

*Utrechtiana cibiessia*



Fungal Planet 90 – 31 May 2011

***Utrechtiana* Crous & Quaedvlieg, gen. nov.**

Conidiophoris atrobrunneis, erectis, basi subglobosa, cellulis conidiogenis subcylindraceis, brunneis formantibus, apicibus clavatis, obtuse rotundatis, cum cicatricibus truncatis, interdum incrassatis, sed neque fuscatis neque refractis. Conidiis pallide brunneis, ellipsoideis, guttulis et granulatis, delicate verrucosis, paulum supra medium 1-septatis, tenuitunicatis, apice obtuse vel acute rotundato, basi obtuse rotundata, cum hilo truncato, fuscato et incrassato et poro centrali.

*Etymology.* Named after the University of Utrecht, on which campus it was collected.

Hyphomycetous, associated with leaf spots. *Mycelium* internal, consisting of septate, smooth, hyaline, branched hyphae. *Conidiophores* solitary, erect, bursting through epidermis, with

circular scar where base of conidiophore is attached to immersed hyphal network; conidiophores dark brown, erect, base subglobose, giving rise to a subcylindrical, brown conidiogenous cell that ends in a clavate, bluntly rounded apex, with truncate, flattened scar; sometimes thickened, not darkened, nor refractive. *Conidia* pale brown, ellipsoid, guttulate to granular, finely verruculose, 1-septate slightly above the conidial median, thin-walled, apex bluntly to acutely rounded, base obtusely rounded with a flattened and thickened hilum that has a central pore.

*Type species.* *Utrechtiana cibiessia*.  
Mycobank MB560179.

***Utrechtiana cibiessia* Crous & Quaedvlieg, sp. nov.**

Conidiophoris 18–45 × 10–12 µm, atrobrunneis, erectis, basi subglobosa, 10–12 × 10–15 µm, cellulis conidiogenis subcylindraceis, subtile verruculosus, mediobrunneis, sed apicem versus pallide brunneis, 8–20 × 8–10 µm formantibus. Conidiis pallide brunneis, ellipsoideis, guttulis vel granulatis, subtile verruculosus, paulum supra medium 1-septatis, corpis conidiorum (25–)26–28(–30) µm longis, cellulis basalibus (12–)15–17(–19) × (12–)13–15(–18) µm, cellulis apicalibus (8–)10–12(–15) × 14–15(–16) µm.

*Etymology.* Named after the Centraalbureau voor Schimmelcultures (CBS-KNAW) in front of which, on Utrecht Campus, the fungus was collected.

*Leaf spots* amphigenous, prominent, ellipsoid, centre pale brown, outer region dark brown, surrounded by chlorotic halo, varying from specks 1 mm diam to spots up to 10 mm diam. *Mycelium* internal, consisting of septate, smooth, hyaline, branched hyphae, 2–4 µm diam. *Conidiophores* amphigenous on leaf, solitary, though aggregated on leaf spots, erect, bursting through epidermis (not stomata) on surface, with circular scar where base of conidiophore is attached, 6–8 µm diam, with central point linked to immersed hyphal network; conidiophores 18–45 × 10–12 µm, dark brown, erect, base subglobose, 10–12 × 10–15 µm, giving rise to a subcylindrical, finely verruculose, medium brown conidiogenous cell that becomes pale brown at apex, 8–20 × 8–10 µm, that ends in a clavate, bluntly rounded apex, tapering near the apex to a truncate, flattened scar, 3–5 µm diam, sometimes thickened, not darkened, nor refractive. *Conidia* pale brown, ellipsoid, guttulate to granular, finely verruculose, 1-septate slightly above the conidial median, somewhat constricted at septum, thin-walled, apex bluntly to acutely rounded, base obtusely rounded with a flattened hilum, 3–4 µm diam, with a thickened rim if viewed directly from above (with central pore, but no pore visible on conidiogenous scar), darkened and thickened when viewed from the side, extending 1–1.5 µm into the conidial body; (25–)26–28(–30) µm long; basal cell (12–)15–17(–19) × (12–)13–15(–18) µm, apical cell (8–)10–12(–15) × 14–15(–16) µm.

*Culture characteristics* — (in the dark, 25 °C, after 2 wk): Colonies spreading, erumpent with moderate aerial mycelium and even margins, reaching 10 mm diam. On oatmeal agar dirty white; on potato-dextrose agar surface and reverse dirty white;

*Colour illustrations.* Symptomatic *Phragmites australis* growing next to a water channel on the Uithof, Utrecht campus; solitary conidiophores on leaf spot; conidiophores giving rise to conidia; germinating conidium. Scale bars = 10 µm.

on malt extract agar surface dirty white, turning grey olivaceous when fertile, reverse luteous.

*Typus.* NETHERLANDS, Utrecht, De Uithof University Campus, intersection of Harvardlaan with Uppsalalaan, on leaves of *Phragmites australis* growing along water canals, 14 Dec. 2010, W. Quaedvlieg, holotype CBS H-20594, cultures ex-type CPC 18917, 18916 = CBS 128780, ITS sequence GenBank JF951153 and LSU sequence GenBank JF951176, MycoBank MB560180.

*Notes* — *Utrechtiana* should be compared to three other morphologically similar genera, namely *Polytrincium* (Simon et al. 2009), *Polythrincopsis* (Walker 1966) and *Passalora* (Crous et al. 2009b). It is however morphologically distinct from all three genera by having solitary conidiophores with solitary, terminal conidiogenous loci, and the absence of any stroma. *Polythrincopsis phragmites*, which also occurs on *Phragmites* in Australia (Walker 1966), is superficially similar in having 1-septate, obovate conidia, but distinct in having conidiophores in fascicles arising from a poorly developed stroma, superficial mycelium, and conidiogenous loci (thickened and darkened) arranged along the side of the conidiogenous cell. Further collections and cultures would be required, however, to determine if *Polythrincopsis* is distinct from *Polytrincium* and *Passalora*.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Magnaporthe grisea* (HQ020360; Identities = 441/474 (93 %), Gaps = 13/474 (3 %)), *Magnaporthe oryzae* (GU073121; Identities = 485/527 (92 %), Gaps = 20/527 (4 %)) and *Pyricularia commelinicola* (FJ850125; Identities = 408/445 (92 %), Gaps = 21/445 (5 %)). An identical search using the LSU sequence revealed a similar high similarity to *Pyricularia borealis* (DQ341511; Identities = 844/863 (98 %), Gaps = 5/863 (1 %)), *Magnaporthe grisea* (AF362554; Identities = 860/881 (98 %), Gaps = 6/881 (1 %)) and *Buergenerula spartinae* (DQ341492; Identities = 843/866 (97 %), Gaps = 5/866 (1 %)). As we are not currently aware of a genus of hyphomycetes with a similar morphology to this fungus occurring on *Phragmites* (Seifert et al. 2011), and the fact that the present fungus is distinct from those presently deposited in GenBank, a new genus is herewith introduced to accommodate it.