

*Entoloma pseudocruentatum*



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***Entoloma pseudocruentatum*** Noordel., Brandrud, G.M. Jansen, Dima & Læssøe, *sp. nov.*

*Etymology.* The epithet refers to the erroneously applied name *Entoloma cruentatum* for this species.

*Classification* — *Entolomataceae*, *Agaricales*, *Agaricomycetes*.

*Basidiomata* small to medium-sized, collybioid. *Pileus* 15–25 mm diam, convex to flattened-convex, later, when maturing, from flattened to somewhat depressed in the centre, never umbonate; slate blue grey with slight violaceous tinge, deeply translucently striate, innately radially fibrillose, not squamulose at centre, margin somewhat crenulate. *Lamellae* adnate, bluish grey when young. *Stipe* 30–40 × 2–4 mm, similar in colour to the pileus or paler, polished, with white to yellow or orange-yellow basal tomentum. *Context* thin, pale grey bluish. *Smell* indistinct. *Taste* not known. *Basidiospores* 8.5–10.0 × 6.0–7.5 µm, av. 9.1 × 6.8 µm, heterodiametrical, with 5–7 angles in side-view. *Basidia* 28–34 × 9.5–12.5 µm, clavate, 4-spored, clampless. *Lamella edge* fertile, cheilocystidia absent. *Pileipellis* a cutis of cylindrical hyphae, 3.5–9 µm wide, with a transition to a trichoderm at centre of clavate elements, 12–30 µm wide. *Pigment* blue to grey-blue, clotted granular and diffusely intracellular. *Stipitipellis* cylindrical hyphen 3.5–8.5 µm wide with grey blue clotted granular and diffuse intracellular pigment. *Clamp connections* absent in all tissues.

*Habitat & Distribution* — Saprotrophic, in groups on nutrient poor (acid) soil, in a regularly mown, species-rich grassland of an old airbase (holotype) and on rich grassland (Denmark), herb/grass-rich *Fraxinus-Quercus* forest (Norway).

*Typus.* THE NETHERLANDS, Prov. Utrecht, Soesterberg, former airfield, 30 Sept. 2019, M.E. Noordeloos, P.J. Keizer & J.V. Dongen (holotype L0607915, ITS and LSU sequences GenBank MW934588 and MW934254, MycoBank MB 839227).

*Additional materials examined.* DENMARK, Favrholt, in semi-natural grassland, on shady slope with *Plantago lanceolata* and *Succisa pratensis*, 19 Aug. 2008, T. Læssøe, TL-13373 (C, DMS-730741; ITS sequence GenBank MW934590). – NORWAY, Telemark, Drangedal, Malfjell S, 31 Aug. 2015, in rich, somewhat calcareous grass-herb vegetation in open *Fraxinus-Quercus* forest, T.E. Brandrud, TEB 188-15 (O-F-251951; ITS sequence GenBank MW934589).

*Colour illustrations.* The Netherlands, Prov. Utrecht, Soesterberg, former airfield (type locality, photo credit P.J. Keizer). *Basidiomata* (left from holotype, right from TEB188-15); spores, cheilocystidia, pileipellis, stipitipellis (all from holotype). Scale bars = 1 cm (habit), 10 µm (spores), 5 µm (pileipellis and stipitipellis).

*Notes* — *Entoloma pseudocruentatum* was interpreted as *E. cruentatum* by Noordeloos (1987, 2004), as similar to *E. chalybaeum*, with a fertile lamella edge, a glaucous-blue stipe, with the base frequently discolouring yellowish or pale orange. However, there are now reasonable doubts as whether the original diagnosis of Quélet (1886) actually refers to the same species. *Entoloma cruentatum* is described as a species with a more or less conical to umbonate, lilac-blue pileus, and a stipe with glaucous bluish stipe with a strong reddening at base. Kühner & Romagnesi (1953) considered it a dubious species, probably in subg. *Nolanea*. Another option could be that *E. cruentatum* represents a form of *E. exile*, a species with rather variable pileus shape and colour, and often a reddening stipe base. The concept of Noordeloos (1984) was based on a collection from Scotland, which has many characters in common with the species described here. For this reason, we describe *Entoloma cruentatum* sensu Noordeloos (1984) as a new species. Also see the phylogenetic tree for *E. ammophilum* in Supplementary material FP1240.

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