosa, solitaria, erecta vel modice flexuosa, septata, brunnea, apicem versus modice brunnea, 126-205x6 µm. Cellulae conidiogenaе modice brunneae, polyblasticae, in conidiophoris incorporatae; terminales, sympodiales, cicatricosae. Conidia cylindracea-fusiformia vel falcata, in catenas acropetas, hyalina, 3 (-4)-septata, apice truncata, 20-30x5-6 µm. In foliis dejectis *Pistacia lentiscus*. Monte Gibeles, Pantelleria.

Colonies not crowded, composed by conidiophores solitary. Conidiophores solitary macronematous, mononematous, erect, straight or slightly flexuous, dark-brown at the base and clearer at the apex, 126-205x6 µm, conidiogenous cell included, Conidiogenous cells not denticulate, with cicatrized conidiogenous loci, very irregular in shape and dimensions, 27-36x5 µm. Conidia cylindrical-fusiforms, sometimes curved, hyaline, smooth, 3-(-4) – septate, in acropetal chains, with trunked apices, rounded when at the top of the chain, 20-30x5-6 µm but elongating during the conidiogenesis.

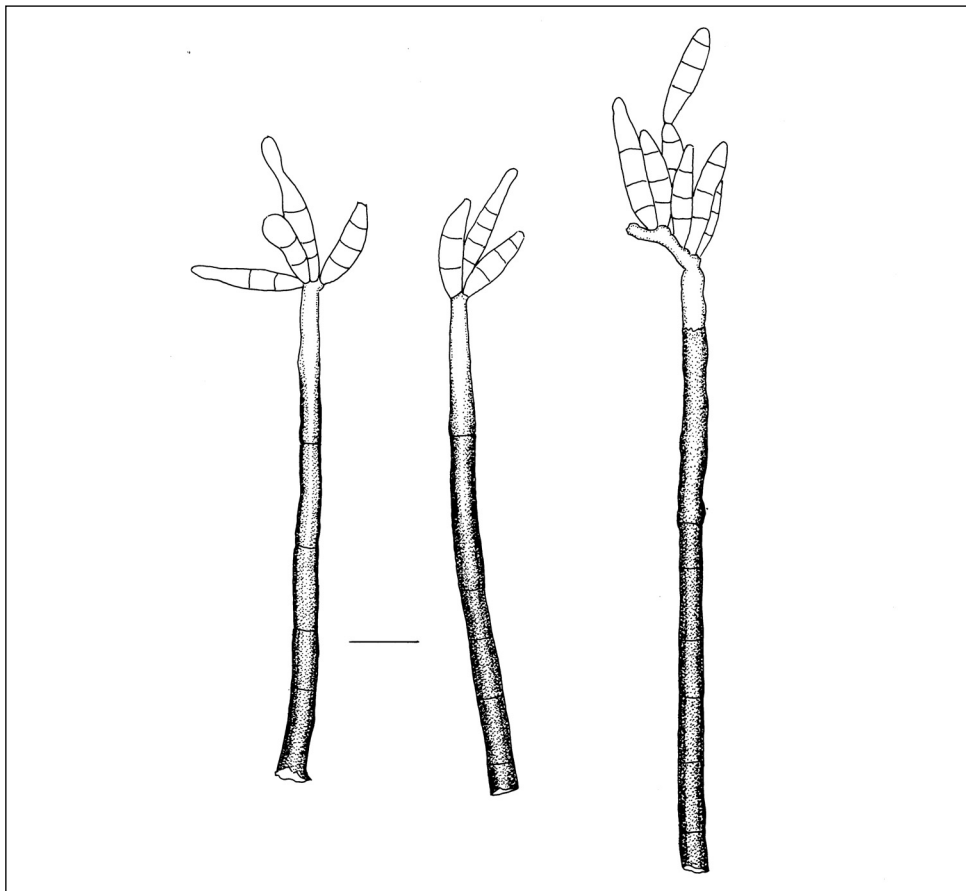


Fig. 7. *Anungitopsis pantelleriae* Rambelli & Ciccarone sp.nov. with conidia very irregular in shape and dimensions. Bar 15 μ m.

On dead leaves of *Pistacia lentiscus*. Monte Gibele, Pantelleria.
The holotype is kept in PAL.

The specimen show some morphological characters not found in the known species of the genus *Anungitopsis*, like the conidiogenous cells without denticles and only with pretty large cicatrized conidiogenous loci, the very irregular conidia in form and dimensions and characterized by large trunked ends. Because of these characters we propose the new binomial *Anungitopsis pantelleriae*.

Material examined

Anungitea fragilis on *Pistacia lentiscus*, Pantelleria; ROHB n. 475 *Anungitea fragilis* on *Uapaca guineensis*, Tai-Ivory Coast Forest; ROHB n. 483 *A. raimondoi* on *Arbutus*

unedo, Pantelleria; ROHB n. 435 *Anungitopsis triseptata* on *Newtonia duparquetiana*, ROHB n. 456 on *Corynante pachyceras*, Tai-Ivory Coast Forest.

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Anungitopsis sp. (Fig. 8)

Type species: *Anungitopsis speciosa* Castaneda Ruiz & Kendrick, 1990.

Colonies composed by solitary conidiophores. Conidiophores macronematous, monone-matous, straight or slightly flexuous, septate, dark-brown, clearer towards the apex, smooth, 224-238x8 µm. Conidiogenous cells clear brown, growing sympodially, with a cylindrical denticle at the apex and flat scars immediately in the lower part. Conidia in short acropetal chains, cylindrical, truncate in the chain and with rounded apex at the top of the chain, 1-septate, hyaline, 12-17x3-4 µm.

