November 2013

Schizophyllum Notebook 1

L. R. Hesler

Schizophyllum

Finder, D.H. The genus Schizophyllum. I. The species of the western hemisphere. Amer. Jour. Bot. 20: 552-555. 1933.

Singer (Lilloa 23: 179. 1950) believes that Schizophyllum radiatum is conspecific with S. commune Fr.

C
O
P
Y

Department of Health, Education, and Welfare
Public Health Service

C
P
Y

July 29, 1958

AIR MAIL

Dr. L. R. Hesler
Department of Botany
University of Tennessee
Knoxville, Tennessee

Dear Dr. Hesler:

Thank you for the loan of specimens of Schizophyllum. The material is being returned under separate cover. There were 34 packets and boxes. I have enclosed annotation labels with each. I trust you will excuse my short cut on those on S. commune. Your collection runs heavily toward S. fasciatum (2) and S. umbrinum (2). This 11.8% and of the 2300 specimens seen so far only 3.5% are not of S. commune.

My interest in this genus is related to John Raper's problem. It is also related to my work in the Cyphellineae of which I believe it to be a member.

Linder recognized 6 species in the western hemisphere. So far I find only 4 named ones. I place S. radiatum and S. brevilamellatum in S. commune. There is no clear line of distinction morphologically - try separating them by Linder's characters (except geography) on punch cards! In this sense, S. commune occurs wherever there is decaying wood in the world.

In Linder's second group of species are three, all of which are good, distinct (in spite of Murrill - see your specimens), and restricted in distribution to the Caribbean, coming as far north as Jacksonville, Florida. One as yet undescribed species, represented by one specimen, comes from central Brazil.

I will be interested in your reactions to my observations.

Sincerely yours,

/S/ Wm Bridge Cooke

Wm. Bridge Cooke, In Charge
Fungus Studies
WS and WP Program

SCHIZOPHYLLUM RADIATUM (Swartz) Fr.

Nov. Symb. Myc. in Nova Acta Sci., Ser. 3, 1:41. 1855

(Linder: Amer. Jour. Bot. 20:557)

"Pileus thin, coriaceous, of two types (a) suborbicular, sessile or substipitate and (b) flabelliform, broadly or digitately lobed, sessile, substipitate, or stipitate by elongation of the margin of the pileus, both types with a villose pellicle that may or may not be zonate, white, grayish-white, brownish or 'Wood Brown' to 'Fawn' of Ridgway (1912); context 108-414 μ thick, otherwise as in S. commune; gills radiating from the point of attachment of the pileus and interspersed with shorter ones, whitish to brownish, and hirsute on the abhymenial side, ochraceous to brownish ('Wood Brown') on hymenial side, (400)-760-1160 μ long, 36-108 μ broad at tip, (81)-117-225 μ broad at the base; abhymenial hairs of two types that are correlated with the types of pilei, (a) stout, simple, hyaline, thick-walled, long exserted hairs often incrusted with granules, and (b) stout, hyaline, thick-walled, acutely short-exserted hairs, 3.5-5.5-(7.2) μ diam., either somewhat swollen terminally or else shortly bifurcate near the apex; basidia narrowly clavate to clavate, (14)-18-21-(31) x 2.5-4 μ with four slender sterigmata; spores hyaline, ovoid to ellipsoid and obliquely apiculate, 4-6 x (1.5)-2-2.5 μ."

Habitat and Distribution. - On wood, Georgia, Florida, Louisiana, all seasons.

(more, next page)

Notes on Univ. of Fla. Collection No. F44908

Spores 6-8 x 2.5-3.5 μ, oblong-ellipsoid, smooth, yellowish-brown in Melzer's. Pleurocystidia and cheilocystidia none. Hairs abundant on edges and along sides (near edges) of lamellae hyphoid, 23-48 x 2.5-4 μ. Gill-trama subparallel. Subhymenium rather well-differentiated.

This collection may be S. commune.

SCHIZOPHYLLUM UMBRINUM Berk.

Hooker's Jour. Bot. 3:15. 1851

(Linder: Amer. Jour. Bot. 20:560)

"Fruiting bodies small, less than 1 x 1.5 cm., rather thick, suborbicular to flabelliform, lobate to deeply cleft, subsessile to laterally stipitate, the stipe when present sometimes strigose with white hairs, solitary (?) or gregarious, dark brown; context hyaline or somewhat brownish tinged, bordered on the upper surface by a narrow fuscous zone and covered by a pellicle of loosely intertwined fuscous hyphae, the hyphae of the context with walls that are thicker than the diameter of the lumen, 350-525 μ thick; gills dark brown, longitudinally cleft, short and tightly inrolled, the context brownish, 350-550 μ long, 60-75 μ thick near the tip, 145-180 μ thick at the base; abhymenial hairs fuscous, closely applied, undulate or spirally undulate, rarely somewhat contorted, 3.5-5.5 μ diam.; basidia broadly clavate and tapering slightly towards the base, the young ones with very thick hyaline or dilute fuscous walls and frequently surmounted by a brown secretion, 15.5-23.5 x 4-5 μ, the older basidia thin-walled and projecting beyond the hymenium, 19-26 x 4-5 μ; spores hyaline, ellipsoid and obliquely apiculate, 4.5-6 x 2-2.5 μ."

Habitat and Distribution. - On trunk of Persea americana, Florida (see Mycol. 36:554.).

SCHIZOPHYLLUM COMMUNE Fr.

(Notes by Ruby Rice)

"The TRAMA may be characterized as parallel, divergent at the subhymenium. The axial hyphae are thick-walled, about 9 μ in diameter, rarely if at all septate, occasionally branched; the walls stain only very slightly. They are free from each other, so that when the gill is split their ends become loosened and project as long, stiff hairs. Peripherally the hyphae become thinner-walled and somewhat smaller (6 μ and less in diameter); they apparently contain more or less cytoplasm, as is shown by the fact that they stain rather deeply. Buller illustrates the SUBHYMENIUM as cellular (1909:118, fig. 45), but close observation of several sections has shown the writer that it is densely ramose, appearing cellular in sections which are not exactly transverse. The basidia are very slender."

10129 - Schizophyllum commune Fr.