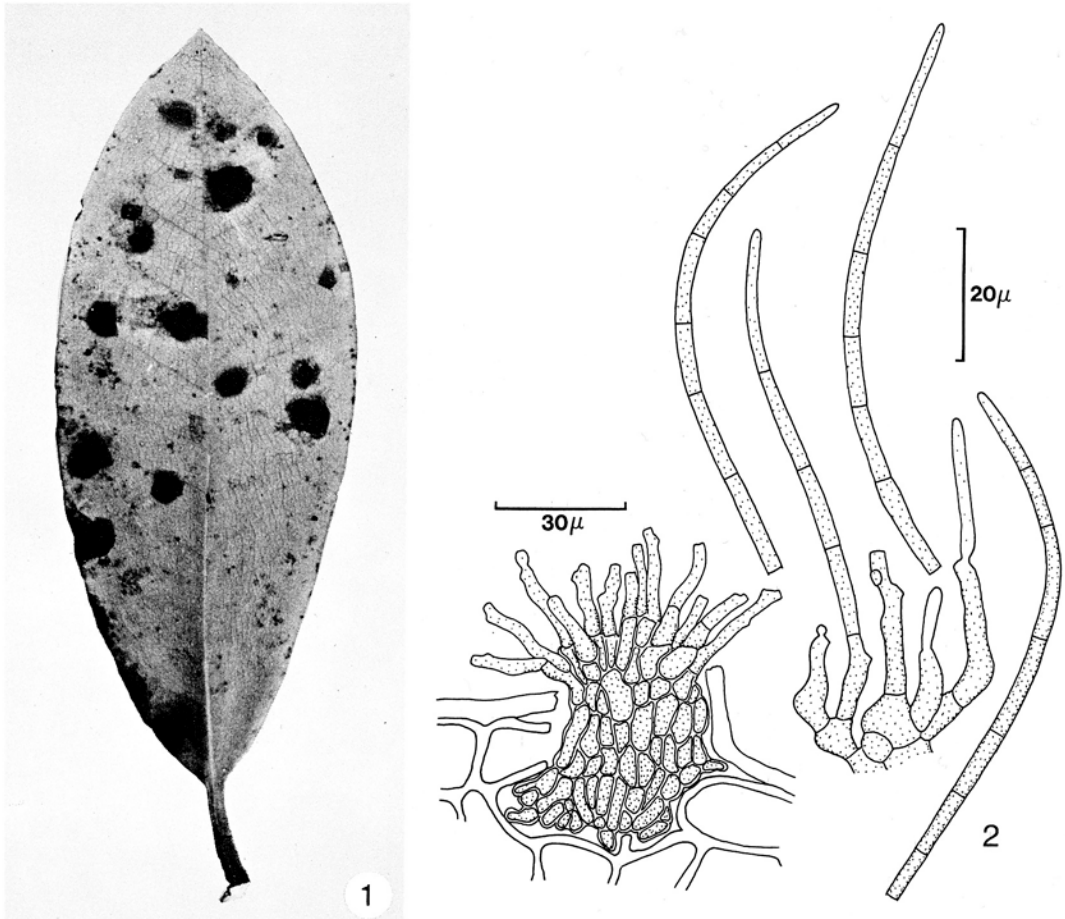


CERCOSPORA HANDELI



1, habit (ca \times 1); 2, fructification (vertical section), conidiophores and conidia from DAOM 144283.

Cercospora handelii Bubák, Ann. K.K. Naturhist. Hofmus. 23: 106. 1909.

= *Cercospora rhododendri* March. & Verpl., Bull. Soc. Roy. Bot. Belge 59: 24. 1926 (*non* Ferraris, *fide infra*).

= *Cercospora rhododendricola* Yen, Rev. Mycol. 31: 138. 1966.

= ?*Cercosporina rhododendri* (Ferraris) Sacc., Syll. Fung. 25: 901. 1931.

≡ *Cercospora rhododendri* Ferraris, Fl. Ital. Crypt. 1(13): 895. 1914 (*non* March. & Verpl., *fide supra*).

SPOTS more or less rounded or somewhat angular, 2-8 mm diam., dark reddish brown and surrounded by a purplish zone about 1 mm wide on the upper side, orange-brown and sharply defined below. **FRUITING** amphigenous but predominantly epiphyllous, in form of greenish grey punctiform pustules densely scattered over the upper surface of the spots. **STROMATA** subglobose to ovoid, immersed in mesophyll and erumpent through the epidermis, pale olivaceous brown, pseudoparenchymatous, mostly 30-60 μ diam. **CONIDIOPHORES** (conidiogenous cells) up to 25 μ long, 2-3 μ

wide, dilute yellowish brown, cylindrical to narrowly ampulliform, bearing up to 4 flat, thickened, sympodially produced geniculations representing conidial scars. CONIDIA concolorous with conidiospores, multiguttulate, more or less cylindrical, sometimes 1-geniculate, with a flat minutely frilled basal scar as wide as the conidium (2.2-2.8 μ), tapering gradually to a blunt apex 1-1.5 μ wide, 3-8-septate with the septa very indistinct except in fully mature conidia, usually bent or even sigmoid, mostly 60-90 μ long.

SUBSTRATE: On spots on living leaves of *Rhododendron* spp.

DISTRIBUTION: Ontario.

COLLECTION: On *Rhododendron catawbiense* cultivar, Ont., Central Experimental Farm, Ottawa, 9.VII.1973, DAOM 144283 (K.A.P.).

NOTES: The above description was drawn from the Ontario specimen and may not be representative of the whole species. The species is treated here in a broad sense to include *C. rhododendri* March. & Verpl. as suggested by Chupp (A Monograph of the Fungus Genus *Cercospora*, Ithaca, N.Y. p.207, 1953), *C. rhododendri* Ferraris as indicated in the Index of Plant Diseases in the United States (U.S.D.A. Handb. 165: 131, 1960), and *C. rhododendricola* Yen which, judging from the original description and illustrations, very closely resembles the fungus described here. *C. handelii* appears to show little morphological variation though the symptoms (colour, size and shape of leaf spots) and the site of best sporulation differ from host to host.

The fungus occurs on both wild and cultivated rhododendrons and azaleas in several areas of Europe and the United States and has gained entry - possibly temporarily - into Israel, Malaysia, Australia and New Zealand. The pathogen was intercepted in Canada on both American (Ohio) and European (Netherlands) stock (DAOM 33938 and 23880 respectively), and found for the first time in 1965 in Nova Scotia (Canad. Pl. Dis. Surv. 45: 37-83. 1965).

The infection in the Ottawa nursery was heavy, characteristically confined to lower foliage of young stock. The plants were grown under glass for several past seasons and were only in the year of collection transferred to the lath house where the infection was noticed.

Destruction of the infected foliage keeps the disease in check, and Bordeaux mixture provides good control (W.T. Dale, Pl. Path. 9: 76. 1960; G.W. McArthur, N.Z. J. Agric. Res. 2: 86-9. 1959).

K.A. Pirozynski