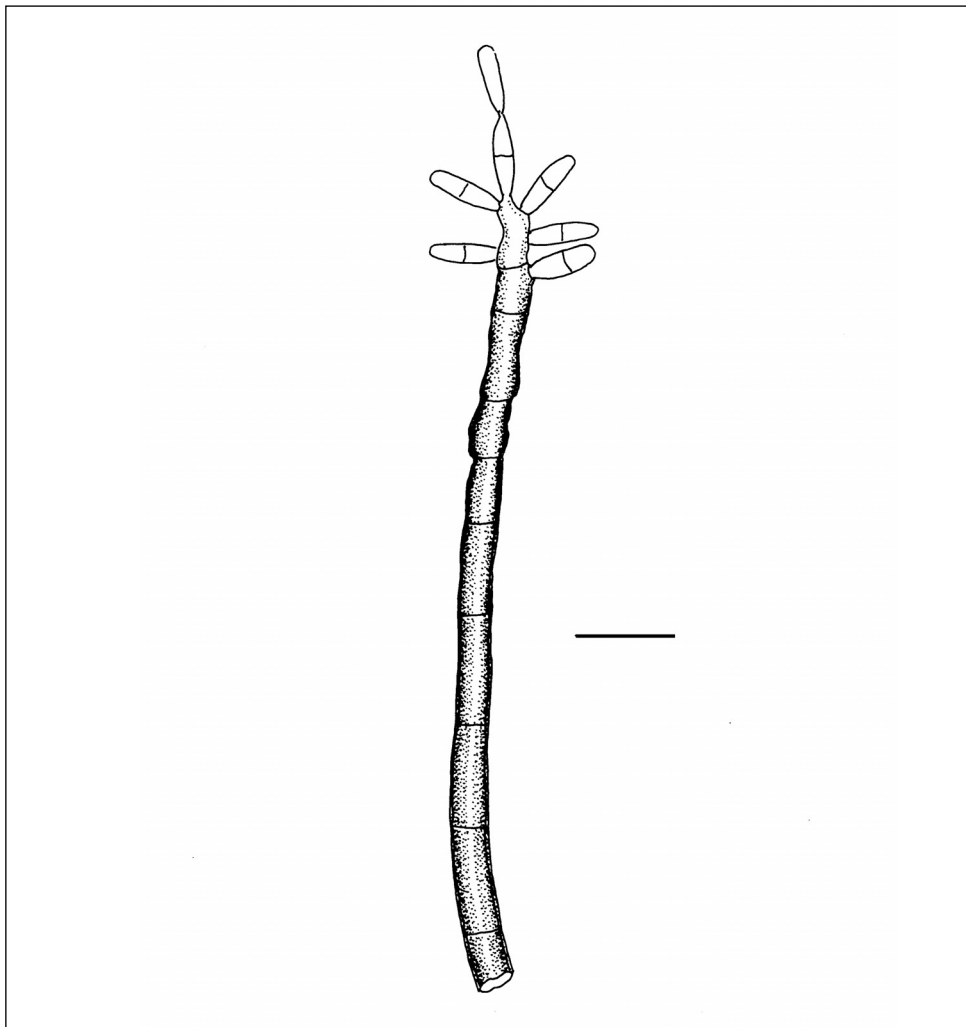


Fig. 8. *Anungitopsis* sp. Bar 20 μ m

On dead leaves of *Pinus pinaster* subsp. *hamiltonii*. Montagna Grande, Pantelleria.
The holotype is kept in PAL.

Matsushima (1975) described *Anungitea longicatenata* with some morphological characters showed also by our strain, like the shape and dimension of the conidia. However our strain has conidiogenous cells denticulate only at the apex during the production of a new conidium and with the other conidial loci flat and cicatrized. In this respect we include our strain in the genus *Anungitopsis* (Castaneda Ruiz & Kendrick, 1990), nevertheless since we observed only scanty material we decided to leave it as indeterminate.

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Sympodiella acicola Kendrick, 1958. (Fig. 9)

Type species *Sympodiella acicola* Kendrick, 1958.

Colonies not crowded, composed by isolated conidiophores. Conidiophores macrone-matous, mononematous, erect, frequently flexuous and branched, septate, brown, yellow brown, clearer at the apices, 29 (-59)-137x4-5 µm, conidiogenous cell included. Conidiogenous cells terminal, polyblastic, sympodial, clear brown, with large scars and 1 or 2 large apical denticles. Conidia in acropetal chains, cylindrical, with trunked ends when into the chain and with rounded apex at the apex of the chain, hyaline, 0-septate, 11-14x2.1-2.3 µm.

On dead leaves of *Pistacia lentiscus*. Santa Teresa, Pantelleria.

The herbarium specimen is kept in PAL.

