Talaromyces tabacinus
**Talaromyces tabacinus** Jurjević, S.W. Peterson & G. Perrone, *sp. nov.*

**Etymology**
Named for tobacco, the host from which it was isolated.

**Classification** — *Trichocomaceae, Eurotiales, Eurotymycetes.*

On MEA: Conidiophores with solitary phialides, 15–45(–65) × 3–4(–5.5) μm diam, or mononverticillate, occasionally bi-verticillate, rarely with subterminal branches; stipes smooth, (3–)10–40(–70) × 2.5–4 μm diam; metulae 2–3, 12–21 × 3–4 μm diam; phialides 2–5, acerosa, (9–)14–20(–26) × 3–3.5(–5) μm diam, with gradually tapering collula, occasionally minutely roughened; conidia ellipsoidal to fusiform, rarely small and nearly subglobose, smooth, (4.5–)6–10(–19) × (2.5–)3–3.5(–4.5) μm diam. Borne in long disordered chains. No sexual morph observed.

**Culture characteristics** — Cultured in darkness at 25 °C for 7 d unless otherwise noted. Colonies on malt extract agar (MEA) 27–40 mm diam, floccose to fusicolose, low, plane, occasional shallow radial sulci, mycelium white to deep colonial buff. Sporulation moderate to very good, conidia en masse pale green-blue grey to deep green-blue, grey-blue (R48; Ridgway 1912), no exudate or soluble pigments, reverse cream-buff to deep colonial buff or chamois to light yellowish olive (R30). Colonies on Czapek yeast autolysate agar (CYA) 14–24 mm diam, floccose to fusicolose, rising c. 3–4 mm, mycelium white to yellow ochre (R15), subsurface hyphae extending c. 2–3 mm from margin, sporulation moderate to very good, conidia en masse pale Medici blue to deep green-blue grey (R48), no exudate or soluble pigments, reverse cream-buff to chamos to light yellowish olive (R30). Colonies on potato dextrose agar 28–39 mm diam, floccose to fusicolose, plane, light to deep radial sulci, mycelium white to deep colonial buff (R30), subsurface hyphae extending c. 3–12 mm from margin, sporulation moderate to heavy, conidia en masse pale green-blue, grey to deep green-blue, grey-blue (R48), yellow to deep green-blue, grey-blue (R48), to Artemisia green (R47), no exudate or soluble pigments, reverse colonial buff to olive-ochre to light olive yellow to dark greenish olive (R30). No growth on Czapek yeast agar with 20 % sucrose.

Dichloran 18 % glycerol agar, 2–4 mm diam, no sporulation, mycelium white, largely submerged, reverse uncoloured to pale buff. No growth on CYA with 5 % NaCl. Colonies on oatmeal agar 38–43 mm diam, floccose to fusicolose, low, plane, mycelium white, occasionally with Naples yellow shades (R16), heavy sporulation, conidia en masse pale green-blue, grey to deep green-blue, grey (R48), exudate when present clear, small droplets, soluble pigments absent. Colonies on creative sucrose agar up to 4 mm diam, very poor growth. On CYA/MEA (colony diam in mm) at 30 °C 20–30/43–67; 35 °C 22–36/40–67; 37 °C 23–30/30–67; 41 °C 13–30/18–48; no growth at 45 °C.

**Typus.** USA, North Carolina, Durham, leaves of *Nicotiana tabacum* (Solanaceae) from a greenhouse, 17 Sept. 2013, Ž. Jurjević (holotype BPI 910533, cultures ex-type NRRL 66727 = EMSL 2174; barcode: ITS, benA, CaM and rpB2 sequences GenBank MG182613, MG182627, MG182606 and MG182620, MycoBank MB823318).


**Notes** — BLAST searches of the sequences of *T. tabacinus* showed β-tubulin similarity to *T. aerugineus, T. bohemicus and T. diversiformis*; calmodulin similarities were to *T. bohemicus and T. diversiformis*. The ITS barcode was 98–99 % similar to *Talaromyces ryukyuensis, T. aerugineus, T. bohemicus and T. diversiformis*.

*Talaromyces tabacinus* is distinguished by the production of (4.5–)6–10(–19) × (2.5–)3–3.5(–4.5) μm diam ellipsoidal or fusiform conidia, and growth on CYA at 37 °C of 23–30 mm diam. The closely related *T. diversiformis* produces 4–6(–8) × 2–4 μm diam ellipsoid or fusiform conidia, and growth at 37 °C is 17–19 mm diam. *Talaromyces bohemicus* has 7–9 × 2.5–3 μm fusiform conidia with encrusted cell walls, while *T. aerugineus* has 3–8.5 × 2.5–5 μm smooth conidia, in various shapes, subglobose to ellipsoidal to fusiform. *Talaromyces tabacinus* causes no disease symptoms on tobacco.

Maximum likelihood tree of *T. tabacinus* and closely related species based on a concatenated *benA, CaM and rpB2* DNA sequence alignment was calculated using MEGA (Kumar et al. 2016). Support values at branches were obtained from 1000 bootstrap replicates. Bootstrap values greater than 70 % are shown; ex-type strains are indicated by 1.

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**Colour illustrations.** Tobacco plant; 7-d-old cultures of *Talaromyces tabacinus* on MEA (top: 25 °C, middle: 37 °C, bottom: 41 °C), conidia and conidiophores on MEA. Scale bars = 10 μm.