

ochraceous in KOH and also in Melzer's; thickened walls hyaline in Melzer's. Cheilocystidia similar to pleurocystidia but smaller. Caulocystidia none found.

Gill trama of a parallel stratum of hyphae ochraceous in KOH and with smooth walls; subhymenium of gelatinous narrow (2–3 μ) interwoven hyphae in a gelatinous matrix, the hyphae with walls ochraceous and mostly with banded to spiral incrustations; beneath this a band of floccose hyphae 4–12 μ diam. with rusty colored patches of incrustated material (a hypodermium). Context hyphae pale ochraceous, smooth and cells 5–15 μ diam., walls scarcely darker in Melzer's reagent. Clamps regularly present.

HABIT, HABITAT, AND DISTRIBUTION: Scattered on conifer logs, summer and fall Idaho and Washington.

OBSERVATIONS: For a comparison with *P. humii* see that species. *P. vinaceobrunnea* is closest to *P. decorata* but differs in the thicker-walled pleurocystidia. However, it is to be regarded as part of the *P. decorata* complex.

MATERIAL EXAMINED: IDAHO: Smith 68927 (type), 71217, 73869. WASHINGTON: Smith 40486, 40494.

134. ***Pholiota velaglutinosa* sp. nov.**

Illustrations: Text figs. 272-274; pl. 62.

Pileus 3–6 cm *latus*, *convexus*, *demum explanatus*, *glutinosus*, *ad marginem appendiculatus*, *sordide vinaceo-brunneus*. *Lamellae adnatae*, *latae*, *confertae*, *avellaneae demum ligno-brunneae*. *Stipes* 3–6 cm *longus*, 4–8 mm *crassus*, *sursum sericeus et olivaceoluteus*; *deorsum fulvus*. *Annulus gelatinosus*. *Sporae* 6–7.5 \times 3.7–4.5 μ . *Pleurocystidia* 55–82 \times 9–15 (20) μ , *fusoide ventricosa*. *Cheilocystidia* 30–55(60) \times 10–15(20) μ , *utriformia vel subfusoidia*. *Specimen typicum in Herb. Univ. of Mich. conservatum est*; *legit prope Cave Junction, Oregon, 29 November, 1937, Smith 9285*.

Pileus 3–6 cm broad, convex becoming plane or the margin elevated and wavy, glutinous to viscid, the marginal area decorated with the thin patches of fibrils, and often more or less appendiculate from the remains of the glutinous partial veil, color bright to dingy vinaceous brown ("cameo-brown") over all but becoming "sorghum-brown" or finally nearly "wood-brown" on the margin) appearing finely fibrillose-streaked beneath the pellicle. Context pliant, greenish yellow, buff colored in age; odor and taste not distinctive.

Lamellae adnate and with a slight decurrent tooth, near avellaneous but becoming "wood-brown" at maturity, broad, close, edges even.

Stipe 3–6 cm long, 4–8 mm thick, equal, hollow, with an apical glutinous evanescent annulus, silky and greenish yellow above, coated with appressed buff-yellow fibrillose patches or concentric zones below annulus, becoming rusty stained where handled, and dark brown below in age.

Spores $6-7.5 \times 3.7-4.5 \mu$, smooth, germ pore present as a minute hyaline spot under highest magnification; dull cinnamon in KOH, slightly paler in Melzer's reagent, in face view elliptic to broadly elliptic or ovate; in profile subovate to slightly bean-shaped; wall relatively thin.

Basidia 4-spored, $20-25 \times 6-7.5 \mu$, hyaline in KOH, yellowish in Melzer's reagent, clavate. Pleurocystidia abundant, $55-82 \times 9-15 (20) \mu$, fusoid-ventricose with the apex subacute to obtuse, smooth, content often colloidal and ochraceous in the neck, ventricose portion with wall $0.5-1.5 \mu$ thick, wall of neck often flexuous. Cheilocystidia $30-55 (60) \times 10-15 (20) \mu$, utriform to subfusoid with apex obtuse, thin-walled, content often ochraceous, smooth. Caulocystidia $42-60 \times 7-20 \mu$ fusoid-ventricose to subfusoid, similar to cheilocystidia and often with ochraceous content.

Gill trama of a central area of parallel to subparallel hyphae with hyaline to yellowish thin smooth walls, the cells long or short and $4-9 \mu$ diam., but inflating in age; subhymenium gelatinous, hyaline, of interwoven narrow hyphae. Pileus cutis a gelatinous layer usually over 100μ thick, of narrow ($2-3 \mu$) mostly incrustated tubular hyphae hyaline to yellowish in KOH; hypodermium a dark rusty brown (in KOH) layer of floccose heavily incrustated hyphae with cells $4-15 \mu$ diam. Context hyphae interwoven, the cells greatly inflated, thin or with slightly thickened walls, hyaline to yellowish in KOH. All hyphae inamyloid. Clamp connections present.

HABIT, HABITAT, AND DISTRIBUTION: Scattered on humus under pine, Oregon and California.

OBSERVATIONS: This species differs from *P. ferrugineo-lutescens* in the more bean-shaped spores in profile view, and in more of the pleurocystidia having subacute to obtuse apices. In the dried specimens the veil dries to resemble a thin-sheet of plastic over the gill cavity. For further comment see *P. ferrugineo-lutescens*.