The genus *Sympodiella*, with the type species *S. acicola* Kendrick, was established in 1958. Even if the acropetal conidia development was not mentioned in the latin diagnosis,

the Author well described this type of conidiogenesis from sympodially proliferating conidiogenous cells. Subramanian & Vittal (1972) described *Sympodiella laxa* as a new species but with arthric chain of conidia clearly developing in basipetal succession. The genus was emended by Ponnappa (1975); according to the Author *S. laxa* can't be included in the genus *Sympodiella* Kendrick because of an irregular distance of the conidiogenous loci and for punctiform septal plugs, not always present, at each conidium ends, but the Author, without considering that the Subramanian & Vittal specimens is characterized by basipetal conidiogenesis, proposed the new genus *Parasympodiella* Ponnappa and the new combination *P. laxa* (Subramanian & Vittal) Ponnappa. After Ponnappa (1975) many different species of *Parasympodiella* were proposed (cfr. references examined), but in every description the presence of arthric conidia with basipetal succession was pointed out. In

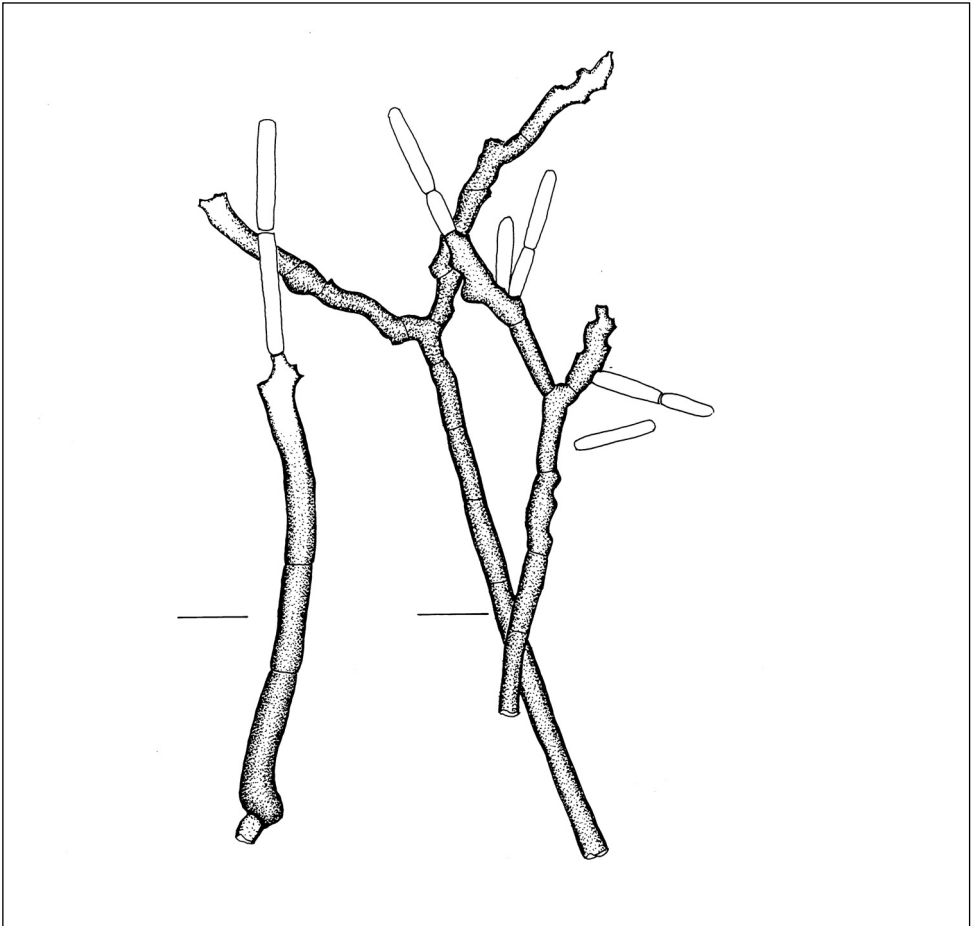


Fig. 9. *Sympodiella acicola* Kendrick, branched conidiophores and acropetal chains of conidia. Left bar 8 μ m, right bar 12 μ m.

our opinion the morphological characters considered by Ponnappa are of more specific value and not enough to propose a new genus. Nevertheless the species described by Subramanian & Vittal can't be included in the genus *Sympodiella* for the typical basipetal conidiogenesis contradicting the acropetal development described in the type species by Kendrick and the genus *Parasympodiella* Ponnappa should be emended.

Our specimens presents morphological characters well corresponding to *S. acicola* Kendrick even if with frequently branched conidiophores, observed in artificial cultures also by the Author; the conidiogenous cells are regularly sympodially developing, they become more irregular with branching development.

Material examined

ROHB 475 *Solosympodiella clavata* on *Uapaca guineensis*, Tai-Ivory Coast Forests;

ROHB 460 *Pseudospiropes simplex* on *Diospyros sanza-minika*, Tai-Ivory Coast Forests.

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Arthrinium gutta Rambelli & Ciccarone sp. nov. (Fig. 10)

Type species: *Arthrinium caricicola* Kunze ex Ficinus & Schubert, 1823.

Etym. conidia drop-shaped.

Coloniae pulvinatae, brunneae. Conidiophora macronematosa, mononematosa, erecta, brunnea, septata, ramosa, recta vel flexuosa. Cellulae conidiogenae integratae, polyblasticae, breviter denticulatae, hyalinae; septis trasversalibus atro-brunneis praeditae, 40-110x4-6 µm. Conidia solitaria, continua, guttaeformia, atro-brunnea, levia, 9-12x7-11 µm. In foliis dejectis *Quercus ilex*. Montagna Grande, Pantelleria.

Colonies composed by very crowded conidiophores, red-brown, pulvinate. Conidiophores macronematous, mononematous, repeatedly branched, without basal mother cell, brown, light brown, septate. Conidiogenous cells integrated, terminal, polyblastic, denticulate, with pegs truncate, colourless, with black and thick transverse septa, 40-110x4-6 µm. Conidia solitary, lateral and terminal, not septate, not lenticular, drop-shaped, oval, with a slightly protuberant hilum, brown, 9-12x7-11 µm

On dead leaves of *Quercus ilex*. Montagna Grande, Pantelleria.

