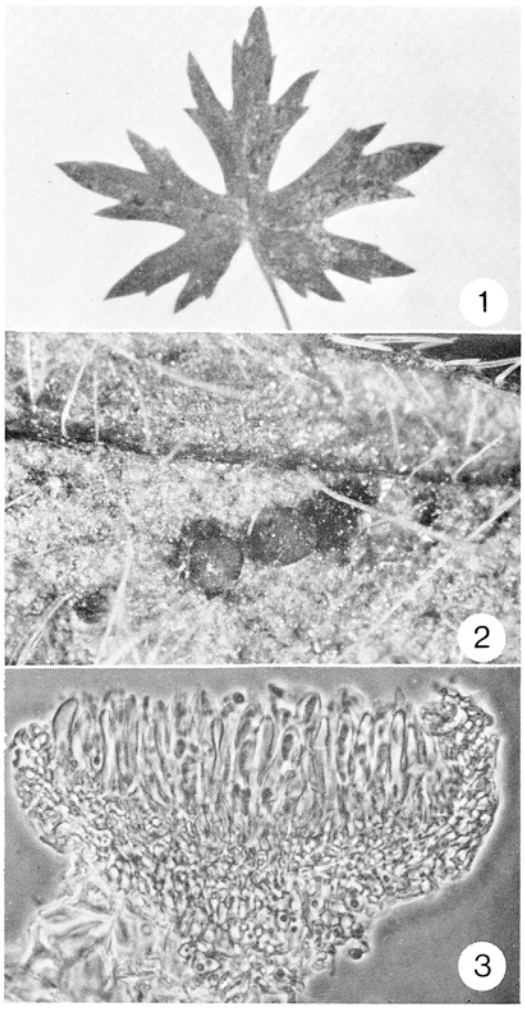
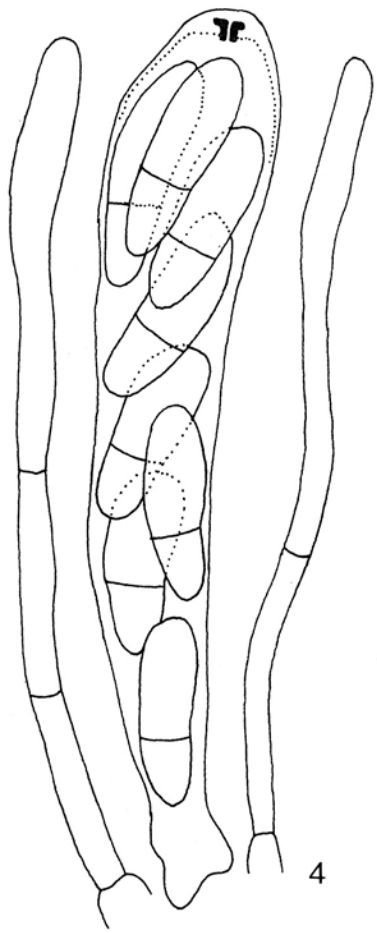
LEPTOTROCHILA RANUNCULI





1, Habit, × 1.2; 2, apothecia, × 30; 3, vertical section through apothecium showing tissue structure, × 265; 4, ascus (with apical pore blued in IKI), ascospores and paraphyses, ×.2000. All from DAOM 115156.

Leptotrochila ranunculi (Fr.) Schüepp, Phytopath. Z. 36: 251. 1959.
≡*Dothidea ranunculi* Fries, Syst. Mycol. 2: 562. 1823.
≡*Phacidium ranunculi* (Fr.) Lib., Plant. Crypt. Ard. Exs., Fasc. 1 No. 69. 1830.
≡*Phlyctidium ranunculi* (Fr.) Wallr., Flor. Crypt. Germ. Pt. 2, p. 420. 1833.
≡*Excipula ranunculi* (Fr.) Rabenh., Deutschl. Krypt. Fl., Pilze 1: 153. 1844.
≡*Pseudopeziza ranunculi* (Fr.) Fuckel, Symb. Mycol., p. 290. 1870.
≡*Mollisia ranunculi* (Fr.) Phill., British Discomycetes, p. 200. 1887.
≡*Fabraea ranunculi* (Fr.) Karst., Act. Soc. Fauna Fl. Fenn. 2: 161. 1885.
= *Phacidium litigiosum* Rob. in Desm., Ann. Sc. Nat. 8: 181. 1847.
≡*Fabraea litigiosa* (Rob. in Desm.) Sacc., Syll. Fung. 8: 735. 1889 (as "Rob. et Desm.").
= *Phacidium conigener* Ces., Rabenh. Herb. Mycol. Exs. No. 1727. 1847.
≡*Niptera conigener* (Ces.) De Not., Comm. Soc. Critt. Ital. 1: 375. 1864 (fide Schüepp, op. cit.).
≡*Fabraea conigener* (Ces.) Sacc., Michelia 2: 331. 1881.

