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Systematic revision of the Roseinae clade of *Russula*, with a focus on eastern North American taxa

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Abstract

The Roseinae clade is a lineage of the genus *Russula* primarily composed of species of *Russula* subsect. *Roseinae*. Species in this morphologically distinct clade possess a white to pale cream spore print, mild taste, positive reaction to sulfovanillin, and primordial hyphae with acid-resistant crystals in the pileipellis. Here, we present a morphological and phylogenetic assessment that distinguishes seven eastern North American species of the core Roseinae lineage and a new subsection, Russula subsection *Albidinae*, to accommodate members of the Albida clade. We assign the previously described species *R. peckii, R. rubellipes*, and *R. pseudopeckii* to three species-level clades, and three other species, *R. cardinalis, R. cordata*, and *R. rheubarbarina*, are described as new. Comparative morphological analyses reveal differences in the conformation of terminal elements in the pileipellis, spore size, hymenial cystidia contents, and pigmentation on the stipe surface as key features to recognize species in the group. Based on the analysis of publicly available data, we recognize a potential total of nine temperate North American species within *R.* subsect. *Roseinae*, in addition to four from Central America, two from Europe, and 14 from Asia.

Keywords: 3 new typifications; 4 new taxa; Epitypification; global biogeography; lectotypification; morphometrics; systematics; type descriptions.