The holotype is kept in PAL.

Our species has conidia smooth, very regularly drop shaped and with an evident trunked base. To identify our specimens we excluded to examine first all the species with lenticular conidia, second all the species without trunked base and third the species with verrucose and polygonal conidia. The strain described presents dimensions well coinciding with *A. sphaerospermum* Fuckel, this species is characterized by conidia approximately round, not lenticular but without a trunked base. Conidia with trunked base are present in *A. spagazzinii* but they are verruculose and smaller if compared with our strain. *Arthrinium* state of *Pseudoguignardia scirpi* is characterized by conidia with trunked base, but extremely irregular and not drop-shaped. For the mentioned and particular morphological characters, presumably not determined by the substratum composition, we propose for our specimens the new species *A. gutta*.

Material examined.

ROHB 438, *A. phaeospermum* on *Caloncoba brevipes*, on *Diospyros sanza-minika*, Tai-Ivory Coast forests.

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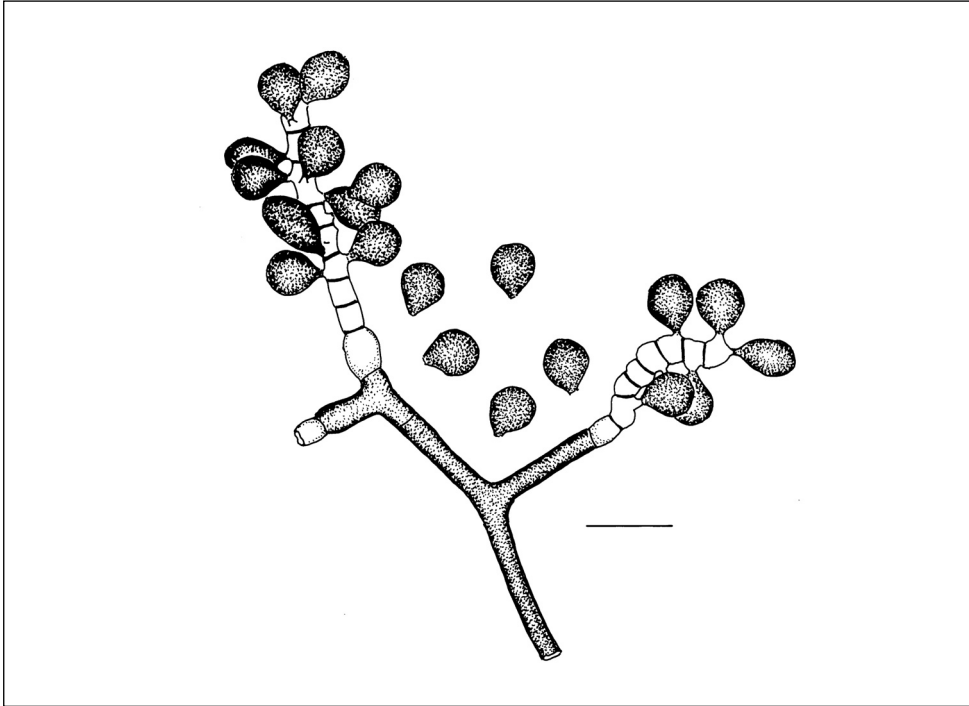


Fig. 10. *Arthrimum gutta*, sp. nov., conidiophores and conidia. Bar 20 μ m.

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Bipolaris sacchari (E.J. Butler) Shoemaker. 1959. (Fig. 11)

Basionym: *Helminthosporium sacchari* E.J. Butler 1913.

Colonies not crowded, composed by solitary conidiophores. Conidiophores macronematous, mononematous, solitary, brown, paler towards the apex, septate, smooth, up to 180 µm long, conidiogenous cell included and 5-6 µm wide. Conidiogenous cells sympodially proliferating, smooth, septate, clear brown. Conidia gently curved, ellipsoidal, without protuberant hilum 3-4 µm wide, golden brown, 6-8 distoseptate, 38-60x12-14 µm.

On dead leaves of *Smilax aspera*. Montagna Grande, Pantelleria.

The herbarium specimen is kept in PAL.

Material examined

Isotype ROHB 493 on dead leaves of *Orchid* 2819 D.B. collected in Costa Rica; isotype ROHB 494, 498 on dead leaves of *Clusia* sp. collected at Lankester Botanical Garden, Cartago, Costa Rica.

