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) Russula cyanoxantha (Schaeff. ex Schw.) Fries Hymen. Eur. 2: 446. 1974

ENGLISH NAME(S) variegated Russula

NOTES characterized by fairly large size, variegated cap (gray, lilac, olive, purple, vinaceous), white gills, firm white stem often with flushes of cap color, mild taste, and white spores; Shaffer states in reference to R. variata Banning in 1970 "Singer (2,3) and others have considered this taxon a variety of Russula cyanoxantha whose only significant difference from the type variety is the acrid taste. The mild taxon seems to be rare in North America (Singer, 2)"; Singer studied collections of cyanoxantha from OR, MI, Austria, Czechoslovakia, France, Germany, Spain, Switzerland, Thiers gives for CA, CHEMICAL REACTIONS stem not staining salmon in FeSO4 (Arora), FeSO4 on flesh almost nil to slightly greenish (Phillips)

CAP 5-15cm, dull lilac, purple, wine, olive, greenish or brownish, usually mixed colors; greasy when moist, with radially anastomosing veins, margin even for a long time, peeling 1/2, (PNW keys), 5-15cm, at first spherical, sometimes one but usually a m

FLESH firm; white, (PNW keys), firm to hard, (Rayner), thick, firm, crisp; white, flesh in base sometimes grayish, (Arora); thick, soft, moist; white, sometimes grayish when mature, (Lincoff(1))

GILLS narrow, flexible, forked; white to cream, (PNW keys), rather narrow, forked to various degrees; whitish or very pale cream; flexible with oily feel, (Rayner), adnexed to adnate or slightly decurrent, many of them forked at least once; white or with a few brownish stains; slightly greasy to the touch, (Arora), not usually forking, (Phillips), fairly crowded, unequal, ventricose, forked, interveined; white tinged bluish green, (Lincoff(1))

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STEM white, sometimes flushed with purple, (PNW keys), 5-10cm x 1.5-3cm, firm, sometimes flushed purplish, (Rayner), 5-13cm x 1.5-5cm, solid or stuffed, rather hard, more or less equal; white, sometimes flushed purplish; smooth, (Arora); 5-10cm x 1.5-4cm, sturdy, even, narrowing and rooting at base, fleshy, soft then spongy; white, sometimes tinged lilac or reddish, with brownish markings; pruinose, slightly rugose (wrinkled), (Lincoff(1))

VEIL none

ODOR mild or pleasant (Arora), pleasant (Lincoff(1))

TASTE mild (PNW keys, Rayner), first sweet then unpleasant (Lincoff(1))

EDIBILITY edible and choice (Arora)

HABITAT deciduous woods (PNW keys, Rayner), solitary, scattered or in groups or troops under hardwoods or sometimes conifers, (Arora), hardwoods and conifers (Lincoff(1))

SPORE DEPOSIT white, Crawshay A, (PNW keys, Rayner), white (Arora, Lincoff(1))

MICROSCOPIC spores 7-9 x 6-7 microns, ornamentation Patterson type B-2, (PNW keys), spores 7-9 x 6-7 microns, broadly elliptic, warts up to 0.6 microns high, rather broad, up to 1 micron, isolated, sometimes drawn out into a short tail, (Rayner), spores 7-10 x 6-8 microns, elliptic to nearly round, isolated amyloid warts, (Arora), spores 7-9 x 6-7.5 microns, elliptic, warts 0.1-0.2 microns high, often punctate, isolated, more rarely catenulate, or with a few fine lines; pleurocystidia 46-52 x 6-8 microns, clavate, blunt or appendiculate, granular or empty, rare and inconspicuous, cheilocystidia 34-47 x 5-7 microns, ventricose to clavate, acute or appendiculate, empty, few and inconspicuous, (Hesler)

NAME ORIGIN means 'blue-yellow'

SIMILAR parazurea (greenish forms of cyanoxantha) but usually slightly smaller, not so variegated, and different spores; like olivacea in having variegated cap, but olivacea has yellow spore deposit and when young is more or less evenly green; like occidentalis in having variegated cap, but in occidentalis the stem stains red then gray to black when bruised, and PDAB turns the stem surface of occidentalis bright red; like vesca when vesca is not its typical redder or more flesh-colored, but stem stains salmon in ferrous sulphate and vesca is often wrinkled and/or recedes from margin when old, NOTE var. peltereaui is entirely green, name means "blue-yellow", Russula variata is sometimes called cyanoxantha var. variata

SOURCES Rayner, Arora*, Phillips*, Lincoff(1)*, Hesler(7), Shaffer(2), PNW keys, Thiers(3)

FAMILY Russulaceae of Order Russulales