Neodeightoniella phragmiticola
Neodeightoniella Crous & W.J. Swart, gen. nov.

Etymology. Named after its morphological similarity to the genus Deightoniella.

Folicolicous, plant pathogenic. Conidiophores fasciculate, arising from stromata, amphigenous, associated with weakly developed brown stroma of a few brown cells; fascicles with 3–6 conidiophores. Conidiophores erect, brown, unbranched, finely roughened, straight to slightly flexuous, subcylindrical, septate. Conidiogenous cells terminal and integrated, subcylindrical, brown, finely roughened; scars terminal and lateral on conidigenous cells, darkened, thickened, protruding, tretic with central pore. Conidia solitary, pale brown, surface finely roughened, fusoid-ellipsoid, straight or gently curved, 1-septate; apical cell globose, with prominent mucoid cap; basal cell funnel-shaped, widest two thirds from basal hilum, tapering prominently to truncate hilum, darkened, with central pore.

Type species. Neodeightoniella pfragmiticola. MycoBank MB805827.

Neodeightoniella pfragmiticola Crous & W.J. Swart, sp. nov.

Etymology. Named after the host genus on which it occurs, Phragmites.

Folicolicous. Leaf spots amphigenous, brown to dark brown, ellipsoid, up to 5 µm diam. Conidiophores fasciculate, arising from stromata, amphigenous, associated with weakly developed brown stroma of a few brown cells; fascicles with 3–6 conidiophores. Conidiophores erect, brown, unbranched, finely roughened, straight to slightly flexuous, subcylindrical, 0–2-septate, 40–70 × 5–10 µm. Conidiogenous cells terminal and integrated, subcylindrical, brown, finely roughened, 15–60 × 5–10 µm; scars terminal and lateral on conidiogenous cells, darkened, thickened, protruding, tretic with central pore, 3–4 µm diam. Conidia solitary, pale brown, surface finely roughened, fusoid-ellipsoid, straight or gently curved, (33–)34–38–(40 × (15–)16–18–(20) µm, 1-septate; apical cell globose, 10–12 × 14–16 µm, with prominent mucoid cap, 8–15 × 20–25 µm; basal cell funnel-shaped, widest two thirds from basal hilum, 20–27 × 15–20 µm, tapering prominently to truncate hilum, thickened, darkened, 3–4 µm diam, with central pore.

Culture characteristics — After 2 wk at 25 °C reaching 30–60 cm diam, solitary, pale brown, surface finely roughened, fusoid-ellipsoid, straight or gently curved, (33–)34–38–(40 × (15–)16–18–(20) µm, 1-septate; apical cell globose, 10–12 × 14–16 µm, with prominent mucoid cap, 8–15 × 20–25 µm; basal cell funnel-shaped, widest two thirds from basal hilum, 20–27 × 15–20 µm, tapering prominently to truncate hilum, thickened, darkened, 3–4 µm diam, with central pore.

Notes — Neodeightoniella resembles the genus Deightoniella (based on D. africana, on Imperata sp., West Africa), in having pale brown, fusoid-ellipsoid, unequally 1-septate conidia arising from brown conidiophores. It is distinct in that conidiophores do not undergo percurrent rejuvenation (seen as nodal swellings in the type of Deightoniella), have prominent apical and lateral conidiogenous loci on the conidiogenous cells, conidia with a prominent mucoid cap, and conidio-}

Based on a megablast search of NCBI GenBank nucleotide database, the closest hits using the LSU sequence are Septoria ramicum (GenBank KF252034; Identities = 786/792 (99 %), no gaps) and Passalora fusiculicola (GenBank KF251817; Identities = 786/792 (99 %), no gaps).

The genus Deightoniella presently contains a heterogeneous assemblage of taxa. Crous et al. (2011a) described the genus Utrechtiana (based on U. cibiessia, pathogenic to Phragmites australis) in The Netherlands. An earlier name exists for the taxon, namely D. roumeguerei (on P. australis) in France (Constantinescu 1983). This taxon fits Deightoniella (based on D. africana, occurring on leaves of Imperata cylindrica var. africana; Poaceae) rather well, as conidiophores are solitary, and a reexamination of the type material found the conidiogenous cells to rejuvenate percurrently as in D. africana (see Seifert & Gams 2011 for synonymy). Assuming that D. africana and D. roumeguerei are congeneric, Deightoniella belongs to the Magnaportheaceae.

Another species accommodated in Deightoniella is D. torulosa, which causes Deightoniella black tip, leaf spot and fruit speckle of banana (Ploetz 2003). This species was originally placed in Deightoniella as the conidiophores were also observed to rejuvenate internally and percurrently, creating the same nodose swellings as observed in the type, D. africana. Phylogenetically, however, D. torulosa clusters with isolates of Corynespora cassicola, the type species of the genus Corynespora. This finding suggests that the species of Deightoniella with distoseptate conidia belong elsewhere.

Corynespora torulosa (Syd.) Crous, comb. nov.


= Helminthosporum torulosum (Syd.) S.F. Ashby, Trop. Agric. (Trinidad) 10: 6. 1932.


Notes — Based on a megablast search of NCBI GenBank nucleotide database, the closest hits using the LSU sequence are Corynespora smithii (GenBank GU323201; Identities = 874/882 (99 %), no gaps) and C. cassicola (GenBank GU301808; Identities = 811/820 (99 %), Gaps = 4/820 (0 %)).