

New combinations in the genus *Deconica* (Fungi, Basidiomycota, Agaricales)

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Based on phylogenetics studies on *Deconica* and *Psilocybe*, eight new combinations for *Deconica* species previously assigned to *Psilocybe* are proposed.

Keywords: Strophariaceae, non-hallucinogenic mushrooms.

The genus *Psilocybe*, as conceived by Guzman (1983, 1995) appears to be polyphyletic (Moncalvo *et al.* 2002) and should be restricted to the species with hallucinogenic properties. To avoid unwanted nomenclatural consequences, Redhead *et al.* (2007) proposed the change of the type-species from *Agaricus montanus* Pers. into *Psilocybe semilanceata* (Fr.) P. Kumm., a proposal which has been approved (Barrie 2011, McNeill *et al.* 2011, Norvell 2011). Consequently, Noordeloos (2009) reinstalled the generic name *Deconica* for the non-hallucinogenic taxa.

Three species in the present paper, viz. *Psilocybe semi-inconspicua*, *P. thailandensis*, and *P. umbrina* were originally described as hallucinogenic mushrooms without a really observable bluing reaction. Although it is well known that the bluing reaction is not the main evidence to support the presence of psilocybin (e.g. in *P. semilanceata*), chemical tests have not been made in these species, so the conclusions to transfer these species to *Deconica* are based on the study of macro- and micromorphological features. *Psilocybe semi-inconspicua* was placed in sect. *Semilanceatae*; however, the DNA sequence (Ramírez-Cruz *et al.*, unpubl.) and the analysis of macro- and micromorphological characters helped us to conclude that it belongs to *Deconica*. Furthermore, it is very similar to *D. montana* (Pers.) P. D. Orton.

Deconica umbrina and *D. thailandensis* were placed in the bluing sect. *Neocaledonicae* (Horak *et al.* 2009). However, we have observed that this section contains species of *Deconica* and *Psilocybe*, because the main difference between the two genera at this level (sect. *Neocaledonicae*) is the presence of chrysocystidia in *Deconica*, which are present in *D. thailandensis* and *D. um-*

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brina. From the other five species considered in this paper the non-hallucinogenic properties were already known.

New combinations

Deconica aequatoriae (Singer) Ram.-Cruz & Guzmán, **comb. nov.**

MycoBank no.: MB 800723

Basionym. – *Psilocybe aequatoriae* Singer, Nova Hedwigia 29(1–2): 59, 1978 (“1977”).

Deconica alpestris (Singer) Ram.-Cruz & Guzmán, **comb. nov.**

MycoBank no.: MB 800359

Basionym. – *Psilocybe alpestris* Singer, Fieldiana, Bot. 21: 108, 1989.

Deconica angustispora (A. H. Sm.) Ram.-Cruz & Guzmán, **comb. nov.**

MycoBank no.: MB 800724

Basionym. – *Psilocybe angustispora* A. H. Sm., J. Elisha Mitchell Scient. Soc. 62: 193, 1946.

Deconica pegleriana (Guzmán) Ram.-Cruz & Guzmán, **comb. nov.**

MycoBank no.: MB 800725

Basionym. – *Psilocybe pegleriana* Guzmán. Doc. Mycol. 29 (116): 43, 2000.

Deconica pseudobullacea (Petch) Ram.-Cruz & Guzmán, **comb. nov.**

MycoBank no.: MB 800726

Basionym. – *Stropharia pseudobullacea* Petch, Ann. Roy. Bot. Garden (Peradeniya) 9(2): 128, 1924. = *Psilocybe pseudobullacea* (Petch) Pegler, Kew Bull., Add. Ser. 6: 473, 1977.

Deconica semi-inconspicua (Guzmán & Trappe) Ram.-Cruz & Guzmán, **comb. nov.**

MycoBank no.: MB 800727

Basionym. – *Psilocybe semi-inconspicua* Guzmán & Trappe, Int. J. Medic. Mushrooms 7(4): 588, 2005.

This species was considered in the hallucinogenic sect. *Semilanceatae* by Guzmán & Trappe (2005).

Deconica thailandensis (E. Horak, Guzmán & Desjardin) Ram.-Cruz & Guzmán, **comb. nov.**

MycoBank no.: MB 800728

Basionym. – *Psilocybe thailandensis* E. Horak, Guzmán & Desjardin, Sydowia 61(1): 30, 2009.

This species was considered in the bluing sect. *Neocaledonicae* by Horak *et al.* (2009).

Deconica umbrina (E. Horak, Guzmán & Desjardin) Ram.-Cruz & Guzmán,
comb. nov.

MycoBank no.: MB 800729

Basionym. – *Psilocybe umbrina* E. Horak, Guzmán & Desjardin, *Sydowia* 61(1): 28, 2009.

This species was considered in the bluing sect. *Neocaledonicae* by Horak *et al.* (2009).

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