

## 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 nigricans* Fries Epicr. Myc. 350. 1838

**ENGLISH NAME(S)** blackening *Russula*

**NOTES** features include large size, whitish slightly viscid cap which soon becomes gray or brown to black, cap skin only partly separable, flesh which turns red then black when cut, distant (0.2-0.3cm apart) thick pale straw or yellow young gills, whitish stem turning brown from base and sometimes bruising red before becoming black, mild or slightly peppery taste, white spore deposit, and relatively small spores with weak ornamentation; common in Pacific Northwest, reported by Grund for WA who calls it one of the largest and commonest mushrooms occurring in WA, by Gamiet for BC, Thiers for CA, also United Kingdom (England), France, **CHEMICAL REACTIONS** FeSO<sub>4</sub> on flesh changes through pink to dirty green, with aniline to Venetian red, (Pilat), olive reaction to FeSO<sub>4</sub> with cap flesh, SV negative with cap flesh, (Grund)

**CAP** 7-15(20)cm, depressed in center; whitish when young, soon sooty gray or dirty brown and finally entirely black when old; slightly viscid drying matte, often cracking into small areolae, not peeling, margin even, (PNW keys), 7-20cm, convex when young, becoming flat and finally somewhat funnel-shaped; whitish when young, becoming gray or brown and finally almost black; slightly viscid when young, soon dry, matte, minutely felted, sometimes areolate-rimose when old, with cap skin partly separable and margin not striate, (Shaffer), almost inseparable, only in damp weather possible to peel about a third of it, (Pilat)

**FLESH** hard; white, turning red when cut, then turning black, (PNW keys), rigid; whitish, when cut becoming carrot red to indian red and then black, (Shaffer), white, becoming blood red, then gray to black (Phillips)



Ben Woo



Michael Beug

**GILLS** distant, with regular subgills, thick; pale straw or yellow, reddish when bruised, (PNW keys), emarginate or rounded adnate, distant, subgills intermixed, narrow to broad, up to 1.5cm, acute near margin, thick, 0.1-0.2cm thick, brittle; yellowish when young, finally colored as cap, when bruised becoming brick reddish and then dingy gray, (Shaffer)

**STEM** short, thick; white turning brown from base, bruising red, then black, (PNW keys), 2-7cm x 1-4cm, equal or narrowing downward, solid, rigid; whitish, browning from base upward and finally colored as cap, when bruised seldom becoming brick reddish; bald, (Shaffer)

**VEIL** none

**ODOR** earthy (PNW keys), none or slightly sweetish, (Shaffer), fruity, (Phillips), rank especially when aging (Schalkwijk-Barendsen), unpleasant earthy (Pilat)

**TASTE** mild or sometimes slightly peppery when young (PNW keys), slightly peppery or mild, (Shaffer), slowly peppery (Phillips)

**EDIBILITY** suspect (Phillips)

**HABITAT** coniferous or deciduous woods (PNW keys), solitary to gregarious in deciduous and coniferous forests, (Shaffer)

**SPORE DEPOSIT** white, Crawshay A, (PNW keys), white (Shaffer)

**MICROSCOPIC** spores 7-8 x 6-7 microns, Patterson type D-1, (PNW keys), spores 6.3-7.9 x 5.3-6.8 microns, nearly round to broadly elliptic or obovoid; ornamentation 0.1-0.3 microns high, of warts connected by fine lines, forming a sometimes broken, usual

**NAME ORIGIN** means "blackening"

**SIMILAR** like *adusta*, *densifolia*, and *dissimulans*, which have close thinner gills, *densifolia* has a thicker cap cuticle, rarely less than 150 microns thick; like *albonigra* which has no red stage before blackening; like *dissimulans* which has a dry cap, usually only subdistant gills, and slightly larger spores with slightly heavier ornamentation

**SOURCES** Shaffer(5), Pilat, Phillips\*, Ammirati\*, Schalkwijk-Barendsen\*, Courtecuisse\*, Bessette(2)\*, Barron\*, Rinaldi\*, PNW keys, Thiers(3)

**FAMILY** Russulaceae of Order Russulales