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CANTHAROCYBE, A NEW GENUS OF AGARICALES

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For a number of years, *Clitocybe gruberi* Smith has been represented only by the type specimen found in Idaho, but more recent field work in the mountains near Santa Fe, New Mexico, by Charles Barrows and William Isaacs has yielded several more collections. These have served to emphasize the unique characters of this agaric, and the additional data

obtained have led us to believe that *Clitocybe gruberi* actually is not closely related to other Clitocybes and represents an undescribed genus.

The distinctive features of *Clitocybe gruberi* are: the yellow basidiocarp, the large oblong to subcylindric spores, and the presence of cheilocystidia. Smith (**1944**) has already pointed out that this set of characters was "an unusual combination of characters in *Clitocybe.*" Perhaps some investigators would consider the yellow pigmentation acceptable in *Clitocybe,* but the spore type and cheilocystidia are indisputably different from the other species accepted in modern concepts of the genus. These three differences delimit a hiatus, one which we believe warrants emphasis at the generic level.

Singer (**1951**) placed *C. gruberi* in *Laccaria,* but this genus has totally different colors in the basidiocarps as well as ornamented spores and would seem quite remote from *C. gruberi* in the Tricholomataceae.

Cantharocybe Bigelow & Smith, gen. nov.

Carpophorium luteolum ad citrinum. Contextus crassus. Habitus clitocyboideus. Basidiosporae oblongae ad subcylindricae, leves, inamyloideae, in cumulae albidae vel pallido-citrineae. Cheilocystidia numerosa, lageniformia vel lecythiformia, apices interdum ramosi, pleurocystidia similaris sed rara. Hyphae fibulatae.

Typus.—Clitocybe gruberi Smith, Mycologia **36**: 245. 1944.

Cantharocybe gruberi (Smith) Bigelow & Smith, comb. nov.

FIGS. 1, 2

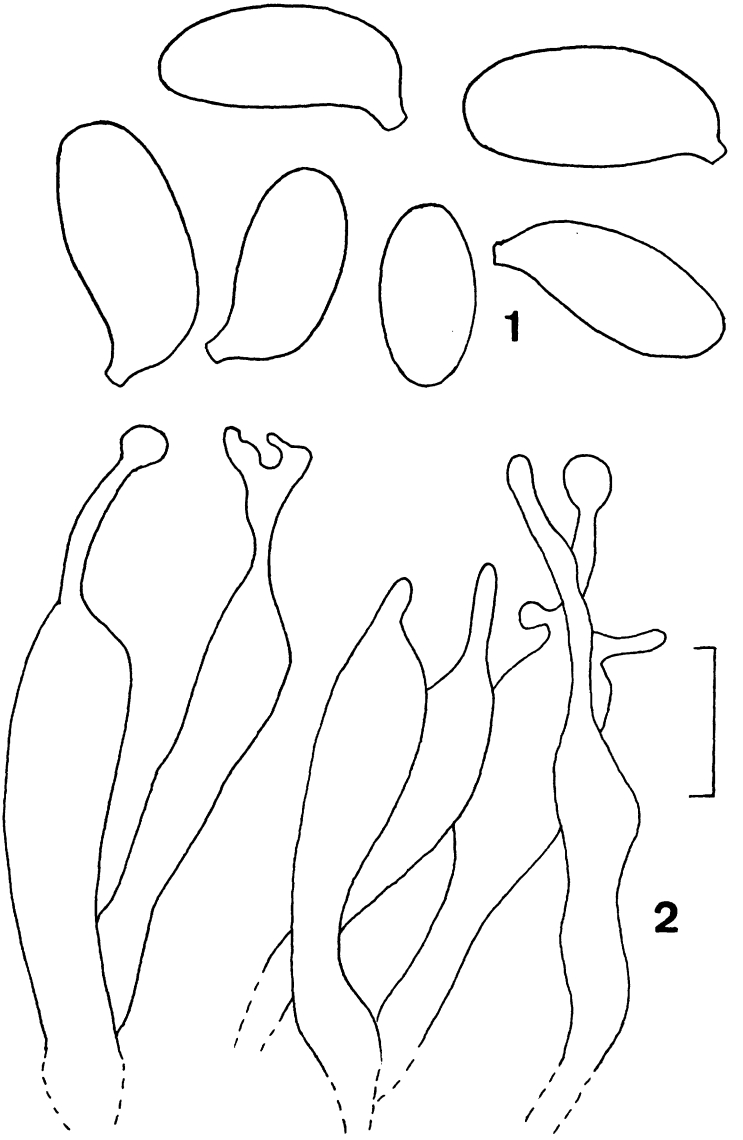
Basionym.—Clitocybe gruberi Smith, Mycologia **36**: 245. 1944.
Laccaria gruberi (Smith) Singer, Lilloa **22**: 176. (1949) 1951.

