

SESQUICILLIUM PARVULUM NOV. SP.

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SUMMARY

A new species of the genus *Sesquicillium* W. Gams is described and figured. It differs from the other two known species by very small conidia produced in heads.

Sesquicillium parvulum nov. sp.

Coloniae in agarò malti (1%) 35–40 mm in diametro post 12 dies 20°C, candidae, copiose sporulantes, farinaceae, strato conidiophororum plano, distincte zonatae; margo modice crenulata, demum lobulata vel pennata; reversum colore non differt.

Mycelium hyalinum, septatum, hyphae 2.5–4 μ diametro. Conidiophora hyalina, levia, verticillate ramosa, ramulis lateralibus longitudine diminuta versus apicem conidiophori; axis primarius ac ramuli in phialides egrediuntur, quae plerumque cellula sporifera ostiolo laterali praedita supportantur. Phialides tenerae (6–) 7–10 (–15) μ longae, 1.4–2.5 μ latae, apice sensim diminuto usque ad 0.5 μ . Phialides terminales vulgo tenuiores quam laterales. Ostiola sporifera lateralia 2–3.5 \times 1 μ . Conidia in capitulis cohaerentia, hyalina, levia, globosa vel subglobosa, uno latere nonnumquam complanato, 2–2.5 \times 1.3–2 μ , una guttula oleaginosa. Habitat in terra.

Typus vivus et exsiccatus 933.69 in CBS, Baarn, praeservatus.

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Colonies on 1% malt agar attaining a diameter of 35–40 mm in 12 days at 20°C, pure white, heavily sporing, mealy, with a thin plane layer of conidiophores, distinctly zonate. Margin somewhat crenate, becoming lobulate or pennate with age. Reverse uncoloured. Mycelium hyaline, septate, 2.5–4 μ in diam. Conidiophores hyaline, smooth, verticillately branched, lateral branches decreasing in length towards the apex of the main axis, forming a conifer-like outline of the whole branching system. The main axis as well as the branches are terminated by a phialide which is mostly supported by a subterminal cell bearing a lateral sporiferous neck. Terminal phialides slender, measuring (6–) 7–10 (–15) μ in length and 1.4–2 μ in diameter at the base, slowly tapering to 0.5 μ , the tip sometimes sharply bent. In terminal position the phialides are usually more slender than lateral ones. Pleuophialides 2–3.5 \times 1 μ (VON ARX & GAMS 1967). Conidia sticking together to form small heads, hyaline, smooth-walled, globose to subglobose, one side sometimes flattened, 2–2.5 \times 1.3–2 μ , showing a distinct oil globule in each spore when mounted in water.

Fig. 1. *Sesquicillium parvulum*. Conidiophore and conidia.

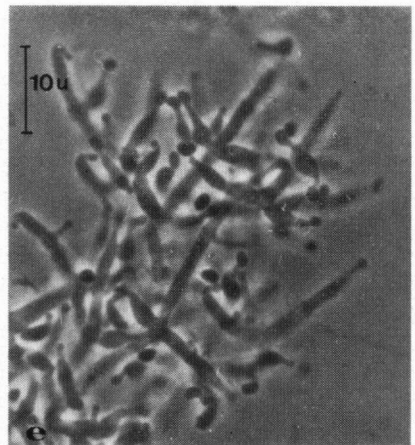
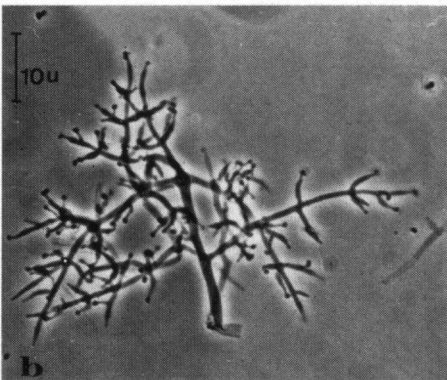
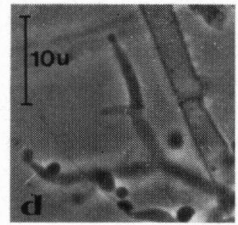
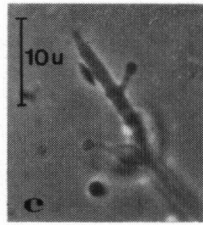
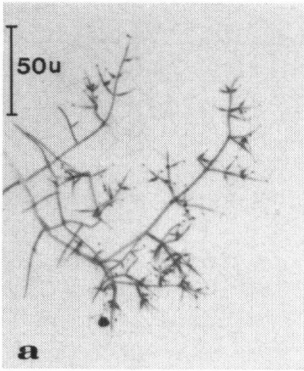
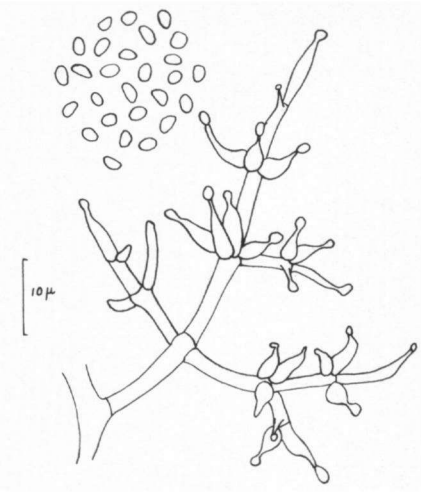


Plate 1. *Sesquicillium parvulum*. a. and b. habit; c. and d. pleurophialides; e. bent phialides.

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Habitat in soil, Oostelijk Flevoland Polder, agricult. soil (under wheat).
Type material in CBS no. 933.69 = ATCC 18.932.

DISCUSSION

The species differs from *Sesquicillium buxi* and *S. candelabrum* (GAMS 1968) by the size and shape of the conidia, which are moreover borne in heads in contradistinction to the false chains or columns of the other two species mentioned.

Whereas the perfect state of *S. buxi* is known to be *Nectriella coronata* Juel (JUEL 1924), in cultures of *S. parvulum* no traces of a perfect state have yet been found.

Two cultures isolated by Mr. G. C. BHATT, Univ. of Calgary, Calgary, (Alberta), were obtained from Centraal Bureau voor Schimmelcultures, Baarn. No UW 258 = CBS 354.70 was isolated from white cedar forest soil (*Thuja occidentalis*) Aberfoyle, Ont., Sept. 1966 and no PET 160 = CBS 355.70 from forest soil (*Populus tremuloides*), Petawawa, Ont., Oct. 1968.

Microscopic examination proved these two isolates to be conspecific with the fungus described.

ACKNOWLEDGMENT

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