

Nomenclatural novelties : Shannon Adams

Cortinarius rufosanguineus S.D. Adams, Ammirati & Liimat., sp. nov.

IF556512

Holotype WTU F073579

Pileus 10–67 mm broad, convex to plane, disc often irregularly depressed in age; margin incurved when young, decurved to even, occasionally undulating or slightly uplifted in age; surface dry, appressed-fibrillose overall to finely squamulose over disc, dark red to red-brown, somewhat brighter red on margin, light red to red-ochre when dry. Lamellae adnate to sinuate, occasionally with decurrent tooth, close, narrow, at first deep blood red to carmine red developing rusty brown tones as spores mature. Stipe 22–67 mm long, 5–14 mm thick at apex, equal to subclavate, base occasionally slightly bulbous; surface appressed-fibrillose to fibrillose, often with a paler sheen at apex; dark red to red-brown or coral red, often concolorous but paler than pileus, base more red-brown in age, bruising dark red when handled, basal mycelium orange. Cortina salmon-pink to orange, leaving light orange remnants on pileus margin when young and a sparse silky zone on stipe. Context thin to moderately thick, firm, solid, dark red to blood red when young, developing brown tones, and becoming streaked with light brown, red ochre and dark red-brown in age or when dry, often deeper blood red in lower stipe. 10% KOH dark magenta to vinaceous red on cap and stipe. Odor indistinct. Taste mild. Basidiospores $7.2\text{--}9.4$ (-9.7) \times $4.5\text{--}5.9$ (-6.1) μm (av. = 8.3×5.2 μm , $Q = 1.42\text{--}1.8$, Q av. = 1.59; 150 spores, 5 collections), ellipsoid, moderately verrucose, weakly dextrinoid. Basidia 4-spored, occasionally 2-spored, narrowly clavate, $26.5\text{--}42 \times 5.9\text{--}8.4$ μm , hyaline in KOH. Lamellar trama hyphae not encrusted, aniline-red in KOH. Pileipellis a cutis. Thin layer of veil hyphae 3–6 μm wide, buff pink. Uppermost layer of pileipellis hyphae 6–22 μm wide, hyaline, blending into a lower layer of similar hyphae with granules and aniline-red pigmentation. Clamp connections present. Exsiccata dark reddish-brown. UV observations negative. ITS Sequence (holotype, GenBank MW493339) distinct from other species of *Cortinarius* subgenus *Dermocybe* and deviating from them in the ITS region by at least 18 substitutions and indel positions.

Ecology and distribution: Scattered in moss and soil in alpine heath with krummholz *Tsuga mertensiana* and *Vaccinium* and subalpine meadows with scattered conifers (*Abies amabilis*, *Abies lasiocarpa*, *Tsuga mertensiana*, and an understory of *Vaccinium*). Producing basidiomata from late summer to autumn. Known from Southeast Alaska and the Cascade Range in Washington, USA.

Specimens examined: USA. Alaska. Sitka County. Baranof Island, Mt Verstovia Trail, 57.061357, -135.259664, alpine heath with *Tsuga mertensiana* in krummholz form, and *Vaccinium*, 19 August 2019, M. Goff, CM2019-#05833, iNat: 31222984, (PUL:F26277) (GenBank no. MW493337). Washington. Pierce County. Mount Rainier National Park, Reflection Lake, subalpine forest, *Abies lasiocarpa*, *Tsuga mertensiana*, 11 September 2019, ecology voucher, S. Graham & J. Ammirati, JFA13828, (WTU:F073577) (GenBank no. MW493338). Skagit County, Noisy-Diobsub Wilderness, Watson Lakes Trail, 48.6673418, -121.6021554, subalpine meadow edge, 24 August 2019, S.D. Adams SDA510 (Holotype), (WTU:F073579), (GenBank no. MW493339), 1 Sept 2019, S.D. Adams, SDA523, (WTU:F073581), (GenBank no. MW493340), 3 October 2020, N. Siegel, NS4738, (WTU:F073583), S.D. Adams, SDA741, (WTU:F073582).

Etymology: The specific epithet refers to the rufous-red colour of the basidiomata.