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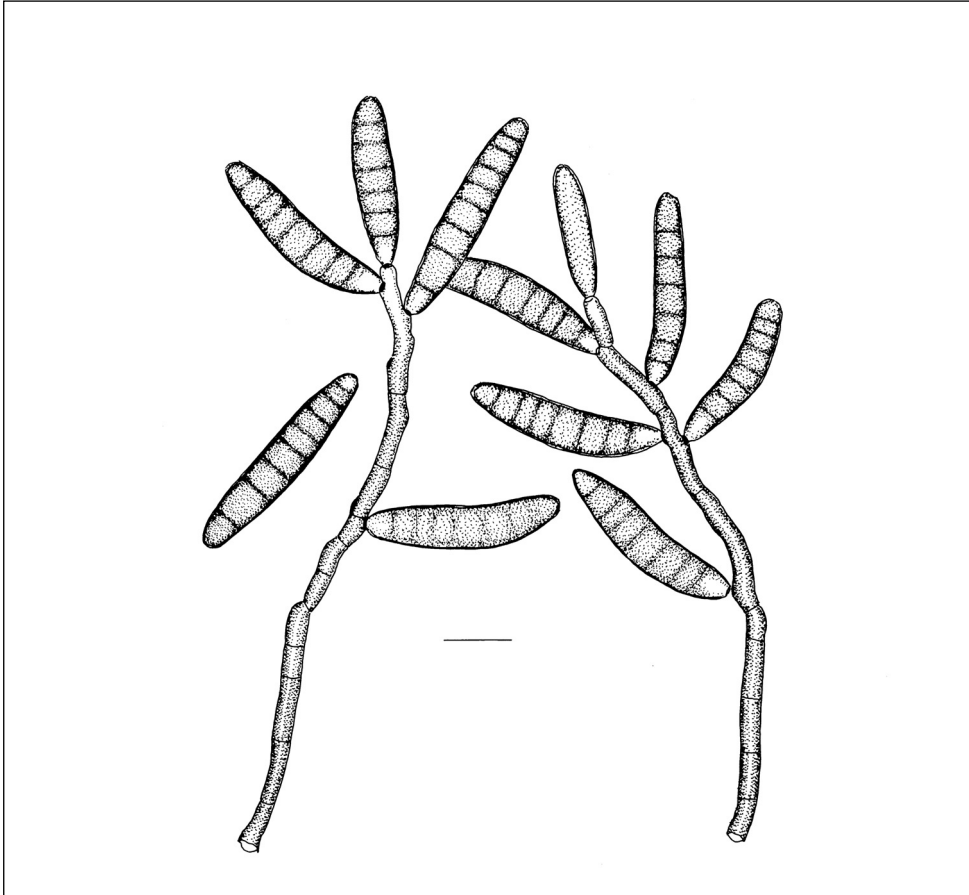


Fig. 11. *Bipolaris sacchari* (E.J. Butler) Shoemaker, conidiophores and conidia. Bar 18 μm .

Xylohypha ferruginosa (Corda) Hughes, 1960. (Fig. 12)

Type species: *Xylohypha nigrescens* (Pers. ex Fr.) Mason, 1960.

Colonies composed by solitary tufts of long chains of conidia. Conidiophores micronematous, caespitose, arising from the superficial mycelium, straight, brown, red-brown, smooth, very difficult to distinguish from the conidial chains. Conidia in acropetal chains composed by 50-60 and more individuals, chains erect, rarely slightly flexuous and branched; conidia fusiform, suboval, smooth, brown, red-brown, with trunked ends, 0-septate, not easily disarticulating, rarely one by one, frequently in fragmented chains of 15-30 individuals, 5-8x4 μm , 1.2-1.8 μm at the trunked ends.

On dead leaves of *Pistacia lentiscus*. Santa Teresa, Pantelleria.

The herbarium specimen is kept in PAL.

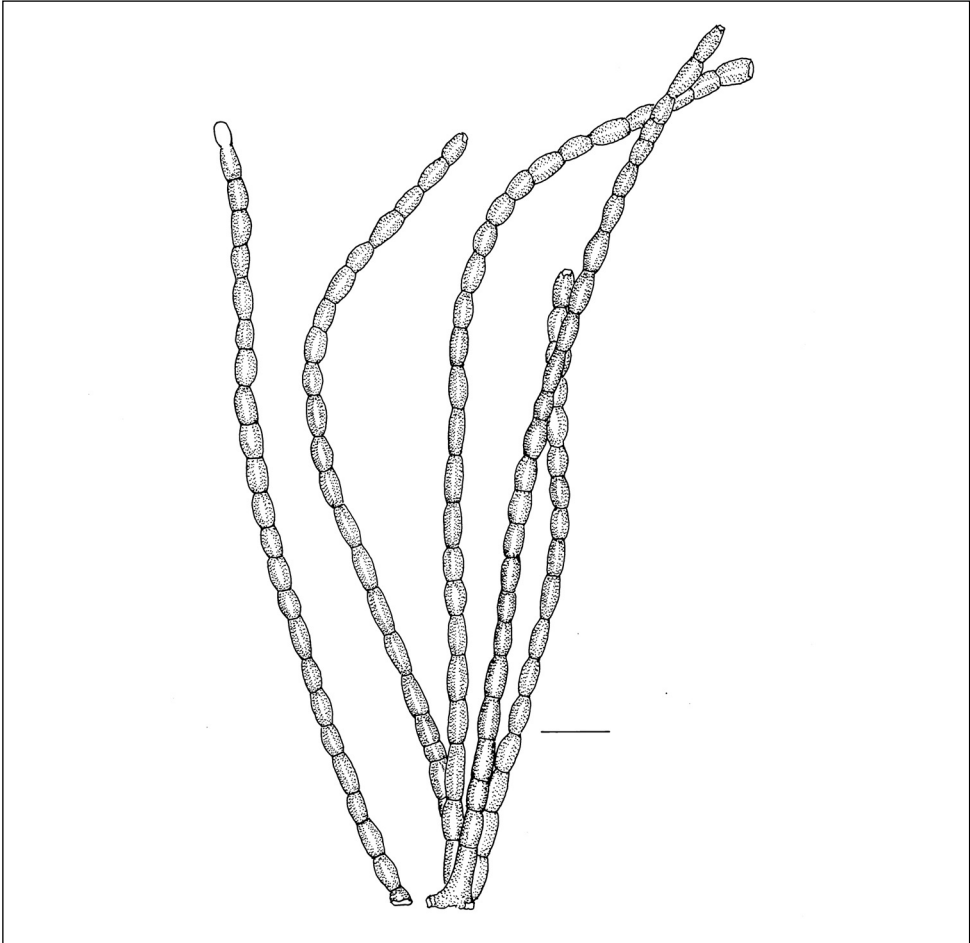


Fig. 12. *Xylohypha ferruginosa* (Corda) Hughes. Acropetal chains of conidia. Bar 9 μm .

