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[Pyrrhulomyces](#) E.J. Tian & Matheny

To resolve the non-monophyly of *Pholiota*, the new genus [Pyrrhulomyces](#) (*Strophariaceae*) was erected to accommodate [Pyrrhulomyces astragalinus](#) and its cryptic sister species, *Py. amariceps*, from the Southern Appalachians in North America ([Tian & Matheny 2020](#)). The species of *Pyrrhulomyces* are usually associated with late stages of conifer wood decay ([Tian & Matheny 2020](#)). Phylogenetic analyses based on ITS, LSU, *rpb2* and *tef1* indicated its phylogenetic position in *Strophariaceae* (*Agaricales*, *Agaricomycetidae*, *Agaricomycetes*, *Agaricomycotina*, *Basidiomycota*) ([Tian & Matheny 2020](#)). [Pyrrhulomyces](#) is phylogenetically closely related to *Stropharia* and *Hypholoma*, but it forms a separate clade apart from *Pholiota* ([Tian & Matheny 2020](#)). [Pyrrhulomyces](#) differs from the majority of species in *Stropharia* and *Hypholoma* by the brown spore deposit, the absence of an annulus, and the absence of a germ pore ([Tian & Matheny 2020](#)). Compared with other genera of *Strophariaceae* ([Tian & Matheny 2020](#)), taxa of this genus are characterized by the blackening of basidiocarps with a bitter taste, smooth basidiospores without a germ pore under light microscopy, presence of pleurochrysocystidia, an ixocutis, and rugulose spore ornamentation under the scanning electron microscope (SEM) ([Tian & Matheny 2020](#)). The asexual morph is unknown.

Reference

Tian E, Matheny PB. 2020 – A phylogenetic assessment of *Pholiota* and the new genus *Pyrrhulomyces*, *Mycologia*, 113(1), 146–167.
<https://doi.org/10.1080/00275514.2020.1816067>

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