

readily from dried as from fresh material. The pellicle of a viscid species gelatinizes appreciably and has a very characteristic appearance in either water-mounts of fresh material or in mounts of dried material revived in KOH. In Kauffman's collections from the Adirondack Mountains of New York, in one collection he made in Sweden, in his Colorado specimens, and in all of my collections from the Adirondacks, Nova Scotia, Ontario and Tennessee the pilei possess the thick gelatinous pellicle characteristic of a viscid species. The taste of these collections was not recorded, and they were all identified as *P. flammans*. Since the hyphae of the pellicle are very narrow (2.5–4  $\mu$ ) and form a rather sharply differentiated layer between the scales on the surface and the main portion of the tramal body, it is doubtful if Métrod would have overlooked them in his study. Consequently, on the basis of Kauffman's collection from Sweden, it appears that *P. Kauffmaniana* occurs there as well as throughout the United States. The bundles of needle-like crystals which form in mounts of *P. Kauffmaniana* revived in KOH may be an additional distinguishing character.

***Tricholoma atroviolaceum* sp. nov.**

Pileus 5–12 (14) cm. latus, obtusus vel umbonatus, siccus, atro-violaceus et squamulosus; odor et sapor farinaceus; lamellae confertae, sinuatae, latae, fumoso-avellaneae; stipes 6–14 cm. longus, 10–30 mm. crassus, solidus, subcinereus mox umbrinus, fibrillosus demum furfuraceus; sporae 7–9  $\times$  3.5–6  $\mu$ . Specimen typicum in Herb. Univ. of Mich. conservatum: Legit A. H. Smith 8195 prope Kerby, Ore., Nov. 29, 1937.

Pileus 5–12 (14) cm. broad, obtuse and with a slightly incurved margin when young, becoming broadly umbonate or plane, the margin spreading or recurved somewhat in age and frequently plicate or splitting radially, surface dry and covered over all except the margin by minute recurved blackish violet scales, color blackish violet from the dense covering of fibrils ("dark grayish brown" over central part and "benzo brown" along the margin, darker in age); flesh thin but rigid and brittle (4–5 mm. near the stipe), sordid brownish gray to nearly "drab-gray," odor very strongly farinaceous, taste slightly to strongly farinaceous, no color change when cut or bruised but sometimes gradually darkening; lamellae close, 1–2 tiers of lamellulae, sinuate to adnexed, broad (up to 1 cm.  $\pm$ ), very brittle, "light cinnamon-drab," "light drab" or "wood-brown" (dull cinnamon overcast

with gray), edges uneven to eroded and usually staining blackish; stipe 6–14 cm. long, 10–30 mm. thick, equal to enlarged above or sometimes with an abruptly bulbous base, solid, tinged pale drab within, pallid at very first but soon tinged “benzo brown” and finally quite dark, surface appressed fibrillose and becoming somewhat furfuraceous at times from the broken cuticle (color darker when the fibrillose coating is dense).

Spores subellipsoid to subovoid,  $7-9 \times 4.5-6 \mu$ , not amyloid; basidia four-spored; pleuro- and cheilocystidia not differentiated; gill trama subregular, not or only very slightly amyloid; pileus trama pallid and homogeneous beneath a surface layer distinctly differentiated by the dark fuscous brown color of the cells, the pigment located on the wall as a very thin incrustation.

Gregarious under conifers, Oregon-California state line near Kerby, Ore., Nov. 29, 1937 (8195-type); scattered under conifers, Olympic Hot Springs, Olympic Mts., Wash., Oct. 2, 1941 (17,539), same locality Oct. 8 (17,701), Oct. 11 (17,764), Oct. 15 (17,906); Storm King Mountain, Olympic National Park, Oct. 16, 1941 (17,971); Mt. Angeles, Olympic Mountains, Wash., Oct. 20, 1941 (18,063).

Observations: *Tricholoma hordum* Fries *sensu* Ricken is described as having an almost violet-black pileus, but lacks a farinaceous odor and taste, has distinctly smaller spores, and apparently a paler stipe. Fries described *A. hordus* as cinereous as well as lacking a distinctive odor and taste, so my collections cannot be placed there. *Tricholoma elytroides* is also close but should be readily distinguished by its smaller spores and paler pilei. *T. pardinum sensu* Konrad and Maublanc is also close but readily distinct by its paler color. The lack of cheilocystidia distinguished *T. atrovioleaceum* from such fungi as *T. atosquamosum* and *T. squarrulosum*. *T. murinaceum sensu* Bresadola has a bitter then acrid taste, and apparently much paler colors.

### ***Tricholoma aurantio-olivaceum* sp. nov.**

Pileus 1–3.5 cm. latus, conico-campanulatus, siccus, aurantio-fibrillosus demum obscure aurantius; lamellae confertae, latae, adnexae, ventricosae, pallidae, aurantio-maculatae dein olivaceo-cinereae; stipes 4–6 cm. longus, 3–5 mm. crassus, deorsum attenuatus, aurantio-fibrillosus, sursum aurantio-guttatus; sporae  $5.5-7 \times 3.5-4.5 \mu$ .—Specimen typicum in Herb. Univ. of Mich. conservatum: Legit prope Olympic Hot Springs, Olympic National Park, Wash., Oct. 8, 1941, A. H. Smith 17,666.