The species described show morphological characters well corresponding to the description of *X. ferruginosa* (Corda) Hughes, mainly for the red-brown colour of conidiophores and conidia, for the very short conidiophores and the conidia dimensions. Differs from *X. nigrescens* with long conidiophores and conidia, from *X. lignicola* with verrucose conidiophores and globose conidia, from *X. pinicola* forming powdery and effuse colonies, from *X. bowdichiae* with conidia generally globose and with germ slits.

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Gyrothrix verticiclada (Goid.) Hughes & Pirozynski, 1970. (Fig. 13)

Type species: *Gyrothrix podosperma* (Corda) Rabenhorst, 1844.

Colonies effuse, velvety, clear brown. Setae crowded, erect, straight, smooth, very dark brown, slightly clear towards the apices, septate, not branched, up to 110x4-6 µm. Conidiogenous cells obclavate, very clear brown, 11-13x4-7 µm. Conidia falcate, with pointed apices, 0-septate, hyaline, 14-20x1.8 µm.

On dead leaves of *Smilax aspera*. Montagna Grande, Pantelleria.

The herbarium specimen is kept in PAL.

This specimens presents setae not branched but with all the other morphological characters coinciding with *Gyrothrix verticiclada* sensu stricto. It is remarkable the presence on the same substratum, dead leaves of *S. aspera*, of colonies composed by individuals with branched setae and colonies composed by individuals with setae not branched.

Material examined

ROHB n. 480, *G. verticiclada* on *Smilax aspera*, Montagna Grande, Pantelleria.

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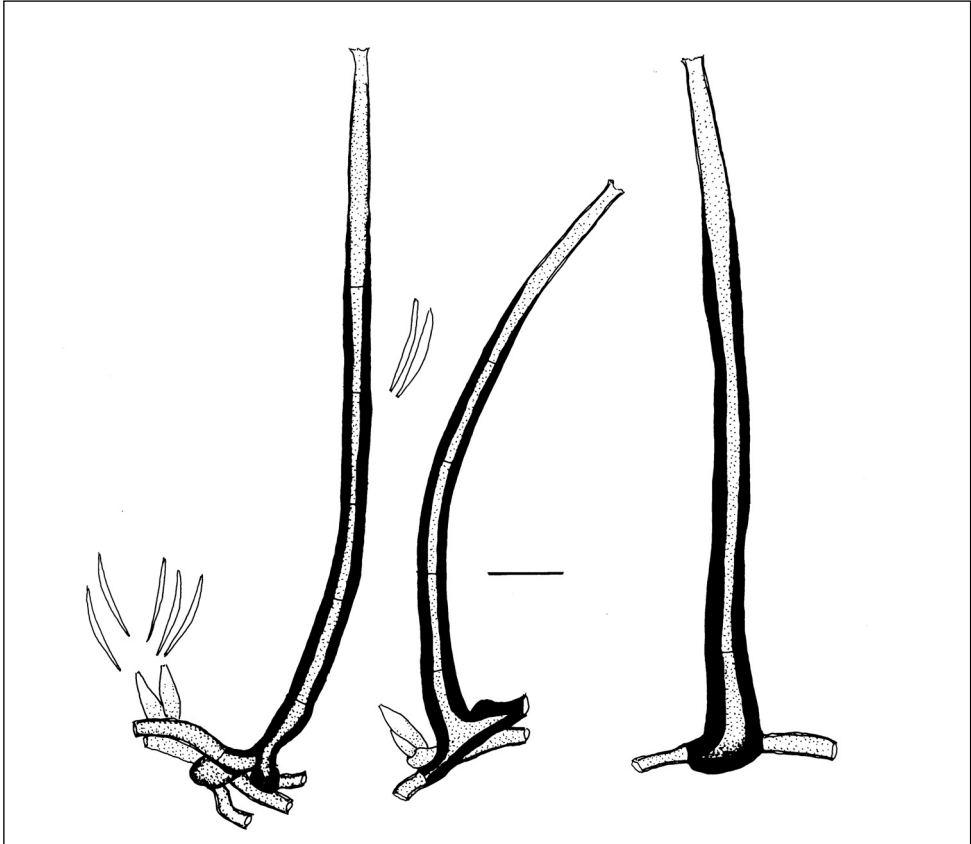


Fig. 13. *Gyrothrix verticiclada*. Strain with unbranched setae. Bar 15 μ m.

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Triposporium elegans Corda, 1837. (Fig. 14)

Type species: *Triposporium elegans* Corda. 1837.

Colonies not crowded, composed by isolated conidiophores. Conidiophores macronematous, mononematous, erect, scattered, unbranched, very dark brown, smooth, 198-235x5-9 µm. Conidiogenous cells monoblastic, integrated, terminal, percurrent. Conidia solitary, dry, acrogenous, 2 or 3 times branched, branches composed by conical 3-4 septate arms joined by a rounded bases, arms 22-38x9-11 µm, dark brown at the base and clearer towards the apices; conidial base cylindrical, doliiform, clear brown, 7-13x5-7 µm.

On dead leaves of *Arbutus unedo*. Montagna Grande, Pantelleria.

The herbarium specimen is kept in PAL.

