

occur in arcs or "fairy rings." It is typically on humus though often near very decayed logs, and is most abundant under conifers. It is a common species in northern California, Oregon and Washington in the fall, and occurs at all elevations up to near timber line. During the dry season of 1946 it was very abundant in the vicinity of Wemme, Oregon. We would expect it to be common in British Columbia also.

DISCUSSION: This is a very easily recognized species which one should not confuse with any others save *C. brevipes* and *C. pseudo-clavatus*. The purplish to vinaceous tinge in the hymenium is characteristic of all three. The reaction of thin sections of the hymenium in KOH will at once distinguish this species from the other two. In *C. clavatus* the hymenium appears orange to orange-brown and the flesh proper is hyaline. In *C. brevipes* the KOH reaction does not appear to be distinctive and in *C. pseudoclavatus* the hymenium and the flesh become very sordid brown (bister). For further comments see discussion of *C. pseudoclavatus*.

4. *Cantharellus subalbidus* sp. nov. (FIG. 3)

Pileus 5-10 (14) cm. latus, subplanus, ad marginem demum irregulare lobatus, subtomentosus, siccus, albidus vel subalbidus; lamellae angustae, decurrentes, venosae, pallidae, demum luteo-maculatae; stipes 2-4 (5) cm. longus, 1-3 cm. crassus, sursum expansus, albidus demum luteo-maculatus; sporae 7-9 × 5-5.5 μ, leves, albae.

Pileus 5-10 (14) cm. broad, at first plane or with a decurved margin, soon the margin elevated to somewhat recurved and becoming very irregularly lobed or wavy, in age broadly depressed to subinfundibuliform and quite irregular in shape, surface felty-fibrillose to subtomentose, smooth or in age areolate-scaly, typically dry and unpolished, often very uneven, white to whitish over all, becoming pallid buff when water-soaked and sordid yellow where handled; flesh thick, firm, fibrous, white with a tendency to stain yellow where bruised, odor and taste not distinctive; lamellae close and narrow, long-decurrent, variously forked or anastomosing and strongly veined, white to grayish white but becoming cream-colored and staining yellow to orange when bruised, edges obtuse and even; stipe 2-4 (5) cm. long, 1-3 cm. at base, flaring upward and indistinct from pileus (gills decurrent almost to base), solid, white and fibrous within, surface white and unpolished but stain-

ing yellow to orange when bruised, finally discoloring to sordid brown.

Spores white in deposits, $7-9 \times 5-5.5 \mu$, ellipsoid to broadly ellipsoid, smooth, yellow in iodine; basidia $62-80 \times 8.5-10 \mu$, narrowly clavate, hyaline in KOH but filled with many small oil globules, four to six-spored; pleurocystidia and cheilocystidia none seen; gill trama of loosely interwoven hyaline hyphae, the cells hyaline in KOH and usually filled with many oil drops, thin-walled, $5-8 \mu$ in diam., regularly with clamp connections at cross walls, flexuous and often widened near cross walls; pileus trama homogeneous, the surface of more compactly interwoven cells than the tramal body but of the same type and similar to or slightly broader and more irregular than those of the gill trama.

HABIT, HABITAT AND DISTRIBUTION: Single to gregarious under conifers, particularly Douglas fir, Washington, Oregon and California. It fruits during the fall and winter rainy season and is often abundant.

DISCUSSION: For years this fungus has passed as a white form of *C. cibarius* in this region, but a critical study of it in the Mt. Hood area in 1944 brought out certain facts which indicate that the plant deserves to be ranked as an autonomous species. These observations were verified during the season of 1946. During the latter season Miss McKenny of Olympia, Washington, also brought the species to our attention and commented that it was abundant in her collecting area. We regard the difference in the color of the spore deposit between *C. subalbidus* and *C. cibarius* as fundamental. It is white in the former and "light pinkish cinnamon" in the latter. Fresh prints taken simultaneously were compared under identical light conditions (see collections *S-20030* & *S-20031*, Univ. of Mich. Herb.). The decidedly paler color of the fruiting body is a second constant difference which has always proven to be very reliable in the field unless one chanced upon very old faded *C. cibarius* in exposed places. The pronounced fragrant odor of *C. cibarius* is not present in *C. subalbidus* as far as our specimens to date are concerned.

C. albidus Fr. as described by some European authors appears to have essentially the same color and color changes as *C. subalbidus*, but is a much slenderer plant and according to Ricken has small spores $4-5 \times 3 \mu$. Rea gives the spore size as $6-7 \times 4-5 \mu$.

Inasmuch as accurate data on the color of the spore deposit is lacking on the European species no comparison can be made on that character. Ricken speaks of a white form of *C. cibarius*, but gives no data on the color of the spore deposit. He clearly distinguished between it and *C. albidus*. It is possible that *C. subalbidus* occurs in Europe, but this needs to be verified by a critical study of fresh material.

5. *CANTHARELLUS CIBARIUS* Fries, Syst. Myc. 1: 318. 1821
(FIG. 4).

Chanterel Chantarellus Murrill, North Amer. Flora 9: 169.
1910.

Pileus 4–10 (15) cm. broad, nearly flat and with an inrolled margin when young, margin spreading or becoming uplifted in age and then cap broadly depressed to broadly funnel-shaped, usually wavy or lobed along the margin, surface dry and at first covered by a thin coating of pallid, fine, matted fibrils giving it a canescent appearance, appearing moist in age at times, margin finely pubescent, color pale yellowish young (“cinnamon buff”) becoming bright yellow to orange (“antimony yellow” to “deep chrome”) in age, finally fading to sordid buff; flesh rather thick and pliant, 1 cm. \pm thick near the stipe, whitish or pale yellowish near cap surface, unchanging when bruised, odor fragrant or lacking, or when caps are dried becoming very pronounced, taste mild to slightly peppery; lamellae decurrent, fold-like, dichotomously forked, very narrow, often intervenose, “buff yellow” to “orange-buff” (usually a paler yellow or orange than the pileus); stipe 4–8 cm. long, 8–18 mm. thick, solid, fleshy, whitish within, surface at first finely pruinose-tomentose and concolorous with the gills, in age glabrescent and pallid or faintly yellowish, base often staining sordid orange where bruised.

Spores yellowish (“light pinkish cinnamon”) in deposits, 7–9 \times 4–5 μ , ellipsoid, smooth, not amyloid; basidia 50–70 \times 6–8 μ , very narrowly clavate, mostly four-spored; cheilocystidia and pleurocystidia not seen; gill trama of interwoven, narrow, equal hyphae 3–5 μ in diam. and bearing clamp connections; pileus trama homogeneous, the hyphae near the surface intricately interwoven, clamp connections abundant.

HABIT, HABITAT AND DISTRIBUTION: Single to gregarious in conifer and hardwood forests. It is common throughout the area during the rainy season. In the summer it can frequently be