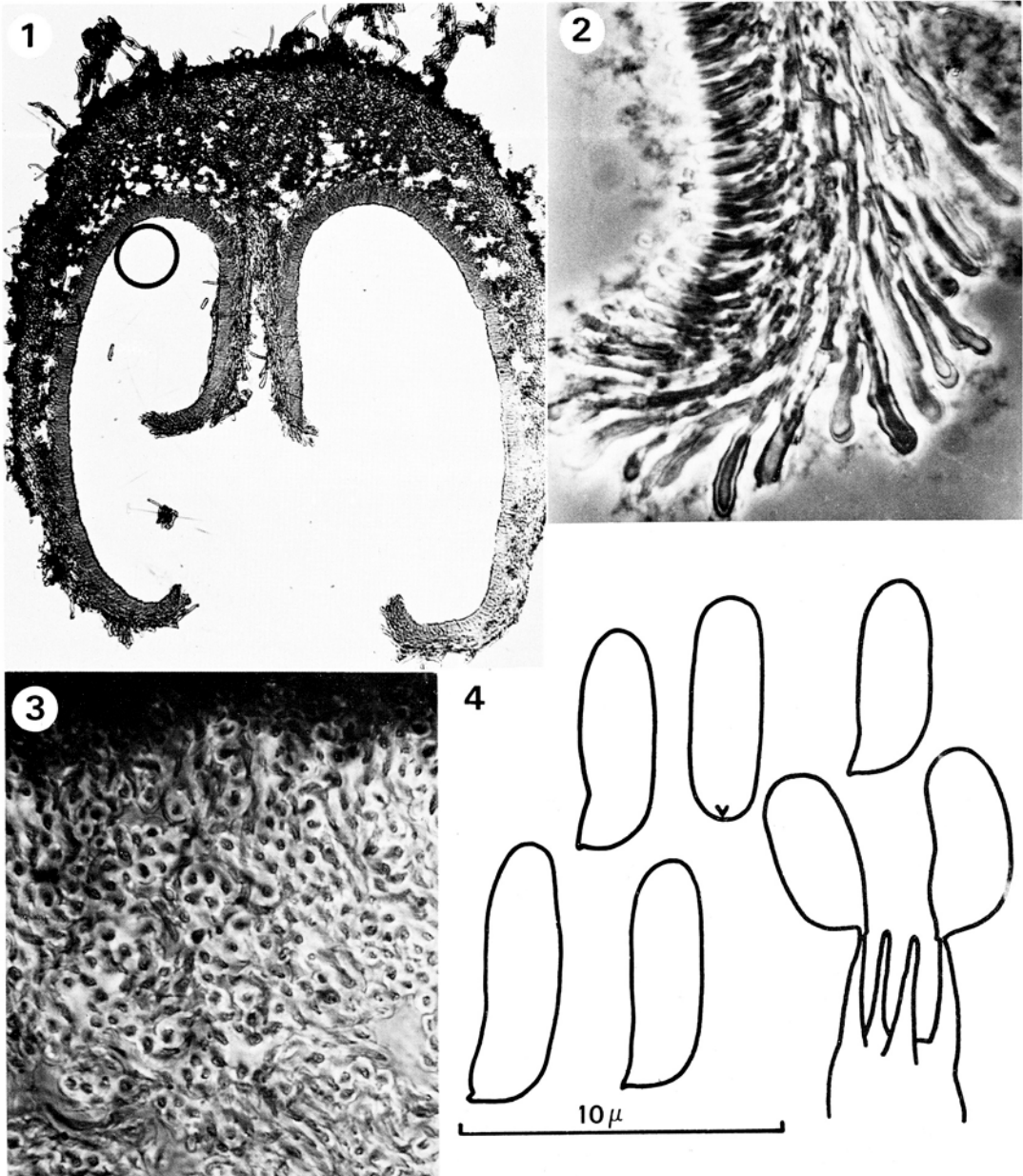


SCHIZOPHYLLUM COMMUNE



1, Tangential section through small basidiocarp showing scattered hairs on pileus surface, split gill, and hymenium (ca $\times 13$); 2, abhymental thick-walled hairs (ca $\times 800$); 3, thick-walled context hyphae with brown-walled hyphae above (ca $\times 800$); 4, basidiospores and apex of basidium. All from DAOM F5613.

