

*Pseudonectria rusci*



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***Pseudonectria rusci* Lechat, Gardiennet & J. Fourn., sp. nov.**

*Etymology.* The epithet is derived from the host *Ruscus aculeatus*.

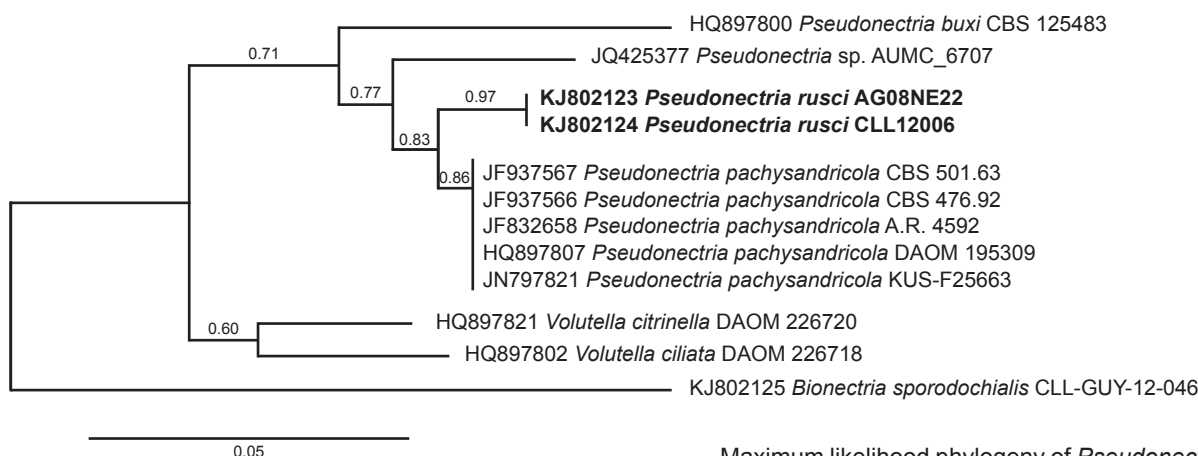
*Ascomata* superficial, scattered on cladodes and stems of dying *Ruscus aculeatus*, not obviously stromatic but seated on old volutella-like sporodochia, globose with a pointed apex, 180–200 µm diam, smooth, orange, turning pale pink to pale purple in 3% KOH, yellow in lactic acid, collapsing laterally upon drying, setose. *Ascomatal* wall 20–25 µm thick, made of two regions: outer region 15–20 µm thick, composed of thick-walled ellipsoid to elongate cells with wall 1.5–2 µm thick; inner region 5–10 µm thick composed of thin-walled, flattened, hyaline cells; apex made of tightly aggregated cylindrical cells 8–12 × 2–2.5 µm. *Cells* at the surface of the perithecial wall angular, 10–15 µm diam. *Setae* scattered on surface of ascomata except on ostiolar region, 60–135 µm long, 6–11 µm wide at base, simple, hyaline, stiff, straight to slightly curved upwards, with acute apices, thick-walled, wall refractive, 2.5–3 µm wide at base, becoming thinner toward the apex, aseptate. *Asci* unitunicate, narrowly clavate, stipitate, 60–70 × 8–10 µm, with eight ascospores that are irregularly biseriate in upper part and uniseriate below, apex simple, truncate, with hyaline, thin-walled moniliform paraphyses inserted between the asci, up to 10 µm wide toward base. *Ascospores* 12–15 × 3–3.5 µm, ellipsoid to fusiform, medianly septate, with two droplets in each cell, slightly constricted at the septum, pale brownish yellow when mature, finely verrucose.

*Culture characteristics* — After 2 wk on 2% potato-dextrose-agar (PDA) with 5 mg/L streptomycin: colonies 6–7 cm diam, pale salmon, sporodochia orange-yellow, setae 170–230 µm long, 5–7 µm wide at base, tapering with acute tip, aseptate, hyaline. Conidiophores 25–40 × 3–4 µm, branched, ultimate branches bearing 2–4 phialides. Phialides cylindrical, 10–15 × 1.5–2 µm with a flared collarete. Conidia fusiform, 8–10 × 2.5–4 µm, aseptate containing many minute droplets, smooth, hyaline. Asexual state in culture identical to volutella-like asexual morph occurring on natural substratum.

*Typus.* FRANCE, Côte d'Or, Corcelles-Les-Monts, Bois de La Combe au Pré, 25 Nov. 2008, on dead stem and cladodes of *Ruscus aculeatus*, A. Gardiennet (holotype deposited at Faculté de Pharmacie de Lille, France (LIP) AG08NE22, culture ex-type CBS126108; ITS GenBank sequence KJ802123 & KJ802124, MycoBank MB808720).

*Additional specimens examined.* FRANCE, Côte d'Or, Messigny-et-Vantoux, bois de la Combe, 26 Nov. 2009, A. Gardiennet, AG09321; Deux-Sèvres, Villiers-en-Bois, forêt de Chizé, 25 Feb. 2012, C. Lechat, CLL12006; Ariège, Rimont, Las Muros, 470 m, 29 Dec. 2012, J. Fournier, JF 12124.

*Notes* — The present new taxon fits well within the genus *Pseudonectria* as defined by Rossman et al. (1999), in having minute superficial setose ascomata occurring on dying or recently dead plant material, and being associated with a volutella-like sexual state. Its close affinities with other members of the genus and the asexual-sexual state connection are confirmed by DNA sequence data. However, it deviates from typical *Pseudonectria* spp. by its ascomatal wall changing colour in KOH and 1-septate ascospores.



*Colour illustrations.* *Ruscus aculeatus* on which the sample was collected, ascomata on host substratum, vertical section through ascomatal wall, asci and ascospores. Scale bars = 100, 10 and 10 µm.

Maximum likelihood phylogeny of *Pseudonectria* inferred from ITS1-5.8S-ITS2 sequences, rooted on *Bionectria sporodochialis*. Analysis performed online at [www.phylogeny.fr](http://www.phylogeny.fr) (alignments edited with GBlock 0.91b), run in PhyML 3.0aLRT using the GRT+I+Γ model. Branch supports assessed by the SH-aLRT statistical test.

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