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Sowerbyella brevispora, a new discomycete species from Finland

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The author describes the new species *Sowerbyella brevispora* Harmaja (Pezizales) from South Finland. It differs from the other species of the genus in the fulvous apothecia, smaller spores and thicker walls of the excipular hairs. *S. brevispora* was found among needles of *Picea abies* on non-calcareous soil. The new combination *Sowerbyella bauerana* (Cooke) Harmaja is also made.

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Sowerbyella brevispora Harmaja, n. sp. — *Ab aliis speciebus generis colore fulvo apothecii, sporis minoribus (9.0—12.0 × 5.0—6.5 μm) et tunica crassiore pilorum excipuli differt. — Typus:* Finland, prov. Etelä-Häme, par. Lammi, Hauhiala, S of Lake Lamminjärvi, 8.IX.1981 Krister Karttunen (H).

Apothecia up to ca. 6 cm high and up to 2 cm in diam, differentiated into distinct cup and stipe.

Cup deep at first, becoming shallower and irregular in age. Hymenium fulvous when fresh, medium to dark brown when dry. External surface concolorous with hymenium when fresh, ± pale brown when dry, very finely pubescent (hairs more easily discerned in dry apothecia but even then the outside appears glabrous to the naked eye).

Stipe ca. 2—5 cm long and 0.2—0.6 cm thick, ± concolorous with outer surface of cup, very finely pubescent, penetrating deep into the substrate.

Spores 9.0—12.0 × 5.0—6.5 μm, mostly ellipsoid, some being oblong and some subfusiform, slightly inequilateral; secondary wall persistent, continuous, strongly cyanophilic, thickest in submature spores, finely verruculose with abundant very small warts, which are separate and of about the same size throughout the spore; contents with two oil drops and, in most mature spores, one gaseous de Bary bubble.

Asci ca. 160—230 × 6.5—7.5 μm, eight-spored; walls inamyloid.

Paraphyses straight or slightly curved, enlarging upwards and clavate, many (most?) being widest just below the very apex, 3.0—6.0 μm in diam above; contents somewhat granular, yellowish in Melzer's reagent.

Anatomy. Excipulum composed of two layers. Ental part of untypical *textura intricata* with many inflated cells. Ectal layer of *t. angularis-globulosa,* with strongly cyanophilic intercellular matter. Hairs fairly abundant, emerging from the cells of the ectal layer, long, flexuous, 2.5—6.0 μm in diam, tips blunt and mostly enlarged: clavate, subcapitate or capitate; walls hyaline, ca. 0.7—1.0 μm thick, smooth, cyanophobic.

Specimens examined

Finland. *Etelä-Häme:* Lammi, Hauhiala, S of Lake Lamminjärvi, mesic fairly fertile heath forest (OMT) with *Picea abies* on non-calcareous soil, densely cespitose among needles at the base of a spruce tree, 8.IX.1981 Karttunen (H); the same place, 16.IX.1981 Harmaja & Olanen (H).

The microscopic characters have been examined on Melzer or cotton blue mounts of dried apothecia.

When my mycology course made a collecting trip in Lammi, South Finland, in 1981, one of the students discovered an unknown discomycete. It was fairly easy to assign the fungus to the genus *Sowerbyella* Nannf., but the species was at once suspected to be a new one. It is curious that the fungus was never observed earlier, though the exact habitat has been visited during my courses in early September every year since 1974.

With the addition of the above species and **Sowerbyella bauerana** (Cooke) Harmaja, n. comb. (*Peziza bauerana* Cooke, Mycographia: 129. 1876), the genus *Sowerbyella* Nannf. (Pezizales, Pyronemataceae) comprises five species: *S. bauerana* (Cooke) Harmaja, *S. brevispora* Harmaja, *S. fagicola* J. Morav., *S. imperialis* (Peck) Korf (*S. unicolor* (Gill.) Nannf.), and the type species, *S. radiculata* (Sow.: Fr.) Nannf. *S. brevispora* is easily differentiated from the other species of the genus by the fulvous colour of the apothecia, the smaller spores, and the thicker walls of the excipular hairs. *S. bauerana,* which, to the contrary of Nannfeldt (1938), is an independent species, resembles somewhat *S. brevispora.* However, the former has a hymenium displaying a different tinge of brown, spores which measure (without ornamentation) 11.0—13.0 × 6.5—7.2 μm and possess a ± regular net-like ornamentation, paraphyses with ± curved filiform

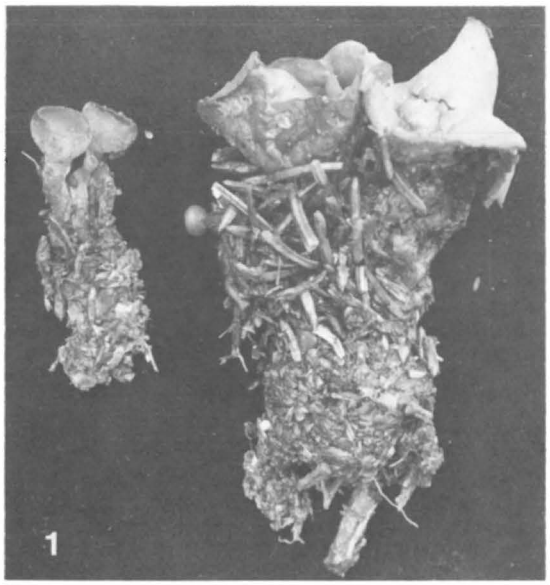

Fig. 1. *Sowerbyella brevispora* fresh, × 1.4 (type). — Photo: Tuomo Niemelä.

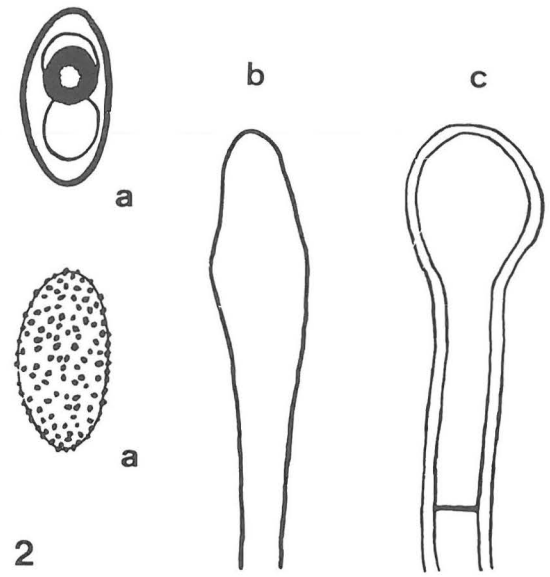

Fig. 2. *Sowerbyella brevispora* × 2500, cotton blue mount (type). a) spores, b) tip of paraphysis, c) tip of hair.

tips 2.0—3.0 μm in diam, and hairs which possess fairly thin walls and equal tips. Moravec (1973) gives a key to the three species of *Sowerbyella* which were recognized in the genus at that time. However, Korf (1972) reports that at least two apparently undescribed species occur in North America.

The spruce woods in Lammi where *S. brevispora* was found are inhabited by several other interesting and rare species of macrofungi, such as *Mycena* cf. *cyanorrhiza* Quél., *M. picta* (Fr.) Harmaja, *M.* cf. *rutilantiformis* Murr., *Squamanita* cf. *paradoxa* (Smith & Sing.) Bas, *Otidea formicarum* Harmaja and *O. tuomikoskii* Harmaja.

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