

Nomenclatural novelties : Bryn Dentinger

Boletus bainiugan Dentinger, in Dentinger & Suz, sp.nov.

IF550249

Edible, fleshy mushroom with light- to brown cap, clavate stipe, and a tubular hymenophore that is at first white, becoming greenish-yellow at maturity. Pores 'stuffed', i.e. covered by a tangled layer of interwoven, colorless hyphae that extends into the pores and disappears in age. Cap colour variable with light yellow-brown background and a fine darker brown pattern of agglutinated hyphae giving a subtle wrinkled appearance. Stipe with a pale, raised reticulum, background pale, off-white becoming darker in age. Spores boletoid shape, smooth-walled, greenish-yellow, 5–6 μm \times 2 μm . Basidia 4-sterigmate, clavate with a pronounced bulbous swelling at the apex giving a capitate appearance, 13–14 μm long, 4–4.5 μm wide at the widest point. Trama boletoid with unclamped hyphae 3–4 μm wide. Cheilo- and pleuro-cystidia not seen. Pileipellis hyphae interwoven, repent, with regions of an agglutinated, tangle of hyphae 3 μm wide making an irregular surface.

Holotype K(M) 189052.

Distinguished from *Boletus meiweiniugan* by phylogenetic analysis of the nuclear internal transcribed spacer region using a generalized mixed Yule coalescent model, and possibly also by the larger basidia with capitate apices and slightly larger spores. Harvested commercially in Yunnan, China and exported internationally as *Boletus edulis*. GenBank sequences: KF815934 (K(M)189052; holotype), KF815935 (K(M)189096), KF815936 (K(M)189098), KF854281 (K(M)189097), KF854282 (K(M)189450). From 'bai niu gan', a transliteration of the Chinese 白牛肝 which is a local common name for the species incorrectly identified as *Boletus edulis* in wild mushroom exports from Yunnan, China (Wang et al. 2004). The literal translation is 'white beef liver'.

Boletus meiweiniugan Dentinger, in Dentinger & Suz, sp.nov.

IF550248

Edible, fleshy mushroom with light- to dark-brown cap, clavate stipe, and a tubular hymenophore that is at first white, becoming greenish-yellow at maturity. Pores 'stuffed', i.e. covered by a tangled layer of interwoven, colorless hyphae that extends into the pores and disappears in age. Cap colour variable with shades of brown from light to dark gray-brown, surface smooth, dry. Stipe with a raised reticulum at first white turning dark in age, background pale, off-white becoming darker in age. Spores boletoid shape, smooth-walled, greenish-yellow, 5–5 \times 1–2 μm . Basidia 4-sterigmate, clavate, 11–12 μm long, 4 μm wide at the widest point. Trama boletoid with unclamped hyphae 3–4 μm wide. Cheilo- and pleuro-cystidia present, lanceolate, hyaline, smooth-walled, 16–20 μm long, 3 μm wide at widest point. Pileipellis hyphae interwoven, repent, 2.5 μm wide with occasional, large, irregularly shaped elements 6.5 μm wide.

Holotype K(M) 189051.

Harvested commercially in Yunnan, China and exported internationally as *Boletus edulis*. GenBank sequences: KF815926 (K(M)189051; holotype), KF815927 (K(M)189099), KF815928 (K(M)189100), KF815929 (K(M)189101), KF815930 (K(M)189102), KF815931 (K(M)189103), KF815932 (K(M)189104), KF815933 (K(M)189105), KF854283 (K(M)189449).

From 'mei wei niu gan jun', a transliteration of the Chinese name 美味牛肝菌 for what is thought to be *Boletus edulis* in China. The literal translation is 'delicacy (or delicious) cattle liver fungus' (Y.-J. Yao, pers. comm.).

Boletus shiyong Dentinger, in Dentinger & Suz, sp.nov.

IF550250

Edible, fleshy mushroom with light- to brown cap, clavate stipe, and a tubular hymenophore that is at first white, becoming greenish-yellow at maturity. Pores 'stuffed', i.e. covered by a tangled layer of interwoven, colorless hyphae that extends into the pores and disappears in age. Cap colour variable from light yellow-brown to brown and gray-brown. Stipe with a pale, raised reticulum, background pale, off-white becoming darker in age. Spores boletoid shape, smooth-walled, greenish-yellow, 5–6.5 \times 2–2.5 μm . Basidia 4-sterigmate, clavate, 13–14 μm long, 4.5 μm wide at the widest point. Trama boletoid with unclamped hyphae with larger elements 4.5 μm wide. Cheilo- and pleuro-cystidia present, lanceolate, hyaline with smooth walls, 22.5 μm long, 2.5 μm at widest point. Pileipellis hyphae interwoven, repent, some terminal cells with irregular walls and refractive contents 3–4.5 μm wide.

Holotype K(M) 189053.

Distinguished from *Boletus meiweiniugan* Dentinger and *Boletus bainiugan* Dentinger by phylogenetic analysis of the nuclear internal transcribed spacer region using a generalized mixed Yule coalescent model, and possibly also by spores with slightly narrower apices. Harvested commercially in Yunnan, China and exported internationally as *Boletus edulis*. GenBank sequences: KF815937 (K(M)189053; holotype).

From 'shi yong', a transliteration of the Chinese name 食用, which is the word for 'edible', a reference to the specific epithet of *Boletus edulis*.