APOTHECIA hypophyllous, cupulate with a convex hymenium, superficial, sessile, 0.1 to 0.4 mm

diameter, single or gregarious, receptacle dark brown, enclosing the hymenium when young, hymenium pale yellow to yellowish orange, convex and exceeding the margin of the apothecium at maturity. HYMENIUM up to 70μm thick. ASCI inoperculate, octosporous, clavate, tapering to a short, broad base, hyaline, thin-walled with a broad, obtuse thickened apex, apical pore blueing in IKI (after pretreatment with 2% KOH solution), 48-62 × 9.2-12μm. ASCOSPORES obovoid to clavate, often inequilateral, septate in the lower third, slightly constricted at the septum, multiguttulate, 13.3-15.6 × 4.4-5.7μm. PARAPHYSES filiform-clavate, hyaline, septate below the middle, occasionally branched near the base, slightly swollen up to 3.5μm wide at the apex. MEDULLARY EXCIPULUM up to 72μm thick, *textura angularis* composed of thick-walled, hyaline to pale brown, isodiametric to prismatic cells 7-12μm in diameter, each cell usually containing a prominent central guttule. ECTAL EXCIPULUM up to 20μm thick, *textura prismatica* to *textura angularis* composed of thick-walled, brown, septate hyphae 3.5-6μm wide which give rise to short, septate, obtuse hyphal outgrowths at the margin.

HOST: Leaves of *Ranunculus acris* L.

DISTRIBUTION: Newfoundland, Quebec.

COLLECTIONS: **Nfld.**, South Branch, 9 Aug. 1963, DAOM 115156 (R.F. Cain, ex TRTC 40757); **Que.**, Percé, 12 Aug. 1935, DAOM 2794 (J. Adams).

NOTES: Additional extralimital collections examined: U.S.S.R.: Gjatsk, Aug. 1895, on *Ranunculus cassubicus* L., DAOM 178528 (Jaczewski, Komarov, Tranzschel, ex Fungi Rossiae Exs. 142); Labiau (Polessk) Russian S.F.S.R., Aug. 1894 on *R. cassubicus* L., DAOM 3857 (Hennings, ex Rehm, Ascomyceten Exs. 659b); Latvia, 2 July 1932, on *R. cassubicus* L., DAOM 120334 (K. Starcs); Ukraine, 4 Aug. 1913 on *R. repens* L., DAOM 83527 (G. Newodowski). Czechoslovakia: Moravia, on *R. repens* L., DAOM 178526 (Niessl, ex Flora Exs. Austro-Hungarica). Finland: Iisalmi, Malminkatu, 8 Oct. 1962, on *R. repens* L., DAOM 110044 (I. Huuskonen, ex Herb. Univ. Ouluensis); Alandia, Eckerö, Marby, 18 Sept. 1957, on *R. repens* L., DAOM 134243 (Roivainen, ex Herb. Univ. Helsinki); Alandia, Eckerö, Öjsundet. 19 Sept. 1957, on *R. acer* L., DAOM 91639 (L. & H. Roivainen, ex Herb. Univ. Helsinki); Nylandia, Mäntsälä, 21 Aug. 1950, on *R. repens* L., DAOM 134489 (L. Korhonen, ex Herb. Mycol. Inst. Forest Fenn.). Sweden: Gästrikland, Valboasen, 25 Aug. 1942, on *R. repens* L., DAOM 67440 (J.A. Nannfeldt 6032); Wenersborg, 22 Aug. 1892, on *R. acris* L., DAOM 178503 (A.G. Eliasson); on *R. repens* L., DAOM 179301 (A.G.E.); 3 Sept. 1894, on *R. repens* L., DAOM 178527 (A.G. Eliasson). Germany: Islebiam, Aug. 1875, on *R. repens* L., DAOM 178633 (Kunze, F. Sel. Exs. 175); Oestrich (Nassau), 1894, on *R. repens* L., DAOM 126594 (Fuckel, ex Herb. Fuckel); Haiger, 8 Sept. 1924, on *R. sardous* Crantz, DAOM 120327 (ex Herb. Dr. A. Ludwig. Flora von Hessen-Nassau). France: Vosges, 1843, on *Ranunculus*, DAOM 58970 (J.B. Mougeot, C. Nestler & W.P. Schimper, ex Stirpes Cryptogamae); Drew, Sept. 1882, on *R. acris* L., DAOM 178631 (Gallet, Ex Roumeguère, Fungi Gallici exs. 2926); Spain, Prov. de Malaga, Tolox, 2 May 1952, on *R. broteri* Freyn., DAOM 134409 (H. Roivainen).

L. ranunculi is distinct in several respects from *Pseudopeziza singularis* (Fungi Canadenses No. 229) which also occurs on *Ranunculus*. At low magnifications the brown exciple surrounding the apothecium is evident in *L. ranunculi* and faint or lacking in *P. singularis*. The ascus apex of *L. ranunculi* has an annulus that turns blue in IKI after KOH pretreatment (See Nannfeldt, Trans. Brit. Mycol. Soc. 67: 283-7. 1976). The ascospores of *L. ranunculi* are wider towards the ascus apex whereas those of *P. singularis* have a significant number inverted in the ascus. The paraphyses of *L. ranunculi* lack the mucilaginous appendage found in *P. singularis*. On the basis of very few North American collections it seems that *L. ranunculi* occurs on introduced species of *Ranunculus* of European origin while *L. singularis* occurs on native North American species. More gatherings are necessary to test this hypothesis.

R.A. Shoemaker
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