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) Psilocybe semilanceata (Fr.) Kummer Fuhr. Pilzk. p.71. 1871; Panaeolus semilanceatus (Fr.) Kummer

ENGLISH NAME(S) liberty-cap

NOTES features include small size, smooth sharply conical cap (which is at least slightly viscid, and is chestnut-brown to brown or olive-brown, fading to tan, olive-buff, or yellowish as it dries), stem that is whitish or with brownish base, sometimes with bluish or blue-green tinge when old, flesh and stem bruising blue only slightly if at all, growth in tall grass, and dark purple-brown spore deposit; rarely bruises bluish because high in psilocybin rather than psilocin (Stamets); Guzman examined collections from BC, WA, OR, also NY, Chile, Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, United Kingdom (England), USSR, Australia, (Guzman), reported also from CA, NB, NF, NS, PE, (Redhead), India, South Africa, New Zealand, (Stamets), CHEMICAL REACTIONS KOH stains the cap and flesh reddish brown but is negative on stem, (Guzman)

CAP "0.5-2.5cm broad and high, narrowly conical to bell-shaped with a pointed umbo, scarcely expanding in age"; "chestnut-brown to brown or olive-brown, fading to tan, olive-buff, or even yellowish as it dries, sometimes with bluish or olive stains"; at

FLESH very thin; pallid, (Arora), very thin, pliant; whitish to colored as cap surface, in stem yellowish and somewhat pliant; slight blueing, (Guzman)

Michael Beug

Stan Czolowski

GILLS adnate to adnexed or separating, "pallid, soon becoming gray, then finally dark purple-brown or chocolate-brown", edges whitish, (Arora), adnate or adnexed; pale grayish violaceous or dark violaceous brown, colored evenly or somewhat mottled, with whitish edges; edges somewhat fimbriate (fringed), (Guzman), close, broad, (Lincoff), adnate, crowded, narrow; gray then brown, (Phillips), mostly adnexed, close to crowded, narrow; pallid rapidly becoming brownish and finally purplish brown with pallid edges, (Stamets)

STEM 3-10cm x 0.1-0.2(0.3)cm, "equal, often curved or sinuous, pliant; whitish or with brownish base, sometimes with a bluish or greenish tinge in age, especially at base", (4)5-11.3(11.9)cm x 0.1-0.2(0.3)cm, equal or somewhat bulbous, hollow but at first solid to stuffed with white pith, cartilaginous, pliant; white or whitish to yellowish, but reddish brown downwards to cap-colored, frequently staining blue or greenish blue at base; smooth but pruinose at top, or slightly covered by fibrils becoming bald when mature, (Guzman), 4-10cm x 0.075-0.2(0.3)cm, equal, flexuous (bent both ways), pliant, stuffed with fibrous pith; whitish or with brownish base, attached mycelium may become bluish tinged, especially during drying, (Stamets), often bluish or greenish at the base when injured, (Ammirati)

VEIL absent or rudimentary (Arora), "arachnoid or cortinate, white and conspicuous in young states, but soon evanescent, not forming an annulus in the mature stages", (Guzman), thinly cortinate, may leave obscure zone of fibrils, usually darkened by spores, (Stamets)

ODOR slightly farinaceous (Guzman), not distinctive (Phillips)

TASTE slightly farinaceous (Guzman), slightly unpleasant, grassy, (Phillips)

EDIBILITY hallucinogenic, not as potent as cyanescens but more than pelliculosa, 0.2-2.4% psilocybin, no psilocin, 0.2-0.36% baeocystin, important to distinguish from poisonous Galerinas, (Stamets), "hallucinogenic and widely collected for this purpose, but should be regarded as mildly poisonous: also, there is the possibility of misidentification", (Phillips)

HABITAT widely scattered to gregarious in pastures, tall grass, etc., but not on dung, (Arora), very scattered to gregarious on rich soil, among grass in fields near farmyards, in well-manured pastures or meadows, rarely along roadsides, single but very rarely cespitose (tufted), frequently abundant around clumps of tall grasses, (Guzman), scattered to gregarious in pastures, fields, lawns, or another grassy areas, especially rich grasslands grazed by sheep and cows, especially abundant in or around clumps of sedge grass in damper parts of fields, etc., but not dung, fall to early winter, less common in spring, (Stamets)

SPORE DEPOSIT purple-brown (Arora), dark purple-brown

MICROSCOPIC spores 11-14 x 7-9 microns, elliptic, smooth chrysocystidia absent on gills, (Arora), spores (11)12-14(16)(18!) x (6)7-8(9) x 4.8-5.4 microns, subelliptic or elliptic both in face and side view, sometimes slightly lemon-shaped, distinct broa

NAME ORIGIN means half spear-shaped, from shape of cap

SIMILAR pelliculosa which is less narrowly conical, grows under conifers, and has a more pronounced tendency to bruise or age blue-green, besides having smaller spores; like strictipes which lacks the distinctive umbo typical of semilanceata; like a form of Panaeolus sphinctrinus that grows inland on manure (Schalkwijk-Barendsen says semilanceata is on seacoasts only)

SOURCES Guzman, Arora, Phillips*, Lincoff(2)*, Schalkwijk-Barendsen*, Kibby*, Courtecuisse*, Stamets*, Barron*, Ammirati(11)*, Breitenbach(4)*

FAMILY Strophariaceae of Order Agaricales