The species described presents morphological characters closed to *T. elegans* even if some differences are concerning the number of cells composing the arms., the dimensions of the conidiophore and the percurrent proliferation of the conidiogenous cell not visible in our strain because very dark pigmented (cf. Hughes, 1951; Ellis, 1971; Matsushima, 1985). It differs from *T. boydii* Smith & Ramsbottom (1915) and *T. ledermannii* Hansford (1955) species with short conidiophores, from *T. verruculosum* Castaneda, Gené & Guarro (1996) that has verrucose conidia; we haven't examined the exiccata of *T. psidii* Hasijsa (1967), this species is reported with conidiophores and conidia dimensions and pigmentations very similar to *T. elegans* of which it could be a synonym. *T. batistae* is characterized by small conidia and, on the contrary, *T. lambdaseptatum* by conidia with to long arms.

Material examined

Triposporium elegans on dead leaves of *Quercus ilex* collected at Torre del Sevo, Sardinia, Italy.

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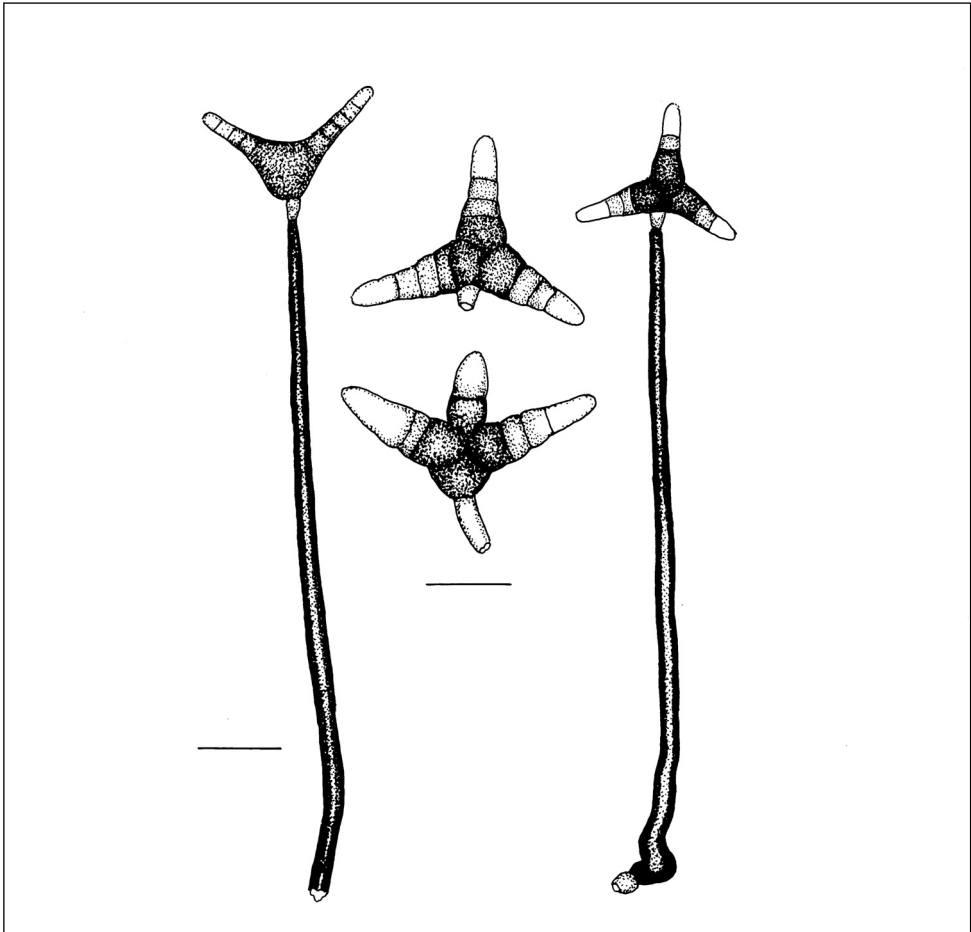


Fig. 14. *Triposporium elegans* Corda. Conidiophores and conidia. Left bar 30 μ m, central bar 20 μ m.

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***Ulocladium* sp.** (Fig. 15)

Type species: *Ulocladium botrytis* Preuss, 1851.

Colonies unsubstantial and developing from the substratum to the paper of the moist chamber. Conidiophores macronematous, mononematous, branched, flexuous often geniculate, mid brown, smooth, 66 µm long and more, 4-5 µm wide conidiogenous cells included. Conidia solitary, ellipsoidal, obovoid, subspherical, with a minute projecting hilum, dark-brown, verrucose, with 1, rarely 2 transverse and 1-2 longitudinal septa, 18-22x13-15 µm. On dead leaves of *Pinus pinaster* var. *hamiltonii*. Montagna Grande, Pantelleria.

The herbarium specimen is kept in PAL.

The species described presents some characters, like the conidia dimensions, closed to *U. botrytis*, but, since we examined only poor material we prefer to leave it not determined hoping to find other strains to study.

