



Conidiophores and conidia from DAOM 56455. Scale = 50μ

Sporidesmium brachypus (Ell. & Ev.) Hughes, Can. J. Bot. 36: 807. 1958.

≡ *Helminthosporium brachypus* Ell. & Ev. in Millsp. & Nuttall, Publ. Field Col. Mus. Bot. 1: 92. 1896.

COLONIES effuse, glistening, very dark reddish brown to reddish black, on decaying hardwood. MYCELIUM immersed, composed of pale brown, branched, septate hyphae $2-4\mu$ wide: where exposed more deeply coloured to dark brown. CONIDIOPHORES mostly scattered, arising singly or in small groups. They are erect, straight or slightly bent, moderate to dark reddish brown, (0-)2-4(-5)-septate, (20-)30-70(-90) μ long, more or less cylindrical, $5-7\mu$ wide, usually swollen (up to 12μ wide) at the base, tapered at the apex to a flat conidium scar $3-4\mu$ wide. The conidiogenous cell is longer (mostly $20-35\mu$) than the lower cells in the conidiophore (mostly $7-14\mu$ long). Rarely the conidiogenous cell has proliferated through the scar to produce another conidium at a higher level: up to two such successive obclavate to ellipsoidal proliferations ($9-20\mu$ long) have been seen. CONIDIA develop singly and blastically. At maturity they are light brown, obclavate to narrowly ovoid, mostly straight with the distal cell sometimes gradually or abruptly extended into a cylindrical or subulate appendage; they are narrowed at the base to a truncate scar $2.5-3(-4)\mu$ wide. The main broad part of the mature conidium is smooth, mostly 5-8-septate, not constricted at the septa, $45-65\mu$ long and (9-)11-12 μ wide. A thick (up to 3.6μ wide) inner lateral wall separates the thin dark outer wall from the often conspicuous limits of the short cylindrical to barrel-shaped to spool-shaped lumina. Most or all of the septa become dark brown, particularly in the region of the conspicuously thickened septal pore apparatus. The basal more or less obconical cell, delimited by the first septum of the initial, darkens to moderate brown, the rest of the main body light brown to pale grayish brown (sometimes showing suffusions of pink), fading

towards the terminal extension which may be up to 40 μ long and 1.5-1.8(-3) μ wide, the longer extensions being subhyaline and paler than the shorter ones, becoming 1 or 2-septate by the formation of thin septa. Appendaged conidia are up to 100 μ long, the longer ones showing a gradual attenuation whereas in the others the appendage arises more or less abruptly from the main body of the conidium.

SUBSTRATE: decaying wood of *Populus*, *Ulmus*, and unidentified hardwood.

DISTRIBUTION: Quebec, Ontario, Manitoba.

COLLECTIONS: Que., near Aylmer, X.1960, DAOM 71425 (G.L. Hennebert). Ont., near Manotick, IX.1957, 56455; XII.1960, 71485 (S.J.H.). Man., Whiteshell, VII.1966, 147010 (B.C. Sutton).

NOTES: Sutton (Mycol. Paper 132: 110. 1973) recorded numerous collections of *S. brachypus* from Manitoba and Saskatchewan on *Populus balsamifera* and *P. tremuloides*; one of these has been deposited in DAOM. The species occurs in U.S.A.: we have seen collections from W.Va. (the type of *S. brachypus* in Herb. NY) and Delaware (J.B. Ellis sub *Clasterosporium commonsii*, *nomen nudum*, in Herb. NY). We gather from the description of *S. brachypus* that the authors treated the attenuated apical cell(s) as the conidiophore. The type collection of *S. deightonii* M.B. Ellis (Mycol. Paper 70: 26-27. 1958) from Sierra Leone has been seen and, apart from a greater average length of conidiophores, we find no criterion upon which it may be held apart from *S. brachypus*. We thus concur with Ellis (Dematiaceous Hyphomycetes, Kew, 1971) and Sutton (loc. cit.) in their disposition of *S. deightonii* as a synonym of *S. brachypus*.

DAOM 71425 was cultured on malt agar and PDA by G.L. Hennebert: it produced colonies of 4 cm. diameter in three weeks. Sporulation was abundant over the central portion of the colonies on both media producing a dark reddish brown felt of conidiophores and conidia.

The species is also represented in DAOM by a collection from New Zealand (VIII.1963, 93928, S.J.H.) which conforms to the description of our Canadian material except for generally longer conidiophores (110-150 μ).

In aqueous toluidine blue, the basal cell and the middle lamellae between cells of the conidia take the bluish green color diagnostic of phenolic groups. The same portions, and particularly the doughnut-shaped ring thickenings about the central pore of the septa, glow brightly under positive low contrast phase microscopy. The thick inner wall of the conidium does not show these reactions.

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