

ous, hyphal walls brownish in KOH; pileus-trama with a surface layer of vesiculose cells loosely arranged and one cell deep, homogeneous beneath, the hyphae with brownish walls in KOH.

Singly on fallen leaves and trash, Lake Crescent, Washington, June 9 (14188), June 22 (14524), July 4 (14749), and July 5, 1939 (14792).

The long and relatively very narrow spores are distinctive. I do not believe the development of a pinkish pigment in the sap of the vesiculose cells which cover the pileus and in the cheilocystidia is a sufficiently constant character to be taxonomically valuable. All of the collections cited above were from the same trash heap, but the color change was present only in the first two. I have noted this color change in several species of *Psathyrella*.

***Stropharia Kauffmanii* sp. nov.** (Pl. XXIII).—Pileus 6–15 cm. latus, convexus, siccus, innate squamosus vel fibrillosus, pallide fulvus; lamellae adnatae, confertae, angustae, pallidae demum lividae; stipes 6–10 cm. longus, 1.5–3 cm. crassus, squamosus; spora 6–7 × 4–4.5 $\mu$ . Specimen typicum legit prope Clearwater River, Olympic Mountains, Washington, May 9, 1939, A. H. Smith, n. 13256, in Herb. Univ. Michigan conservatum.

Pileus 6–15 cm. broad, broadly convex with an incurved margin, remaining convex with a spreading margin or becoming plane, surface dry and densely innately fibrillose scaly, scales more or less squarrose over the disk and merely recurved toward the fringed margin, scales “wood brown,” “tawny-olive,” “ochraceous-tawny” or “cinnamon brown,” ground color distinctly yellowish (“warm buff”); flesh thick, 1.5 cm.  $\pm$  over the disk, abruptly tapering to the margin, white, soft but not fragile, odor and taste subnauseous; lamellae depressed adnate, often attached only by a tooth, crowded (65–115 reach the stipe), very narrow (2–3.5 mm.), very thin and breaking transversely readily, pallid but soon becoming “drab,” often crisped, edges often eroded; stipe 6–10 cm. long, 1.5–3 cm. thick, equal more or less, often compressed, hollow, fleshy, firm, whitish within, surface whitish but strongly tinged “cream color” toward the base, squarrose scaly above and below the superior submembranous evanescent

annulus, becoming fibrillose scaly in age (the scales above the ring are formed by the broken cuticle, those below are made up of lacerated stem tissue and veil tissue combined), base furnished with numerous white rhizomorphs; spores  $6-7 \times 4-4.5\mu$ , ellipsoid, lacking an apical germ pore, dull reddish brown under the microscope, "army brown" or near it in mass; basidia four-spored; cheilocystidia  $50-60 \times 10-12\mu$ , subcylindric to subfusoid, apices acute or obtuse; pileus-trama homogeneous with aggregations of fibrils projecting from the surface layer which cause the conspicuous scales.

Singly to gregarious under brush piles in woods of alder, maple and cottonwood, Clearwater River, Olympic Mountains, Washington, May 9, 1939 (13256-type); near Graves Creek Inn, on the south fork of the Quinault River, May 23 (13703); along the Hoh River, near the Jackson Guard Station, Olympic National Park, May 20 (13600); and along the Elwha River, June 12 (14287) and June 23, 1939 (14585). Kauffman collected it at Lake Quinault, Washington, in 1925. He recognized it as a new species, but had not published it.

*Stropharia Kauffmanii* is one of the most distinctive species of *Stropharia* known. The fibrillose character of the pileus reminds one of that of *Boletinus cavipes*; in fact, if one did not take the trouble to pick up a specimen and look at the under side, one could easily mistake it for that species. Its relationships within the genus are a bit obscure. It does not belong with such fungi as *Stropharia squamosa* or *Stropharia depilata* and has no relationship whatever with the section *Spintrigerae*. In the ocher-brown-spored fungi its closest parallel is in the *Pholiotas* of the *P. squarrosa* type.

***Stropharia silvatica*** sp. nov. (Pl. XXII).—Pileus 2–4 cm. latus, obtusus, demum umbonatus, viscidus, glaber, subcrustulinus demum pallide luteus; lamellae adnatae, ventricosae, confertae, albidae demum subolivaceae vel sordide brunneae; stipes 8–16 cm. longus, 3–5 mm. crassus, valde radicans, fragilis, viscidus, luteus, sursum pallidus; annulus evanescens; sporae  $10-12.5 \times 5.5-7.5\mu$ . Specimen typicum legit prope Kalaloch, Washington,



*Stropharia Kauffmanii* Smith. × 1.