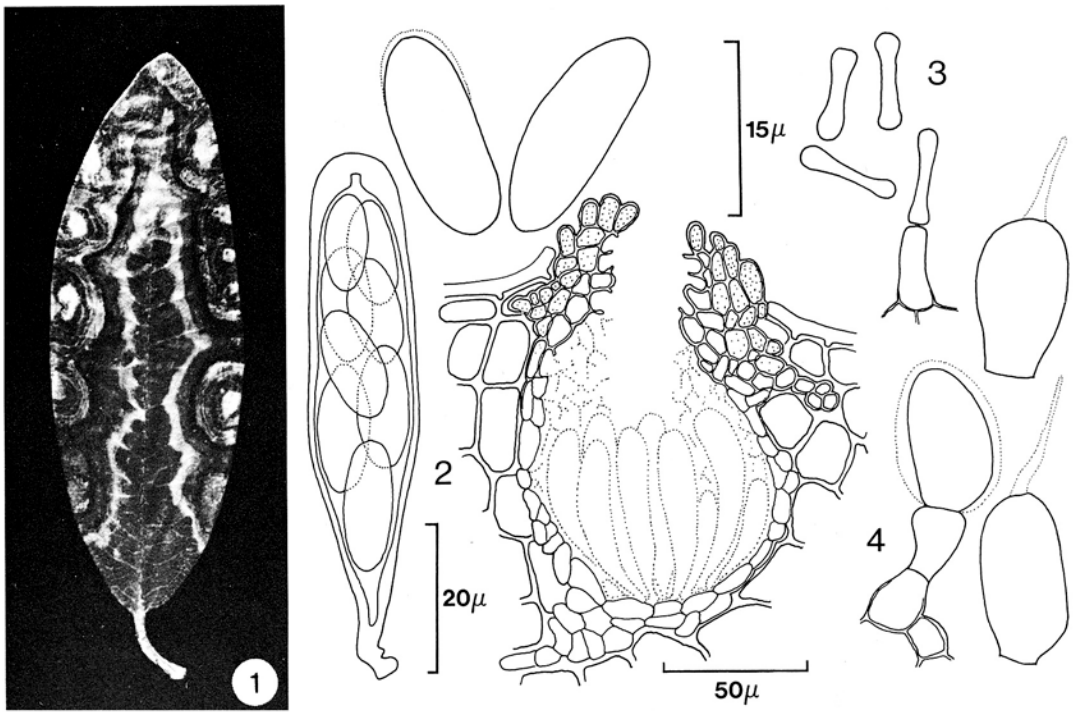
BOTRYOSPHAERIA RHODORAE



1, Habit (ca × 1/2); 2, ascoma (vertical section), ascus and ascospores from DAOM 134602; 3, *Asteromella* microconidia and 4, *Phyllostictina* macroconidia from DAOM 143020.

Botryosphaeria rhodorae (Cooke) Barr, Mycologia 62: 381. 1970.
≡ *Sphaerella rhodorae* Cooke, Grevillea 13: 99. 1885.
≡ *Laestadia rhodorae* (Cooke) Berl. & Vogl., Add. Syll. Fung. p. 69. 1886.
≡ *Discochora rhodorae* (Cooke) Höhn. in Weese, Mitt. Bot. Inst. Techn. Hochsch. Wien 8: 35. 1931.
≡ *Guignardia rhodorae* (Cooke) Davis, Mycologia 38: 48. 1946.

Stat. macroconid.:

Phyllostictina maxima (Ell. & Ev.) Petrak, Hedwigia 74: 56. 1934.
Phyllosticta maxima Ell. & Ev., J. Mycol. 4: 123. 1888.

Stat. microconid.:

Asterostomella saccardoi (Thüm.) Petrak, Hedwigia 74: 56. 1934.
Phyllosticta saccardoi Thüm., Contr. Fl. Myc. Lusit. III, Mem. Inst. Coimbra 28: 48. 1881.
= *Phyllosticta rhododendri* Sacc., Michelia 1: 53. 1879 non Westend., Bull. Acad. Sci. Bruxelles 1: 399. 1851.

ASCOMATA epiphyllous, globose, up to 250 μ diam., immersed, with short, papillate, erumpent apex. Wall 15-20 μ thick, pale yellow-brown, externally blackened where exposed. ASCI bitunicate, clavate to cylindrical, variable in size, mostly 60-90 × 12-18 μ. ASCOSPORES subhyaline, with granular contents, 1-celled, ellipsoid to ovoid, symmetrical or inequilateral, sometimes with one or both ends capped by mucilage, mostly 17-20 × 6-8 μ.

PYCNIDIA of macroconidial state in morphology and habit resembling ascomata but smaller, up to 200 μ diam. CONIDIOGENOUS CELLS clavate 6-8 × 4-5 μ, usually borne on subglobose basal cell. MACROCONIDIA holoblastic, arising singly, colourless, granular, typically pyriform, with a wide, flat attachment scar at the base, rounded above, 12-19 × 7-9 μ, at first enveloped in mucilage which is later reduced to a single, apical, spike-shaped appendage up to 12 μ long.

PYCNIDIA of microconidial state 120-200 μ diam., usually associated with those bearing macroconidia. CONIDIOGENOUS CELLS more or less cylindrical, 7-9 × 2-2.5 μ. MICROCONIDIA holoblastic arising in succession from broad, flattened apices of conidiogenous cells, colourless, 1-celled, characteristically dumbbell-shaped, 6.5-9 × 1.5-2 μ.

SUBSTRATE: In brown or greyish spots on living or moribound leaves of *Rhododendron* spp.

DISTRIBUTION: Nova Scotia, Ontario.

COLLECTIONS: On *Rhododendron* sp., N.S., Kentville, 15.IX.1972, DAOM 143020 (C.O. Gourley), imperfect states only; on *R. catawbiense* "President Lincoln" and "Mrs. C.S. Sargent", Ont., Central Experimental Farm, Ottawa, 30.VI.1971, DAOM 134605 and 134602 respectively (K.A.P.) and "Ignatius Sargent", 5.VII.1972, DAOM 143962 (K.A.P.), perfect state only.

NOTES: For further information on host range and distribution see B.H. Davis (Mycologia 38: 40-51. 1946) and M.E. Barr (Mycologia 62: 377-394. 1970).

Apart from occurring in Europe and the United States where it is well established, *B. rhodorae* was reported to be present in New Zealand and, possibly, in Japan.

The fungus appears to be capable of attacking living leaves to produce irregular orange- or grey-brown blotches, but usually follows another pathogen or disorder and becomes established on moribound tissue such as winter-killed leaf margins.

Each imperfect state can occur independently of the other and of the perfect state.

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