

## (2044) Proposal to conserve the name *Agaricus tabescens* against *A. socialis* (*Basidiomycota*)

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(2044) *Agaricus tabescens* Scop., Flora Carniol., ed. 2: 446. 1772, nom. cons. prop.

Neotypus (hic designatus): Slovenia, Panovec, 13°40'37.3" E / 45°57'08.9" N, on *Quercus petraea*, 3 Sept. 2006, *Gabrijel Seljak* (Slovenian Forestry Institute, Ljubljana, Slovenia No. 2856; isoneotypus: BRNM No. 737504).

(=) *Agaricus socialis* DC. in Candolle & Lamarck, Fl. Franç., ed. 3, 5/6: 48. 1815: Fr., Syst. Mycol. 1: 251, 1821, nom. rej. prop.

Neotypus (hic designatus): Czech Republic, Moravia, Nové Mlýny, Křivé jezero National Nature Reserve, alt. 165 m, 48°51'12.129" N, 16°43'33.619" E, on base of the living stem of *Quercus robur*, 8 Sept. 2005, leg. et det. *V. Antonín 05.124* (BRNM No. 695686).

*Armillaria tabescens* (Scop.) Emel (Genre *Armillaria*: 50. 1921) based upon *Agaricus tabescens* Scop. (l.c.), also called *Armillariella tabescens* (Scop.) Singer (in *Lilloa* 22: 216. 1951 [1949]) is a well-known species of agaric and a deciduous tree pathogen present in Eurasia and North America as recorded under this epithet in most field guides and mycotas (mycofloras) (e.g., Kühner & Romagnesi, Fl. Analytique Champ. Supér.: 140. 1953; Ito, Mycol. Fl. Japan 2(5): 130–131. 1959; Tai, Syll. Fung. Sinicorum: 379. 1979; Phillips, Mushr. Great Brit. & Eur.: 32–33. 1981; Watling & al. in Trans. Brit. Mycol. Soc. 78: 275. 1982; Weber & Smith, Field Guide S. Mushr.: 186. 1985; Singer, Agaricales in Mod. Taxon., ed. 4: 264. 1986; Bon & al., Mushr. and Toadstools Brit. N.-W. Eur.: 142. 1987; McKnight & McKnight, Field Guide. Mushr.: 137. 1987; Imazeki & Hongo, Coloured Illus. Mushr. Japan 1: 80. 1987; Farr & al., Fungi on Pl. Plant Products U.S.: 572. 1989; Kriegersteiner, Verbreitung Großpilze Deutsch. (West) 1(b): 495. 1991; Termorshuizen, Fl. Agaric. Neerl. 3: 334–39. 1995; Teng, Fungi China: 438–439. 1996; Bessette & al., Mushr. N.E. N. Amer.: 70. 1997; Courtecuisse, Mushr. Brit. Eur.: 827. 1999; Pegler in Fox, *Armillaria* Root Rot: 81–93. 2000; Horak, Röhrlinge Blätterpilze Eur.: 128–129. 2005; Legon & Henrici, Checkl. Brit. Irish Basidiomyc.: 14. 2005; Roux, Mille et Un Champignons: 431. 2006). It is also frequently cited as *Armillaria tabescens* in phytopathology literature and in modern phylogenetic studies (e.g., Schnabel & al. in Mycol. Res. 109: 1208–1222. 2005; Kelly & al. in Forest Pathol. 39: 397–404. 2009; Cha & al. in J. Fac. Agric. Kyushu Univ. 54: 273–277. 2009; Lushaj & al. in Forest Pathol. 40: 485–499. 2010; Hasegawa & al. in Mycologia 102: 898–910. 2010; Kim & al. in Pl. Dis.: 94: 784. 2010; Beckman in Acta Hort. 903: 215–220. 2011; Suyama in J. Jap. Forest. Soc. 93: 14–20. 2011). In contrast to the complex of often confused annulate

species in *Armillaria* sensu stricto, which were resolved from each other via matings and molecular phylogeny, *A. tabescens* has been readily distinguished by its absence of an annulus and its general habit. The only other nonannulate *Armillaria* in Europe is *A. ectypa* (Fr.: Fr.) Lamoure (in Compt. Rend. Séanc. Acad. Sci., Ser. 3, 260: 4562. 1965) which occurs in marshes and bogs. Consequently, *A. tabescens* has had a longer period of stable nomenclature than the annulate taxa.

