

## Matchmaker: Mushrooms of the Pacific Northwest

Below are written descriptions and images of fruiting bodies, mushrooms, of the fungal species in this ectomycorrhizal association. The information is from the web version of the Matchmaker: Mushrooms of the Pacific Northwest (MMPNW) created by the Canadian Forest Service and based on the Windows MMPNW version 1.3 by Ian and Eli Gibson.

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**LATIN NAME(S)** *Lactarius olivaceoumbrinus* Hesler North American Species of *Lactarius* p 219. 1979

**ENGLISH NAME(S)** toadskin milk-cap

**NOTES** this species and close relatives recognized by overall dingy greenish to murky olive-brown color and copious white acid milk; Hesler and Smith examined collections from WA, OR, ID, and Methven gives for CA, **CHEMICAL REACTIONS** cap surface staining magenta in KOH or ammonia, (Arora)

**CAP** 3-12cm, convex with inrolled margin becoming flat or shallowly depressed; typically dark olive, sordid olive-brown and olive-buff, spotted or zonate concentrically, but zones fading when old, viscid, (Arora), (2)4-10(12)cm, convex with inrolled margin, expanding to flat or shallowly depressed; "dark olive" on disc and deep olive toward the "dark olive-buff" margin, at times with green and "Isabella color" alternating zones, in age fading and nearly azonate, drying dark fuscous olive'; viscid, bald except pubescent margin, (Hesler)

**FLESH** thick, brittle; dingy olive, (Arora), thick, firm; pallid olivaceous, in stem changing to dingy gray, (Hesler), **MILK** abundant, white, slowly turning greenish gray, (Arora), copious, white, rapidly or slowly changing to greenish gray, (Hesler), white, unchanging, staining the gills olive brown, (Methven)

**GILLS** adnate to decurrent, crowded; pallid then spotted or colored greenish or olive-gray, (Arora), decurrent, crowded, narrow, many forked near stem; pallid, becoming greenish then spotted dingy olive-gray, finally olive-gray overall; edges even, (Hesler)

**STEM** 4-8cm x 1-3cm, solid becoming hollow when old, rigid; colored more or less as cap; viscid when wet, then dry, usually scrobiculate, (Arora), (1.5)4-8(10)cm x (0.8)1.0-1.5cm, enlarged toward base, occasionally narrowed in lower part, solid but hollow when old; colored more or less as cap; viscid, soon dry, bald, scrobiculate, (Hesler)

**VEIL** none

**TASTE** extremely peppery (Arora, Hesler)



Ben Woo

**EDIBILITY** unknown (Arora)

**HABITAT** solitary or scattered or in small groups under conifers, (Arora), solitary to widely gregarious on soil under conifers, (Hesler), associated with *Picea sitchensis* in coastal forests (Methven for California)

**SPORE DEPOSIT** light buff (Arora), "light buff" (Hesler), white to pale yellow (Methven)

**MICROSCOPIC** spores 7-10 x 6-9 microns, elliptic to nearly round, amyloid warts and ridges, (Arora), spores 7-9(10) x 6-8(9) microns, elliptic to nearly round, partial to broken reticulum with free-ending branches, some isolated particles and warts present, warts 0.4-1(1.5) microns high; basidia 4-spored, 45-57 x 8-11 microns;

"Pleurocystidia: macrocystidia 45-75 x 5-10 microns, fusoid, acute to acuminate, often with somewhat granular content, more numerous near gill edges; pseudocystidia scattered, content refractive, filamentous, embedded in the hymenium and inconspicuous.

Cheilocystidia 37-60 x 4.5-7 microns, fusoid-acuminate, some with one or more subapical constrictions," (Hesler), spores 7-9(9.5) x 6-8 microns, broadly elliptic to elliptic, amyloid ornamentation a broken to partial reticulum 0.5-1.5 microns high, (Methven)

**NAME ORIGIN** refers to olivaceous umber color

**SIMILAR** like *necator* which grows under birch, and has narrower spores 7-9 x 4.5-6(6.5) with less prominent amyloid ornamentation up to 0.5 microns high; like *sordidus* which has browner cap and smaller spores; like *necator* which occurs in California as well as Europe and is likely in the Pacific Northwest, and which differs by association with birch and having spores 4.5-6.5 microns wide, ornamentation less or equal to 0.5 microns high; like *L. atroviridis* which has narrower spores (7-9 x 5.5-6.5 microns) and a different stem cuticle (a simple cutis), (Methven)

**SOURCES** Hesler(4), Arora, Ammirati(5), Methven(2)

**FAMILY** Russulaceae of Order Russulales