

25. **Suillus fuscotomentosus** Thiers & Smith sp. nov.

Pileus 3.5-15 cm latus, obtusus vel convexus demum late convexus, subviscidus, tomentosus-squamulosus, fusco-brunneus demum vinaceo-brunneus; sapor subacidus; stipes 4-10 cm longus; 1-3 cm crassus, subclavatus, glanduloso-maculatus, pallide luteus; vellum nullum; sporae 9-12 × 3-4 μ ; pleurocystidia fasciculata. Typus: Thiers 10759 (SFC).

Pileus 3.5 - 15 cm broad when mature; when young subconic to convex to obtusely convex, becoming broadly convex to plano-convex, occasionally highly irregular in shape with undulating margin; surface moist to obscurely viscid with age, conspicuously fibrillose to fibrillose-scaly to almost squamulose when young, fibrils often becoming agglutinated at the tips, sometimes becoming less dense with age and appearing appressed, sometimes appearing glabrous when very old; when young colored olive brown near to fuscous "clove brown" to "bone brown" to "fuscous") on the disc, unchanging or fading slightly toward the margin, with age slowly fading to dark vinaceous brown ("Roods brown" to Vandyke brown" to "verona brown" to "warm sepia"), eventually becoming near cinnamon ("clay color" to "tawny olive" to "cinnamon" to "sayal brown"), occasionally disc remaining as dark as "verona brown" and fading to "cinnamon" to "avellaneous" on the margin, fibrils more or less concolorous or darker than the surface; margin entire, glabrous, no evidence of partial veil during any stage of development. Context 1-2 cm thick on the disc, colored "ivory yellow" to "cartridge buff" in young carpophores, changing to "primrose yellow" to "cream color" to "naphthalene yellow" in older carpophores; unchanging when exposed; taste not distinctive to weakly acid and unpleasant, odor not distinctive.

Tubes adnate to shallowly and narrowly depressed around the stipe, unchanging or becoming subdecurrent to broadly shallowly depressed with age; up to 1.5 cm long; when young pale yellow ("deep colonial buff" to "colonial buff" to "deep olive buff") changing to near

"antimony yellow" to "warm buff" finally becoming olive yellow "isabella color" to "chamois" to "old gold" to "olive lake"), unchanging when exposed or bruised; pores up to 1 mm broad, frequently less, rarely more, angular, concolorous, unchanging when bruised.

Stipe 4-10 cm long, 1-3 cm broad at the apex; equal to typically obscurely clavate to clavate; surface strongly and often noticeably punctate, glands relatively large and often becoming elongated with age, more or less concolorous with surface, darkening when handled; moist but not viscid, when young colored near "Naples yellow" to "mustard yellow", with age sometimes becoming near "amber yellow" to "strontian yellow" at the apex, typically becoming "pale olive buff" to "warm buff", occasionally becoming "pale pinkish vinaceous", particularly at the base; unchanging upon bruising; white to "avellaneous" mycelium at the base; solid, flesh concolorous with surface, unchanging when exposed; no evidence of an annulus.

Spores in fresh deposit colored near "light brownish olive" to "deep olive" to "olive brown"; pale yellow in KOH, pale ochraceous in Melzer's Reagent, $9-12 \times 3-4 \mu$, smooth, thin-walled, fusoid to subellipsoid to subellipsoid to subcylindric.

Basidia apparently 2 and 4-spored, hyaline, clavate, $21-24 \times 6-8 \mu$; cystidia in clusters or fascicles, rare to absent on sides of tubes, abundant on the pores, typically staining dark brown to black in KOH, and appearing incrustated near the pores, often only basal portion of cluster staining when located on side of tubes, cylindric to subclavate to obtusely fusoid to highly irregular in outline, $30-45 \times 8-10 \mu$; tube trama hyaline, subgelatinous in KOH, divergent, hyphae $\pm 5 \mu$ in diam.; pileus trama interwoven, homogeneous; cuticle differentiated as a highly uneven turf of more or less erect, septate hyphal tips, not at all or only slightly gelatinous in KOH, hyphae typically appearing incrustated, and staining pale brown, cells $\pm 7 \mu$ in diam.; surface of stipe not gelatinous in KOH, with numerous large clusters of caulocystidia which stain dark vinaceous to black in KOH, cylindric to highly irregular in outline, $60-90 \times 6-10 \mu$; clamp connections not seen.

Solitary to gregarious in sandy soil under mixed woods including Ponderosa pine, Douglas fir, and various oaks near Felton, Santa Cruz County, California.

The tomentose to fibrillose surface of the pileus of this species is remindful of *Suillus tomentosus*, a very common species on the west coast, and of *Suillus hirtellus*, a species not yet found in this area. There are, however, significant differences between each species. In contrast to *S. tomentosus* the flesh of *S. fuscotomentosus* does not change to blue when exposed, the color of the pileus is conspicuously darker and the spores are significantly larger. *S. hirtellus* var. *cheimophilus* to which this species appears most similar, has a much paler colored pileus which develops reddish stains or discolorations on the pileus and stipe and has a rudimentary veil - all characters not present in *S. fuscotomentosus*.