MATERIAL EXAMINED: CALIFORNIA: Lanphere 18. OREGON: Smith 3560, 9218, 9285 (type).

135. *Pholiota decorata* (Murr.) comb. nov.

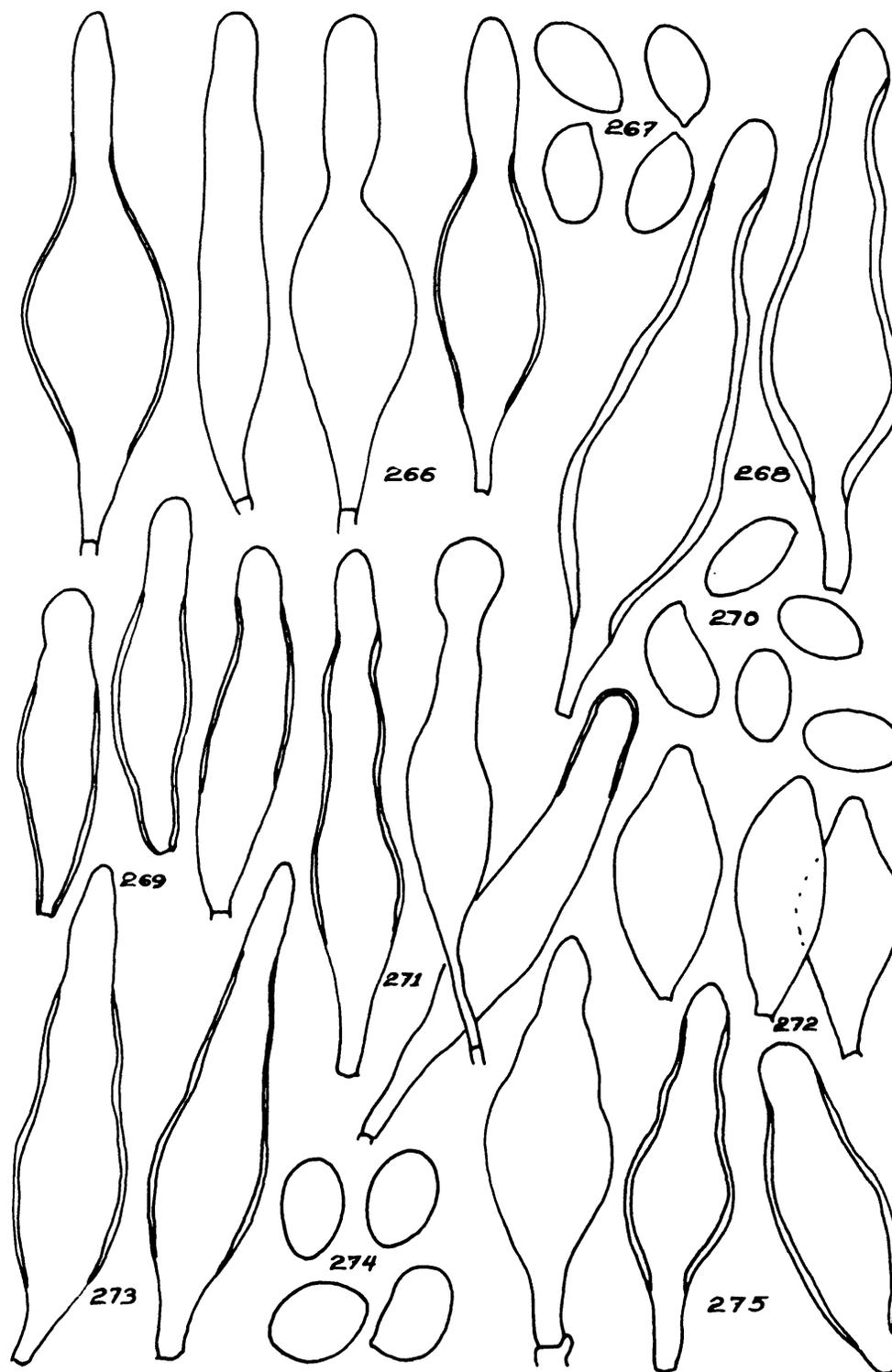
Gymnopilus decoratus Murrill, Mycologia 4: 251. 1912.

Flammula decorata (Murr.) Murrill, Mycologia 4: 262. 1912.

Illustrations: Text figs. 287-288; pls. 63-64, 79b.

Var. *decorata*

Pileus 3-7 (9) cm broad, obtuse to convex when young, expanding to umbonate with a spreading margin, or nearly plane, disc dark vinaceous brown ("natal-brown," "army-brown" to "cameo-brown" at first, fading to near "fawn-color") the margin pallid to avellaneous, in age often "Isabella-color," surface glutinous to viscid, with numerous to scattered rows of concentrically arranged fibrillose scales above the gela-



Text Fig. 17.

FIG. 266 & 267, pleurocystidia and spores of *P. olivaceophylla*; 268-270, pleurocystidia, cheilocystidia and spores of *P. adirondackensis*; 271 pleurocystidia of *P. agglutinata*; 272-274, cheilocystidia, pleurocystidia and spores of *P. velaglutinosa*; 275, pleurocystidia of *P. alabamensis*.



Pholiota velaglutinosa × 1 Smith 3560