Inocybe lanatopurpurea
Inocybe lanatopurpurea Esteve-Rav. & G. Moreno, sp. nov.

Etymology. From Latin lanatus and purpureus, referring to the lanose veil and purple colour of the basidiomata.

Basidiomata agaricoid and stipitate. Pileus 10–25 mm, hemispherical convex to convex, broadly umbonate or not, slightly hygrophanous, not translucently striate, margin deflexed to straight, purple-brown to dark purple-grey (Mu 2.5YR 4/1-3) when moist, slightly pallescens on drying, then grey lilaceous at the margin (Mu 10R 4/1-3) and paler to greyish buff at the centre on drying (Mu 10R 6/1-2; 7.5YR 7/1-3); surface fibrillose to flocculose, with age often breaking into adpressed scales at the centre, in some cases squamulose to subsquarrose towards the disc, when young covered by abundant whitish fibrillar veil, breaking into individual lanose to fibrillose scales (Cortinarius palaeceus-like). Lamellae rather crowded, adnexed, broad, ven-tricose, pale pink lilaceous at first, then cream to brown or yellowish to purple-red (‘red wine-like’), paler dantyl fibrillose to flocculose whitish veil, apex fibrillose. 

Smell when cut, slightly spermatic, then to concolorous in the stipe (Mu 10R 5/1-3), fibrose. Smell when cut, slightly spermatic, then to concolorous in the stipe (Mu 10R 5/1-3), fibrose. Smell when cut, slightly spermatic, then to concolorous in the stipe (Mu 10R 5/1-3), fibrose. Smell when cut, slightly spermatic, then to concolorous in the stipe (Mu 10R 5/1-3), fibrose. Smell when cut, slightly spermatic, then to concolorous in the stipe (Mu 10R 5/1-3), fibrose.

Basidia regular, made up of cylindrical cells, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick, intracellular diffuse yellowish purple, walls 1–2 µm thick.

Notes — Colour codes are taken from Munsell (1994), spore measurements are according to Heinemann & Rammeloo (1985) and terminology follows Vellinga (1988) and Kuyper (1986).

Morphologically, Inocybe lanatopurpurea can be distinguished by the abundant lanose whitish veil, rather persistent upon development and forming small woolly scales on the pileus; another characteristic feature is the distinct colour, purple-brown to grey purplish or lilaceous, also present clearly in the stipe context; microscopically it shows rather narrow and fusiform cystidia, with (pale) yellow, not very thick (1–2 µm) walls. Among Inocybe representatives showing violet, lilac or purplish colours (section Lilacinæ, see Heim (1931) and Bon (1997)), I. cincinnata differs by the brown tinged paracystidia at the lamella edge and brighter yellow cystidia wall in ammonia solutions; I. griseo-lilacina shows smaller, wider and often subcapitate cystidia and a pelargonium-like smell; I. amethystina is, apparently, very similar (Kuyper 1986), but the flocculose-subsquamose pileus is devoid of woolly traces of vein and the cystidia are broader (15–20 µm). In the phylogenetic tree presented here, I. amethystina clusters in a very different clade, as is the case of I. griseo-lilacina and I. cincinnata s.l. All these species do not present caulocystidia, or these are found sparsely at the extreme apex or insertion area of the stipe.

Inocybe lanatopurpurea is phylogenetically close to I. lavandulochloria (92 %), which exhibits lilac-violet colours in the stipe (Esteve-Raventós & Villarreal 2001) and 91 % similar to I. chondroderma (Matheny et al. 2013) both showing yellow colours in the basidiomata, never brown, greyish or purplish. The European I. subnudipes is probably related phylogenetically with these taxa, but the original description does not mention any violet, lilac or similar colour in primordial or young specimens, and type material has not been sequenced yet. At least two closely related sister lineages (98–97 % similar) can be detected, both composed of unpublished sequences produced by Berbee et al. (unpubl.). Provisional identifications in public databases were not displayed in the tree until these have been confirmed by their authors. Whether these sister lineages can be considered conspecific with that of I. lanatopurpurea, should be addressed through the study of these specimens. However, molecular differences seem comparable to those found between, e.g., I. chondroderma and I. lavandulochloria I. subnudipes, so we choose here a conservative approach for I. lanatopurpurea, comprising exclusively of the type lineage. Collections studied by the authors are indicated in bold in the phylogenetic tree (see figure in MycoBank) for ITS sequences.

Fernando Esteve-Raventós & Gabriel Moreno, Departamento de Ciencias de la Vida (Area de Botánica), Universidad de Alcalá, E-28805 Alcalá de Henares, Spain; e-mail: fernando.esteve@uah.es & gabriel.moreno@uah.es

Pablo Alvarado, ALVALAB, C/ La Rochela nº 47, E-39012, Santander, Spain; e-mail: pablo.alvarado@gmail.com

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