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.

Click for further information about MMPNW

Many illustrations need confirmation. Do not use this information to determine edibility.

I have read and agreed to the disclaimer and copyright information.

LATIN NAME(S) Lactarius rufus (Fr.) Fr. Epicr. Syst. Mycol. p.347. 1838

ENGLISH NAME(S) red hot milk-cap, red milk-cap

NOTES told from other reddish Lactarius species by very peppery taste, unchanging unstaining white milk, habitat under conifers, and microscopically simple cutis for the cap cuticle; according to Neuhoff's detailed 1956 description it features pale yellow spores, promptly strongly acrid taste, flesh which becomes olivaceous to some degree with FeSO4, and whitish gills with a grayish flesh tone, but in North American material, spore deposit may be white, acrid taste may be delayed, FeSO4 reaction may be absent and there are variations in final gill color; var. parvus is darker in color when wet and habitat seems to be confined to conifer logs and was described from Idaho; var. rufus found at least WA, OR, ID, also NS, ON, CA, CO, MI, WI, WY, Switzerland

CAP 3-10(15)cm, convex to flat, disc depressed, umbonate or not, margin incurved to decurved (downcurved); azonate, brownish red to reddish brown; bald, dry to moist, margin bald, crenate (scalloped), (Methven), 4-12cm, broadly convex becoming flat or depressed; dark brick-red to bay-red or reddish brown; usually not viscid, smooth, margin naked, (Arora), 3-12cm, "broadly convex with a shallow depression and sometimes a small umbo and an incurved margin, becoming flatter then broadly funnel-shaped; yellowish to brick-red cinnamon becoming paler in age; hoary becoming dull and dry", (Phillips)

FLESH up to 1.0cm thick at disc; pale orange, not staining on exposure, (Methven), rather fragile; dingy reddish, (Arora), whitish to pale pinky brown, (Phillips), MILK white, unchanging on exposure, staining field labels pale yellow, (Methven), white, unchanging, (Arora), plentiful, milk-white, unchanging, (Phillips), scanty to abundant, white, unchanging, (Hesler)

Ben Woo

GILLS adnate to subdecurrent, close to subdistant, narrow, forked near stem; pale orange, not marginate, not staining where cut, (Methven), adnate to slightly decurrent, crowded; whitish when young, flushed reddish when old, (Arora), adnate to short decurrent, crowded, narrow; whitish becoming pale pinky-yellow to pinky-tan, (Phillips)

STEM 3-9cm x 1-2(3)cm, equal or narrowing toward the base, round in cross-section; brownish orange to reddish brown; dry, bald, not scrobiculate, light orange tomentum at base, (Methven), 4-11cm x 1-1.5cm, equal, stuffed or hollow, rigid but rather fragile; more or less colored like cap, (Arora), 5-11cm x 0.9-1.7cm, slightly widened toward base; colored as cap except for whitish base; powdery and finely downy becoming dry, (Phillips)

VEIL none

ODOR not distinctive (Methven), mild, (Arora), very slight, developing an odor like bouillon cubes as it dries, (Phillips)

TASTE strongly peppery (Methven), strongly but often latently peppery (Arora), immediately very peppery (Phillips), after about a minute of chewing the burning sensation begins (Ammirati)

EDIBILITY not recommended (canned in Scandinavia)

HABITAT scattered to gregarious or in troops under conifers, (Arora), scattered to gregarious in duff, in coastal coniferous-hardwood forests in association with Pinus muricata (bishop pine), (Methven for California), scattered on soil under pine, in sand dunes, or in sphagnum bogs, (Phillips), in conifer forests, often in swampy places, (Ammirati)

SPORE DEPOSIT white to pale yellow in mass (Methven), pale yellowish (Arora), cream with a pale pinky tinge (Phillips)

MICROSCOPIC spores 7-9.5 x 6-7 microns, broadly elliptic, amyloid ornamentation a partial reticulum up to 0.5 microns high, (Methven); basidia 35-45 x 7.5-9 microns; pleurocystidia: macrocystidia 35-60 x 6-9 microns, fusoid to fusoid-ventricose, often w

NAME ORIGIN means 'reddish'

SIMILAR like hepaticus and may need to be differentiated microscopically if peppery taste is not instant; like atrobadius which has a blackish red cap, mild taste, gills that stain dark reddish brown, cap cuticle a lax ixotrichodermium to ixolattice, stem cuticle a poorly formed ixocutis, (Methven); like rufulus of California which has white flesh and pinkish yellow gills (dingy purplish flesh in rufus and whitish gills which become buff to wine-tan with age), (Lincoff), rufulus may be confused with rufus in the field, but rufulus is only slightly peppery, associated with oak, lacks distinct rosettes of sphaerocysts in the cap and stem, has round spores, a cap cuticle in which the inflated cells are arranged in a poorly formed cellular layer which gives rise to scattered pileocystidia, (Methven)

SOURCES Methven(2), Arora, Phillips*, Lincoff(2)*, Ammirati*, Bessette(2)*, Schalkwijk-Barendsen*, Kibby*, Courtecuisse*, Barron*, Hesler*(4)

FAMILY Russulaceae of Order Russulales