Schizophyllum commune Fr., Syst. Myc. 1: 330. 1821.

BASIDIOCARPS generally gregarious, often imbricate, effused-reflexed to laterally stipitate, 0.5 to 5 cm diam., up to 2 mm thick. STIPE to 7 mm long and 3 mm diam., generally circular in transverse section. PILEUS, surface color whitish to gray or gray brown, texture variable: matted tomentose, mealy or hirsute; MARGIN even, wavy, lobed or deeply incised; GILLS split, hymenial surface pale tan, smooth, brittle, ceraceous; TRAMA hard, brittle, ceraceous, tan, distinct from the fibrous context.

CONTEXT HYPHAE loosely woven or aggregated into strands of parallel hyphae, flexuous or straight, unbranched, aseptate, 3.0-6.8 μ diam., the wall even, hyaline or in a few pale brown, thickened (to 1.2 μ), swelling (to 10 μ) and dissolving in Melzer's reagent, unchanged in KOH or lactic acid. TRAMAL HYPHAE closely packed, parallel or occasionally contorted and twisted, frequently branched, with clamp connections, 1.2-4(-5.4) μ diam., walls hyaline, thin to very slightly thickened. HAIRS on the abhymenial surface of the split in the gills with slenderly clavate tips or some bifurcately branched at the apex, in some specimens the tips incrustated with fine granules, with retraction septa and a clamp at the basal septum, 5-8 μ diam., wall thickened (to 2 μ), hyaline or pale brown. SUBHYMENIUM about 15 μ thick, of intricately woven, thin-walled, clamped hyphae to 4 μ diam. BASIDIA slenderly clavate, 20-25 \times 4-6 μ , four-sterigmate, each sterigma 3.4 μ long. SPORES in face view cylindrical with broadly rounded ends, in profile adaxially flattened to slightly concave or basally bent, 6-8(-9) \times 2-2.4(-2.8) μ , the wall hyaline, thin, smooth, moderately blue after 16 hours in cotton blue, hyaline in Melzer's.

SUBSTRATE: Saprophytic on wood of a broad range of species.

DISTRIBUTION: Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia.

COLLECTIONS (selected): N.S., Kentville, 9 Nov. 1953, DAOM 112187 (K.A. Harrison); N.B., Tobique R., July 1884, 51560 (G.U. Hay); Que., Old Chelsea, 26 Aug. 1934, F5016 (I.L. Conners & M. Timonin); Ont., Timagami, Bear Isle, 30 Aug. 1930, F1503 (I.L.C.); Man., Winnipeg, 15 July 1927, F3288 (I.L.C. & G.R. Bisby); Sask., Foam L., 20 June 1935, F5613 (Howe & Russell); Alta., Strachan, 24 June 1954, 49691 (Hewitt & Carmichael, CFP 1774); B.C., Vancouver I., Parksville, 23 May 1948, 21333 (W.G. Ziller, V-2795).

NOTES: The species is unspecialized in choice of substrate, and cosmopolitan (see W.B. Cooke's extensive records in Mycologia 53: 575-599. 1961). According to Conners (Annotated index of plant diseases in Canada. Res. Branch Publ. 1251. Can. Dept. Agric. Ottawa. 1967) its Canadian distribution extends to Newfoundland.

The distinctive split gills, readily seen in the field, have led to taxonomic uncertainty, the fungus being classified at one time or other in the Agaricaceae, the Polyporaceae and the Thelephoraceae. Currently it is thought to be allied to the cyphellaceous fungi (Donk, Acta Bot. Neerl. 15: 95. 1966), a position which is supported by the morphology of the basidiocarp (see fig. 1). The dissolving of the walls of the context hyphae in Melzer's has not been reported previously.

The consistent production of basidiocarps in vitro has led to the extensive use of *S. commune* in genetic studies, particularly by Professor J.R. Raper, Cambridge, Mass., his students and colleagues.

J. Ginns