

**Lyophyllum montanum** sp. nov.

Pileus 3—6.5 cm. latus, obtusus vel convexus, demum plano-umbonatus, impolitus, murinus demum subalutaceus; lamellae murinae, latae, adnatae, secedentes, confertae; stipes 3—7 cm. longus, 10—16 mm. crassus, subequalis, impolitus, in corticis umbrinus; sporae 6.5—8  $\approx$  3.5—4  $\mu$ ; hyphae fibulatae.

Specimen typicum in Herb. Univ. Mich. conversatum: legit prope Univ. Wyoming Science Camp, Medicine Bow Mts., Wyo., June 21, 1950, Smith n. 34297.

Pileus (2)3—6.5 cm. broad, obtuse to nearly convex, the margin incurved at first, expanding to broadly convex or with an obscure umbo, the margin even at first but at times becoming crenulate to undulate, surface opaque at first from a hoary "pale smoke gray" coating which gradually disappears exposing the lead color to putty colored naked surface, these colors slowly changing to grayish clay-color or dingy alutaceous, lubricous after glaucous coating has disappeared; flesh thick and soft, umber but soon fading to whitish, unchanging when cut or bruised, odor and taste not distinctive.

Lamellae "drab" to "cinnamon drab" or paler, on aging becoming more cinereous, broad, depressed around stipe or in age nearly free, rounded at the stipe, close, edges even.

Stipe 3—5(7) cm. long, 10—16 mm. thick at apex, subequal, base in many enlarged slightly and mycelioid, surface near apex canescent like that of pileus, umber when canescent coating is removed, interior hollow or soon becoming so and cortex umber in color.

Spores 6.5—8  $\approx$  3.5—4  $\mu$ , smooth, white in deposits, yellowish in Melzer's sol., oblong to narrowly ellipsoid; basidia four-spored, 23—27  $\approx$  5—6  $\mu$ ; pleuro- and cheilocystidia none; gill trama hyaline in KOH, interwoven to subparallel, subhymenium indistinct; pileus trama floccose and interwoven, more compactly interwoven near the surface and surface covered by a very thin poorly defined subgelatinous layer of narrow hyphae (representing all there is of a pellicle), clamp connections present.

Habit, habitat and distribution: Gregarious-subcespitate under spruce and fir, often in close proximity to melting snow banks, Univ. of Wyoming Science Camp, Medicine Bow Mts., Wyo., June 21, 1950, Harry Thiers (A. H. Smith - 34297).

Observations: This is one of the characteristic vernal species of Rocky Mountain agaric flora. It frequently comes up through the snow at the edge of snow banks, or may develop under a snow bank only to be exposed after the snow has melted. It is a nondescript sort of mushroom as far as color is concerned, and because the carpophores persist so long in their well-cooled habitat, considerable

change in appearance takes place from the time the specimens mature until they decay or dry up. In Singer's 1951 classification it would go in Section Tephrophana subsection Ellipsoidiosporina. In my own manuscript on this genus, which includes over 100 species, it keys out by virtue of ellipsoid spores more than 6.5  $\mu$  long, the thick stipe (3—6 mm. or more), broad gills, no distinctive odor and taste, and adnexed to depressed drab gills. When perfectly fresh it resembles *Clitocybe inornata* in appearance but is readily distinguished on spore characters.

*Lyophyllum rancidum* (Fries) Singer.

Pileus 1.5—2.5(3) cm. broad, conic with an incurved margin, becoming conic-campanulate or margin spreading and umbo abruptly conic, surface hygrophanous, at first with a distinct hoary-canescens coating, very dark fuliginous to blackish beneath the hoariness, finally merely dark gray and with a faintly striate margin before fading, fading to pallid dingy gray to whitish, fading on umbo first; flesh thin but cartilaginous, dark gray fading to whitish, odor rancid-farinaceous, taste slightly farinaceous. Lamellae close to nearly crowded, depressed-adnate to adnexed, narrow, becoming moderately broad, dark drab when young, paler drab in age and staining slightly darker gray when bruised, edges whitish and even.

Stipe 8—12 cm. long (pseudorhiza 4—8 cm. long), width 2.5—4 mm. at apex, equal or slightly enlarged at ground line, glabrous and polished or white canescent toward the apex, remainder dark to pale drab, pseudorhiza whitish, consistency very cartilaginous, interior stuffed with a white pith.

Spores 7—8.5  $\approx$  3.5—4.5  $\mu$ , ovoid to ovate-pointed, hyaline, smooth, thin-walled, nonamyloid; basidia fourspored, 26—30  $\approx$  6—7  $\mu$ , hyaline in KOH; pleuro- and cheilocystidia none seen; gill trama subparallel, hyphae scarcely differentiated, color in KOH pallid, subhymenium indistinct and very narrow; pileus trama with a thin subgelatinous pellicle of interwoven, appressed, narrow, hyaline hyphae, remainder of trama of compactly interwoven,  $\pm$  differentiated hyphae; clamp connections present.

Habit, habitat and distribution: Scattered along trail, Still Creek, Mt. Hood National Forest, Ore., Oct. 17, 1944 (Sm-19843).

Observations: Sections revided in KOH are colorless or nearly so. The western collections check very well with the European descriptions. It seems to be a very rare fungus in North America. Wm. B. Gruber and I found it infrequently during the season of 1944 in the Mt. Hood National Forest, but during all subsequent years it has been found only once or twice during a season or not at all.