



1-4 from DAOM 136420; 5-7 from DAOM 63398; 8 from DAOM 136682; 9 from Fuckel, Fungi Rhenani 810 (type of *Ceratostoma caulincolum* Fkl.) (DAOM 139269); 1, ascocarp ($\times 150$); 2, asci; 3, paraphyses; 4, ascospores; 5, asci; 6, paraphysis; 7, 8, ascospores; 9, ascospores of *Scopinella caulincolum*. All figures $\times 1500$ except where indicated.

Scopinella solani (Zukal) comb. nov.

- \equiv *Melanospora solani* Zukal, Verh. Kaiserlich-königl. zool.-bot. Ges. Wien 35: 340. 1885.
 \equiv *Melanospora poae* Griffiths, Bull. Torrey Bot. Club 26: 433. 1899.
 \equiv *Ceratostoma melanosporoides* Winter in Rabenhorst's Kryptogamenflora 1(2): 254. 1887.
 \equiv *Ophiostomella melanosporoides* (Wint.) Petrak, Hedwigia 55: 236. 1925.

ASCOCARPS solitary to gregarious, superficial or produced below the host epidermis, globose, with a long neck, dark red-brown, glabrous or with scattered hyphal attachments, 130-210 μ in diameter. ASCOCARP NECK dark red-brown, paler and fimbriate at the immediate apex, composed of parallel hyphae, 300-500 \times 35-77 μ . ASCOCARP PERIDIUM composed of two tissue types: 1) an outer red-brown layer, and 2) an inner hyaline layer. Peridial cells isodiametric in surface view, moderately thick-walled, 6-13 μ in diameter, 3-5 μ thick in cross section. PARAPHYSES abundant, moniliform, lining the sides of the centrum wall and radiating toward the centre, 3-6 μ in diameter. ASCI lining the sides of the centrum wall at the base of the paraphyses, 8-spored, clavate, short-stipitate, evanescent, 13-25 \times 7.0-11.5 μ . ASCOSPORES barrel-shaped, with a dark brown, thick-walled median band, hyaline and thin-walled at the ends, collapsing at the ends when dried and allowing the spore to become bilaterally compressed, smooth, 4.5-6.5 \times 3.8-5.8 μ . CONIDIA unknown.

SUBSTRATE: On dead or senescent herbaceous plants.

DISTRIBUTION: Ontario, Northwest Territories.

COLLECTIONS: Ont., Simcoe Co., S. of Coldwater, on overwintered inflorescences of *Oenothera biennis*, 19.VIII.1968, DAOM 136420 (Malloch), and 12.X.1968, DAOM 136421 (Malloch); York Co., Willowdale, on overwintered stem of *Arctium minus*, 6.VII.1969, DAOM 136682 (Malloch). N.W.T., Ellesmere Is., Cape Belknap, on *Potentilla pulchella*, 16.VII.1955, DAOM 63398 (Schuster).

NOTES: *S. solani* is most similar to *Scopinella caulicola* (Fuckel) comb. nov. (basionym: *Ceratostoma caulicolum* Fuckel, Symb. Myc., p. 130. 1869), a species known so far only from Europe. The only difference between them seems to be the smaller ascospores of *S. solani*. The collection from Ellesmere Is. (also described and illustrated by M. E. Barr, Contr. Inst. Bot. Univ. Montreal 73: 64. 1959) has slightly larger spores than the rest of the *S. solani* collections examined and approaches *S. caulicola*. The spore size, however, definitely overlaps that of *S. solani* while being below that of *S. caulicola*, suggesting that it should remain with the former.

There are four species of *Scopinella* known, separable as follows:

1. Ascospores $4.5-6.5 \times 3.8-5.8\mu$ *S. solani*
1. Ascospores larger2
 2. Parasitic on stromata of *Apiosporina morbosa*; asci 2-spored (see Fungi Canadenses No. 83)*S. sphaerophila*
 2. On leaves and herbaceous stems; asci 8-spored.....3
3. Elements of the ascocarp neck flaying out into a mass of hairs extending 700-850 μ beyond the fused portion.....*S. barbata*
3. Ascocarp neck terminated by short setae*S. caulicola*

Melanospora parasitica Tulasne, a parasite on *Paecilomyces farinosus* (Holmsk. ex S.F. Gray) Brown and Smith and on *Beauveria bassiana* (Bals.) Vuill. on insects, is similar to the above species in having cylindrical ascospores. I have decided against placing it in *Scopinella*, however, because the spores are narrowly cylindrical and do not collapse longitudinally like those of the other four species.

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