

## 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)** *Tricholoma magnivelare* (Peck) Redhead Trans. Mycol. Soc. Japan 25(1): 6. 1984; *Armillaria ponderosa* (Peck) Sacc.

**ENGLISH NAME(S)** pine mushroom, matsutake, white matsutake

**NOTES** distinctive features are robust stature, whitish color when young, pale cinnamon to pinkish-brown or yellow-brown stains or fibrils or scales on cap and stem, prominent membranous veil and ring, and spicy dirty socks odor; valuable for commercial harvest and highly esteemed in Japan particularly; found BC, WA, OR, ID, also AB, MB, NB, NS, NT, ON, CA, CO, MI, MT, NC, NY, TN, VT, (Redhead(6))

**CAP** 5-20(35)cm, convex becoming flatter with an inrolled cottony margin; "at first white, but in age developing pale cinnamon to pinkish brown or yellow-brown stains or fibrils that become these colors"; dry or slightly viscid when moist, (Arora), 5-20cm, convex becoming flatter with inrolled cottony margin becoming somewhat uplifted when old; white with flattened reddish brown scales and spots especially at center; tacky becoming dry with streaks of brown fibers near margin, (Phillips), 6.5-19cm, convex with inrolled margin becoming flat-convex when old, the margin downturned and wavy; white or pale buff at first, surface fibrils becoming ochraceous to pale brown over yellowish white background; dry but may appear slightly viscid when wet, often with adherent debris, bald or with large appressed cottony squamules, (Shanks)

**FLESH** thick, firm; white, (Arora), firm; white, (Phillips, Shanks)

**GILLS** adnate to adnexed or notched, crowded; "white, discoloring or spotted rusty-brownish to cinnamon in age", (Arora), "adnexed, crowded, narrow to broad; whitish, staining pinkish-brown", (Phillips), scarcely sinuate, close to crowded, 0.8-1.2cm broad, thin; whitish to pale cream when young, "spotting and discoloring pale to orange brown in age", (Shanks)



Paul Kroeger



Eileen Seto

**STEM** 4-15cm x 1-5cm, equal or with a narrowed base, tough, hard, solid; "white above the ring, usually scaly or fibrillose below and colored more or less like cap", (Arora), 5-15cm x 2-4cm, hard, firm; white becoming pinkish brown below ring from scales and patches of veil remnants, white and cottony above ring, (Phillips), 6-15 x 2-4 microns, equal or narrowing toward base, solid; white above the ring, discoloring like the gills in extreme age, colored much like cap below ring but becoming darker brown when old or with handling; dry, above the ring silky fibrillose with belts of small recurved fibrils, below the ring much like the cap, the squamules never forming distinct belts, (Shanks)

**VEIL** veil thick, membranous, sheathing the stem, white at first, forming prominent cottony ring that flares out at first, then collapses against stem when old, (Arora), thick soft membranous ring on upper stem, (Phillips), partial veil membranous, leaving remnants on the margin of the cap and a thick cottony persistent ring, the ring prominent and flaring upward at first, becoming appressed when old, (Shanks)

**ODOR** distinctly spicy aromatic (cinnamon-spicy together with dirty socks), (Arora), distinctly fragrant (Phillips), spicy, like cinnamon, (Shanks)

**TASTE** mild (Shanks)

**EDIBILITY** choice (Arora, Phillips), a prized edible species harvested for commercial sale, (Shanks)

**HABITAT** "widely scattered to gregarious on ground in forests, thickets, and pine barrens", "In the mountains of Idaho, Washington, and Oregon it is common under mixed conifers and second-growth Douglas-fir, while on the coast it favours sandy pine forests, also tanoak-madrone in coastal California, and in thickets of ericaceous shrubs (like manzanita, huckleberry and rhododendron), (Arora), scattered to numerous under pine and in sandy soil, especially near coastal areas, (Phillips), solitary to gregarious with conifers, particularly in sandy soil, in coastal forests and montane regions, (Shanks)

**SPORE DEPOSIT** white (Arora, Phillips)

**MICROSCOPIC** spores 5-7 x 4.5-5.5 microns, broadly elliptic to nearly round, smooth, inamyloid, (Arora, Phillips), spores 5.8-8.2 x 4.3-5.8 microns, broadly elliptic to elliptic, smooth, inamyloid; basidia 4-spored, clavate; pleurocystidia and cheilocystidia absent; clamp connections absent, (Shanks)

**NAME ORIGIN** means "with big veil"; matsutake means pine mushroom from mats = pine (Japanese), take = mushroom (Japanese)

**SIMILAR** like the poisonous *Amanita smithiana* which has different odor, lacks large distinctive stem scales, ring usually poorly developed or ragged, shape tends to be tall and thin rather than squat and robust; like *Tricholoma caligatum* which has cinnamon-brown to purple-brown fibrils on the cap and stem and (except in the fragrant form) lacks the characteristic odor; other mushrooms with similar odor besides the fragrant form of *T. caligatum* are the matsutake of Japan (if different from the fragrant form of *T. caligatum*), some specimens of *Lentinus ponderosus* (on wood), and *Inocybe fraudans*; somewhat like *Hygrophorus subalpinus* and *Catathelasma* species, that lack the characteristic odor

**SOURCES** Shanks(2), Arora\*(as *Armillaria ponderosa*), Phillips\*(as *Armillaria ponderosa*), Lincoff(2)\*(as *Armillaria ponderosa*), Ammirati\*(as *Tricholoma ponderosum*), Bessette(2)\*, Redhead(6)

**FAMILY** *Tricholomataceae* of Order *Agaricales*