Occasionally the name *Armillaria socialis* (DC.: Fr.) Fayod (in Ann. Sci. Nat. Bot. 9: 232. 1889) based upon the later published but sanctioned name *Agaricus socialis* is adopted (Herink in Hásek, Symp. Václ. Ob. *Armillaria mellea*: 44. 1973; Watling & al. in *Armillaria* Root Disease: 5. 1991; Antonín & al. in Czech Mycol. 58: 209–224. 2006). As noted by Volk & Burdsall (in Syn. Fungorum 8: 105, 114. 1995), Fries had at different times treated the name *Agaricus socialis* in different “tribes” each linked to different spore print colours and more specifically in 1821, Fries (l.c.) had it treated in a brown-spored group. Consequently there exists some doubt as to which taxon might be sampled to generate a type while not contradicting the sanctioning author’s treatment. Fries (Hymenomyc. Eur.: 111. 1874), in adopting *Agaricus tabescens* and listing *A. socialis* DC. in synonymy later explained that the lamellar colour suggested *Agaricus (Flammula)* while “Delile” documented white spores. Fries (l.c. Hymenomyc.: 47, tab. 49 fig. 2. 1871) proposed a new homonym, *Agaricus socialis* Fr. (nom. illeg.) for a different species that he personally had found as differentiated from *A. socialis* DC. which he had earlier indicated he had not seen (Fries, Epicr. Syst. Mycol.: 191. 1838). He (Fries, l.c. 1874: 83) differentiated his *A. socialis* Fr. from *A. socialis* DC. which was listed in synonymy under *A. tabescens* on page 111. Undoubtedly this treatment by Fries had led to the preferred usage of *A. tabescens* for over a century. The current situation where an ambiguous sanctioned name trumps an ambiguous earlier name in wider usage has led to nomenclatural instability. Therefore, conservation of *Agaricus tabescens* is proposed. Rejection of this proposal will lead to prolonged confusion. The only benefit in doing so would be to uphold the sanctity of sanctioning even when the sanctioning author himself (Fries, l.c. 1871, 1874) later rejected the name. We note that conservation of these two European-based names would not affect the recognition of a separate North American species under the name *Agaricus monadelphus* Morgan (in J. Cincinnati Soc. Nat. Hist. 6: 69. 1883) should it be recognized as a separate species as suggested as a possibility by Kile & al. (in Proc. 8th Int. Conf. Root & Butt Rots, Wik, Sweden: 411–436. 1993).

Giovanni Antonio Scopoli described *Agaricus tabescens* from Carniolia or the Kranjska region, a part of the Habsburg Empire at that time, now part of Slovenia. The locality was described relatively

imprecisely: circa Idriam, near Idrija, a small town in the western part of Slovenia where Scopoli was living and working from 1754 to 1769. In the absence of original material (neither specimens nor illustrations), we hereby designate as neotype for *Agaricus tabescens* a specimen collected in nearby Panovec, Slovenia. Sequences, photographs and cultures are available and will be documented elsewhere. Original material is also lacking for *Agaricus socialis* DC.: Fr. Candolle & Lamarck (l.c.) cited an illustration but questioned whether it was their fungus, viz. “*Fungus*. Clus. Hits. [sic] 2, p. 288. Ic. xxii ? nec Descr.” Presumably they meant illustration “XXII. Genus perniciosorum Fungorum 5. species” on page cclxxxv (Clusius, Rar. Pl.

Hist., 1601) which Clusius (l.c.: cclxxxvi) described as a white fungus, hence their exclusion of the description and lack of confidence in the illustration. Because they did not accept the illustration fully, and in the absence of a specimen in the Candolle herbarium in Geneva (<http://www.ville-ge.ch/musinfo/bd/cjb/chg/advanced.php?lang=en>) we choose one of the specimens cited under this name by Antonín & al. (l.c.) for which descriptions, photographs and sequences are available. We also note that in the sanctioning work, Fries (l.c. 1821) did not cite any illustrations, not even that by Clusius (l.c.), and, as mentioned above, Fries (l.c. 1838) reported that he had not seen any material of the sanctioned name.