

**CALIFORNIA BOLETES VI. SOME UNREPORTED SPECIES
FROM THE SIERRA NEVADA OF CALIFORNIA¹**ROY E. HALLING²

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While I was collecting fleshy fungi in the Sierra Nevada of California, special attention was given to the bolete flora. Of the following three species, two are newly described, and *Suillus brunnescens* Smith & Thiers is reported for the first time from California.

Colors in parenthesis designated by page, column, and line (eg. 5F6) are from Kornerup and Wanscher (2), and those cited in quotation marks are from Ridgway (3). All collections listed under "Material examined" are deposited in the Cryptogamic Herbarium of San Francisco State University (SFSU).

***Boletus citriniporus* Halling, sp. nov.**

Pileus 4-7 cm latus, siccus, velutinus, demum subtomentosus, aetate fibrillis humidulis, atrobrunneus. Contextus 5-10 mm crassus, albus, immutabilis. Sapor et odor mitis. Tubuli 5-8 mm longi, vivide citrini, immutabiles. Stipes 5-6 cm longus, 1-1.5 cm crassus, siccus, glaber, pallidus, immutabilis. Sporae 12-13.5 × 3.75-4.5 μm, subfusiformes, inequilaterae, laeves. Cystidia 37.5-67.5 × 9-12.75 μm, clavata vel ventricos-rostrata. Cuticula intertexta, erectiuscula. Holotypus: prope Pine Grove, Amador County, California, November 25, 1975, Halling 1151 (SFSU).

Pileus 4-7 cm broad, convex to plano-convex, becoming irregular in outline; surface dry, velutinous to finely subtomentose, becoming moist and minutely rimose with age, raw umber to dark brown (5F8, 7, 6) when young, unchanging or becoming blackish with age. Context 5-10 mm thick, whitish to pallid, solid, firm, unchanging when exposed. Taste and odor mild.

Tubes 5-8 mm long, adnate when young, barely subdepressed with age, intense lemon yellow (1A1, 2A1, 3A1), unchanging when bruised; pores small, concolorous, 1-2 per mm, unchanging.

Stipe 5-6 cm long, 1-1.5 cm wide, subclavate to equal, pinched at the base; surface dry, glabrous nearly overall, but occasionally with a very slight reticulum at the apex, whitish to pallid, orange yellow at the apex. Context white, firm, unchanging when exposed.

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Spores (10.5–)12–13.5 \times 3.75–4.5 μm , subfusiform and inequilateral in profile, often with a conspicuous suprahilar depression, elliptical to fusiform elliptical in face view, very pale yellowish to hyaline in KOH, pale ochraceous in Melzer's. Basidia 22.5–37.5(–45) \times 9–10.5 μm , clavate, hyaline in KOH, two or four-spored. Hymenial cystidia 37.5–67.5 \times 9–12.75 μm , clavate to ventricose rostrate to cylindrical in outline, hyaline in KOH. Tube trama divergent from a central strand, hyaline and nongelatinous in KOH, occasionally with patches of incrusting debris. Pileus context interwoven, homogeneous, hyaline in KOH. Pileus cuticle differentiated as a suberect tangled trichodermium when young, hyphae sometimes appearing subgelatinous with age, apical cells of hyphae not greatly differentiated, but occasionally tapering, rarely incrusting, hyaline to ochraceous in KOH, reddish brown in Melzer's, thin walled, 3–4.5 μm wide. Stipe cuticle at apex composed of a hymenium of fertile clavate basidia and clavate to obpyriform hyphal tips, below the apex consisting of a turf of clavate to obpyriform hyphal cells, becoming repent and interwoven with age. Clamp connections absent.

Chemical reactions: NH_4OH —pileus cuticle dark vinaceous.

Habit, habitat, and distribution: Solitary to gregarious in soil under *Quercus chrysolepis* Liebm. and *Q. agrifolia* Neé. Collected in the vicinity of Pine Grove and Grass Valley in the Sierra Nevada, and near Big Basin State Park and Boulder Creek in Santa Cruz County.

Material examined: Amador County—Halling 240, 291, 1151 (TYPE). Nevada County—Thiers 30503. Santa Cruz County—Thiers 33264; Halling 1191.

Observations: *Boletus citriniporus* appears to be related to *Boletus auriporus* Peck and *Boletus flaviporus* Earle. *Boletus flaviporus* is distinguished from *B. citriniporus* by the presence of a viscid to glutinous pileus cuticle and stipe, a different anatomy of the pileus cuticle, a differently colored pileus, and larger spores. According to Coker and Beers (1), Smith and Thiers (5), and Snell and Dick (6), *B. auriporus* is usually viscid on the pileus and stipe and sometimes possesses cystidia with yellowish content when observed in water or KOH mounts. Furthermore, the above authors indicate that the stipe and pileus of *B. auriporus* are colored cinnamon to light reddish brown. The pileus of *B. citriniporus* is an umber brown that usually becomes blackish, and the stipe is whitish to pallid without any reddish to brown coloration. The genus *Aureoboletus*, as delimited by Watling (8), is distinguished by the presence of large brightly colored cystidia. *Boletus citriniporus* does not possess cystidia with such coloration.