



1, Conidia from DAOM 35806; 2, apices of conidiophores showing development of successive conidia, and mature conidia, from DAOM 33990 on malt agar; 3, bases of two conidiophores from DAOM 28628; 4, two conidiophores, one of which has proliferated four times, from DAOM 28664 on potato dextrose agar; 5, chlamydospores and conidium-like structures on repent hyphae of DAOM 33995 on malt agar. Scales = 10 μ .

***Cordana pauciseptata* Preuss, Linnaea 24: 129. 1851.**

■ *Acrothecium pauciseptatum* (Preuss) Sacc., *Michelia* 1: 74. 1877.

■ *Preussiaster pauciseptatus* (Preuss) O. Kuntze, *Revis. Gen. Pl.* 2: 867. 1891.

COLONIES black, effuse. MYCELIUM mostly immersed, composed of branched, septate, subhyaline to brown, smooth or finely roughened hyphae 1.3-3.5 μ wide. CONIDIOPHORES scattered or crowded, usually arising singly, simple, up to 170 μ long, with cells 8-25 μ long, usually bulbous and 7-8 μ wide at the base, then 4-5 μ wide and tapering toward the apex, pale brown to dark brown, darkest at the base which characteristically bears rooting hyphae. CONIDIA produced blastically on successive new growing points toward the apex of the conidiophore which becomes swollen, up to 6 μ , and denticulate with the scars of fallen conidia. Occasionally a conidiophore produces a robust proliferation and this too produces a cluster of successive conidia on an apex which becomes swollen; a second proliferation is rarely seen on the substrate in nature. Conidia are dry, 1-septate, smooth, mostly ovoid or broadly ellipsoidal, slightly denticulate at the basal scar, brown to dark brown with a dark brown to black transverse band about 1.3 μ wide at the septum; they have a thin-walled, paler, circular zone at the apex. Conidia measure (7.5-)9.4-12.1 \times (4-)5.4-6.7 μ .

In culture the fungus grows and sporulates well on malt and potato dextrose agars to produce a black colony which is velutinous with conidiophores. The reverse is black and some isolations stain the agar a brownish red. Proliferation of the conidiophores is far more frequent in culture than on the host:

up to 4 proliferations result in 4 intercalary clusters of conidia on slight swellings. Terminal and intercalary, thin- to thick-walled cells of mycelial hyphae may reach a diameter of 15 μ . The thick-walled structures are presumably chlamydospores. Sessile or shortly stalked conidium-like structures, but which separate with difficulty from their support, are not infrequent on repent hyphae.

SUBSTRATE: decaying wood of *Acer* sp., periderm of *Betula papyrifera*, and unidentified wood; also isolated from rotten wood of *Abies balsamea*, *B. alleghaniensis*, *Picea glauca*, and *P. mariana*.

DISTRIBUTION: Nova Scotia, New Brunswick, Quebec, Ontario.

COLLECTIONS: Que.: Burnet, VIII.1952, DAOM 28795 (S.J.H.); Cantley, VIII.1952, 29326 (S.J.H.); Old Chelsea, X.1954, 44905 (S.J.H.); Gatineau Park, VI.1959, 63866 (W.B. Kendrick). Ont.: Blakeney, VII.1952, 28628 (S.J.H.); Ottawa, V.1965, 109655 (G. Morgan-Jones).

ISOLATIONS: From *Abies balsamea*: N.S., DAOM 29443, 34449, 35806, 37683; N.B., 28663, 33995. From *Betula alleghaniensis*: N.S., 33686; N.B., 33990. From *Picea glauca*, N.B., 33989. From *Picea mariana*, N.B., 33982.

NOTES: *Cordana pauciseptata* was described in some detail by Hughes (Can. J. Bot. 33: 259-268. 1955) together with a brief historical account of the generic name. This species, the lectotype species of the name *Cordana*, is apparently widespread in Europe. Preuss described his fungus from Hoyerswerda (Saxony), Mangelot (Rev. Mycol. 18: 133-148. 1953) gave an account of his isolations of the fungus from rotten wood of *Betula*, *Fagus sylvatica* and *Fraxinus* in France, I have seen collections on *Carpinus* from Austria (Hughes, op. cit.), and Dr. Albert Pilát and I collected it on wood at Karlstein, Czechoslovakia in May 1955 (DAOM 41844). I have also seen the collection of *Cordana pauciseptata* (on *Acer*) (in Herb. Saccardo in PAD) which Saccardo recorded (Michelia 1: 74. 1877) and illustrated (Fungi ital. t.7, 1877) as *Acrothecium pauciseptatum* from Italy. Saccardo found this mould 'socio *Lasiochaeria hirsuta*, quacum forte metagenetice devinctum est.' However, it has been shown that *L. hirsuta* produces a *Phialophora* state in pure culture, and not a *Cordana* (Hughes, Mycol. Pap. 45: 30. 1951).

In the United States *Cordana pauciseptata* has been recorded from N.Y. and W.Va. (Hughes, op. cit. 1955).

Matsushima (Microfungi of the Solomon Islands and Paupua-New Guinea. 78 pp. 169 figs. 48 plates. Published by the Author, Osaka. 1971) recorded *C. pauciseptata* as an isolation from soil from Bulola, Papua-New Guinea.

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