Pileus 8–20 cm broad, broadly convex with an inrolled margin, even, tomentose at the edge at first, surface dry and unpolished, color plae yellow to lemon yellow [Naples Yellow, Straw Yellow, Primuline Yellow (Ridgway, **1912**)], drying a darker yellow; context thick, firm, white, pallid yellowish when dried, unchanging when cut or bruised. Odor variable: radish-like, somewhat sweetish or like green pepper, or farinaceous. Taste similar or mild.

Lamellae long decurrent, ends unequal on the stipe apex, close, narrow when young but broad in fully expanded specimens, about 3 tiers of lamellulae, anastomosing or forming a reticulum on the stipe apex, concolorous with pileus or paler and duller, edges even.

Stipe 3–5 cm long, 1.5–2.5 cm thick (short and thick), firm, solid (whitish within), surface glabrous, unpolished at the apex, concolorous with pileus or darker yellow.

Spores 11–16(–17.5) × (4.5–)6–7.5 μ, elliptic to oblong or subcylindric, smooth, not amyloid, deposit white or pale lemon yellow.



FIGS. 1–2. *Cantharocybe gruberi.* 1. Spores. 2. Cheilocystidia. (Standard line = 10 μ).

Basidia 37–60 × 7–12 μ, 4-spored, hymenium yellowish in KOH. Cheilocystidia abundant, usually lageniform to lecythiform, apices branched at times, 33–75 μ long, 4–7.5(–10) μ broad in swollen portion, hyaline, thin-walled, smooth. Pleurocystidia rare, adjacent to gill edge when present, similar to cheilocystidia in shape and size. Pileus tissue:

cutis yellow in KOH, pigment in cell contents and in slightly thickened walls, cutis hyphae cylindric, 2–7 μ in diam, branched, recumbent or at times cystidioid end cells protruding; context hyaline, hyphae mostly cylindric, 2–8.5 μ in diam. Hymenophoral trama of undulate-subparallel to parallel hyphae, hyphae cylindric, 2–6 μ in diam. Oleiferous hyphae occassionally present. Clamp connections present.

Solitary. On needle beds and earth under conifers. May (Idaho), July to September (New Mexico).

Material examined.—IDAHO: Gruber 26 (type, MICH). NEW MEXICO: Barrows 39, 1219, 3062 (MICH); Isaacs 2678 (MICH).

The field data are taken from the notes of Barrows and Isaacs as well as the original description. Barrows 3062 had a pale lemon-yellow spore deposit while the type was described as having white spores. The color of the spore deposit given in the original description was taken from Gruber's notes and may have been a thin deposit. Also, in Barrows' material the color notation may have been made after moisture had escaped from the deposit. These uncertainties need to be resolved for it is possible that variants of *Cantharocybe gruberi* exist.

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TRIGLYCERIDE FATTY ACIDS OF SELECTED HIGHER MARINE FUNGI

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Recognizing that the higher marine fungi may be important ultimate sources of vitamins and other metabolites in marine detritus food webs,