

***Terfezia lusitanica*, a new mycorrhizal species associated to *Tuberaria guttata* (Cistaceae)**

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Abstract

A new *Terfezia* species associated with *Tuberaria guttata*, *Terfezia lusitanica* sp. nov., is described from Spain and Portugal. This claim it's based on the specimen's distinct morphology and unique ITS-rDNA sequence. Macro and micro descriptions and phylogenetic analyses of ITS data are provided for *T. lusitanica* and discussed in relation to similar spiny-spored *Terfezia* species. *T. lusitanica* differs morphologically from other spiny-spored *Terfezia*, that share the same habitat, by the combination of its ochre peridium colour and spores size, and in its ITS nrDNA sequence from all other ITS sequenced *Terfezia* species. Among the morphologically similar species, *T. farfani* has a reddish peridium, *T. extremadurensis* has distinctly larger spores and tuber-like gleba, and *T. cistophila* has smaller spores, a spermatic odour, and is never found in association with *T. guttata*.

Keywords: desert truffle, hypogeous, mycorrhizal fungi, Pezizaceae, Cistaceae