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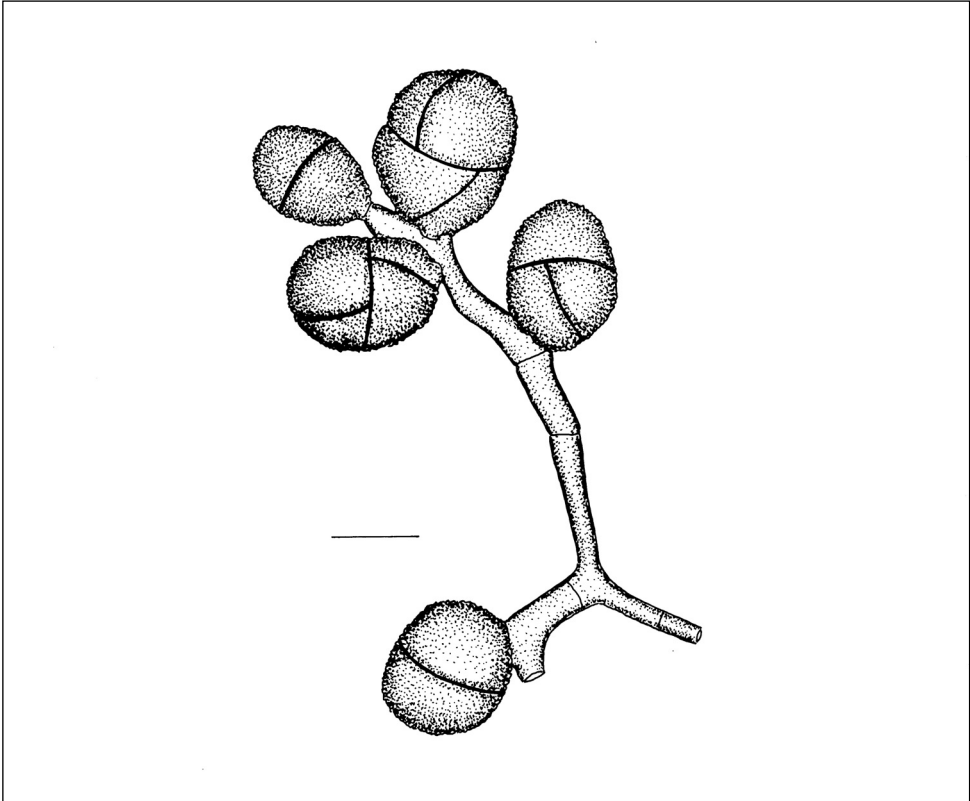


Fig. 15. *Ulocladium* sp. Conidia. Bar 10 μ m.

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***Stemphylium* sp.** (Fig. 16)

Type species: *Stemphylium* state of *Pleospora herbarum* (Pers. ex Fr.) Rabenh. 1854.

Colonies composed by small groups of conidiophores, olivaceous brown. Conidiophores macronematous, mononematous, scattered, caespitose, unbranched, flexuous, characterized by the presence of vesicular swellings, pale olivaceous brown, smooth, 63-79x7 µm conidiogenous cell included. Conidiogenous cells monoblastic, integrated, terminal, percurrent, almost clavate, clear brown. Conidia solitary, dry, acrogenous, oval, ellipsoidal or subspherical, olivaceous brown, gently verrucose, muriform, constricted at the medium septum, cicatrized at the base, 26-31x16-19 µm.

On dead leaves of *Euphorbia* sp. Montagna Grande, Pantelleria.

The herbarium specimen is kept in PAL.

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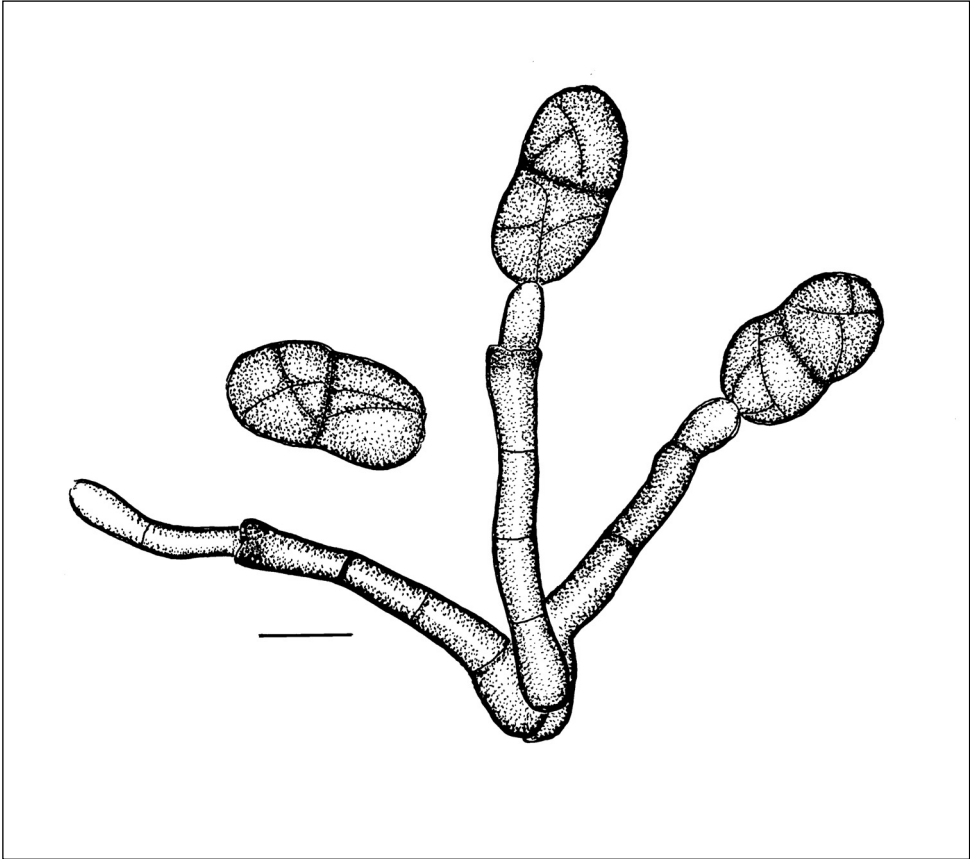


Fig. 16. *Stemphylium* sp. Conidiophores and conidia. Bar 14 μ m.

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