



1, Pileocystidia; 2, basidia; 3, basidiospores; 4, caulocystidium; 5, cheilocystidia; 6, habitat (ca. $\times 2$); 1-5, scale = $15\mu\text{m}$; all DAOM 175251.

Marasmius copelandi Peck, Bull. Torr. Bot. Club 31: 182. 1904.

PILEUS: 12-16 mm wide, convex to plano-convex, somewhat radially furrowed with age, moist, translucent-striate, buff with paler marginal areas, often scalloped on the margin; context concolourous, membranous-tough; odor and taste strongly of onion or garlic. **LAMELLAE:** adnate, whitish to buff on

faces, moderately spaced and sized, crenulate and paler on edges; lamellulae in 2 tiers. STIPE: 33-46 mm long, 1-3 mm wide, equal or with a slightly swollen base, dry, sparsely to densely tomentose, being densest at the base, palest apically, near white, dark brick to chestnut below, insititious. RHIZOMORPHS: scattered, short, 2-4 mm long, and tapering apically, tomentum similar to that on the stipes. PILEIPELLIS: a turf-like layer of polymorphic cystidia-like cells, 25-45 \times 10-19 μ m, primarily hyaline to subhyaline, with thin to only slightly thickened walls, clavate to sphaeropedunculate, usually with a few short finger-like projections, sometimes with more elaborately branched projections, also melanized cells usually with thicker brownish walls and usually less inflated than most nonpigmented cells. PILEUS TRAMA: hyphae 5-12 μ m diam., loosely interwoven, clamped, smooth, with thin to pronounced walls, nonamyloid. LAMELLAR TRAMA: hyphae similar to the pilear trama hyphae. CHEILOCYSTIDIA: polymorphic, somewhat like the pileipellis elements but narrower and with less elaborately branched projections when present, 22-55 \times 9-10 μ m, hyaline. BASIDIA: 32-43 \times 8-9.5 μ m, clavate to subcapitate, 4-spored, clamped. BASIDIOSPORES: 15-19.2 \times 3.2-4.0 μ m, narrowly pip-shaped to scimitar-like profile, white in mass, hyaline, thin-walled, nonamyloid, smooth, some multiguttulate. STIPE TRAMA: hyphae parallel, closely packed, 5-12 μ m diam., hyaline, often thick-walled, clamped. CAULOPELLIS: hyphae as in the trama but on average narrower, with brownish walls which become greenish grey in KOH solution and bear bluish green crystalline plaques especially near the stipe base, bearing numerous scattered to aggregated projecting hyphal hairs, these thick-walled, with obtuse apices, slightly swollen bases, nonseptate, and hyaline to pigmented like the pellis hyphae, up to 500 μ m long, 10-20 μ m wide.

SUBSTRATE: scattered on senescent leaves and branches of *Gaultheria shallon* Pursh and unidentified broad leaves in open forests of *Pseudotsuga menziesii* (Mirb.) Francoi and *Tsuga heterophylla* (Raf.) Sarg.

DISTRIBUTION: British Columbia.

COLLECTIONS: B.C.: Vancouver Island, Lake Cowichan, Gordon Bay, 4.X.1979, DAOM 175254 (S.A.R. 3343); Meade Cr. on N Arm, 2.X.1979, DAOM 175251 (S.A.R. 3285); Parksville, 8.X.1973, DAOM 170680 (S.A.R. #AT1); Shawnigan L., 5.X.1971, DAOM 141972 (J. Ginns 1813); Victoria, Thetis Park Nature Sanctuary, 27.X.1963, DAOM 96371 (M.C. Melburn 460).

NOTES: This is the first report of *M. copelandi* from Canada. Peck (loc. cit.) described it from a collection on leaves of *Quercus densiflora* H. & A. (= *Lithocarpus densiflorus* (H. & A.) Rehd.) sent to him by E.B. Copeland from Woodside, California. Features on the type of *M. copelandi* deposited at Albany (courtesy of Dr. J. Haines, NYS) matched those of the western collections cited above. One other collection of *M. copelandi*, Imshaug 2035, Eagle Pk. trail, Mt. Rainier Natl. Park, Washington, U.S.A., Aug. 26, 1948 (courtesy of Dr. R. Fogel, MICH), on leaves of *Berberis nervosa* Pursh, was studied.

M. copelandi is closely allied to *M. olidus* Gilliam (Mycologia 67: 822-826. 1975) which occurs on *Quercus* leaves in the eastern U.S.A. and *M. prasioemus* Fr. which occurs on leaves in Europe. *Marasmius olidus* has smaller spores, 10.2-16.5(-19.6) \times 2.8-3.8 μ m (Gilliam, loc. cit.) than *M. copelandi* and *M. prasioemus* has even smaller spores, reported as 6-10 \times 2.8-3.6 μ m by Gilliam. Material of both species has been compared with the British Columbian materials and the differences readily noted. Gilliam (loc. cit., p. 826) presumably meant *M. copelandi* when she referred to a large-spored western taxa allied to *M. olidus*.

The change to greenish grey of the pigmented hyphal walls and the bluish green plaque in KOH sol. is reminiscent of such reactions in *Collybia* species allied to *C. alkalivirens* Singer (see Halling, Mycotaxon 8: 453-458. 1979). These reactions also occur in *M. olidus* and *M. prasioemus*.

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