Penidiella kurandae Crous & Stone, **sp. nov.**

***MycoBank*:** MB504464.

***Etymology*:** Named after its type locality, Kuranda, Australia.

***Latin diagnosis*:** *Penidiellae venezuelensis* similis, sed conidiis (5–)6–7(–8) × (3.5–)4(–4.5) µm.

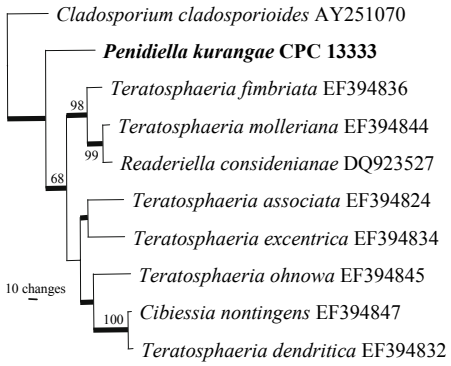
***Description*:** *Mycelium* consisting of smooth, brown, thick-walled, branched, 3–5(–6) µm wide hyphae. *Conidiophores* macronematous, erect, arising from superficial hyphae, branching penicillate, up to 250 µm tall; stipe up to 10-septate, cells 12–20 × 3.5–5 µm. *Conidiogenous apparatus* consisting of several sets of branches; primary branches subcylindrical, brown, smooth, 0–1-septate, 12–30 × 4–5 µm, giving rise to 1–2 conidiogenous cells or secondary branches; secondary branches 0–1-septate, 10–15 × 4–4.5 µm. *Conidiogenous cells* doliiform to subcylindrical, brown, smooth, 6–12 × 4–5 µm, with 1–2 apical scars that are flattened, not darkened, refractive nor thickened, 1–1.5 µm wide. *Ramoconidia* brown, smooth, with 2–3 apical loci, narrowly ellipsoidal to subcylindrical, 10–12 × 4–5 µm. *Conidia* (5–)6–7(–8) × (3.5–)4(–4.5) µm, occurring in short chains, brown, smooth, ellipsoidal, apex obtuse, with or without a flattened hilum; base subtruncate, inconspicuous, not darkened nor refractive or thickened, 1–1.5 µm wide.

***Cultural characteristics*:** Colonies reaching 10 mm diam after 1 month on 2 % malt extract agar[1] at 25 °C; colonies erumpent, irregular, with sparse to no aerial mycelium; margins uneven, feathery; colonies olivaceous-black; reverse greenish black.

***Typus*: Australia**, Queensland, Cairns, Kuranda, Kuranda walking trail, S16°49'24.6", E145°38'2.6", on exudates of bleeding stem cankers of unidentified trees, 30 August 2006, collected by P.W. Crous & J.K. Stone, CBS H-19932, **holotypus**, culture ex-type CPC 13333 = CBS 121715, CPC 13334, GenBank EU040214; *ditto*, S16°49'29", E145°38'28.6", **paratype** CBS H-19924, CPC 13335.

***Notes*:** The genus *Penidiella* (*Teratosphaeriaceae*, *Capnodiales*), was recently described to accommodate hyphomycetes with brown, macronematous conidiophores with a conidiogenous apparatus composed of several branches, giving rise to ramoconidia and conidia with hila that are unthickened or almost so, barely to somewhat darkened-refractive[2]. *Penidiella kurandae* fits the morphological concept of the genus, and phylogenetically also clusters in the *Teratosphaeriaceae*. The fungus itself is quite peculiar because it colonises the tree exudates caused by a fungal infection, present on several trees that grow along the Kuranda walking trail. Whether the causal organism of these cankers is *P. kurandae*, or whether it is simply an opportunist growing on the tree exudates, remains unknown.

BLASTn results of the ITS sequence of *P. kurandae* strain CPC 13333 had a distant relation to sequences of *Teratosphaeria fimbriata* (Crous & Summerell) Crous & U. Braun (EF394836, 87 % identical), *Teratosphaeria molleriana* (Thüm.) Crous & U. Braun (EF394844, 86 % identical) and *Readeriella considenianae* (Crous & Summerell) Crous & U. Braun (DQ923527, 86 % identical).



One of two equally most parsimonious trees (TL = 471; CI = 0.732; RI = 0.542; RC = 0.397) obtained from a heuristic search with 100 random taxon additions of an ITS sequence alignment using PAUP v. 4.0b10. The scale bar shows 10 changes, and bootstrap support values from 1000 replicates are shown at the nodes. Thickened lines indicate the strict consensus branches and the species described here is printed in bold face. The tree was rooted to *Cladosporium cladosporioides* (Fresen.) de Vries (GenBank AY251070). The alignment and tree is available in MycoBank (Accession MB504464).

***Colour illustrations*:** Rainforest tree with bleeding canker, the exudate of which is colonised by *P. kurandae*; fungal colony on malt extract agar; conidophores, conidiogenous cells and conidia (P.W. Crous). Scale bar = 10 µm.

***References*:** [1]Gams W, Verkley GJM, Crous PW (2007). *CBS course of mycology*. 5th ed. Centraalbureau voor Schimmelcultures, Utrecht, Netherlands. [2]Crous PW, Braun U, Groenewald JZ (2007). *Mycosphaerella* is polyphyletic. *Studies in Mycology* **58**: in press.

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